



User Guide



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1.01. Introduction

Thank you for choosing mSupply. mSupply is now a family of software products, a team of trainers and consultants. Before you launch in (if you haven't already!), we suggest you plan to take the following steps.

- Get a feel for **mSupply mobile** too. If you're running a vertically integrated supply chain, mSupply mobile will likely work well for you in smaller facilities. It is free and open source, and its documentation and download links are <https://docs.msupply.foundation}here>
- Read the rest of this introduction.
- Read the setup, tutorial and licence chapters in this manual.

Please note that installation requires basic computer skills:

- You need to be able to locate a file using the "open" and "save" windows.
- If you are not sure, why not try, and email us if you get stuck.

mSupply is designed to handle the following tasks:

- Recording quotations received from various suppliers in a way that makes for easy comparison of true cost prices.
- Create tenders for suppliers to respond to.
- Ordering (Purchasing) of items from a particular supplier, using actual usage figures to calculate the required quantities.
- Entering of incoming goods into inventory.
- Manufacturing items. That is, building new items from raw materials in your stock.
- Tracking Accounts Payable and Accounts Receivable
- Issuing of invoices for customers, and recording the transaction against inventory.
- Customers are able to order on-line via the internet, and can view stock status and the status of their orders.
- Exporting purchase and invoice data for import into an accounting program.
- Reporting on transactions and other data in almost any manner you want!
- If you need help with installing mSupply please feel free to email us at support@msupply.org.nz

About this user guide

The latest and most authoritative version of this User Guide is located on-line at <http://docs.msupply.org.nz/>. You can export the chapter you're viewing in PDF format by clicking the **export:pdf** tab to the right. It may then be viewed off-line within Acrobat Reader or other PDF viewer. To obtain the whole user guide in PDF format, visit [mSupply site](#)

If you are reading a PDF version, it is likely that a more up-to-date version is available on-line.

Info

The software is under constant development as new features and facilities are added. We strive to ensure that the user guide and the graphics that it contains reflect these developments, but occasionally you may find that there are differences between the program itself and the guide or its graphics, where the updating of the guide has not quite kept pace with the development of the software. These are usually of a minor nature, but should you have any difficulties, do please send us an e-mail with details of your problem.

It should also be noted that with the considerable range of preferences and user permissions, a particular user's window may have features included or omitted (according to their preferences and their permissions) when compared with the screenshots appearing in the guide.

As mSupply is compatible with both Windows OS and Apple Mac OS, there is a mix of screenshots in the manual taken from each operating system.

About us

Sustainable Solutions was established in 2001 with the primary aim of supplying and supporting mSupply software in developing countries. We are committed to producing software that enables excellence in health care delivery. We take pride in looking after people who choose to use our services.

We have offices in:

- Kathmandu, Nepal
- Auckland, New Zealand
- Dundee, United Kingdom
- Belfast, United Kingdom
- Melbourne, Australia

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We can be contacted at:

- email: info@msupply.org.nz
- phone: +977 1 5548021 (Nepal) or +64 225 190 499 (New Zealand)

Please feel free to request more information.

Thanks

- This software grew out of necessity at the Medical Supply Department, Kathmandu, Nepal. We learnt a lot from Jaap Zijp's software "Bhandari", and from the staff at MSD where *mSupply* was originally developed and tested.
- Ujwal Khatri has stuck with Sustainable Solutions for twenty years, including the startup period where our company name could well have been a misnomer.
- Jim Staples of 4D inc. · <http://www.4D.com> kindly arranged an initial donation of the 4D development environment we use.
- Thanks to those people in the 4D tech mailing list who have helped for no benefit to themselves.
- John Ross, Pharmacist of Patan Hospital, Kathmandu, believed in the quality of mSupply enough to use it long before it was fully ready
- David Adams kindly donated his superb texts on 4D.
- The moderators of the E-Drug mailing list have been gracious in letting us use that list for occasional announcements.
- Juliet has always been supporting and more through the ups and downs of starting a new organisation.

Copyright

mSupply software is copyright Sustainable Solutions, 2006, UMN/INF/Interserve 1996 to 1999. You may only use the software in accordance with the accompanying licence agreement.

Licence Agreement and Costs

Commercial users or any user wanting multi-user functionality enabled must obtain a licence from Sustainable Solutions.

Please view our web site <http://www.msupply.org.nz> for up-to-date pricing.

A free version of mSupply is available for Non-commercial use

- You may use mSupply software in single user mode for free as long as it is used:
 - in an approved not-for-profit organisation
 - in a developing country.
- Sustainable Solutions shall be the sole arbiter of those qualifying for free use.
- All users (free and paid) must register with Sustainable Solutions to obtain a registration code. Information supplied will not be used for any purpose other than generation of registration code.
- Users who have obtained a free licence number are not eligible for free support.

Please contact us for quotes regarding customised versions and installation and training packages.

Changes in recent versions

The mSupply version history is available here: <http://msupply.org.nz/history>

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1.02. Why mSupply?

This section outlines the approach and ethos of Sustainable Solutions as well as the main areas of functionality that mSupply covers.

People

- Our aim is to serve developing countries with solutions that provide real benefit.
- We are driven by a desire to serve, rather than by profit.
- That said, we are a profitable company with no debt and a commitment to stay in business for as long as we are needed.
- We have a balanced mix of expatriate and Nepali staff who work on mSupply.

Experience

- We've been working on mSupply since 1998, and full-time as Sustainable Solutions since 2001. In that time we've done hundreds of days of training, converted hundreds of thousands of records from other systems to mSupply, and installed mSupply in hundreds of locations.
- Our experience in Nepal, and in many other developing countries, gives us a unique perspective and understanding of the challenges and opportunities involved in working in similar environments.
- We know that a decision to install mSupply is a big one. We're committed for the long term. We're planning to be here decades from now.

Ease-of-use

- mSupply is very easy to install- 10 minutes and a whole department is up and running.
- mSupply uses an easy-to-use graphical interface that makes it a breeze to add purchase orders, patient prescriptions, tenders, etc.
- The system is also made with high-usage warehouses and busy pharmacy departments in mind. The system automates item purchases, receipts and sales for the warehouse administrator, and also provides features such as abbreviated directions entry for quick prescribing of medicines.
- There is always a balance between features and usability. While we know we don't always get it right, we try to make sure we don't add features that aren't really needed. Also, we make sure that features only needed by one client don't clutter up the interface for everyone.

Stability and reliability

- The initial mSupply server installations in 2002 have run since then without ever crashing.
- We have more than ten years of experience in keeping mSupply installations running in developing countries, so we know what it takes to make a reliable system. All multi-user mSupply systems we have installed are still running.
- mSupply includes an automated internet backup system, so backups are automatically transferred to a remote secure site.
- Server backups are automatic with configurable frequency.
- mSupply keeps a log of every action you make, and if there is a power failure then the log can be used to restore all unsaved data on the server.

Security

- We do not know of any instances of a security breach of an mSupply server
- There is a full password protected login and permissions system, allowing each user's access to functions to be controlled and recorded.
- A user log records all significant user interactions, allowing an audit of which user performed which actions.

Local or Cloud or both!

- mSupply can run in many different ways, depending on whether you want to run a local or cloud-based service:
 - Local server with client connecting over your local network
 - Cloud based server with clients connecting via a special application or a web browser (e.g. Citrix)
 - If you have several sites and want to manage them centrally, but the internet does not support a cloud-based service, then mSupply also

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supports running individual servers at multiple locations that then synchronise their data back to a central server when communications are available.

mSupply mobile

- On Sept 2nd 2013 we officially released mSupply mobile. It allows you to run a small medical store using a tablet computer (iPad or Android or Windows). An internet connection is required, but users in developing countries are successfully using mSupply mobile over an EDGE (2g) mobile network.

Info

As of mid 2016, the internet connection does not need to be there all the time! See [Mobile \(Android\) user guide](#)

- mSupply mobile can give stock visibility and automated replenishment for hundreds or thousands of stores connected to a single server, which may be hosted on your premises or be cloud-based.

Scalable

- The same data file can grow from being used in a single-user system to having hundreds of concurrent users with millions of transactions.

Customisation

- Many mSupply users have unique needs requiring some customisation of the standard mSupply software. mSupply allows customised versions that can still be easily upgraded as new releases are made. Often customisation is done at no extra cost if the client has a current up-to-date contract.

Specially designed for pharmaceuticals

- mSupply is built from the ground up to handle batches and expiry dates.
- There are multiple ways of classifying medicines, and mSupply supports ATC coding, WHO's EDL¹⁾ categories and the user's own custom categories.
- Many of the reports are specific to the needs of pharmaceutical distribution

Reporting

- The in-built reports have been developed since the beginning in response to user requests.
- Users can easily create their own custom reports and save them for use again. Saved reports are available from a menu in the custom report window.
- Items, Names, and transactions all have lots of spare fields that users can use to store custom data, and then use those fields in reports.
- mSupply dashboard allows managers in remote locations to log on with a web browser and view reports.

Mistake tolerance

- mSupply provides easy merging of duplicate items.
- Easy adjustment of inventory errors (but with a full audit trail!)
- Most fields allow entry by name or code, and allow partial entry of as much of the name or code as the user knows.
- Easily find transactions you've entered, by number, by customer/supplier name, by a list of recent transactions or by a custom search.
- If the user's hardware is powerful enough, fuzzy find searches allow finding data even if the search terms are incorrectly entered.

Backorders

- Items that you are unable to supply to customers are put onto backorder. A report of all backordered items is easily generated. When the stock for the backorder becomes available a customer invoice is automatically created awaiting your confirmation.

Web interface for customers

- mSupply allows customers to remotely log in via a web browser and place orders, view order status, stock status and transaction history. This system is in daily use.

Customer stock history / indent ordering

- mSupply supports a unique system of centralised supply where the distribution point submits current stock on hand figures, and mSupply calculate a rational quantity to supply, knowing the historic stock on hand, the ordering cycle, and the amount supplied during the previous cycle.
- mSupply also supports the simpler imprest system where the amount given to customers is based on a fixed level of stock, as is commonly done when supplying wards in hospitals.

Quantification

- mSupply uses a powerful ordering system that allows accurate real-time analysis of how much stock should be ordered, based on historic consumption, order lead time, the ordering frequency, desired “buffer” stock levels and current stock levels. Unmet demand from customers, backorders, and stock on order are also taken into account.
- This system has proven reliable, and requires little user intervention, unlike systems that require you to set minimum and maximum stock levels. mSupply still allows minimum stock to be set if really needed.

Procurement

- mSupply handles purchase orders in multiple currencies, and allows split deliveries.
- The goods receipt module allows full or partial receipt of each purchase order plus addition of stock not ordered.
- Ad hoc quotes from suppliers can also be handled.
- The quantification, tender management and purchase order systems all tie together so data flows from one to the other without requiring re-entry.

Tender management

- The Tender Management module provides detailed production and management of tenders including using mSupply data to determine quantification, printing invitation letters, comparing tender submissions and automatically producing Purchase Orders for the winning tender supplier.
- The Remote Tender Management Module provides posting of tenders by suppliers to <https://tenders.msupply.org.nz> secure web site. You download and automatically import completed tenders to mSupply for easy comparison of supplier responses, choosing the winning supplier and creation of purchase orders.
- Supplier Registration functionality is planned to be developed as part of the Tender management module.

Dispensing

- mSupply integrates well into hospital pharmacies, providing easy breakdown of bulk packs for dispensing.
- Prescribers are recorded, and prescriber reports allow analysis of prescribing trends and costs.
- Drug interactions are handled, as is repeat dispensing.
- Patient history is recorded and easily accessible.
- Customisable abbreviations allow rapid entry of patient instructions on to printed labels.
- Medicine labels are produced using specialist label printers. Busy sites using mSupply produce hundreds of thousands of labels per year.

Multiple sites from one server

- mSupply is able to handle multiple virtual stores within a single data file. A common use for this is a hospital, where several stores may be present, but each needs to run independently.
- Stores can run in either dispensary or store mode, so one server can handle both a hospital pharmacy and a warehouse store simultaneously.
- Using Citrix and a DSL internet connection you can run a whole country's medical distribution system from a single server, greatly reducing infrastructure requirements while dramatically improving availability and reliability.

Stock control

- Because mSupply tracks each batch separately, full FEFO²⁾ can be maintained for every item.
- There is a full audit trail for each stock line.
- Each stock line has a record of warehouse location, enabling easy warehouse management
- If stock lines have the same batch number, expiry and pack size, they can be split and combined.
- Stock lines can be re-packed to different pack sizes for convenience. Warehouses will find it easier to handle cartons with a pack size of, say, 12,000 tablets while dispensaries will be dispensing individual tablets, and so will want a pack size of 1.

Warehouse management

- Full Location management

- mSupply allows volume based calculations of available storage, that is especially critical for cold chain items.
- Volume information is used to provide either reports or a graphical depiction of how full each section of the warehouse is.
- Alerts are given when placing purchase orders if there will not be enough space to hold the incoming goods.
- Basic bar-coding functionality is planned to be developed soon.

Vaccines monitoring

- mSupply allows recording of VVM³⁾ status for batches, and allows sorting available stock by VVM status rather than by expiry.

Mobile communications

- mSupply integrates with Frontline SMS to provide an interface for using SMS messaging to submit information such as stock levels and goods receipt confirmations to mSupply.

Hospital information system

- A simple hospital information system has been developed as part of mSupply. It is designed to provide a basic service to record critical data:
 - Recording a hospital's wards and beds.
 - Recording inpatient admissions (admitting a patient, assigning them to a ward and bed).
 - Recording ICD⁴⁾ 10 disease codes for each patient admission. You can assign multiple disease codes, and prioritise them (primary, secondary, etc..).
 - Moving patients to different wards/beds.
 - Recording discharge data (patient status at time of discharge)
 - Reporting on bed occupancy rates as a whole and by ward, and other useful statistics e.g. average length of stay, ICD10 statistics.
- The mSupply HIS is a cost effective alternative to large commercial installations.

Product / medicine registration

- mSupply's Registration module allows mSupply to manage registration of suppliers and their products on a per brand, dose, and form basis.
- mSupply will record and track the status of supplier's registrations and stores the documentation for easy retrieval.

No data lock-in

- All data in mSupply can be exported as industry-standard XML or as an SQL dump, allowing use by other systems as needed.
- A public [API](#) has been developed, allowing any system to retrieve and submit information from/to mSupply.

Cross-platform

- mSupply is available for Windows and Macintosh.
- We recommend Windows servers, but client computers can be either Windows or Macintosh.

Interaction with other systems

- mSupply can either query other systems or provide data in real time via XML web services and other industry standard connectors.
- mSupply provides automated seamless integration with Moneyworks accounting software and general export files which can be easily customisable for import to other systems.

All of these features combine to make a very powerful medical inventory supply chain management system which has been tried and tested in dozens of locations around the world. We believe it has a unique set of features that no other product offers for managing medical supplies in developing countries

For full information, visit <http://www.msupply.org.nz> A demo version is available [here](#)

The home page for the documentation wiki is [here](#)

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¹⁾ Essential Drug List

²⁾ First Expiry, First Out

³⁾ [Vaccine vial monitor](#)

⁴⁾ International Classification of Diseases



mSupply documentation wiki





1.03. Who uses mSupply?

This list isn't exhaustive.

All sites are multi-user with the number of sites x number of concurrent users at each site in brackets unless denoted by **SU** (=“Single User”) after the name.

Our 3 largest users are:

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- Africa
 - Côte d'Ivoire
 - Democratic Republic of Congo
 - Gambia
 - Ghana
 - Niger
 - Nigeria
 - Liberia
 - Malawi
 - São Tomé and Príncipe
 - Sierra Leone
 - South Sudan
 - Zambia
 - Zanzibar
- Pacific
 - Cook Islands
 - Federated States of Micronesia (FSM)
 - Kingdom of Tonga
 - Kiribati
 - Marshall Islands
 - Nauru
 - Palau
 - Papua New Guinea
 - Solomon Islands
 - Tokelau
 - Tuvalu
 - Vanuatu
 - Fiji
 - Samoa
- Asia
 - India
 - Nepal
 - Afghanistan
- South-East Asia
 - Cambodia
 - Laos
 - Myanmar
 - Timor-Leste
- Americas
 - Haiti
 - USA
- Europe and the United Kingdom
 - United Kingdom
- Africa
 - Côte d'Ivoire
 - Democratic Republic of Congo
 - Gambia



Ghana
 Niger
 Nigeria
 Liberia
 Malawi
 São Tomé and Príncipe
 Sierra Leone
 South Sudan
 Zambia
 Zanzibar

Pacific

Cook Islands
 Federated States of Micronesia (FSM)
 Kingdom of Tonga
 Kiribati
 Marshall Islands
 Nauru
 Palau
 Papua New Guinea
 Solomon Islands
 Tokelau
 Tuvalu
 Vanuatu
 Fiji
 Samoa

Asia

India
 Nepal
 Afghanistan

South-East Asia

Cambodia
 Laos
 Myanmar
 Timor-Leste

Americas

Haiti
 USA

Europe and the United Kingdom
 United Kingdom

Country	Total Sites	Desktop Sites	Mobile Sites
Myanmar	639	559	80
Côte d'Ivoire	815	419	396
Papua New Guinea	147	42	105

Africa

Côte d'Ivoire

- As of December 2021: over 700 sites- mixture of desktop and mobile
- 30 sites with World Bank funding from 2021

Democratic Republic of Congo

- Cordaid (3)

Gambia

- Gambia Central Medical Stores (14)

Ghana

- Central Medical Stores (5)
- Status 2015: CMS was destroyed in a fire in 2014, and the project has been on hold since then.

Niger

- 2 regional warehouses managed by Chemonics (SU) - 2020

Nigeria

- Six Government state stores (6 x 3)
- Ten Government stores managed by Axios (10 x 2)
 - Axios HQ, Abuja (4)
 - Axios uses mSupply synchronisation to connect sites that don't have full time internet access. This system has been in use since 2010, and continues to function well.
- FCMS Store, Lagos (5)
- Jigawa CMS
- From March 2016: 20 new users spread over 6 states (Kaduna, Katsina, Zamfara, Kano, Jigawa, Yobe)
- Private non-pharmaceutical supplier, Lagos (STIL)(SU)
- UNFPA warehouse, Lagos (5 users) - 2021

Liberia

- Axios: 1 site synchronising to a central server
- Liberia MoH: 11 sites being consolidated to a single mSupply installation Dec 2016
- using EPI module: yes

Malawi

- Orant Charities (SU). From 2017.
- Nkhoma Hospital Pharmacy Department. From 2015

São Tomé and Príncipe

- National supply chain system (10 users 2021, expanding to 40 users in 2022)

Sierra Leone

- MRC (SU)
- Crown Agents Ebola Response and Free Health care distribution (20) - several stores around Freetown running from a single cloud server.
- National Pharmaceutical procurement unit (2017). Central server with 18 users, 13 regional sites, et al.
- LSHTM Ebovac (2017). Server with 5 users.

South Sudan

- MoH Central Medical Stores (5 users)
 - Expanding to whole country in 2022
- UNDP Juba (5 users)

Zambia

- Churches Health Association (4 users)

Zanzibar

- ZILS (5 users)
 - this system employs an EDI interface to pick up orders sent to a dropbox folder from the Zanzibar LMIS system and incorporates it into mSupply
 - expanding to Pemba in 2022

Pacific

Cook Islands

- Desktop Sites (5) - 2018
- Mobile Sites (10) - 2018
- using EPI module: yes

Federated States of Micronesia (FSM)

- 7 users at CMS/main hospital - 2012

Kingdom of Tonga

- Central Pharmacy Medical Stores (3)
- Vaiola Hospital (4)
- Haapai Hospital (SU)
- Vava'u Hospital (SU)
- 'Eua Hospital (SU)

- Mobile (11)
- National Covid 19 vaccination program run using mSupply mobile - 2021
- using EPI module: yes

Kiribati

- Tungaru Hospital (9)
- 34 sites using mSupply mobile
- National Covid 19 vaccination program run using mSupply mobile
- using EPI module: yes

Marshall Islands

- Ministry of Health/Majuro Hospital (2)

Nauru

- Central Hospital and Stores (6 users)

Palau

- 3 sites including CMS, starting late 2021/early 2022.

Papua New Guinea

- Central server (cloud hosted) with 12 client users
- 28 Sync server sites (Area medical stores (AMS), provincial hospitals) with 118 client users
- 13 Single-User desktop sync sites (district hospitals)
- 105 Mobile sites (Health centres)
- 300 Mobile sites (UNICEF) 2022
- using EPI module: yes

Solomon Islands

- National Medical Stores (14 users + Web server + Tender module)
- National Referral Hospital (4)
- mSupply mobile- 50 Second Level Medical Stores (phased installation from October 2016)

Tokelau

- 3 sites covering country - 2018

Tuvalu

- Princess Margaret Hospital (2)

Vanuatu

- Central Medical Stores (2)
- Vila Central Hospital Pharmacy and Store (3)
- Lenekel Hospital (2)
- Norsup Hospital (2)
- Luganville Hospital (2)
- using EPI module: yes

Fiji

- National deployment to over 180 sites started October 2020.

Samoa

- Nationwide deployment (approx 18 sites) started July 2020!

Asia

India

- Meyer Free Clinic

Nepal

- INF (3 sites- SU)
- MSMT (SU)
- Patan Hospital (SU)
- Lal Gadh Hospital
- Gurkha Welfare scheme (26 sites, SU) Funders: DFID, GWT

Afghanistan

- Six NGOs responsible for medicine distribution in provinces synchronise data back to a management server in Kabul (July 2016). Includes automated generation of a multi-workbook Excel spreadsheet that includes macros that submit data to a Ministry of Health database.
- UNDP warehouse (2019- 5 users)
- CMS warehouse (2019- 5 users)

South-East Asia

Cambodia

- World Mate Emergency Hospital
- WMEH Warehouse

Laos

- 186 sites (complete Nation implementation) using mSupply synchronisation

Myanmar

- 24, no 42 150 362 639 sites using synchronisation to connect to a cloud server, with plans to extend to 3000 sites over the next few years.
- Medical Action Myanmar (Dec 2017) - 25 mobile sites connecting to a cloud server running mSupply.
- UNICEF funded EPI program - approx 350 sites starting 2021
- using EPI module: yes

Timor-Leste

- SAMES (10)
- Hospital Nacional Guido Valedares (5)
- Dili Central Medical Services (Mobile)
- 100 mSupply mobile sites
- National Laboratory, Dili
- Baro Pite Clinic, Dili

Americas

Haiti

- National warehouse run by Chemonics (2021)

USA

- SafeNetRx (was Iowa Prescription drug corporation)
 - users: 2
 - Web server: clients from all over Iowa place orders using the mSupply web interface
 - SafeNetRx are the largest non-governmental supplier of free medicines in the USA.

Europe and the United Kingdom

United Kingdom

- UK Microbiological Products supplier (Private company). Since 2012
- CAIPA
 - Specialist system with 20 users. Was running emergency Ebola Response Programme for DFID, including management of a UK based warehouse with air freight deliveries to Africa. Now managing a distribution programme in South Sudan.

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Last modified: 2021/12/08 00:54 by Craig Drown





1.04. Which mSupply package best suits your organisation?

Since its creation in 1998, mSupply has grown and multiplied as it has been applied to different challenges. The original Free-user (Windows or Mac based) application continues to be downloaded and used regularly. In fact, it comes packed with (almost) all the bells and whistles of some of our most sophisticated installations, but is only suitable for a small, single concurrent user facility.

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Comparison of the mSupply packages

So which is the right mSupply package for your organisation? The key differences between the configurations basically comes down to how the user(s) interact with the database. We hope this table helps in making that decision.

Product / configuration	
Free-user	PC or Mac application - Download here . The database resides on the computer that the application has been
Single-user	Same as PC or Mac application, but for users who wish to make use of Support ¹⁾ and Up-to-Date (UTD) ²⁾
Multi-user (Server / client)	For situations where more than one user needs to access the database at one time. The database is hosted on a
Synchronised Multi-user	If the internet connection to remote users in a Multi-user configuration is inadequate, then Remote Synchronisati
Synchronised Single-user (Single-user sync)	There are situations where the remote sites (with poor internet access) are just single-operator stores needing to
Mobile	This is a Synchronised Single-user configuration, but the users operate with mSupply Mobile (client) software on
mSupply Customer Web Interface	Allows staff of Customers in your mSupply system order stock on-line. It runs on a browser on any device: tablet,
FrontlineSMS integration	mSupply has the ability to integrate with a FrontlineSMS installation. This allows a customer to send their current

Other modules

Other modules are available for addition to the basic mSupply application:

Module	
FrontlineSMS	Allows users to send their current stock levels to mSupply using an SMS (text) message from any mobile phone - ev
Product (drug) Registration	Allows integration of product registration (control of what products can be supplied by authorising particular supplie
Web Server Module	Allows you to access mSupply data on the server from any networked computer that has internet access. This module is a prerequisite for several other modules.
Synchronisation server Module	Maintains data integrity between a central mSupply server and 'satellite' mSupply servers. It therefore only applies to Requires the Web Server.
Tender Management	Allows execution of a full tender process including publishing of the tender through a web site, and so allowing tend Requires the Web Server.

Referring to the server machine vs. server software

Tip
 We need two servers!!!!???

The ICT industry is plagued by the practice of using the same term to refer to software, hardware or both combined! As it relates to mSupply in multi-user environments, there is often confusion over two of these:

- The term '**Server**' can refer to:
 - The mSupply server computer **software** which runs the mSupply database,
 - The hardware which the mSupply server **software** is installed on, *and*;
 - Both the hardware and the software acting together. This is possibly the most common usage. When we say something like "send to the server" we mean send data to the server software operating on the server hardware.

The server hardware can actually be a cloud hosted 'service' rather than physical hardware that you own and try to manage. Sometimes the server hardware is referred to as a '**file server**', and this can help to avoid confusion. In any case, for any multi-user mSupply installation, including mSupply mobile, *both* server software and server hardware are needed, and both of them cost money.

- Similarly, the term '**Client**' can refer to:
 - The mSupply client computer **software** which accesses the mSupply server (software) database on the server (hardware),
 - The **hardware** which this client software operates on, *and*;
 - Both the hardware and the software acting together.

Sometimes the client hardware is referred to as a '**client PC**' (Mac or Windows) and this can help to avoid confusion. Again, for any multi-user mSupply installation, including mSupply mobile, both client software and client hardware are needed. For mSupply mobile, the client hardware is an Android Tablet - refer to [Mobile \(Android\) user guide v2.0 - featuring offline operation](#).

We are a software company, so when we use these terms, we will almost certainly be referring to our software, but sometimes not. The context normally helps, but please forgive us if we fail to distinguish between these meanings!

Previous: [1.03. Who uses mSupply?](#) || Next: [1.05. Terms, definitions and conventions used in this user guide](#)

- ¹⁾ Remote support - almost 24/7. We aim to provide a first response within 2 hrs
- ²⁾ Gives you access to the latest software updates, including assistance with upgrading if needed.

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1.05. Terms, definitions and conventions used in this user guide

If you aren't familiar with using a computer, you should read this chapter. We also recommend you work through the [3. Tutorial](#) section of this user guide.

General terms

Menus: choose *New item* from the *Item* menu (sometimes also written as choose *Item*>*New item*) means click on the word *Item* in the menu bar, then choose *New item* from the menu that drops down.

Keyboard keys: a handful of keys on the keyboard are used extensively and are indicated in *italics*. The most common are: *Tab*, *Shift*, *Ctrl*, *Alt*, *Enter* and *Backspace*.

Field: an area on the screen (usually a white box) where you can make an entry, either text or numbers. In many places, you can use your mouse to hover over a field for a description of what is required.

Typed data: anything that must be typed into a field is shown in `monospace font`. For example: Type `100` and press *Enter*.

Checkbox: a box that changes from having an "X" in it to being blank each time you click in it. To "check" a checkbox means to click it so that an "X" appears (if there is not one already present). Checkboxes have text beside them explaining what the box is for.

Tab & Shift: you can generally move from field to field in a window using the *Tab* key. Holding down the *Shift* key while pressing the *Tab* key will move from field to field in the reverse order to normal. Note that on Windows, some buttons are "tab-able". That is, pressing the *Tab* key moves the "focus" to a button. Pressing the *Return* or *Enter* key will then activate that button.

Highlight button: pressing the *Enter* key will operate the highlighted button in a window. This is usually the OK button.

Double-click: in lists (e.g. of suppliers, customers or items), double-click using the left button of the mouse on a line to edit or view more details.

Insertion point: the blinking line in a field that indicates which field is currently accepting typed input.

OK button: can be operated by pressing the *Enter* key.

Cancel button: can be operated by holding down *Ctrl* key (*cmd* on Macs), and pressing the period key (full stop).

Path to a file (or document): a way of describing where a document is stored on your hard disk. It is written as `hard disk:folder 1:folder 2:document`, which is the same as `C:\folder 1\folder 2\document`.

Modifier keys: are different for Windows and Macs. We've tried to list both in the manual, but sometimes one might slip through.

- The Windows *Ctrl* (control) key does the same as the *cmd* (command) key on Macs
- The Windows *Alt* (alternate) key does the same as the *opt* (option) key on Macs.

Column headings: can be clicked to sort the list by that column.

Negative values: are generally not required in mSupply. Even when you are entering returned goods from customers, or returned goods to suppliers, you enter positive values. mSupply automatically converts the invoice total to a negative amount when it is a credit to a supplier or from a customer.

mSupply terms

Basics

Items: Items are the products we manage in mSupply, including medicines, consumables, equipment, laboratory and radiology items or even larger assets such as vehicles and furniture. An item may or may not have stock lines at any given time. For example: In the example data file provided with mSupply, "Amoxicillin 250mg tab/cap" is an item. When you first start to use the example data file it has 2 stock lines. (You can view them under the "stock" tab of the *Item details* window (more on that later!).

Item Lines (or "Stock Lines"): Represent different batches of the same item.

Stock: Represents the physical stock (inventory) in your store.

Stores: Stores are facilities using mSupply (desktop or mobile). Some facilities can run multiple stores. For example, there may be a pharmacy in the emergency department that manages stock completely separately to the main pharmacy – this can be a separate store (if they are using mSupply).

Locations: Locations are places within stores where items are kept. Locations can only exist within a store. A large store like a central warehouse may have several thousand highly specific locations (e.g. A.02.04, B.01.03), while a small store may only have a few locations (e.g. Room 1, Room 2). Items may also be stored without assigning a location: this is common in very small facilities, where items are just stored alphabetically.

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- General terms
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People

Suppliers: Suppliers are facilities that a store orders or receives stock from. Suppliers may be external (e.g. private drug companies or wholesalers) or internal (e.g. central medical store, provincial warehouses).

Donors: Donors are external entities who pay for donated stock (e.g. UNICEF, USAID). No donor is entered when the government or medical store is paying in a normal financial transaction. When the donor is recorded, you can track donated items through the supply chain and run donor transaction reports and stocktakes.

Customers: Customers are recipients of items, excluding patients (usually). This includes health centres, hospitals, wards, private clinics and pharmacies, touring medical teams, outreach services and any other entity that an mSupply store issues stock to.

Patients: Patients are individual people who receive items from a prescription. When a store uses mSupply in dispensary mode, patients receive unique ID numbers and we can track their prescription history, allergies, payment history, insurers and notes.

Prescribers: Prescribers are authorised medical professionals who provide prescriptions to patients, which we can dispense in mSupply. Prescribers may include doctors, nurses and other authorised individuals.

Users: Users are the people using mSupply (you!). Each user has their own password and set of permissions (which can vary from store to store). System logs track everything that users do in mSupply.

Transactions and Features

Buils: Buils are transactions that record the manufacturing of an item by turning raw materials into a finished product.

Stocktakes: Stocktakes are physical counts of the stock in your store including all item details, such as the item name, quantity, batch and expiry date.

Purchase Orders: Purchase Orders are used to order stock from an external supplier i.e. a supplier who does not use mSupply (e.g. private drug companies, wholesalers, private pharmacies).

Goods Receiving: Goods Receiving is used to receive stock from an external supplier who we previously ordered stock from via a purchase order. We can then create a Supplier Invoice directly from the goods receipt to add received stock to our inventory.

Supplier Invoices: Supplier Invoices are used to add received stock to our inventory. They are also known as “bills”.

Internal Orders: Internal Orders are used to order stock from an internal supplier i.e. a supplier who does use mSupply (e.g. central medical store, provincial warehouses).

Requisitions: Requisitions show internal orders placed to our store from customers using mSupply. Examples of customers using mSupply include provincial warehouses, public hospitals and health centres. We can create a Customer Invoice directly from the requisition to issue stock to a customer.

Customer Invoices: Customer Invoices are used to issue stock to a customer from our inventory.

Prescriptions: Prescriptions are instructions written by a prescriber authorising a patient to be provided a medicine or medical device. mSupply can record dispensed prescriptions and maintain patient dispensing histories.

Patient Credits: Patient Credits are used to return items from patients and record credits in their favour. mSupply tracks patient credits and applies them to outstanding prescription payments.

Payments: Payments are used to record payments made to suppliers. mSupply tracks outstanding payments from supplier invoices.

Cash Receipts: Cash Receipts are used to record payments received from customers for customer invoices. They can also be used to record patient payments for dispensed items. mSupply tracks outstanding payments owed by customers and patients.

Supplier Credits: Supplier Credits are used to return items to suppliers and record credits in your favour. mSupply tracks supplier credits and applies them to outstanding supplier payments.

Customer Credits: Customer Credits are used to return items from customers and record credits in their favour. mSupply tracks customer credits and applies them to outstanding customer payments.

Cash Register: The Cash Register records incoming and outgoing cash transactions and displays a current balance. mSupply tracks all cash movements and records them here.

Configuration

Visibility: Visibility allows us to control what stores, customers, suppliers and items a user can see when logged into a specific store.

Preferences: Preferences are system-wide settings that apply to all stores and users.

Store Preferences: Store Preferences are settings that apply to specific stores.

Permissions: Permissions are settings that apply to specific users as either individuals or groups.

Previous: [1.04. Which mSupply package best suits your organisation?](#) | Next: [2. Setting Up mSupply: Technical Guide](#)





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2. Setting Up mSupply: Technical Guide

- [2.01. Requirements](#)
- [2.02. Installation](#)
- [2.03. Starting mSupply for the first time](#)

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Last modified: 2020/01/13 07:09 by lou





2.01. Requirements

⚠ Important

For mSupply Mobile, refer to [Getting Started](#)

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Hardware requirements

General hardware recommendations

We have clients running mSupply on a wide range of hardware in a wide range of operating environments. We are happy to discuss hardware options further via email or phone.

- In environments with regular power outages, it is highly recommended to procure Laptop machines rather than desktop machines. Laptop machines will almost always be the best solution in terms of both cost and effectiveness for these reasons:
 - In environments with poor quality electricity supply, laptop computers will generally be more reliable than desktop computers with UPS protection. In such environments UPS batteries will normally die within 2 years. Laptop batteries have better power management and the batteries last longer
 - Even when the battery runs out on a laptop, the power management will normally cause the machine to shut down gracefully.
 - Laptop computers have built-in microphone and camera for provision of support
 - Laptop computers have built-in Wi-Fi adaptor for network connection
 - Laptop computers are smaller and lighter than desktop computers, and so are less costly to ship.
- A connected printer is not absolutely necessary in every situation, but for most situations it is a requirement. A dot-matrix printer may be used, but an ink-jet or laser is preferable.
- Buy hardware for which good after sales support is available.
- Buy brands with a reputation for quality (even if it means buying a slower/older machine).

Windows and Mac hardware requirements

Hardware requirements vary widely depending on what you want to use mSupply for. Here's a rough guide:

⚠ Important

Recording stock transactions is a core mSupply activity. Most stock transaction data is numeric. It is essential that mSupply Windows or Mac hardware include a numeric keypad, either as part of a wide keyboard, or as a dedicated external numeric keypad.

Version 5.0 and above

Any requirement that has changed between v4.14 and v5.00 is outlined in bold in the table below.

Machine	Technical Minimum
Windows Client machine for use with server	64 bit processor Windows 10 4 Gb RAM , 50Mb of disk space
Mac Client machine for use with server.	64 bit processor macOS Mojave (10.14) – macOS Big Sur (11) (Latest release of major version is required, such as 10.14.4) 4 Gb RAM , 50Mb of disk space
Windows server	64 bit processor Windows 10 Pro or Win Server 2016 8 Gb RAM 500 GB HDD/SDD volume with daily backups to an external volume Attached to a Smart UPS (see below)
Windows Single-User sync machine	64 bit processor Windows 10 8 Gb RAM , 500GB HDD/SDD volume with daily backups to an external volume plus daily off-site backups

Machine	Technical Minimum
Windows Client machine for use with server	64 bit processor Windows 8.1 (known to work in Windows 7 but not recommended) 4 Gb RAM, 50Mb of disk space
Mac Client machine for use with server.	64 bit processor Mac OS 10.13 or later 4 Gb RAM, 50Mb of disk space
Windows server	64 bit processor Windows 10 Pro/Win Server 2012 or later 8 Gb RAM 500 GB HDD/SDD volume with daily backups to an external volume Attached to a Smart UPS (see below)
Windows Single-User sync machine	64 bit processor Windows 8.1 (known to work in Windows 7 but not recommended) 8 Gb RAM, 500GB HDD/SDD volume with daily backups to an external volume plus daily off-site backups

- **Smart UPS** A 'smart' UPS ([Uninterruptible Power Supply](#)) detects when the battery power is about to run out and sends a notification to software on the server which triggers a graceful shut down of the computer. To enable this, there needs to be a cable connection (normally USB) between the UPS and the computer combined with software running on the computer.

Tip

In our experience, the primary cause of computer hardware failure is data corruption due to ungraceful shutdowns. This happens when power to the computer is cut instantly, without any notification to the computer to shut down gracefully. If the machine is 'protected' by a normal UPS, then this can still happen when the battery power runs out. Even if the machine is notionally protected by a 'smart' UPS, there are a number of circumstances where this UPS protection fails:

- Cable connection and software can fail.
 - Cable becomes disconnected
 - Software isn't configured correctly
 - Software doesn't start up
- UPS batteries degrade (normally within 2 years of installation in environments with regular power cuts) and there is too little capacity to run long enough for the computer to shut down gracefully after receiving the notification from the UPS

Laptop computers tend to be much more resilient to power failure:

- A laptop's built-in 'smart' UPS is very reliable
- The internal batteries last much longer than UPS batteries
- Even if the laptop internal battery degrades, the 'smart' function appears to work much more reliably than a standalone UPS communicating with a 'tower' computer.

There has been some good experience with configuring mSupply servers on higher-powered laptop computers. Please talk to us about these possibilities.

Backup system

Once you start using mSupply, it is of crucial importance that you have a method of backing up your data. mSupply stores all its data in a file that rapidly becomes large. You need, therefore, to have a high capacity removable storage device. We strongly recommend the use of an external hard disk using either firewire (IEEE 1394) or USB2 to facilitate off-site storage of backups.

- See the section in Preferences that covers mSupply's built-in backup features that allow backup to another disk, and to an internet backup site... you'll find it here: [Backup](#)
- If not using our internet backup service, you need to be able to store backed up data off-site to prevent the risk of loss by fire, theft, etc.

Important

Sustainable Solutions will not be able to help you recover lost data in the event of hardware failure if no backup is available.

Antivirus

Windows based operating systems are particularly prone to malware if precautions are not taken. We recommend the following precautions:

- Install a reputable anti-virus program, including web protection if the computer has access to the internet.

- Disable USB ports - refer to [this site](#) for suggested methods.

Ensure that access to passwords to allow exceptions to the above two measures are kept secure.

Upgrading mSupply from previous versions

If you open a data file that was created with a previous version, it will automatically be updated to the new format. Please note that this process may take some time.

Note that if you are using a version earlier than v1.96 you must first upgrade to v1.96 and then to version 2 or 3.

Important

IMPORTANT! Always make a backup of your data file before upgrading, and preferably keep a copy off-site. We will not be able to help you in the event of some unexpected disaster if you haven't followed this advice!

Previous: [2. Setting Up mSupply: Technical Guide](#) | Next: [2.02. Installation](#)

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2.02. Installation

We are assuming you have obtained mSupply from the [mSupply Downloads web page](#).

⚠ Important

If you are using a Windows machine, you have downloaded the file you need, and you have saved it to your desktop, it is important that you saved the file with an `.exe` extension or it will not run. You can rename a file by right-clicking on it. The name of the file should be something like `mSupply_Single_User_V4-07-09`.

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- [Example data file](#)
- [Notes for Windows users](#)
 - [Region / Language](#)
 - [Date format](#)
- [Example data file](#)
- [Notes for Windows users](#)
 - [Region / Language](#)
 - [Date format](#)

It is strongly recommended that users who are not familiar with program installation adhere to these directions.

- Double-click the installer and it will automatically run the mSupply installer.
- The installer will do the following:
 - Create a folder on your chosen drive called “mSupply”
 - On Windows the example data file is installed in the My Documents/mSupply/Example sub folder.
 - NOTE: You can use this data file for practice. (Or use the tutorial at the start of the manual to learn the basics quickly)
 - Install the “mSupply.exe” application and associated files. Double-clicking this file will do the same as double-clicking the “start mSupply” icon on your desktop.
 - Install **readme.txt** - information on licensing and using mSupply.
 - Create a shortcut on your desktop: **start mSupply**
 - Create a **mSupply folder** entry in the **Programs** section of your **Start** menu.

Now you are ready to begin! Proceed to the section below on starting the example database.

Example data file

The mSupply installer treats Example data files in a special way. Re-installing mSupply on a previous installation will replace all the files except the Example data file. This is to prevent valuable data from being deleted as users may have started entering actual stock into the Example data file.

To install a fresh copy of the Example data file on Windows you can carry out one of the options described below:

- Un-install mSupply using the Windows menu *Start > Program Files > mSupply > Uninstall mSupply*. This will remove all installed files of mSupply which includes the Example data files. Re-installing mSupply now will install a fresh copy of the Example data file.
- You can manually delete the Example data file and re-install mSupply. The mSupply installer will install a fresh copy of the example database as the previously installed file has been deleted.

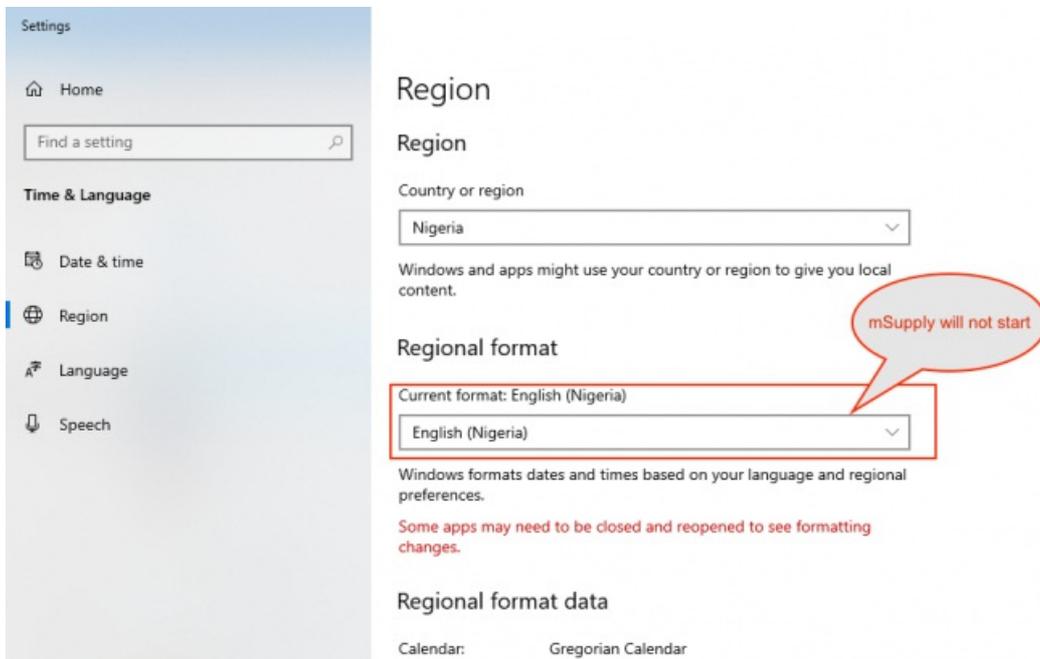
On Macintosh machines, simply replace the *Example* folder from the mSupply installer image.

Notes for Windows users

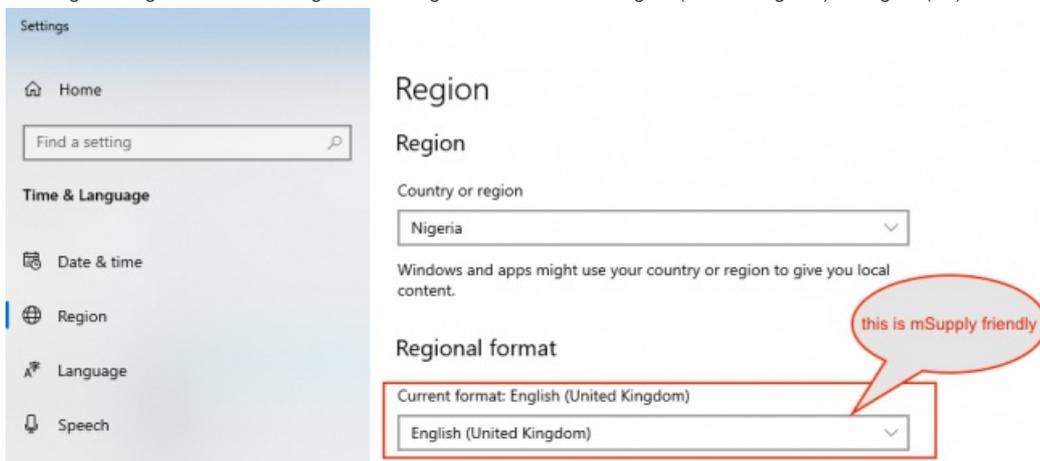
Region / Language

After installation, if mSupply fails to start, then it's quite possible that the Language setting needs to be changed. Not all Windows OS languages are supported by the 4D database that mSupply is built on. Unfortunately, 4D does not maintain a list of unsupported languages.

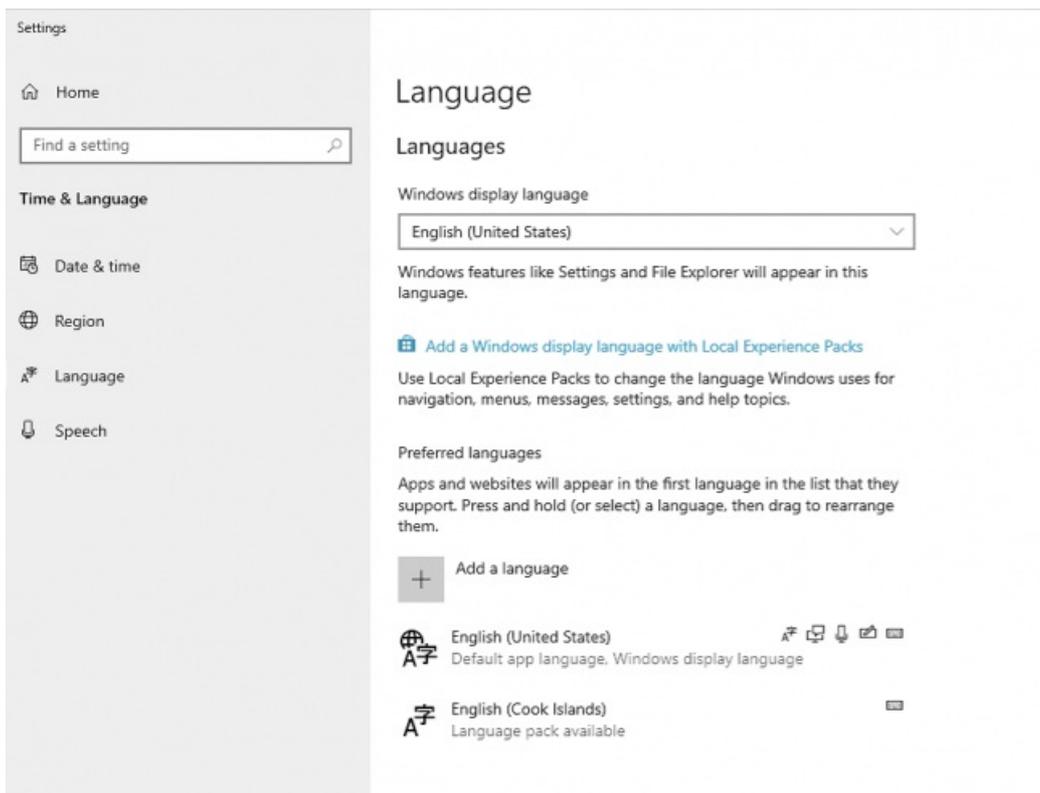
For example with regional format setting of English (Nigeria) it is known that mSupply will not start.



The solution is to change the regional format setting to something more common like English (United Kingdom) or English (US):



For language tab, Drag and drop "English (United States)" at the top of the preferred list:



Known unsupported languages include:

- English (Nigeria) (2019-08-28)
- English (Papua New Guinea) (Win10 1903)
- English (Cook Islands) (2020/10/1)

 **Tip**

If you discover other unsupported languages, please let us know, and we'll update this list!

Date format

- In the *regional settings* in Control Panel, we recommend that the short date format is set to display only 2 digits for the year (YY, not YYYY).mSupply lists are set up to allow only enough space for 4 digits with most font sizes, but occasionally 4 digit years may be truncated. Having the wrong setting here will only affect display, not the actual data. It does *not* matter if you use DD/MM/YY or MM/DD/YY or YY/MM/DD
- If the display of lists in mSupply overlaps the separator lines, turn off *large font* in the *display* control panel.

Previous: [2.01. Requirements](#) | | Next: [2.03. Starting mSupply for the first time](#)

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2.03. Starting mSupply for the first time

To start mSupply, either

- double-click the *start mSupply icon* on your desktop, or
- choose the *start mSupply* item from the mSupply menu in the programs section of the Start menu (on Windows). If this is the first time mSupply has been started after installation, then an example data file will be opened allowing you to follow the mSupply tutorial. mSupply will present you with a log in window.

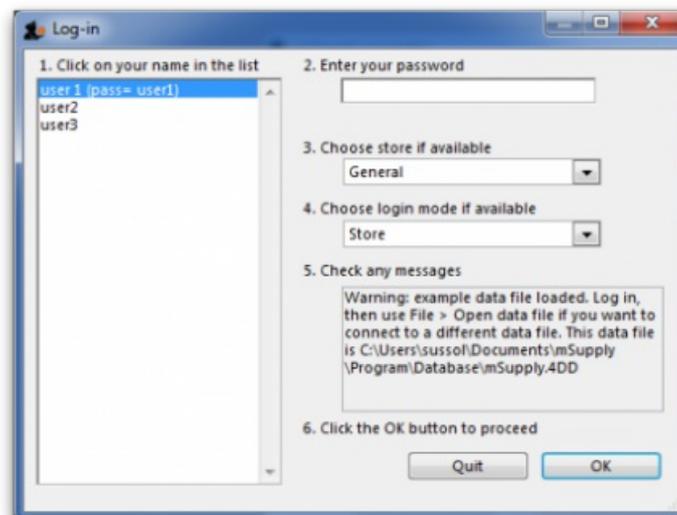
Note that mSupply will “remember” the last data file used, and automatically present the log-in window for that file unless you move or rename your data file. If you do this, mSupply will show you a standard open/save window for you to choose the new name/location of your data.

Creating a new data file

Creating a new data file from within mSupply

If you already have mSupply open:

1. **File > New Data File...**
 2. Navigate to a convenient location.
 3. Assign a name to your data file
 4. Click the save button.
- mSupply will now start creating a new data file.
 - On completion, you will be presented with a login window. Proceed to [log in to mSupply](#).



Creating a new data file while opening mSupply

To create a new data file while opening mSupply:

1. Quit mSupply if it is running.
2. Start mSupply and then immediately hold down the “alt” key. You will now be shown the following which has a number of radio buttons with the different options available:

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3. Choose the 3rd radio button **Create a new data file**. Another window will open where you can choose the location and name of your new data.

Tip

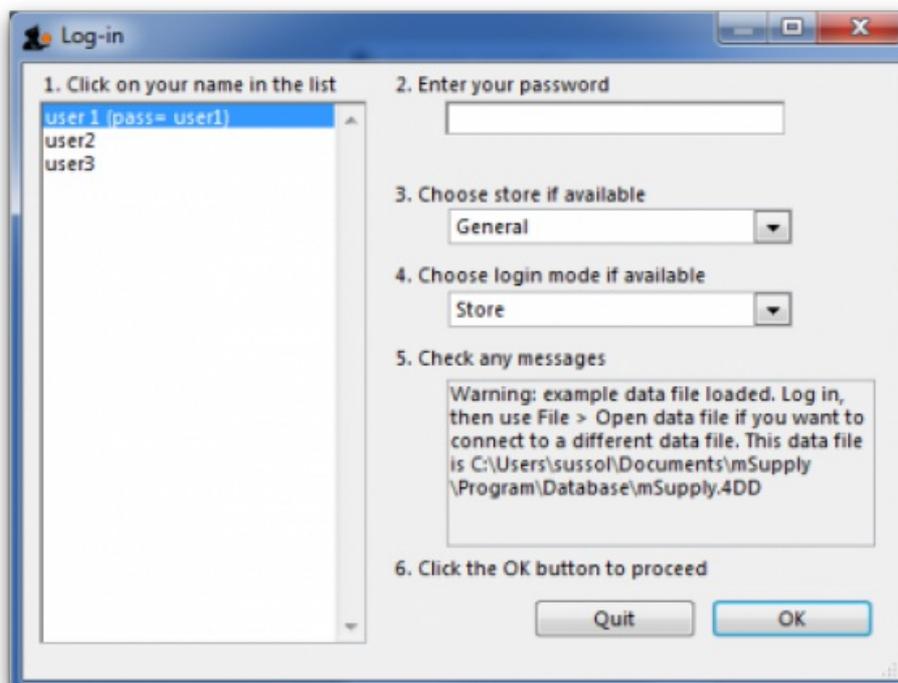
If you're opening mSupply for the first time on this machine, it is recommended to create the new data file while opening mSupply.

Default file location

- Once mSupply has opened a particular data file, that data file becomes the default data file, and will be opened on restarting mSupply.
- To open a different file, it must be chosen as described later.
- If the default data file is renamed or moved to a different location, it must be opened using its new name or location.

Log-in to mSupply

The first time you use mSupply, you will be presented with the log-in window like this:



Info

mSupply® ships with three users. “user 1” and “user 2” are the designer and administrator - these two users cannot be deleted, but they can be edited, allowing the use of appropriate names and making changes to their passwords and permissions.

1. You should select *user 1(pass=user1)* from the list
2. Enter the password “user1” (without the quotes). When different users with their own level of access have been set up, you will then log-in by selecting your user name and typing your own password.
3. From the drop down list, select the store with which you are working. Most mSupply users will be operating with a single store, but for users

operating with more than one store, the login screen allows you to select any of the stores to which you have access. After selecting the desired store, all transactions will relate to that store until you return to the login screen and select a different store from the drop down menu.

- Supervisors and other Level 1 users will have an additional menu item, *Supervisor - All stores* . In this mode, all stores are accessible, and you would use this mode, for instance, when placing an order for supplies which will be distributed to a number of stores. Further information is available here: [Show stores](#)

Finally, click *OK* to login

Preparing mSupply for actual use

The following 2 steps are necessary to start mSupply for the first time.

- Create a new data file
- Prepare the new data file for use

Create a new data file

In order to create a new data file, see [creating a new data file](#) above.

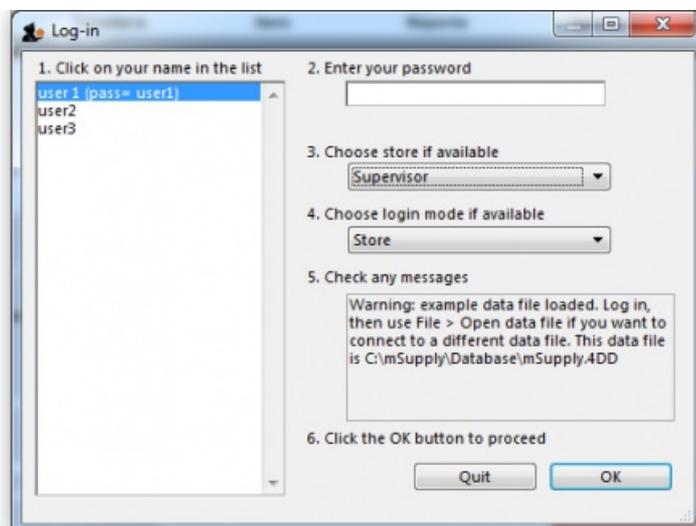
Save the data file in a location that you can easily find for doing backups. We suggest you create a folder called “mSupply data” inside the *My Documents* on Windows PC or the *documents* folder on a MAC to store your data file.

Prepare the new data file for use

1. Choose your home currency. Currencies are used when you are calculating cost prices for orders, and when you are comparing quotations from suppliers. Choose *Special > Currencies*. If your currency is not already shown, click the *New* button at the top of the window and choose from the pick-list the three letter code abbreviation of the currency you will use to operate your database (e.g. “INR” for Indian Rupees, or “SAR” for South African Rands, or “USD” for US dollars). Set the “Rate” to “1”.
2. Enter your Preferences. Choose *File>Preferences* to do this. Read section [16. Preferences](#) of this User Guide to learn what the different Preference settings do.
3. Enter your Suppliers and Customers.
4. If you have a computer file holding your customer and/or supplier details, it can be imported directly into mSupply. See [17.03. Importing names](#).
5. You can also do this as you go along simply by entering a customer or supplier the first time you create an invoice or order from them.
6. Enter the items you keep in stock. There are a number of ways you can do this:
 - If you have a computer file holding details of the items you stock, it can be imported directly into mSupply. See: [17.01. Importing items](#).
 - A file containing the WHO essential drug list is available from the download page of the mSupply web site. You are encouraged to use this file should you have no computer file of your own.
 - You can enter each item using the *New item* Command from the item menu.
 - Enter your stock figures.
 - If you have a computer file holding both details of the items you stock and your current stock figures, it can be imported directly into mSupply. See: [17.02. Importing stock](#)
 - Your opening stock may be entered manually; choose *Item>Inventory adjust - add stock* , and enter the required details.
 - If you intend to record the location of each item, you should define the locations that your store contains. See: [4.06. Stock locations and location types](#).

About Stores

At the log in window you have the option to log into a specific store or to log in as 'Supervisor' by choosing option 3 shown in the below window.



Unless you intend to use multiple virtual stores in mSupply you can ignore this option. More information will be found here: [Virtual stores](#)

About Dispensary Mode

mSupply allows you to log in in two different modes, *Store mode* or *Dispensary mode* . Each user can have his/her permissions set to allow or disallow each mode.

Each mode presents the user with a different menu bar and different windows, depending on whether you are issuing stock to an organisation or an individual

See section [10.01. Dispensary mode](#)

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Last modified: 2020/01/13 07:19 by lou





3.01. The tutorial like no other

Tip

For a glossary of terms please refer to [section 1.05. Terms, definitions and conventions used in this user guide](#)

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- [mSupply explained](#)
- [mSupply work flow diagram](#)
- [mSupply explained](#)
- [mSupply work flow diagram](#)

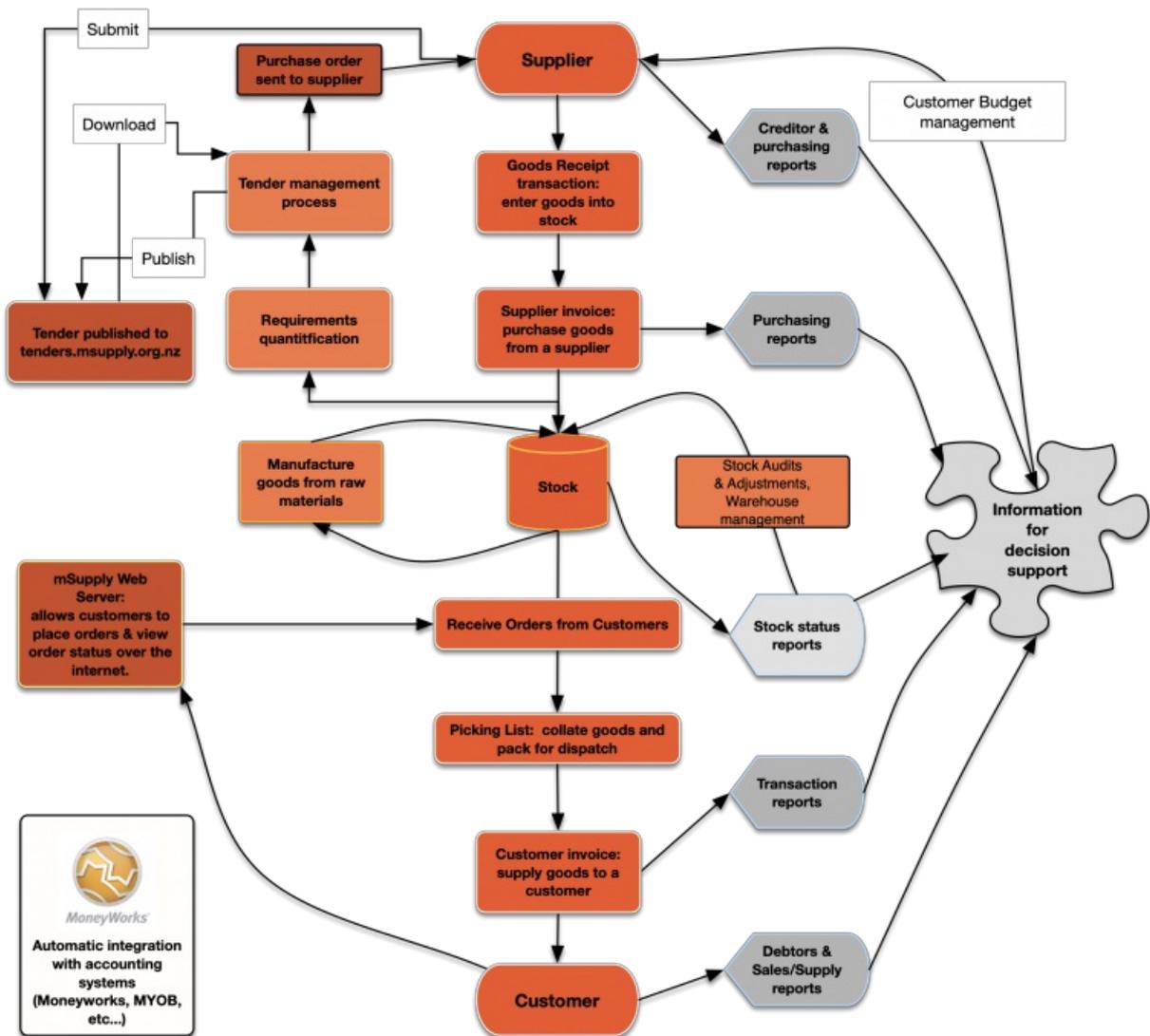


Only mSupply®'s basic features are covered in this tutorial. The enhanced features are covered in-depth in later sections of the user guide.

mSupply explained

This chart shows the common steps in most pharmaceutical supply processes. The manufacturing step only applies to manufacturers.

mSupply work flow diagram



The two most common transaction types in mSupply are the **supplier invoice (si)** and the **customer invoice (ci)**. These transactions record stock purchases from suppliers, and stock supplies to customers respectively. mSupply records stock adjustments through these two transactions. So, given an opening balance of stock, mSupply will show a series of transactions that result in the recorded closing stock.

Of course, there is much more to it than that, but these two transactions are the core of the system.

Note that mSupply has dozens of preference settings (**File>Preferences**) which change the behaviour of many aspects of the software. If you have changed the preferences from their default settings, some parts of this tutorial may not be as stated below. To work through the tutorial, we recommend you start with a fresh copy of the example data to ensure the preferences are set correctly.

Before starting the tutorial, you will need to have installed mSupply and opened the example database. If you haven't done so, see section [2.02. Installation](#).

Tip

mSupply runs best with a screen resolution of 1024 x 768 or greater. If you have your screen set to 950 x 850 or lower, some windows will not fit on the screen. To change screen resolution:

- Windows: right-click anywhere on the desktop, select **Properties > Settings**, and make the necessary changes.
- Macintosh: Choose **Apple > System Preferences...** then click on the **Displays** icon and set a new resolution



3.02. Logging in

When mSupply starts you will be presented with the login window:

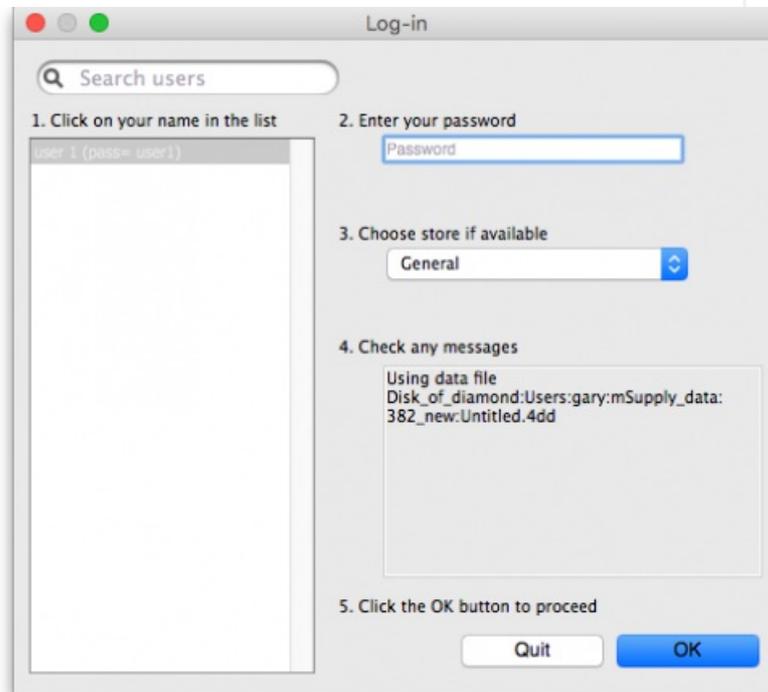


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- Username
- Password
- Store
- Messages
- Click OK
- Journal file
- Username
- Password
- Store
- Messages
- Click OK
- Journal file

Info

This is the login window for when mSupply is started for the first time.

Username

Select your username from the list.

- Only users from your facility will be displayed. If the list is long, you can type the first few characters of your username in the *Search users* field to shorten the list to usernames that begin with what you have typed, sorted alphabetically.
- If you're just opening mSupply for the first time after installing it, select *user 1(pass= user1)*.
- Each time it opens, mSupply will default to the user who last logged in.

Password

Enter your password.

Info

If using the *user 1(pass= user1)* name, type **user1** as the password.

Tip

When this window opens, the focus is on the password field. This allows the user who last logged in to be able to quickly log in again.

Store

Select the store you want to log in to from the drop-down list.

- Most mSupply users will only be able to access a single store. For users who have access to more than one store, the login screen allows you to select any of the stores to which you have access. Once you have logged in you can switch the store without logging out - see [Switching stores](#).
- After selecting the desired store, all transactions you process will relate to that store.
- **Supervisors and other Level 1 users** will have an additional menu item, *Supervisor - All stores*. In this mode, all stores are accessible. You would use this mode, for example, when placing an order for supplies that will be distributed to a number of stores or for reporting on more than one store - see [26.07. Virtual stores](#).
- **HIS** - if you have enabled the Hospital Info System (HIS) in the user login permission settings, and at least one licence is allocated to HIS (see [HIS preferences](#)), then you will also see *Hospital Info System* in the list of stores. If you select this, the login mode automatically changes to *HIS mode*.

Messages

View any messages that might be displayed.

Click OK

Finally, click *OK* to login. If login is successful you will be taken to the navigator screen.

Tip

As with all windows in mSupply, pressing the **Enter** key at any point produces the same result as clicking on the highlighted button, which, for this window, is the *OK* button. This facilitates fast keyboard control.

Important

There are various options that can be set that cause a user to be taken to other screens or shown other information after logging in successfully. For example, [Reminders](#) or [Invoices preferences](#).

Journal file

If one has not already been set up and if you are using a single user copy of mSupply, after logging in you will be asked to select the location for the journal file. A good place is to put it in the same folder as the datafile. You will only be asked to do this once.

The journal file is a place that mSupply records every database transaction that occurs after the last backup. It is used for repairing a damaged datafile and for investigating some types of errors.

Previous: [3.01. The tutorial like no other](#) | Next: [3.03. Opening the example data file](#)

Last modified: 2022/02/15 12:48 by Gary Willetts

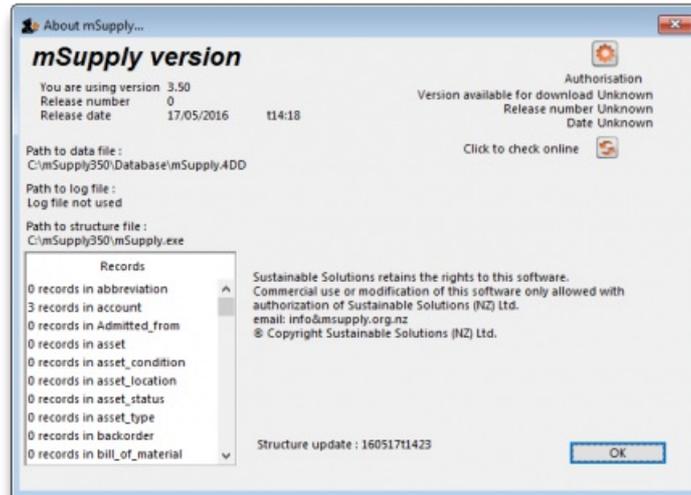


3.03. Opening the example data file

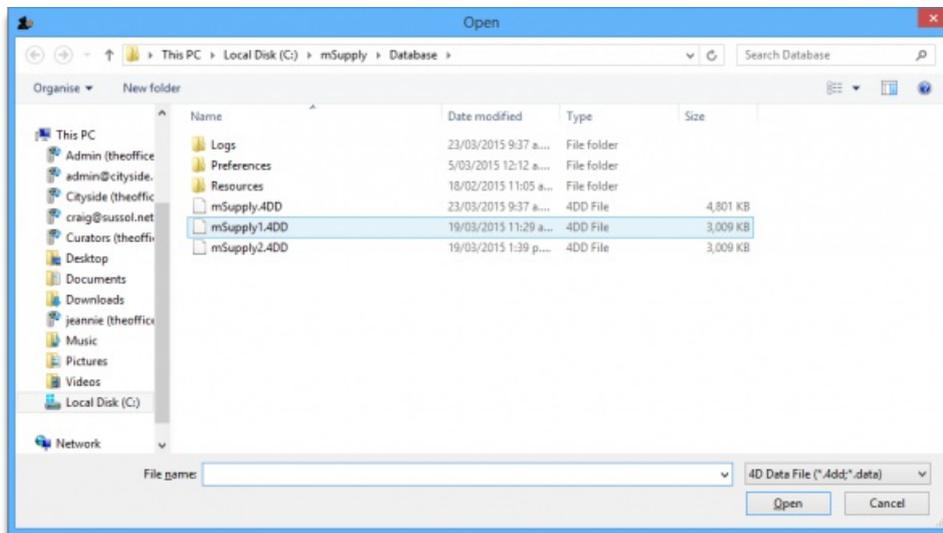
You will have two icons on your desktop - double-click the **mSupply** icon.

If you are opening mSupply for the first time, the program should automatically open the example data file.

The full path to the data file is displayed, along with other useful information by choosing *Menu>Help>About mSupply*.



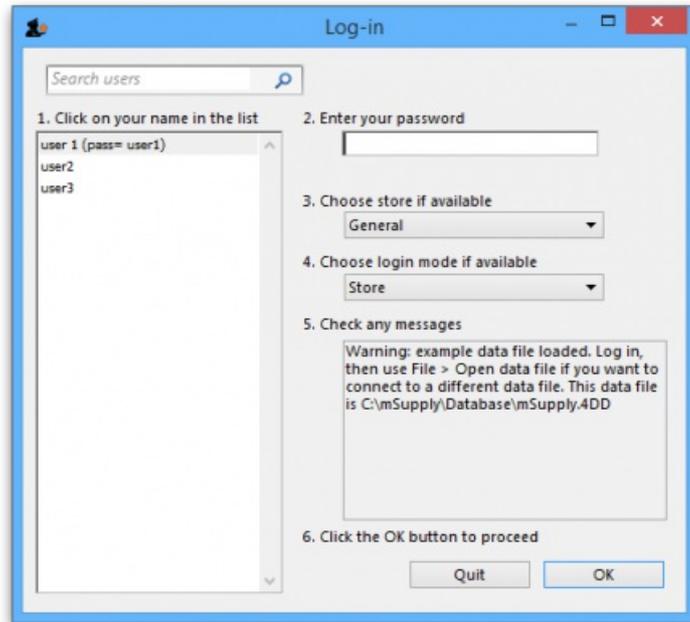
If you have already been using mSupply and have another data file open, but would like to open the example data file for training, then you can use *Menu>File>Open data file...* to open the example data file. In Windows, by default the example data folder is stored at `C:\mSupply\database\`; navigate to the location and open the data file.



Tip

If you have chosen a different location from the one suggested by the installer, the example folder will be in your chosen location.

A login window is presented as mSupply opens the data file.



The **user 1 (pass= "user1")** entry should be highlighted, but if it is not, select this name.

Type **user1** at 2. Enter your password.

The *Choose store if available* drop-down list will display **General**. The *Choose login mode if available* drop-down list will display **Store**. These should not be changed.

The message panel states that the example database will be used.

Click the **OK** button and the mSupply navigator screen appears.

Previous: [3.02. Logging in](#) | | Next: [3.04. Navigator](#)

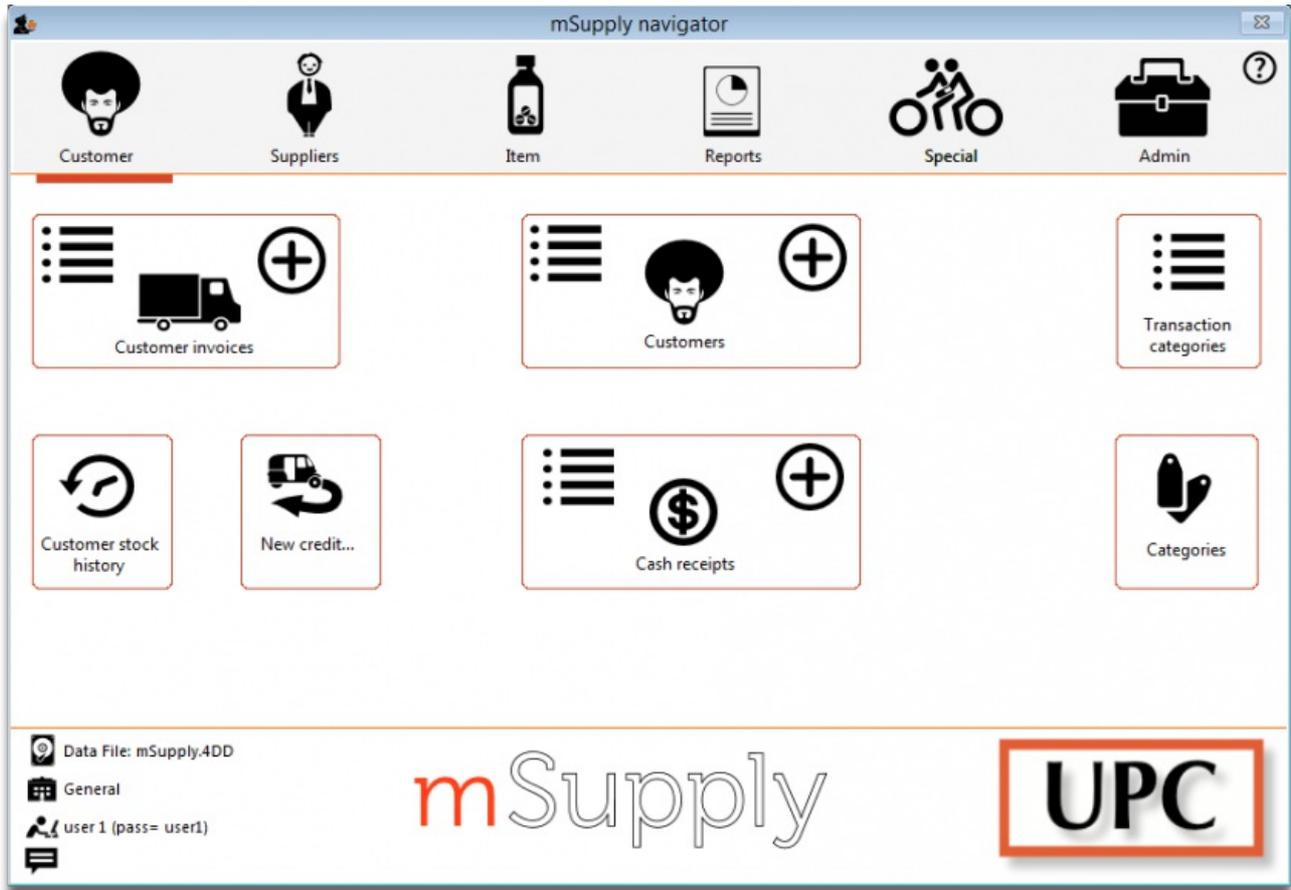
Last modified: 2020/08/27 06:01 by rowena



3.04. Navigator

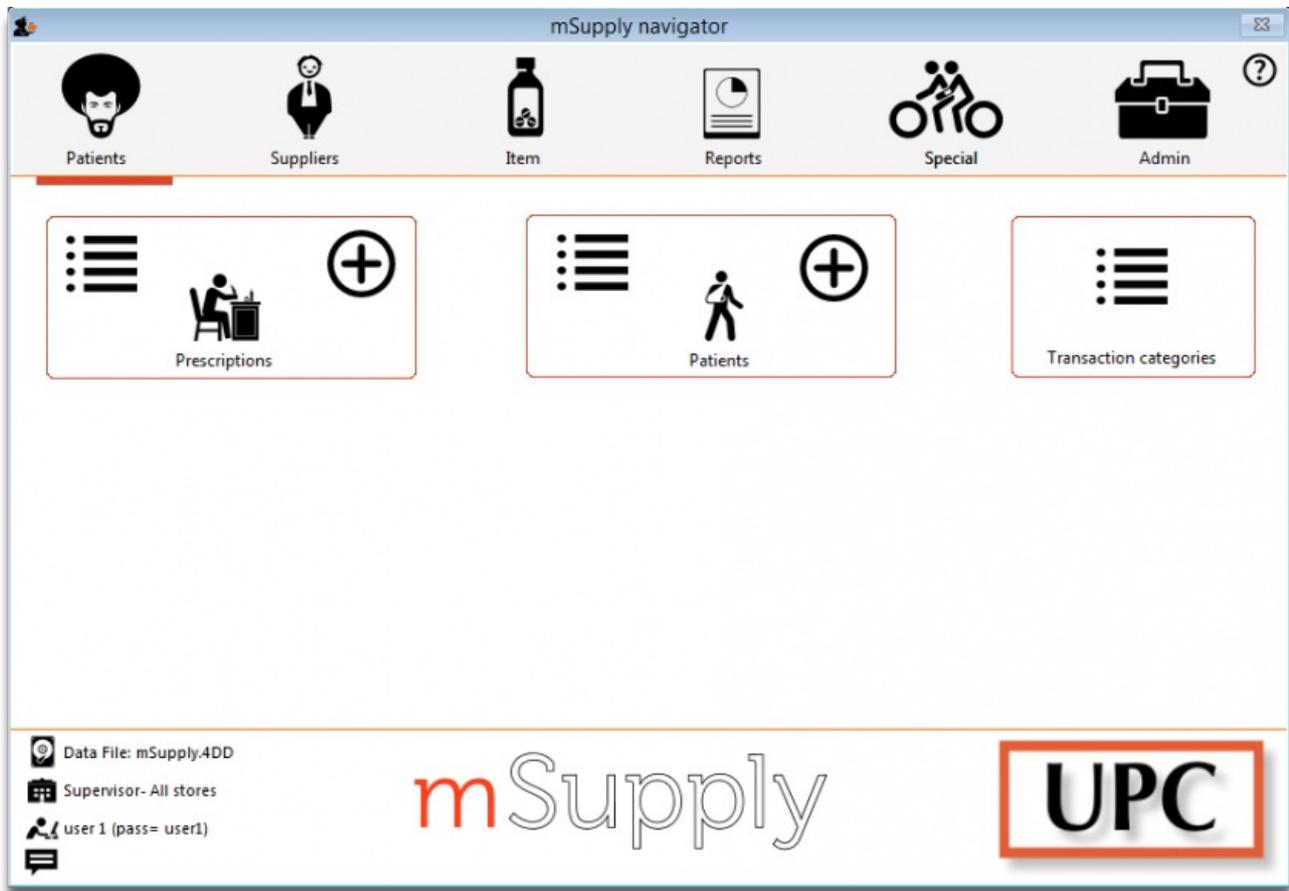
Overview

The mSupply navigator provides access to most of the functions you will be using regularly in mSupply. Many of these functions can also be opened using shortcut keys. Once you have gained some experience, you may find it quicker to use the shortcuts.



Tip

The navigator always opens at the **Customers** screen in Store mode, shown above, or the **Patients** screen in Dispensary mode, shown below.



Displayed along the top of the screen are four items of information:

- the **mode** selected at login (Store or Dispensary)
- the **store** in which you are working - for most users, this will be General
- the active **data file**
- the **user** currently logged in

Immediately below this, there are six large icons, **Customers** or **Patients**, **Suppliers**, **Item**, **Reports**, **Special** and **Admin**. When you click on one of these large icons, the panel below will display more icons for each of the available functions and procedures. You can select the smaller panel icons by clicking on the icon, or by advancing through the icons with the right and left arrow keys and pressing *Enter*.

In the next part of the tutorial, you will be using the **Items** panel of the navigator. As the same procedures are common to all panels, you will quickly become familiar with them.

The bottom right area of the navigator screen is available for displaying your logo. In our example, the logo of “Acme Medical Supplies” is displayed. You can add your logo by through the menu *File>Preferences>Logo* - see [16.06. Entering a new logo](#)

Previous: [3.03. Opening the example data file](#) || Next: [3.05. Creating and viewing items](#)

Last modified: 2020/08/27 21:28 by rowena



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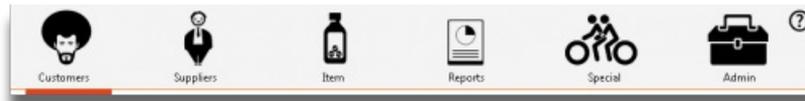
3.05. Creating and viewing items

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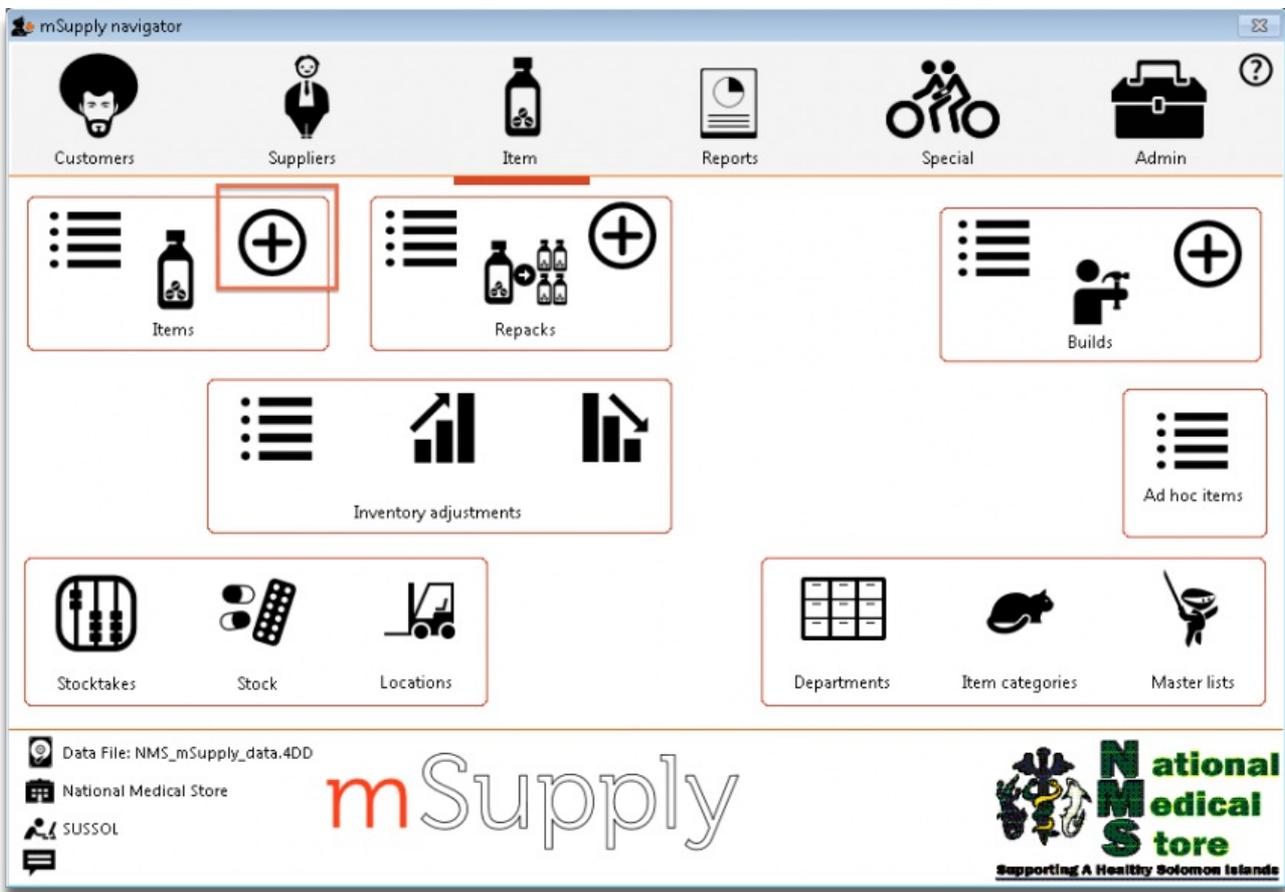
[Creating a new item](#)[Viewing item details](#)[Creating a new item](#)[Viewing item details](#)

Creating a new item

In this section of the tutorial, we are going to add two new items to our mSupply database. From the navigator's opening screen, click on *Item*, the 3rd large icon on the top of the screen.



The following screen appears:



Click on the *New item* icon (the large "+"). You are presented with a window with a number of fields to enter:

Below is a list of fields and the text to be entered into each field. You can use *Tab* to move from field to field or, using the mouse, click on the field you want to edit.

- **Type:** The default entry *normal* is shown in the drop-down list and should not be changed.
- **Item code:** Enter `amo500c`.
- **Item name:** Enter `Amoxicillin 500mg tab/cap`.

Tip

If you make a mistake, you can click in a field and edit the value.

- **Units:** The default entry is *None*. The options are: *unit*, *ea* (for each), *gm* and *ml*.
- **Price list:** Click in the box so a check appears in it. This means that when we export a price list, the price for this item will be included.
- **Shelf location:** Enter `a3`. Amoxicillin is stored on shelf 3, section a of our imaginary store. Note that “A” is interpreted differently from “a”, so it is important to be consistent and use all upper case or all lower case letters for shelf locations.
- **Preferred pack size:** Enter `100`. This means we want a 100-unit pack to be our standard for comparing prices of this item.
- **Category:** If a list of categories has been defined, this field allows the item which is being added to be placed in its appropriate category.
- **Normal stock, Critical stock, Essential drug, ATC category, DDD value, DDD factor, Weight, Non stock item, Default customer:** For this tutorial, ignore these fields and leave them blank.
- Click the *OK & Next* button to add this item to mSupply. The window's fields will clear allowing you to add a further item.

Tip

If you have no more items to add, click the *OK* button. If you accidentally click *OK & Next* and then want to exit, just click the *Cancel* button. The Amoxicillin 500mg tab/cap would still be entered, as it was saved when you pressed the *OK & Next* button.

Proceed to add a further item with the following details:

Field	Enter....
Item code	<code>amo125s</code>
Item name	<code>Amoxicillin 125mg/5ml syrup</code>
Units	<code>mL</code>
Price list	check the checkbox
Shelf location	<code>a7</code>
Preferred pack size	<code>60</code>

Click *OK* now that you have added the item, then click *Cancel* to exit the window.

Congratulations! You have now added 2 items to our example data file. Let's go and see how to find them.

Viewing item details

Click on *Show items* from the navigator's Item panel.



You will be presented with a window to find items:

The 'Find Item...' dialog box contains the following fields and options:

- Item name: starts with []
- and [] category is []
- and [] VEN category is Don't Care
- and [] Department is Don't care
- Randomly select [0] items from returned list.
- Exclude hidden items
- Buttons: Complex Find, Cancel, Find

Type **a** into the text entry area, then click the *Find* button. A list of all the items whose name or code starts with "a" is shown.



3.06. Customers and suppliers

Adding a customer or supplier

In this section of the tutorial, we will add a new supplier and a new customer.

Adding a supplier

From the top of the mSupply navigator screen, click on the 2nd of the large icons, *Suppliers*, and then click on *New Supplier* from the navigator panel. You will see this window:

Table of Contents ▾

- [Adding a customer or supplier](#)
- [Adding a supplier](#)
- [Adding a customer](#)
- [Editing a customer or supplier](#)
- [Adding a customer or supplier](#)
- [Adding a supplier](#)
- [Adding a customer](#)
- [Editing a customer or supplier](#)



You can enter the details for your new supplier in this window.

Field	What to do....
Name	
Code	Enter "Acme" to identify the Supplier (Acme Pharmaceuticals). You need to choose a unique code for each name. Try to choose a logical system, as the code is used to look up the Supplier (or Customer) when you are (for example, try to start the code with at least the first three letters of the Supplier name)
Charge to	Enter "Acme" again. This field is only used when exporting data to an accounting program - this code must match the code you use for the supplier in your accounting program.
Name	Enter "Acme Pharmaceuticals" - the name of our supplier.
Master ID	Ignore for now
Contact	
Email, Web site etc.	Fill in with the appropriate details
Status	
Hold checkbox	If this box is checked for supplier or customer, that particular supplier or customer can neither supply nor
Preferred checkbox	Leave unchecked
Price Category	
Price Category	This applies to customers. It is possible to assign multiple sell prices to customers. Leave it set to "A".
Currency	
Currency	The field is automatically filled in with "Nrs" (=Nepali rupees - the default currency in our example data). This is the currency that this supplier will use to bill us.
Supplier details	
Margin	Enter "10". Items purchased from this supplier will have a 10% margin added to calculate the selling price.
Freight factor	Enter "1". Acme Pharmaceuticals does not charge any freight to us. Their prices are "CIF"(Cost, Insurance & Freight to named port). This field is only used for comparing quotes - it is not used for actual invoices.
Printing	
Print invoices	Ignore for now
Category	
Customer check box	Leave this box unchecked, as we are entering a new Supplier.
Supplier check box	As you chose "new supplier" this box is already checked.
Manufacturer	Leave unchecked
Benchmark	Leave unchecked
Other	
Category 1-6	Ignore for now
Custom 1-3	Ignore for now
Flag	Ignore for now
Comment	You can enter a brief note here (Ignore it for now)
Addresses	
Address, Main, Postal and Shipping address.	You can complete these with appropriate values.

If you are satisfied with the details, click OK. You will be returned to the mSupply navigator screen.

Adding a customer

From the top of the mSupply navigator screen, click on the 1st of the large icons, *Customers*, and then click on *New Customer* from the navigator panel. You will be presented with a window similar to the *New Supplier* one above to enter the customer's details.

Fill in the fields as follows:

Field	What to do
Name	
Code	Enter "bluec"
Charge to	Enter "bluec"
Name	Enter "Blue Cross Hospital" - the name of our customer.
Master ID	Ignore for now
Contact	
email, web site, etc.	You can complete these with appropriate values.
Status	
Hold checkbox	If this box is checked for supplier or customer, that particular supplier or customer can neither supply nor be supplied with items.
Price Category	
Price Category	This applies to customers. It is possible to assign multiple sell prices to customers. Leave it set to "A".
Category	
Customer check box	As you chose "new customer" this box is already checked.
Supplier check box	Leave this box unchecked, as we are not entering a new Supplier.
Manufacturer, Benchmark check boxes	Leave these unchecked too
Other	
Category 1-6	Ignore for now
Custom 1-3	Ignore for now
Flag	Ignore for now
Comment	You can enter a brief note here (Ignore it for now)
Print invoices	Ignore for now
Addresses	
Address, Main, Postal and Shipping address.	You can complete these with appropriate values.

Click the OK button to save the details and exit the window.

Editing a customer or supplier

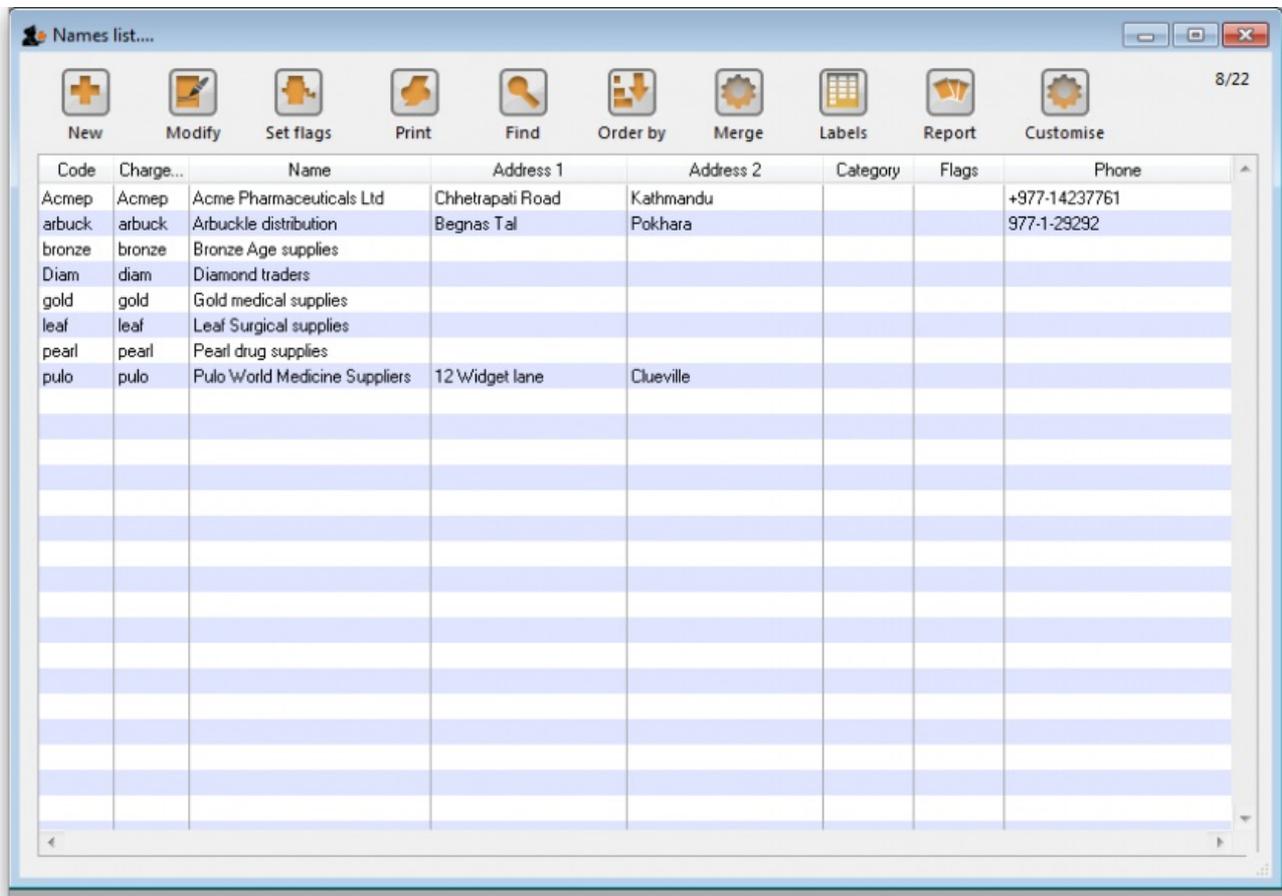
Let's now look up Acme Pharmaceuticals.

- Choose *Show suppliers* from the navigator's *Supplier* panel. You are presented with a window to enter as much of the supplier's name or code as you know.

Help

For information on the Normal - Fuzzy slider, see [Editing a Customer, Supplier or Manufacturer](#)

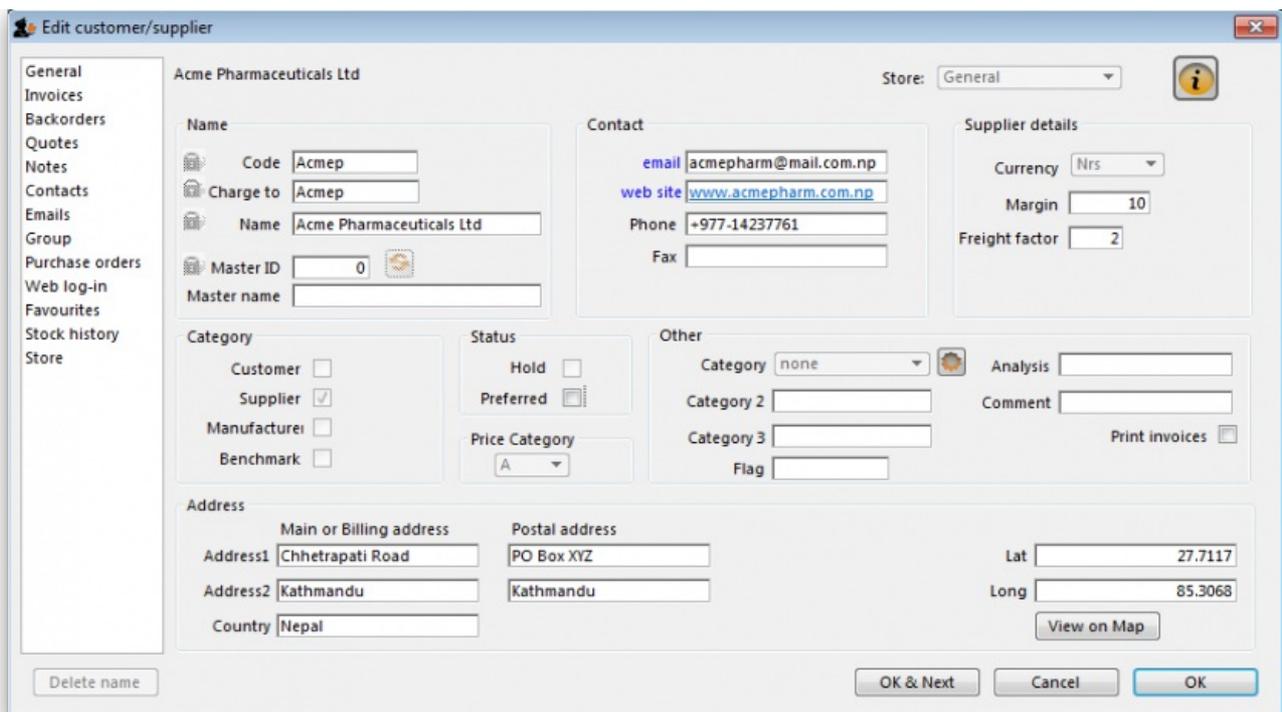
For this tutorial, just click the *Find* button. You will get a list of all suppliers.



The screenshot shows a window titled "Names list..." with a toolbar at the top containing icons for New, Modify, Set flags, Print, Find, Order by, Merge, Labels, Report, and Customise. The window displays a table with the following columns: Code, Charge..., Name, Address 1, Address 2, Category, Flags, and Phone. The table contains several entries, with "Acme Pharmaceuticals Ltd" highlighted in blue.

Code	Charge...	Name	Address 1	Address 2	Category	Flags	Phone
Accep	Accep	Acme Pharmaceuticals Ltd	Chhetrapati Road	Kathmandu			+977-14237761
arbuck	arbuck	Arbuckle distribution	Begnas Tal	Pokhara			977-1-29292
bronze	bronze	Bronze Age supplies					
Diam	diam	Diamond traders					
gold	gold	Gold medical supplies					
leaf	leaf	Leaf Surgical supplies					
pearl	pearl	Pearl drug supplies					
pulo	pulo	Pulo World Medicine Suppliers	12 Widget lane	Clueville			

- Double-click "Acme Pharmaceuticals" entry in the list. You will be shown the same window the same as you used to add Acme Pharmaceuticals as a new supplier.

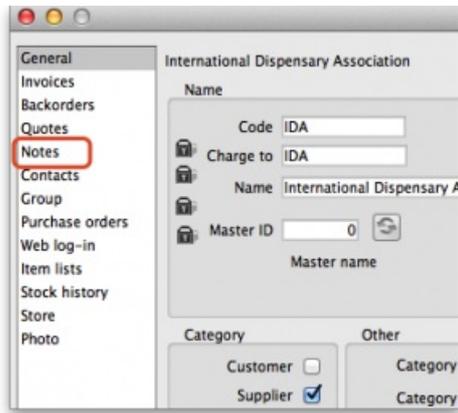


The screenshot shows the "Edit customer/supplier" window for "Acme Pharmaceuticals Ltd". The window has a sidebar on the left with tabs for General, Invoices, Backorders, Quotes, Notes, Contacts, Emails, Group, Purchase orders, Web log-in, Favourites, Stock history, and Store. The main area is divided into several sections: Name, Contact, Supplier details, Category, Status, Other, and Address. The Name section includes fields for Code (Accep), Charge to (Accep), Name (Acme Pharmaceuticals Ltd), Master ID (0), and Master name. The Contact section includes fields for email (acmepharm@mail.com.np), web site (www.acmepharm.com.np), Phone (+977-14237761), and Fax. The Supplier details section includes fields for Currency (Nrs), Margin (10), and Freight factor (2). The Category section includes checkboxes for Customer, Supplier (checked), Manufacturer, and Benchmark. The Status section includes checkboxes for Hold and Preferred, and a Price Category dropdown (A). The Other section includes fields for Category (none), Category 2, Category 3, Flag, Analysis, and Comment, with a Print invoices checkbox. The Address section includes fields for Main or Billing address (Address1: Chhetrapati Road, Address2: Kathmandu, Country: Nepal) and Postal address (PO Box XYZ, Kathmandu), with fields for Lat (27.7117) and Long (85.3068) and a View on Map button. At the bottom, there are buttons for Delete name, OK & Next, Cancel, and OK.

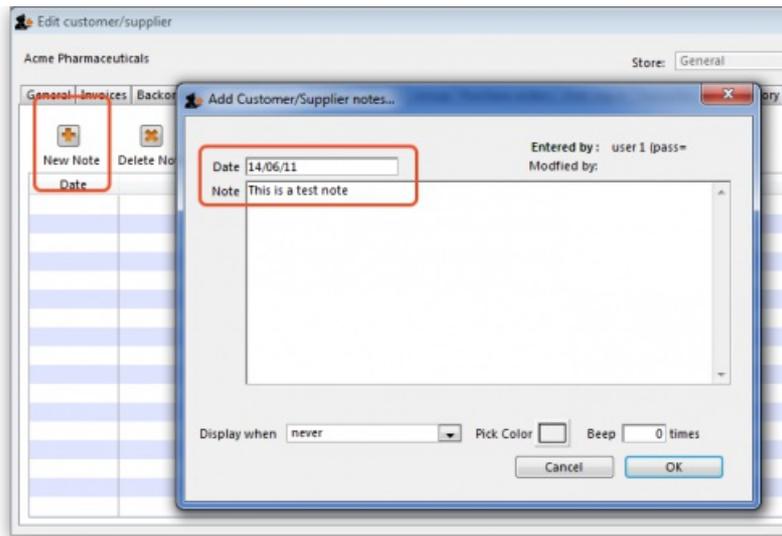
- Note the window has Tabs down the left side in the sidebar: General, Invoices, Backorders, Quotes, Notes, etc. Let's add a note for Acme

pharmaceuticals:

- Click on the *Notes* tab.



- Click on the *New Note* button. Today's date is entered automatically and highlighted. Click inside the Note Entry field.
- Enter *This is a test note* then click the OK button.



- The first line of your note text will appear in the list of notes.
- Click *OK* to exit viewing/editing the Acme Pharmaceutical supplier, then click *OK* again to exit the list of suppliers.

Previous: [3.05. Creating and viewing items](#) | | Next: [3.07. Viewing location in Google Maps](#)

Last modified: 2020/08/27 23:51 by rowena



mSupply documentation wiki



3.07. Viewing location in Google Maps

If you know the exact geographical location of the supplier or customer, the *Lat* (latitude) and *Long* (longitude) fields can be completed in their *Photo* tab.

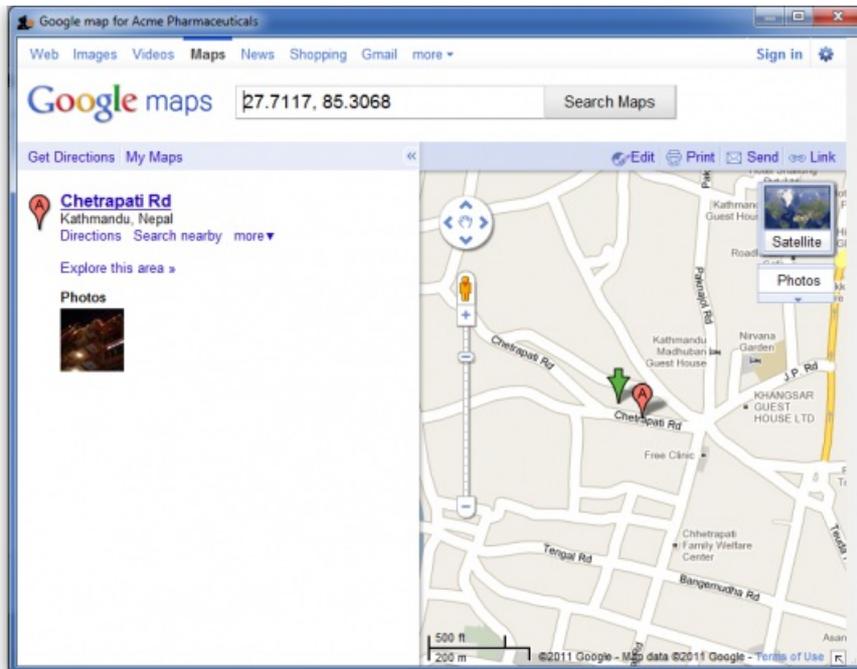
You should use the following conventions when entering the exact geographic location for a supplier or customer:

- Use decimal degrees (not degrees, minutes and seconds)
- In the *Lat* field, locations south of the equator are entered as negative - i.e. the number is preceded by a '-' sign
- In the *Long* field, locations west of the prime meridian are entered as negative - i.e. the number is preceded by a '-' sign

Tip

You can use Google Maps to find the exact geographical location. Find the desired location on Google Maps and place the cursor on it. Right-click and select *What's here* from the drop-down list. Google Maps will display the geographical coordinates (the first number is latitude and the second number is longitude). These should be noted and copied to the *Lat* and *Long* fields in mSupply.

In our example, the location of the imaginary Acme Pharmaceuticals is on Chetrapati in Kathmandu. Click on the *Google Maps* button to display a map of the vicinity. The precise location is pinpointed by a green arrow.



Previous: [3.06. Customers and suppliers](#) || Next: [3.08. Enter incoming goods \(supplier invoices\)](#)

Last modified: 2020/08/28 00:36 by rowena

3.08. Enter incoming goods (supplier invoices)

In some countries, an invoice for incoming goods is referred to as a “bill” - in mSupply we use “supplier invoice” to mean the same thing.

Let's suppose we have just received a shipment containing two items from Acme Pharmaceuticals, and we want to enter these goods into stock. The invoice looks like this:

From: Acme Pharmaceuticals Bill: no.A939						
Item	Quan	Pack	Batch	Expiry	Price	Extension
Amoxicillin Caps 250mg	1000	100	b93333	31/12/2015	344	344,000.00
Cotrimoxazole 240mg/5mL susp	65	60	bb23d	31/10/2015	21	1,365.00
Cotrimoxazole 240mg/5mL susp	100	60	bb22d	31/01/2016	21	2,100.00
Total:						347,465.00

Choose *Supplier>New invoice* from the menu or mSupply navigator screen.

Supplier invoice

Name: [] Entry date: 29/12/2016 Colour: Black

Their ref: [] Confirm date: 00/00/00 Invoice number: 0

Comment: [] Status: nw

Category: None Goods received ID: 0

Donor: [] Purchase Order ID: 0

Entered by: kate

Store: General

Item Name	Donor	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension

Other charges

Item(s): [] Subtotal: 0.00

Amount: 0.00 0 % tax: 0.00

Total: 0.00

Hold Export batch: 0

Finalise Margin: 0.00

OK & Next Delete OK

The cursor will be positioned in the *Name* field. Type **a** and then press **Tab**. If there is only one supplier whose name starts with “a”, the details will automatically be filled in.

Supplier invoice

Name: a Entry date: 14/06/2011

Their ref: [] Confirm date: 00/00/00

Comment: []

New line Delete line

General Summary by Item

Name	Code
Acme Pharmaceuticals	Acnep
Arbuckle distribution	arbuck

In our case, there are two suppliers whose names starts with “a”, so you will see a window listing both of these suppliers. Double-click the line containing “Acme Pharmaceuticals” to choose them for this invoice. The insertion point will jump to the *Their ref* field.

- Type **A939** into the *Their ref* field. Press *Tab* to advance to the *Comment* field.
- In the *Comment* field you can type a comment or information to identify the invoice.
- Note that the margin is showing as 10 percent (the percentage that will be added to your cost price to obtain the selling price).
- Click the *New line* button to add the first invoice line. You will be presented with the window for adding invoice lines.

- The cursor will be positioned in the *Item* field. Type **a**, then press *Tab*. You will see a window listing all items whose name starts with “a”. Double-click the *Amoxicillin 250mg tab/cap* entry to choose it.
 - In the *Quantity* field, enter the number of packs received **1000**. Note that this is the number of packs, not the total quantity of capsules.
 - Enter the pack size **100**.
 - You can ignore the *Location* and *Volume per pack* fields for this tutorial.
 - Enter the batch number **b93333**.
 - Enter the expiry date **31/12/14** (Presuming you have dates set up to enter as dd/mm/yy. If your dates are set to the USA's mm/dd/yy format, enter **12/31/14**). You only have to enter 2 digits for the year as long as the year is between 1961 and 2060. Dates outside this range must have the year entered as four digits (yyyy).
 - In the *Invoice line cost* field enter the pack cost price **344**.
 - The table shown in the picture at the bottom appears if you have *Show previous purchases* checked in your preferences. It will show purchases you have made of this item in the past.
 - *Donor* is the donor who provided funds for the goods on this invoice. You can create donors by activating donor tracking in *File/Preferences/Suppliers/New Supplier* and then check the donor checkbox.

As we have another line to add, click the *OK and Next* button. The entry is recorded, and the window is now blank to accept your second invoice line.

- Enter **c** into the *item name* field and press *Tab*. In the list of items showing, you will find *Cotrimoxazole 240mg/5mL susp*. Double-click the entry.
- Enter the remaining invoice details for “Cotrimoxazole 240mg/5mL susp”:
 - quantity **65**.
 - pack size **60**. Note that it is better to record the actual volume of most packs, unless the volume is not important - e.g. with eye-drops where you could record the pack as “1”.
 - batch **bb23d**.
 - expiry **31/12/13**.
 - price **21.00** (You can just enter **21**).

Click the *OK & Next* button to save the details and start to enter another item.

Now enter the third item on the supplier invoice from the example invoice from Acme Pharmaceuticals above. When you have finished, click the *OK* button to take you back to the main list of invoices.

Our invoice will now have 3 items added to it. The invoice total should read “347,465”, and should appear like this:

Supplier invoice

Name: Entry date: 14/06/2011 Colour:

Their ref: Acnep Confirm date: Invoice number: 12

Comment: Status: nw

Goods receive ID: 0

Category: Purchase Order ID: 0

Entered by: user1 (pass= user1)

Store: General

New line Delete line

General Summary by Item Summary by Batch Price

L...	Lo...	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension
1		Amoxicillin 250mg tab/cap	1000	100	B93333	31/12/15	344.00	344.00	344,000.00
2		Cotrimoxazole 240mg/5ml susp	65	60	BB23D	31/10/15	21.00	21.00	1,365.00
3		Cotrimoxazole 240mg/5ml susp	100	60	BB22D	31/01/16	21.00	21.00	2,100.00

Other charges

Item(s):

Amount:

Subtotal: 347,465.00

0 % tax: 0.00

Total: 347,465.00

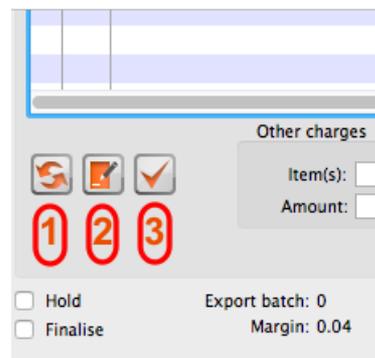
Hold Export batch: 0

Finalize Margin: 0.00

OK & Next Delete OK

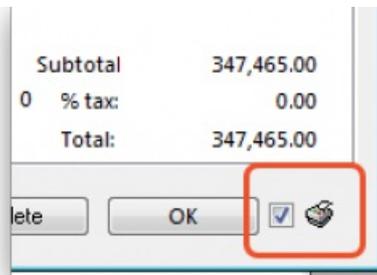
If you have made a mistake, click on the relevant line, which will now be highlighted; double-clicking on it allows you to edit it. You will be shown the line details again, and you can then make corrections and click the OK button to save your changes.

There are 3 icons in the bottom left corner of the invoice window.



1. This allows you to rearrange the order in which the lines are shown on the invoice
2. Here you can make a note of anything relevant to this invoice
3. This will copy the details of the invoice to the clipboard

Now click the OK button. As long as you have left the "print" checkbox (bottom right corner) checked, you will be asked if you want to print the invoice (you may do so). Note that when you print, you are shown two windows. The first window is the page setup for your printer, the second window allows you to specify how many copies to print, etc. (The second window also has a "preview" checkbox, where you can preview the print job).



As this invoice is a “supplier invoice” it has been “confirmed” when you clicked the OK button in the invoice entry window. You can view and edit the invoice details until the invoice is finalised. Note that if you issue some of the stock you have just entered to a customer, some fields will no longer be editable.

NOTE: as of mSupply v190, a more precise alternative for entering received goods has been implemented. See section [7.02. Goods receipts](#) for information on viewing and editing supplier invoices created via Goods Receipts.

Previous: [3.07. Viewing location in Google Maps](#) | Next: [3.09. Enter outgoing goods \(customer invoices\)](#)

Last modified: 2020/08/28 02:23 by rowena



mSupply documentation wiki



3.09. Enter outgoing goods (customer invoices)

Now let's suppose we have just received an order as follows:

From:	Blue Cross Hospital
Order number:	PO882
Delivery: Express courier please	
Item	Quan
Amoxicillin 250mg tab/caps	10,000
Cotrimoxazole 240mg/5mL susp	120

Choose *New invoice* from the *Customer Invoice* menu, and the following window appears:

The screenshot shows the 'Customer invoice' window. The 'Name' field is empty. The 'Confirm date' is '00/00/00'. The 'Colour' is 'Black'. The 'Invoice' number is '0'. The 'Entry date' is '11/02/13'. The 'Goods receive ID' is '0'. The 'Status' is 'nw'. The 'Entered by' is 'sussol'. The 'Store' is 'CMS Store'. The 'General' tab is selected, showing a table with columns: Location, Item Name, Quan, Pack Size, Batch, Exp date, Sell Price, and Price exten. The table is currently empty. At the bottom, there are 'Other charges' and 'Item:' fields, and a summary section with 'Amount: 0.00', 'Subtotal: 0.00', '0 % tax: 0.00', and 'Total: 0.00'. There are also checkboxes for 'Hold' and 'Finalize', an 'Export batch: 0' field, and 'OK & Next', 'Delete', and 'OK' buttons.

Type **b** into the *Name* field, and press *Tab*. You will be presented with a list of customers whose name starts with "b". Double-click the *Blue Cross Hospital* row to select it.

- In the *Their ref* field enter **P0882**.
- In the *Comment* field enter **This afternoon by courier**
- Click the *New line* button to add a line to the invoice. You are presented with the *Add item* window.

Add item...

Item 

Line

Quan of

Pack Bulk/Outer pack size

 **New item**

Enter the following details:

- Type **a** into the *Name* field then press *Tab*. In the list you are presented with, double-click on the *Amoxicillin 250mg tab/cap* row.

Item list...

Item name	Item code	Stock on Hand
Aluminium diacetate solution, 13%	alu13s	0
Aluminium hydroxide 320mg/5ml oral susp	alu500s	0
Aluminium hydroxide 500mg tab	alu500t	0
Amiloride hydrochloride 5mg tab	ami5t	0
Amoxicillin + clavulanic ac 500mg tab	amoc500t	0
Amoxicillin 125mg Tab	amo125tab	78
Amoxicillin 250mg tab/cap	amo250t	120000
Amoxicillin 500mg tab/cap	amo500t	4000
Amphotericin b 50mg inj	amp50i	0
Ampicillin sod 500mg inj.	amp500i	0
Anti-d immunoglobulin (human) 250mcg inj	antd250i	0
Antiscorpion sera inj	antsi	0
Antitetanus immunoglob (human) 500IU inj	antt500i	0
Antivenom serum	antvi	0
Artemether 80mg/ml inj	art80i	0

Double-Click the item you want..

- You will see that a list of available stock has appeared in the window, and the cursor has moved to the **Line number** field. Enter **2** to choose line 2. (The list is sorted so batches with the shortest expiry date are at the top - usually you would choose the shortest expiry batch, but today we're being different!).

Add item...

Item  **New item**

Line

Quan of

Pack ea Bulk/Outer pack size

Li...	Issue	Availa...	Tot in st...	Pack	H...	Batch	Expdate	Supplier	Location	Cost Pr...	Sell pr...	Status
1	0	190	200	100	<input type="checkbox"/>	b39399	01/01/12	ar buck	A	343.00	343.00	
2	0	1000	1000	100	<input type="checkbox"/>	893333	31/12/15	Ac mep		344.00	344.00	

Total quantity issued

Total quantity available

- Quantity field - the line we have chosen has a pack size of 100, so you will need to enter a quantity of **100** to make a total of 10,000

Click the *OK & Next* button to add the second line of the order.

This time enter **c** and press *Tab*. Double-click on the *Cotrimoxazole 240mg/5mL susp* row. The window will close and the list of available batches and quantities will be completed.

Add item...

Item Cotrimoxazole 240mg/5ml susp cot240s New item

Line

Quan of 65

Pack ml Bulk/Outer pack size

Li...	Issue	Avalla...	Tot in st...	Pack	H...	Batch	Expdate	Supplier	Location	Cost Pr...	Sell pr...	Status
1	0	65	65	60	<input type="checkbox"/>	BB23D	31/10/15	AcmeP		21.00	21.00	
2	0	100	100	60	<input type="checkbox"/>	BB22D	31/01/16	AcmeP		21.00	21.00	

Total quantity issued

Total quantity available

Note that in the list of available stock, the stock we entered from “Acme Pharmaceuticals” earlier in this tutorial is at the top of the list. This is because the list is sorted so items with the shortest expiry date are at the top of the list.

Line 1 is selected, despite the insufficient stock of line 1 to meet the order of 120. Nevertheless, you should enter **120** in the *Quantity* field, press *Tab*, and the following message will appear:

 There is not enough stock of line 1 . Would you like to try again or treat the amount as the total quantity to be distributed over multiple batches?

For this tutorial, choose *Distribute*. *Distribute* is likely to be your normal choice. *Distribute* will mean that the stock needed to complete the order will be drawn from another batch/batches, starting with the batch which will be the first to expire. There will be occasions, however, when you wish to override this automatic means of distribution. If this is the case, you would select *Try Again* and manually select the batches from which you wish to meet the order.

Click the *OK & Next* button

⚠ Important

Because the invoice has not been confirmed, the “available” amount for the line is decreased, but the “total stc” (total stock) will remain the same. mSupply includes these lines in the list so you can see stock that has been allocated to an invoice but has not yet left your store. You can then edit the other invoice if stock is urgently needed on the current invoice.

Click *OK* as we are finished entering lines. You will be returned to the main Customer invoice window.

Name: Confirm date: Colour:

Their ref: bluec Invoice: 16

Comment: Category: Entry date: 16/06/11

Goods receive ID: 0

Status: nw

Entered by: user 1 (pass= user1)

Store: General

New line Delete line(s) Backorders History Confirm

General Summary by Item Summary by Batch Transport details

...	L...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1	A		Amoxicillin 250mg tab/cap	100	100	b39399	01/01/12	343.00	34,300.00
2			Cotrimoxazole 240mg/5ml susp	65	60	BB23D	31/10/15	21.00	1,365.00
3			Cotrimoxazole 240mg/5ml susp	55	60	BB22D	31/01/16	21.00	1,155.00

Other charges Item: Amount:

Subtotal: 37,020.00
0 % tax: 0.00
Total: 37,020.00

Hold Finalize Export batch: 0

OK & Next Delete OK

At the bottom right of the invoice you will see the invoice total.

- As the customer has requested an express courier, we will charge them Rs200 for the service (Rs = rupees the currency in our tutorial).
 - At the bottom of the window you will see the *Other charges* field. Enter **Courier charge** and press *Tab*.
 - In the *amount* field enter **200** and press *Tab*. The new total should be **37,020.00**.

Now we are ready to print a packing slip. Make sure that the *Print* checkbox is checked in the bottom right corner, and click *OK*. A window appears displaying your print options.

Printing options...

Form to use: Remember this choice

Message:

Destination:

Printer
 Preview
 PDF file on disk
 Email PDF
 Export to Excel

Cancel OK

We want to print a packing slip, so the default settings are correct. You will notice the packing slip printed has a column where you can record the actual quantity packed.

Confirming the invoice

Let's suppose the order was successfully packed according to the packing slip, and you now want to confirm the order and print an invoice to pack with the goods. (We're in a hurry - the express courier is on her way!)

First, we need to look up the invoice.

- Choose *Show invoices* from the *Customer invoices* menu.
- If you know the invoice number (printed on the packing slip) you can enter it. Or, to bring a list of the most recent invoices, you enter the number of invoices to view. As we know the invoice we want is the last one to be entered, you can type **1** and click *OK* - you will be taken straight to the invoice.

Click the *Confirm* truck icon.

Confirm date

Category

 Backorders  History  Confirm

Today's date will appear in the Confirm date field. Click *OK* to confirm you want to proceed.

The invoice is confirmed, and you are given the opportunity to print an invoice.

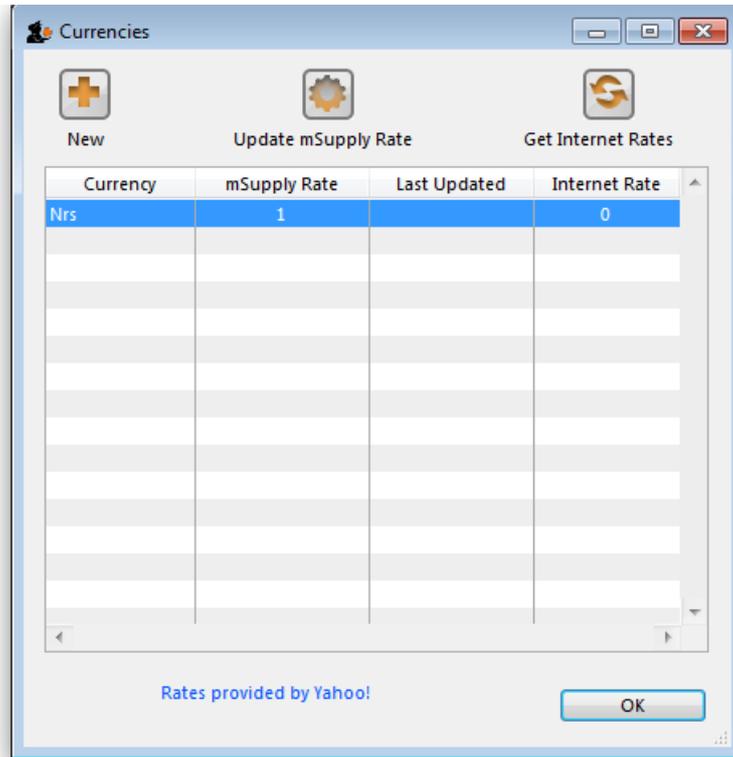
Previous: [3.08. Enter incoming goods \(supplier invoices\)](#) | | [Next: 3.10. Entering quotations](#)

Last modified: 2020/08/30 23:16 by rowena

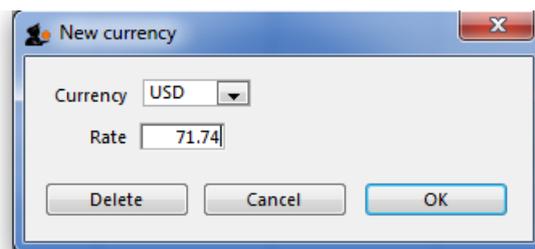


3.10. Entering quotations

mSupply allows you to keep a record of prices that suppliers have quoted to you for each item. Let's assume that you have just received 2 quotations for Amoxicillin 250mg capsules. One of the companies has used US dollars for their quotation, and the other has used British pounds. Before entering the details of the quotations, it is necessary that both of these currencies are recognised in mSupply. To achieve this, choose the menu item *Special>Currencies*. This window appears:



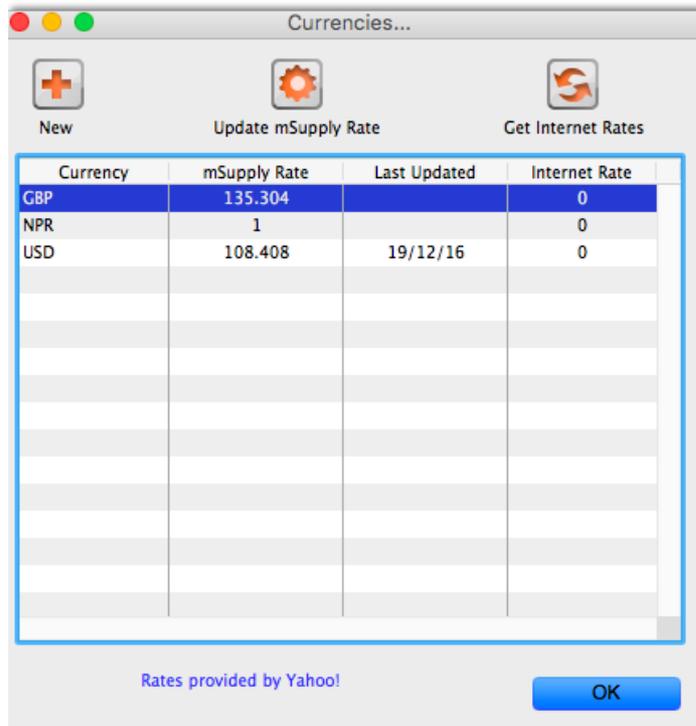
Click on the *New* button, and a window appears which allows you to enter another currency:



- Enter **USD** in the *Currency* field.
- In the *Rate* field you should enter the number of units of the default currency - in this case Nepali Rupees - equivalent to 1 US dollar. At the time this tutorial was created, the rate was 71.74 N.Rs. to US \$1. Enter **71.74** in the *Rate* field.
- Click on the *OK* button.

Repeat the above for British pounds - assume that the rate is 116.36.

Once you have completed this, the Currencies window should look like this:



We're now ready to proceed.

To enter a quotation:

1. Choose *Items>Show items*
2. Type **Amox** then press *Enter*
3. Double-click the *Amoxicillin 250mg caps* entry on the list
4. The item view window, on the left, has vertical content list (General, Usage, Quotes). Click the *Quotes* line.
5. Click the *New Quote* button.
6. Note that the item is entered for us. We need to choose a supplier and enter their price details.
7. Enter **Arb** in the supplier field and press *Tab*. Arbuckle distribution is automatically chosen. They have quoted in US dollars, so choose *USD* from the currency menu.
8. Their price is US \$3.50 per 100 capsules, so enter **3.5** in the price field and **100** in the pack size field.
9. Click *OK* to save the entry
10. Now click *new quote* again and enter the following details:

Supplier	Gold Medical Supplies
Currency	Sterling [GBP]
Price	20.00
Pack size	1000

Click *OK* when you are done.

Now we can see the list of quotes, which should look like this:

Item details...

General
Misc
Usage
Stock
Ledger
Quotes
Backorders
Notes
Reconcile
Bill of materials
Purchase Orders
Order options
Dispensing
Drug registration
Reporting
Log
Requisitions
Stores

Item name: Amoxicillin 250mg tab/cap Store: General

Item code: amo250t

New quote Delete quote Show: All

Date	Supplier	Cur...	Rate	Price	Pack s...	Freight	Strip	Cost	Adj Cost	Preferred	Valid until	Manufact...
3/06/16	Arbuckle distribution	USD	108.4080	11.21	1000	1.00	<input type="checkbox"/>	1,215.25	121.5253	<input checked="" type="checkbox"/>		
3/06/16	Bronze Age supplies	NPR	1.0000	2,000.00	1000	1.00	<input type="checkbox"/>	2,000.00	200.0000	<input type="checkbox"/>		
21/09/16	Drug Price Indicator	USD	108.4080	3.00	100	1.00	<input type="checkbox"/>	325.22	325.2240	<input type="checkbox"/>		
29/12/16	Arbuckle distribution	NPR	1.0000	3.50	100	1.00	<input type="checkbox"/>	3.50	3.5000	<input type="checkbox"/>		

Delete OK & Previous OK & Next Cancel OK

Notice how the adjusted price takes into account differences in pack size and currency, so you can easily compare suppliers.

Previous: [3.09. Enter outgoing goods \(customer invoices\)](#) | Next: [3.11. Working with lists](#)

Last modified: 2020/08/30 23:47 by rowena

3.11. Working with lists

Whenever you perform a search in mSupply resulting in more than one item being found, you will be presented with a list of records (e.g. items, names, contacts or another list) that match the criteria you entered.

mSupply uses two types of list display.

1. Shorter lists, such as an invoice or stock lists, are displayed with a striped background. These lists have resizable and moveable columns. They also have an indicator to show the sorted column. Their use is discussed in the next chapter.
2. Longer lists, such as item and transaction lists, which can have thousands or millions of records.

In this tutorial section, look at the tools for handling of the longer lists.

When longer lists are displayed, a series of buttons are available along the top of the window, as shown in the below screenshot (note only a small list is shown for the purposes of the tutorial):

Item Code	Item name	Default pack	Stock on hand	Flags
aci200t	Aciclovir 200mg tab	100	5000	
alb400t	Albendazole tab 400mg	100	800	
amo125tab	Amoxicillin 125mg Tab	100	28	
amo250t	Amoxicillin 250mg tab/cap	100	219500	
amo500t	Amoxicillin 500mg tab/cap	100	8000	
cli150c	Clindamycin 150mg cap	100	4300	
dac100i	Dacarbazine 100mg inj	100	100	
efl200i	Eflornithine hcl inj 200mg/ml, 100ml	100	100	
erye250t	Erythromycin ethyls...nate 250mg tab/cap	100	10000	
gri125t	Griseofulvin 125mg tab/cap	100	3000	
gri250t	Griseofulvin 250mg tab/cap	100	15000	
hepbv	Hepatitis b vaccine inj	24	24	
ib1234	Ibuprofen 400mg	60	51600	
pen250t	penicillin VK (Phenoxyethyl) 250mg tab	100	7800	

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General

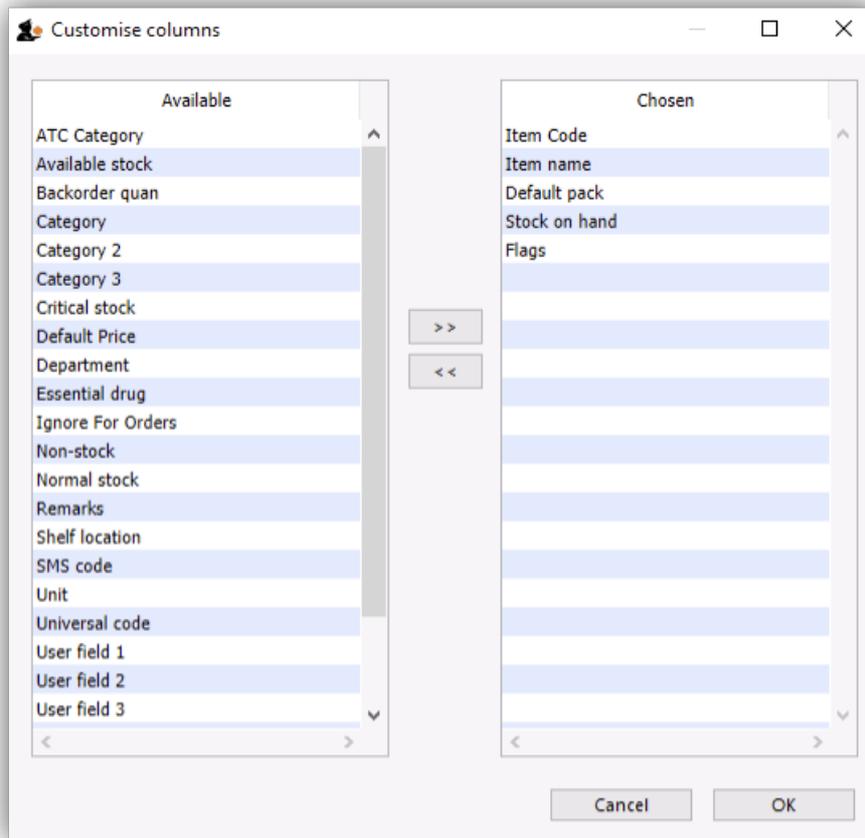
Viewing or editing a particular record: To view or edit a record, double-click the row in the list you wish to view. A new window will open showing the details of the record you clicked.

Column widths: The easiest way to change column widths is to drag the dividers (the dividing line) between the columns in the list view. Note that if the total column width is too wide for the window, a horizontal scroll bar is added to the list allowing you to view columns to the right of those displayed.

Choosing the column order: To change the sequence of the columns in a list, drag a column header to a new location.

Customising

Clicking the *Customise* button in the toolbar will display this window:



The list on the left-hand side gives all of the available fields (displayed in columns). The list on the right-hand side is a list of fields (columns) you are currently using.

To add a field to your view, click on the field in the left-hand list. You can control-click to add multiple columns at the same time. Then click >>, the right-pointing button, in-between the lists.

To remove a field from your view, select the field(s) to remove from the right-hand list. Then click <<, the left-pointing button, to move the fields back to the available list.

You can not remove the first column for any list as it is the key column to identify each row uniquely.

Renaming columns: By double-clicking on a field name in the right-hand list you can change the column title.

Ordering

Ordering a list is the same as sorting it. Frequently a column may be ordered by clicking on the column heading. The column will be sorted in ascending order. **Ascending** means:

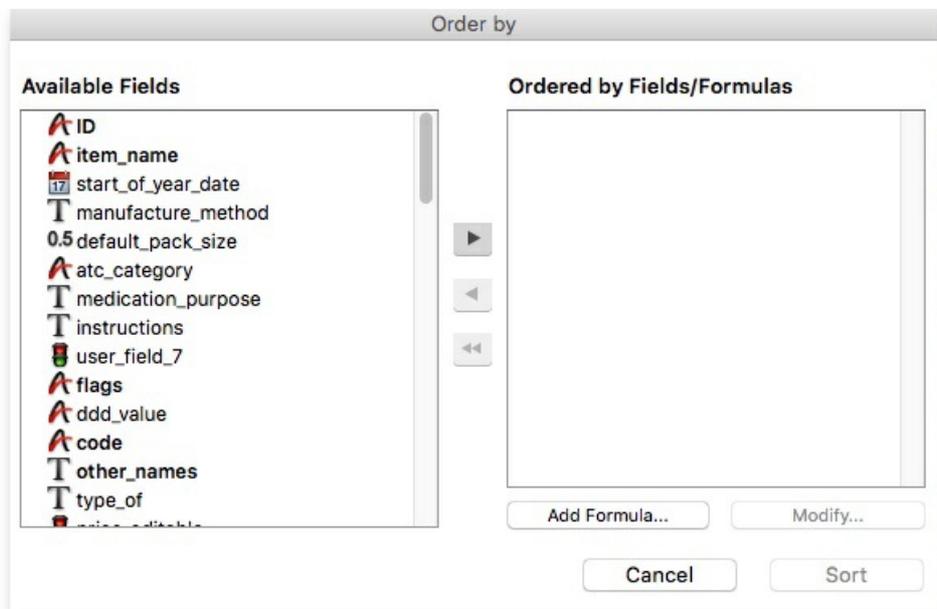
- A > Z (upper and lowercase are not considered different)
- 1 > 2 > 3 for numbers
- earlier dates to later dates

Descending means the opposite of **Ascending**.

Tip

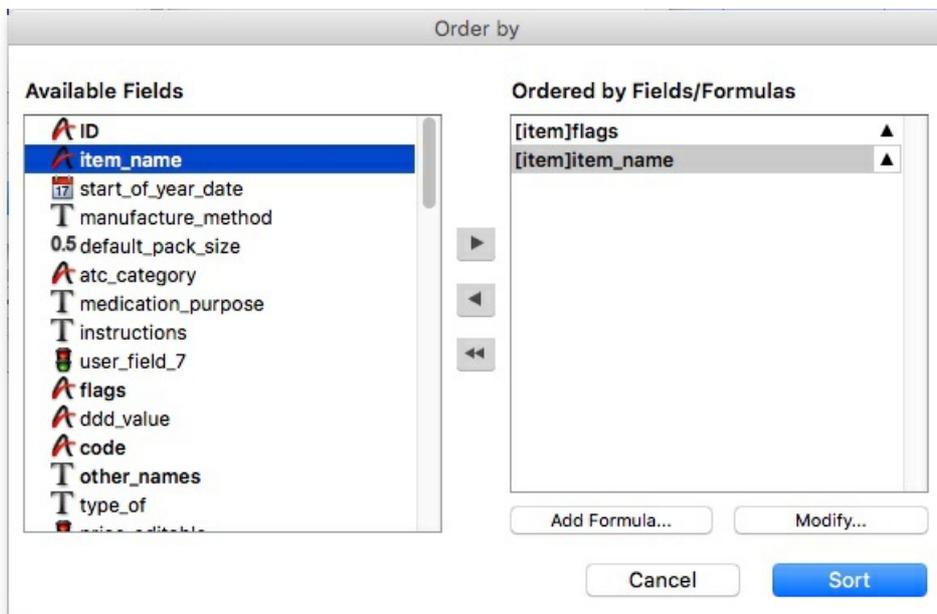
Note that ordering a list does not add or remove any records from the list. It simply changes the order in which the records are displayed.

Should you require two (or more) sort parameters, clicking the *Order by* button opens the following window:



The *Available Fields* list will reflect the type of records you are viewing. In our example, the list shown is for **items**.

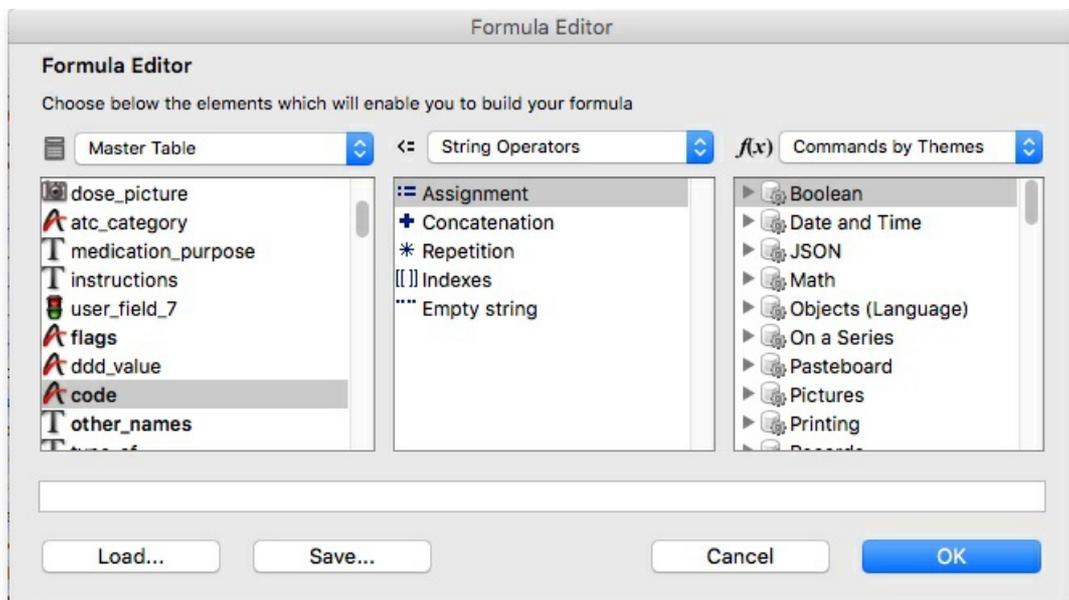
To order by a particular field, double-click it in the left-hand list. You can also drag fields to the right-hand list, or highlight the field in the left-hand list and click the right-pointing arrow. You can order by multiple fields by adding further fields to the right-hand list. Double-clicking on the *flags* and *item name* fields in our example results in this window:



To remove a field: Highlight the field in the **Ordered by Fields** list, then click the single left-pointing arrow between the two lists. The double left-pointing arrow will clear all fields from the **Ordered by Fields** list

To change field ordering: Each item in the **Ordered by Fields** list has a small triangle to the right. If pointing up, the ordering will be ascending. If pointing down, descending. To change the direction, click on the *triangle* for each field.

Using formulae: If you want to order by a formula, click the *Add Formula* button. Here the formula window is shown, and the formula `Length([items]code)` has been entered.



Using this formula would allow you to identify items whose item code is shorter/longer than your organisation's specifications.

Click the *OK* button to close the window.

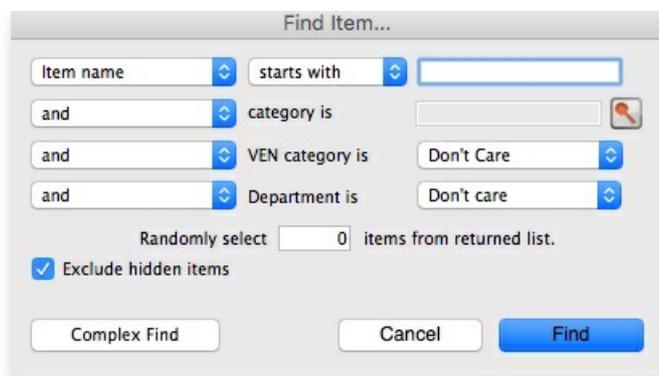
Once the details are entered, click the *Order by* button to order the list.

Printing lists

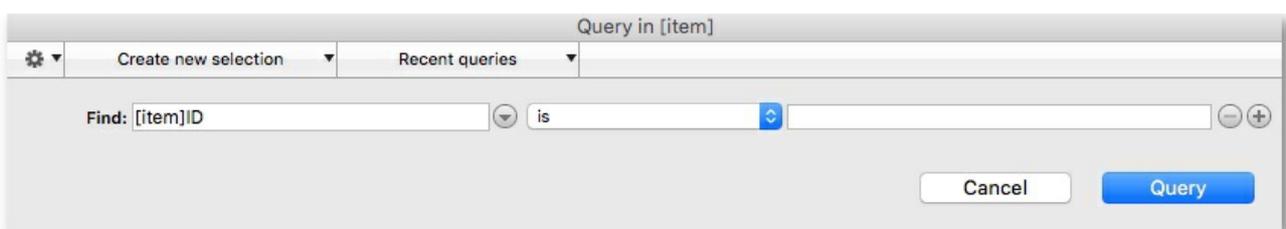
You can press the print icon to send the list to Excel. The list will display in Excel with the column headings you have selected.

Find

This button opens a simple find window where you can enter the start of the item name or code.



Complex finds: The window shown above has a *Complex Find* button. This allows you to perform a search using multiple criteria. Clicking this button shows the query editor



Within this window there are four areas from which you have to choose or set a value for each line of a query.

1. Available fields, select the field that you are looking for
2. Operands, select the operand that is appropriate for your search
3. Value, enter your specific criterion
4. For queries with more than one criterion, click *Add line*, then complete as above but also with the appropriate conjunction

For example, if you want to find all items whose default pack size is greater than ten and whose code starts with **A** these are the required steps:

1. Click on *default_pack_size* in the available fields list
2. Click on *is strictly greater than* in the Comparisons list

3. Enter **10** in the value field
4. Click the *Add line* button
5. Scroll down the available fields lists then click on *code* in the available fields list.
6. Click on *is* in the Comparisons list
7. Enter **a@** in the value field (note the wildcard character @ has been used to find all items whose code has **a** as the first character)
8. Click the *Query* button to perform the query

Before step 8, the window would look like this:

The screenshot shows a dialog box titled "Query in [item]". It features a settings gear icon, a "Create new selection" dropdown, and a "Recent queries" dropdown. The main area contains two search criteria: "Find: [item]default_pack_size" with a dropdown arrow, "is strictly greater than" with a dropdown arrow, and "10". Below this is "And" with a dropdown arrow, "[item]code" with a dropdown arrow, "is" with a dropdown arrow, and "a@". At the bottom right are "Cancel" and "Query" buttons.

The upper area of the query editor shows a summary of the query that is about to be performed.

This example will return a list of items where both the search criteria are met because the conjunction *And* was used. If you wanted to find items that matched only one of the criteria entered, you would click on the second line in the large upper panel to select it, and then click on the *Or* button where the conjunctions are displayed.

Saving and Using saved queries: If you have spent time on developing a particular query, and you are likely to use the same query in the future, click the *Save...* button. You will be asked to choose a name and location to save the query. The saved file is very small.

Then when a blank query window is first shown, you can click the *Load...* button and locating the saved query.

Thanks for working through the tutorial. We hope you learnt something useful, and now feel confident to start using mSupply!

Previous: [3.10. Entering quotations](#) | | Next: [3.12. Where to now?](#)

Last modified: 2021/07/04 22:51 by Dhanya





3.12. Where to now?

- Use the example database to experiment with different commands as you read about them in the user guide.
- Have a “dummy run” at starting a new data file and using it.
- Return to our main documentation page at www.docs.msupply.org.nz



Previous: [3.11. Working with lists](#) || Next: [4. Items](#)

Last modified: 2019/10/21 19:22 by Emily Porrello





User Guide



4. Items

- 4.01. About items**
- 4.02. Adding a new item
- 4.03. Item categories
- 4.04. Item master lists
- 4.05. Programs
- 4.06. Stock locations and location types
- 4.07. Building (manufacturing) items
- 4.08. Merging two items
- 4.09. Ad hoc items
- 4.10. Non-stock items
- 4.11. Managing drug interaction groups
- 4.12. Managing item access with Departments
- 4.13. Prices in mSupply
- 4.14. Repacking items
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- 4.16. Splitting a stock line
- 4.17. Stocktakes
- 4.18. Inventory adjustments
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- 4.21. Pickfaces and Replenishments setup
- 4.22. Pickfaces and Replenishments

Previous topic: [3. Tutorial](#) | | Next topic: [5. Customers and Suppliers](#)

Last modified: 2020/01/13 08:33 by lou



4.02. Adding a new item

There are different types of item in mSupply but this is the function you use to add them all. The different types are:

- **Normal:** This is the one you will nearly always use and is something which you can receive, distribute and hold stock of.
- **Cross reference:** This type of item is a pointer to a normal item. Whenever you select a cross reference it will be replaced with the normal item that it points to. In this way, you can use cross reference items to represent brand names (e.g. Panadol) or familiar names (e.g. "Cetamol" is used to refer to "Paracetamol" in Nepal) that actually refer to generic items.
- **Service:** These are items which do not have physical stock such as consultancy fees or other charges.

To add any type of item choose **Item > New item** from the menus (Note: this is **not** for adding actual stock, just details of the items themselves - to add stock see [7.01. Supplier invoices](#) or [7.02. Goods receipts](#)).

Tip

Don't be put off by the number of fields appearing on these windows! mSupply will operate satisfactorily after entries have been made in just the **Item code** and **Item name** fields for any item type. All the other fields can be regarded as optional extras, some or all of which you may use at some later date, or never. mSupply is very versatile!

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Normal items

Add item...

Type: normal

Item code: []

Item name: []

General | Stores | Master lists | Barcodes

Units: None

Category 1: []

Category 2: None

Category 3: None

Department: None

Default shelf location: []

Default pack size: 1

Default weight: 0

Price list:

Non stock item:

Default customer: []

Is a vaccine?:

Doses: []

Restricted to: None

VEN Category

Not assigned

Vital

Essential

Necessary

Stock category

Normal stock

Critical stock

Essential drug

Cancel OK & Next OK

Type: Select the type of item you want to add here. The field always defaults to *normal*.

Item code: This field is mandatory and is a short way of referring to and finding the item throughout mSupply. Any non-printable characters entered before or after the code (including spaces) will be removed. Any entered in the code (except spaces - spaces are allowed in item codes) will be replaced with an underscore (_). Item codes should be unique; mSupply will warn you if you try to enter an item code already in use by another item.

Item name: This field is also mandatory and is the name that the item will be known by throughout mSupply. It will appear in reports and displays, wherever the item is referred to. Any non-printable characters entered before or after the name will be removed. Any entered in the name will be replaced with an underscore (_).

These 3 fields are available to be filled in for every type of item.

You should decide on a clear scheme for item names and codes. This can be a tricky process but is worth persevering with. You can change your mind later but changing the codes of all the items and names in your datafile could be a time-consuming business.

We would recommend that the item code is systematic and can be worked out from the item's details e.g. first 3 letters of the item's name, 3 figures for the strength, a letter for the formulation then a letter or number for disambiguation if necessary. e.g. the code for Amoxicillin 500mg capsules could be amo500c.

For item names we would recommend again that you use generic names (no brands or familiar names - use cross reference items for those), be systematic and start with the broadest part of the name. For example, "Brody forceps" would be entered as "Forceps, brody", "Aqueous iodine" would be entered as "Iodine, aqueous". For pharmaceuticals we would recommend the name followed by the strength then the formulation e.g. Amoxicillin 500mg capsules.

You are, of course, free to choose your own schemes, these are just our recommendations and one way of doing it. There are many reasons for adopting other schemes and it is not necessary to know or remember item codes while using mSupply!

General tab

Units: The drop down list allows you to choose the appropriate units for the new item ; mSupply comes with a limited list of pre-defined units, but it is recommended that users define their own list. You will find more information in section [4.19. Units](#).

Category 1: Click on the magnifying glass to select the category 1 this item belongs to. Category 1 is hierarchical and needs to be setup before you can select them here. See [Item categories](#) for details on setting them up.

Category 2 and 3: Select the category 2 and 3 that this item belongs to. You must setup these categories before you can select them here - see [item categories](#) for details on doing that.

Department: Select the department the item belongs to. Departments are not a way of categorising items (use the other categories for that) but are for restricting access to items for different customers and are described in detail in section [4.12. Managing item access with Departments](#).

Default shelf location: This is the location in the store that the item is normally stored. It will be offered by default when the item is received into stock. Type as much of the location code or description (e.g. the first few characters) as you know, then press the *Tab* key. If only one location code matches your entry it will be filled in automatically, otherwise you will be shown a standard choice list like this:

Code	Description	Location type	Vol used	Vol Available
GS1	General store		0	0
CS2	Cold store 2		0	0
CS1	Cold store 1		0	0

Select the location you want by double-clicking its line or by clicking once on the line and then clicking *OK*.

Default pack size: This is the standard pack size that you use for comparing quotes from suppliers.

Default weight: The weight of the preferred pack size in kg.

Price list: If this box is checked, this item will be included when you produce price lists. If checked the item will also be included in the online catalogue. Refer [Price list](#).

Non stock item: If the item is something you do not normally keep in stock, but is passed straight to a customer, this box should be checked.

Default customer: This is the customer the item is sent to by default - used for non-stock items only. Type the first few characters of the customer's name and press the *Tab* key on the keyboard to select the customer you want.

VEN category: Select which WHO VEN category the item belongs to (one only) - used for reporting.

Stock category: Check each one of these that apply to your item (used for reporting):

- **Normal stock:** For practically all new entries this box should be checked; at a later date, should the item be removed from your formulary for instance, you would remove the check from this box.
- **Critical stock:** Should it be a requirement that you must never be out of stock of this item, this box should be checked.
- **Essential drug:** Check this box if the item is on your Essential Drugs List.

Doses: Enter the number of doses a single unit of this item provides. Used for vaccines and is only enterable if this is a vaccine checkbox is checked.

Is a vaccine: Check this if this item is a vaccine and you want mSupply to include it in the vaccine functionality (see the [mobile vaccine dispensing](#) page for details). When checked, a default value of 1 is entered in the **Doses** field.

Restricted to: The location type that this item must be restricted to. You can from a list of all active Location types. When something is selected here, all stock of this item that is received must be put in a location which is of the same location type. For example, all cool store locations could have been given a type of “cool” and then if the item you are editing should be kept in a cool store, choose that type here, and you will only be able to receive that item into a cool store location.

When you have added all the details for your new item, click on the **OK** button or, if you want to add another new item, the **OK & Next** button

If you have clicked **OK & Next** but don't want to add more items, press **Cancel**. Items previously added are still saved - just the details showing on the screen are not saved.

Stores tab

On this tab, you select which stores the item will be visible in:

The screenshot shows the 'Add item...' dialog box with the 'Stores' tab selected. At the top, there is a 'Type' dropdown menu set to 'normal', and input fields for 'Item code' and 'Item name'. Below the input fields are four tabs: 'General', 'Stores', 'Master lists', and 'Barcodes'. The 'Stores' tab is active, displaying a table with the following structure:

Store name	Visible in store
[Store Name]	<input type="checkbox"/>
[Store Name]	<input checked="" type="checkbox"/>
[Store Name]	<input type="checkbox"/>
[Store Name]	<input type="checkbox"/>
[Store Name]	<input type="checkbox"/>
[Store Name]	<input type="checkbox"/>
[Store Name]	<input type="checkbox"/>
[Store Name]	<input type="checkbox"/>
[Store Name]	<input type="checkbox"/>

At the top right of the table area, there is an 'All/None' checkbox. At the bottom of the dialog, there are three buttons: 'Cancel', 'OK & Next', and 'OK'.

Simply check the *Visible in store* checkbox against each store in the list you wish the item to be visible in (if an item is visible in a store then it can be used in that store). You can use the *All/None* checkbox to toggle selection of all stores or no stores.

Info

If the preference *Automatically update item visibility to match the master lists used by each store preference* (see General preferences) is turned on then the table in this tab will be replaced with some text telling you that visibility is controlled by master lists and not selecting store visibility directly. Use the *Master lists* tab (details below) in that case.

Master lists tab

On this tab, you select which master lists the item should be added to:

Add item...

Type: normal

Item code:

Item name:

General Stores Master lists Barcodes

Select the master lists to add the item to All/None

Master list name	Add to list
	<input type="checkbox"/>

Cancel OK & Next OK

Master lists can be used for many things in mSupply (e.g. controlling visibility of items in stores or determining which items appear on requisitions). See [Item master lists](#) for details of how to set them up and use them.

To add the new item to a master list simply check the *Add to list* checkbox against the particular master list in the table. Note that any master lists that have the *Automatically add new items to this master list* option checked will have their *Add to list* checkbox checked and you will not be able to uncheck it.

Barcodes tab

On this tab, you can add barcodes of the item that contain manufacturer and pack size information:

Add item...

Type: normal

Item code:

Item name:

General Stores Master lists Barcodes

Add Delete

Number	Barcode	Pack size	Parent	Manufacturer

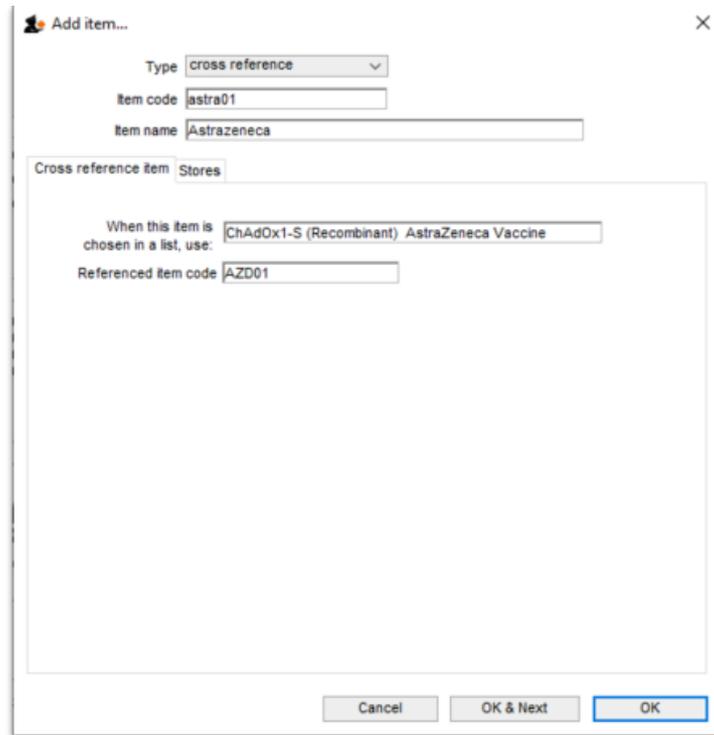
Cancel OK & Next OK

This information is used when using barcode scanners to help manage your pharmaceuticals. See [Adding barcodes](#) for details on setting them up.

Cross reference items

Cross reference items point to another item, they do not have stock themselves. Whenever the cross reference item is entered, it will be immediately replaced with the normal item it points to. This is useful for handling branded items or items with a common name that is more recognisable than its generic name. An example would be Aspirin for Acetylsalicylic acid or Panadol for Paracetamol.

To create a cross reference item select *cross reference* in the **Type** drop down list. The window changes slightly:



The screenshot shows a dialog box titled "Add item...". At the top, there is a "Type" dropdown menu set to "cross reference". Below it are three input fields: "Item code" with the value "astra01", "Item name" with the value "Astrazeneca", and a "Cross reference item Stores" section. This section contains a label "When this item is chosen in a list, use:" followed by a text box containing "ChAdOx1-S (Recombinant) AstraZeneca Vaccine". Below that is a "Referenced item code" field with the value "AZD01". At the bottom of the dialog are three buttons: "Cancel", "OK & Next", and "OK".

The **Item code** and **Item name** fields are the same as for a normal item (described [above](#)) but remember you're entering the details of the brand or familiar name in here!

Cross reference item tab

When this item is chosen in a list, use: Type the first few characters of the normal item you always want to replace the brand/familiar name with in this field. Then press the *Tab* key on the keyboard and select the item you want.

That's it, all done. After clicking the **OK** or **OK & Next** buttons, every time a user chooses the item you entered in the **Item name / Item code** fields it will be replaced with the item you entered in the **When this item is chosen in a list, use** field.

Stores tab

You select the stores the cross reference item will be visible in on this tab. It operates exactly the same as the Stores tab described [above](#) for normal items.

Note: cross reference items cannot be added to master lists so there is no Master lists tab. Their visibility cannot therefore be controlled by master lists but only by directly selecting the stores they are visible in on this stores tab.

Service items

Service items are those which have a price but no stock. You can use them to represent service or other charges that need to be handled.

To create a service item select *service* in the **Type** drop down list. **PLEASE NOTE:** the service option will not be available in this drop down list if the preference to allow service items has not been set. Please see [General preferences](#) for details.

The window changes slightly:

The screenshot shows a dialog box titled "Add service item...". It has a close button in the top right corner. The "Type" dropdown menu is set to "service". The "Item code" and "Item name" fields both contain "OxyRefl" and "Oxygen cylinder refill, large" respectively. There are two tabs: "Service item" and "Stores". The "Stores" tab is active and contains "Sell Price" and "Cost Price" text input fields, both set to "0.00". At the bottom are "Cancel", "OK & Next", and "OK" buttons.

The **Item code** and **Item name** fields are the same as for a normal item (described [above](#)).

Service item tab

Cost price: Enter the cost you buy this service (e.g. getting an oxygen cylinder refilled) for.

Sell price: Enter the price you charge when selling the service.

Neither of these fields is compulsory.

Stores tab

You select the stores the service item will be visible in on this tab. It operates exactly the same as the Stores tab described [above](#) for normal items.

Note: service items cannot be added to master lists so there is no Master lists tab. Their visibility cannot therefore be controlled by master lists but only by directly selecting the stores they are visible in on this stores tab.

Previous: [4.01. About items](#) | | Next: [4.03. Item categories](#)

Last modified: 2022/02/07 15:43 by Gary Willetts



4.03. Item categories

Item categories are a great way of grouping your items. This enables you, for example, to report on specific groups of products by filtering by item category. This can be extremely helpful.

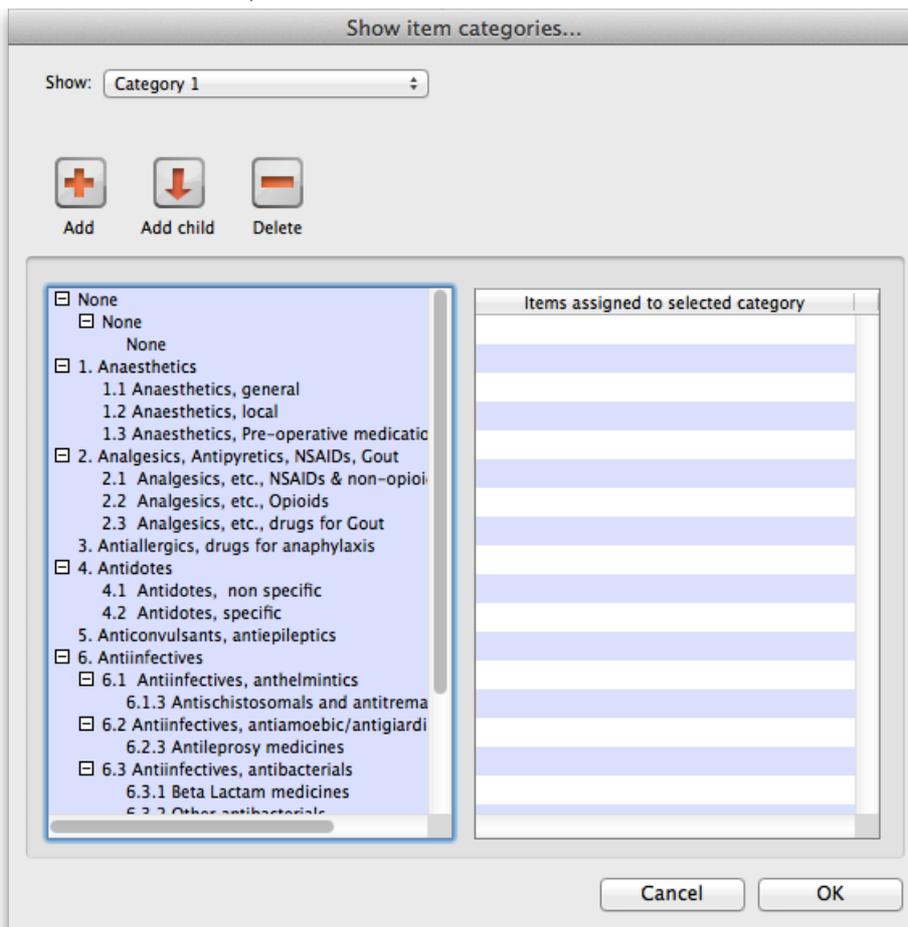
mSupply provides 4 different categories (called category 1, category 2, category 3 and VEN) for you to use. Category 2 and 3 are normal categories but 1 is a bit special - it's hierarchical and has 3 levels (level 1, 2 and 3. Level 1 is the top level, level 3 is the bottom). VEN refers to the WHO categories of Vital, Essential and Nonessential.

⚠ Important

Be careful not to get mixed up between the levels of category 1 (1, 2, and 3) and the different categories (1, 2, 3 and VEN) themselves here!

Category 1 categories

Selecting **Show Item Categories** from the **Item** menu opens the window appearing below, showing all the category 1 categories in their 3 levels by default (Note that the 3 "None" categories are default categories and cannot be renamed or removed):



In the screenshot you can see that "6.Antiinfectives" is a top level (level 1) category 3 category. It has 3 level 2 child categories: "6.1 Antiinfectives, anthelmintics", "6.2 Antiinfectives, antiamoebic/antigiardics" and "6.3 Antiinfectives, antibacterials". And level 2 category "6.2 Antiinfectives, antiamoebic/antigiardics" has a single level 3 category "Antileprosy medicines".

Clicking on any of the categories will show you which items are assigned to that category in the panel on the right hand side of the screenshot.

Adding category 1 categories

To add a category at level 1, 2 or 3, click on another category at the same level you want the new one to be, click on the *Add* button (or the *Add child* button if you want the new category to be a child of the category you selected) shown in the screenshot and the new level will appear at the bottom of the categories pane called "Click to edit" and already selected. Click on it once and type the category's name. When you're done click outside the

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- Category 1 categories
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category and that's it!

Editing category 1 categories

Renaming a category is simple. Click once on the category you want to rename to select it then click on it again to edit the name: the category will become a text box and you can type the new name. When you've finished editing the name, simply click outside the textbox (but inside the category pane) and the new name will be saved.

Changing the parent of a category is almost as simple. You simply click on the category once to select it then click on it again, drag it onto its new parent (or a sibling of the new parent) and let go of the mouse button. Two things to note here:

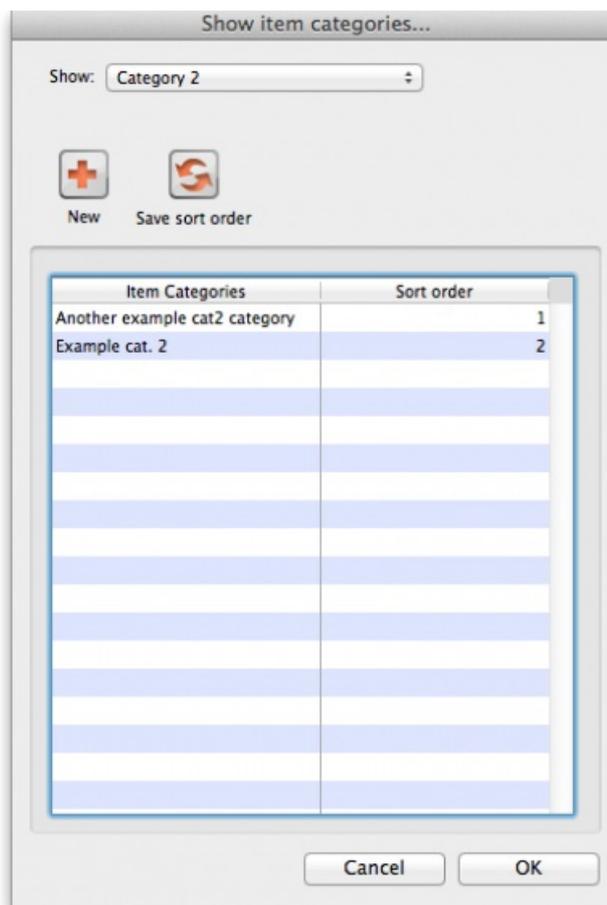
1. You can only move a category to a position at the same level. If it's a level 3 category then you can only drop it onto a level 2 category or another level 3 category. If you drag a level 3 category onto a level 1 category nothing will happen. For example: in the screenshot you could drag category "6.1 Antiinfectives, anthelmintics" onto category "1. Anaesthetics" or onto category "4.2 Antidotes, specific" and it would move (to become a child of category "1. Anaesthetics" or "4. Antidotes"). But if you dragged it onto category "6.2.3 Antileprosy medicines" it would not move (this is a level 3 category, 1 level below "6.1 Antiinfectives, anthelmintics" so the move is not allowed).
2. If you move a category which has any child categories, all the child categories will be moved too. For example: in the screenshot you could drag category "6.1 Antiinfectives, anthelmintics" onto category "4.2 Antidotes, specific" and it would move to become a child of category "4. Antidotes". It's child ("6.1.3 Antischistosomals...") would remain its child and become a grandchild of "4.2 Antidotes, specific".

Deleting category 1 categories

This is the simplest of all. Select the category you want to delete by clicking on it and then click on the *Delete* button. After confirming you want to delete the category it will be deleted. mSupply will not allow you to delete categories that have items assigned to them - it will warn you that you have to remove the items from the category first. See the Assigning items to categories section below for details on how to do this.

Category 2 and 3 categories

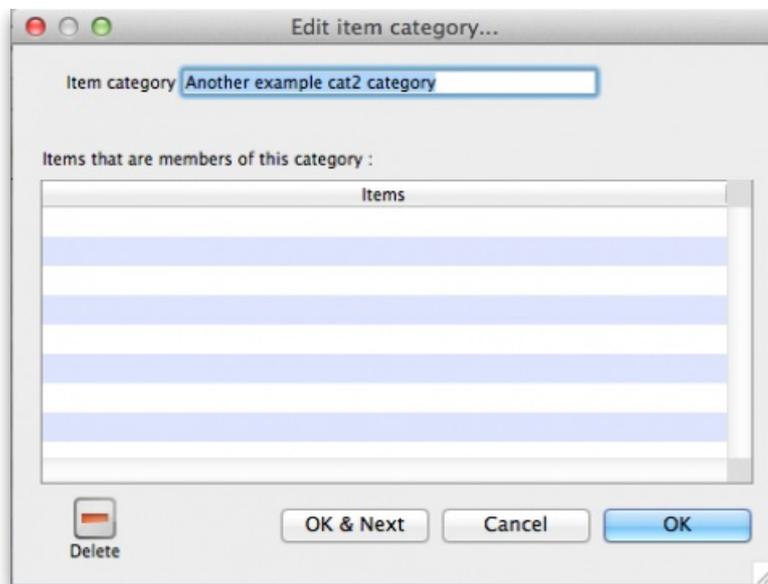
Category 2 and 3 categories are simpler - they are not hierarchical. To view the category 2 or 3 item categories select **Show Item Categories** from the **Item** menu and change the *Show* drop down list at the top of the window to "Category 2" or "Category 3" and the window will change to look like the screenshot below:



The window shows a list of the existing categories of this type.

Save sort order button: The sort order of the categories is the order they will appear in the list when you are assigning items to the categories (see the Assigning items to categories section below) or when you're selecting them in a filter e.g. for a report. You can drag the categories up and down the list to give them the order you want them to appear in. When you are happy with the order, click on the **Save sort order** button and the order will be saved.

New button: Clicking on this will take you to the edit category window shown below:



Simply type the name of the category shown in the *Item category* textbox and click on the *OK* button to create the new category

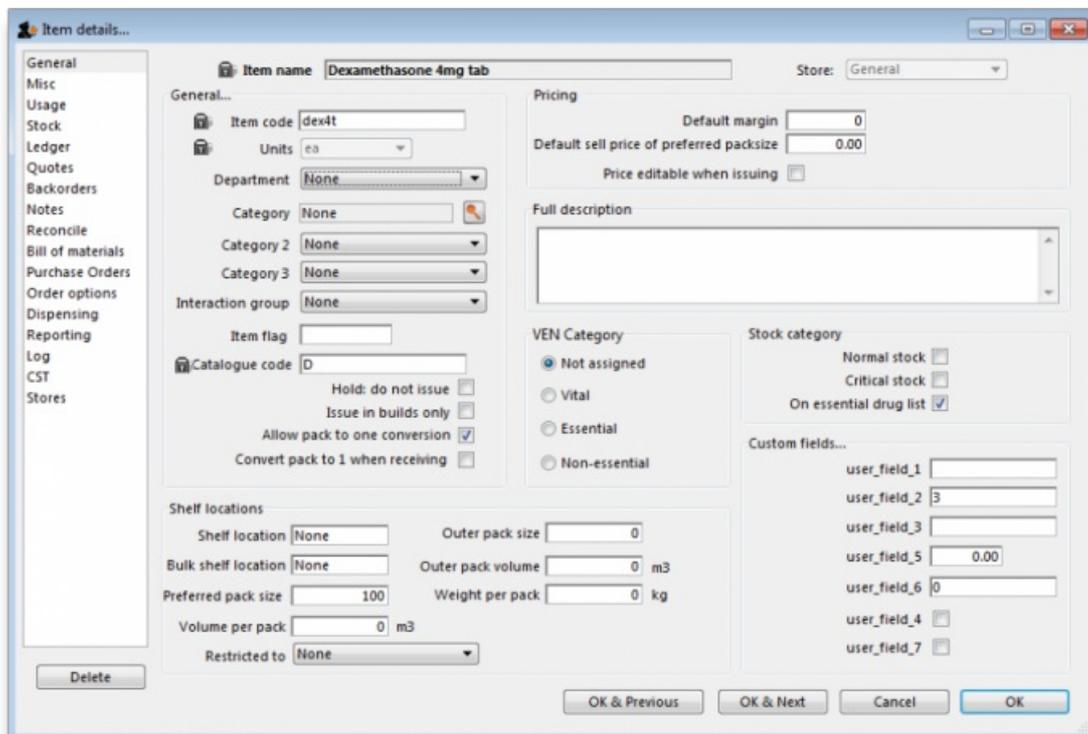
If you double click on a category in the list you will also be taken to the edit category window where you can edit the category's name, see which items have been assigned to the category, delete the category (click on the *Delete* button).

VEN category

Refer [VEN category](#)

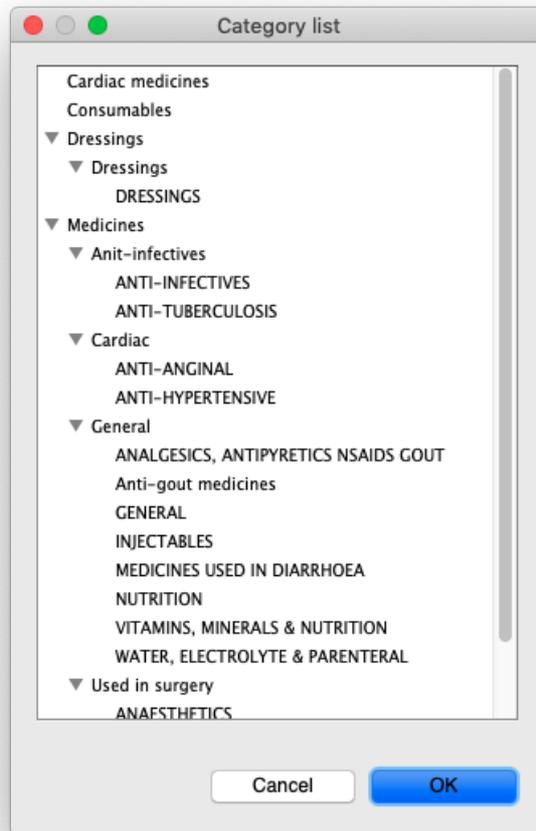
Assigning items to categories

Once you have set up the categories, all items can be assigned to their appropriate category. This is performed on the *Item details* window under the *General* tab (get here from File > Show items, click on the *Find* button and double click on the item you want to add to a category):



To assign the item to a category 2 or category 3 category, select the correct category from the *Category2* or *Category 3* drop down lists.

To assign the item to a category 1 category click on the magnifying glass next to the *Category* box. The following window will open:



Info

- If the item is already assigned to a category then that category is highlighted in the list
- If you want to change the item's category, simply select the level 3 (bottom level) category you want to assign the item to, and click on the OK button. (You will be alerted if you attempt to select a higher-level category.)
- If you want to *remove* the item from all category 1 categories, select the level 3 "None" category in the list.

Tip

You can assign an item to a category 1, 2 and 3 category at the same time.

Previous: [4.02. Adding a new item](#) | Next: [4.04. Item master lists](#)

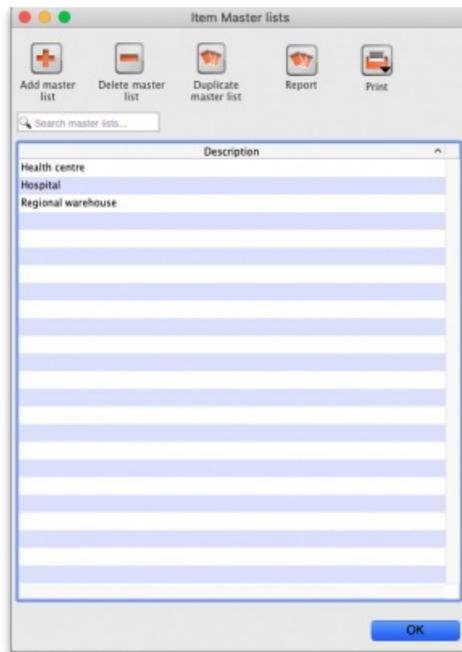
Last modified: 2021/09/02 01:24 by Mark Glover

4.04. Item master lists

Updated: Version 3.1

Master lists are standard lists of items you would supply to wards, clinics, etc. on a regular basis. Once set up, a master lists can be assigned to customers or [Virtual stores](#), and then used to support [Stock Control](#) including [imprest](#) orders. Master Lists are useful to stores which have a number of customers or virtual stores that they supply whose lists of stock items are either identical or very similar.

Choosing the **Item > Show item master lists...** menu item or clicking on the **Master lists** button  on the *Item* tab of the navigator displays a list of the current master lists in your datafile in this window:



Important

Master lists can only be managed (created, deleted, edited, applied to stores or customers) on the Central Server

Buttons on the Show master lists window

Add master list

Click on the *Add Master List* button and you are presented with this window:

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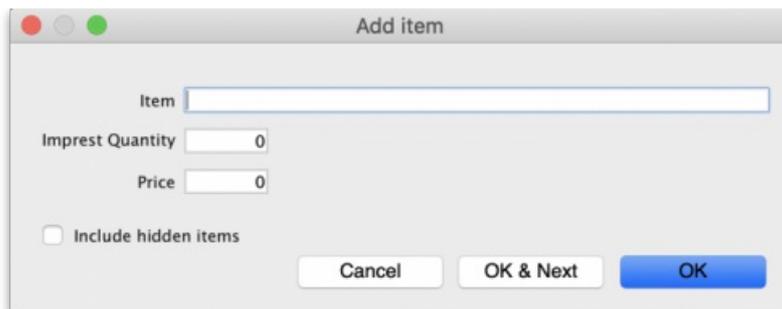
[Using master lists to control item visibility in stores](#)

[Master list Tips](#)

Buttons on the Master list window

Add item

You then populate the list with the required items by clicking the **Add Item** button:



- On entering the first few characters of the item to be ordered and pressing the Tab key, the (by now!) familiar list will appear from which the desired item is selected by double-clicking.
- If the imprest system is used in your organisation, the quantity is entered in the *Imprest Quantity* field. If the imprest system is not being used, you don't have to enter anything in this field.
- If you want this list to determine the price of this item for customers using it, the price is entered in the *Price* field. If not, no entry is required in this field.

Remove item(s)

To remove one or more items from the master list, select (click) the row(s) and then click on the **Remove item(s)** button.

Save sort order

- The order in which the items are ordered dictates the order in which they populate various transaction forms in mSupply.
- Clicking on any of the column headings allows you to sort the list according to that heading.
- You also have the ability to click on an item in the list, and drag it to a new position.
- Once you are happy with the sort order, click this button to save the order.

Copy to clipboard

The master list is copied to the clipboard when this button is clicked so that you can paste it into other applications on your computer e.g. a word processor or spreadsheet application.

Update prices to 12 month average

Also only visible if the **Use program pricing** preference is turned on (see the [15.03. Invoice preferences](#) page for details). When you click this button, mSupply calculates a weighted average price for each item from all the cost prices on all supplier invoice lines that were confirmed in the 12 months previous to the current day for each item. That calculated price is then shown for each item in the *Price* column. When you click on the **OK** or **OK & Next** buttons these prices will be saved on the master list, if you click on the **Cancel** button the prices will revert to what they were before. mSupply will create logs when the function is run so that you have a record of the old and new prices - see the [25.19. The system log](#) page for details on viewing the logs.

Import item list

You can import a list of items created elsewhere e.g. an accounting application or a spreadsheet. This can save you a lot of time when creating a master list!

The file to be imported must be tab delimited text file, which is most easily created in a spreadsheet. The file must contain columns in this order:

- **Item code** Must match an existing item code.

Tip

If you are *not* importing imprest quantity or price, then this is the only column needed. The following columns are not required.

- **Item name** For information purposes only and is not actually imported. You can leave this column blank if you like, however, if you are importing imprest and / or price data, then you must include the column, it's just that the entries can be blank.
- **Imprest quantity** Optional and can be left blank. You would leave the entries blank if the master list is not going to be used for an imprest.
- **Price** Optional and can be left blank. You would leave the entries blank if the master list is not going to be used for pricing

Records in the file are, of course, separated by the end of line character, which will be created by the spreadsheet when you save the file as a **Text (Tab delimited)** format.

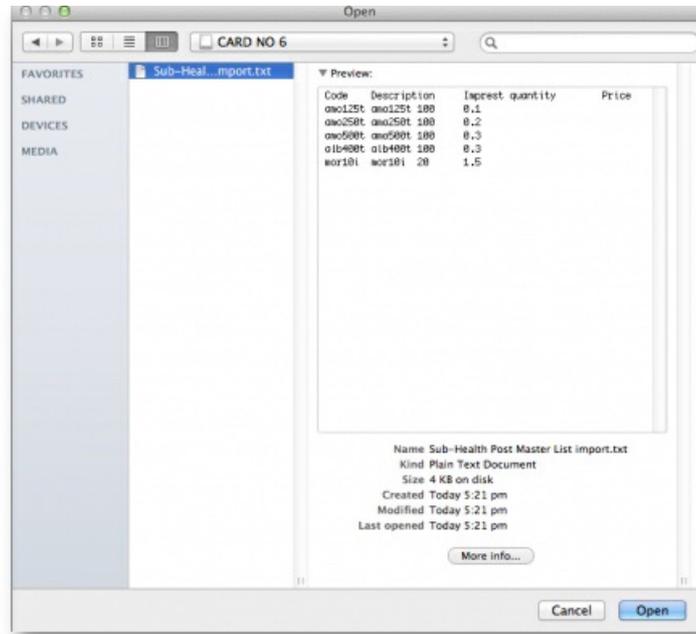
For example:

Item code	Item name	Imprest quantity	Price
amo250t	amoxycillin 250mg tab	800	4.50
amo500t	amoxycillin 500mg tab	300	5.50

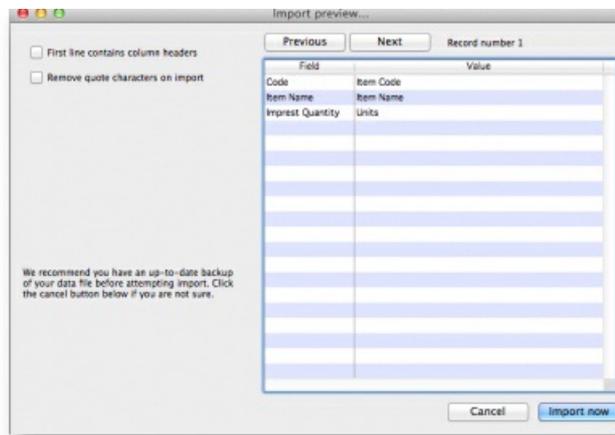
Clicking on the *Import item list* button takes you to a prompt:



after which you can select the file:



And then the import preview dialog box is displayed:



On this screen you use the *Next* and *Previous* buttons to move through the records and see what details will be imported for each. The *First line contains column headers* tells mSupply whether to ignore the first record in the import file (checked = ignore first line of file). The first record in the import file often contains headers describing the fields in each record, not actual data.

The *Remove quote characters on import* checkbox, if checked, tells mSupply® to strip all " characters from the data. This is recommended. In fact, this option can be selected anyway without detriment to the import.

⚠ Important

- Any new items on in the import will be added to the end of the master list.
- If you import items that are already on the master list, they will not be added to the end of the list. The existing entries will have their **Imprest Quantity** and **Price** details *updated* with the imported values.

Clicking the *Import now* button executes the import with the settings you made and takes you back to the master list screen with the imported items now showing in your master list.

The *Cancel* button also takes you back to the master list screen but, obviously, does not execute the import.

Search field

If you need to find a specific item in the master list you can type something in the *Search items* field just below the buttons. Only the items in the list with a name or code that contains what you typed will be shown, all others will be hidden.

Tabs the Master list window

Items

Shows the list of items on the master list.

In use by

Shows which customers the master list has been assigned to (see below).

Delete master list

From the *Item Master lists* window, selecting the *Delete Master List* button allows you to delete a list which is no longer required.

Alert

- This action has significant consequences for any customers who are users of the list. So to prevent accidental deletion, this action cannot be completed until any customers who are users of it have their association with it removed.
- To find out which customers and stores the list is assigned to, open the master list and click on the *In use by* tab. If the list on this tab is empty, you will be able to remove the master list. Refer to the [Assigning a list to a customer](#) section below and the [25.08. Virtual stores](#) page to remove the master lists from customers and stores respectively.

+

Duplicate master list

Should you wish to create a Master list which is very similar to an existing one, click on this icon, and a new Master list with the same name (description) but with '(Copy)' appended to it is created; this can then be edited and renamed to suit your requirements.

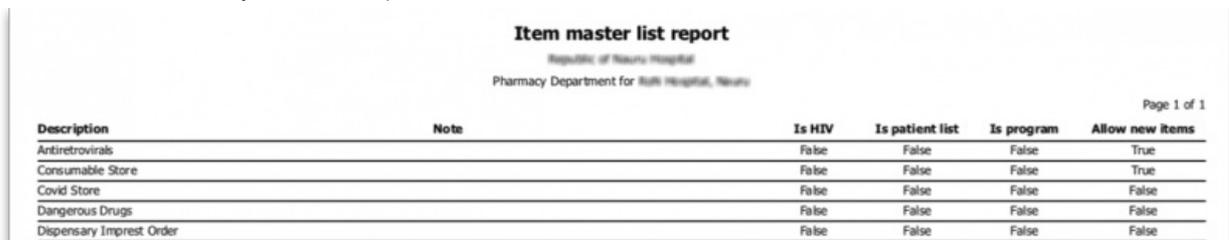
Report

To create a custom master list report, click on the **Report** button on the Master list window. This will open the custom report editor and you can create your custom report there.

Print

To generate a built-in report based on all the master lists in the list, click on the **Print** button on the Master list window. You will be given the following options:

- **General:** This report shows some of the simple settings for all the master lists (whether it is a program, whether it is a patient list, whether it will have new items automatically added to it etc.)



The screenshot shows a report titled "Item master list report" from the Republic of Neuro Hospital, Pharmacy Department for Roth Hospital, Neuro. The report is on page 1 of 1. It contains a table with the following columns: Description, Note, Is HIV, Is patient list, Is program, and Allow new items. The rows are: Antiretrovirals, Consumable Store, Covid Store, Dangerous Drugs, and Dispensary Imprest Order.

Description	Note	Is HIV	Is patient list	Is program	Allow new items
Antiretrovirals		False	False	False	True
Consumable Store		False	False	False	True
Covid Store		False	False	False	False
Dangerous Drugs		False	False	False	False
Dispensary Imprest Order		False	False	False	False

- **Cross tab: Item vs Master list:** Opens directly in Excel. The rows are all the items on master lists, the columns are all the master lists and the cells contain Yes if the item is on that master list.

A1 fx Cross tab: Items vs Master list report

		Cross tab: Items vs Master list report													
		Item Master Lists													
		Anitretrovirals	Consumable Store	Covid Store	Dangerous Drugs	Dispensary Imprest Order	Drugs stored in fridge	duplicates of - Pharmacy - All items	Inhaler and Inhalation Solution	Injectables	Liquid Preparations	MCD - All Items	Oral Tablets	Pharmacy - All Items	
Item code	Item name														
Back Support XL	BB Pro Safety Back Support Belt														
NCW100	Combène Roll, 10cmx10cm														
NCW101	Combène Roll, 20cmx10cm N/Wov 3rd-Wrap														
Comone	Combène Roll, 30cmx10cm N/Wov 3rd-Wrap														
Dressing	Comfrel ADH Ulcer J0X100cm Plus Transpar														
DressingDUP20	Cura Salt Sodium Chloride, packing strip 1.2x4.5														
DressingDUP1	CuraSalt sea/Chloride, soft														
DressingDUP17	Dress Alginate H 15cm x 20cm														Yes
DressingDUP15	Dress Alginate H 5cm x 5cm														Yes

- **Items without master list:** This shows all the items in your datafile that are not included on any master list.

A1 fx Items don't exist in the item master list

Items don't exist in the item master list										
Item code	Item name	Unit	Pack size	Universal code	Weight	Department	Category	VEN Category	Flag	
PKC□□□			0		0					
I			0		0					
b aC			0		0					
□□(Content_Type)			0		0					
DenatedDUP17	acetaminophen 250mg	tab.	1			0 Un-used Item	3.1 Non-opioid Analgesics,Antipyretics,NSAIDs			
DenatedDUP08	acetaminophen 650mg	tab.	1			0 medicines	3.1 Non-opioid Analgesics,Antipyretics,NSAIDs			
DenatedDUP38	Acetaminophen oral liq 160mg/5mL	mL	1			0 Un-used Item	3.1 Non-opioid Analgesics,Antipyretics,NSAIDs			
DenatedDUP111	Acetaminophen syrup 244mg/mL, 60mL	mL	1			0 Un-used Item	3.1 Non-opioid Analgesics,Antipyretics,NSAIDs			
DenatedDUP94	Acetaminophen tab 325mg - D	tab.	1			0 medicines				
AUR001	Acetic Acid ear drop 1%, 35mL	bot	1			0 medicines	21. Topical Otic Medication			bot
aceticacid	Acetic Acid solution		1			1				
TW0UP9	Acetylcysteine 100mg/pack - TW		1			0 medicines				
asp200cap	Acetylsalicylic acid/Clopidogrel SR cap 25mg/200mg	cap.	60			0 medicines	10.2 Anti-coagulants			cap
ac250inj	Aciclovir powder for inj 250mg	amp	5			0 medicines				amp

Assigning a list to a customer

To assign a list to a customer, the customer's details need to be on screen; Choose **Customer > Show customers**, or using the Navigator, select *Show customers*, fill in the appropriate details, and press *Find*, or just press *Find*, then double click the entry required on the *Names list*

Once the desired customer's *Edit Customer/Supplier* window appears click on the *Item Lists* tab.

Buttons in the Item Lists section:

- **Add Master list:** Click this to select a master list to add to the customer from a list of all master lists which have been created.

- **Delete list:** Select a master list and click on this button to un-assign it from this customer. The master list remains in mSupply, it is not deleted.

When operating multiple stores in mSupply, you can sometimes have difficulty with item visibility: an item might be on a master list for a particular customer but if the item is not visible in the store you are logged into when using the list, then the item will not appear.

A temporary fix can be achieved by setting the item visibility in a particular store to match an item list - refer the [Visibility tab](#). This is only a temporary fix. If you add a new item to a master list, the visibility of that item in the stores using that list will not be updated.

To avoid this problem, you can set a preference (see [here](#) for details) to have the visibility of items on lists altered to match the visibility of the name for which the lists are made.

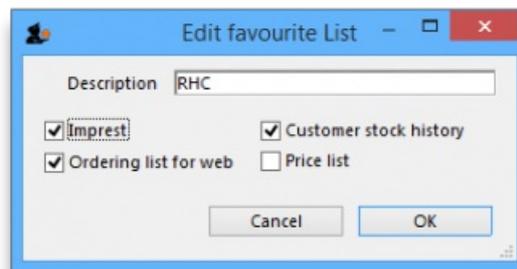
- **Printing:**

- Before printing, choose either *Sort by Group* or *Sort by department*
- Choose whether to send to Excel® or your printer.
- Click **Generate**

Information button

Edit list properties

The attributes of a list are set by double clicking on the name of the list. This window is displayed:



The options should be checked as appropriate:

- **Imprest:** If checked, this list will populate an [imprest customer stock history](#) created for the customer.
- **Customer stock history:** If checked, this list will populate a [customer stock history](#) created for the customer.
- **Ordering list for web:** Means that the list represents all items that the customer can order using the [mSupply Customer interface](#). If a customer who uses the customer interface for ordering stock does not have a list with this option checked, they will not be able to order any items.
- **Price list:** Means that the prices on this list will be used for these items when they are being distributed to this customer on a customer invoice. The price on this list will override any sell prices that individual stock lines have. Only one list can have this option checked for each customer.

Using master lists to control item visibility in stores

You can use master lists to control item visibility in each store. This will make the items visible in each individual store match exactly the items included in the master list(s) selected for that store.

Alert

**Control of item visibility by master list can have drastic unintended consequences!
It affects ALL stores in the system.**

- Do not turn it on unless you know what you are doing!

Important

One unintended consequence: An mSupply store can only order from another mSupply store those items that are on master lists which have been assigned to *both* stores.

For example:

Central store has the following master lists assigned:

- **All items** (includes all items in the system)
- **HIV items**

Kathmandu store has the following master lists assigned:

- **HIV items**
- **TB items**

Kathmandu store tries to place order from the **Central store** for:

- Items on the **HIV items** master list. This **succeeds**, because both stores have been assigned the **HIV items** master list.
- Items on the **TB items** master list. This **fails** because the **TB items** master list has not been assigned to the **Central store**, *even though* the TB items are all included in the **All items** master list .

Procedure - item visibility

For example, let's say there are 100 stores, and you want all of them to have the same item visibility:

1. Create a master list and add some items
2. Go to each store and make sure that the master list is selected
3. Turn on the [preference](#):

Automatically update item visibility in all stores to match master lists used by each store

Info

A temporary list is created for each store containing items that cannot be removed from visibility when the master list preference is activated, normally because there is stock of the item in the store.

4. Now whenever an item is added or removed from this master list, the preference will automatically update the visibility for all of the 100 stores, so that the items visible for each individual store matches the items included in the master list.
5. Adding an item to a master list will automatically add that item to visibility for all stores using that master list
6. Deleting an item from a master list will automatically remove that item from visibility for each store using that master list, given it is not included in another master list in use by each store respectively.

Important

When deleting items from a master list, mSupply will first check all stores using the master list to make sure it is safe to remove that item. It is unsafe if the item has *stock on hand and isn't included in another master list* for any stores using master list you are editing.

Tip

If you've been running your mSupply for some time without controlling item visibility by master list and you now want to move to it, you will likely want to start by creating a master list containing **ALL items** and applying visibility to all existing stores according to that **ALL items** master list. Then, over time, different master lists can be created and applied to those existing stores.

To create a **ALL items** master list, you can export all items, and then import them to the master list, refer [above](#).

Master list Tips

Creating a re-ordered master list

You may need to create a new master list which is similar to an existing one, but with significant changes, including, particularly, changing the sort order.

Small master list:

If this is a small list, this is relatively easily achievable by:

1. Select 'source' master list
2. Duplicate it to the new master list
3. Add any new items to the temporary master list
4. Re-organise the list to the desired sort order

Large master list:

However, if the list is a long one, then the re-organising can be extremely tedious, especially over a dodgy internet connection to the Central server (editing master lists must happen on the Central Server)! This is best achieved by:

1. Select 'source' master list
2. **Duplicate** it to a temporary master list
3. Add any new items to the temporary master list
4. **Copy to clipboard** (using button)
5. Open a blank Excel sheet and Paste the clipboard in to cell A1
6. Delete the first four lines in the spreadsheet
7. [Filter](#) the table of data
8. Do the necessary edits including any re-ordering
9. Save as a tab separated values text file
10. Back in mSupply, create your new master list from scratch (**Add master list** button).
11. **Import master list** (using button)
12. Once you've verified that it worked the way you wanted it to, **Delete** the temporary master list

Re-order existing master list

This method can even be used to effectively re-order an existing master list, but be careful; stop any syncing if in a synced system, and take a backup of your datafile before embarking on this:

Method 1:

1. Stop syncing (if in a synced system) and make a backup.
2. Create your new, correctly ordered master list as described above.
3. Assign this list to all the same names as the original master list was assigned to.
4. Unassign the original master list to all names
5. Delete the original master list
6. Rename new list

Method 2:

1. Stop syncing (if in a synced system) and make a backup.
2. Create the tab delimited text file for your new, correctly ordered master list as described above.
3. Delete all but one of the items on the original master list. This one item is ideally the item that will be at the 'top' of the reordered list.
4. Import the tab delimited text file to the original master list.

This is scarier (deleting items of master lists is a big deal), but avoids the need for steps 3 - 6 of Method 1.

Previous: [4.03. Item categories](#) | | Next: [4.05. Programs](#)

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4.05. Programs

There are a number of ways of modelling programs in mSupply:

- completely separate sets of virtual stores for each program (see section [22.08. Virtual stores](#))
- tag stock with different program labels in the same store (see section [7.06. Custom stock fields](#))
- use the donor field as the program label (see section [7.07. Managing donors](#))
- and probably a few more ways you can think of!

You can also manage requisitions by program. This involves using some special settings for master lists. In this method, a program is an extension to a [master list](#). A program includes a standard list of items as well as:

- **Order Types:** defined categories setting the maximum number of orders and quantity of stock to be ordered per period.
- **Period Schedules:** defined time intervals when orders can be placed; [schedules and periods](#) must be set up before creating programs.
- **Regimen Data:** a defined list of additional information that may need to be provided by a customer when making a program requisition.

Examples of items commonly managed by programs include malaria, HIV and tuberculosis medicines and medical supplies.

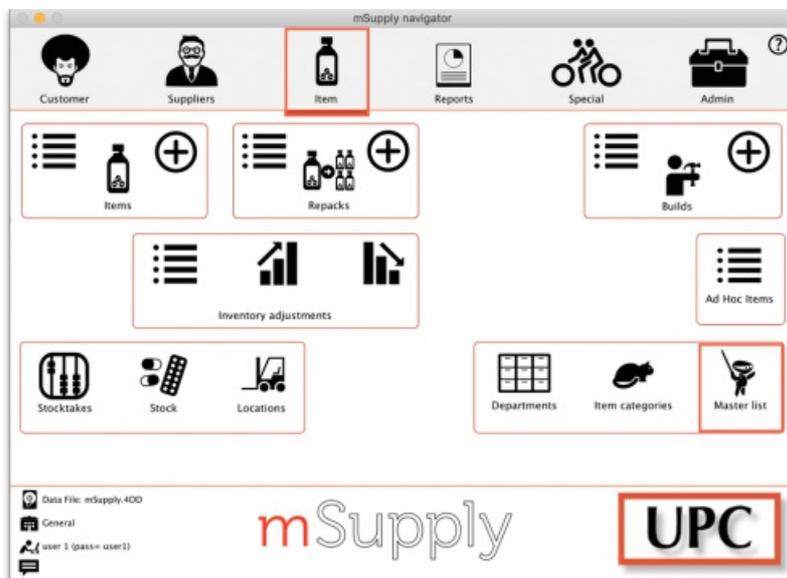
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-
- [4.05.01. Creating a program](#)
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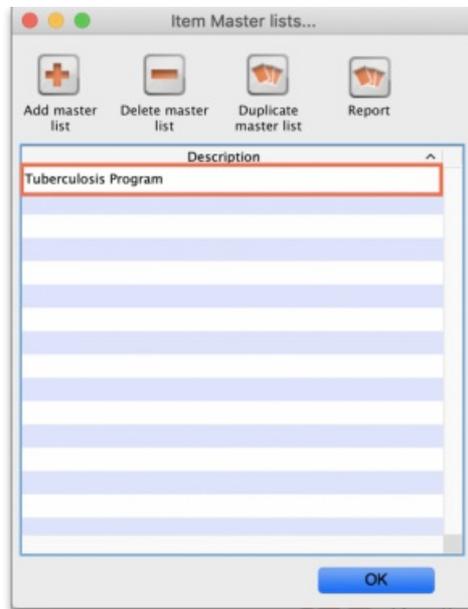
4.05.01. Creating a program

A program is defined by additional settings made to a master list:

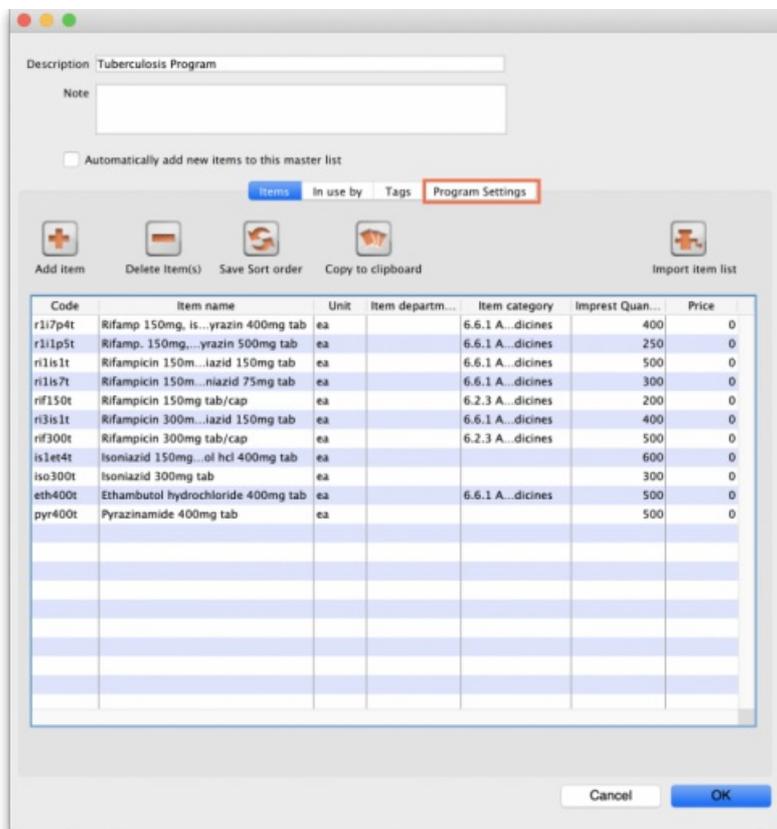
1. Navigate to the **Item** tab and click the **Master List** icon:



2. Double-click on a master list to open it (or [create a new master list](#)):



3. The Master list details window opens. Click on the **Program Settings** tab:



4. This shows all the settings available for a program:

5. Tick the **This master list is a program** checkbox to enable the program based features for this master list.

- Create a *Store tag* for the program by clicking on the button just above the *Store tag* section.
- The **Tag** field will be automatically populated with a new tag. Edit this new tag name and click on the button.
- The field then becomes a drop down list which will contain any existing name tags for you to select. The tick button also becomes a modify button . If you click it you will be able to edit the tag name you just entered.
- When you click on the **OK** button any new tags you have created will be saved and will appear in the name tags list (see the [5.05. Name tags](#) page for details). Note, you can edit the tags entered here **until** you close this window. After that, you cannot edit existing ones, you can only delete them and add new ones.

Any customers or stores that have a name tag matching the tag you set here will be able to use this **program** and the **schedule** you have set for that tag.

Info

You can define multiple tags for each program.

For each tag, you set up both a **schedule** and order types- so for one program, you can have different facilities on different schedules

6. Select the **Period Schedule** from the dropdown list (you must have set the periods up first):

7. For each period schedule, one or more **Order Types** can be created - these set the parameters for program requisitions. Add order types by clicking the plus icon.

8. Give each order type a unique name and set its parameters:

- **Emergency:** check this box if the order type is for emergencies.
- **Max orders per period:** maximum number of orders that can be placed in a given period.
- **Max MOS:** maximum number of months' stock to be kept for each item. Used in the calculation of the suggested amount to order.
- **Threshold MOS:** items with a number of months' stock less than this value will appear in the order by default.

- **Max lines:** maximum number of items allowed to be ordered for an emergency order (default = 5); an alert will appear if the user tries to exceed the maximum number of items allowed.

4.05.02. Adding indicators to a program

Indicators are used for reporting on the performance of programs (drug regimens). Each indicator value provides data on a metric for a particular store and regimen over a given period. Indicator values are recorded while creating a program requisition.

Indicators allow an organisation to analyse regimen performance and determine what further data should be collected, stored and processed.

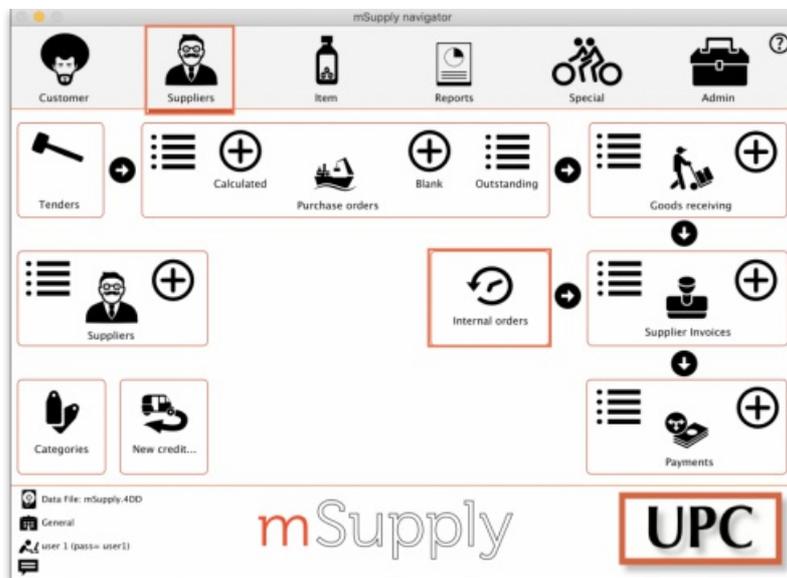
To add indicators to a program:

- Open the program via the **Master List** (Click on the **Master list** icon on the *Item* tab of the Navigator).
- Click on the **Program Settings** tab.
- In the **Regimen Data** table add fields for the data that should be provided to the supplier with each program requisition e.g. the number of patients treated.
- Check the **HIV program** checkbox if you want a fixed set of HIV-related indicators to be entered for this program.
- If the customer **must** provide this information for supply to occur, tick **thels required?** box to make this a mandatory requirement.

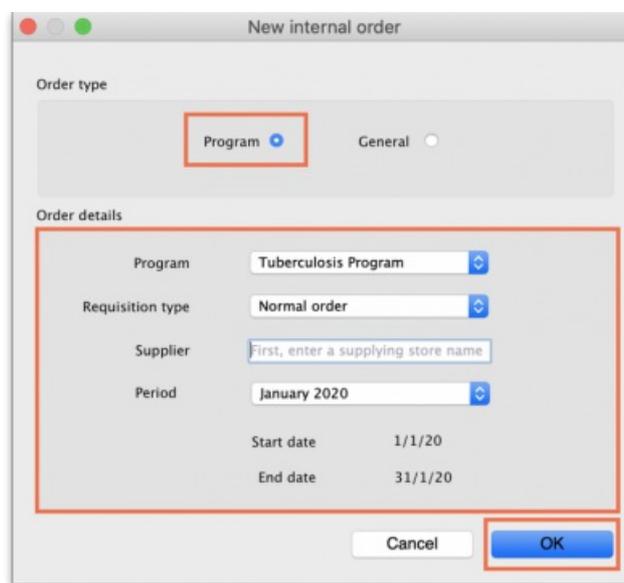
4.05.03 Connecting a program to a store

To allow a store to place program requisitions:

1. Navigate to the **Special** tab and click on the **Stores** icon:



2. Click **New Internal Order**. When a store uses programs, they will have the option to create a **Program** order or **General** (regular) order:



Check the **Program** button to create a program requisition.

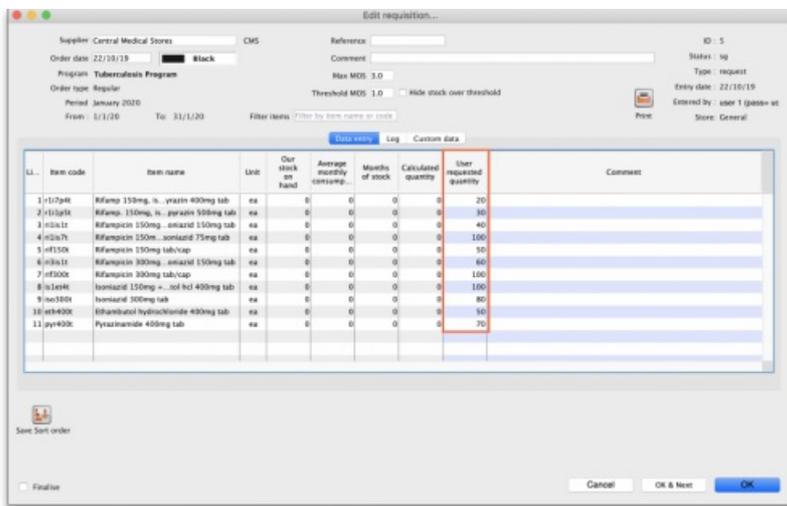
3. In the **Order Details** section, select the **Program**, **Requisition Type** and **Period** from the dropdown lists. Enter the **Supplier** by typing the first few letters, pressing **Tab** and selecting the supplier from the list of those starting with what you typed. These details need to be entered sequentially as the program uses them to determine the requisition type, which in turn determines the period.

Tip

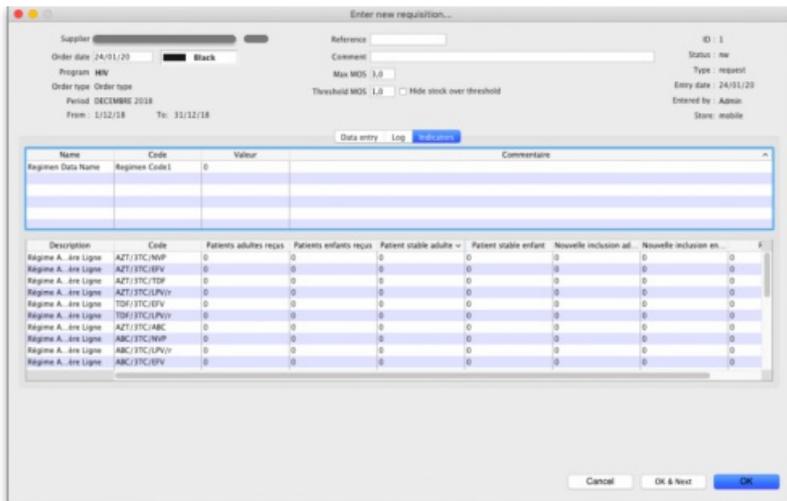
The **maximum number of program orders** that can be requested within a given period is set when the program is created (*Max. orders per period*).

If you try to create another order for the same period which **exceeds the maximum number**, an error message will appear and you will not be able to proceed.

4. Click **OK** to generate an internal order with all the items listed in the program master list. The details relating to the program order are in the top left. Review the data in the table, then enter the quantity of stock to be ordered in the **User requested quantity** column:

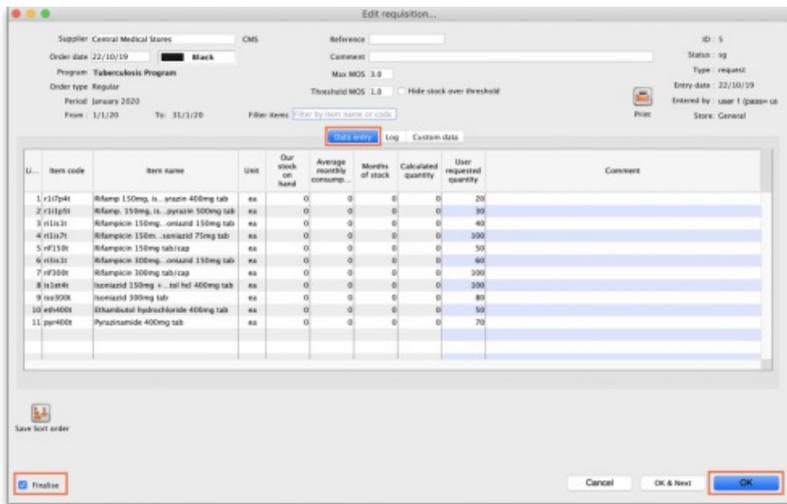


5. Click the **Indicators** tab to enter the additional data defined for the program:



This data will be sent to the supplier with the requisition when the requisition is finalised.

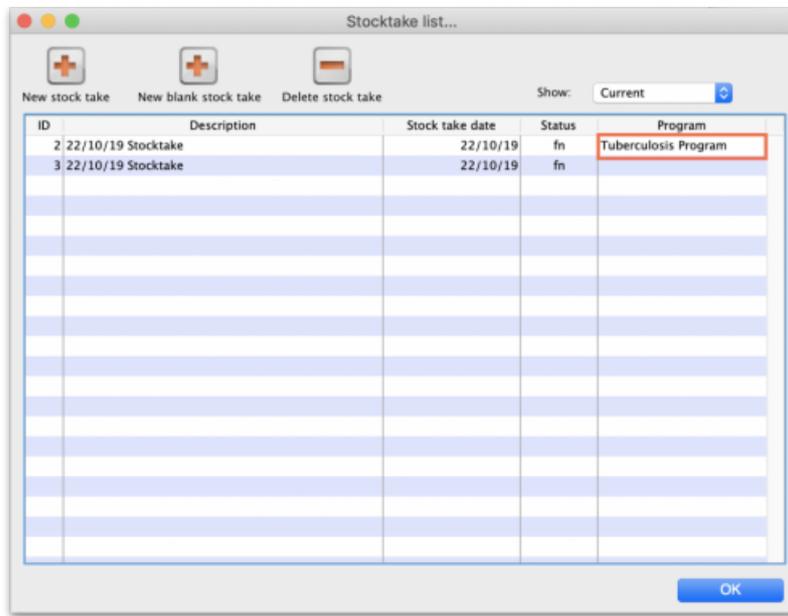
6. To send the program requisition to the supplier, return to the **Data Entry** tab, check the **Finalise** box and click **OK**.



4.05.05. Creating a program stocktake

Creating a stocktake with items from a particular program is just the same as creating a normal stocktake. The only difference is that you select the program in the **Master list** (or **Program**) filter:

1. Navigate to the **Item** tab and click the **Stocktakes** icon:



Previous: [4.04. Item master lists](#) | | Next: [4.06. Stock locations and location types](#)

Last modified: 2022/03/07 10:39 by Gary Willetts



mSupply documentation wiki



4.06. Stock locations and location types

Keeping track of where stock is in your store is an important part of good warehouse practice. You don't want to have to go hunting through your whole store for stock, wasting time and energy when mSupply can tell you exactly where it is!

Locations in mSupply are the places you store stock. Locations can have types (e.g. normal, cold, bulk...) to help you categorise them or to make sure that items are put away in the right type of location (e.g. cold or secure storage, or a particular section of the warehouse).

⚠ Important

If you use **location types** it will help you if they are defined before the **locations** that belong to them otherwise they won't be available to select when defining a location - and you'll have to go back later and edit the locations. What a waste of time! So this section explains location types first and then goes on to explain about locations.

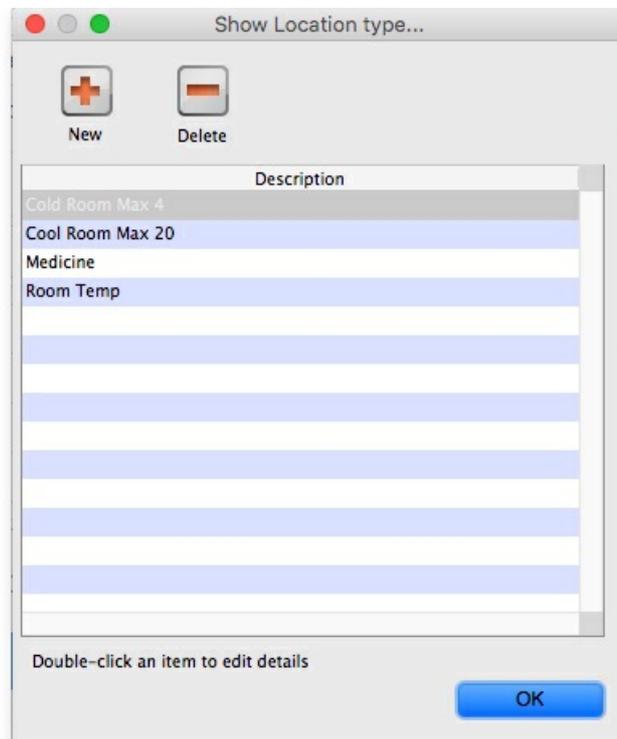
Location types

Location types give you the ability to categorise your locations.

They can be used for reporting on a group of locations, but also to restrict the locations that can be used for a particular item.

If you want to restrict items to being put away in locations with a certain type, you need to assign items the matching location type. For details on doing that see the [4.01.02. Items - Storage tab](#) page.

Choose *Item* > *Show location types* to define or show a list of available location types.



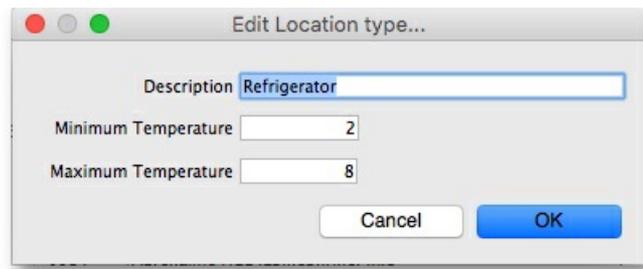
The window that appears allows you to define the criteria for the various types of location in your store - e.g. the permitted temperature range, whether location must be dark, etc.

Adding a location type

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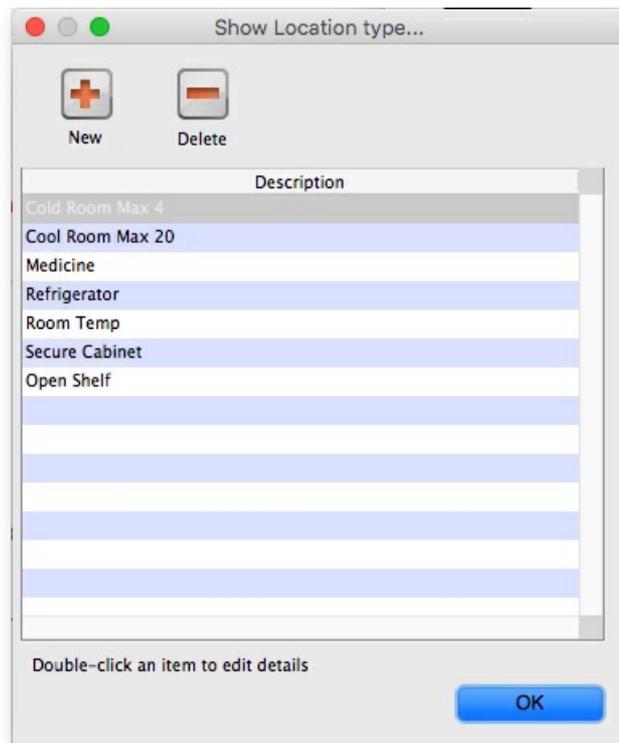
- Location types
 - [Adding a location type](#)
 - [Editing a location type](#)
- Locations
 - [Viewing locations](#)
 - [Adding a location](#)
 - [Viewing and editing a location](#)
 - [Deleting a location](#)
- Merging two locations
- Location types
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 - [Editing a location type](#)
- Locations
 - [Viewing locations](#)
 - [Adding a location](#)
 - [Viewing and editing a location](#)
 - [Deleting a location](#)
- Merging two locations

Click on *New* , and the window that appears allows you to enter a name for the storage type, and the permitted conditions pertaining to that storage type.:



In the above example, a storage type “Refrigerator” has been defined, the permitted range of temperature being 2° C - 8° C.

Having defined your storage types, the *Show location types* window might look like this:



It is worth emphasising that the list does not show the actual store locations, but the types of locations.

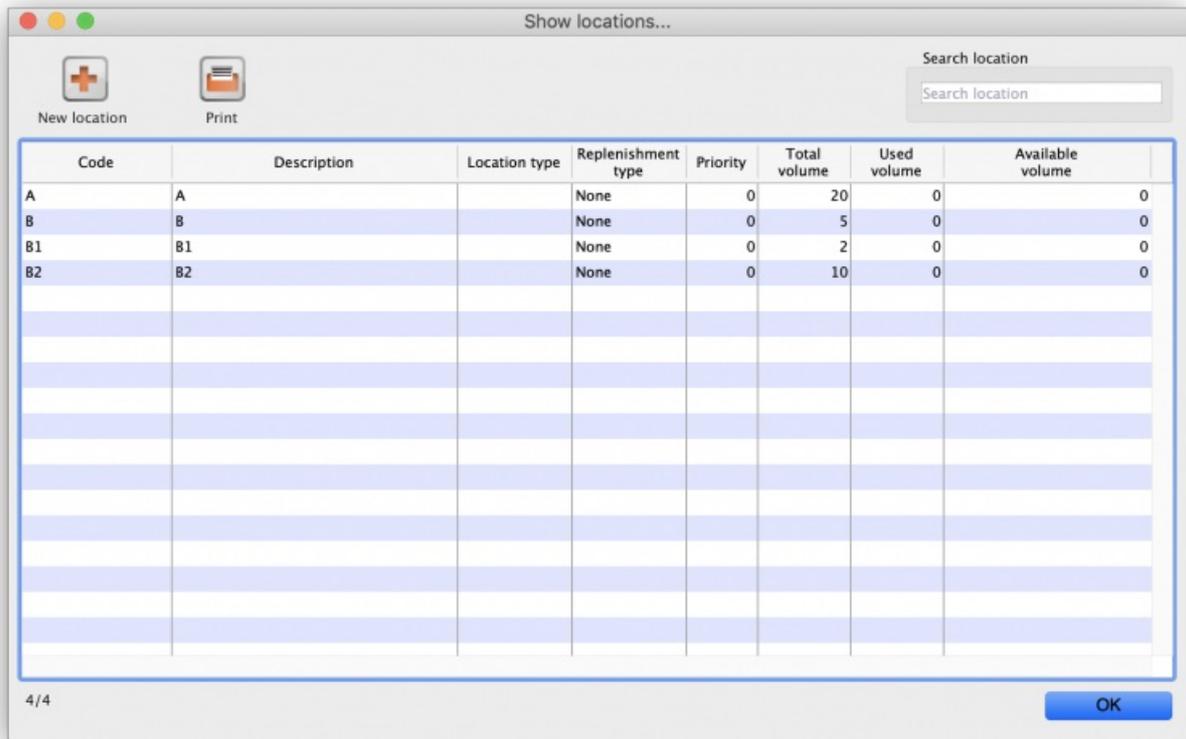
Editing a location type

Should you wish to edit the details of any location type, double click on it in the list and change the details in the window which appears.

Locations

Viewing locations

To view the locations you have defined choose *Item > Show locations* and you will see a list of location codes and descriptions:



From this window you can view, edit and remove locations and their details - this is the 'location management' window. Here are the various functions of the window:

New location button: Click this to add a location (see 'Adding a location' below).

Print button: Click this to print the list of locations displayed in the window (see 'Printing the locations list' below).

Search location: Enter some text in the text field and the list is updated as you type to show only the locations whose code or description starts with the text you have entered.

view and edit a location's details: Double click on a location in the list - see 'Viewing and editing a location' below. All the details are editable. See the 'Adding a location' section below for the meaning of the individual details.

Adding a location

Before you can associate an item with a specific location (e.g. Shelf D4, Refrigerator 2, etc.) you must define the locations in mSupply. To add a new location, click on the *New location* icon in the View locations window shown above. You will be shown the following window, where you can enter the details of the new location:

Add location

Code: Description:

Location type: Asset this location is part of:

Replenishment location type:

Parent:

Summary:

Comment:

Total Volume: m3

Volume used: m3

Priority:

Hold:

Code: This is how you refer to the location in mSupply and, for example, what you will select when you set an item's location. Any non-printable characters entered before or after the code will be removed. Any entered in the code (including spaces) will be replaced with an underscore (_).

Description: This is a description of the location e.g. "Top shelf of refrigerator 3" or "3rd shelf up in rack E" to help you identify it or remember something important about it. You will only see this in the list of locations shown above. Any non-printable characters entered before or after the description will be removed. Any entered in the description will be replaced with an underscore (_).

General tab

Under this tab, you enter the location's main details:

Location Type

Select one from the location types you have already entered (see the [Location types section above](#)).

- Each item can have a *Restricted to* Location type set, and then you will only be able to store that item in a location with that type.
- See the details about allocating items to particular location types on the [4.01.02. Items - Storage tab](#) page. When you do this is done, the item will only be allowed to be placed in locations that have the matching location type when they are received or moved in the warehouse.

Important

In a synchronised system, this must be done on the Primary server and will restrict items to the same location type in all stores in the system. Introduction of this in an already established system therefore needs to be carefully managed.

Replenishment location type

If you are using the pickface replenishment functionality, this is where you tell mSupply if this shelf location is a *Pickface* or a *Bulk* location (or neither, if you leave it set at *None*).

For details about what these settings mean and how to use the replenishment functionality, please see the [4.21. Pickfaces and Replenishments setup](#) and [4.22. Pickfaces and Replenishments](#) pages.

Parent

Select one from the locations already entered in mSupply from the drop down list. This is the location to which the location you are adding belongs. You cannot set the current location's child location to be the parent (i.e. circular relationships cannot be created).

This is for descriptive purposes and does not have any functional effect in mSupply at the moment (it was used when viewing the warehouse layout but this is currently disabled awaiting upgraded functionality).

Summary

Checking this means that the location is a summary location only and cannot be used for storing items. This is normally checked for all locations that are parents of others.

Comment

You can note anything you need to remember or indicate to others in here. It is only visible if you view the location's details (*Item > Show locations*, double click on the item in the list) later.

Total volume

The total volume of goods that you can store at the location. Volumes are stored in cubic metres [m³] but other volumes e.g. litres (l) may also be entered, provided the appropriate unit is entered following the number e.g. 5l for 5 litres. See the entry **Volume per pack** in [Item edit - General options](#). Note that whatever you enter will be converted to and displayed in m³.

Knowing the volume of a location is important if, for example, you are replenishing your stock of vaccines, and you need to know if there is enough space available in the refrigerator in which you store vaccines to accommodate a new order (obviously, you would also need to know the volume of the vaccines that you are ordering).

Priority

The Location priorities are used for two different purposes:

- When printing a picking slip:
 - By default a picking slip is printed with the lines ordered according to the alphabetical order of shelf locations. This helps the pickers to progress systematically through the store rather than walking a random marathon! However, it is sometimes useful to get mSupply to put certain items, e.g. bulk fluids or fridge items first or last on the picking slip. This is achieved by setting a priority for a location. **The priority will override the default alphabetical ordering.**
 - A location with a lower priority number will be printed before a location with a higher priority number.
 - All locations with 0 priority are counted as having no priority and will be printed, in alphabetical order, after all locations with a priority.
- When suggesting stock lines for selection - when the expiry dates are the same:
 - For an item with several stock lines having the same expiry date, mSupply will use location priority to decide which stock line should be suggested first (at the top of the stock line selection list).
 - Locations with a *lower* priority number will be selected before a location with *higher* priority number.
 - If multiple locations have the same priority number, then mSupply will suggest them in alphabetical order of location name.

Tip

When location are first set up, their priorities default to 0, which is the 'highest' priority. If you are going to use priorities, you will need to set this number to something besides the default.

An example of using location priorities to direct selection of stock lines

Let's say we have 7 stock lines of the first expiring batch in the following locations:

Line	Location	Location Priority
1	M02.04.3B	1
2	M04.02.2A	1
3	M02.06.1A	2
4	M02.04.4A	3
5	B01	4

- mSupply will suggest the stock lines in this order, sorted firstly by location priority number, and then by alphabetical order of location name.
- Line 1 is before Line 2 because, alphabetically, M02.04.3B sorts before M04.02.2A.

Hold

If this is checked then goods in this location cannot be selected for issue to customers. Goods can be moved in to, and out of, the location but they cannot be issued from that location.

Tip

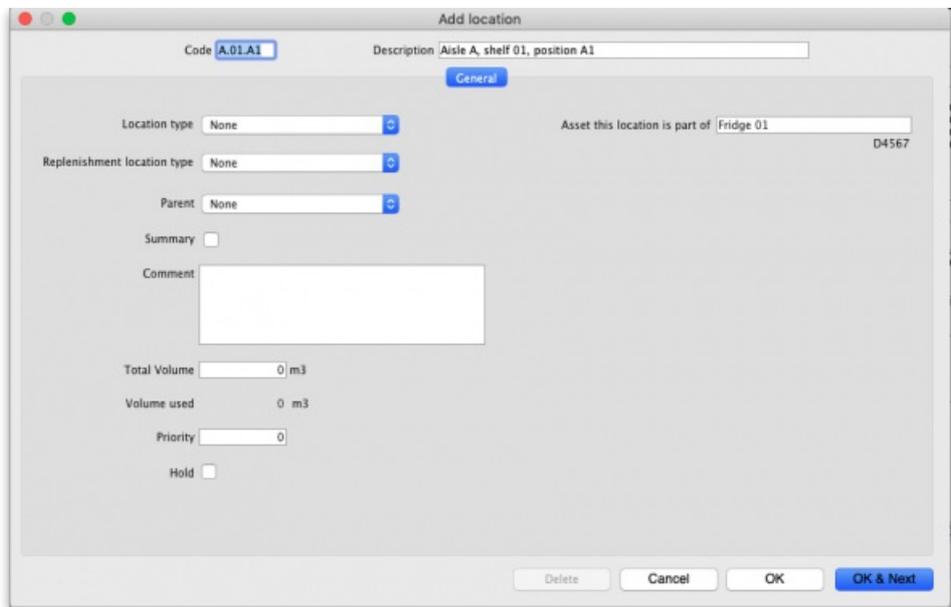
Putting a location on hold can be useful if:

- The stock needs to be kept from being issued until some inspection / approval (e.g. quarantine or under bond).
- The stock is a bulk quantity with the same expiry date as another stock line in another location from which you want stock issued. You can use this feature to force mSupply to always suggest issuing stock of this item from the 'issue' location rather than this 'bulk' location. When you have finished issuing stock from the 'issue' location, and you want to issue the stock that is in the 'bulk' location, you will need to either take the 'bulk' location off hold, or, move all, or some of it ([split](#)), the stock from the 'bulk' location. Location priorities (above) is a more elegant way of managing issue of stock of an item with the same expiry date from multiple locations.

Asset this location is part of

If this location is part of an asset that is recorded in mSupply you can connect the location to that asset here. Type the first few characters of the asset's description in the field and press the *Tab* key on the keyboard to select the asset from a list of those that belong to the current store and have a description starting with what you typed.

When you have selected the asset by double-clicking on it, its description will appear in the field and its code (if it has one) will appear just underneath (Note: if only one asset matches what you typed, it will be selected for you and the fields appropriately populated):

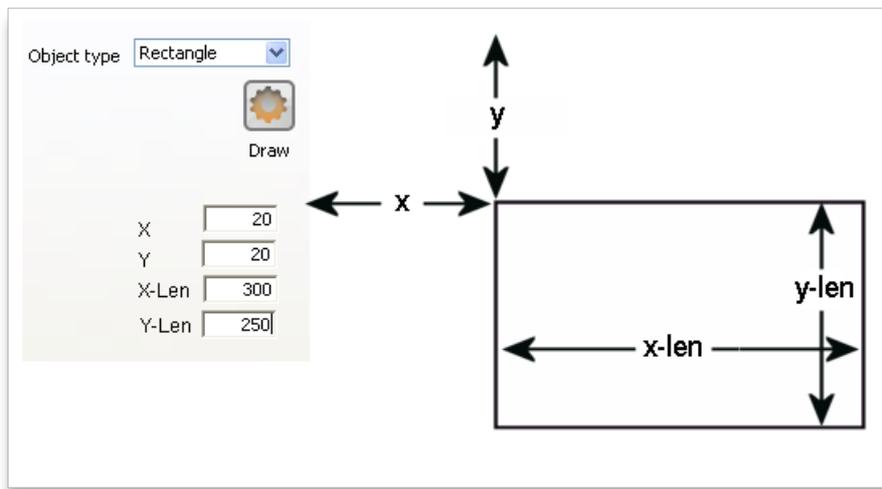


This would be a very useful thing to do for cold chain equipment, for example, so that you can link temperature variations to maintenance schedules and repair requirements etc.

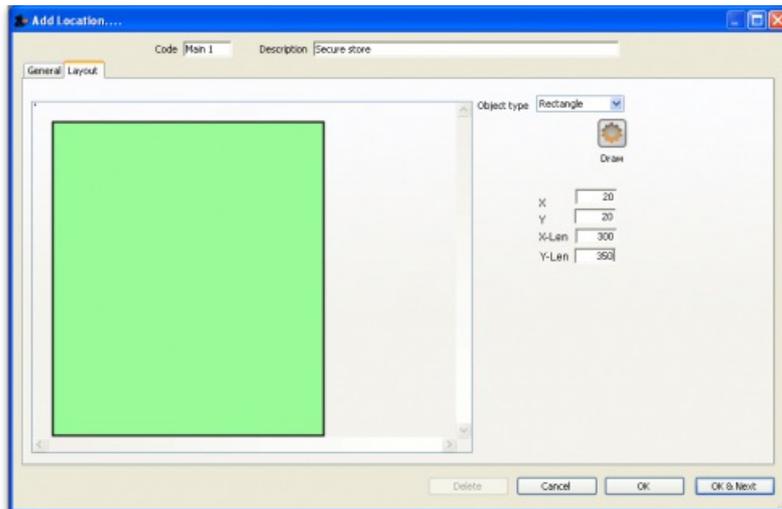
Layout tab

This tab is only of interest for those of you with older versions of mSupply! This tab has been removed in more recent versions because its functionality wasn't particularly helpful. Look out for Open mSupply coming soon, which is planned to have expanded functionality in this area.

Under this tab you can create a graphical plan view of the location in your store. This is useful for helping people to quickly locate any given location and presenting a graphical layout of your whole store. Locations are drawn as either rectangles (for which you enter the top left coordinate and the lengths of the 2 sides) or polygons (for which you enter a number of sequential coordinates which are connected with straight lines). Here's what the various input items mean for a rectangle, the rest we'll show you by the way of an example:

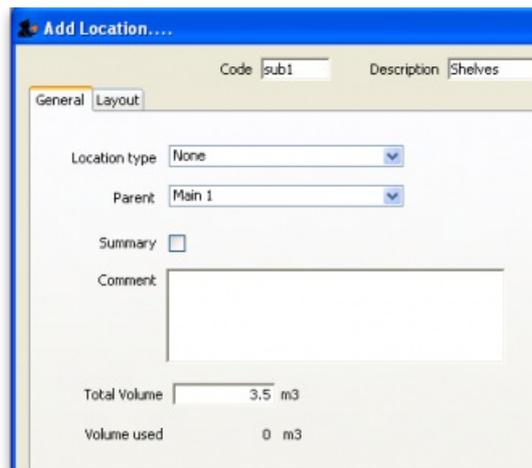


So, as an example, the coordinates are entered as above in the appropriate boxes, then the *Draw* button is clicked to produce the following display under the layout tab:

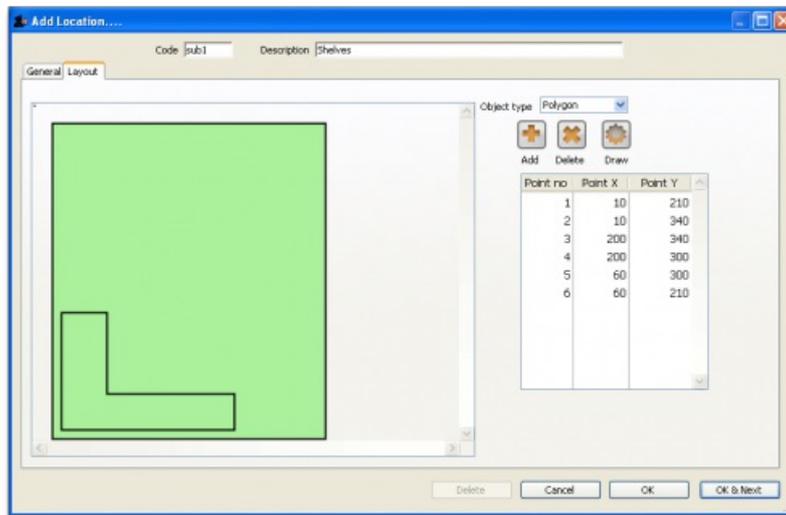


This has created a picture of location main1. This is the whole store or warehouse. You can't see the settings but this location will have no parent and will have its *Summary* checkbox checked (no items can be located here - it's just a summary location for descriptive purposes).

In our imaginary warehouse we have a set of open racking which is 'L'-shaped. We want to draw it in the warehouse so we create the location, call it 'sub1' and set its parent as Main1. If this set of shelves also has other locations in it we would also check its *Summary* checkbox.



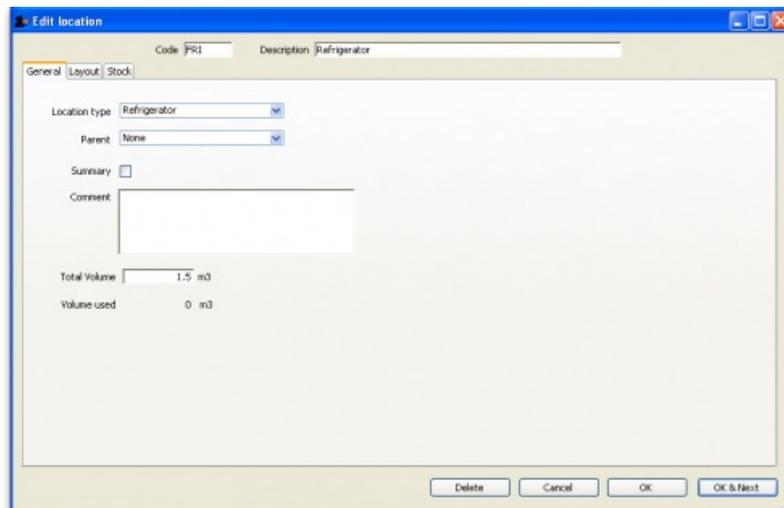
To draw this location we click on the *Layout* tab and select *Polygon* as the object type. Click on the *Add* button to add a coordinate and then overwrite the zeros in the X and Y columns to give the correct coordinates. If you make a mistake, click on the set of coordinates in the list that is wrong and click on the *Delete* button to delete it. When all six co-ordinates have been entered, click on the *Draw* button to produce the layout displayed below:



You can do this same thing for all locations so that anyone can easily locate them in your store.

Viewing and editing a location

As you already know from above, to view all the locations you have defined select *Item > Show locations*. To view and edit the details of a particular location, double click on that location in this list. You will be shown the following window:



General tab

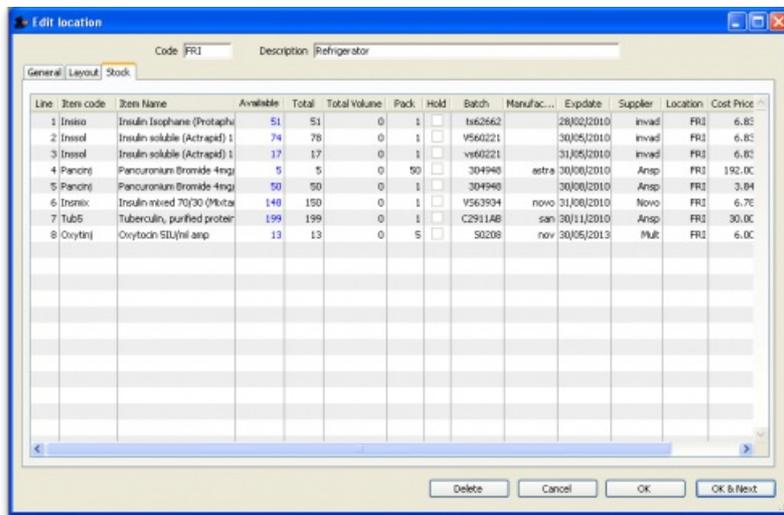
This is the same as the General tab for adding a location (see the 'Adding a location' section above) except that its details are filled in with the details of the location you selected. To edit the details simply overwrite the current value with a new value or select another option as appropriate.

Layout tab

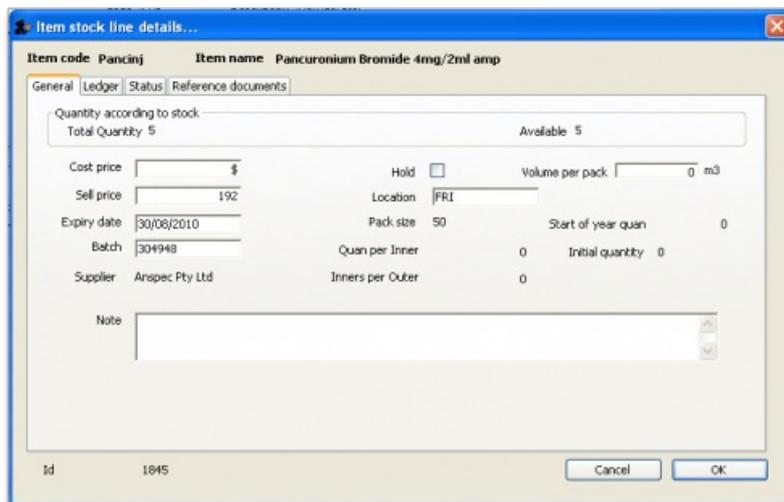
This is the same as the Layout tab for adding a location (see the 'Adding a location' section above) except that the current graphical representation of the location is displayed (if you've already created one). You can edit the plan view of the location if required by changing, adding or deleting co-ordinates.

Stock tab

The Stock tab shows a list of existing stock lines stored in that particular location. A lot of information regarding the stock is displayed in the list and, as with most mSupply lists, it can be sorted on any column by clicking on the column heading:



If you want to know more information about any particular batch in the list, simply double click it and you'll be shown another window with lots of information about the batch, arranged in four tabs:



Deleting a location

To delete location you select *Item > Show locations* to view the list of locations, double click on the location you want to delete (as if you wanted to view all its details) and then click on the *Delete* button at the bottom of the window. If you confirm the deletion, the location is removed.

Merging two locations

If you want to remove a location from further use in mSupply (for example, you might have accidentally double-entered a location) this command can be used.

When you Choose *Item > Merge two locations*, this window is shown:



Alert

Use extreme caution! This operation will affect all historical records of the location you delete. They will be moved to the

location you are keeping. The operation can only be undone by reverting to a backup copy of your data file.

In the window displayed enter the location to keep, and then the location to merge. When you have checked that the information is correct, click the **OK** button.

Previous: [4.05. Programs](#) || *Next:* [4.07. Building \(manufacturing\) items](#)

Last modified: 2022/02/25 15:10 by Gary Willetts



mSupply documentation wiki

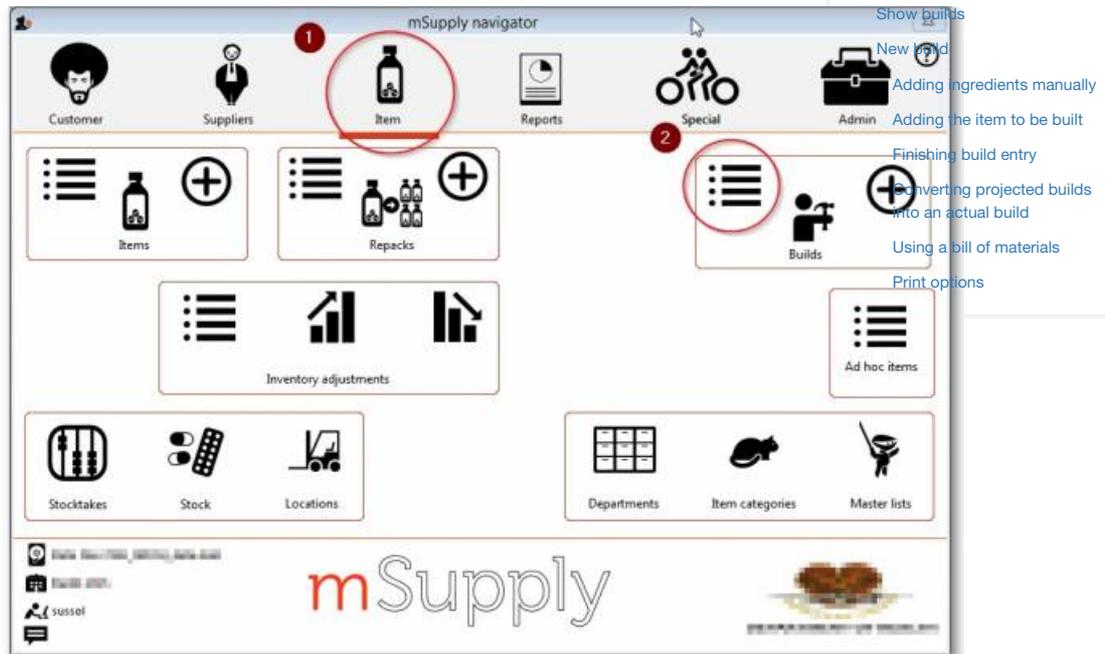


4.07. Building (manufacturing) items

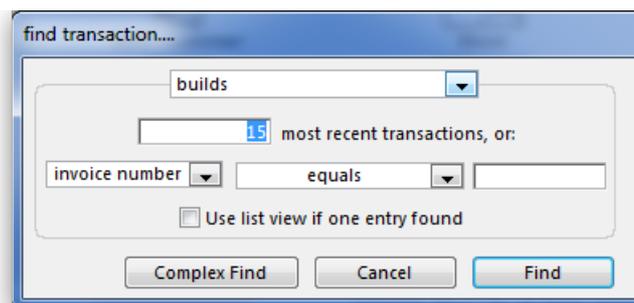
mSupply provides for a mechanism to manufacture (build) a new item from two or more existing items. A build is a way of recording items you have manufactured. That is, raw materials that are in your stock are used (taken out of stock), and a new stock item is created.

Show builds

From the Items page of the Navigator, click on the Show Builds button:



You will be shown the standard find window to enter either the number of recent builds to display, or a particular build number.



You will then be shown a list as shown below:

Name	Type	St.	Entered	Confirmed	Invnum	Total	Their ref	PS printed dt	Comment
build	bu	cn	12/10/10	12/10/10	59	0			paracetamol syrup 120mg/5
build	bu	sg	13/10/10		60	0			Dhani lotion 10%
build	bu	cn	20/10/10	20/10/10	61	0			Aciclavir 0.1% sprit
build	bu	cn	26/10/10	23/11/10	62	0			paracetamol elair 120mg/5
build	bu	cn	17/11/10	17/11/10	63	0			paracetamol elair
build	bu	cn	17/11/10	17/11/10	64	0			syrup simple
build	bu	cn	17/11/10	23/11/10	65	0			aciclavir 0.1%
build	bu	cn	23/11/10	23/11/10	66	0			phenobarbitone elair 15mc
build	bu	cn	23/11/10	23/11/10	67	0			benzoic acid
build	bu	cn	23/11/10	23/11/10	68	0			paracetamol elair
build	bu	cn	02/12/10	02/12/10	69	0	0 2/12/10		simple, syrup
build	bu	cn	02/12/10	02/12/10	70	0	011210		Chlorhexidine mouth wash
build	bu	cn	22/12/10	22/12/10	71	0	221210		folic acid syrup
build	bu	sg	10/01/11		72	0			folic acid
build	bu	sg	07/02/11		73	0	form 10%		Formalin solution 10%

From this list you should select the required build by double-clicking on it.

Reference: Comment: Syrup, simple Colour: Black Invoice: 1 Date: 12/05/2021 Store: General

Category: None

Item to build or to edit: Print labels:

Item to build (double-click to edit)

Item name	Quan	Item	Units	Batch	Expiry	Price	Price Exten
Syrup, simple	20000	1		021210	31/08/2027	0	0

Ingredients Bill of materials Manufacturing Method

New ingredient Delete line This is a projected build

Line	Item code	Item name	Qty	Pack	Batch	Expiry	Price	Price Exten
1	wat01	Water, distilled	20000	1	ab...34	31/...027	0.00	0.00
2	sug01	Sugar BP powder gm	4800	1	q...9	31/...026	0.00	0.00
3	BASoln	Benzoic acid solution	800	1	as...67	31/...027	0.00	0.00

Summary

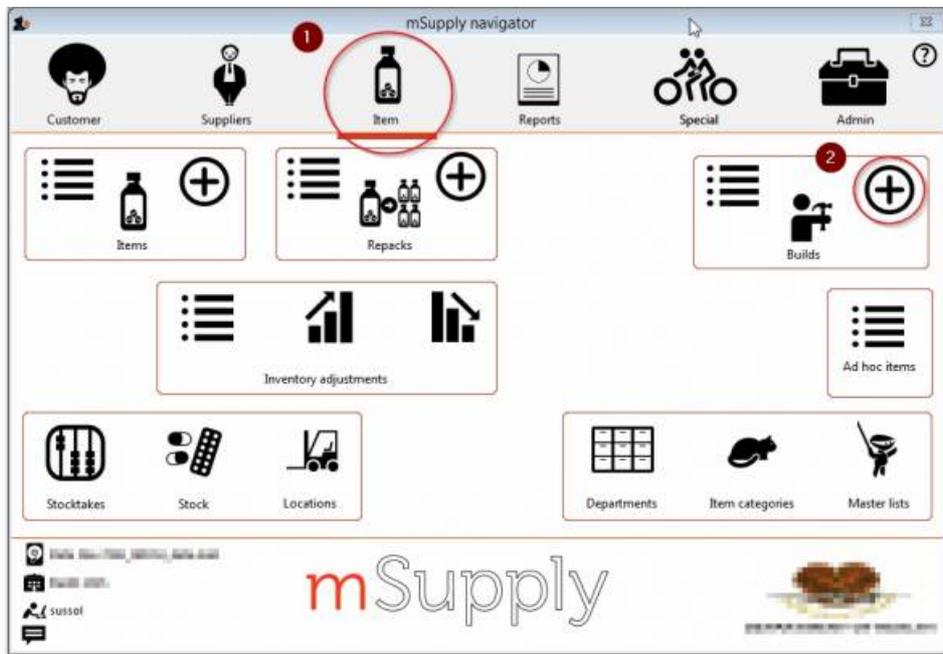
Total ingredient cost	0.00
Total built item selling price	0.00
Profit over ingredient cost	0.00
Margin on ingredient cost	0.00

Current status: nw Change status to: No change

Buttons: Delete, Cancel, OK, Print

New build

From the Items page of the Navigator, click on the New Builds button:



On choosing this menu item you are shown the build entry window:

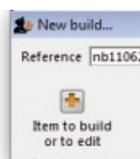
Tip

If you have restricted access to builds, you will not be able to see cost prices or the profit summary window at the bottom.

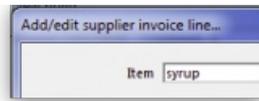
The build window has two parts:

- The top part of the window records the details of the item to be built
- The lower part lists ingredients that are used in the manufacture of the product.

click the **Item to build or to edit** icon



and in the next window enter the name of the product you're manufacturing (Syrup in our example)



and this window is displayed where you should complete the appropriate fields:

Adding ingredients manually

Note that ingredients can be added automatically from the *Bill of materials* tab. If you regularly build the same item, we recommend that you enter a **Bill of Materials** for the item being built, and use the method outlined under the **Using a Bill of Materials** heading below.

First, if you are entering a projected build (one that you expect to perform in the future), check the **This is a projected build** check box. If checked, all items added will be placeholder lines rather than actual stock. Doing this allows you to enter your manufacturing schedule in advance of ordering raw materials. The schedule will be taken into account when ordering to ensure that you will have enough materials in stock when the time comes to manufacture.

- To add a new ingredient, click the **New ingredient** button. You will be shown the standard window for issuing goods from stock:

- Enter ingredients just as you would for entering a customer invoice.
- Once you have finished entering ingredient lines, click **OK** to return to the main window.
- If you wish to edit a line, double-click it, and change the details.
- To delete a line, double-click it, set its quantity to zero, then click the **OK** button.

Adding the item to be built

- To add the item to build, click *Item to build or edit* button. You will be shown the *Add/edit supplier invoice line* window below for receiving goods.

Add/edit supplier invoice line...

Item New item

Quantity cli150c

Pack size ea Pack to one

Total quantity: 20000

Batch Location

Expiry Volume per pack m3

Invoice line unit cost (NPR) Adjusted local cost % Margin Sell price

Price extension (NPR) Donor

- The cost price for the item is automatically calculated for you. You may enter the margin or the selling price as you prefer.
- Once you have entered the item to build, click *OK* to return to the main window.
- If you wish to edit the item, simply double-click inside the “item to build” rectangle.
- At the bottom right of the window in *Summary* section is a summary of the cost, margin and selling prices for the build.
- Once you are satisfied with the details, click *OK* to enter the build into the system. You will be asked if you want to enter the details into stock. If you say *yes*, the newly created item will immediately be available for issuing to customers. If you click *later* then the stock will not be available until you open the build window at a later date and enter it into stock.
- Note that the ingredients used in a build are considered to have been “sold” for re-ordering purposes, and will be counted in your usage.

Finishing build entry

- Understanding build status codes enables you to know what stage each build is at. The codes are the same as for other transactions.

Each build transaction has a status code:

Code	Meaning
nw	A new build is being entered, but has not been saved.
sg	“Suggested”. A build has been entered, but has not yet been confirmed. If stock lines have been entered, raw material stock is reduced so that it is no longer available for other invoices, but the new item is not yet entered into stock. You should leave builds with this status while manufactured items are “in process”, or if it is a projected build for a future date.
cn	“Confirmed.” The item to build has been entered into stock.
fn	“finalised.” The build can no longer be edited

- When you click the **OK** button you may be asked if you want to enter the build into stock. You should only do so once the manufacturing and Quality Assurance (QA) process is complete. You will not be asked this question if there are any placeholder lines (those with a batch of “none”) entered as an ingredient. Such builds are presumed to be for projected manufacturing, and are kept with status **sg** automatically.
- To finalize builds, choose **File > Finalize builds** when the splash screen is showing.

Converting projected builds into an actual build

- Once your manufacturing of a projected build is about to take place, choose *Item > Show builds ...* to locate the build you want to edit.
- For each line whose batch is equal to “none” (a placeholder line) you will have to double-click it and choose an actual stock line from the item issue window (either by entering the line number or double-clicking the line you wish to use). Once you have done this, the stock you have chosen will be reserved, and manufacturing can take place.
- mSupply® calculates the number of items that will result from your build, and clicking on the *Print labels* icon prints the correct number of labels.

Using a bill of materials

A bill of materials can be thought of as a “recipe” or “formula” for building an item. It records the ingredients, and the quantity of each required to make the finished product. You should create a bill of materials for an item before you come to this screen. This is done in an item’s *Item details window*: see [here](#) for details. Screenshots in this section are using Simple Syrup as an example, and for this product a Bill of Materials has already been created.

When you click the “Bill of materials” tab in the build window, this window appears:

New build

Reference Comment Colour

Item to build or to edit Print labels Category Invoice

Date 12/05/2021
Store: General

Item to build (double-click to edit)

Item name	Quan	Item	Units	Batch	Expiry	Price	Price Exten
	0	0				0	0

Ingredients Bill of materials Manufacturing Method

Add Bill of Materials Calculate Yields Print Yield Report

Line	Item name	Units	Target Quan	Total used	Yield

Current status: nw
Change status to:

Summary
Cost adjusted yield
Theoretical yield
Actual amount built

Delete Cancel OK

First you need to choose the item to be manufactured:

New build...

Reference

Item to build or to edit

Item to build (double-click to edit)

Item name
Syrup, Simple

in the next window you need to specify the quantity to be manufactured and other details:

Add/edit supplier invoice line...

Item

Quantity

Pack size mL

Total quantity 20000

Batch Location

Expiry Volume per pack m3

Adjusted local cost (AUD) 0.00 % Margin Sell price

Invoice line unit cost (AUD)

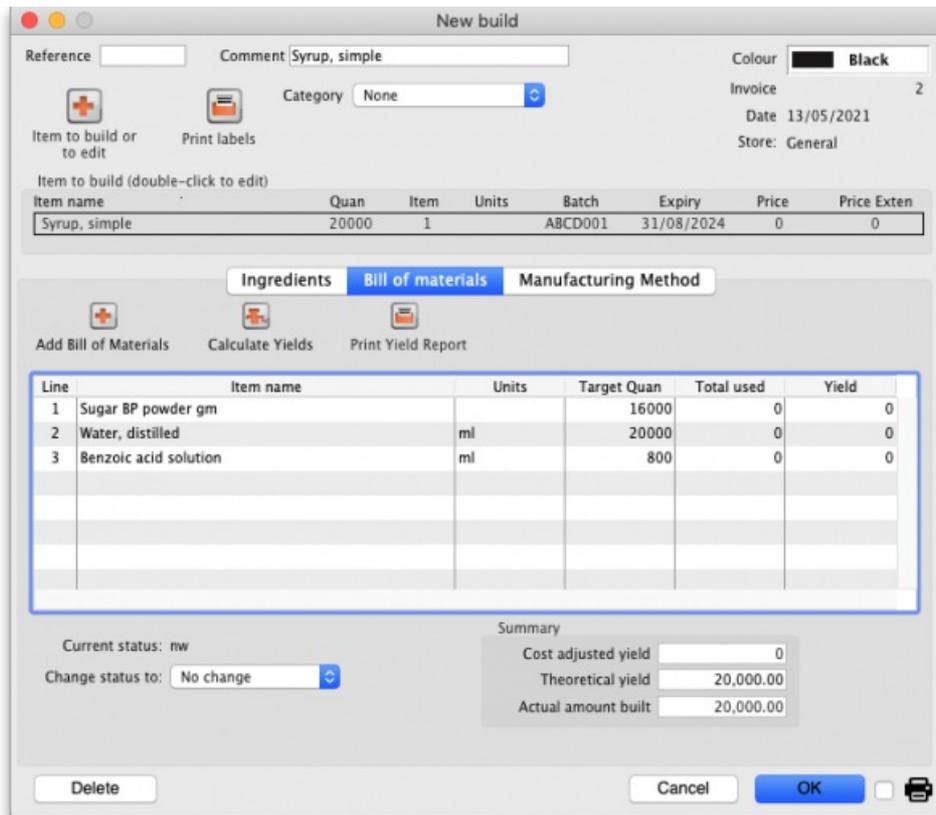
Manufacturer Donor

Cancel OK

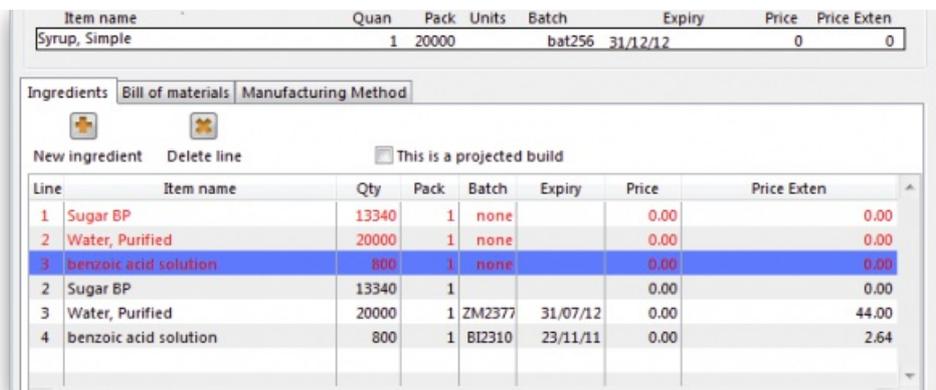
When you click **OK**, you are returned to the **New Build** window, and when you click the **Add Bill of Materials Button**, a window appears where you can confirm or cancel the quantity to be manufactured:



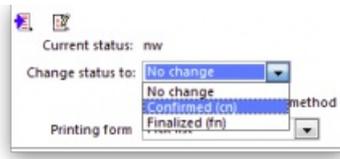
Assuming the quantity is correct, click **OK**, and you are returned to the **New Build** window, where the open tab is the **Bill of materials** tab. Click the **Add Bill of Materials** button, and the details on the Bill of Materials according to the formula previously entered for Simple Syrup is displayed:



Now click the **Ingredients** tab, where the ingredients are listed, but no stock is attached to any item - they are placeholder items (displayed in red). This is done as mSupply® cannot take into account all the factors that go into choosing an appropriate batch to use for each manufacturing run (The expiry, amount on hand, etc). click each line in turn to select the quantity and batch number of available stock lines for each ingredient. Note that there is a button displayed **Re-distribute all**. Clicking this button will take the “total quantity issued” figure and re-distribute it over the available batches, making it easy to move from using a placeholder line to issuing actual stock. The ingredient is repeated in black with appropriate details displayed. At this time (or later) you can also adjust the amount issued to reflect actual issued quantities and the actual batches of raw materials used, as opposed to the theoretical quantities that are initially entered.

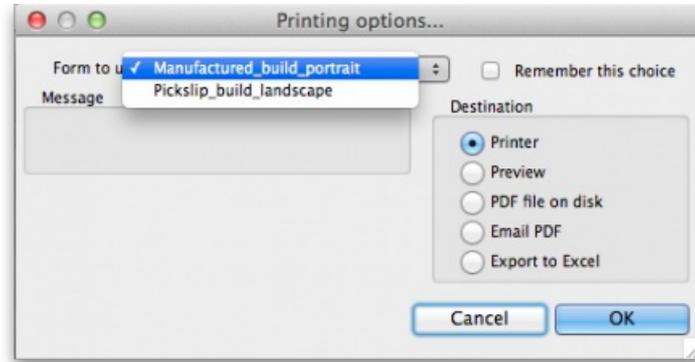


If you are manufacturing the product immediately, the status of the build transaction should be changed to **Confirmed** on completion of the manufacturing process.



Print options

It's possible to print either a Pick list, detailing the ingredients and quantities, or a summary of the manufactured product. To achieve this, check the print icon in the bottom right hand corner of the window and click the *OK* button. The printing options window will appear and you can choose which document to print:



Calculate Yields button: This button (on the **Bill of materials** tab) compares the actual quantities issued and the actual final quantity manufactured with the theoretical amounts that should have been used and made. This allows you to monitor production efficiency. Use the **Print yield report** button to print the yield information if required.

Previous: [4.06. Stock locations and location types](#) | | Next: [4.08. Merging two items](#)

Last modified: 2021/05/12 12:16 by Gary Willetts



4.08. Merging two items

If an item has inadvertently been added twice, with slightly different descriptions, here is your safety line! Choose **Merge two items...** from the **Item** menu. This window is displayed:



In the *Item to keep* box type the first few characters of the item you want to keep and press the Tab key. Then select the correct item from the list displayed (if only 1 item matches what you have typed it will be put in the box for you without the need for selection).

Now do the same in the *Item to merge - will be deleted* box. The item you select here will be completely replaced with the one in the *Item to keep* box.

Note that when selecting these items you are selecting from all of the items in your datafile, not just those visible in the store you are logged-in to.

When you are ready, click on the *OK* button. BUT BEWARE:

Alert

If you merge two items that are, in fact, different, you will really mess things up. There is no undo function for this operation, so you will be begging us to help you fix the mess, and we charge a special penal rate for people who do things after having been warned 😊

Notes:

1. Merging replaces all the instances of the item selected to delete with the item selected to keep throughout everywhere your datafile.
2. Merging items affects all historical records except for item names on finalised transactions, which will retain the original name for safety reasons.
3. Items that either have a bill of materials or are used in a bill of materials cannot be used for the item to delete/merge. If you try to do so, you will be warned.
4. If the item you are merging/deleting has stocktake lines associated with it, these stocktake lines will be deleted, as you can't stocktake a non-existent item (except if you're Harry Potter).

Previous: [4.07. Building \(manufacturing\) items](#) | | Next: [4.09. Ad hoc items](#)

Last modified: 2020/01/14 10:49 by lou

4.09. Ad hoc items

From the **Item** menu, choose **Ad Hoc items...**

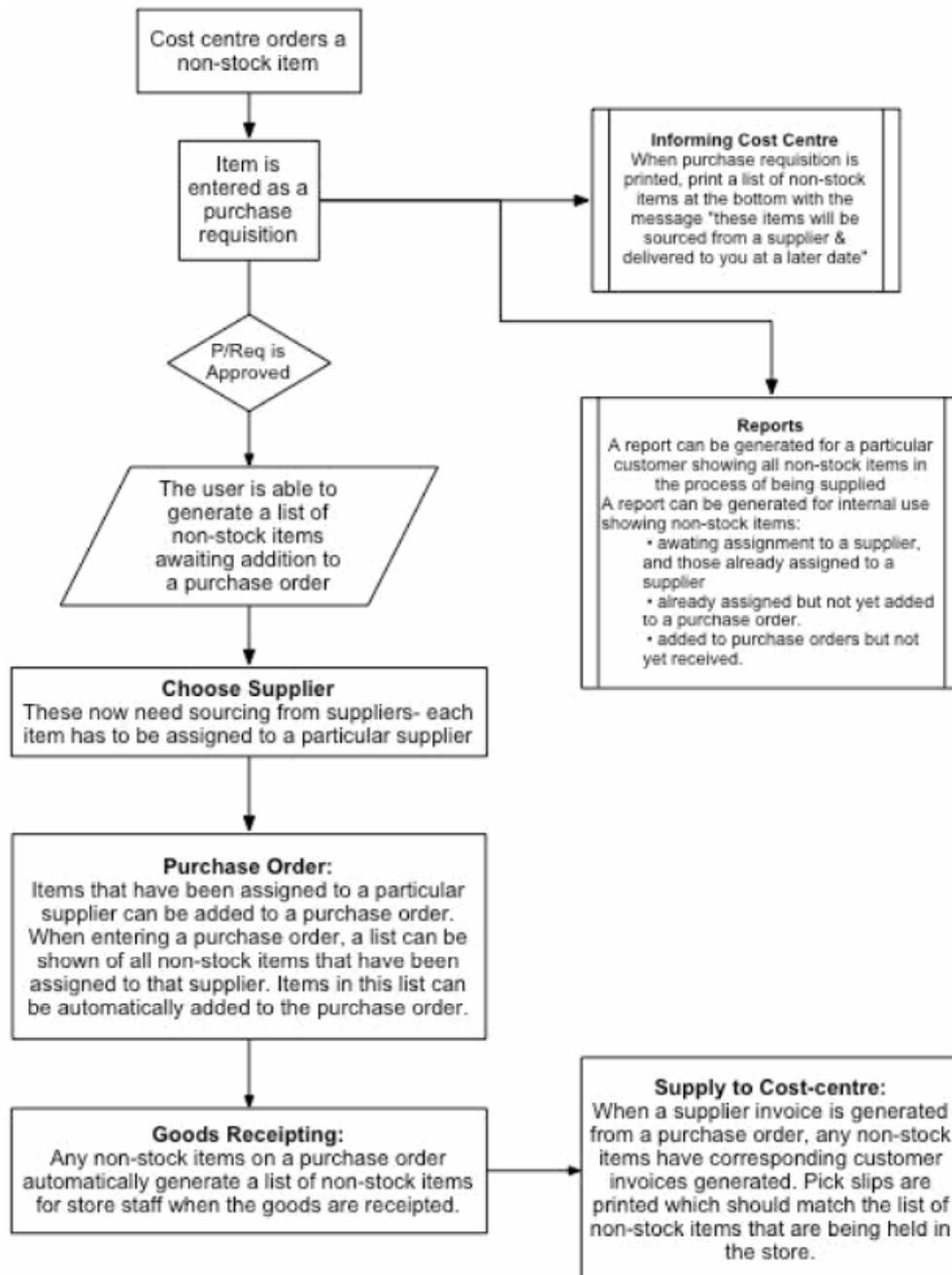
Tip

This feature requires activation in **Preferences > Invoices 1**

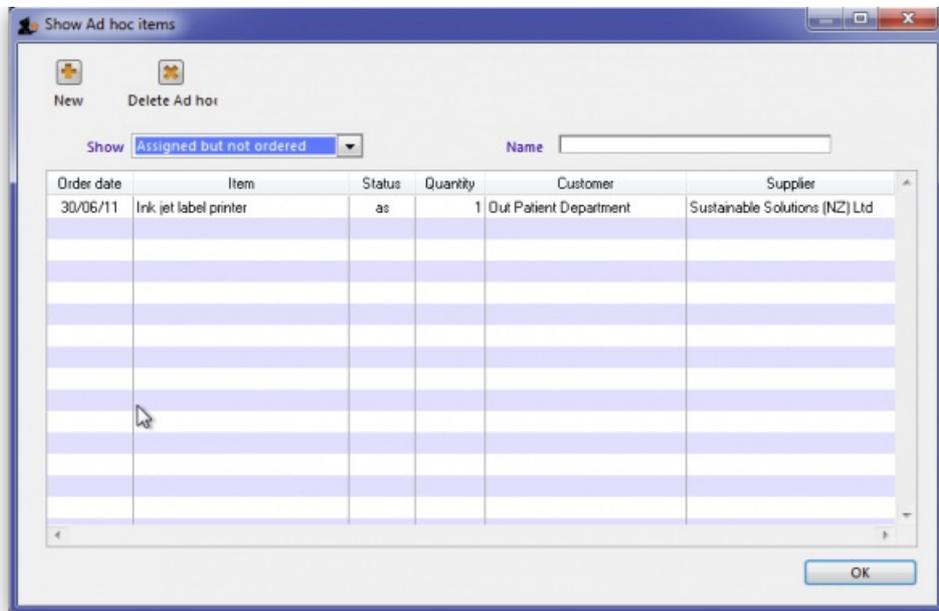
mSupply® defines Ad Hoc items as items that you don't keep in stock, and that you never will keep in stock. An example of an Ad Hoc item is a specialised item of diagnostic equipment which you would purchase on one occasion only. When a customer orders an item that you decide will be a "one-off" purchase, you can enter it as an Ad Hoc item.

Ad Hoc items differ from non-stock items in only one respect; they are purchased once. Non-stock items are items which, although they do not feature in your stock list, may be purchased with some degree of regularity.

The following diagram outlines the work flow for Ad Hoc items:



When you choose *Items > Ad Hoc items*, the following window is displayed:



From this window you can view Ad Hoc items, add new items, delete items and edit existing items.

Show drop-down list

This drop-down list allows you to view Ad Hoc items by their status. Ad Hoc items can have the following status codes:

Status code	Meaning
== un ==	The item has not yet been assigned to a supplier- think of this as your “to-do” list
== as ==	The item has been assigned to a supplier, but has not been placed on a Purchase Order. These items also need action.
== po ==	The item has been added to a Purchase Order, but the goods have not arrived.
== fn ==	The item has arrived from a supplier and been invoiced to the customer

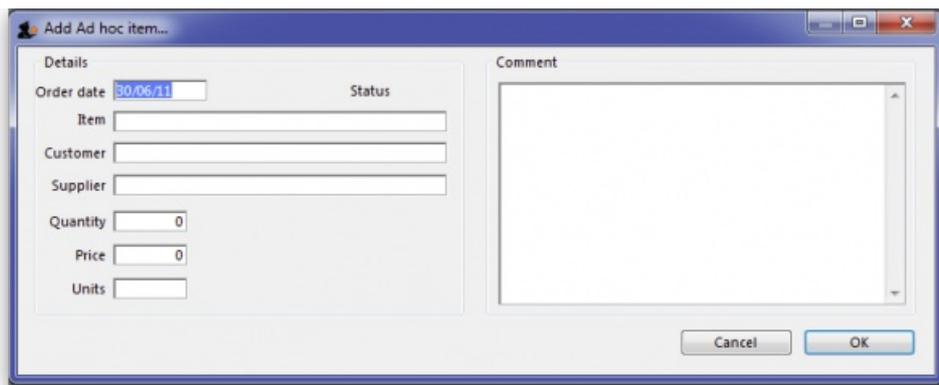
Name field

Enter part of a customer or supplier name in this field and press *Tab* to show a list of matching names. Choosing a supplier will show items assigned to that supplier. Choosing a customer will show items supplied or to be supplied to that customer.

Once you have chosen a name you can fine-tune the list displayed for that name.

New button

Clicking the “new” button displays this window:

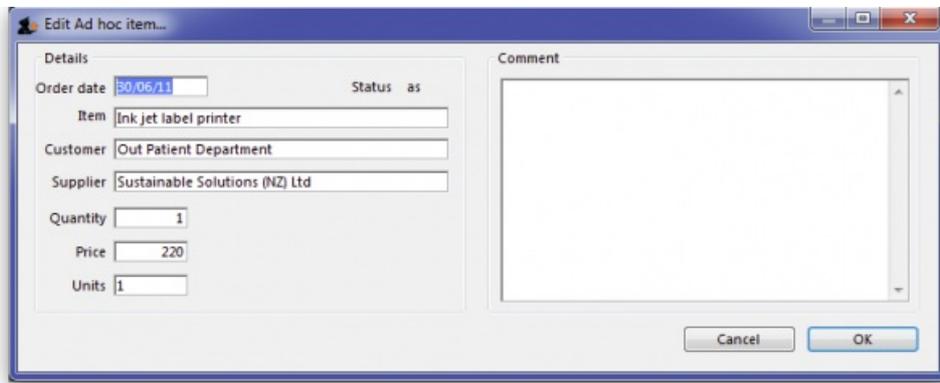


From this window you can add an item name, the name of the customer, then name of the supplier, the quantity to order, and add a comment.

When the customer orders an item, you may not know who the supplier is. You can just leave the supplier name blank.

Editing an ad hoc item

To edit an item, double-click it in the list to display the item details, and a window **Edit Ad hoc item**, almost identical to the **Add Ad hoc item** ; appears where you can edit the required details.



Adding ad hoc items to a purchase order

When you are making a Purchase Order for a particular supplier, you can click on the **Ad Hoc items** Tab to view a list of Ad Hoc items you have assigned to that supplier, allowing you to add them to the Purchase Order. More information is available here - [ad hoc items tab](#).

Previous: [4.08. Merging two items](#) || Next: [4.10. Non-stock items](#)

Last modified: 2020/01/14 10:52 by lou



4.10. Non-stock items

There are occasions when you need to order an item that you wish to add to your stock list, but which you currently do not wish to keep in stock. mSupply® treats such an item as a **Non-stock item**. Although you do not hold any stock of a non-stock item, it is quite likely that you may place regular orders for it.

Note that **ad hoc items** are different to non-stock items in that:

- they do not display in your list of items
- it is likely that an ad hoc item will be ordered once and once only

The procedure for dealing with non-stock items is:

Step 1

The example used here to demonstrate this is for non-stock item Penicillamine 250mg tablets.

From the **Item** menu, select **New item**, and enter the particulars as you normally do, only this time check the **Non-stock item** box. In the box immediately below, select the customer from the list of customers held in mSupply®.

The screenshot shows the 'Add item...' dialog box with the following fields and values:

- Type: normal
- Item code: pcmine
- Item name: Penicillamine 250mg tablets
- Units: each
- Price list:
- Shelf location: SPA
- Preferred pack size: 100
- Category: None
- Normal stock:
- Critical stock:
- Essential drug:
- ATC Category:
- DDD value: 1
- DDD factor: 1
- Weight: 1
- Non stock item:
- Default customer: Dispensary

Buttons: Cancel, OK, OK & Next

⚠ Important

- To place an order for a non-stock item, a customer must be identified, and this customer becomes the **default customer** for the item.
- Should you need to order the same item for a different customer at a later date, the new customer is entered at the time the Purchase Order is being created.

Step 2

Create the Purchase Order which will include the non-stock item. (from the navigator - *Suppliers/+Purchase Order/+new line*)

Edit order line...

General Usage Quotes Receipt history Ledger

Item: Griseofulvin 250mg tab/cap Location: Volume per pack 0 m3
 Store: General gri250t Shelf location: None

Original order: Number of packs 50 Pack size 100 Total Quantity 5000 Units (ea,kg,ml) ea Supplier item code to711g

Pricing for this item: Price before discount 42.0000 discount (%) 0 Price after discount 42.0000 Extension 2,100.00

Requested delivery date 00/00/00 Expected delivery date 00/00/00

Stock: On hand 15,000 On backorder 0 On order 0 Received on previous deliveries 5,000

Adjusted order: Number of packs 50 Pack size is same as for original order Total Quantity 5000

Comment (will print on purchase order)

Notes Show notes on Goods Received

Cancel OK OK & Next

Step 3

On receiving the order, proceed as usual to the **New Goods receipt** form.

In our example, we have ordered 2 items from IDA, one of which is our non-stock item, Penicillamine 250mg tablets, and it appears in blue.

The Goods Received must be finalised in order to create the Supplier invoice:

Supplier invoice

Name: International Dispensary Association Entry date: 30/06/2011 Colour: Black

Their ref: ida Confirm date: 00/00/00 Invoice number: 1,823

Comment: goods received ID : 909 Period: Unconfirmed or none Status: nw

Category: None Goods receive ID: 909

Purchase Order ID: 432

Entered by: Sussol

Store: General

L...	Lo...	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension
1	SPA	Penicillamine 250mg tablets	1	100	GZ202-6	31/08/01	0.00	0.00	0.00
2	LTE	Tetracycline 1% eye oint	20	50	tro8411	30/09/13	11.25	11.25	225.00

Other charges: Subtotal: 225.00

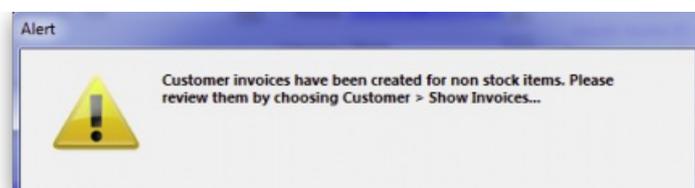
Item(s): 0 % tax: 0.00

Amount: 0.00 Total: 225.00

Hold Export batch: 0 Finalize Margin: 0.00

OK & Next Delete OK

Uncheck the *Hold* box (bottom left corner) then click on OK, and this *Alert* message is displayed:



advising you that 'Customer invoices have been created for non stock items.....': From the main menu, choosing **Customer > Show invoices** allows us to select and process the invoice which has been created automatically for the non stock item for our customer, the Dispensary.

Customer invoice

Name: Dispensary Confirm date: 30/06/11 Colour: Black

Their ref: MH01 Period: 01/01/11 - 31/12/11 Invoice: 64,606

Comment: Supplier invoice ID : 1823 Goods receive Category: None Entry date: 30/06/11

Goods receive ID: 909

Status: cn

Entered by: Sussol

Store: General

New line Delete line(s) Backorders History

General Summary by Item Summary by Batch Transport details

...	L...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
	1	SPA	Penicillamine 250mg tablets	1	100	GZ202-6	31/08/14	0.00	0.00

Other charges Item: Amount: 0.00

Subtotal: 0.00

0 % tax: 0.00

Total: 0.00

Hold Finalize Export batch: 0 OK & Next Delete OK

[Previous: 4.09. Ad hoc items](#) || [Next: 4.11. Managing drug interaction groups](#)

Last modified: 2020/01/14 10:54 by lou



mSupply documentation wiki



4.11. Managing drug interaction groups

This feature is chosen from the **Item** menu

Important

The examples given in this section are included only for the purpose of familiarising the user with the interactions feature of mSupply and how to use it. Use of this feature is the responsibility of the user, and Sustainable Solutions bears no liability whatsoever for any consequence of inappropriate or incorrect use.

Drug interaction groups allow you to specify groups of items that interact with each other, and then prepare a warning message to be displayed if these items from interacting groups are issued to the same patient.

You can set up interactions in store mode, but warnings will only appear in dispensary mode.

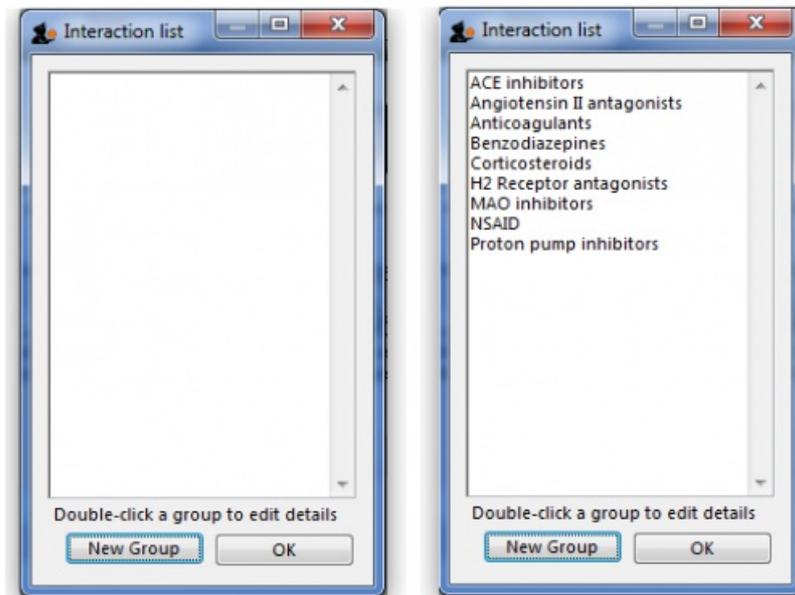
To use this feature, it must be set up, and these are the steps:

1. Choose a way of defining interaction groups. A number of systems are in use or are under development, and the internet is a useful resource for further investigation.
2. Define which items are in which groups.
3. Add interactions between groups.

Let's look at each of those steps in turn

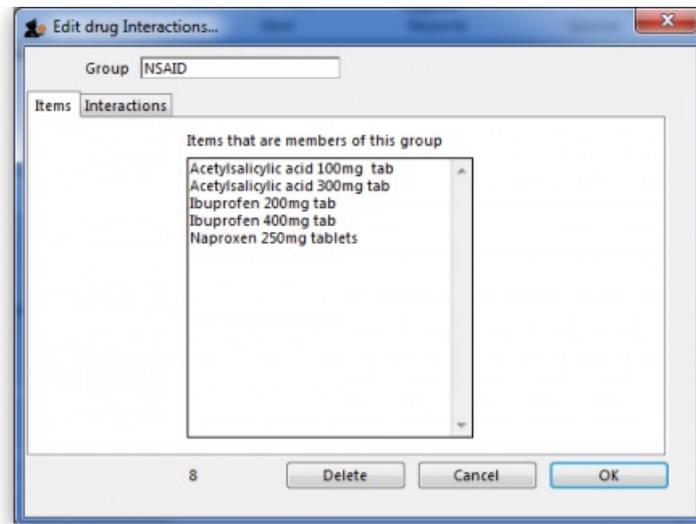
Defining interaction groups

Choose *Items > Drug interaction groups ...* Until you have set up some groups, the list will be blank; a number of groups have been set up for the purposes of this guide, shown below right:



Click the *New Group* button to add a new group, or double-click an entry to edit it.

Double clicking on *NSAID* displays this window:



The window has two tabs.

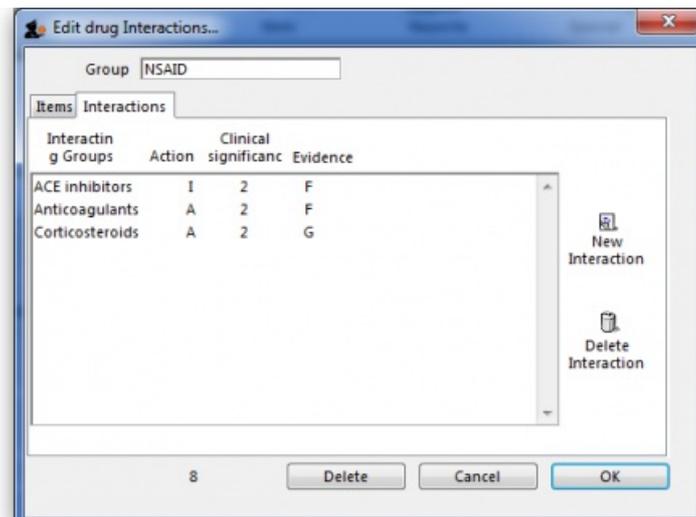
The *Items* tab shows a list of items that have been assigned to the group.

Define which items are in which groups

You assign an item to a group by viewing the item details (Choose *Items* > *Show items*), and setting interaction group from a drop-down list.

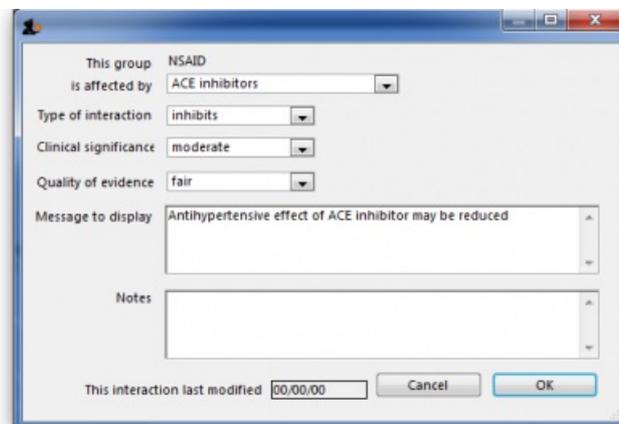
Add interactions between groups

The **Interactions** tab shows a list of groups that the current group interacts with.



This tab has two buttons allowing you to add or delete a drug interaction. (To delete an interaction click on the line you wish to delete before clicking the *Delete interaction* button).

To edit an interaction double-click on the one to be edited. This window appears::



You choose the group that affects the current group, and then enter details about the interaction by choosing from the drop-down lists.

The choices available are:

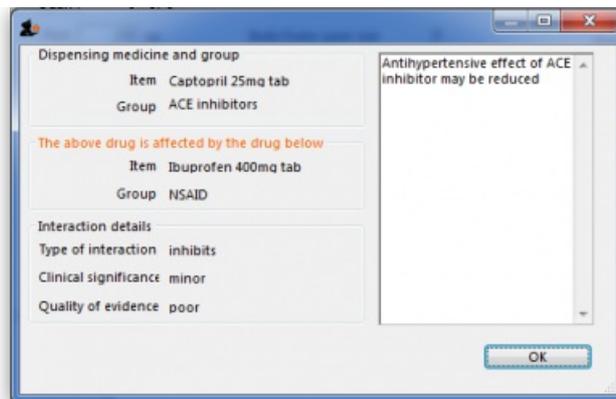
- Type of interaction
 - Inhibits (I)
 - Augments (A)

- No effect (N)
- Conflicting evidence (C)
- Clinical Significance
 - Minor (1)
 - Moderate (2)
 - Major (3)
 - Unknown (?)
- Quality of evidence
 - Poor (P)
 - Fair (F)
 - Good (G)
 - Unknown (?)

You can enter a message to be displayed when an interaction occurs, and any notes you may want to record. These fields are optional.

When you are issuing items in dispensary mode, in order to display a warning:

- the **Alert when there are drug interactions** checkbox must be checked in **File > Preferences > Drug Interactions** The warning as shown will be displayed if the patient is being issued with interacting items:
- **Number of days of patient history..** must be set. We recommend setting it to 180, so that any items dispensed in the last six months that interact with the item you are currently dispensing are found.



Previous: [4.10. Non-stock items](#) || Next: [4.12. Managing item access with Departments](#)

Last modified: 2021/05/04 14:15 by Gary Willetts

4.12. Managing item access with Departments

Introduction

Item departments are a mechanism by which you can restrict item availability to certain customers only.

⚠ Important

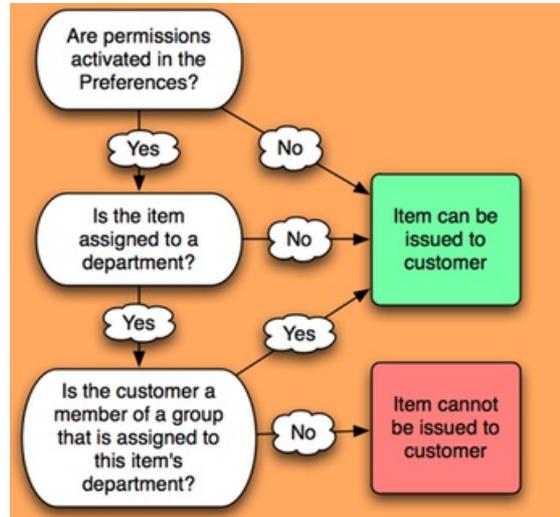
Item departments are a bit complicated. Here's what you need to remember:

- Each customer can be a member of only one group.
- Each item can be a 'direct' member of only one department. However, a department can be a member of another department, so an item can, in effect, be a member of more than one department
- Each group can have access to items from *multiple* departments.

📘 Info

The **Activate restricted item access by customer group** option must be turned on in **Preferences>Invoices2** before this option to work.

- Here is a summary of how department groups affect whether or not an item can be issued.



- When you attempt to issue stock to a customer whose group does not have access to the department of the item you are issuing, either a warning will be displayed or mSupply® will not allow you to issue the stock - depending on how your preferences are set.
- Items that are *not* in any department can be issued to *any* customer
- Items that *are* members of a department *cannot* be issued to any Customers that are *not* members of a group.

Creating and editing item departments

Choose **Show departments** from the **Item** menu displays the **Edit departments...** window. This is where you are able to create and edit item departments. Once you have created departments the window might appear something like this, and you are now ready to assign items to a department:

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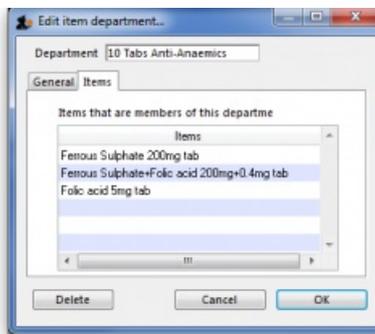
- [Introduction](#)
- [Creating and editing item departments](#)
- [View item departments](#)
- [Setting up access from customer groups to item departments](#)
- [Show groups](#)
- [Departments](#)
- [Introduction](#)
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- [Departments](#)





View item departments

Taking as an example the department **Anti anaemic tablets**, the items in the department are shown by clicking **Show item departments** on the **Item** menu, and then double clicking on the **Anti anaemic tablets** department:

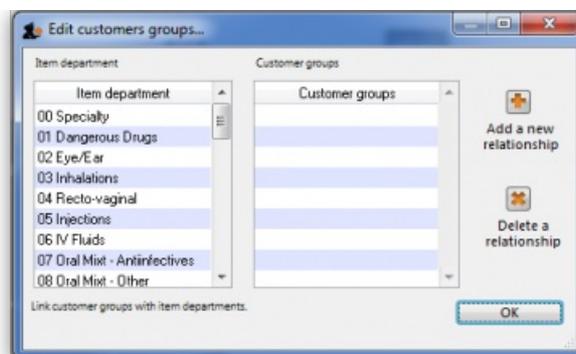


i Info

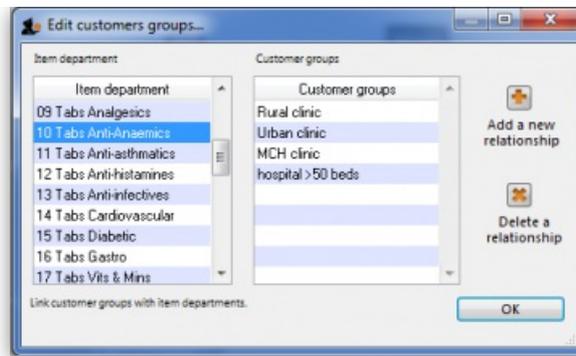
- Each department can have any number and combination of items and departments in it.

Setting up access from customer groups to item departments

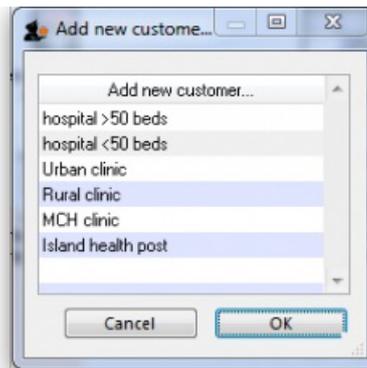
- From the **Item** menu, choose **Manage item access...**, and this window is displayed:



- The left hand list shows the available departments
- The right hand list shows the customer groups that presently have access to the department which is highlighted on the left hand side.
- The example shown identifies the four customer groups which are linked to the Anti-anaemic item department:



- The icons on the right side allow you to add and/or remove groups that have access to the highlighted department.
- Clicking the **Add a new relationship** button shows a list of groups you can add:



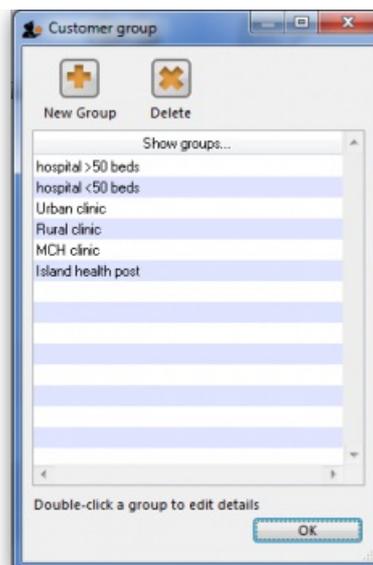
- Double-click (or click and then click OK) to add a group to the current department. You will be given a warning if you try to add the same group twice.

Show groups

Customer groups can be used to group customers (or suppliers) together for reporting purposes, and also to set up an item restrictions scheme, allowing some items to be issued only to certain customers.

An explanation of how to set up a restriction scheme is in [Managing Item access](#).

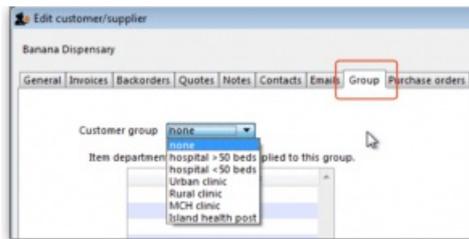
The groups window allows you to set up group names:



- Click the **New group** button to add a new group.
- Double-click an entry to edit its name:



- You can enter or edit the group name in the top field.
- The list displays all names which are members of this group.
- Click the **Delete** button to delete a group. You can only delete groups that have no names as members. You can remove group members from the **Groups** tab of the name viewing window (From the **Customer** menu, choose **Show Customers** and find the required customer in the usual way.)

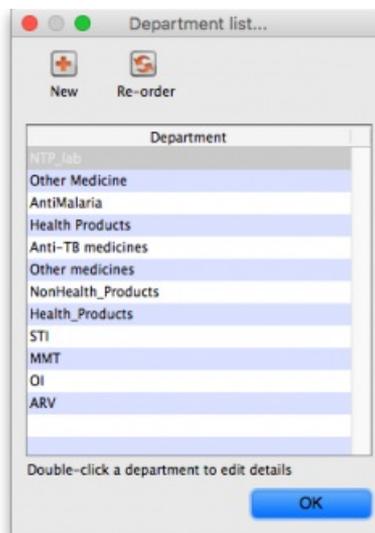


- The drop down list displays the group to which this customer belongs, and to remove the customer, make sure **none** is selected from the drop down list; to assign the customer to a different group, highlight the new group in the drop down list.
- Click **OK** to leave the window.

Departments

Overview: A manufacturer might create departments for raw materials, packing materials, and quality control reagents. A drug store or hospital might create departments according to dose form or according to pharmacological classification, etc.

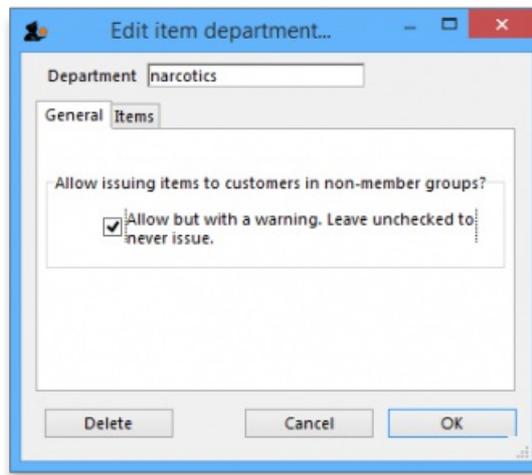
From the **Item** menu, choose **Show departments ...**; you are shown a list of departments:



By default the list displays in alphabetic order; clicking on **Departments** toggles between alphabetic order and reverse alphabetic order; you may also drag and drop individual departments to any position in the list to suit your own requirements, and on clicking OK you will be asked whether or not you wish to save the list in the order you have specified.

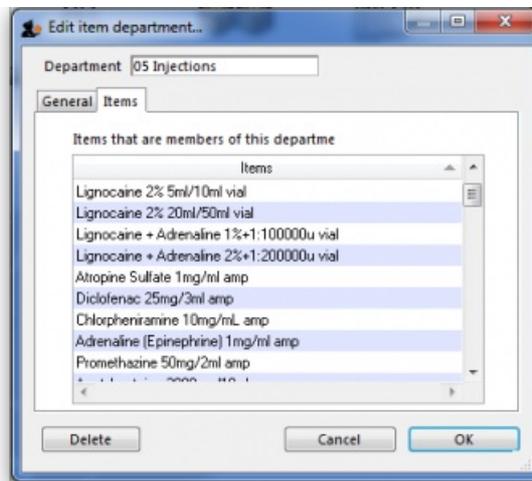
To add a new department, click the **New dept** button.

To edit a department, double-click the department you want to edit. You are shown a window allowing you to edit the department name:



The radio buttons allow you to choose what will happen when you attempt to issue an item to a customer who is not a member of a linked group. Either the user can be warned or the issue can be disallowed. This only applies if you have **Activate restricted item access by customer group** turned on in the Preferences - otherwise you can ignore this setting.

The **Items** tab displays a list of items that are members of the group you are viewing:



To delete a department

Double-click it to display the entry window, then click the **Delete** button. Note that you can not delete a department that has item members. You will be warned if you try to do this. To delete a department with Items, click the items tab and note the items that are members, then edit those items (using the **Items > Show items ...** menu command) and set their departments to either none or a different department. You will then be able to delete the department.

Previous: [4.11. Managing drug interaction groups](#) | | Next: [4.13. Prices in mSupply](#)

Last modified: 2020/01/14 10:55 by lou

4.13. Prices in mSupply

The price you charge customers for your goods is, of course, very important. mSupply provides you with several different ways to set the selling price of your goods. Here they are:

- Each supplier has a margin field that determines how much to add on to the cost price when buying from that supplier
- Each item has a margin field that determines how much to add on to the cost price when buying that item
- There is a preference (**File > Preferences > Invoices 1**) which controls how these 2 margins relate:
 - **Item margin overrides supplier margin on supplier invoices**
 - If this preference is ticked then the item margin will be used instead of the supplier margin. If it is unchecked then the supplier margin will be used instead of the item margin.
- You can set custom margins for each customer group (**File > Preferences > Invoices 2**)
 - **Allow editing selling price on customer invoice lines**
- You can fix the item price under the **General** tab in the **Item details** window.

Default margin	10
Default sell price of preferred packsize	0.00
Price editable when issuing	<input type="checkbox"/>

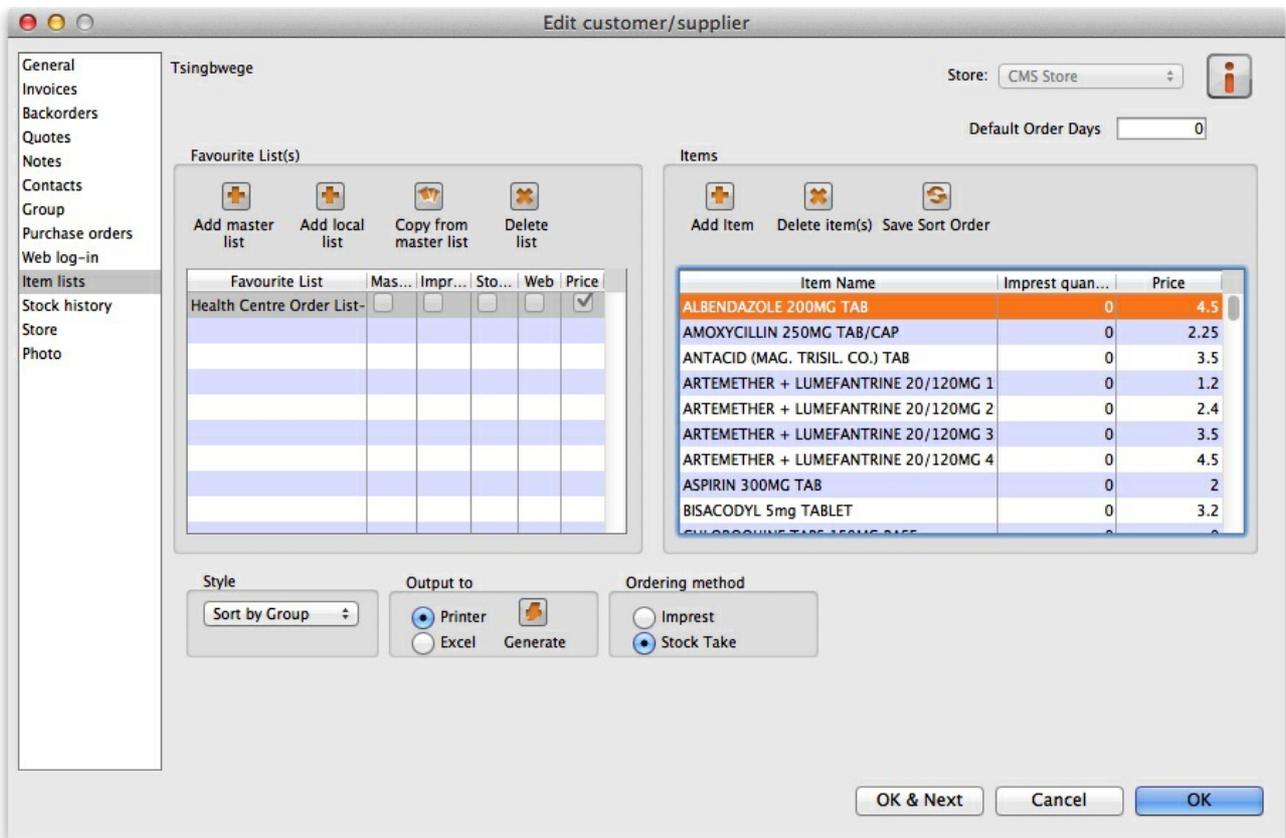
- Note that setting an item price here will set the price of **new stock** as you receive. It will not affect the price of existing stock- you can change existing prices if you have permission to do so by viewing an item and going to the "Stock" tab.
- You can set item prices when setting up a data file by importing an item list. (see below)

Per customer pricing

Updated: version 3.12

Alternatively, individual prices can be set for each customer. This can be done in the **Edit Customer/Supplier** window which you can find by:

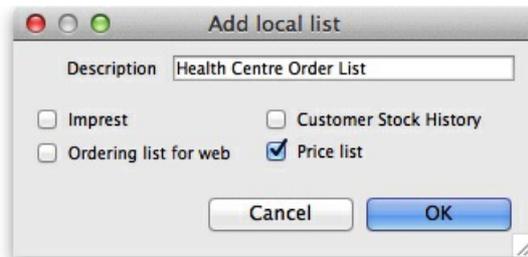
- going to the **Customer** tab of the Navigator
- click on the **Show Customers** button
- find the customer you wish to customise prices for
- double click the customer line
- choose the **Item Lists** tab (see below)



To customise the pricing, add a list to the **Favourite Lists** column (either by clicking **Add master list**, **Add local list** or **Copy from master list**) or edit an existing list by double-clicking on it. Check the **Price list** checkbox from the window that comes up and any other checkboxes that you require.

Info

- You only need the Price list check box marked to customise prices
- Only one list per customer can be price customised



Make sure the list is selected and then go to the **Items** section of the window. Enter the corresponding prices that you would like to assign to each item for that customer by clicking on the item and then clicking on the price ("0" by default). You can also add items to the list by clicking **Add item** and entering the item name and the price in the window that appears. The customer will now be charged the prices set in the list instead of any other price set.

Previous: [4.12. Managing item access with Departments](#) || Next: [4.14. Repacking items](#)

Last modified: 2020/01/14 10:56 by lou



4.14. Repacking items

Creating a new repack

The command **Items > New repack** will display a window where you can repack a particular item into smaller or larger packs and/or move all or part of a batch to another location. It is a more complex version of the [split functionality](#) and will allow you to handle several batches at a time.

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- [Creating a new repack](#)
- [Printing a repack](#)
- [Deleting a repack](#)
- [Viewing repacks](#)
- [Creating a new repack](#)
- [Printing a repack](#)
- [Deleting a repack](#)
- [Viewing repacks](#)

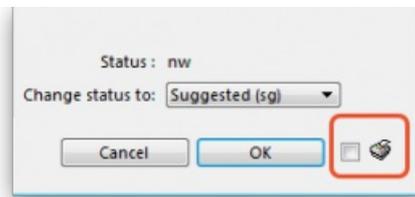
There are 4 steps for creating a repack. The window is numbered from top to bottom to help you follow the correct steps:

1. **Choose item to be repacked:** At [1.] type the first characters or code of the item to be repacked, then press the **Tab** key. If only one item text or code matches your entry, it will be filled in automatically, otherwise you will be shown a standard choice list from where you can select the item.
2. **Choose a batch:** At [2.] double click a line to choose the batch; for repacking, batches cannot be mixed, and a single batch must be used.
3. **Quantity to be repacked:** At [3.] enter the quantity which is to be repacked; the pack size field is automatically completed.
4. **Details of new line(s) - i.e. the repacks:** At [4.] click the **New line** icon to bring up this window calling for the details of the repacks, and enter the details as appropriate.

Note that repacks of different sizes may be created at this stage - e.g. 5,000 Paracetamol tablets may be repacked into 40×50 and 30×100. The **Sell price**, the **Batch number** and the **New Location** are automatically completed, but all these fields may be edited as required.

Not infrequently, because some tablets may be broken, for example, the total quantity of the item re-packed will be less than the quantity selected for re-packing at [2.]. To maintain the accuracy of your stock record, an inventory stock adjustment should be performed - see section [4.18. Inventory adjustments](#) for this.

Printing a repack



While the status of the repacking transaction is suggested (sg), checking the box beside the print icon will produce a picking slip of the number and size of packs of the original item; once the status is finalised, the same operation will give you the choice to produce a detailed record of the re-packs or a stock movement report (for when you're moving stock - perfect for giving to the people physically moving the stock in the warehouse because it shows what is to be moved to which location).

On clicking the OK button, a transaction is created showing the original line taken out of stock, and the new line(s) put into stock. The total value of the transaction is always zero.

⚠ Important

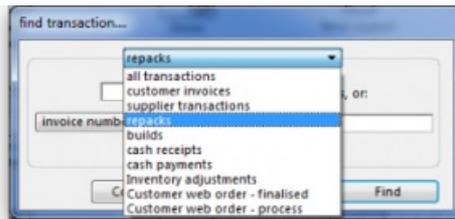
You cannot edit a repack transaction after you have clicked the **OK** button, so get it right the first time! (Tip: You can always "re-repack" an item to adjust a mistake however!)

Deleting a repack

If you click on the **Delete** button, then the repack will be deleted. Only repacks whose status is "sg" (suggested) or "nw" (new) can be deleted.

Viewing repacks

Repacked items can be viewed in the normal transaction list window - (**Item > Show repacks**) and select **Repacks** from the drop down list



Note that repacks created with versions of mSupply® prior to v1.4 will not show up using the "recent transactions" section of the window- you will have to enter the number directly.

Name	Type	St...	Entered	Confirmed	Innum	Total	Their ref	PS printed dt	Comment
repack	sr	fn	30/05/11	30/05/11	2860	0			
repack	sr	fn	21/06/11	21/06/11	2861	0			
repack	sr	fn	28/06/11	28/06/11	2862	0			
repack	sr	fn	28/06/11	28/06/11	2863	0			
repack	sr	sg	11/07/11		2864	0			

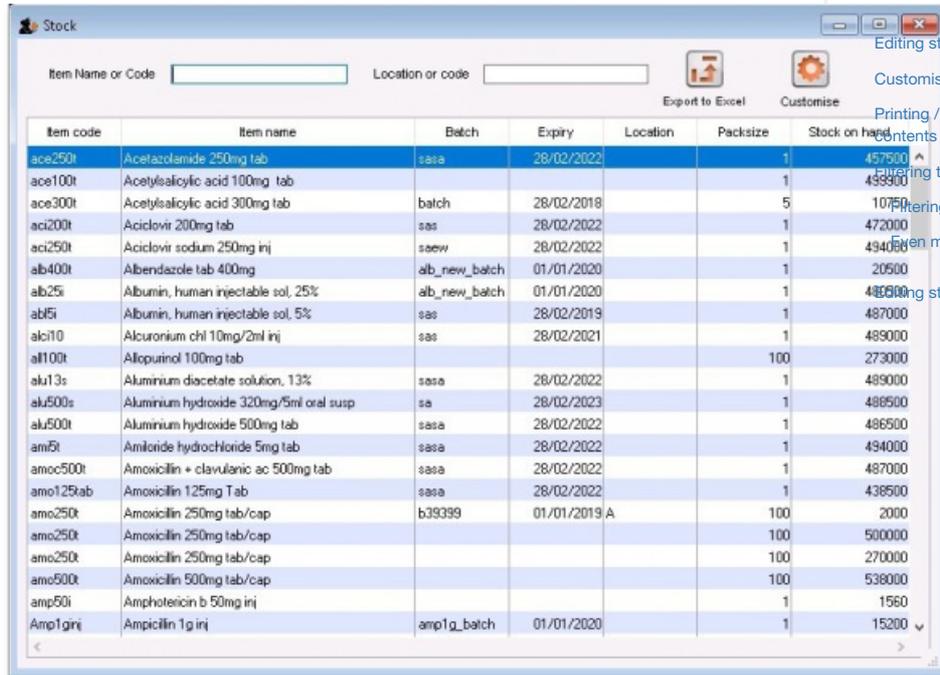
Previous: [4.13. Prices in mSupply](#) | | Next: [4.15. Show items with stock](#)



4.15. Show items with stock

Updated: version 3.12

This can be accessed by choosing **Show items with stock** from the **Item** menu or by clicking on the **Stock** icon  on the **Item** tab of the Navigator. Either of these options will display this window:



Item code	Item name	Batch	Expiry	Location	Packsize	Stock on hand
ace250t	Acetazolamide 250mg tab	sasa	28/02/2022		1	457500
ace100t	Acetylsalicylic acid 100mg tab				1	498900
ace300t	Acetylsalicylic acid 300mg tab	batch	28/02/2018		5	107500
aci200t	Aciclovir 200mg tab	sas	28/02/2022		1	472000
aci250t	Aciclovir sodium 250mg inj	saew	28/02/2022		1	494000
alb400t	Albendazole tab 400mg	alb_new_batch	01/01/2020		1	20500
alb25i	Albumin, human injectable sol, 25%	alb_new_batch	01/01/2020		1	480500
alb5i	Albumin, human injectable sol, 5%	sas	28/02/2019		1	487000
alc10i	Alcuronium chl 10mg/2ml inj	sas	28/02/2021		1	489000
all100t	Allopurinol 100mg tab				100	273000
alu13s	Aluminium diacetate solution, 13%	sasa	28/02/2022		1	489000
alu500s	Aluminium hydroxide 320mg/5ml oral susp	sa	28/02/2023		1	488500
alu500t	Aluminium hydroxide 500mg tab	sasa	28/02/2022		1	486500
ami5t	Amlonide hydrochloride 5mg tab	sasa	28/02/2022		1	494000
amoc500t	Amoxicillin + clavulanic ac 500mg tab	sasa	28/02/2022		1	487000
amo125tab	Amoxicillin 1.25mg Tab	sasa	28/02/2022		1	438500
amo250t	Amoxicillin 250mg tab/cap	b39399	01/01/2019 A		100	2000
amo250t	Amoxicillin 250mg tab/cap				100	500000
amo250t	Amoxicillin 250mg tab/cap				100	270000
amo500t	Amoxicillin 500mg tab/cap				100	538000
amp50i	Amphotericin b 50mg inj				1	1560
Amp1ginj	Ampicillin 1g inj	amp1g_batch	01/01/2020		1	15200

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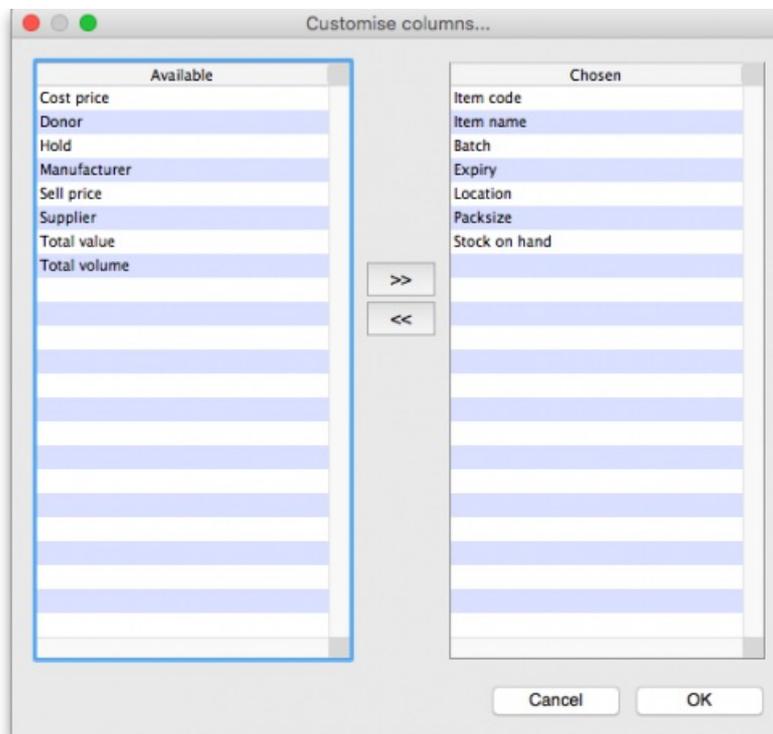
- Customising the list
- Printing / exporting the contents of the table
- Filtering the list
- Filtering by location
- Even more specific
- Editing stock lines
- Customising the list
- Printing / exporting the contents of the table
- Filtering the list
- Filtering by location
- Even more specific
- Editing stock lines

By default all stock is listed, and where the stock of an item is present in different batch numbers, each one is displayed.

Just like nearly all the other tables of information in mSupply, you can order the information by any column by simply clicking on the column header. Reverse the sort order by clicking on the same column again.

Customising the list

You can choose the columns displayed by clicking on the **Customise** button to display this window:



Listed under **Available** are the columns not presently displayed, and under **Chosen** are the columns presently displayed. Changes are made by highlighting your chosen column on this window, and moving it using the buttons in the centre to add or remove it from the display.

You can drag the items in the *Chosen* column into the order of your choice to change the order they are displayed in the list (top of the list is displayed on the furthest left, bottom of the list is displayed the furthest right).

Printing / exporting the contents of the table

You can export the stock information on the items displayed in the table by clicking on the *Export to Excel* button. Only the items displayed in the table will be exported and a fixed set of columns will be exported - this set is not affected by any changes you make to the displayed columns using the *Customise* button described above.

In your spreadsheet application you can manipulate or print the data as you please.

Filtering the list

Entering the item name or code in the box will filter the list; entering the first few characters of an item name will display only those items which begin with those letters (or numbers).

the stock line:

Item stock line details...

Item code AM01020 Item name AMOXICILLINE 500 MG GELULE

General Ledger Status Reference documents Log

Quantity according to stock
Total Quantity 22150 Available 21150

Cost price 35 Hold Volume per pack 0 m3
Sell price 45 Location A.01.02
Expiry date 01/07/2022 Pack size 1
Batch B092 Quan per inner 0 Initial quantity 0
Supplier NPSP AGENCE D'ABIDJAN Inners per Outer 0

Note

Custom stock fields

Cancel OK

See the [4.01.05 Items - Stock tab](#) page for details on what the various fields mean.

Previous: [4.14. Repacking items](#) || Next: [4.16. Splitting a stock line](#)

Last modified: 2021/04/28 15:00 by Gary Willetts



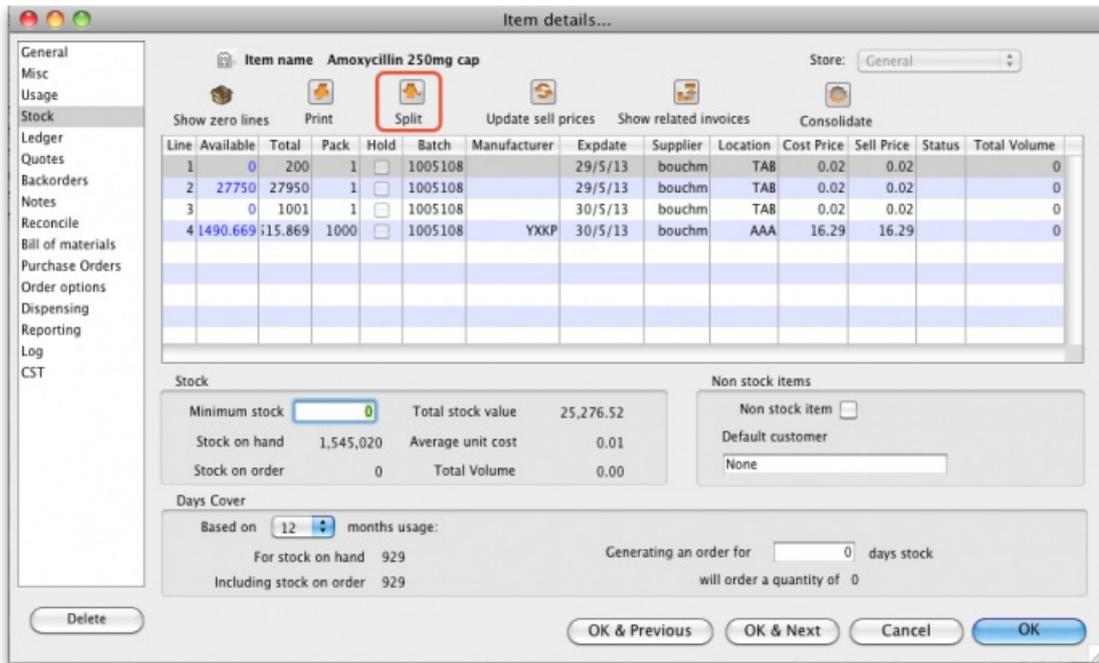
mSupply documentation wiki



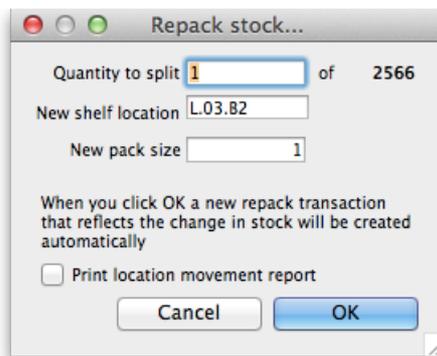
4.16. Splitting a stock line

The Split feature of mSupply provides us with the ability to break down stock into smaller pack sizes, consolidate it into larger pack sizes or move part or all of a stock line to a new location. Here's how to use it:

- From the **Item** menu choose **Show items** to find the item to be split
- Enter the start of the item name and click **Find**
- Once the **Item details** window is displayed, choose **Stock** from the side bar list and you will see this window:



- Click on the line you want to split, then click **Split**:



- In the **Quantity to split** field enter the number of packs you want to move/split (if you're repacking the whole lot, then enter the total quantity - the number to the right of the word 'of'!)
- In **New location** enter the new location for the packs that are being split (leave it alone if you're not changing the location)
- In the **New pack size** field enter the The new pack size for the split items (leave this as it is if you're not changing the pack size!)
- Click **OK** and you're done - the changes will be immediately visible in the item stock details window.

So, to summarise, you can use the split command to perform these actions:

- Change the location of some or all of a stock line
- Repack some of a stock line into a different pack size
- Both of the above at the same time!

Produce a movement report

mSupply provides a feature to produce a 'Movement report' for stock that you have moved to a different location using the split function. It's useful for printing off and giving to the person who is going to physically move the stock in the store.

Here's how to create one:

- Once you have entered the details of your split/new stock location, click on the checkbox labelled **Print Location Movement report** and click **OK**:

Repack stock...

Quantity to split of 2566

New shelf location

New pack size

When you click OK a new repack transaction that reflects the change in stock will be created automatically

Print location movement report

- The following report is displayed:

National Medical Store
Kukum Highway Ranadi, Honiara, Solomon

Our ref: _____

Page 1 of 1

Item code 2011
Item name ACRIFLAVINE 0.2% IN SPIRIT 70% BOT/50ML

Original			
Location	Pack	Batch	Quantity
L.03.B2		541/542	

---->>

New			
Location	Pack	Batch	Quantity
M.01.A1		541/542	

From this location **To this location**

- Note that the original and new locations are clearly identified so a printed version of this report can be easily referred to when physically carrying out the move in the warehouse.

Previous: [4.15. Show items with stock](#) | Next: [4.17. Stocktakes](#)

Last modified: 2020/08/25 04:23 by Craig Drown

4.17. Stocktakes

Updated: Version 4.10

General

There are two main types of stocktakes:

- **Partial stocktake:** A partial stocktake means counting only a part of your stock. This may be a good way of splitting up counting all your stock, part of a system for counting all your stock in sections over a longer period of time or carrying out smaller periodic checks. You may select the stock to go in a stocktake by different locations, stock groups, types of items etc.
- **Full stocktake:** All items are counted at one time.

Important

A user can only create a stocktake or edit the lines on a stocktake if they have the appropriate permissions. See the [25.15. Managing users](#) section for details.

Closing the store

Traditionally, during a full stocktake, the store is closed, and no transactions may take place until the exercise is completed.

The inconvenience caused by closure of the store varies from minor to significant. The benefit of using mSupply's stocktake module, while requiring that the store is closed while the physical stock check is in progress, is that the store may be opened immediately after the physical count is completed. Entry of the adjusted figures into mSupply® may be made at any convenient time over the next few days. Having said that normal operation can occur immediately after the stocktake, issuance will be affected by any discrepancies discovered during the stocktake.

Important

It is recommended to [Create inventory adjustments from the stocktake as soon as possible](#) after the physical count.

Confirm Customer Invoices

mSupply will not allow stock that is on a Customer Invoice with status of suggested (**sg**) to be taken out of stock by any other transaction process, including an inventory adjustment flowing from a stocktake - refer [Creating inventory adjustments](#).

Important

It is **HIGHLY RECOMMENDED** to process (take the stock off the shelves) and confirm any customer invoices with a status of suggested (**sg**) *before* doing a stocktake - please see [Issuing Goods to a Customer \(Customer Invoices\)](#), [Confirming an invoice](#) for details on how to do that.

This is so important that mSupply will show you a warning message when you try to create a new stocktake if it detects and customer invoices with suggested status. Please read the warning and take suitable action.

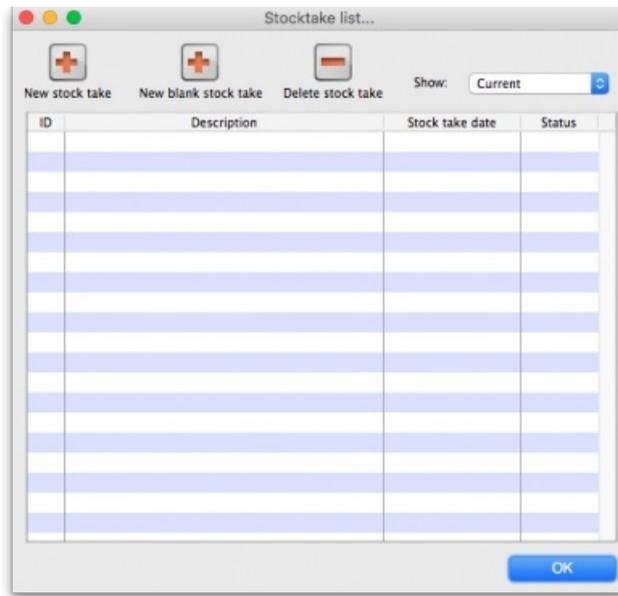
Displaying stocktakes already performed

Select **Show Stocktakes...** from the **Items** menu to display any stocktakes already created or performed. This displays the following screen:

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- General
 - [Closing the store](#)
 - [Confirm Customer Invoices](#)
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- General
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 - [Enter quantities into the system](#)
 - [Create inventory adjustments](#)
 - [Viewing inventory adjustments](#)
 - [Print the report](#)





The *Show:* filter allows you to choose which stocktakes are displayed in the list. Options are:

- **All:** shows all stocktakes in the current store with any status for all time. Could be many of them!
- **Current:** selected by default when the window is displayed and shows all 'suggested' stocktakes (status = **sg**). These are stocktakes which have not yet been processed into inventory adjustments (finalised; status = **fn**)
- **This year:** shows all stocktakes of any status that have been created in the current year.
- **Last year:** shows all stocktakes of any status that were created in the year before the current one.

Note: there will be an additional **Program** column in the table if you have program based master lists created (see [4.05. Programs](#)) so that you can easily see if any of your stocktakes are program based.

Buttons on the Stocktake list window

New stock take

A **New stock take** is the normal way that you would create a stocktake, described in more detail on the rest of this page.

New blank stock take

A **New blank stock take** This would be used only if you are going to use the stocktake process to add new stock, that is stock that you are sure *is not* already recorded as in your store.

Delete stock take

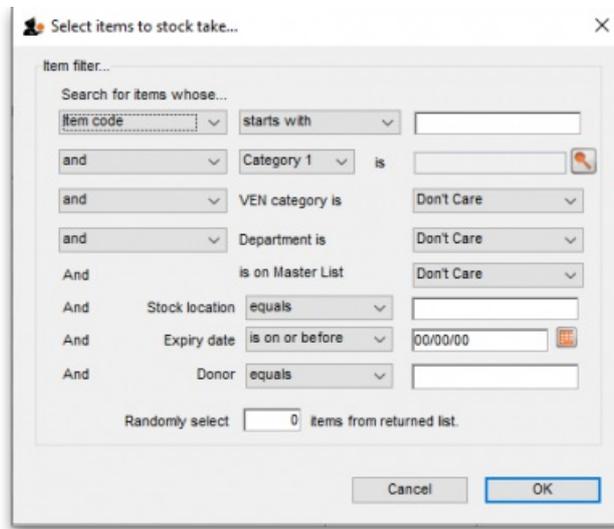
Delete stock take allows you to delete stocktakes that have not been processed (finalised) into inventory adjustments.

Alert

There is little point in keeping old stocktakes with status = "sg", especially if you are about to create a new stocktake containing the same items. Indeed, it can be quite dangerous to leave old stocktakes with status = "sg" in your system. If time has passed since the stocktake was created, then the snapshot and actual quantities are almost certainly incorrect. For good housekeeping reasons, it is good practice to delete old "suggested" stocktakes (status = "sg").

Creating a new stocktake

After viewing the current stocktakes, click on the **New stock take** button, and the following window will appear:

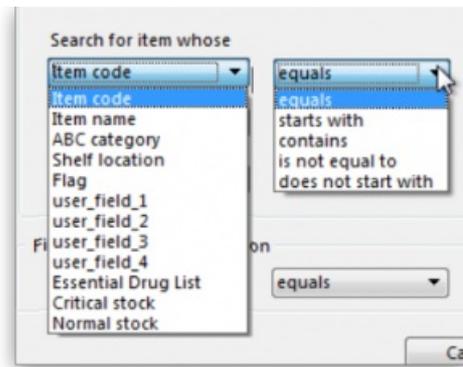


You can produce a stocktake for *all* items in your store by clicking **OK** without entering any filtering criteria. However, it will often be helpful to filter the stock that will be included in a number of ways as discussed below.

Filtering the stock to be included

You can filter by:

- [Item properties](#) Item name, code etc. as shown in this screenshot:



- [Item categories](#)
- [VEN categories](#)
- [Department](#)
- [Master list](#) If you organise your items using master lists this can be a very powerful way of including items on particular master lists only in a stocktake e.g. for programmes
- [Donor](#) This filter is only displayed if the donor tracking preference is turned on (see [Using the donor module](#))
- [Locations](#). This is recommended when you are doing a full stocktake of a large warehouse where you can have several stocktake teams working simultaneously - see the [Filtering by location](#) section below.
- [Expiry date](#). Search for items whose expiry is before a particular date. This allows you to easily remove all expired items from stock.
- [Randomly selected](#). Select a number of items randomly chosen by mSupply. This is handy for the purposes of doing an audit.

⚠ Important

Whatever filters you use, ad-hoc or non-stock items will **never** be included in a stocktake

Filtering by location

Filtering by location is an especially useful way of breaking up a large stocktake in to a series of smaller stocktakes. This also allows different teams to undertake different smaller stocktakes simultaneously.

🚨 Alert

Of course, it is not possible to filter by [stock locations](#) if locations have not been defined, and stock placed in to those locations!

📄 Info

- The "Shelf location" in the top left [Item properties](#) drop-down list is the **default shelf location** of the item, which is

where stock of a particular item might usually stored. This is not a recommended way of organising a warehouse, and is included here only due to customer request 😊.

- To filter the stock take by shelf location to include what stock is actually stored there (according to mSupply records!), use the **Stock location** filter.

In this example, the location filter has been set to **equals** (the default), and the entry in the box has been typed in as **A** . Only stock in shelf locations called **A** will be included in the stocktake.

Preparing the stocktake

The stocktake list is produced:

- Sorted alphabetically, by name
- Omitting items whose stock level is zero

At this point the status of the stocktake is **sg** (suggested i.e. it is still being worked on and has not affected stock in any way yet):

Lin...	Location	Item code	Item name	Batch	Expiry	Snapsh...	Pack Size	Enter Quantity	Adjustment reason	Comment
1	DORAAACL	ACICLOVIR, 200mg, dispersible, bis...	9E70	31/10/2021	2	500	2			
2	DORAAAL	ALUMINIUM HYDROXIDE, 500mg, bis...	S19	31/10/2021	433	1000	433			
3	DORAAAM	AMITRIPTYLINE HYDROCHLORIDE, 2...	APY29007	31/05/2022	40	500	40			
4	DORAAAM	AMOXICILLIN, 250mg, blister, dispers...	SM19002	30/09/2022	3862	100	3862			
5	DORAAAM	AMOXICILLIN, 250mg, blister, dispers...	911144	31/07/2022	4547	100	4547			
6	DORAAAM	AMOXICILLIN, 500mg, blister, dispers...	1903101	31/03/2022	530	100	530			
7	DINJAMPL	AMPICILLIN, 1g, (M-IV), powder, vial	1908113	31/08/2022	48	50	48			
8	DORAAAL	ARTEMETHER 20mg + LUMEFANTRIN...	ID92167	30/08/2021	1680	1	1680			
9	DORAAAL	ARTEMETHER 20mg + LUMEFANTRIN...	ID92170	30/06/2021	2430	1	2430			
10	DORAAAL	ARTEMETHER 20mg + LUMEFANTRIN...	GK91251	30/06/2022	60	1	60			
11	DORAAAS	ASCORBIC ACID, (vit. C), 500mg, tab	TG309	30/04/2021	5	1000	5			
12	EMEQBA	BAG, for AMW & CHW	NA		19	1	19			
13	EMEQBA	BAG, for AMW & CHW	NA		802	1	802			
14	EMEQBA	BAG, tablets, reseable, 80x100x0.05...			6	1	6			
15	SCTDBA	BAG, urine, collecting, 2 litres	201812	30/11/2023	100	1	100			
16	EMEQKID	BASIN, kidney, polypropylene, 475ml	NA		650	1	650			
17	EHOEBA	BASIN, kidney, stainless steel, 825ml	NA		152	1	152			
18	EMEQBA	BASIN, wash, shallow, 4l, stainless ...			80	1	80			
19	DEXTBEN	BENZYL BENZOATE, 25%, lotion, 1l ...	18018B035	31/05/2022	1770	1	1770			

Now fill in the information at the top of the stocktake:

- **Description:** A default description is filled in for you. We recommend that edit this to make it more meaningful while processing and for when you look back at your records later. This description is what is visible when you see a list of stocktakes. For example, you could add **Annual stocktake** or **Monthly check** . And / or, if you are filtering by anything such as stock location, it is worth including that here, e.g. **M02.12.2A** .
- **Comment:** Put any other information you need to record about the stocktake in here.
- **Stock take date:** This is the date you performed the stocktake and is set to the date the stocktake was created by default. Users will only be able to edit this if they have the *Can edit stocktake dates* permission set (see [Managing users](#) for more information). They will also be able to set the confirmation date of the inventory adjustments created from the stocktake when it has been finalised (but you can never change the date to before the *Stock take date* set in this field).

New line button: You can add new lines to the stocktake by clicking on this button (see the [Adding items not in the stocktake](#) section below)

Delete lines(s) button: Click on this to remove lines you have already selected in the list from the stocktake (you can use the usual Shift and Ctrl/Cmd clicking to select lines as usual).

Just a quick word about the read-only (non-editable) information displayed at the top of the stocktake:

- **Stock take key:** The stock take number. This is an automatically generated number which increments by 1 for each new stocktake. It is **unique within a store** only so it is possible for stocktakes from different stores to have the same number.
- **Stock take entered date:** The date the stocktake was created in mSupply.
- **Stock take status:** The current status is the stocktake:
 - sg = suggested, the stocktake is still being worked on and is editable - new lines can be added or deleted and values can be edited etc.
 - fn = finalised, the stocktake is complete and cannot be edited (inventory adjustments have been created from it)

The stocktake is a list of your stock, providing you with a 'snapshot' of your stock at a point in time. From this, mSupply enables you to create printed lists of your stock items from which you and your staff can do the physical stocktake.

Example for a large warehouse

A large warehouse can have thousands of locations. A full stocktake would run to tens or even hundreds of pages. This is a challenge to manage. In cases like this, it is recommended to create stocktakes broken down according to locations.

⚠ Important

Remember to confirm any outstanding CIs with status = **sg** before you start, and don't let any of your staff create any new customer invoices until the stocktake is over, and preferably, all inventory adjustments have been processed.!

In large warehouses, stock locations are often labeled in a systematic pattern something like this:

A##.##.%%, where,

- **A** = 'Room', for example, **M** → Main store room
- **##** = aisle numbers, **01**, **02**, **03**, etc.
- **##** = bay number, **01**, **02**, **03**, etc. noting that a common convention is for even numbered aisles to have only even numbered bays, and similarly, odd numbered aisles to have only odd numbered bays.
- **%%** = shelf number, **1A**, **1B**, **1C**, etc.

For example, **M20.02.4E** would be the location name for the location in the **M**ain store room, Aisle **20**, Bay **02**, Shelf **4E**

To create stocktakes for each	Filter Stock location by
Aisle	Starts with M01 , Starts with M02 , Starts with M03 , etc.
Bay	Starts with M01.01 , Starts with M01.03 , Starts with M01.05 , etc.
Shelf	Starts with M01.01.1A , Starts with M01.01.1B , Starts with M01.01.2A , Starts with M01.01.2B , etc.

To speed things up *and* ensure that you have described your stocktakes correctly according to the stock locations filter, you can copy the text of your filter (before clicking OK) and then paste it at the end of the stocktake description. After clicking on the **Stocktakes** button on the **Items** navigator this can be done entirely with the keyboard! 🤖 For example, if you want to create a stocktake for all location in Bay **M01.01**:

Firstly, click on the **Stocktakes** button on the **Items** navigator
The **Stocktake list...** window appears. Then:

1. Type **Ctrl+N** to start a **New stock take**
2. Type **Tab Tab Tab Tab Tab Tab Tab Tab (Tab x 8)** to get to the Stock location **equals** pull-down button
3. Type **Down-arrow** to get to the **starts with** option
4. Type **Tab** to move the focus to the text entry field
5. Type **M01.01**
6. Type **Ctrl+A** to select all text
7. Type **Ctrl+C** to copy the selection to the clipboard
8. Type **Enter** (same as clicking **OK** button).
The **Stock take sheet...** window appears.
9. Type **Tab** to highlight all text in the **Description** field
10. Type **End** to move the cursor to the end of the existing text (If you are on a laptop where the **End** key is hard to find, the Right arrow (→) key will also work here)
11. Type (spacebar)
12. Type **Ctrl+V** (Pastes the clipboard)
13. Type **Enter** (same as clicking **OK & Next** button).
The **Stocktake list...** window appears.

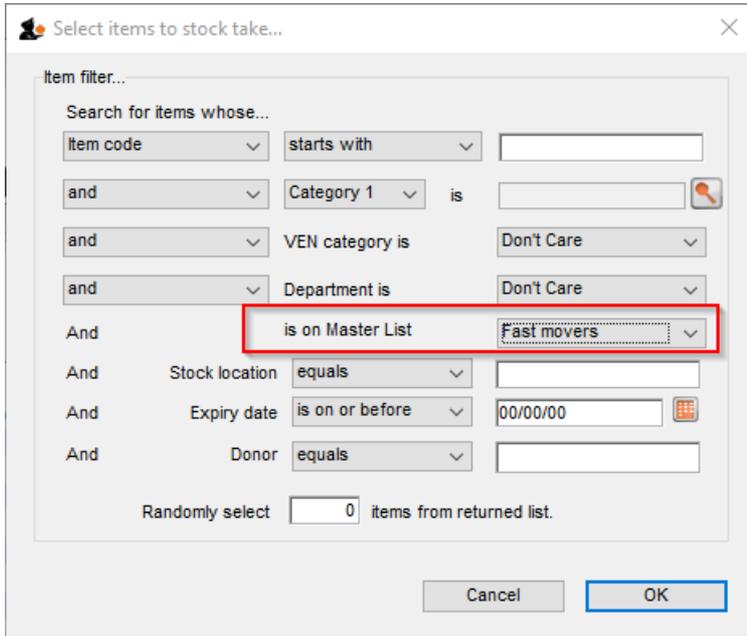
Repeat the above steps for *each* stocktake.

Example for fast moving items using a master list

It is often useful to regularly do a stocktake of fast moving items. A convenient way to do this is to create a [master list](#) of fast moving items called, say, [Fast movers](#).

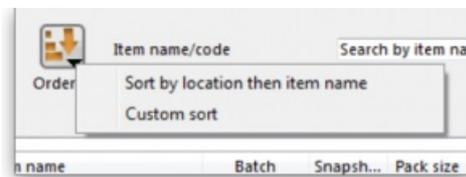
To create a stocktake containing just the items on this [Fast movers](#) master list:

1. Confirm any outstanding CIs with status = sg
2. Item > Stocktakes > New stock take
3. Select the Fast movers option from the **is on Master List** pull-down
4. Click **OK**



Print sheets to do the stocktake

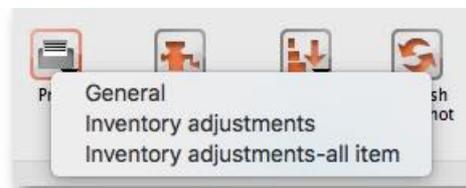
Before printing you need to ensure that the order in which items are displayed is appropriate. By default the list is alphabetical, but for stocktaking purposes, it may be more appropriate to sort the list by location and then by item name; this is achieved by clicking on the **Order by** button and choosing **Sort by location then item name**



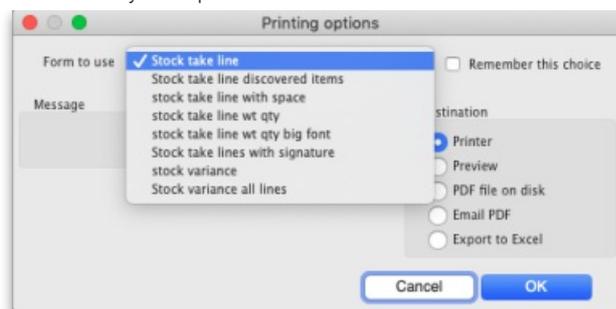
If you want another sort order, click a column heading for a simple sort, or choose the **Custom sort** option from the Order by button.

You can filter a stock list by entering the item name - or the first few characters of the name - or the item code in the box **Item name/code** in the top right area of the window, then clicking the **Find** button

Clicking on the **Print** icon displays the available options:



- **General:** contains several options. Click on it and you are presented with a further window:

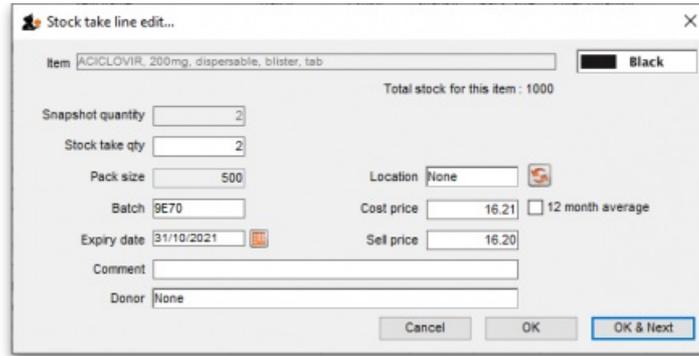


The Form to use drop down list contains these options:

Tip

You can press the **Tab** key on the keyboard to quickly move through the editable fields on one row and then then to the next row to edit (**Shift+Tab** to go to the previous editable field).

If there is more of a discrepancy between what mSupply says you have in stock and what was physically seen in the warehouse then double-click on the line. The line edit window will open:



Stock take line edit...

Item: ACICLOVIR, 200mg, dispensable, blister, tab Black

Total stock for this item: 1000

Snapshot quantity:

Stock take qty:

Pack size:

Batch:

Expiry date:

Comment:

Donor:

Location:

Cost price: 12 month average

Sell price:

Buttons: Cancel, OK, OK & Next

You can now edit more details:

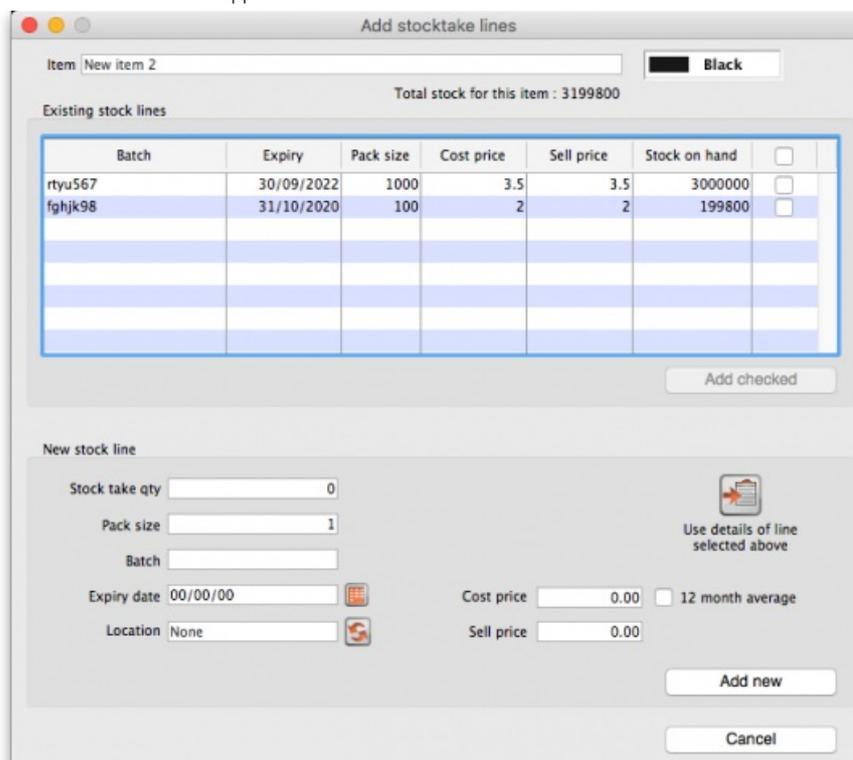
- **Stock take qty:** the number of packs you counted in the warehouse
- **Batch:** the batch or lot number of the stock
- **Expiry date:** the date the stock will expire
- **Location:** where the stock is located in the warehouse (type the first few letters of the location's code and press the **Tab** key on the keyboard to select the right location from a matching list)
- **Cost price:** the price one pack of this line of stock cost you. Check the **12 month average** checkbox if you want mSupply to calculate a weighted average pack price based on the supplies of this item you have received in the last 12 months
- **Sell price:** the price you sell a pack of this line of stock for
- **Comment:** anything you want to remember that was notable about this line during the stocktake
- **Donor:** the donor of this line of stock (type the first few letters of the donor's code and press the **Tab** key on the keyboard to select the right location from a matching list). Will only be available if the **Allow tracking of received stock by donor** preference is turned on (see the [Invoice preferences](#) page for details)

Notice that you cannot change the **Pack size** value. If you want to do that then you must set the Stock take qty for this line to 0 and add a new line with the correct pack size (see the Adding items not in the stocktake list section below for details).

Adding items not in the stocktake list

In the event of an item being physically present in the warehouse, but not on the list then it needs to be added to the stocktake in mSupply:

1. Click the **New line** button and this window will appear:



Add stocktake lines

Item: New item 2 Black

Total stock for this item: 3199800

Existing stock lines

Batch	Expiry	Pack size	Cost price	Sell price	Stock on hand	<input type="checkbox"/>
rtyu567	30/09/2022	1000	3.5	3.5	3000000	<input type="checkbox"/>
fgjhk98	31/10/2020	100	2	2	199800	<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

Add checked

New stock line

Stock take qty:

Pack size:

Batch:

Expiry date:

Location:

Cost price: 12 month average

Sell price:

Use details of line selected above

Buttons: Add new, Cancel

2. If you want to add a line of stock that already exists in mSupply then, in the *Existing stock lines* table at the top, check the checkbox for the line you want to add and then click on the *Add selected* button. You can add more than one line if you wish - just check all the lines you want to add. If you check the checkbox in the header of the checkbox column this will check all the boxes for you (and uncheck them again if you uncheck it).

- If you want to add a new line of stock that doesn't exist in mSupply then enter its details in the *New stock line* section at the bottom and click on the *Add new* button to add it.
 - Stock take qty: the number of packs you found in the warehouse.
 - Pack size: the number of items in each pack that you found in the warehouse.
 - Batch: the batch number of the item you found.
 - Expiry date: the expiry date of the item you found (click on the calendar icon to select it or enter it manually).
 - Location: the shelf location in the warehouse where you found the item (if you don't know the exact location then type the first few characters of the location label, press the Tab key on the keyboard and select the location from the list that appears).
 - Cost price: if you know it, enter it in the currency you are using in your datafile. If you don't know it, you could check the *12 month average* checkbox and mSupply will enter a weighted average price of all the stock of this item you received over the last 12 months.
 - Sell price: if you know it, enter it in the currency you are using in your datafile.
 - Use details of line selected above* button: this is a shortcut to save typing values in all the fields in this section. If the details are similar to a stock line that is shown in the *Existing stock lines* table above then click on the line in the table to select it then click on this button. mSupply will copy the details of this line into the fields in this section and you can then edit the ones that aren't quite right.
- You can also select a colour for the line in the stock take using the colour picker in the top right hand corner (set to black by default, as shown in the screenshot).

After clicking on the *Add new* button you are returned to the **Stocktake sheet** window, where the new line entered will now appear in the colour selected; note that the new line(s) appear at the bottom of the stocktake and they have a value of zero in the *Snapshot* column.

Info

- If you add a new line to the stocktake that has the same details (pack size, batch, expiry, location, cost and sell price) as one already on the stocktake, you will be asked to confirm if you really want to add the line.
- All details of a new line added may be edited, but only the **quantity** or the **location** of existing lines on the sheet may be edited; this is performed by double clicking on the row you wish to edit.
- The *Delete item* button will only work to delete lines which you have added yourself (i.e. lines with a snapshot quantity of zero).

Adjustment reasons

If you have created at least one Positive inventory adjustment reason and one Negative inventory adjustment reason in the system (see the [16.10. Options \(standard reasons\)](#) section for details) and at least one of each type is active, then an additional *Adjustment reason* column will be displayed in the stocktake window:

Lin.	Location	Item code	Item name	Batch	Expiry	Snapsh.	Pack Size	Enter Quantity	Adjustment reason
1	DORAAACI	ACICLOVIR, 200mg, dispersible, blister, tab	9E70	31/10/2021	2	500	2		
2	DORAAAL	ALUMINIUM HYDROXIDE, 500mg, blister, tab	S19	31/10/2021	433	1000	433		
3	DORAAAM	AMTRIPYLINE HYDROCHLORIDE, 25mg ...	APV29007	31/05/2022	40	500	40		
4	DORAAAM	AMOXICLLIN, 250mg, blister, dispersible tab	SM19002	30/09/2022	3862	100	3862		
5	DORAAAM	AMOXICLLIN, 250mg, blister, dispersible tab	911144	31/07/2022	4547	100	4547		
6	DORAAAM	AMOXICLLIN, 500mg, blister, dispersible, ...	1903191	31/03/2022	530	100	530		
7	DORAAAM	AMPCICLLIN, 1g, (M-N), powder, vial	1908113	31/08/2022	48	50	48		
8	DORAAAL	ARTEMETHER 20mg + LUMEFANTRIME 12...	DS2167	30/06/2021	1680	1	1680		
9	DORAAAL	ARTEMETHER 20mg + LUMEFANTRIME 12...	DS2170	30/06/2021	2430	1	2430		
10	DORAAAL	ARTEMETHER 20mg + LUMEFANTRIME 12...	QK91251	30/06/2022	60	1	60		
11	DORAAAS	ASCORBIC ACID, (vit. C), 500mg, tab	TG359	30/04/2021	5	1000	5		
12	EMEQBA	BAG, for AMV & CHW	NA		19	1	19		
13	EMEQBA	BAG, for AMV & CHW	NA		802	1	802		
14	EMEQBA	BAG, tablets, resealable, 80x100x0.05mm	NA		6	1	6		
15	SCTDBA	BAG, urine, collecting, 2 litres	201812	30/11/2023	100	1	100		
16	EMEQKD	BASIN, kidney, polypropylene, 475ml	NA		650	1	650		
17	EMQEBA	BASIN, kidney, stainless steel, 825ml	NA		152	1	152		
18	EMEQBA	BASIN, wash, shallow, 4l, stainless steel	NA		80	1	80		
19	DEXTBEN	BENZYL BENZOATE, 25%, lotion, 1l, bot	18018B035	31/05/2022	1770	1	1770		

The column is read only but, if you edit the number in the *Enter Quantity* column then the line edit window will be opened and you must select an Adjustment reason (one of those you set up in the preferences – a Positive adjustment reason if you have increased the quantity compared to the *snapshot* value, a Negative adjustment reason if you have reduced the value):

When you finalise the stocktake and create the inventory adjustments (see below), the individual lines of the inventory adjustments will be given the same adjustment reasons you set for them in the stocktake.

Create inventory adjustments

When all necessary adjustments have been entered, you are ready to create the inventory adjustments.

Alert

Creating inventory adjustments (finalising the stocktake) is not reversible, so you have to be quite certain you've finished making all the changes you want to the stocktake before you do it.

Inventory adjustment categories

After you click on the **Create inventory adjustments** button, the following window will appear to ask you to confirm this is what you want to do:

Before you click on the **OK** button to confirm, you can select a transaction category to give to the inventory adjustments when they are created by clicking on the drop down list (these can be useful when it comes to reporting later). This drop down list is populated with all the transaction categories in your datafile that have a type of *inventory adjustment* (see section 22.07. [Transaction categories](#) for information on creating transaction categories).

What if there is insufficient stock to adjust?

If an item has limited stock and that stock is allocated to an invoice during stocktake, when you try to adjust the stock the following window will display giving you two options to choose from:

For the excel option a spreadsheet will open allowing you to analyse the invoices to which the stock is allocated. The highest invoice number is likely to be the one entered during stocktake.

A	B	C	D	E
Invoice	Type	Status	Item	Amount on invoice
2 of Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml batch 1608-28-96 needed to complete stocktake, view ledger:				
13121	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	17
13228	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	3
of Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml batch 16204026 needed to complete stocktake, view ledger:				
12928	ci	fn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	240
12976	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	1120
12981	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	250
12982	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	1280
13095	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	480
13121	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	450
13228	ci	cn	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	20

Of course, closing off transactions until a stocktake is complete and avoiding these kinds of issues is by far the best practice.

Info

If you have the *Can edit stocktake dates* permission (see *Managing users*) then you will be able to edit the confirmation dates of the inventory adjustments to match the stock take date.

Tip

Any changes to lines in a stocktake that don't include a change in quantity (e.g. a change in batch, expiry date or sell price only) will also result in stock in the system being updated when you click on the **Create inventory adjustments** button but it will not result in any lines being added to an inventory adjustment. You can see the changes in the system by viewing the details of the individual stock lines and all such changes are logged, on the stocktake (see the *log* tab when viewing the stocktake or 25.19. [The system log](#) and the stock line's log itself (see [Stock line details window](#)).

Viewing inventory adjustments

Once inventory adjustments have been created, the status of the stocktake changes from suggested (**sg**), to finalised (**fn**). You will now observe a change in the buttons appearing on the Stocktake sheet:

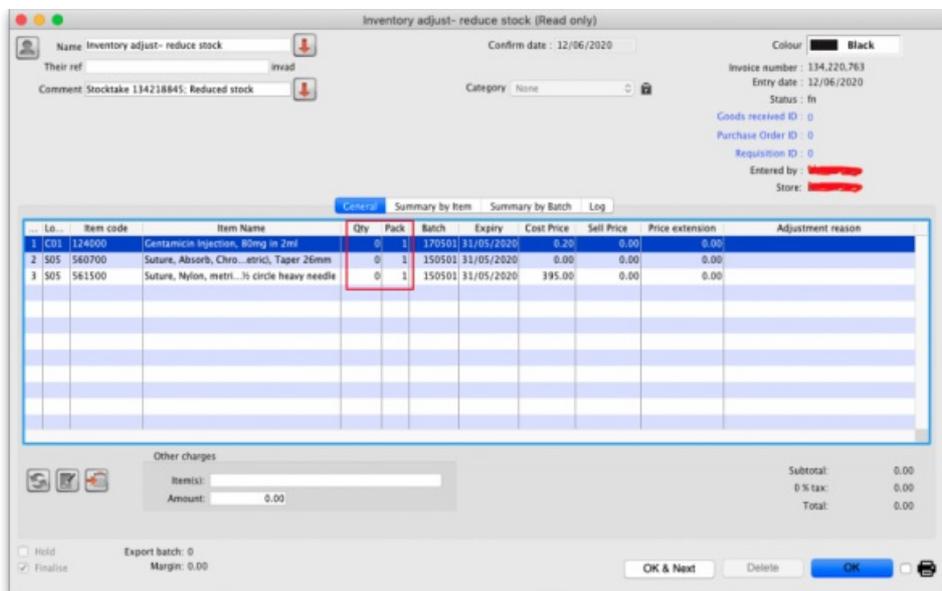
- in the upper area, only the **Print** button is present
- while at the bottom two new buttons are present; **Show added adjustments** and **Show reduced adjustments**.



- Click on either button to display the related inventory adjustment transaction.

If the inventory adjustment quantities look wrong

It is possible for the stock reduction inventory adjustments created by your stocktake to have smaller quantities on them than you expect. They may even be zero like the example in this screenshot (and you know there should definitely be a reduction in stock because the counted quantity was less than the snapshot value in the stocktake):



The quantity might not be zero but still less than the snapshot minus the counted quantity specified in the stocktake.

This scenario is because stock was found on new or suggested status customer invoices. This stock is reserved for customers by mSupply but not removed from your total stock (see [8.01. Issuing goods to a customer \(customer invoices\)](#)) and must be included in your count - if you don't include it in your count, then mSupply will try to remove it from your stock again when you finalise the stocktake. And if there's not enough stock, mSupply has to reduce the quantity on the reduction inventory adjustment. Which is the discrepancy you see when you look at the stock reduction inventory adjustment created by mSupply when you finalise the stocktake.

To avoid this scenario follow the golden stocktake rule:

Review and CONFIRM all Suggested (sg) or New (nw) status invoices before creating your stocktake.

If you must leave some customer invoices unconfirmed before finalising the stocktake then **include the stock on them in your stocktake count** If you confirm the invoices after creating the stocktake but before finalising it you must reduce the count on your stocktake by the total amount of that stock line on the invoices you confirmed. As you can see, it can be complicated so it's much better to follow the golden rule. Trust us!

To understand further see the [28.04. How to remove stock lines that have '0' available](#) page.

Print the report

Clicking on the **Print** button and clicking on **Inventory adjustments** will print this information:

Inventory Adjustment :2/08/17 Stock take Stock take number :8155									
Code	Item name category	Count	Add	Reduce	Net	Add Value	Reduce Value	Net Value	
10_7885	Abacavir 60mg tabs	1	0	1	-1	0	-5	-5	
10_7887	Abacavir+Lamivudine	1	30	0	30	150	0	150	
10_9899	Abacavir/Lamivudine	1	0	7	-7	0	-89.25	-89.25	
27_8091	Gloves Examination	1	0	100	-100	0	-3.1	-3.1	
Total		4				150	-97.35	52.65	

In this example, three adjustments have been made:

- Magnesium carbonate: present at the physical check but not on the sheet, has been added
- Peppermint oil has had its stock increased
- Sodium bicarbonate has been reduced in stock

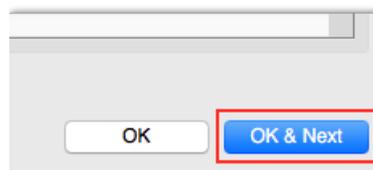
Items that weren't changed don't show in the report - if you want to see all items, including those that weren't changed then click on the **Print** button and select the **Inventory adjustments - all item** option.

Some points to note:

- When you have created the stocktake sheet, it's like 'taking a snapshot'; the physical stock at that location should not be removed until the stocktake has been performed; nor should stock be added.
- New transactions can however, be entered into the system.
- the Log tab on the **Stocktake sheet** will list any anomalies. An anomaly may occur if a transaction has been entered after the stocktake that issued more stock than you physically counted. Obviously someone has made a mistake in such a situation.
- There is on the stocktake window (lower left corner) a checkbox **Locked**, which, if checked, will allow neither deletion of the stocktake nor any changes to be made to it.



- **Ok and Next** - if you have no more stocktakes to add, click the 'OK' button, to add only the stocktake just completed. To add a further stocktake, click the 'OK & Next' button and proceed to add your next stocktake.





mSupply documentation wiki



4.18. Inventory adjustments

Inventory adjustments allow you to increase or decrease the stock of an item that is recorded in mSupply®. You will need to adjust the inventory if:

- Stock is discarded (due to damage or expiry)
- Stock has been stolen.
- You find some stock on the shelf that is not in mSupply and you don't know where it came from.

DO NOT use inventory adjustments for distributing stock to customers or patients or receiving stock from suppliers. Use customer invoices or prescriptions and supplier invoices for that. Otherwise, you will lose your audit trail and reporting on transactions will be difficult.

Inventory adjustments are used to deal with a problem or fix a mistake, not in the general process of entering stock transactions into mSupply. Ideally, you'll never have to use them but we know we don't live in an ideal world!

Important

If you are doing a stocktake, it's better to use the stocktake module described [here](#) as it will create the needed inventory adjustments automatically.

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Viewing inventory adjustments

Choose **Items > Show inventory adjustments** or click on the Show inventory adjustment icon on the Item tab of the Navigator:



This will open the usual transaction filter window for you to choose which inventory adjustments you want to see. Make your filter selections (or leave them alone to see the 15 most recent inventory adjustments by default) and click on the **OK** button to see the list of matching inventory adjustments:

Types	Name	Type	Sta...	Entered	Confirmed	Invmn	Total	Their ref	PS printed dt	Comment	Exp bctch
Supplier invoices	Inventory adjustments	si	new	12/05/20...		190	8.4				0
Customer invoices	Inventory adjustments	si	cn	20/05/20...	20/05/20...	82	485.81	Return fro...		Return from CPI	0
Supplier credits	Inventory adjustments	sc	cn	20/05/20...	20/05/20...	81	931.59	IV 630		Donation to SAFA	0
Customer credits	Inventory adjustments	sc	cn	02/04/20...	02/04/20...	80	-1.75	Expired IV...		Expired IV-629	0
Builds	Inventory adjustments	sc	cn	30/01/20...	30/01/20...	79	-2458.72	Donation...		Donation to Pli Shan So...	0
Repacks	Inventory adjustments	sc	cn	30/01/20...	30/01/20...	57	-31.73	C352a-4h...		C352a-4h shortage	0
Find...	Inventory adjustments	sc	cn	30/01/20...	30/01/20...	56	-54.9	IV 620		Mice attack	0
By date	Inventory adjustments	sc	cn	30/01/20...	30/01/20...	55	-305.19	Loan to CPI		Loan to CPI	0
By status	Inventory adjustments	si	cn	30/01/20...	30/01/20...	54	3.69	Found ex...		Found excess in physic...	0
My transactions	Inventory adjustments	si	cn	30/01/20...	30/01/20...	53	12.3	Found ex...		Found excess stock in...	0
My custom filters	Inventory adjustments	sc	cn	30/01/20...	30/01/20...	52	0.52	Stock Adj...		Stock Adjust for packin...	0
	Inventory adjustments	sc	cn	30/01/20...	30/01/20...	51	-32.55	IV 600		Mice attack at warehou...	0
	Inventory adjustments	sc	cn	30/01/20...	30/01/20...	39	-1788.16	Donation...		Donation to Save the c...	0
	Inventory adjustments	sc	cn	02/02/20...	02/02/20...	6	-200.2			No excess stock in wH...	0
	Inventory adjustments	si	new	19/01/20...		0	0				0

You can double-click on any inventory adjustment in the list to view or edit it.

Note that *si* type inventory adjustments add stock and *sc* types reduce stock (*si* means “supplier invoice” and *sc* means “supplier credit”).

Add stock

Choose **Item > Inventory adjust- add stock** to create an inventory adjustment to add some stock into mSupply or click on the Inventory adjustment (add stock) icon on the *Item* tab of the Navigator:



The Inventory adjustment (add stock) window will open:

Name: Inventory adjust-add stock
 Their ref: invad
 Comment:
 Confirm date: 05/06/09
 Period: 30/11/2017 - 31/12/2...
 Category: None
 Colour: Black
 Invoice number: 190
 Entry date: 12/05/2020
 Status: nw
 Goods received ID: 0
 Purchase Order ID: 0
 Requisition ID: 0
 Entered by: sussol
 Store: General Warehouse

L. No.	Lo...	Item code	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension	Adjustment reason
1		D0RAAM05...	AMD-D0LLIN, 500mg blister, tab.	4	100	query1...	31/07/2024	2.10	2.10	8.40	

Other charges:
 Item(s):
 Amount: 0.00
 Subtotal: 8.40
 0 % tax: 0.00
 Total: 8.40

Hold
 Finalise
 Export batch: 0
 Margin: 0.00
 OK & Next Delete OK Print

This transaction is almost exactly the same as a supplier invoice and you enter data in exactly the same way (see 7.01. [Supplier invoices](#) for details),

except:

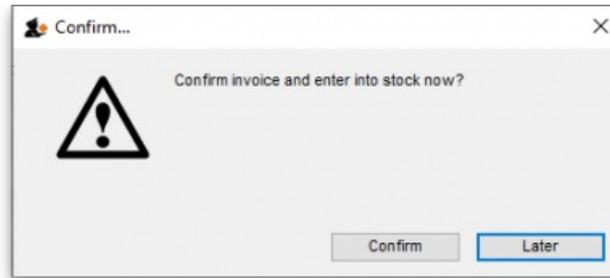
- The name (*Inventory adjust- add stock*) is filled in automatically for you and cannot be changed.
- There is an additional *Adjustment reason* column (see below for details).

⚠ Important

Because an inventory adjustment represents a correction for some problem or other incident, we strongly recommend that you enter a comment in the **Comment** field of each inventory adjustment you create, whether to add or reduce stock, so that the reason for the correction is not forgotten.

Use the **New line** button to add a line to the transaction (and the **Delete line** button to remove them), just as you would on a supplier invoice.

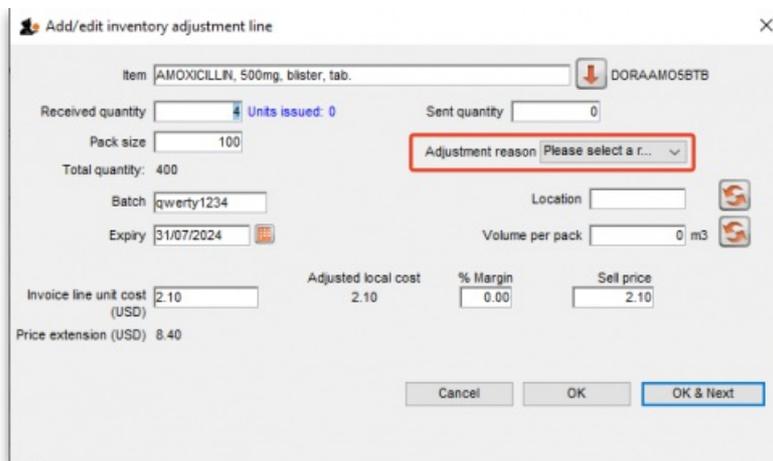
When you have finished adding lines to the inventory adjustment, click on the **OK** button. You will be asked to confirm what you want to do:



If you've finished with the inventory adjustment and want to enter the lines into stock now, click on the **Confirm** button. If you don't want to enter it into stock now (because you want to add more lines later, for example) then click on the **Later** button.

Adjustment reasons

If you have added any active *Positive inventory adjustment* reasons on the *Options* tab of **File > Preferences** (see [16.10. Options \(standard reasons\)](#)) then, when adding a line to the inventory adjustment (by clicking on the **New line** button), an **Adjustment reason** drop down list is displayed and you **must** select one of the reasons in the list before you can save the line:



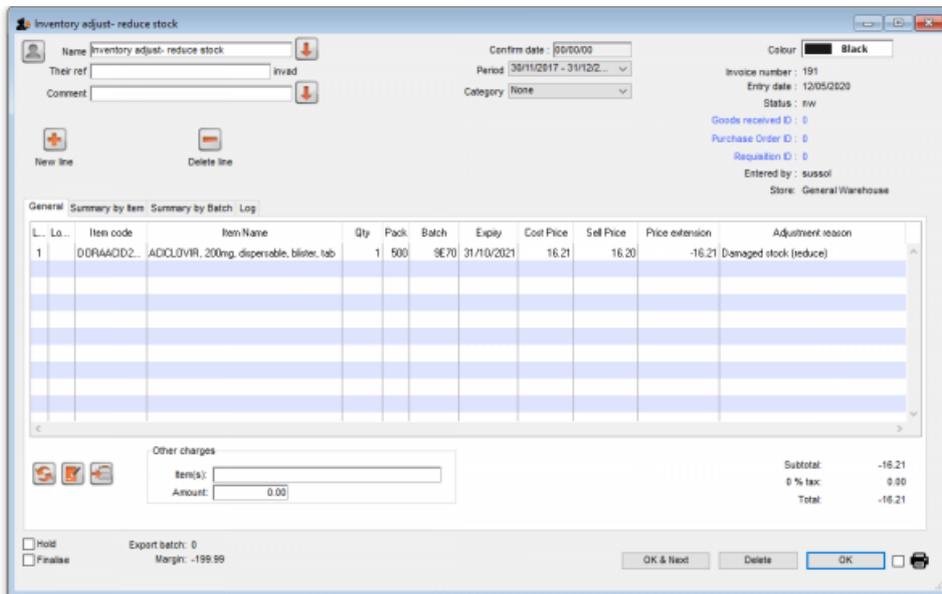
Note that existing lines that do not have a reason selected can be left with no reason selected if you click the **Cancel** button on this window.

Reduce stock

Choose **Item > Inventory adjust- reduce stock** to create an inventory adjustment to remove some stock into mSupply or click on the *Inventory adjustment (reduce stock)* icon on the *Item* tab of the Navigator:



The Inventory adjustment (reduce stock) window will open:



This transaction is almost exactly the same as a customer invoice and you enter data in exactly the same way (see 8.01. Issuing goods to a customer (customer invoices) for details), except:

- The name (*Inventory adjust- reduce stock*) is filled in automatically for you and cannot be changed.
- There is an additional *Adjustment reason* column (see below for details).

Use the **New line** button to add a line to the transaction (and the **Delete line** button to remove them), just as you would on a customer invoice.

When you have finished adding lines to the inventory adjustment, click on the **OK** button. You will not be asked to confirm what you want to do, the inventory adjustment will be confirmed and the lines will immediately be removed from stock.

Adjustment reasons

If you have added any active *Negative inventory adjustment* reasons on the *Options* tab of **File > Preferences** (see 16.10. [Options \(standard reasons\)](#)) then, when adding a line to the inventory adjustment (by clicking on the **New line** button), an **Adjustment reason** drop down list is displayed and you **must** select one of the reasons in the list before you can save the line:

Add item...

Item: ACICLOVIR, 200mg, dispersable, blister, tab DORAACID2TB 

Line: 1 Adjustment reason: Please select a r...

Quan: 1 of 2

Pack: 500 each Bulk/Outer pack size: 0

Line	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price	St
1	1	2	2	500	<input type="checkbox"/>	9E70	31/10/2021	20915		16.21	16.20	

Total quantity issued: 500
 Total quantity available: 1000

Note that existing lines that do not have a reason selected can be left with no reason selected if you click the **Cancel** button on this window.

Previous: [4.17. Stocktakes](#) || Next: [4.19. Units](#)

Last modified: 2020/05/12 14:43 by Gary Willetts

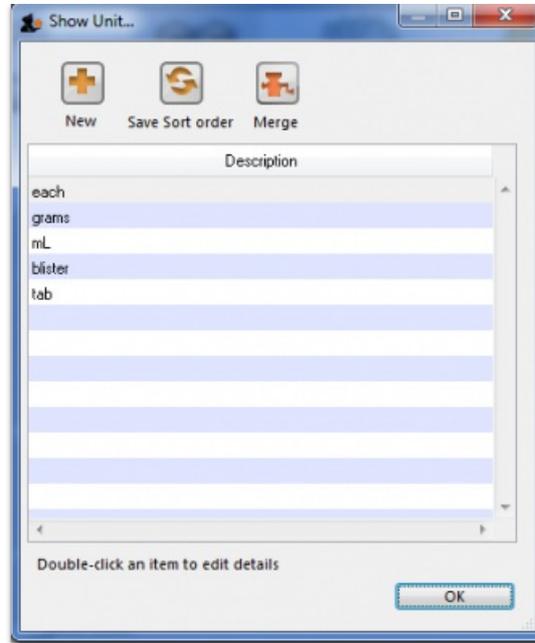


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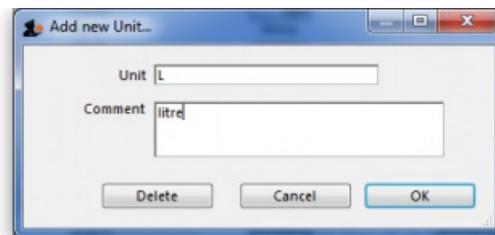


4.19. Units

Choose **Show units** from the **Items** menu. When you have defined your units, a list is displayed:



Click the **New** button to add a new unit.

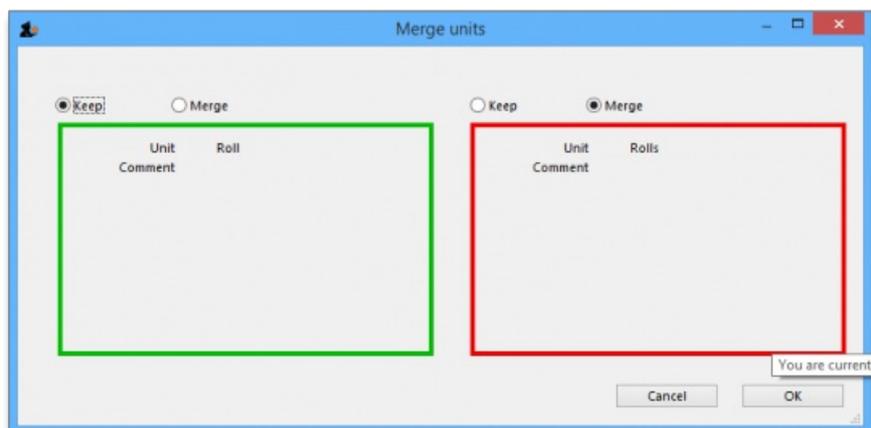


Note that you will need to have sufficient user permissions to use this function.

Important

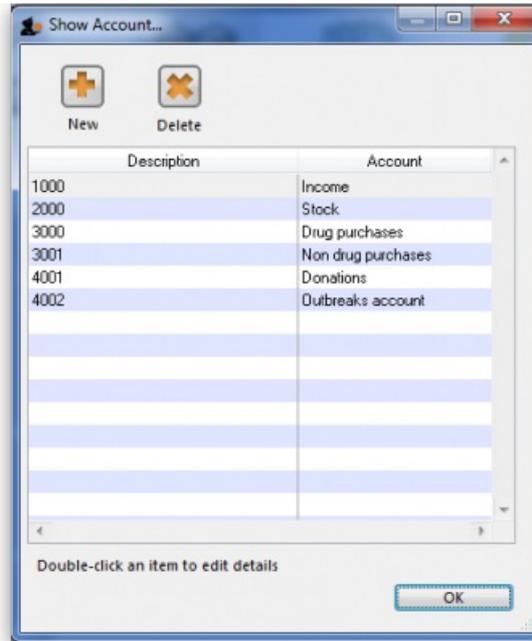
Do not change the record for one unit into a different unit, as all items using that unit will be updated.

Click the **Merge** button to merge two units. Note that duplicated units can occur on import of units or a user may duplicate a unit being unaware of one existing already. The below window appears to merge the units. The green boxed unit is the one that will be kept, the red boxed unit will be deleted.



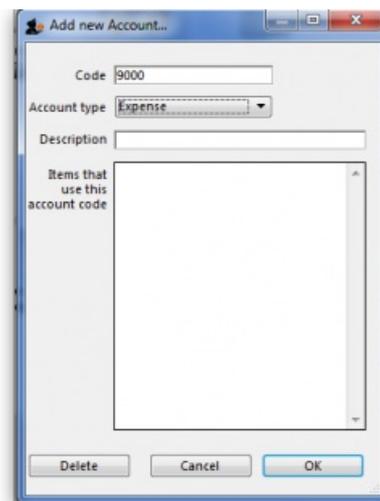
Accounts

Choose **Show accounts** from the **Items** menu. This window allows you to manage the range of accounts that can be assigned to items.



Account codes are used when exporting transaction data from mSupply® to external accounting software. Double-click a line to edit its details. Changing an account code or description will affect all items that are assigned to that account.

Click the **New** button to add a new account.



Fill in the code, description field and select the account type. The field **Items that use this account code** will display such items for each account code. Account types are **Expense**, **Income** and **Asset**. Click on **OK** button to add a new account, and **Delete** button to delete an account.

Previous: [4.18. Inventory adjustments](#) || Next: [4.20. Forecasting](#)

Last modified: 2020/01/14 11:19 by lou



4.20. Forecasting

⚠ Important

In mSupply, 'consumption' is defined as stock that is **issued**. Stock lost due to damage, expiry, etc. (managed through [Inventory Adjustments](#)) are not included in 'consumption'. During the later quantification calculation, there are options to include or exclude [Stock Transfers](#) and [Builds](#) in the consumption calculation.

By default, mSupply uses the assumption that future consumption will continue at the same level as consumption over a given historic period. Our experience is that in almost all situations, this method, combined with a conservative provision for buffer stock, yields very good to excellent results. However, in certain situations you may want to provide your own forecasts. Reasons for this could include factors such as:

- Excessive, sudden population increase
- An epidemic causing increased demand
- Historical usage being inaccurate due to operator error or out of stocks.
- A change to Standard Treatment Guidelines meaning a new treatment is being introduced, and there is no historical data
- Morbidity and mortality data has been obtained and used to calculate requirements.

mSupply allows you to choose to use from a range of forecasting methods on a per item, per store basis. These other methods are detailed below.

🚨 Alert

BEWARE! Once set, these options will continue to govern for every forecast generated by mSupply for this item in this store until you change it!

ℹ Info

If a user has the **View items** permission but not the **Edit items** permission, they are still able to use the functionality described here to set forecasts for items in 'this' store (that they are logged in to) since this makes no changes to the properties of the item itself.

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Item details...

General
Misc
Usage
Stock
Ledger
Quotes
Backorders
Notes
Reconcile
Bill of materials
Purchase Orders
Order options
Dispensing
Reporting
Log
CST
Stores

Item name: AMOXICILLIN TABS/CAPS 250MG
Store: National Medical...
Item code: 42

Months	Previous 12 months	Last 12 months	2014(A)
Jan		461700	638600
Feb		109700	321000
Mar		290000	1152000
Apr		274000	398000/Ignore
May	657284	248000	Ignore
Jun	147400	666000	Ignore
Jul	764400	1313100	Ignore
Aug	310210	683500	Ignore
Sep	417080	852200	Ignore
Oct	504000	684100	Ignore
Nov	764200	639000	Ignore
Dec	767642	491000	Ignore

Months: 24 | Mean usage: 564754.833 | Standard dev: 634309.785

Refresh usage | Include builds (unchecked) | Show graph

Forecasting

When calculating future consumption:

- Use historical Average Monthly Consumption (AMC)
- Use historical AMC increased by a factor of: 0 %
- Use a fixed, estimated AMC of: 0 items/month
- Use projection: A

Projections

Show projection: A | Add year (+)

Copy values | from column: Previ... | to column: Proje... | Modify selected cell by: 0 %

Delete | OK & Previous | OK & Next | Cancel | OK

In the **Forecasting** section of the window shown above there are four options:

Use historic AMC

This is the default option, and is the recommended method. During the later quantification stage ([creating a new tender](#); [creating a new purchase order](#) or the suggested order report), there is an opportunity to provide the number of months of historical data to use to calculate the forecast.

Info

For our worked example, we will use the Historic AMC method, based on 12 months of historic data.

Use historic AMC increased by a factor of X %

Using this option, mSupply will still calculate requirements based on historical AMC, but increased by the percentage you have entered. For example, you may know that the population increases by 2% per year, and so you can use this percentage to account for that increase in demand.

Use a fixed, estimated AMC

This option allows you to specify a particular amount that will be applied to all future months. For example, you might have calculated a target consumption for an oral contraceptive based on fixed population and coverage targets.

Use projection (A or B)

With this option, mSupply allows you to maintain an **A** and a **B** projection, and easily swap between them. Of course you must enter projections for this to be of any use!

Entering projections

You can enter projections in a number of ways

Manually entering projections

If you click once on a cell that contains a projection (as opposed to a cell containing historical data), then you can click again to edit the cell's value.

Tip

Don't double-click: you need to click once, wait for a second or two, then click again

Copying a projection

You might want to copy historical data as a starting point for your projection. You can do this by choosing a column for **from column** and **to column** in the **Projections** section, then clicking **Copy values**.

Modifying a projection

You can use the **Modify selected cell** button to increase or decrease a column or some cells in a column by a certain percentage.

For example, you might have entered values for 2016, and then decide your 2017 values should be the 2016 values plus 8%. To do this

1. Fill in your 2016 column values
2. Add a column for 2017 if one doesn't already exist
3. Use the **Copy values** button to copy 2016 to 2017
4. Drag to highlight all rows in the 2017 column
5. Enter **8** in the percentage field, then use the **Modify selected cell** button to increase the 2017 values by 8%.

Alert

If you are using projections for a particular order, you only need to fill in future values for the period to be covered by your ordering. **BUT** leaving future projections at zero could have serious consequences when you come to ordering later...😬

Where does mSupply use forecasts?

Any time mSupply produces a suggested order quantity, it will consider each item and use the forecast options for that item to produce a forecast. This includes:

- [Creating a new tender](#)
- The suggested order report
- [Creating a new purchase order](#)

Previous: [4.19. Units](#) | Next: [5. Customers and Suppliers](#)

Last modified: 2021/08/14 02:41 by Mark Glover



4.21. Pickfaces and Replenishments setup

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- [Assign pickfaces to items](#)
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- [Create pickface and bulk locations](#)
- [Assign pickfaces to items](#)
- [Define the users who can action replenishments](#)

In a large, busy warehouse it is sometimes useful to designate some shelf locations as pickfaces. These locations are easily accessible for pickers, usually at floor level or the next level up in the racking. These pickfaces are then replenished from other, harder to reach locations somewhere in the warehouse.

Typically, these replenishments take place at a time when the activity does not get in the way of the busy pickers; at the beginning of the day or lunch time. A forklift driver will fetch the stock from the bulk location and place it in or near the pickface so that others can place it or open the cartons ready for picking.

Deciding which locations to replenish when can be hard to keep track of so mSupply has functionality to help and this is what is described here. There is quite a lot of setup involved so that's detailed on this page. The next page ([4.22. Pickfaces and Replenishments](#)) describes the actual functionality and how you use it.

Create pickface and bulk locations

The first thing you need to do is tell mSupply which locations can be used as pickfaces and which are used to store the bulk stock to replenish them with.

If the location doesn't exist in your system create it, if it does then open it for editing (see [4.06. Stock locations and location types](#) for details). You will see this window:

The screenshot shows the 'Edit location' dialog box. The 'Replenishment location type' dropdown menu is highlighted with a red rectangle, indicating it is the focus of the instruction. The dropdown currently shows 'None'. Other fields include 'Code' (A22A), 'Description' (Aisle A, position 22, level A), 'Location type' (None), 'Parent' (None), 'Summary' (checkbox), 'Comment' (text area), 'Total Volume' (1.8 m3), 'Volume used' (0 m3), 'Priority' (0), and 'Hold' (checkbox). Buttons for 'Delete', 'Cancel', 'OK', and 'OK & Next' are at the bottom.

Click on the Replenishment location type drop down list and select the type this location will be:

- **None:** The default for all locations and means that the location won't be selectable as a pickface and won't take part in replenishments.
- **Pickface:** means that this location can be selected as a pickface for an item and will be replenished.
- **Bulk:** means this location stores bulk stock that can be used to replenish pickfaces. Note that mSupply will **only** use stock in locations with a replenishment type of *Bulk* to replenish other locations. Any other stock in locations not set as *Bulk* type will be ignored in the automatic replenishment process. This means it is possible to protect stock that should not take part in the replenishment process by making sure its location has a replenishment type of *None*.

When you have finished assigning the replenishment type click on the **OK** or **OK & Next** button to save the changes. Repeat this process for all the locations that will be used as pickfaces or that will hold bulk stock that can be used to replenish the pickfaces.

Assign pickfaces to items

The next step is to assign pickfaces to items. To do this, find the item you want to set a pickface for and open its details window (see [4.01. About items](#) for details). Then click on the storage tab:

On this tab, enter details in the *Pickface* and *Bulk* sections. See the [4.01.02. Items - Storage tab](#) page for details on what the various values mean.

Define the users who can action replenishments

The final setup step is to tell mSupply which users can action replenishments. These are the users you can assign replenishments to.

Open a user for editing (see [25.15. Managing users](#) for details) and go to the *Permissions (3)* tab on the user's details window:

Check the *Can action replenishments* checkbox and click on the **OK** button to save the changes.

Repeat this for every user who can be assigned to action replenishments.

This now completes the setup and you're ready to use the functionality. See the [4.22. Pickfaces and Replenishments](#) page for details on that.



4.22. Pickfaces and Replenishments

Before using pickfaces and replenishments there is some setup you need to carry out. To find out about that, see the previous [4.21. Pickfaces and Replenishments setup](#) page. When you've gone through that, you're ready to start here.

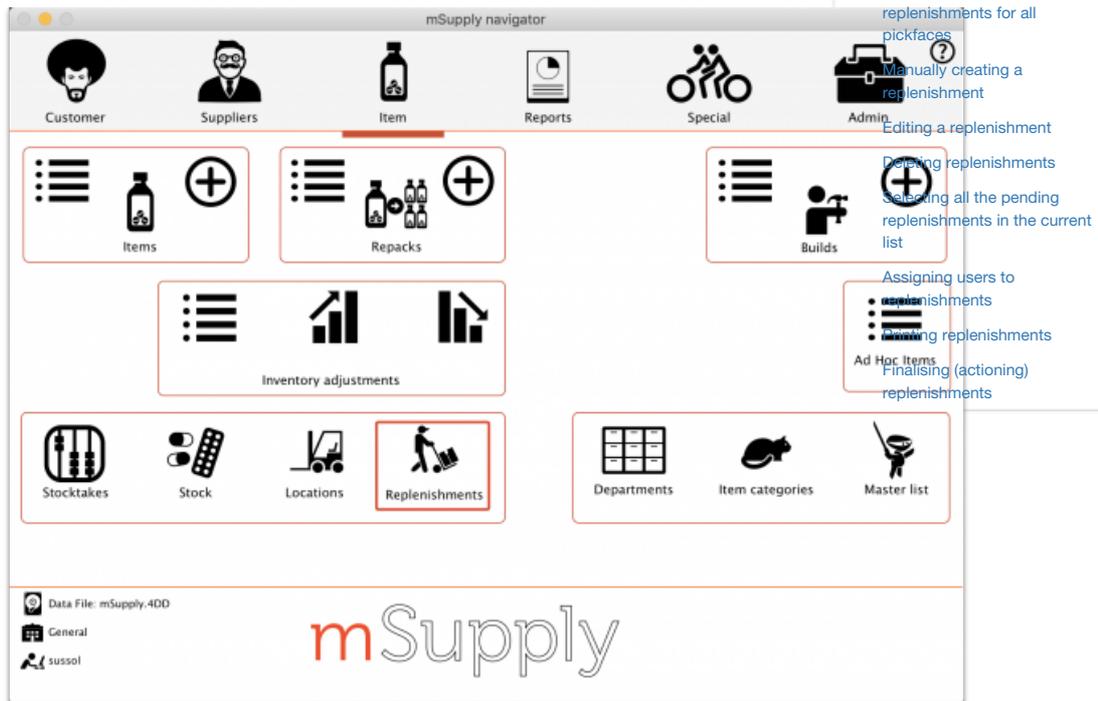
Replenishment statuses

Replenishments have two statuses: suggested and finalised. We sometimes refer to suggested as “pending” or “waiting to be actioned” and finalised as “actioned” in the description below.

Like other transactions in mSupply, a suggested status replenishment is only a description of a change that will take place, it has not changed anything in the system yet. The changes (stock movement and repacking) all occur when a replenishment is finalised.

Viewing replenishments and accessing the rest of the functionality

To see replenishments that have been actioned or are waiting to be actioned, click on the *Items* tab of the Navigator and click on the *Replenishments* icon:



That will open this window:

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Note about preferred bulk stock location replenishment (only applies if you're using them!):the pickfaces are replenished first from the preferred bulk locations as stated above. When the process moves onto replenishing the preferred bulk locations, the pickface replenishments haven't been finalised yet so the stock is still in the preferred bulk locations. This means that mSupply may well not generate many or any replenishments for the preferred bulk locations. So, when some or all of the pickface replenishments have been finalised simply click on the **Generate all replenishments** button again. mSupply will now see that the preferred bulk locations have less stock in them and replenishments will be generated as needed.

Manually creating a replenishment

If you need to add an extra replenishment manually for any reason you can do it by clicking on the **Add replenishment** button. This will open this window:

Start typing the name of the item you want to create the replenishment for in the *Item* field. A list of items with names starting with what you typed will appear below the field. You can keep typing or scroll the list to find the item you want; click on it to select it. Several things will happen:

- The item name will then be entered in the *Item* field
- The item code will be shown just below the *Item* field
- The table will show all the batches available for that item
- The down arrow icon to the right of the *Item* field will be enabled. You can now click on it to go straight to the item's details window.

If you chose the wrong one, you can change the item by deleting the name in the *Item* field, typing again and re-selecting another item.

In the table the blue background columns are editable, the grey background columns are not.

When creating a replenishment you are describing what stock should be moved and where it should be moved to. So, the 'From' columns describe the bulk stock (where it is now), the 'To' describe what it will become in the pickface:

- **From available packs:** the total number of packs that are available to move to the pickface.
- **From pack size:** the pack size of the stock in its current location.
- **From location:** the current location of the stock.
- **From number of packs:** the number of packs (of *From pack size*) that you want to move from the *From location* to the pickface.
- **Worker:** the worker assigned to carry out the moving of the stock. Click the appropriate cell to select a user from all those who have the *Can action replenishments* permission for this store. This is the only column that can be left blank and a replenishment can still be created from the row.
- **To location:** the pickface location. Type and select one from all locations in the current store.
- **To pack size:** the pack size the stock will have in the pickface location.
- **To number of packs:** the number of packs of *To pack size* that will be present in the pickface after the move.

If the item has a pickface location set then the *To location* column is filled in with that location and the *To pack size* column is filled with the pickface pack size as soon as the item has been selected.

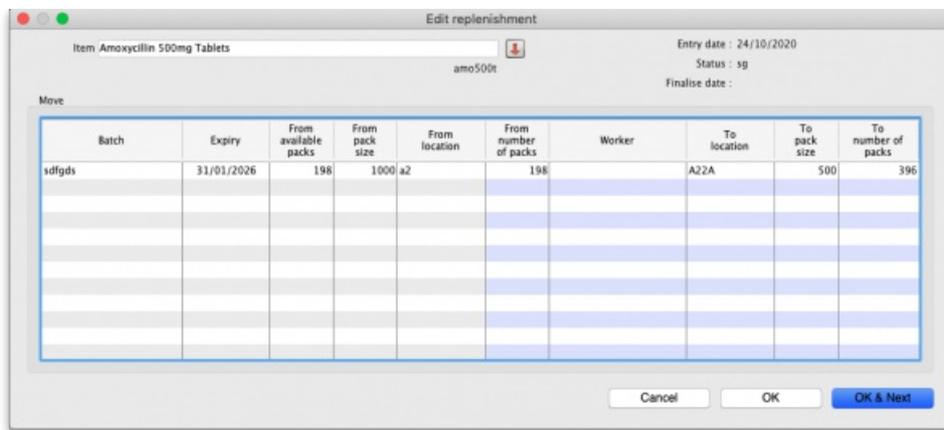
If you have entered two of the *From number of packs*, *To pack size* and *To number of packs* values, the third will be calculated and entered for you. If all three have been entered and you edit one of them, one of the others will be edited to maintain the relationship $From\ pack\ size \times From\ number\ of\ packs = To\ number\ of\ packs \times To\ pack\ size$.

When you have finished entering values, click on the **OK** button (or **OK & Next**) to save the replenishment. If there is a row of the table that has some values entered but not enough to create a replenishment then you are asked to confirm you wish to proceed because those partially completed rows will be ignored.

When you have finished creating all the replenishments, click on the **OK** button. This window will close and you will return to the main replenishment list window.

Editing a replenishment

Simply double-click on a replenishment in the list to open it for editing. It will be opened in a window like that for creating a new replenishment but only a single line will be shown in the table and the *Item* field will not be editable:



If you want to edit the item of a replenishment, you must delete the replenishment and re-create it with the correct item.

Edit any of the values in the blue-background columns and click the **OK** button to save your changes.

Deleting replenishments

To Delete replenishments shown in the main replenishment list window, simply highlight the ones you want to delete in the list (click to select, Ctrl(Command)+A, Shift+click and Ctrl(Command)+click all work to help you select the right ones) and click on the **Delete** button.

Finalised replenishments cannot be deleted and will be simply ignored if they are selected for deletion.

After deletion has been carried out you will be told how many replenishments were deleted and how many were ignored.

Selecting all the pending replenishments in the current list

Click on the **Highlight pending** button and all the suggested status replenishments in the current list will be highlighted (selected).

This is particularly useful if you want to print all the replenishments waiting to be actioned in the current list.

Assigning users to replenishments

Users are assigned to a replenishment to indicate that they are responsible for carrying out or verifying the replenishment. You might wish to select the appropriate forklift driver for example.

To do this, highlight one or more replenishments in the list and click on the **Assign user to highlighted** button. A list of users with the *Can action replenishments* permission in the current store will be displayed and you can select which one to assign by clicking on it. The name will then appear in the *Worker* column of the list for those replenishments that were selected. If you select the *None* option in the list of users, any worker assigned to the replenishment is removed.

Printing replenishments

To print replenishments, highlight the ones you want to print in the list and click on the **Print highlighted** button. The usual print options window will appear. After you have selected the appropriate options, click on the **OK** button and your printout will appear. The default printout looks like this:

Replenishment list										
Date: 06/11/2020		Worker: Multiple								
Item Code	Item Name	Batch	Expiry	Move From	From Packs	From Pack Size	Move to	To Packs	To Pack Size	Done
ADG4507	Anti-TF Antibody	ghjkluytr	31/08/2027	CR3c	3	100	a1	60	5	Yes
amo500t	Amoxicillin 500mg Tablets	sdfgds	31/01/2026	a2	198	1000	A22A	396	500	

The *Worker* field will show the name of the user assigned to all the replenishments or the word "Multiple" if more than one different user is assigned to the replenishments shown in the list.

The *Done* column will show the word "Yes" for finalised (actioned) replenishments or will be blank for those that have not been actioned yet. The user responsible for actioning or verifying the movement of the stock can sign or tick in this column when the move has been physically completed if desired.

If there were any problems or differences between what was done and what was shown on the printout, the worker should mark them on the sheet and give that to the responsible mSupply user. The replenishments can then be edited to match what was actually done before they are finalised.

Finalising (actioning) replenishments

Until they are finalised, replenishments do not affect the stock in mSupply.

They should be finalised at a point which suits your physical restocking process in the warehouse; this could be before the stock is physically moved to the pickface location.

to finalise replenishments, simply select (highlight in the table) the replenishments to finalise and click on the **Finalise highlighted** button. mSupply will then move and repack the stock as required to match the details given in the replenishments.

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Last modified: 2020/11/06 11:50 by Gary Willetts



mSupply documentation wiki





User Guide



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Last modified: 2020/01/14 11:21 by lou





5.01. Names: using, adding and editing

About names

In mSupply a “name” is one of these:

- customer: a recipient of your goods
- supplier: someone who sends your store goods
- manufacturer: someone who makes the goods that you receive, store and distribute
- donor: an entity that donates goods to you (you can track donated stock)
- patient: someone you dispense goods to
- others: you'll find other types e.g. benchmarks mentioned through out the documentation

A name can also be more than one (or all!) of these at the same time.

Adding a customer, supplier, manufacturer, donor or benchmark

Adding a new customer

- To add a new customer, choose *Customer > new customer* from the menu.
- The form shown below will come up.
- The customer checkbox will be checked and disabled (from editing).

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Adding a new supplier

- To add a new supplier, choose *Supplier > New supplier* from the menu (makes sense really!)
- The window will look the same as for adding a customer, except the supplier checkbox will be checked and disabled (from editing).

Adding a new manufacturer

- To add a new manufacturer, choose *Supplier > New manufacturer* from the menu.
- The window will look the same as for adding a customer, except the manufacturer checkbox will be checked and disabled (from editing).

Adding a new donor or benchmark

- Select *Customer > New customer* or *Supplier > New supplier* from the menu.
- The same window for adding a new customer or supplier will open and you should check the *Donor* or *Benchmark* checkbox in the Category section.

Fields in the names entry window

Name Code

The unique code to identify this customer, supplier or manufacturer.

Charge to

mSupply is made to work in tandem with an accounting program (although it will also function just fine by itself). The “Charge to” code is what is exported with each invoice. Generally you should make the charge code and name code the same (If you want, there is an option in the Preferences > Misc tab to make sure this is the case). For example:

- If you have 3 hospitals you supply, but you send the bills to one centre for payment, you may want to enter each hospital with its own name code, and all of them with the same charge code. In your accounting program you would just enter one debtor (customer) with a code the same as the charge code. eg.

Customer	Name code	Charge code
Fred H Hosp	fhhosp	bluehos
Mary P Hosp	mphosp	bluehos
Sam Q Hosp	sqhosp	bluehos

- In your accounting program you would enter “Blue Hospitals Assoc” with the code “bluehos”
- For a supplier, if you have entered a default currency and margin these will be entered, but you can override them. Every supplier should have its currency entered (The currency it uses for your invoices). If the currency isn't yet in your system, close the name entry window and choose *Currencies* from the *Special* menu to add it.

Tip

- if you do not wish to use different name codes and charge codes, check the “supplier name code and charge must match” and “customer name code and charge must match” check boxes in the mSupply Preferences. If you do this, the charge code will automatically be identified with the name code.
- spaces are not allowed in name codes and charge codes

Either the “customer” or “supplier” check box will be checked as appropriate, depending on whether you have chosen “new supplier” or “new customer” from the menus to produce this window. However, you can still alter things here without upsetting mSupply.

Name

The customer/supplier name. (Remember you can use the *Tab* key to move from field to field)

Info

If there are non-printable characters before or after the name, code or charge code they will be removed. Any non-printable characters in the name, code or charge code will be replaced with an underscore (_).

Master ID & Master name

These are used when using the [Remote tender module](#) to link suppliers with their master ID on the remote tender server and maintained by Sustainable Solutions. If your system does not use the [Remote tender module](#), then you can safely leave this blank.

To link a supplier to the remote tender server, login to the tender server using the login details sent to you by Sustainable Solutions, and find the supplier and find its ID. When you have that, copy it down (or copy it to the clipboard) then click on the padlock to make the **Master ID** field enterable in mSupply. Now enter the ID (or paste it in) and click on the **synchronise** button next to the **Master ID** field. mSupply will then contact the tender server and search for a supplier with the ID you have entered. If the search is successful, the name the supplier has on the server will be put in the **Master name** field and you're finished. If it's unsuccessful, you'll be given an appropriate message.

Type

In the main entry screen, there are 4 check boxes to mark each entry as a customer, a supplier, a manufacturer and an additional *Benchmark* category. This last category is a feature of the Tender Management module, and is fully explained in that section, under [Using Benchmark prices](#)

Status - Hold checkbox

If this is checked this name can not be used for receiving or issuing goods.

Donor checkbox

This is applicable to suppliers only. There are a few situations in which this box should be checked:

1. If this supplier/organisation provides goods free of charge (either in whole or in part).
2. If this supplier/organisation provides funding (either in whole or in part) for purchasing.

Price Category

Selection of any of the categories will fix a certain price margin for that Supplier or Customer. The price category value is entered in *File > Preferences > Prices*. When goods are being issued to this customer, the selling price is increased/decreased by the percentage specified in the Preferences for this price category.

- Eg: Consider customer XYZ, who is in category B, and in the preferences category B is assigned a value of 50. If an item is issued to customer XYZ with a normal selling price of \$10, the selling price on this invoice will be \$15.

Address and contact details

These should be completed with relevant details

- For customers, you can enter separate delivery and billing addresses as necessary.

Other section

Categories

These category fields are used for reporting and are available for you to make whatever entries are appropriate in your situation. For example, you might wish to subdivide your Hospital category by number of beds, or your Clinics by the number of patients seen daily, etc. Or you may wish to identify your customers by their geographical location (region, district, state etc.) or by location type - urban, city centre, rural, remote, etc. The choice is yours - the main point to remember is that these fields are searchable, enabling you to produce reports relating to very specific criteria.

- There are 6 category fields available for selecting as required.
- Each category has its own drop down list containing the categories which have been defined using the menu item **Supplier > Show categories...** or **Customer > Show categories...** (see [Name Categories](#) for more details).
- The labels of these 6 categories can also be changed in the preferences (see [General preferences](#), [Names tab](#) for details).

Custom fields

Custom fields are similar to Category fields, the main difference being that these fields are not validated using a drop-down list, and so can't be reliably used for categorisation.

Analysis

You can use this field to group together certain types of customers or suppliers. You can filter the report by selecting the group in the *Analysis* field.

Postal address

Here you can enter a postal address if it is different to the physical address of the supplier.

Extra information for customers only

Shipping address: If the name is a customer, shipping address fields will be shown.

Extra information for suppliers only

Currency: Enter the currency code of the currency this supplier uses for invoicing you.

Margin: Enter the percentage margin to apply to items received from this supplier.

Freight factor: Enter the amount to add to quotations from this supplier to adjust quoted prices for freight. For example: a physical check on invoices from IDA reveals that freight to Nepal generally amounts to about 15% of the net value of the invoice. Therefore we would enter "1.15" in this field for IDA. Note that if suppliers quote you "CIF" prices, then you should enter "0" here.

About manufacturers

When you are receiving goods, you can optionally specify the manufacturer of each item. Manufacturers can be chosen from a list that is made up of names which have the *Manufacturer* checkbox checked.

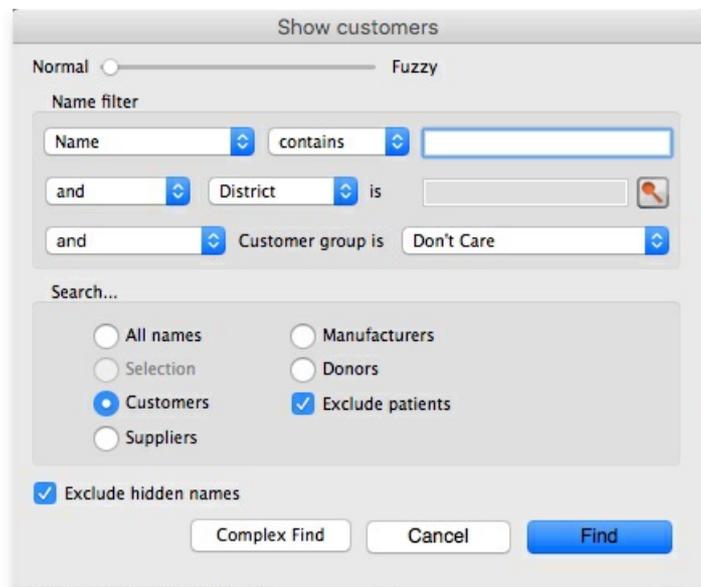
For the manufacturer field to be shown, the option must be turned on going to **Special > Show stores > [choose your store and double-click] > Preferences tab** and checking the **Able to specify manufacturer when receiving, ordering or quoting for items** checkbox

Editing a customer, supplier or manufacturer

Finding a name

Before you can edit a name, you have to find it and display its details! For this example we will edit a customer. Editing a supplier is just the same, except that you start by choosing *Show supplier* from the *Supplier* menu.

Choose *Customer > Show Customer*. You are presented with a window to enter as much of the Customer name or code as you know:



- The **slide bar** at the top of the window may be set to Normal, at the left, or at intermediate points towards the Fuzzy end (right); this determines the accuracy of matching your entry; when set to Normal, the search will only match exactly what has been entered; when set at Fuzzy the search will list entries which are approximate matches to what has been entered. The accuracy with which the list matches the entry is determined by the position of the slider.
- If you leave the **Name/Code** text field empty, clicking the **Find** button will produce a full list of all customers.
- You can enter values for the other filters too (or them only!) if you want to refine your search.
- Note that the window has a series of radio buttons to select the target of your search - *All names, Customers, Suppliers, Manufacturers, etc.* So even if you start this search from, say, **Customer > Show Customers...**, by selecting the *Suppliers* radio button, you can search in suppliers rather than customers.
- The **Exclude patients** checkbox is checked by default and means that any patients you have in your datafile will not be included in the search. If you uncheck it, any patients in the current store will be included in the search.
- The **Exclude hidden names** checkbox is checked by default and means that any names hidden in your store (but probably visible in other stores) will not be included in the search. If you uncheck this box then the search will include all names in all stores, and their visibility will be ignored.

If the search finds only one name that matches the filter criteria you entered, its details window will be displayed. If more than one name matches then you are shown a list of them all:

Code	Charge to	Name	Address 1	Address 2	Currency	Category 1	Flags	Custom Data
ALD	MCG	Alders Store	12 Excellence Lane	Russia	USD			
AMN	AMN	Amnesty Hospital	100 Christmas Rd	New Zealand	USD			{"Custom Code":{"data":"ABC"},"Insured":{"data":1}}
Baltimor	Baltimor	Baltimor	Cristo Rei	Dili DHS	USD	DILI		
BIK	BIK	Bike Hospital	111 Cycle Lane	New Zealand	USD			{"Custom Code":{"data":"ABC"},"Insured":{"data":1}}
CAC	CAC	Cactus Hospital	87 Books Road	Brazil	USD			
camelrefhosp	camelrefhosp	Camelbak Refe...ospital (Store)	Australia		AUD	Bau...re)		{"Custom Code":{"data":"ABC"},"Insured":{"data":1}}
DIL-020-N	DIL-020-N	National Health Laboratories	East Dili, CRISTO REI	DILI	USD	DILI		
Elm	Elm	Elm Pharma	897 Diagon Ally	Greece	USD			

Buttons in the names list window

New: This button allows you to enter the details of a new customer

Modify: This button opens a window displaying the details of the highlighted customer, allowing their details to be modified.

Set Flags: This button allows you to mark certain names with a flag.

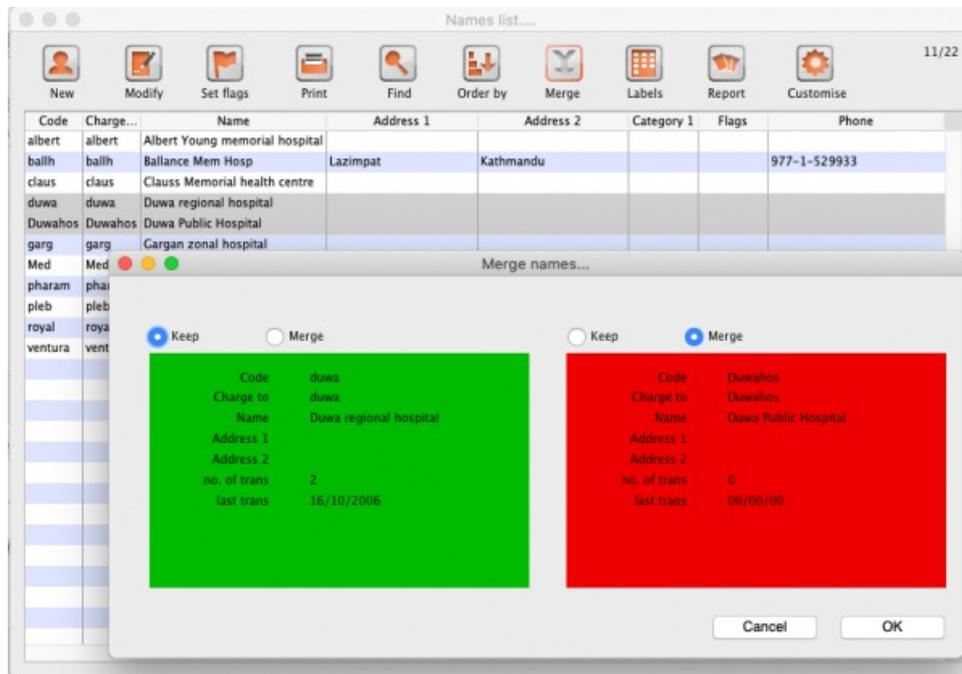
- First, highlight the names you wish to flag by holding down the control key (command on Mac) and clicking the names in the list you wish to use. Then click the Flags button to show a window where you can enter the flag you wish to add, and decide whether to replace any existing flags or append the new flag to the old one.

Print: Clicking this button will print a list similar to the one displayed on screen.

Find: This button shows the same find window as choosing the menu item did so you can find a different group of names.

Order by: This button allows you to sort the displayed list by the criteria you choose. The Labels and Print buttons will use the order that is displayed. By default, names are displayed alphabetically based on the name column.

Merge: This button allows two customers to be merged into one; highlight the two entries click on the Merge button to display this window:

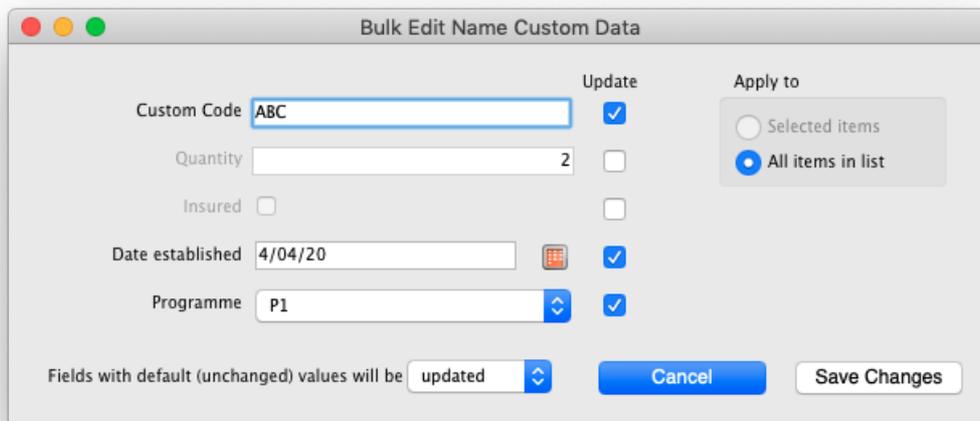


Choose the record you wish to keep and click on **OK**; the data from the deleted record is then merged with the data of the record being kept. If you change your mind, click on the **Cancel** button, and the merger will be cancelled.

Labels: Clicking this button allows you to print address labels for the names in the list. The label editor is displayed.

Report: Click on this icon to open the Quick Report editor window. Use of the Quick Report is discussed elsewhere in the guide. See [Custom Reporting Tutorial](#)

Custom data: This allows you to bulk edit the [Custom data fields](#) associated with the displayed names. An editor window like this will be displayed:



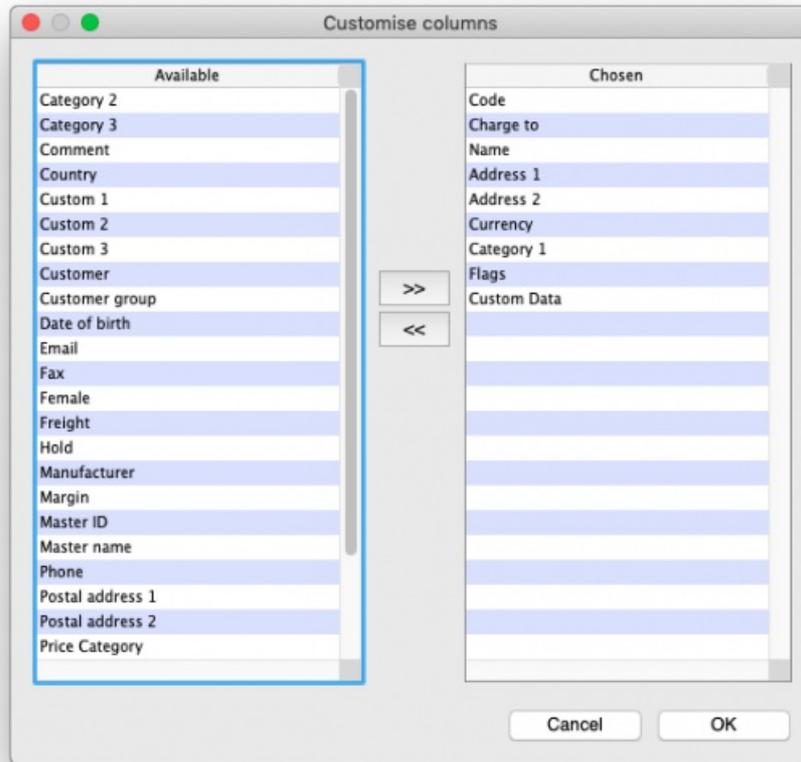
Only fields with their checkbox selected in the "Update" column will be modified. Note that you have the option to apply the changes to **all** names currently displayed in the list or only ones that you have **selected** before opening the editor.

Click "Save changes" to apply. After confirmation and processing, you will see your changes reflected immediately in the *Custom Data* column of the names list. It is recommended that you have the *Custom Data* column displayed (see **Customise** below) before bulk editing custom data so you can clearly see which names have been changed.

If you want to remove certain fields entirely from the names, select the field(s) "Update" checkbox, then switch the selector at the bottom so it says "Fields with default (unchanged) values will be removed" (instead of "updated"). Any fields you haven't changed from their default values (i.e. blank for text, 0 for numbers, etc.) will be removed upon saving. You can completely remove *all* custom data for selected/displayed names by selecting all "Update" checkboxes, leaving all values default, and choosing the "removed" option.

Make sure you know what you're doing when bulk editing as you can easily over-write a lot of data if you're not careful.

Customise: Allows you to choose which columns to display using this window (Note: this only affects the columns you see in this list, it won't affect what other users see):



Columns on the left are available. Columns on the right are the ones in use in your names list. Click a row in either column then click the move left or right button to transfer it to the other column. Click **OK** when you're done, or **Cancel** if you want to stick with what you've got. Your choice of columns to display will be remembered for the next time you display a list of names (customers, suppliers etc.).

OK Button: Closes the window

Editing or viewing a name

To edit/view a particular name, if you are looking at a list of names double-click the name you want to edit on the list (no need to do this if you are already looking at the name's details page because only 1 name was returned from your search).

You will be shown the name's detail window which has a sidebar showing several tabs, *General*, *Invoices*, *Backorders*, *Quotes* etc. and opens at the *General* tab:

Deleting names

If a name has transactions entered against it, you will not be able to uncheck the relevant 'Category' check box, and you will not be able to delete it. For example, if a supplier has invoices entered against it, you will not be able to uncheck the "supplier" check box, and you will not be able to delete the supplier.

Putting a name on Hold

If you wish to prevent future transactions with a name, change it's status to on 'Hold'.

Invoices tab

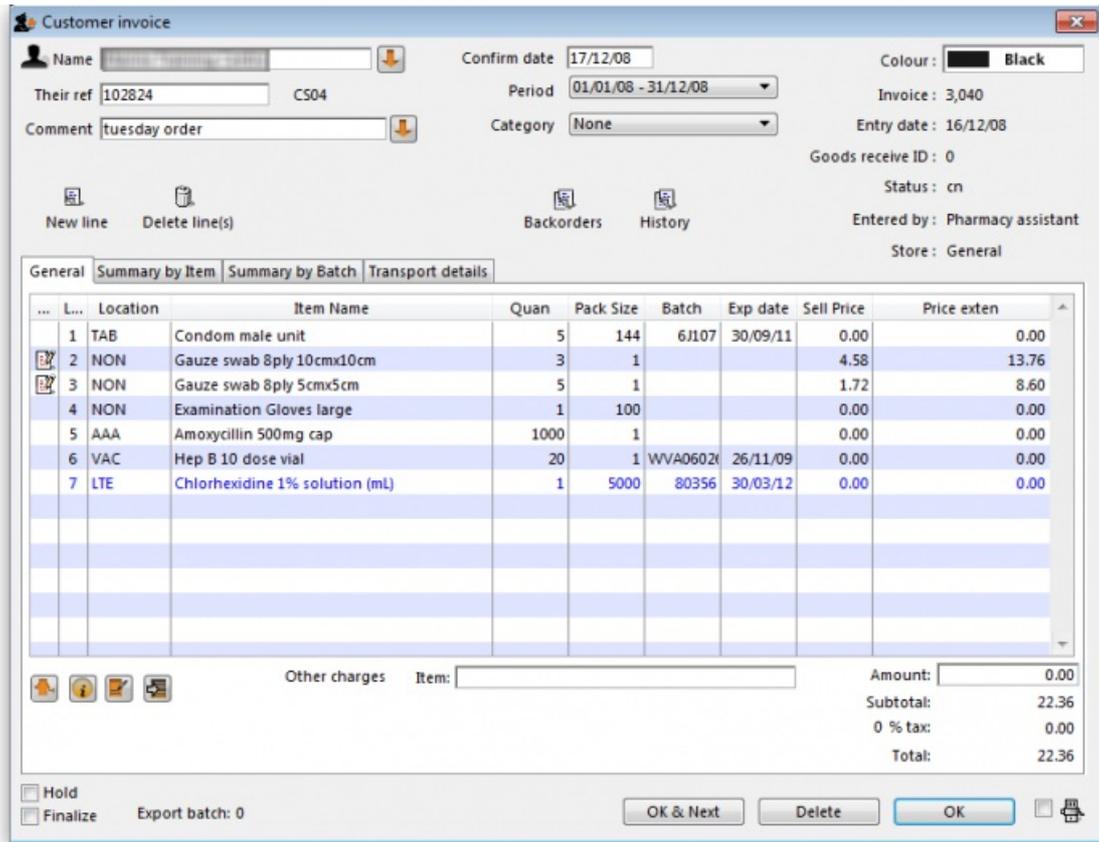
Here you can view the invoices for a customer or supplier.

Ty...	St...	Entry dt	Confirm dt	inv num	Their ref	Comment	Total	Currency	Total (local c...	Outstanding
ci	sg	18/03/2020		7		Web order:	0.00	XOF	0	0.00
ci	fn	06/06/2019	06/06/2019	20		Facture d...du client	0.00	XOF	176725	0.00
ci	fn	06/06/2019	06/06/2019	23		Facture d...du client	0.00	XOF	0	0.00
ci	fn	06/06/2019	06/06/2019	24		Facture d...du client	0.00	XOF	0	0.00
ci	fn	17/06/2019	17/06/2019	125		Facture d...du client	0.00	XOF	0	0.00
ci	fn	26/06/2019	26/06/2019	175		Facture d...du client	0.00	XOF	0	0.00
ci	fn	12/07/2019	12/07/2019	239		Facture d...du client	0.00	XOF	0	0.00
ci	fn	12/07/2019	12/07/2019	240		Facture d...du client	0.00	XOF	134680	0.00
ci	fn	15/07/2019	15/07/2019	244		ALLOCA...EMENT)	167,180.00	XOF	167180	167,180.00
ci	fn	15/07/2019	15/07/2019	245		PNSME	6,625.00	XOF	6625	6,625.00
ci	fn	15/07/2019	15/07/2019	246		PNSME (K...+ ZINC)	0.00	XOF	0	0.00
ci	fn	15/07/2019	15/07/2019	247		PNLS_TRC	0.00	XOF	0	0.00
ci	fn	22/07/2019	22/07/2019	304		GTC	30,000.00	XOF	30000	30,000.00
ci	fn	24/07/2019	24/07/2019	344		MEDICA...INTRANTS	0.00	XOF	0	0.00
ci	fn	13/08/2019	13/08/2019	431		GTC	53,400.00	XOF	53400	53,400.00
ci	fn	16/08/2019	16/08/2019	462		GTC	0.00	XOF	90510	0.00
ci	fn	16/08/2019	16/08/2019	465		DOTATION ARV	0.00	XOF	0	0.00
ci	fn	19/08/2019	19/08/2019	469		COMPLE...TION ARV	0.00	XOF	0	0.00
ci	fn	19/08/2019	20/08/2019	468			0.00	XOF	0	0.00
ci	fn	26/08/2019	26/08/2019	509		MEDICA...NTS PNLP	0.00	XOF	0	0.00
ci	fn	10/09/2019	10/09/2019	550		MEDICA...NTS_PNLP	0.00	XOF	0	0.00
ci	fn	10/09/2019	10/09/2019	551		MEDICA...TS_PNSME	0.00	XOF	0	0.00
ci	fn	09/09/2019	11/09/2019	542		MEDICA...INTRANTS	296,199.60	XOF	296199.6	296,199.60

Note that the *Total outstanding* field shows a customer's payment balance and is only shown if the customer receipts module is turned on (see 1.02).

Receiving payments from customers).

You are able to edit an invoice directly from this window by double-clicking the one you wish to edit. A new window will open with the invoice details displayed.



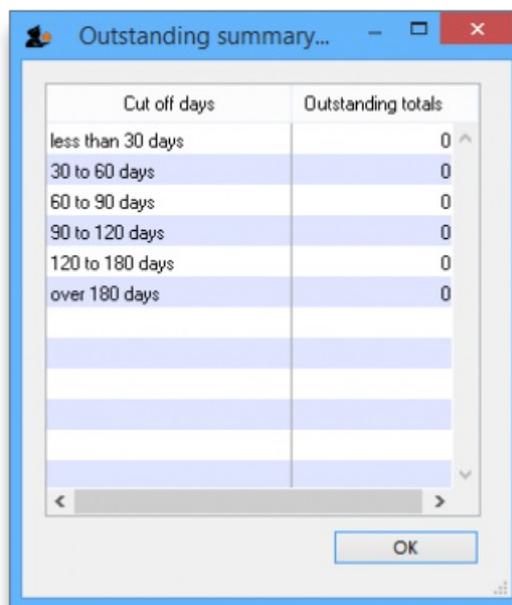
Buttons on the Invoices tab

Print Range

Click this button to print a range of invoices for a customer. You will be asked to enter the first and last invoice numbers to be printed.

Aging

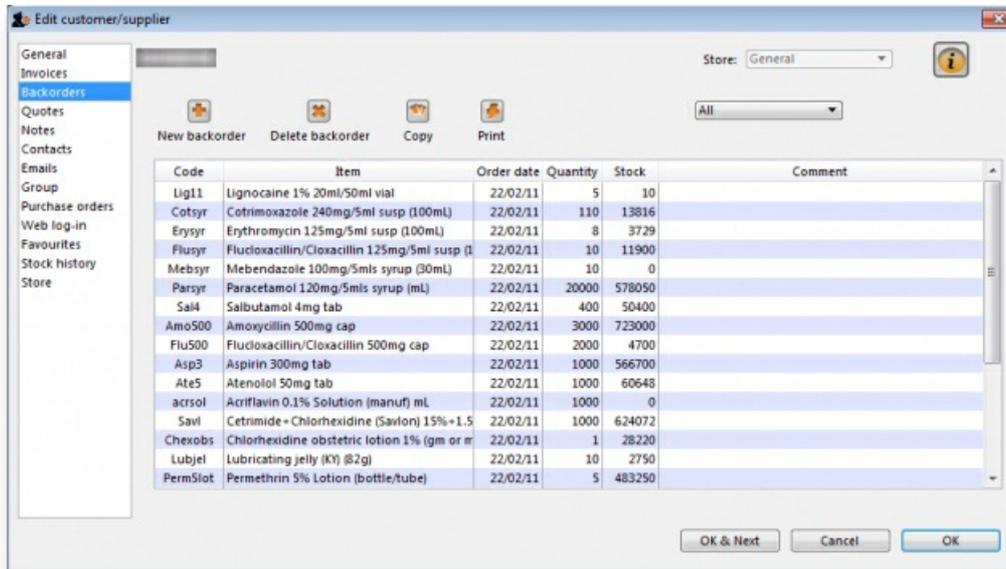
Click this button to display a list of aging categories and the outstanding unpaid balance for each invoice in each category.



Dates

Choose a date range from this menu to show quickly recent invoices, or to revert to showing all invoices

Backorders tab

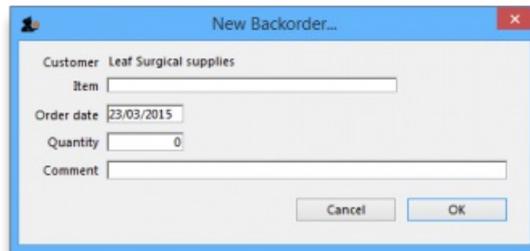


- Here you can view, add and edit the backorders for a customer. mSupply allows entry of backorders against suppliers as well, but we are not sure why you would want to do this!

Buttons on the Backorders tab

New backorder

Clicking this button presents you with a window where you can add a backorder line for this customer.



- Type at least a portion of the item code or item name, then press the Tab key.
- Today's date is automatically entered. You can change the date if you like
- Enter the total quantity owing.
- Enter a comment (e.g. an expected arrival date)
- Click OK to save changes and exit the window.

Delete backorder

Click a backorder line to highlight it, then click this button to delete the line. You can also select several at once (using *ctrl/cmd+click* and *shift+click*) or all the backorders in the list using *ctrl/cmd+a* and delete them at once as well.

Copy

This command copies the backorder to the clipboard, allowing you to paste the report into an email message, word processor or spreadsheet document.

Print

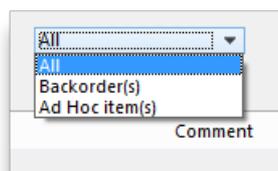
The list of backordered items for the customer is printed.

Viewing backorders

Double-click a backorder line to edit the line. You will be shown the backorder entry window, where you can change any details you wish.

Show

This drop-down list allows you to choose which backorders to display.



- Backorders are normal items that have not been supplied to customers.
- Ad Hoc items are items that customers have ordered but which you do not want to add to your stock list, rather making a special order just for that customer.

Deleting a contact

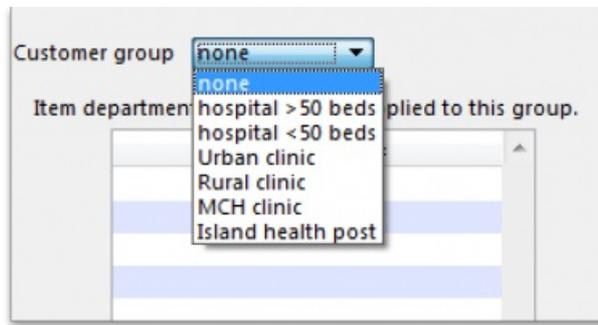
To delete a contact, click on the contact you wish to delete, then click the **Delete contact** button.

Group tab

Tip

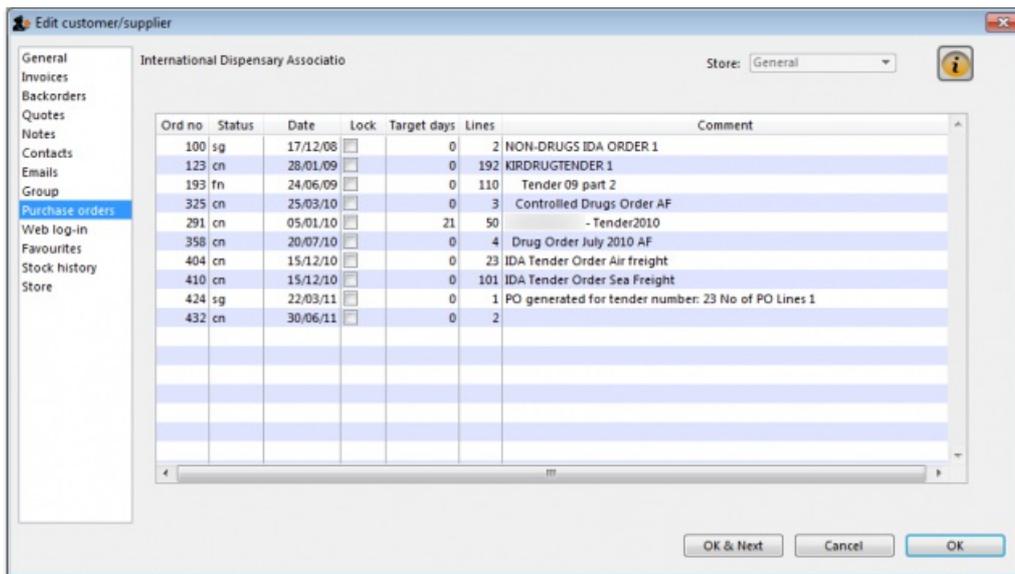
Groups are only relevant to customers, not suppliers.

If this customer has been added to a group, this tab displays the name of that group. An explanation of groups and how to work with them is here: [Show groups...](#)



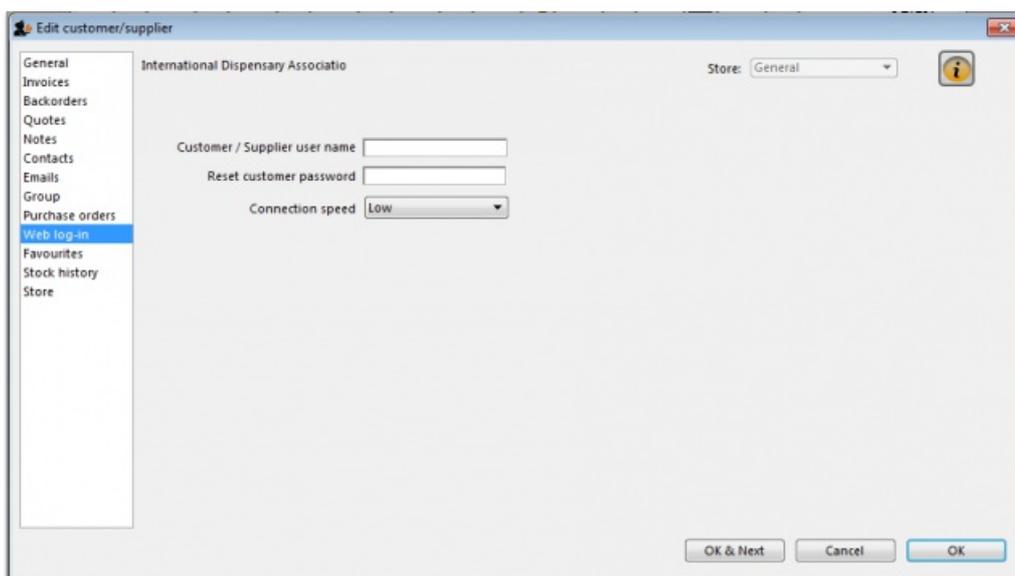
Here you can select the group of which a customer is a member. When you choose a group, you will be shown a list of item departments which are linked to the chosen group. Once the group system is activated in the Preferences, only items belonging to one of the listed departments (or items with no department) may be supplied to that customer.

Purchase orders tab



This tab shows a view of Purchase Orders status for the current name, and applies to suppliers only.

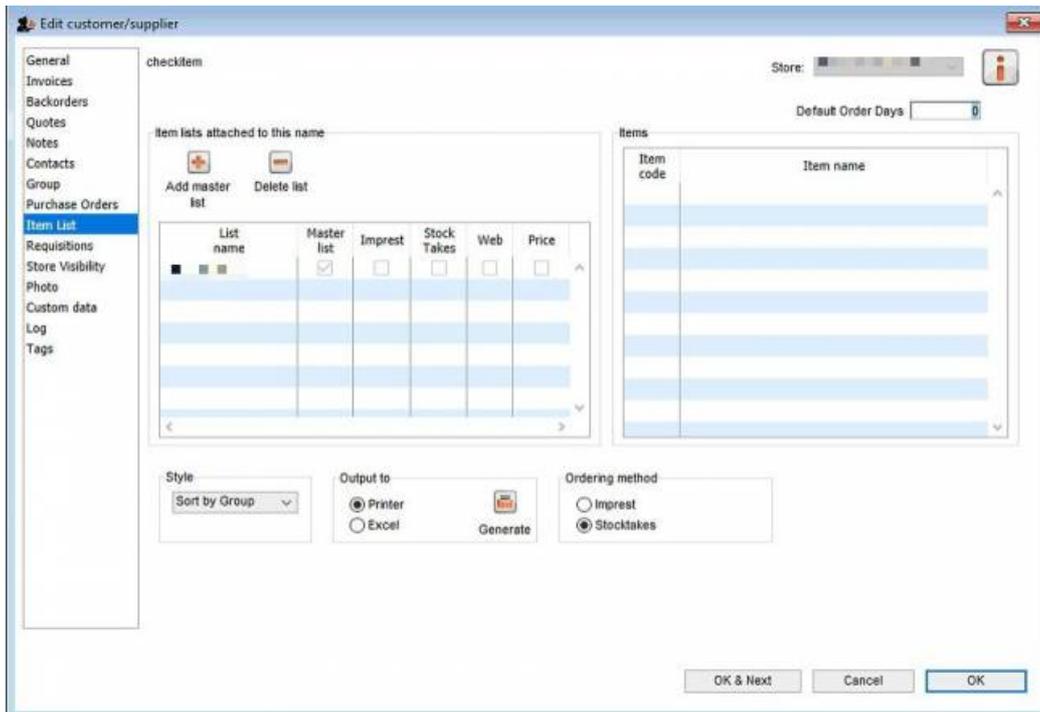
Web log-in tab



If you are allowing customers to access their order information using the mSupply web server, this is the window where you assign a logon name and password to a customer.

Also displayed on this tab is the internet connection speed. It should be noted that this value is derived from your network settings, and may not be edited manually.

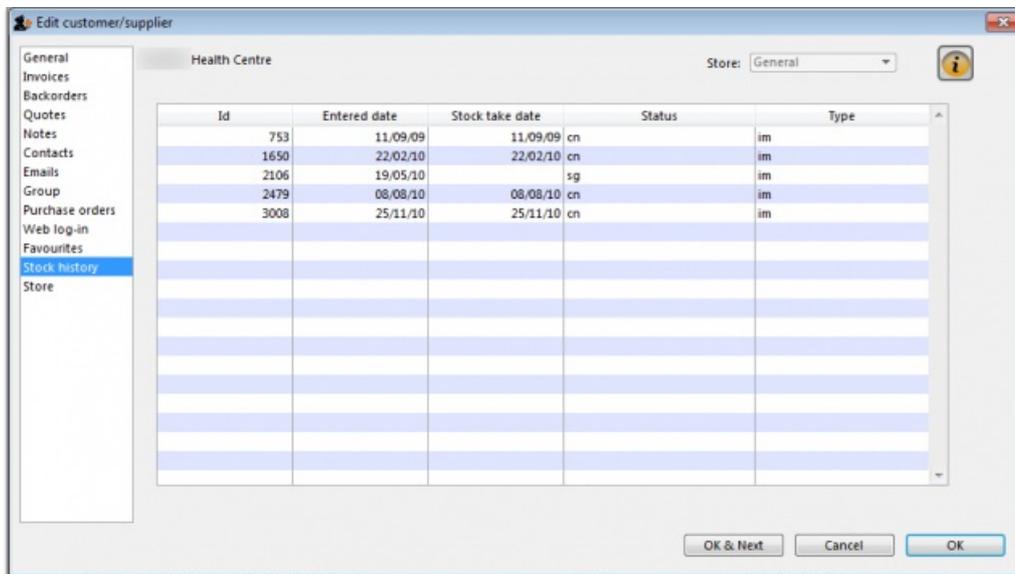
Item lists tab



This tab is used to assign master lists to customers for use in requisitions and mSupply mobile. For more information, see [Item master lists](#).

Note: Before version 5.3 customers could also have local lists assigned to them (they applied to that customer only) but these have been removed from version 5.3 onwards.

Stock history tab

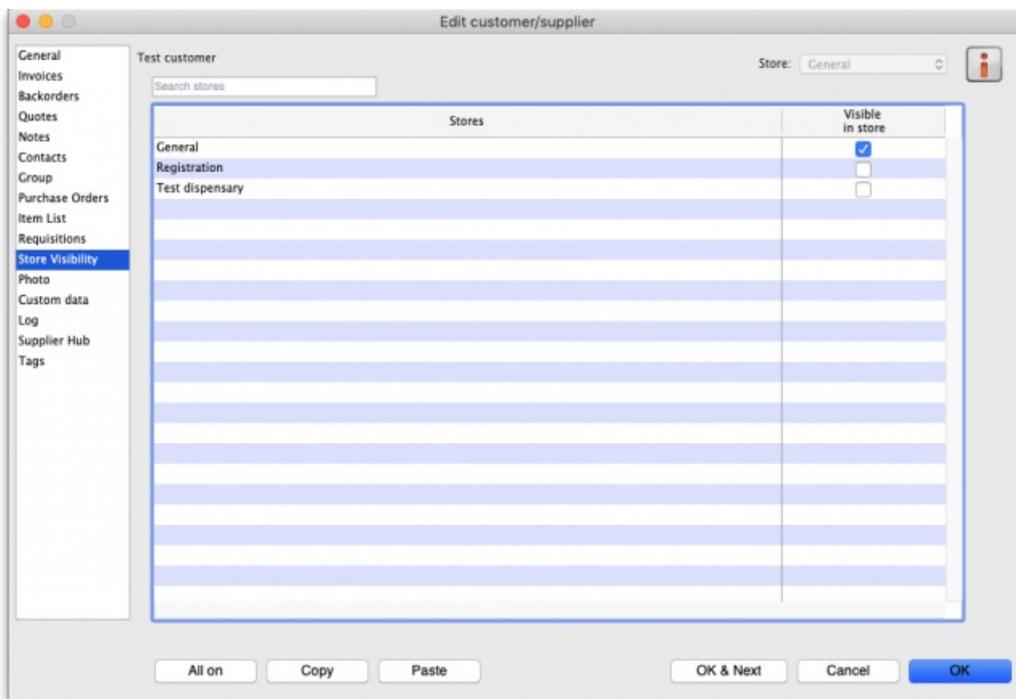


A list of stock histories, showing dates of both the stock take and the date of entry into the computer, the ID reference, the status and the type, is displayed.

Store Visibility tab

 Updated version 4.12

The tab shows which stores the customer/supplier is visible in. Only when the visibility checkbox is checked will the customer/supplier be visible to 'this' store, which is needed if the store will receive and/or issue goods from 'this' store.



There can be a huge number of stores in this list. If you want to find a particular store or group of stores you can type in the *Search stores* field just above the list. This will restrict the list to only stores with a name that contains what you have typed.

- **All on button:** When clicked, this will check all the checkboxes in the *Visible in store* column and the button label will change to *All off*. Clicking it then will uncheck all the checkboxes.
- **Copy button:** Will copy the current state of the *Visible in store* checkboxes.
- **Paste button:** Will make the current state of all the *Visible in store* checkboxes the same as it was when the **Copy** button was clicked.

⚠ Important

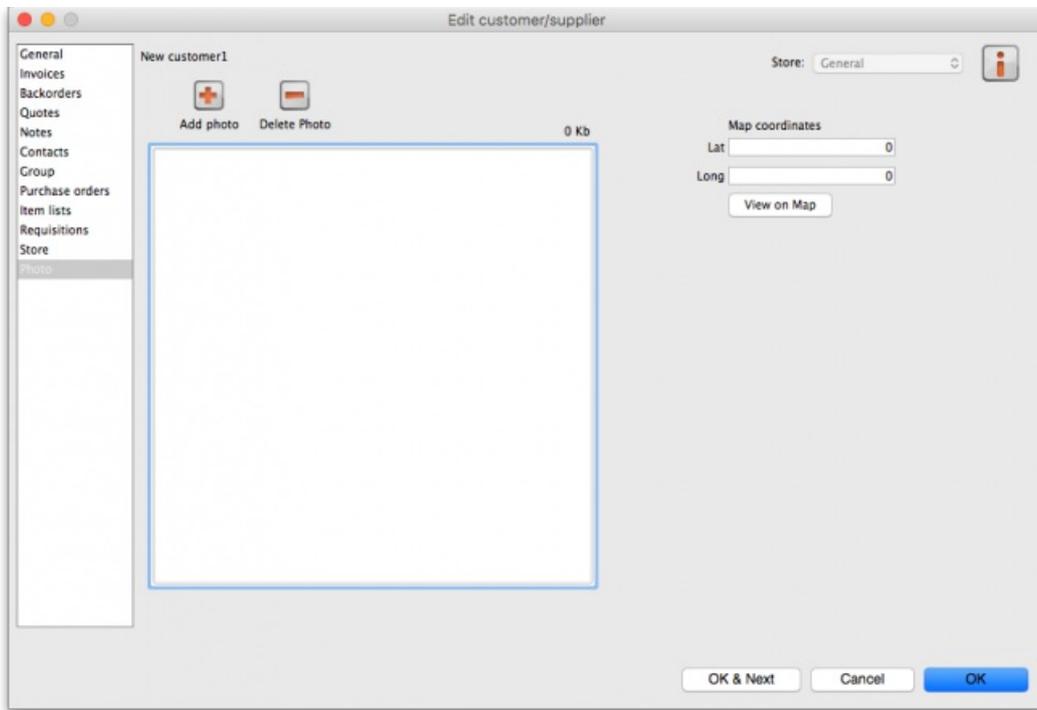
- You can only edit the visibility of any name in another store if you have permission to login to the store *and* to edit name visibility in that store:
 - if you're just editing visibility in a single store, then an error dialog will popup and the state of its *Visible in store* checkbox will revert to its previous value.
 - **however**, when using the bulk **All on**, **Copy** and **Paste** buttons to update visibility in multiple stores, there is no error dialog and only the stores that you have permission for will be affected.
- If you edit the visibility of store name A in store B, then the visibility of store name B in store A will be updated to match i.e. inter-store visibility is always symmetrical.
- If you are using a [syncing](#) system, and editing visibility for a store name, that can affect the sync settings for the store on other sites i.e. if you make it invisible to all stores which are **Active** on a site, then the sync status will become **None** on that site; and if you make it visible to at least one store which is **Active** on a site, then the sync status will become **Transfer** on that site - see [Store sync-with options](#).
- In a [syncing](#) system, facility names (customers, suppliers, etc.) can only be created and edited on the primary server. **Patients** can be created in any dispensary, including on a sync site. After that, their visibility is controlled on the central server (after they sync there) in the same way as other names, so everything on this tab (including the **All on**, **Copy** and **Paste** buttons) will be read only on a sync satellite.

When a customer / supplier is created, it will only be made visible in:

- its home store (the store that you are logged into when the name is created; see [Home store](#) for details), and
- any other stores *if* their store preference **Names created in other stores not visible in this store** is switched **OFF** (there's an equivalent store preference for patients, which can be switched **OFF** to make new patients visible in other dispensary stores) - see [Store preferences](#) for more details.

Photo tab

On this tab you can assign a photo of the customer or supplier and set their world map coordinates. Both of these can be used in reports.



Adding or deleting a Photo

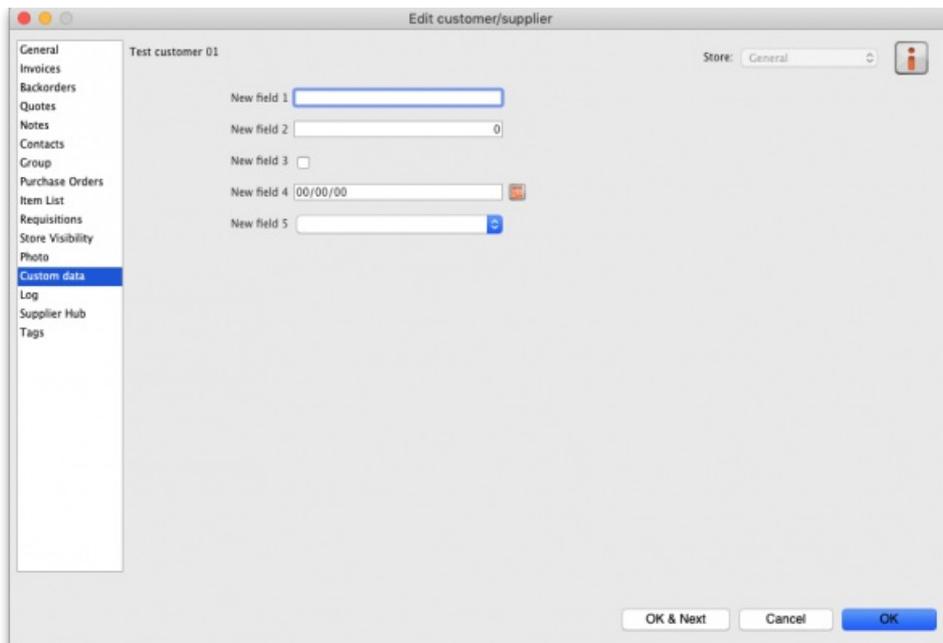
To add a photo, either copy the contents of a file to the clipboard and paste them into the image area or click on the **Add photo** button and select the picture file (png, jpg, bmp or gif files supported).

To delete a photo either click on it in the image area and press the delete key on your keyboard or click on the **Delete photo** button.

Mapping a customer's location

- You can use [Google Maps to find latitude and longitude](#) of a customer.
- The first number is the longitude, and the second number is the latitude.
- Enter these numbers into the provided fields in mSupply
- You can then view the customers location by clicking the **View on Map** button.

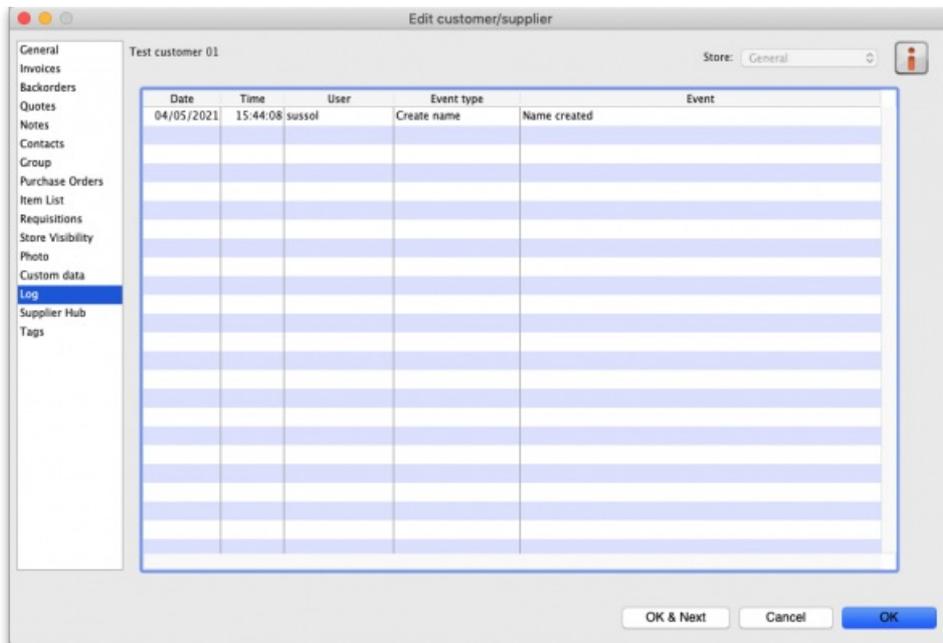
Custom data tab



This tab shows all the custom fields that have been set up in the preferences. See the [16.11. Custom fields](#) page for details.

You can edit or enter values in the fields as required. When you click on the **OK** or **OK & Next** buttons the values will be saved.

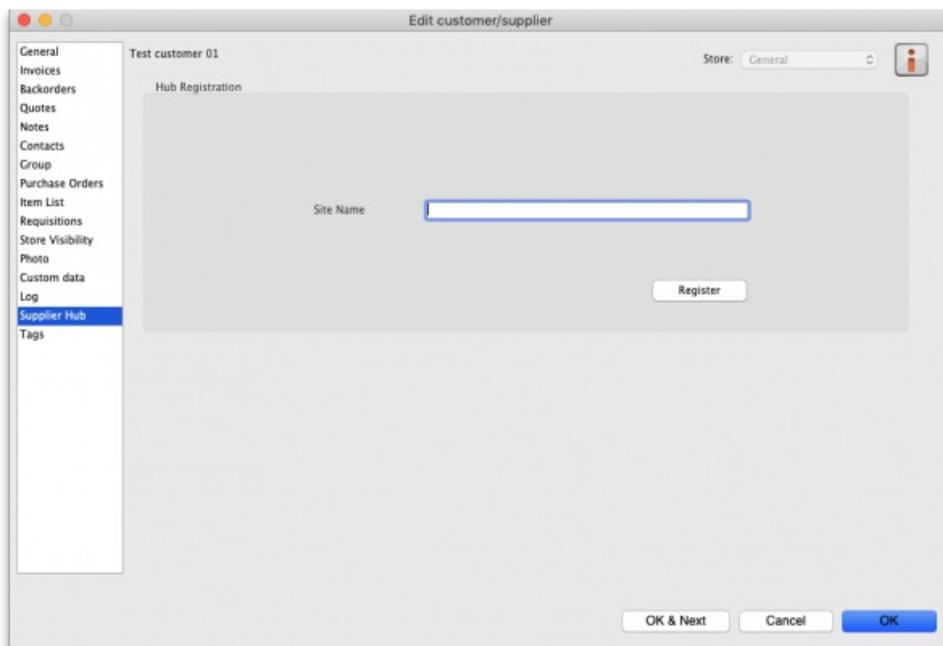
Log tab



This tab shows a list of all the log entries that belong to this name. These entries will also appear with all the other logs for other events throughout mSupply in the log. See the [25.19. The system log](#) page for details.

If you want to see more details about one of the logs, double-click on it in the list and a detail window, populated with the log's details, will open.

Supplier hub tab



This tab allows you to register suppliers in the mSupply supplier hub. Enter the site name you wish to register the supplier with in the **Site name** field and click on the **Register** button.

Tags tab



5.02. Contacts

This command from the *Special* menu displays a window where you can edit contacts.

Contacts are usually associated with a name (a customer or supplier), and it is easier to edit such contacts using the "show suppliers..." or "show customers..." command.

If a contact is not associated with a name, you can edit details for that contact using this command.

Buttons in the contact list window

New: Use to add a new contact.

Report: Presents the Quick report editor window. See [Using the Query Search editor](#)

Find: Use to find an individual contact

Order by: sort the contacts

Print: clicking this button will present you with a dialog with two choices:

- If you click *list* a list will be printed of the records in the window.
- If you choose *labels*, you will be shown the label editor, allowing you to print a set of address labels for the current list of contacts. Note that you can save a particular label layout and then use the *load* command in the label editor to restore your layout.

New: To edit a contact, double-click on the line you want to edit. You will be shown the contact details:



[Previous: 5.01. Names: using, adding and editing](#) || [Next: 5.03. Merging two names](#)

Last modified: 2020/01/14 11:25 by lou



5.03. Merging two names

If you accidentally enter two names into *mSupply* that identify the same organisation, you can use this command to combine them.

Use extreme caution: This operation will move all historical records from the name you delete to the name you are keeping. The operation can only be undone by reverting to a backup copy of your data file (so it is a very good idea to take a backup just before you begin any merging).

Access the function by selecting *Customer > Merge two names...* or *Supplier > Merge two names...* from the menus.

After selecting one of the options, the following window is displayed:

The dialog box titled "Merge two names..." contains the following elements:

- Header: Merge two names into one- use with caution!
- Section: Name to keep, with a text input field containing "Enter name".
- Section: Name to merge- will be deleted, with a text input field containing "Enter name".
- Note: merging names will affect all historical records for the merged name. Only names that have been mistakenly double-entered should be merged.
- Buttons: Cancel and OK.

Enter the name to keep (type the first few characters of the name and press the Tab key to select it from a list of names that begin with what you typed), and then the name to merge (same way). When you have checked then checked again that the information is correct, click the OK button. You will be given one last chance to confirm and then the merge is carried out.

The merge takes all instances of the name to merge in the *mSupply* datafile, wherever it may appear, and replaces it with the name to keep and then deletes the name to merge.

You can also access this functionality by selecting two names from a list of customers or suppliers and clicking on the *Merge* button at the top:

The "Names list..." window shows a table with columns: Code, Charge to, Name, Address 1, Address 2, and Custom 1. The "Merge" button in the toolbar is highlighted with a red box.

Code	Charge to	Name	Address 1	Address 2	Custom 1
ANB01/01	ANB01/01	GENERAL HOSPITAL, EKWULOBIA	NEAR EKE MARKET, EKWULOBIA	AGUATA	20/07/2018
ANB01/02	ANB01/02	IBOMA HOSPITAL, MATERNITY, 1	FROM EKWULOBIA DRIVING TO E	AGUATA	00/00/00

If you do this you are presented with a different window, where you select which of the two names is the one to keep (in green) and which is the one to merge (in red):

The "Merge names..." dialog box shows two columns of data, each with a radio button to select it as "Keep" or "Merge".

Code	Charge to	Name	Address 1	Address 2	no. of trans	last trans
ANB01/02	ANB01/02	IBOMA HOSPITAL, MATERNITY, 1	FROM EKWULOBIA DRIVING TO E	AGUATA	0	00/00/00
ANB01/01	ANB01/01	GENERAL HOSPITAL, EKWULOBIA	NEAR EKE MARKET, EKWULOBIA	AGUATA	11	20/07/2018

Use the pairs of *Keep* and *Merge* radio buttons to select which name is to be kept and which one is to be merged. Make sure you select the right way round then click on the OK button and, after a final confirmation from you, the merge will be carried out.

You can also merge a name into a [virtual store](#) (the store must be the name to keep). This is particularly useful if, for example, you have a customer which you now want to turn into a store to manage their stock more fully. This has the benefit of moving all the transactions connected with the customer into the store so that you don't lose any historical transaction information.

Alert

When you merge a (customer) name with a virtual store you must finalise all transactions belonging to the customer first (mSupply will tell you to do this if you have not already).

Important

In a synchronising system, The merging needs to take place on the primary server, even if the virtual store is 'Active' on a satellite server (see [Remote Synchronisation](#))

Previous: [5.02. Contacts](#) || Next: [5.04. Name categories](#)

Last modified: 2020/01/14 11:26 by lou



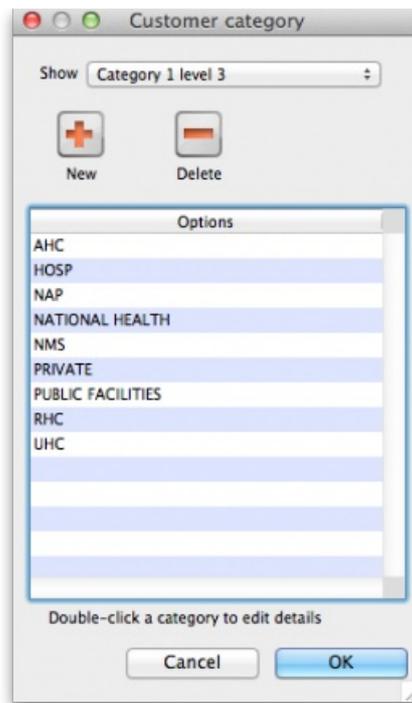
mSupply documentation wiki



5.04. Name categories

You can categorise names in mSupply with 6 different categories. This is very helpful for producing detailed reports. You can apply one or all or some of these categories to a name. Categories 2-6 are standard categories but category 1 is special - it's hierarchical and has 3 levels, level 1 is the top and level 3 is the bottom (similar to item categories).

Suppliers and customers have their own sets of categories. To view and edit them you choose *Show categories* from the *Customer* or *Supplier* menu and that brings up this window:

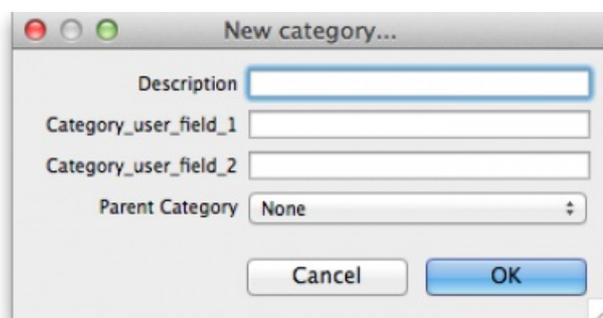


Here you can add and edit categories for your suppliers or, in this case, your customers.

Show drop down list: This determines which category type is shown in the list and which type of category will be created if you click on the **New** button. Note that the Category 1-6 labels in the drop down list will be replaced with any custom labels you have defined in the category label preferences in the [General preferences, Names tab](#).

Delete button: Deletes the category you have selected in the list. You'll be asked to confirm the deletion first of course!

New button: Opens up the new category window which looks like this (Note that double clicking on a category in the list opens up this window too but it will be populated with the current settings for the category you double clicked so that you can edit them all):



Description: This is the category name and will be seen everywhere when assigning names to categories or filtering on name categories in reports.

Category_user_field_1: This is a user-defined field. If a label has not been entered in the [preferences](#) then the default *Category_user_field_1* shown here is used. The information you enter here is used in some reports.

Category_user_field_2: A second user-defined field, same rules as for *Category_user_field_1* apply.

Parent category drop down list: This only appears if you're editing a category 1 level 2 or 3 category because they are the only ones that can have parent categories. A parent category is the category to which this category belongs. If the category you are creating or editing is level 3 then you will be able to choose one of the level 2 categories as a parent. If you are editing a level 2 category then you'll be able to select one of the level 1 categories.



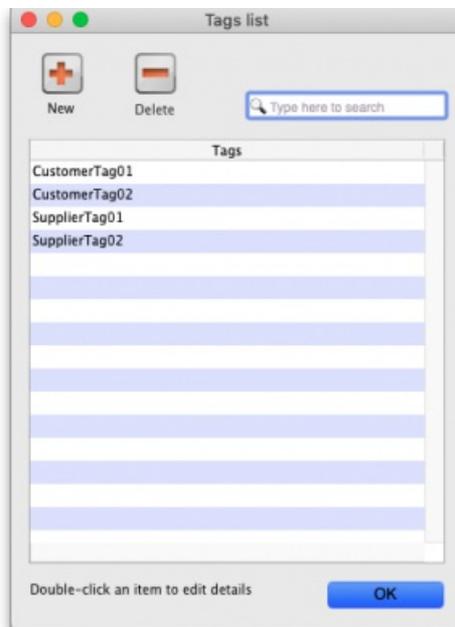
5.05. Name tags

Name tags are tags that can be attached to customers, suppliers and other names to identify them in a flexible way. They can be used in a number of ways including:

- With programs to identify which customers can use which programs.
- To control which facilities are included or excluded in reports.
- To control some aspects of customisations.

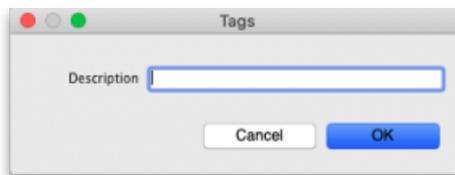
View name tags

To see a list of all the name tags currently set up choose *Customer > Show tags...* or *Supplier > Show tags...* from the menus. This window will open:



Add a new tag

To add a new tag, click on the **New** button and enter the tag's name in the **Description** field in the window that opens:



Click on the **OK** button to save it.

Delete a tag

To delete a tag, click on it in the list to select it then click on the **Delete** button. You will be asked to confirm the deletion.

You can only delete name tags that have just been created. After they have been saved by clicking on the **OK** button of the name tag list window then they can no longer be deleted.

Info

Please note: You cannot edit a name tag so type the descriptions carefully! You can delete a newly created name tag, so if you spot a typing mistake before clicking on the **OK** button of the name tag list window, simply delete the tag and add

another with the correct description.

Assigning tags to names

See the [5.01. Names: using, adding and editing](#) page for details on how to assign tags to names.

Previous: [5.04. Name categories](#) | | Next: [5.06. Suppliers: adding and viewing](#)

Last modified: 2021/09/23 22:57 by Mark Glover



mSupply documentation wiki



5.06. Suppliers: adding and viewing

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[New supplier](#)[Show suppliers](#)[New supplier](#)[Show suppliers](#)

New supplier

To add a supplier, choose this item.

Note- if this supplier will have invoices entered against it and you are exporting invoice data to an accounting program, a new "creditor" must be made in your accounting software with the same code, or you will get an error when you import! (You can usually make the code when you get the error in your accounting software when you try to import!)

The window for viewing/editing a supplier contains basic information. Fields that especially relate to suppliers include:

Currency: If you are using currencies, enter the currency used by this supplier. This value will be filled in with the value set in the "default currency" option of the Preferences.

Margin: The amount (as a percentage) that will be added to the cost price to calculate the sell price when you enter an invoice. For example, if you enter "10", items from this supplier that are bought for 30 dollars will have their value increased by 10% (i.e. 3 dollars) and will be sold for 33 dollars.

Category: You will note that the Supplier box is already checked. The special Benchmark category is discussed fully in the section on Tender management, which you can access [here](#).

Freight factor: The amount to multiply supplier quotations by to account for freight charges. (If their quotations are "CIF" you should set this to zero).

Show suppliers

This item allows... you guessed it - you to view suppliers. This window is displayed.



In the field, type as much of the supplier name or code as you want to. If there is only one matching item, the details will be displayed, otherwise a list will be displayed from which you can choose the name you want by doubling clicking it.

Previous: [5.04. Name categories](#) | | Next: [6. Purchasing](#)

Last modified: 2021/06/07 04:35 by Mark Glover



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User Guide



6. Purchasing

- [6.01. Ordering stock from suppliers](#)
- [6.02. Managing purchase orders](#)
- [6.03. Purchase order categories](#)
- [6.04. Ordering from one store to another](#)
- [6.05. Multi-store Purchase Orders](#)

Previous topic: [5. Customers and Suppliers](#) || Next topic: [7. Receiving Goods](#)

Last modified: 2020/01/14 08:46 by lou



6.01. Ordering stock from suppliers

⚠ Important

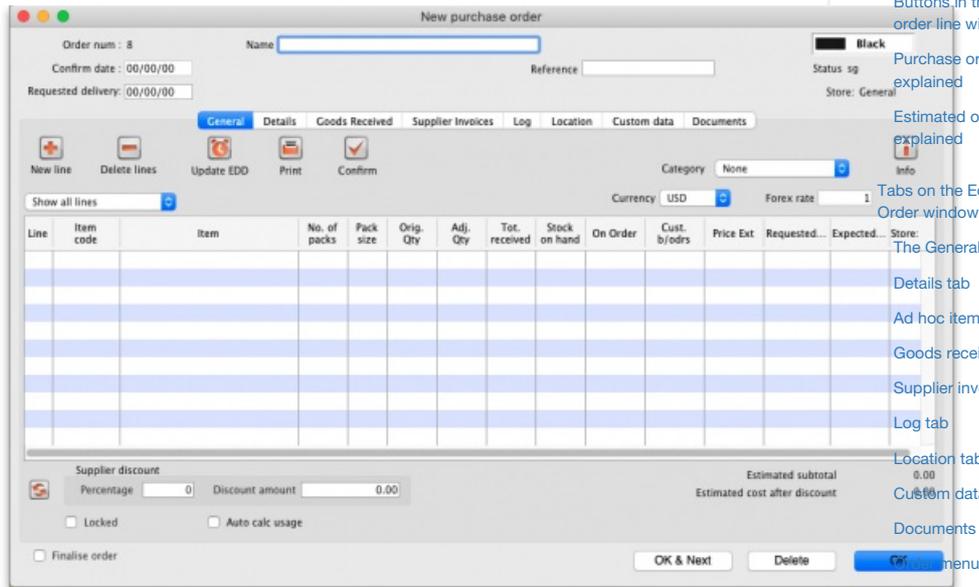
The discussion here is focused on ordering stock from suppliers *outside of your mSupply system*, though the same principles apply when [Ordering from one store to another](#).

Introduction to ordering

mSupply provides ways for you to generate a Purchase Order with manually or automatically calculated quantities. Each organisation tends to have different requirements for their ordering process, so we have tried to strike a balance between providing different methods and making the ordering module so complex that it is of little use to anyone. mSupply has two general methods for generating a purchase order:

- [Creating a new calculated purchase order](#) We recommend that you use this method since it will save you time and avoid mistakes.
- [Creating a blank Purchase Order](#). This method allows you to create a purchase order manually, based on calculations of quantities you have made yourself or using other tools.

Whichever way you create a purchase order, the purchase order window looks like this:



There is some read-only information at the top of the window which cannot be edited:

- **Order num**: This is the purchase order's number. It is automatically generated and increments by 1 for each new purchase order. It is **unique within a store** only so it is possible for purchase orders in different stores to have the same number.
- **Confirm date**: The date the purchase order was confirmed. If it has not been confirmed yet, this will be "00/00/00".
- **Status**: The current status of the purchase order - refer [Purchase order status explained](#) below.
- **Store**: The name of the store the purchase order belongs to.

Creating a new (calculated) purchase order

Before launching into creating a new (calculated) Purchase Order, it is important to understand the logic that mSupply uses.

Logic used for calculating purchase order quantities

Table of Contents

- [Introduction to ordering](#)
- [Creating a new \(calculated\) purchase order](#)
 - [Logic used for calculating purchase order quantities](#)
 - [Forecast future consumption](#)
 - [Calculate required stock quantity](#)
 - [Calculate purchase order quantity](#)
 - [Create a purchase order](#)
- [Creating a blank purchase order](#)
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 - [Tabs in the Order line details window](#)
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 - [Purchase order status explained](#)
 - [Estimated order costs explained](#)
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 - [The General tab](#)
 - [Details tab](#)
 - [Ad hoc items tab](#)
 - [Goods received tab](#)
 - [Supplier invoices tab](#)
 - [Log tab](#)
 - [Location tab](#)
 - [Custom data tab](#)
 - [Documents tab](#)
- [Authorising purchase orders](#)
- [Purchase order categories](#)
- [Introduction to ordering](#)
- [Creating a new \(calculated\) purchase order](#)
 - [Logic used for calculating purchase order quantities](#)
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 - [Editing a purchase order](#)



There are three distinct steps required to arrive at Purchase Order quantities for each line of stock:

- [Forecast future consumption](#)
- [Calculate required stock quantity](#)
- [Calculate purchase order quantity](#)

mSupply uses this methodology to produce a suggested order quantities in a number of other places including:

- [Creating a new tender](#)
- [The suggested order quantities report](#)

To assist in understanding these calculations, an example will be developed through the following sections.

Amoxicillin 250mg tabs/caps is being ordered at the end of December 2015. Historical consumption data is as follows:

Month	2013	2014	2015
Jan	200	1,000	1,000
Feb	250	1,050	1,100
Mar	300	950	900
Apr	350	1,000	1,000
May	400	1,200	1,400
Jun	450	800	600
Jul	500	1,000	1,000
Aug	550	1,150	1,300
Sep	600	850	700
Oct	650	1,000	1,000
Nov	700	1,100	1,200
Dec	750	900	800

From this data, the following AMC (Average Monthly Consumption) calculations can be made.

Period	AMC
Last 36 months (Jan 2013 - Dec 2015)	825
Last 24 months (Jan 2014 - Dec 2015)	1,000
Last 12 months (Jan 2015 - Dec 2015)	1,000
Last 6 months (Jul 2015 - Dec 2015)	1,000

A more detailed analysis of this historic consumption shows a steady increase through 2013, and then the AMC sits at 1,000 per month in 2014 and 2015. In this case, we have an AMC of 1,000 per month regardless of whether we look at 6, 12 or 24 months of historic consumption data.

Forecast future consumption

By default, mSupply uses the assumption that future consumption will continue at the same level as consumption over a given historic period. mSupply has a number of other options for making a forecast of future consumption. All of these methods are documented in the [Forecasting section](#) .

[Editing a purchase order](#)

[Editing purchase order lines](#)

[Tabs in the Order line details window](#)

[Buttons in the Edit purchase order line window](#)

[Purchase order status explained](#)

[Estimated order costs explained](#)

[Tabs on the Edit Purchase Order window](#)

[The General tab](#)

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[Ad hoc items tab](#)

[Goods received tab](#)

[Supplier invoices tab](#)

[Log tab](#)

[Location tab](#)

[Custom data tab](#)

[Documents tab](#)

[Order menu](#)

[Authorising purchase orders](#)

[Purchase order categories](#)

Calculate required stock quantity

Info

mSupply does not use set “minimum” & “maximum” stock levels as its primary means of determining order quantities. Conventional minimum and maximum stock levels are calculated using the methods described here, but it is problematic to try and fix these values, because:

- The parameters will keep on changing,
- It takes a lot of manual work to calculate,
- The assumptions made in calculating them are often lost.

Be assured that the system that mSupply uses will give you much better inventory control!

Having said that, mSupply does allow for minimum stock levels so as to allow you to ensure a minimum quantity of rarely used items. e.g. essential emergency supplies - refer [Other information on the stock details page](#). These minimum stock levels should **not** be used for most items.

The amount of stock you require to have is based on the forecast of future consumption (previous section), modified by a range of factors including:

- The **Lead time**: The time delay between carrying out the quantification analysis and when the stock is delivered to the store.
- The **Ordering cycle**: How often you plan to order this item
- The **Buffer stock**: How much of this item you plan to have on hand just before your next order arrives.

All of these are measured in months.

Tip

Some agencies recommend that **Buffer stock (months) = 2 x Ordering cycle**. If you have a central store with an annual order cycle, this means keeping two years worth of stock as a buffer. Expiry dates should not generally be problem, as a central store should definitely not be ordering stock with < 3 years expiry. However, central stores may have limited storage capacity...

Stock required = Lead time + Ordering cycle + (months of) buffer stock

For example:

- Lead time = 3 months
- Ordering cycle = 6 months
- Buffer stock = 12 months

From the equation above, Stock required is calculated as:

- = Lead time + Ordering cycle + buffer stock
- = 3 + 6 + 12
- = 21 months.

So, 21 months worth of stock is required.

Alert

The amount of stock required is almost certainly **NOT** the amount of stock to be purchased! See the next section: [Calculate purchase order quantity](#) for an explanation.

Calculate purchase order quantity

Purchase Order quantities are based on the amount of stock required, normally expressed as a number of months of AMC, modified by factors including:

- The current stock level (note: stock with no expiry date is counted as current stock for this calculation!).
- The amount of stock on backorder to customers (if you are running the backorder feature).
- The amount of stock already on order from Suppliers, but that has not yet arrived in your store.

Purchase order quantity = stock required - current stock level + stock on backorder to customers - stock on order from suppliers.

If the current stock levels and / or stock on backorder from suppliers is high enough, the above equation produces a negative number. This means that this item does not need to be procured during this ordering cycle. So, for the purposes of this mSupply calculation, Purchase order quantity = *maximum of zero and the above expression*. This is expressed mathematically as:

Purchase order quantity = MAX(0, stock required - current stock level + stock on backorder to customers - stock on backorder from suppliers)

Important

It could be important to consider the **months of anticipated stock-out (MOASO)** - that is, the situation of running out of stock before the order arrives. There are (at least) two ways of dealing with MOASO:

- **Consider it:** Reduce your order quantity by the MOASO because:
 - You will either obtain the shortfall through another purchase order (an emergency order, or from another supplier), or you will simply run out of stock.
 - Your customers will **not** increase their demand in the time immediately after you receive the stock from this purchase order to compensate for the stock being unavailable prior to the new order arriving.
- **Ignore it** because:
 - Your customers will be using up their buffer stocks while you were out of stock, and so they **will** increase their demand in the time immediately after you receive the stock from this purchase order to compensate for the stock being unavailable prior to the new order arriving.
 - MOASO is too complicated to consider and explain!

It can be seen that

- $MOASO = \text{Lead time} - \text{Current stock level} + \text{stock on backorder to customers} - \text{stock on order from suppliers}$

If the above equation produces a negative number, this means that there will be no stock-out, and the anticipated stock-out will have no impact on the Purchase order quantity. So, for the purposes of this mSupply calculation, $MOASO = \text{maximum of zero and the above expression}$. This is expressed mathematically as:

$MOASO = \text{MAX}(0, \text{Lead time} - \text{Current stock level} + \text{stock on backorder to customers} - \text{stock on order from suppliers})$

Continuing our worked example, suppose:

- Current stock levels = 5 months
- Stock on backorder to customers = 3 months
- Stock already on order from Suppliers = 2 months

Then, MOASO is calculated as:

- $= \text{MAX}(0, \text{Lead time} - \text{Current stock levels} + \text{stock on backorder to customers} - \text{stock on backorder from suppliers})$
- $= \text{MAX}(0, 3 - 5 + 3 - 2)$
- $= \text{MAX}(0, -1)$
- $= 0$

and Purchase order quantity is calculated as:

- $= \text{MAX}(0, \text{stock required} - \text{current stock level} + \text{stock on backorder to customers} - \text{stock on backorder from suppliers} - \text{MOASO})$
- $= \text{MAX}(0, 21 - 5 + 3 - 2 - 0)$
- $= \text{MAX}(0, 17)$
- $= 17$

So **17** months worth of stock to be ordered. Compare this with the **21** months worth of stock required calculated in the previous section!

To demonstrate the impact of a stock-out, let us suppose that we have only **1 month's** worth of stock on hand:

- Current stock levels = **1 month**
- Stock on backorder to customers = 3 months
- Stock already on order from Suppliers = 2 months

Then, MOASO is calculated as:

- $= \text{MAX}(0, \text{Lead time} - \text{Current stock levels} + \text{stock on backorder to customers} - \text{stock on backorder from suppliers})$
- $= \text{MAX}(0, 3 - 1 + 3 - 2)$
- $= \text{MAX}(0, 3)$
- $= 3$

and Purchase order quantity is calculated as:

- $= \text{MAX}(0, \text{stock required} - \text{current stock level} + \text{stock on backorder to customers} - \text{stock on backorder from suppliers} - \text{MOASO})$
- $= \text{MAX}(0, 21 - 1 + 3 - 2 - 3)$
- $= \text{MAX}(0, 14)$
- $= 14$

So, due to the **3** month anticipated stock-out, only **14** months worth of stock are to be ordered.

Create a purchase order

Choose **Supplier > New Purchase Order** from the menus. The following window will be displayed:

This window allows for a number of factors to be entered.

Types of order available from the popup menu

Firstly, you have the opportunity to select the order types:

Order for all suppliers

- All items in the database will be evaluated to see if they need ordering. This is the default option
- If you have a large number of items, this may take a few minutes.
- By default, a single order will be generated. You have the option to generate a separate order for each supplier by checking the *Separate order for each supplier* box. In this case, mSupply will
 - For each item, look to see whether a supplier has been identified as **preferred** on a current quote
 - Create a separate order for each supplier.
 - Items without a **preferred** quotation will all be placed together in a single order.

Order for some items only

- Either click on the *Query items* box, to bring up the *Query Editor* window, and enter the required parameters, or select one or more criteria by placing check marks as appropriate in the three boxes; use of the *Query Editor* is described in detail in the Reports chapter. See [Using the Query Search editor](#)

Order for one supplier

- This method is the best method to use for ordering from a particular supplier (you might have guessed that!)
- Enter the supplier code, and press the tab key. The supplier name will be filled in, or you will be given a list to choose from.
- Any items that have a quotation from that supplier that is marked as "preferred" will be evaluated to see if they need reordering.

Calculate forecast

Secondly, the forecast of future consumption will be calculated in accordance with each item's settings as documented in the [Forecasting](#) section. The only forecasting factor that can be adjusted here is the number of months of historical consumption data that will be used to calculate historical AMC.

Tip

- The bigger the number you enter here, the more accurate mSupply is likely to be, *provided that consumption has been reasonably stable over that period*. Entering a large number will slow down the calculation.
- Also, beware of extending this time period to a time in the past when data is inaccurate or non-existent. This will be

detrimental to the quality of the forecast.

From our worked example above, consumption has been stable at 1,000 per month for the last two years (2014 and 2015), but was significantly lower in 2013. Putting **36** months would result in a lower AMC than has been the case for 2014 and 2015.

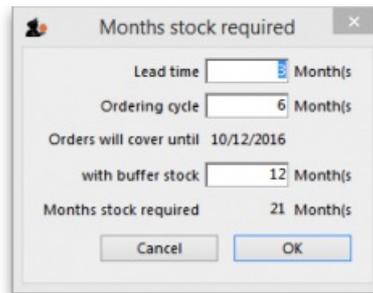
⚠ Important

The number of months of historical consumption data to be used to calculate historical AMC **will be ignored** for those items that are configured not to use AMC in the forecast - refer [Forecasting](#).

Calculate quantity required

The quantity of stock required can be entered directly into the **Months of stock required** field. However, as demonstrated in the [Calculate Purchase Order quantities](#) section above, a more reliable way of getting to this figure is to use the Lead time, order cycle and buffer stock parameters. Clicking on the *Calculate* button brings up a window allowing you to enter these values, from which mSupply will calculate the quantity required.

Using the same figures as in our worked example above:



Months stock required

Lead time Month(s)

Ordering cycle Month(s)

Orders will cover until 10/12/2016

with buffer stock Month(s)

Months stock required 21 Month(s)

Cancel OK

- Orders take three months to arrive from your supplier - (Lead time = 3 months)
- You order every six months. (Ordering cycle = 6 months)
- We want a buffer stock of at least 12 months when a Purchase Order arrives.

🚨 Alert

- The **Lead time** figure will generate an **Expected delivery** date, and the **Lead time / Expected delivery** date can have a significant impact on actual Purchase order quantities - refer [Calculating Purchase order quantity](#) above.
- **BEWARE** of manually entering in a date that is unrealistically far into the future - this will **REDUCE** the quantity ordered!

Other settings in the create order window

Comment

Add a comment (note) to the order should you so wish.

Exclude transfers from usage calculations

This option is only applicable if you are running [multiple \(virtual\) stores](#). If you have more than one store, this option controls whether inter-store transfers are taken into account when calculating historic consumption. The default setting is *not* to exclude transfers. That is, stock transfers will be *included* in the calculation.

Include usage for build ingredients

Selecting this option ensures that any items that were used in [builds](#) (i.e. manufactured items) will be taken into account when calculating historic consumption.

[Builds](#) can be entered with placeholder lines to reflect a projected manufacturing schedule. If the *Include usage for build ingredients* check box in the "new order" window is checked, the proposed order quantity for each item will be adjusted by the amount of the item that is required for all projected builds, multiplied by the "times covered" value you have entered.

Using our worked example:

- Let us say that we wish to 'build' a kit which includes 100 x Amoxicillin 250mg tabs/caps.
- We have a projected build for 200 of these kits.
- This will consume 20,000 Amoxicillin 250mg tabs/caps.
- We enter 1.5 in the *times covered* box
- Then the additional quantity of Amoxicillin 250mg tabs/caps that will be added to the order will be:
 - = 100x200x1.5
 - = 30,000 tabs/caps
- In our worked example, ignoring projected builds, 14 months usage was to be ordered.
- The AMC is 1,000 per month.

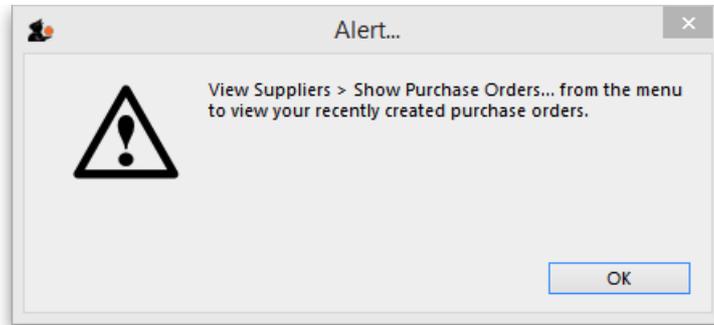
- Without taking into account projected builds, this would result in an order of 14,000 tabs/caps.
- When we add the usage of the projected builds, the amount to be ordered will be:
 - =14,000+30,000
 - =44,000 tabs/caps

Include items with suggested zero order quantity

If mSupply calculates that any of the lines from the supplier are not required, when this box is checked such lines will appear on the Purchase Order, the order quantity being 0.

Create order button

Once you have entered the details, click the *Create order* button. Order generation may take a couple of minutes, depending on how many items need to be evaluated. You will then be presented with the following Alert box:



Clicking on *OK* will close the Alert box and return you to the Navigator.

Creating a blank purchase order

Choose *Supplier > New blank Purchase Order* . You are presented with a blank order form, to which you can add items. This form only allows the choice of one supplier.

 A screenshot of the "New purchase order" window. At the top, there are fields for "Order num : 8", "Name" (with a dropdown), "Confirm date : 00/00/00", "Requested delivery : 00/00/00", "Reference", "Status sg", and "Store: General". Below these are tabs: "General" (selected), "Details", "Goods Received", "Supplier Invoices", "Log", "Location", "Custom data", and "Documents". A toolbar contains icons for "New line", "Delete lines", "Update EDO", "Print", and "Confirm". There are also fields for "Category", "Currency" (set to USD), and "Forex rate" (set to 1). The main area is a table with the following columns: "Line", "Item code", "Item", "No. of packs", "Pack size", "Orig. Qty", "Adj. Qty", "Tot. received", "Stock on hand", "On Order", "Cust. b/orders", "Price Ext", "Requested...", "Expected...", and "Store". The table is currently empty. At the bottom, there is a "Supplier discount" section with "Percentage" (0) and "Discount amount" (0.00) fields, and checkboxes for "Locked" and "Auto calc usage". On the right, "Estimated subtotal" and "Estimated cost after discount" are both 0.00. At the bottom right are buttons for "OK & Next", "Delete", and "OK".

The **name** field is where you choose the supplier you are ordering from (type in the first few characters of the supplier's name and press the Tab key on the keyboard, then select the right supplier from a list of those beginning with what you typed - if there's only one that matches, it will be automatically chosen for you).

If it has been set in *Preferences*, the **Donor** field will appear, and the donor details may be entered here (in the same way as entering the supplier name - type the first few characters of the donor's name and press the Tab key to select from a list of donors starting with what you typed). Setting this preference is described in [Supplier Invoices](#).

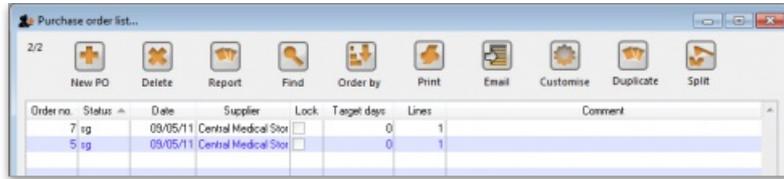
The **Reference** field allows you to enter any relevant information. Anything you type in here will be carried through to the **Their ref** field on the Goods Received note and Supplier Invoices created from the Purchase order (but can be overridden if required). This is true whether the purchase order is created manually or calculated for you by mSupply (as described above).

The **Requested delivery date** (contract delivery date 😊) field is for the date you have requested the supplier to deliver the items. Anything entered in this field becomes a default and is automatically set for all lines added to the purchase order. Such a requested delivery date can still be manually edited for each line if required. There is a preference to make this field mandatory (see [Purchase order preferences](#) for details).

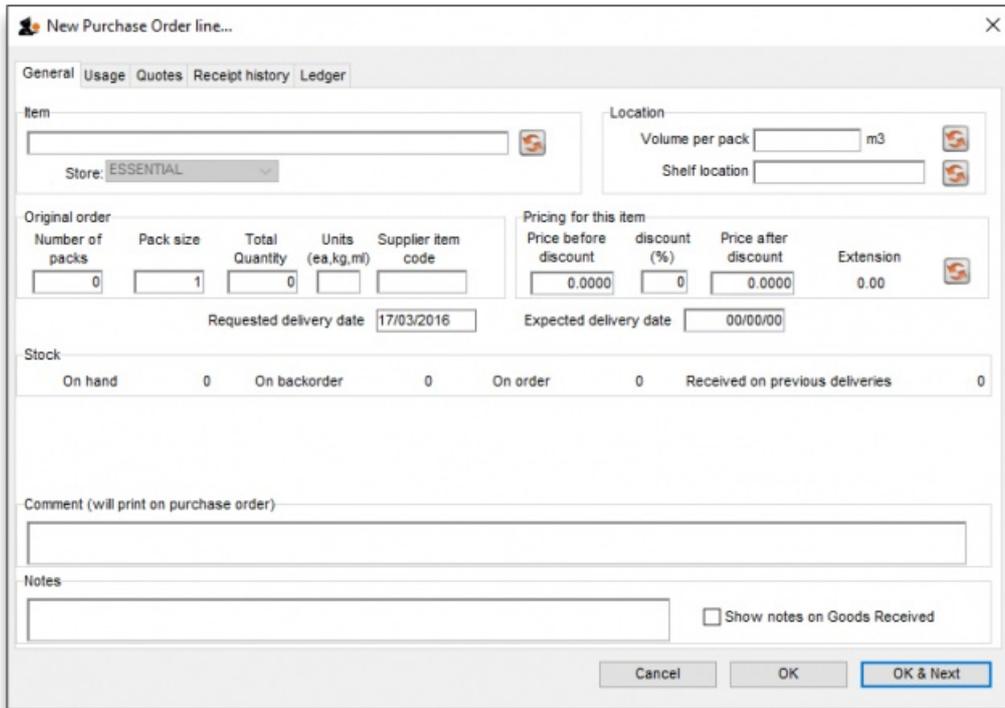
In the top right hand corner, there is a box where you may select a particular colour from a range of colours - in the window shown below, *blue* has been selected.



The purpose of this is to distinguish this particular Purchase Order in the Purchase Order list - see the example below where PO number 5 is shown in the selected colour (blue):



Once a supplier(**Name**) has been chosen you may enter the item you are ordering by clicking the **New Line** button.

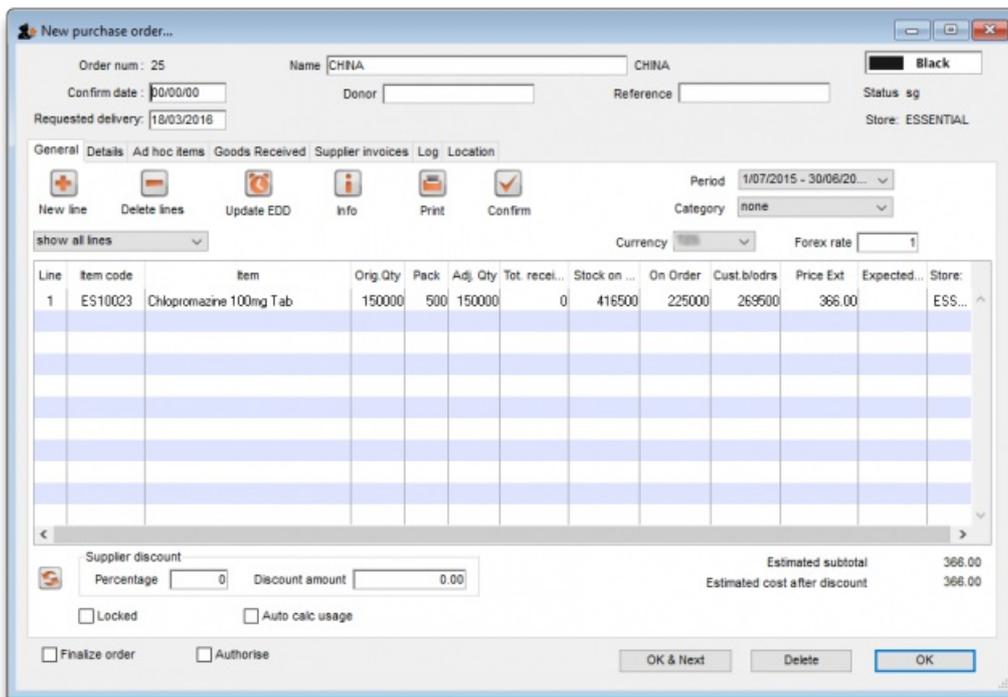


In the **Item** field type the beginning letter of the item you want and hit the **Tab** button. You may then choose the item from the displayed list. If you want to see the entire list of items available type **@** and then **Tab**.

In the Requested delivery date field put the date you are requesting the supplier to deliver this item. This is optional unless you have turned on the preference to make it mandatory (see [Purchase order preferences](#) for details).

For more information on the other tabs in this window see [Editing Purchase Order lines](#)

Once you have chosen the Item and entered the appropriate details clicking OK will return you to the Edit Purchase Order screen where you will see the line you have created. Below I have ordered 300 Packs of Chlopromazine.

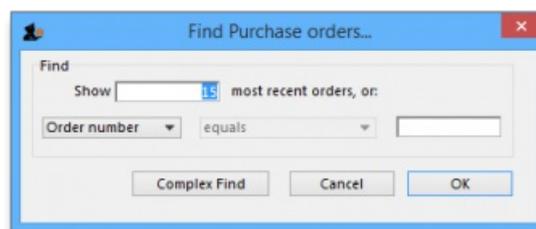


The Original and Adjusted Quantities columns show the number of packs you ordered multiplied by the number of units in the pack.

Viewing a purchase order

To view a recently created order choose *Show Purchase Order...* from the *Supplier* menu.

Choosing this menu item shows a window where you can enter either the number of recent orders to display or the order number (this is printed on an order if you have printed it out). If you click OK without changing any information you will be shown a list of the 15 most recent orders.



You will then be shown a window with a list of Purchase Orders. (If you entered a Purchase Order number you will be taken straight to the Purchase Order details window, bypassing the Purchase Order list, as shown above).

Buttons in the purchase order list window



New PO (purchase order)

When you click the *New PO* button, a Purchase Order details window is displayed . See “New Purchase Order” below.

Delete

Clicking the **Delete** button will delete any highlighted POs, with some exceptions - see below.

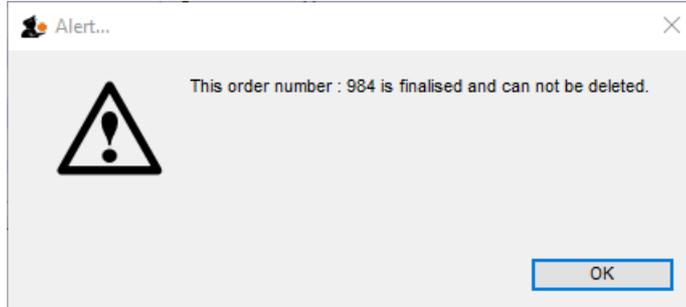
Tip

You can delete multiple Purchase Orders by highlighting more than one line. To do so, control-click (command-click on Mac) the lines you wish to highlight, and then click this button.

- Confirmed POs need to have each line deleted on the PO before the PO itself can be deleted. If you try to delete a confirmed PO and it is not empty, you will get an alert message like this:



- Finalised POs can not be deleted. If you try to delete a finalised PO, you will get an alert message like this:



Report

Clicking on the **Report** button presents you with the quick report modifier window, from which a simple report can be constructed. This report can be viewed, saved to disk or printed.

Find

This button is very useful for quickly finding a group of Purchase Orders. when you click on the *Find* button, you will be presented with a window with the same functionality as if you chose the Menu item Supplier > Show Purchase Orders (above).



Order by

The *Order by* button allows you to sort the orders by multiple fields. Otherwise simply clicking on an individual column will also sort the order list by that column.

Print

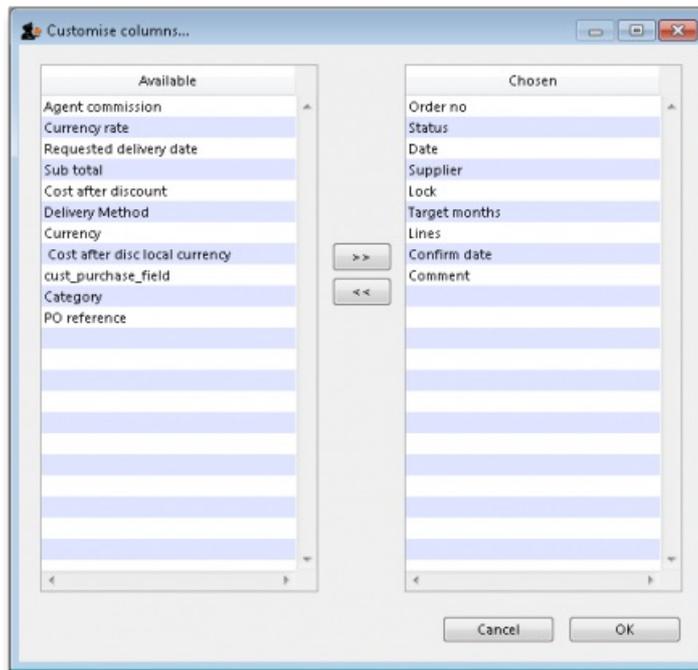
This allows you to print the displayed list of purchase orders. When you click on the **Print** button, it shows two windows. The first is the page setup for your printer, the second allows you to specify how many copies to print. The column sizes set in the list window are reflected in the printed output.

Email

Any highlighted orders will be converted to queued emails.

Customise

This button allows you to change the columns that are displayed in the list and what order they are displayed in:



See [Working with lists](#) for more details.

Duplicate

If you wish to duplicate any orders, highlight desired orders from list and click the “Duplicate” button.

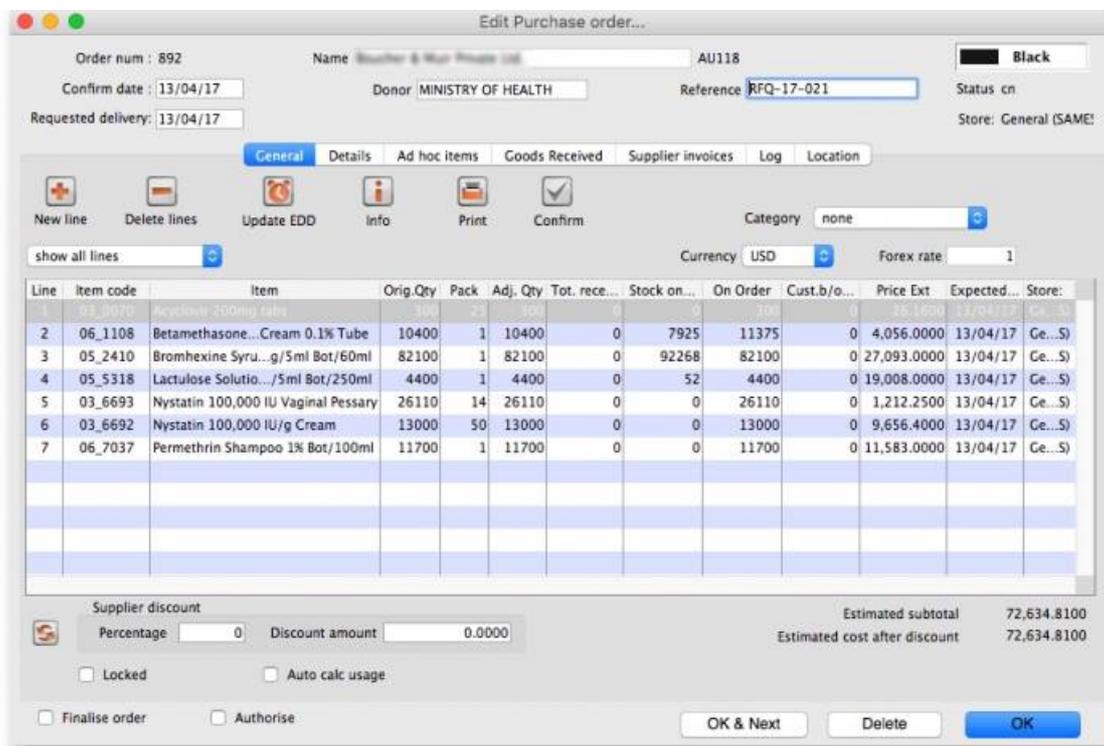
Split

This button allows you to split the selected order between two or more suppliers, and may be used only on orders with a status of sg.

Editing a purchase order

Double-click the order in the list you want to modify.

You will be presented with the [General tab](#) of the Edit Purchase Order window:



Info

If the entire order qualifies for a discount, either the discount percentage should be entered at 1, or the cash value of the discount should be entered at 2.

Split deliveries

There may be occasions when you want to arrange for split deliveries - for instance if you are placing a single order for a year's supply, but you want certain items to be delivered in, say, four consignments, at three monthly intervals. The order as generated lists the total quantity to be ordered, and you need to modify this; what you are actually doing is modifying a Purchase Order line. The procedure is described in *Split deliveries* in the [order menu](#)

Editing purchase order lines

To modify an order line, double click on the line you wish to modify.

Note: you can resize the order modifying window to show more lines, or to show more of the item name. To do so, drag the handle in the lower right corner to a new position.

When you double-click an order line (or when you click on the *New line* button) you will be presented with a window allowing you to modify the item, quantity and pack size:

Information in the Edit order line window

Item

Here you can modify the item that is being supplied. To change the item, type as much of the item name as you know, then press the tab key. If only one item matches your entry, it will be filled in automatically, otherwise you will be presented with a list where you can double-click the item you wish to enter.

Comment

You can enter any information you wish to record about this order line here. Comments will be added to order lines when you email an order to a supplier.

Original quantity

The original quantity ordered from the supplier. This information is not modifiable once you have confirmed an order.

Pack size

This is the pack size you are requesting the supplier to provide (or the pack size the supplier has said they can provide).

Units

The units that the pack is measured in.

Supplier item code

The Supplier's item code for this item can be entered here. This field is optional.

Price before discount

The price quoted by the supplier for one pack (of the pack size shown in the **Pack size** field) of this item. If you enter it here, it will be carried through onto the goods received note and then the supplier invoice. Of course it can be edited on the supplier invoice if the delivered price turns out to be different to what is entered here). Entry of this field can be made mandatory if the preference is turned on (see [Purchase order preferences - unit cost \(price before discount\)](#) for details).

Extension

The price multiplied by the quantity ordered.

Volume per pack

In this field, you can define the volume per pack for the pack size chosen. If you are entering a new line the volume and pack size you have entered for the item will be used.

Note the mSupply always stores volumes as m3 (cubic metres), but you can enter a volume as millilitres (ml), litres (L) or cubic metres (m3)

Shelf location

Type the first few characters of location name or code as you know, then press the *Tab* key. If only one location code matches your entry, it will be filled in automatically, otherwise you will be shown a standard choice list with the option to create a new location.

Adjusted quantity

The total quantity you now expect to receive from the supplier in all consignments. You can adjust this figure so that the amount received is reduced or increased due to changes in what the supplier actually sends.

Refresh buttons

The refresh button (to the right of Volume per pack), on clicking, displays the default volume of the selected item if it has been set previously. Similarly the refresh button next to Shelf location displays the default location.

The refresh button in the "Pricing for this item" frame reloads the price data from a preferred quotation. The price from the most recent quote is used if there are no preferred quotations. If you have received an updated quotation after generating the original price, use this button to apply the updated details to this line.

Comment

Put anything you need to have recorded for this purchase order line in here. It will print against the line when the purchase order is printed out.

Notes

Any important notes you need to make about this purchase order line should go in here. These notes will not print out when the purchase order is printed but, if you check the *Show notes on Goods Received* checkbox, the note will be displayed on the goods received note line and the line will be coloured red when the goods are received into mSupply - see [Goods receipts](#) for details.

Other information in the Order line details window:

On hand: This is the quantity of stock on hand of the item

On order: This is the quantity of stock in other confirmed orders awaiting delivery.

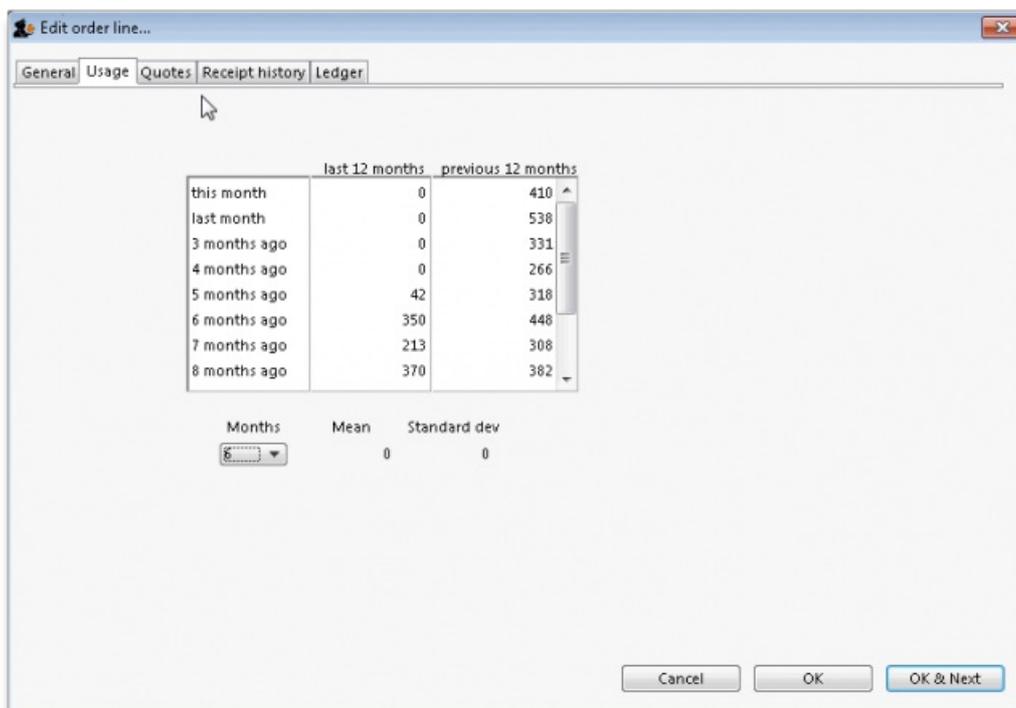
On backorder: The quantity of stock you owe to customers on backorders

Quantity received: The total quantity of this line that has already been received on this order.

Tabs in the Order line details window

Usage tab

This tab shows the usage for the last 24 months of the item being viewed. This is useful for deciding if reported usage is consistent from month to month, or is due to one or two very large supplies to clients.



Quotes tab

This tab shows quotes from suppliers for the item being viewed.

You can double-click a quote to view and/or modify details.

View quotations for the item in question. You can double-click a quotation to modify its information.

Note that the supplier of the quotation that is marked as "preferred" will be the supplier selected when using the "split" command to break a general order into orders for each supplier.

The **New** button allows you to add a new quotation.

Edit order line...

General Usage Quotes Receipt history Ledger

Item	Date	Supplier	Cu...	Rate	Price	Pac...	Freight	Strip	Cost	Adj Cost	Preferred
Sodium Chloride 0.9% iv inf (1 Ltr)						12	1.00	<input type="checkbox"/>	28.20	2.3500	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	1.00	<input type="checkbox"/>	52.50	4.3750	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	1.00	<input type="checkbox"/>	12.97	1.0811	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	0.00	<input type="checkbox"/>	16.19	1.3496	<input checked="" type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	0.00	<input type="checkbox"/>	27.50	2.2916	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	0.00	<input type="checkbox"/>	19.89	1.6575	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	0.00	<input type="checkbox"/>	0.00	0.0000	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	0.00	<input type="checkbox"/>	45.63	3.8025	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						1	0.00	<input type="checkbox"/>	1.39	1.3900	<input checked="" type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						1	0.00	<input type="checkbox"/>	2.75	2.7500	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	0.00	<input type="checkbox"/>	0.00	0.0000	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						1	1.00	<input type="checkbox"/>	0.00	0.0000	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						1	1.00	<input type="checkbox"/>	3.00	3.0000	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						1	1.00	<input type="checkbox"/>	1.85	1.8514	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						12	1.00	<input type="checkbox"/>	15.81	1.3177	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						1	1.00	<input type="checkbox"/>	3.97	3.9700	<input type="checkbox"/>
Sodium Chloride 0.9% iv inf (1 Ltr)						10	1.00	<input type="checkbox"/>	14.95	1.4950	<input checked="" type="checkbox"/>

Cancel OK OK & Next

Receipt history tab

This tab shows all goods receipts for the item being viewed.

If you double-click a line the associated goods receipt transaction will open in a new window.

Edit order line...

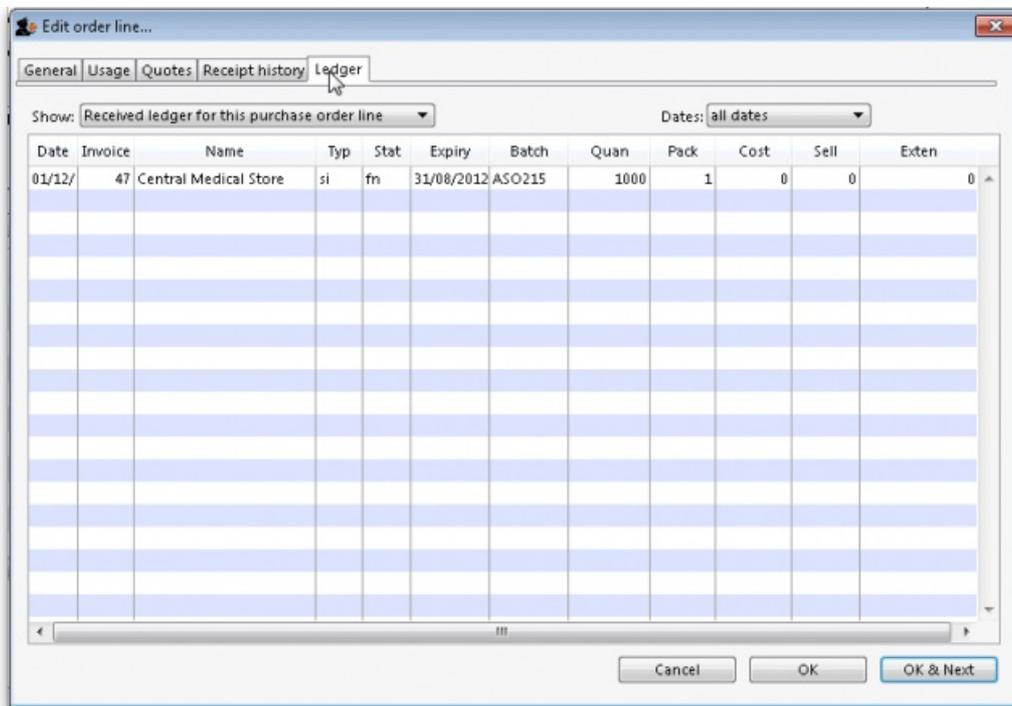
General Usage Quotes Receipt history Ledger

Line	Location	Item name	Batch	Status	Sup Invoice...	Goods rece...	Exp date	Pack size
1		CEFTRIAXONE 1000mg INJ		fn	47	10		1

Cancel OK OK & Next

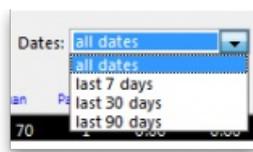
Ledger tab

- This tab shows supplier and customer invoices for the item being viewed.



- You can display a sub-set of the transaction lines by choosing options from the drop-down lists.
- The option *Received ledger for this Purchase Order line* shows all supplier invoice transactions for the current Purchase Order line item. This is particularly useful if you want to see the history of prices paid for this item.
- Goods receipts are shown on [the Receipt history tab](#).

- Unordered List ItemThe **Dates** drop-down list allows you to show only recent transactions....



- If you double-click a ledger line, the associated invoice will be opened in a new window

Buttons in the Edit purchase order line window

OK & Next

This button will take you to the next order line, unless you have reached the last line in the order, in which case you will be taken back to the order modifying window.

OK

Will exit the window saving changes to the current window.

Delete

If you click the **Delete** button, the order will be deleted and the order number will be reused for the next order.

Purchase order status explained

- When a purchase order (PO) is first created it has status "sg" (for "suggested")
 - POs with status sg can be modified in almost every way, including changing the supplier.
- Once there are no more lines to add to a PO, it can be confirmed and sent to the supplier. A PO is confirmed by clicking on the **Confirm** button.
 - Once a PO is confirmed, it has status "cn" (for "confirmed") and an appropriate log entry is created.
 - Confirmed POs have the order amount added to the "on order" field for each item, so that if another PO is created for the same item, this quantity already on order will be taken into account.
 - Confirmed POs can not have new lines added to them. However, details of existing PO lines can be amended.
- Once no more stock is to be received against a PO, it can be finalised. An order becomes finalised by clicking on the *Finalise order* tick-box at the bottom left of the PO window.
 - POs that have been finalised have status "fn" (for "finalised") and an appropriate log entry is created.
 - Finalised POs can no longer be modified in any way.
 - No more goods can be received against a finalised PO. The 'unsupplied' lines will not appear when you look for outstanding PO lines (*Supplier>Show outstanding PO lines*) and the 'unsupplied' quantities are ignored in any of mSupply's subsequent *Stock on order* calculations.

Estimated order costs explained

Info

From version 1.7 onwards, mSupply displays a new column (Price Ext) in the order modifying window that shows the cost of the order line.

Tabs on the Edit Purchase Order window

The General tab

Order num : 892 Name **Boucher & Man Pharmacy Ltd** AU118 **Black**

Confirm date: 13/04/17 Donor **MINISTRY OF HEALTH** Reference **RFQ-17-021** Status cn

Requested delivery: 13/04/17 Store: General (SAME)

General Details Ad hoc items Goods Received Supplier invoices Log Location

New line Delete lines Update EDD Info Print Confirm Category: none

show all lines Currency: USD Forex rate: 1

Line	Item code	Item	Orig. Qty	Pack	Adj. Qty	Tot. rece...	Stock on...	On Order	Cust.b/o...	Price Ext	Expected...	Store:
1	03_0070	Amoxiclav 200mg tabs	300	25	300	0	0	300	0	36.1600	13/04/17	Ge...S
2	06_1108	Betamethasone... Cream 0.1% Tube	10400	1	10400	0	7925	11375	0	4,056.0000	13/04/17	Ge...S
3	05_2410	Bromhexine Syru...g/5ml Bot/60ml	82100	1	82100	0	92268	82100	0	27,093.0000	13/04/17	Ge...S
4	05_5318	Lactulose Solutio.../5ml Bot/250ml	4400	1	4400	0	52	4400	0	19,008.0000	13/04/17	Ge...S
5	03_6693	Nystatin 100,000 IU Vaginal Pessary	26110	14	26110	0	0	26110	0	1,212.2500	13/04/17	Ge...S
6	03_6692	Nystatin 100,000 IU/g Cream	13000	50	13000	0	0	13000	0	9,656.4000	13/04/17	Ge...S
7	06_7037	Permethrin Shampoo 1% Bot/100ml	11700	1	11700	0	0	11700	0	11,583.0000	13/04/17	Ge...S

Supplier discount: Percentage 0 Discount amount 0.0000

Estimated subtotal: 72,634.8100
Estimated cost after discount: 72,634.8100

Locked Auto calc usage

Finalise order Authorise

OK & Next Delete OK

Refer [Editing a purchase order](#) above for details on adding lines to this.

Buttons on the General tab

New line

Click this button to add a new line to the Purchase Order. You will be shown this window:

You may enter the quantity of the item either by number of packs or by total quantity. mSupply will automatically fill in the other fields for you.

By default the Requested delivery date will be today's date but you may edit this to request deliveries at the times you require. The expected delivery date can be entered manually now but it would normally be entered once a response from the supplier has been received.

Delete lines

Select one or more lines in the Purchase Order and then click this button to delete the lines from the Purchase Order.

Update EDD

Select one or more lines in the Purchase Order and then click on the Update EDD (Estimated Date of Delivery) button to enter a new date when delivery is expected.

Info

Click the Info button to display information about the Purchase Order including the name of the initials of the Purchase Order creator and modifier - refer figure below.

⚠ Important

Notes:

- If the Purchase Order has not been modified, then a modify date of 00/00/00 will be displayed.
- If there is no name against the Created by and Modified by entries, then this Purchase Order was created / modified on the Primary Server in a synchronised mSupply system.

Print

Clicking the **Print** button will print the complete Purchase Order form for sending to a supplier. Note that you should fill in relevant details on the **Details** tab before printing the order.

Confirm

See the section above on "order status" for an explanation. Orders should be confirmed once the order has been placed with the supplier.

Check boxes on the General tab

Locked

When the locked check box is checked, the Purchase Order cannot be processed to the next status (confirmed or finalized) - refer [Order Status explained](#).

Auto calc usage

When the Auto calc usage check box is checked, each time you modify an item line, the usage for that line will be calculated. This is slower, but gives useful information upon which to base your ordering . Note that this option can also be turned on within the order line modifying window.

Print my signature

When the Print my signature check-box is checked, the user's signature will be printed on the Purchase Order if it has been loaded - refer [Managing users](#).

Details tab

This tab allows you to record a range of information that will be entered on the Purchase Order when it is sent to the supplier.

The screenshot shows the 'Edit Purchase order...' dialog box with the 'Details' tab selected. The 'PO sent date' field is highlighted with a blue selection box. The 'Comment' field contains the text 'PO generated for tender number: 93 No of PO Lines 18'. The 'Info for purchase order' section contains various fields for charges and conditions, all with values of 0.00000.

PO sent date

Enter the date the Purchase Order was sent to the supplier. When you print a Purchase Order mSupply will offer to fill in this date for you, but you should modify it if necessary to reflect the exact date.

Contract signed date, Advance paid and Received at port fields

Enter dates in these fields as appropriate. They are all optional unless any of them are made compulsory by turning on the appropriate preferences on the *Purchase orders 2* tab of the **File > Preferences...** menu item. See [Purchase order preferences](#) for more details.

Heading message

Any text you enter here (e.g. **Urgent** or **Supplementary order for PO 183**) will be printed in a large font across the top of the Purchase Order so your supplier will (or at least *should*) notice the message.

Expected delivery

Enter the date you expect the order to arrive

Goods received date

Fill in the actual delivery date. Leave the date blank for Purchase Orders that have not been delivered

Invoice received

Enter the date when you received the invoice from the supplier

Hint: you can find all orders that have not had an invoice supplied by querying on this field.

Comment

You can enter any appropriate comments here.

Supplier's agent

Enter the name of the intermediary party here - if there is one.

Delivery method

Enter a delivery method (eg "Air", "Courier" ...)

Authorizing officers

Enter the names of the people who are required to sign off the Purchase Order. These names are printed on the Purchase Order.

Freight conditions

Enter the delivery address, shipping marks, etc. here.

Additional instructions

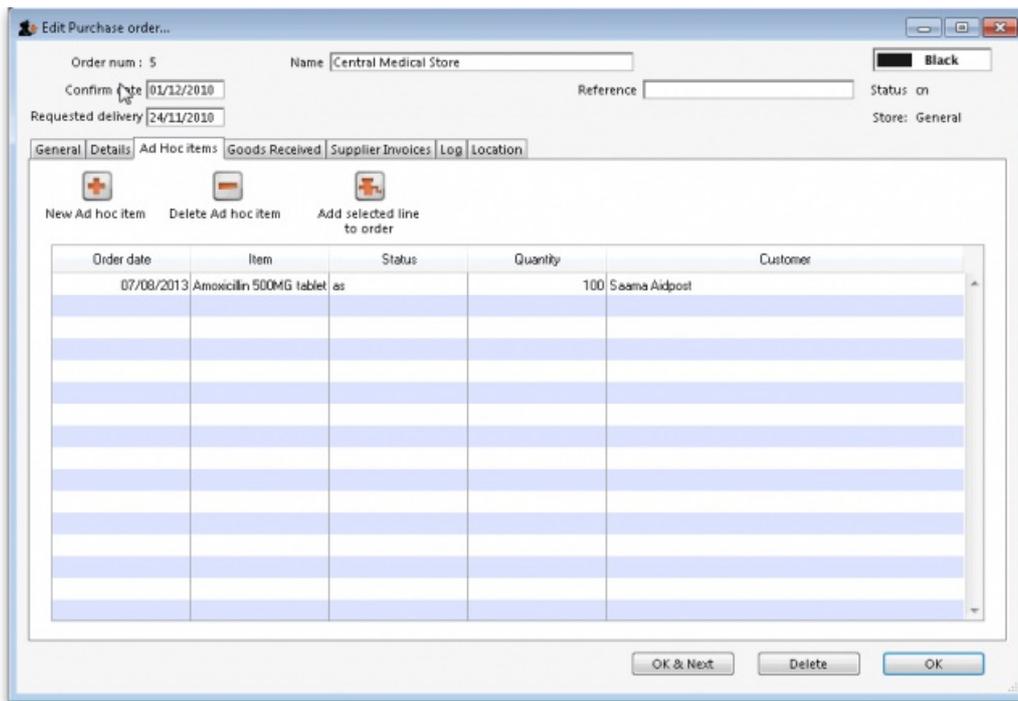
Enter any further information you wish to appear on the Purchase Order.

Commissions and charges fields

Fill in any relevant charges agreed between you and the supplier. Note that any charges that are zero will be skipped when printing the Purchase Order.

Ad hoc items tab

Here you can display a list of items that have been assigned to the supplier, but not yet added to a Purchase Order.



The screenshot shows the 'Edit Purchase order...' window with the following details:

- Order num: 5
- Name: Central Medical Store
- Color: Black
- Confirm date: 01/12/2010
- Reference: [empty]
- Status: on
- Requested delivery: 24/11/2010
- Store: General

The 'Ad Hoc items' tab is active, showing a table with the following data:

Order date	Item	Status	Quantity	Customer
07/08/2013	Amoxicillin 500MG tablet	as	100	Saama Aidpost

Buttons at the bottom: OK & Next, Delete, OK.

Click on a line, then click the "Add selected line to order" button to add a line to the current Purchase Order.

Warning: if you delete a line from a Purchase Order it will not have its status updated automatically- it is your job to do so using the Items > Manage Ad Hoc items menu.

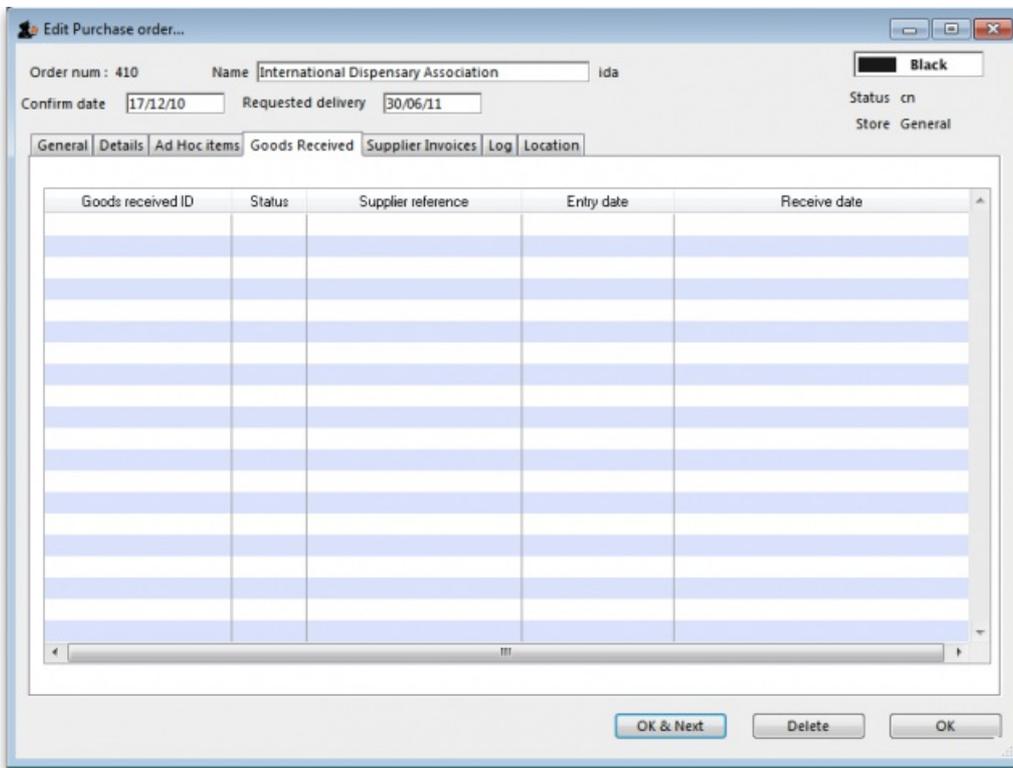
New ad hoc line button

Here you can add an ad hoc item "on-the-fly". This is useful if you want to process a Purchase Order for a single Ad Hoc item that has not yet been entered into mSupply.

Note that the Items > Manage Ad Hoc items menu is the normal route to add, modify and delete Ad Hoc items.

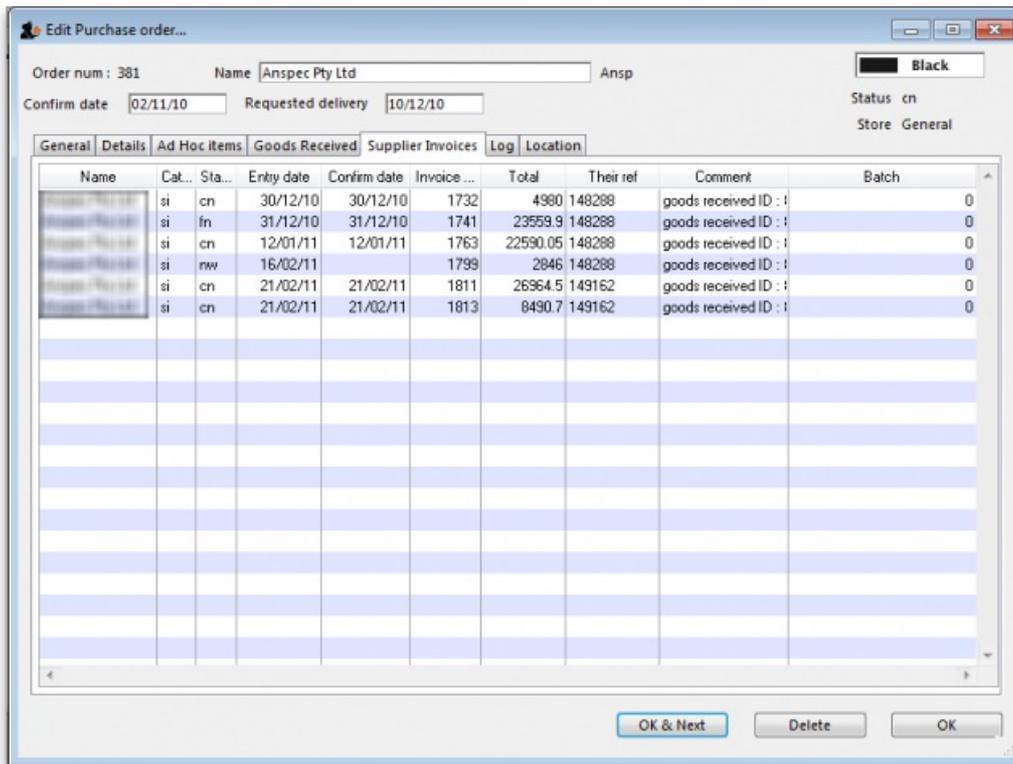
Goods received tab

This is a record of the receipt of the order, and, where multiple deliveries have been made, records each instance.



Supplier invoices tab

This tab displays a list of invoices related to this Purchase Order.

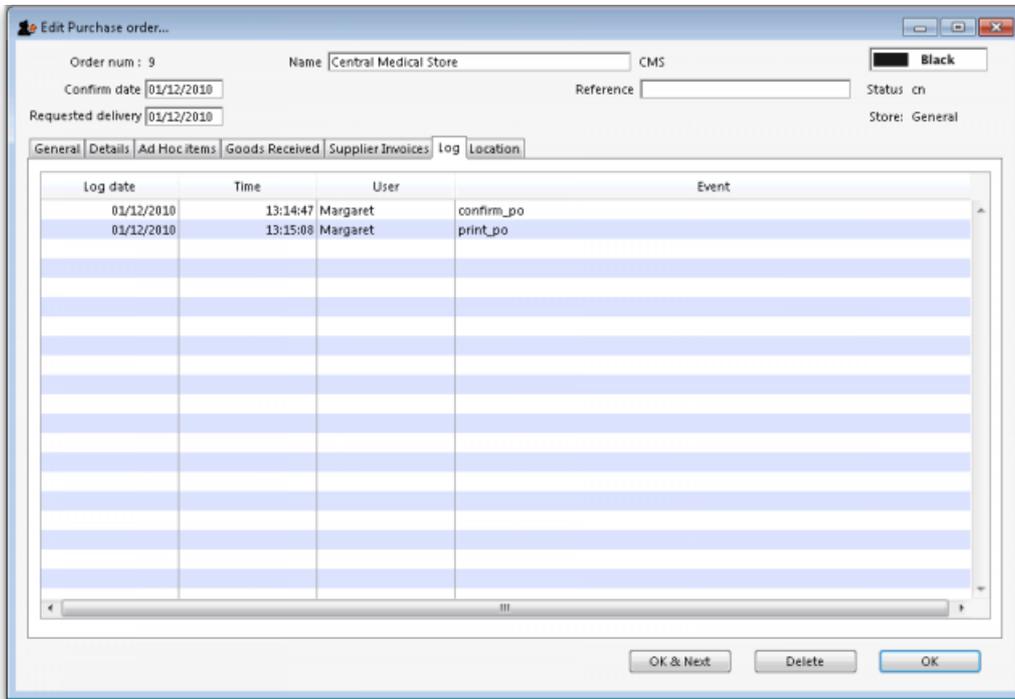


There are two types of invoice that are created directly from Purchase Orders:

- Supplier invoices are created each time [an associated Goods Received Note](#) is processed.
- Customer invoices are created when a supplier invoice is created that contains [Ad Hoc items](#).

Log tab

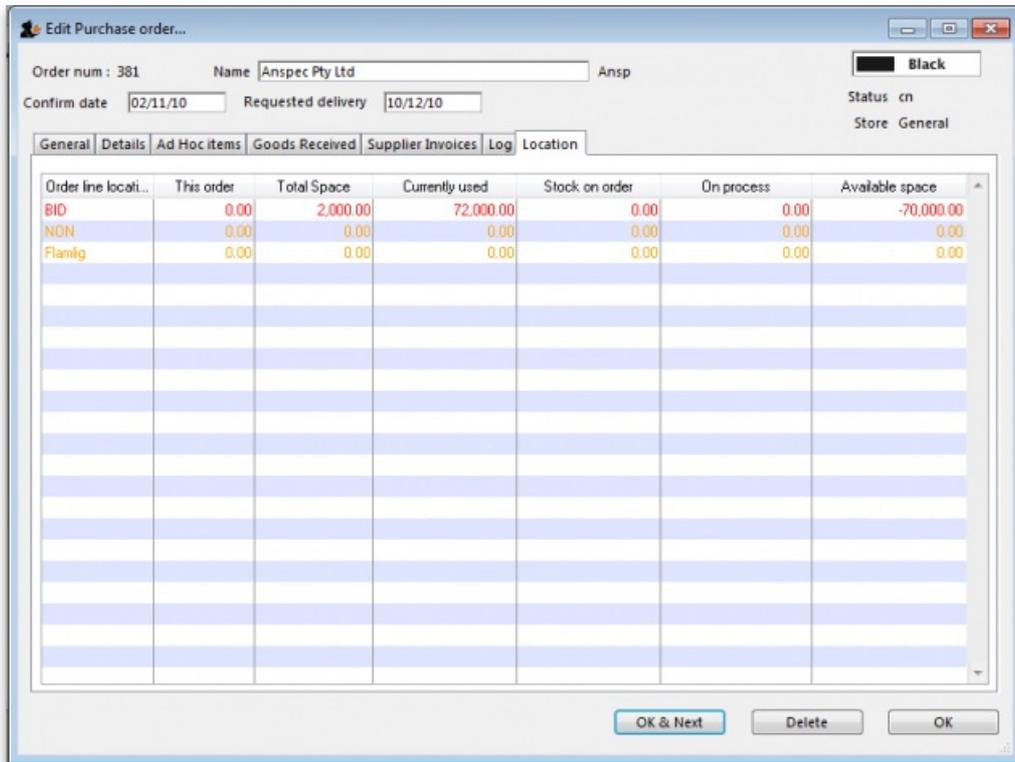
This tab records a log of actions that have been performed on this purchase order. The below image shows that the Purchase Order has been confirmed for sending to the supplier and printed by the user Margaret at the date and times shown:



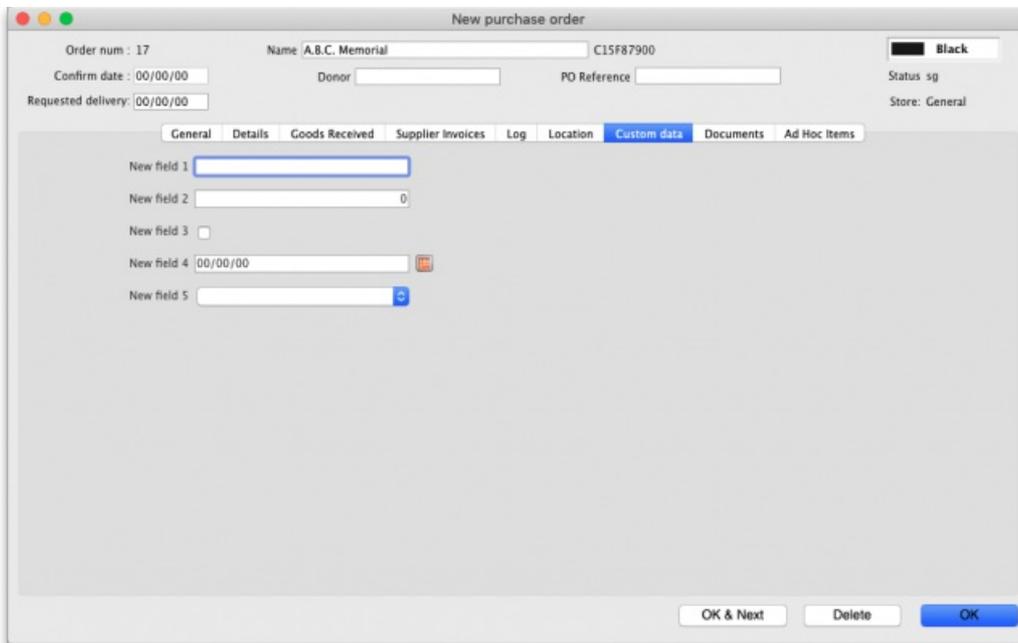
Location tab

This tab displays the locations of the items received, if this feature is used. Where details of the volume of available space in any location has been entered, and where details of the area/volume of item pack has also been entered, the remaining available space will be displayed.

Lines will also be coloured red/orange/green to indicate greater than 100%, 90 to 100% or less than 90% of space used. showing which lines are likely to cause space problems on receipt.



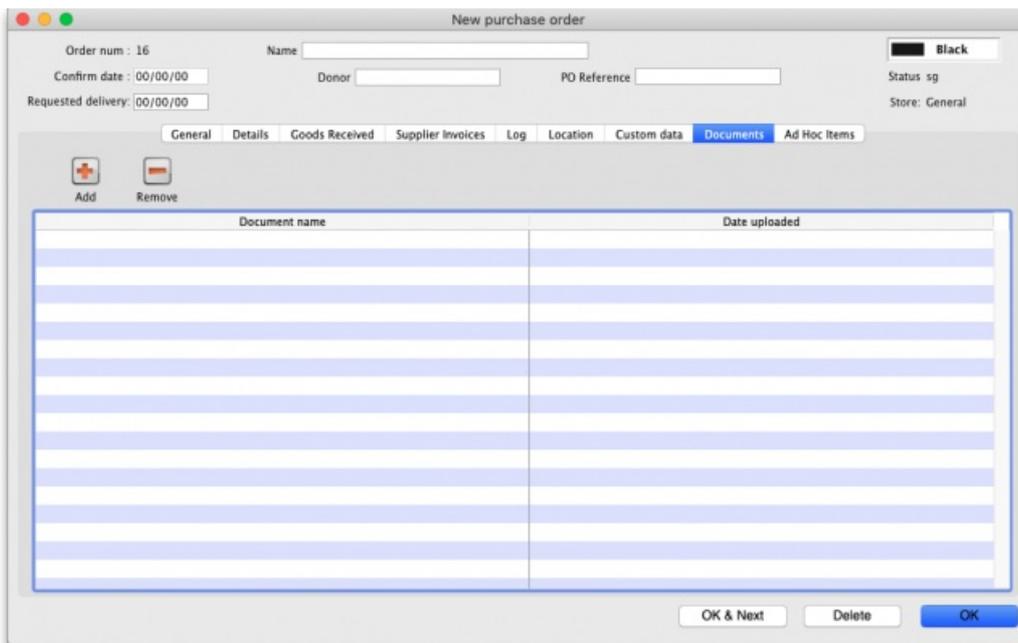
Custom data tab



This tab contains all the custom fields created for the purchase order table in the preferences. See the [16.11. Custom fields](#) page for details on how they are set up.

You can enter any data in the fields as appropriate. When you click on the **OK** or **OK & Next** button the information in the fields is saved.

Documents tab



This tab allows you to upload any documents you wish to the purchase order. The table shows you the documents already uploaded.

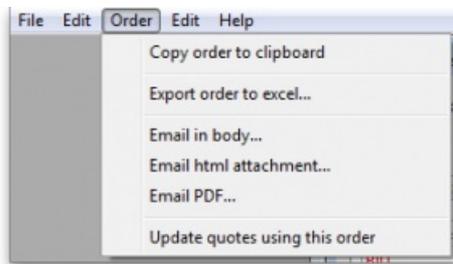
To add a document, click on the **Add** button. A new window will open for you to select the file from your computer. Double-click on the file or click on it and click on the **Open** button to add it to the purchase order.

To delete a document from the purchase order, click on the file in the table to select it and click on the **Remove** button.

To view a file or download it, double-click on it in the list.

Order menu

When the order modifying window is being shown, an extra menu is added to the menu bar:



Copy order to clipboard

Copies the order details to the clipboard, so you can paste it into an email or text document.

Export html...

If you want to produce an order which can be saved as a file in html format, use this option. . If you have Excel installed, the report will open in Excel. Note that if you want to keep the Excel file, you should choose File > Save as.. in Excel and choose a location.

Print

Prints the order. You will be shown the standard printing dialog boxes.

Note that if **Show all lines** is selected, the entire order is printed; if *Show incomplete lines* is selected, the printout lists only lines which have either not been supplied at all or require a balance to complete the order.

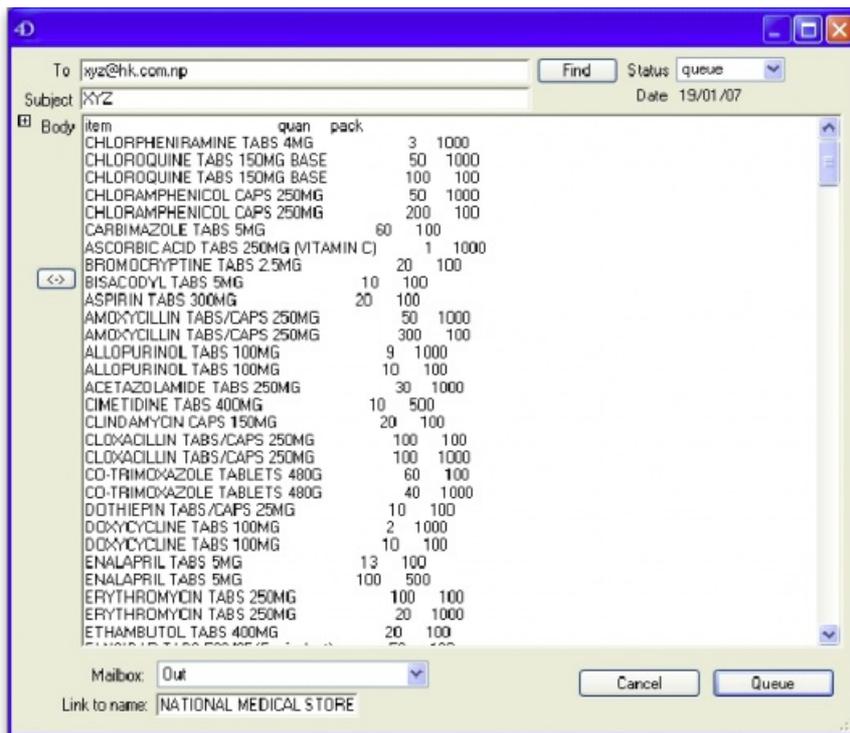
Split

Splits the order into a number of smaller orders based on the preferred supplier for each line. The preferred supplier is the quotation that is marked as "preferred" for that item. To view and modify quotations you can double-click the order line then chose "quotes" from the "show" menu. All items that do not have a quotation marked as "preferred" will be put into a separate order.

Email in body

The order will be turned into an e-mail and placed in the queue so that it is sent next time you send e-mails. You will be warned if you have not entered an e-mail address for the supplier.

The e-mail will be formatted as follows:



To check the email before sending it, choose *Special > show /_formatemails* , then double-click the email to modify it. Note that to make the columns line up properly, you will have to click the <-|> button to view the text in a fixed-width font.

Email HTML attachment...

The order will be turned into an HTML attachment, and attached to a new email that is then placed in the queue so that it is sent next time you send e-mails. You will be warned if you have not entered an e-mail address for the supplier. The attachment will be stored in the export folder you have nominated in the Preferences. (For multi-user mSupply, the export folder is set as the folder "C:\mSupply\mSupply client\Export" (on the assumption that you have selected the default install location for mSupply).

Email PDF

Choosing this item will cause mSupply to generate a PDF file, create an email and attach the PDF file to the email.

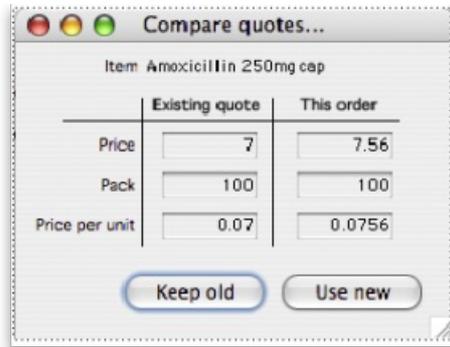
Note that you must use the PDF xChange PDF driver installed on the computer generating the email for this to work. The driver currently costs US\$50, and is available from Sustainable Solutions : info@ss.org.np

The PDF that is created is stored in the mSupply data file, so you can create a PDF attachment on one computer and send it from a different computer without problems.

Update quotes using this order

This command allows you to check that quotation data is up to date based on actual supplied prices.

Each order line will be evaluated, and if a quotation does not exist, one will be created. If a quotation does exist and the price you have paid in the order and the price stored for your quotation are different, you will be shown a window to compare prices, and you can decide whether to keep the existing quotation or update it.



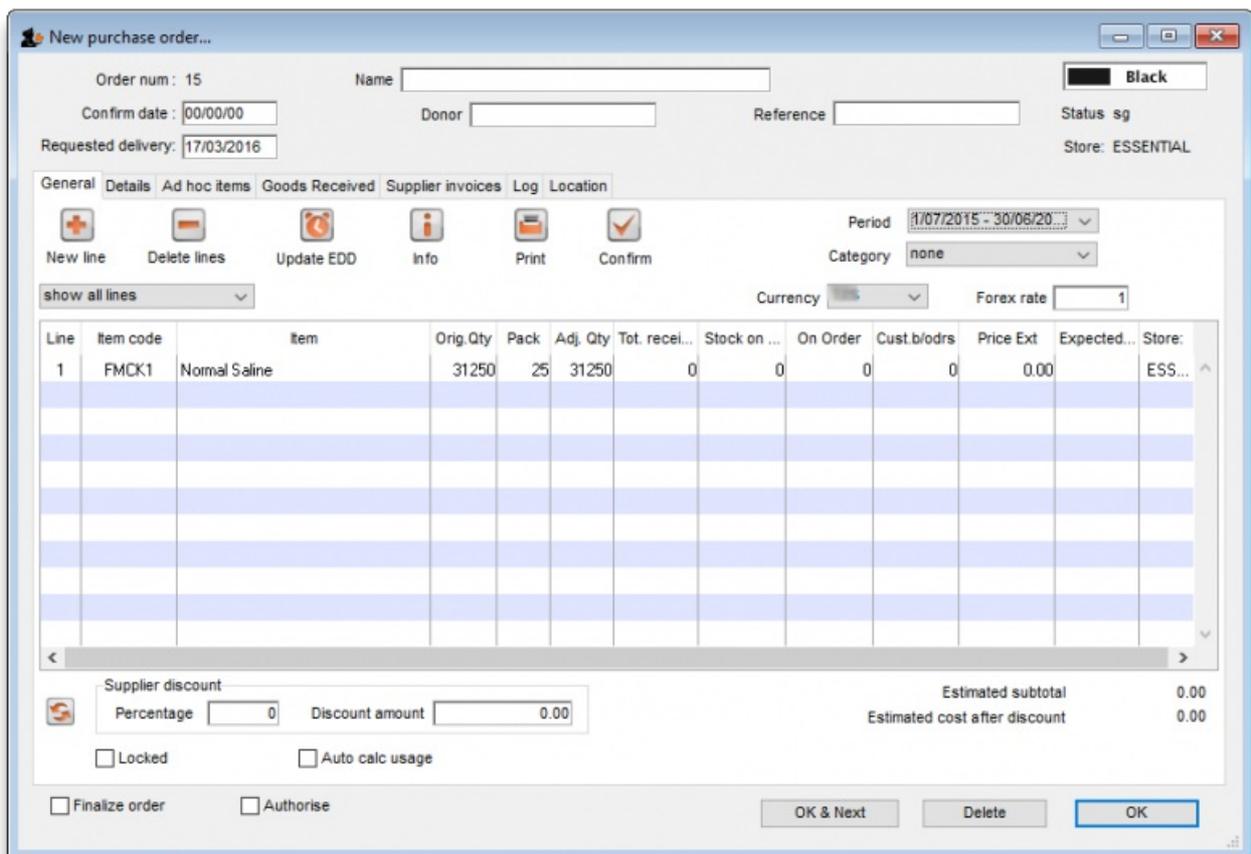
Note that you need to have your user permissions "Can add quotations" and/or "Can modify quotations" set before this command is available.

Split deliveries

Creating split or multiple deliveries will now be described using the following example.

It is important to note that the Purchase Order should not be finalised before this procedure is performed, as a finalised order may not be modified or altered in any way.

A store is placing an order for Normal Saline and, having followed the normal procedures, mSupply has created the Purchase Order displayed: below.



The store does not have the storage capacity to hold 1250 packs of Normal Saline, so the supply of this item needs to be made in multiple deliveries; it is decided that 500 be requested for delivery at the beginning of January, followed by 250 at the beginning of each of the months of April, July and October - i.e. at three monthly intervals.

The Purchase Order is modified as follows:

- Click on **New line**, and add the item **Normal Saline**
- In the **Number of packs** field, enter **500**
- In the **Requested Delivery date** enter **1/1/17**
- Click **OK & Next**
- In the **Number of packs** field, enter **250**
- In the **Requested Delivery date** enter **1/4/17**

- Click **OK & Next**
- In the **Number of packs** field, enter **250**
- In the **Requested Delivery date** enter **1/7/17**
- Click **OK & Next**

Repeat the last two steps, but enter **1/10/17** in the **Requested Delivery date** field for the final delivery in October.

To complete the process, delete the line calling for 1250 units on 1/1/17.

The Purchase Order should now look like this:

Order num : 15 Name: _____ Color: **Black**

Confirm date : 00/00/00 Donor: _____ Reference: _____ Status: sg

Requested delivery: 17/03/2016 Store: ESSENTIAL

General Details Ad hoc items Goods Received Supplier invoices Log Location

Period: 1/07/2015 - 30/06/20... Category: none

Line	Item code	Item	Orig Qty	Pack	Adj. Qty	Tot. recei...	Stock on ...	On Order	Cust b/orders	Price Ext	Expected...	Store:
2	FMCK1	Normal Saline	12500	25	12500	0	0	0	0	0.00		ESS...
3	FMCK1	Normal Saline	6250	25	6250	0	0	0	0	0.00		ESS...
4	FMCK1	Normal Saline	6250	25	6250	0	0	0	0	0.00		ESS...
5	FMCK1	Normal Saline	6250	25	6250	0	0	0	0	0.00		ESS...

Supplier discount: Percentage 0 Discount amount 0.00 Estimated subtotal 0.00 Estimated cost after discount 0.00

Locked Auto calc usage

Finalize order Authorise

OK & Next Delete OK

You won't see the different requested dates on this screen. Expected dates are generated upon feedback from the supplier or can be entered manually.

This feature enables mSupply to take future deliveries into its reckoning if, for example, an additional order for Normal Saline was placed in mid June, and a delivery of 2,500 had already been arranged for 1 July.'

Authorising purchase orders

If required, it is possible to turn on authorisation of purchase orders. See [Authorisation](#) for details.

Purchase order categories

Purchase order categories are useful for separating up your purchase orders when reporting. For details about setting them up and assigning them to purchase orders, see [Purchase order categories](#).

Previous: [6. Purchasing](#) || Next: [6.02. Managing purchase orders](#)

Last modified: 2022/03/25 06:41 by Mark Glover



6.02. Managing purchase orders

Managing purchase orders you have placed is an important part of running a medical supply facility. There are two main windows you will use to do this, along with a variety of reports.

Show outstanding purchase order lines....

Choosing this **Suppliers > Show outstanding purchase orders** from the menus or the Navigator displays a list of all lines outstanding on all confirmed Purchase Orders.

Using the find box

In the toolbar there is a field to enter searches. To the left of the field you can choose from the drop down list what to search for.

You can restrict the list displayed to a single supplier, to a single item, or to items whose delivery is expected within a specific number of days.

Important

This search excludes finalised orders.

Printing and opening in Excel

Click the **Print** button to print the list as displayed. If you want to send the list to Excel, choose **Open in Excel** from the print options window that is shown after you click **Print**. Double click on a line to display the Purchase Order containing that line.

P	Supplier name or code	Item name or code	Days to expected delivery is less than...	Item Name	Order Confir...	Requested	Expected...	Days to ...	Adjusted Qty	Qty Received	Qty Outstanding
123	ida	International Dispensary Association		Benzoic acid+Salicylic acid ointment 6%+3%	06/03/2009	04/07/2009	04/07/2009	0	100000	5000	95000
123	ida	International Dispensary Association		Paracetamol 120mg/5mls syrup (mL)	06/03/2009	04/07/2009	04/07/2009	0	840000	14000	826000
134	UNICEF	UNICEF		Measles Rubella diluent	25/02/2009	25/02/2009	25/02/2009	0	1435	0	1435
134	UNICEF	UNICEF		BCG diluent	25/02/2009	25/02/2009	25/02/2009	0	300	0	300
164	UNICEF	UNICEF		Measles & Rubella 10 dose vial	22/04/2009	21/04/2009	21/04/2009	0	1361	1000	361
193	ida	International Dispensary Association		Amisophiline 100mg tab	21/09/2009	31/12/2009	31/12/2009	0	10000	0	10000
193	ida	International Dispensary Association		Aspirin 300mg tab	21/09/2009	31/12/2009	31/12/2009	0	250000	0	250000

Show purchase orders

Choose Suppliers > Show Purchase Orders.

- In the find window you can choose what will be displayed. By default mSupply displays the last 15 purchase orders.

Find Purchase orders...

Find

Show most recent orders, or:

Order number equals

- You will be shown a list of matching Purchase Orders. Double-click a purchase order to open it.

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 - Using the find box
 - Printing and opening in Excel
- Show purchase orders
- Show outstanding purchase order lines....
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- Show purchase orders

Purchase order list...

New PO
 Delete
 Report
 Find
 Order by
 Print
 Email
 Customise
 Duplicate
 Split

Order...	Status	Date	Supplier	Target...	Lock	Lines	Comment
						3	Introcan, giving set, syringe
						73	
						1	
						4	Office Equipment
						1	Introcan 24G
						46	OT Sutures
						2	
						129	split from 316
						2	split from 340
341	cn	23/03/2010	Pan Pacific Pharmaceuticals	90	<input type="checkbox"/>		
355	sg	23/03/2010		180	<input type="checkbox"/>	7	
357	sg	23/03/2010		180	<input type="checkbox"/>	7	
358	cn	23/03/2010	Pan Pacific Pharmaceuticals	180	<input type="checkbox"/>	7	split from 357
359	fn	29/03/2010	Pan Pacific Pharmaceuticals	0	<input type="checkbox"/>	1	
361	cn	29/03/2010	Pan Pacific Pharmaceuticals	0	<input type="checkbox"/>	1	
369	sg	30/08/2010	Pan Pacific Pharmaceuticals	0	<input type="checkbox"/>	1	

15/190 OK

For a more detailed description of this window see [Ordering Items From Suppliers](#)

Previous: [6.01. Ordering items from suppliers](#) | Next: [6.03. Purchase order categories](#)

Last modified: 2019/10/22 11:47 by Emily Porrello



Editing an existing purchase order category

To edit a purchase order category simply double-click on it in the list. The same window as for adding a new purchase order category will open populated with the selected category's details. Simply edit the details as required and click on the **OK** button to save your changes.

Assigning categories to purchase orders

Assigning categories to purchase orders is really simple, as you'd expect! When editing or creating a purchase order, simply select the category the purchase order belongs to using the **Category** drop down list on the **General** tab:

The screenshot shows a software window titled "New purchase order...". At the top, there are several input fields: "Order num : 25", "Name CHINA", "Confirm date : 00/00/00", "Requested delivery: 18/03/2016", "Donor", "Reference", "Status sg", and "Store: ESSENTIAL". Below these is a "General" tab with various icons and a "Period" dropdown set to "1/07/2015 - 30/06/20...". A "Category" dropdown menu is highlighted with a red box and shows "none" selected. Below the dropdown is a table with the following columns: "Line", "Item code", "Item", "Orig Qty", "Pack", "Adj Qty", "Tot. recei...", "Stock on ...", "On Order", "Cust bl/drs", "Price Ext", "Expected...", and "Store". The first row contains the values: "1", "ES10023", "Chlorpromazine 100mg Tab", "150000", "500", "150000", "0", "416500", "225000", "269500", "366.00", "366.00", and "ESS...". At the bottom of the window, there are checkboxes for "Supplier discount", "Percentage", "Discount amount", "Locked", and "Auto calc usage". There are also "Estimated subtotal" and "Estimated cost after discount" fields, both showing "366.00". At the very bottom are buttons for "Finalize order", "Authorise", "OK & Next", "Delete", and "OK".

The drop down list will contain the descriptions of all the categories you have added.

Previous: [6.02. Managing purchase orders](#) | Next: [6.04. Ordering from one store to another](#)

Last modified: 2019/10/22 11:48 by Emily Porrello



Updated: Version 4.02

6.04. Ordering from one store to another

If you run mSupply using [virtual stores](#) then you can place an order for goods with another store within mSupply.

There are two ways you can do this:

- Create [Purchase Orders](#). This method was the 'original' method, and is not recommended.
- The recommended (since mSupply v4.01) method is [Internal Orders](#).

Tip
Internal orders are the desktop equivalent of [supplier requisitions](#) in mSupply mobile.

[Internal Orders](#) are a simpler and easier way to place orders to another store if you've already been using purchase orders and goods received records in your workflow:

1. In the requesting store:
 - a. Create an Internal Order to the supplying store.
 - b. When the internal order is finalised, a response requisition is automatically created in the supplying store
2. In the supplying store:
 - a. One or more customer invoices can be created from a single response requisition
 - b. When each customer invoice is finalised, a supplier invoice is automatically created in the requesting store

Internal Orders

Internal Orders are also known as supplier requisitions or request requisitions.

Entering an internal order

To begin the process, choose *Supplier > Show internal orders* or click on the *Internal orders* icon on the *Suppliers* tab of the Navigator:

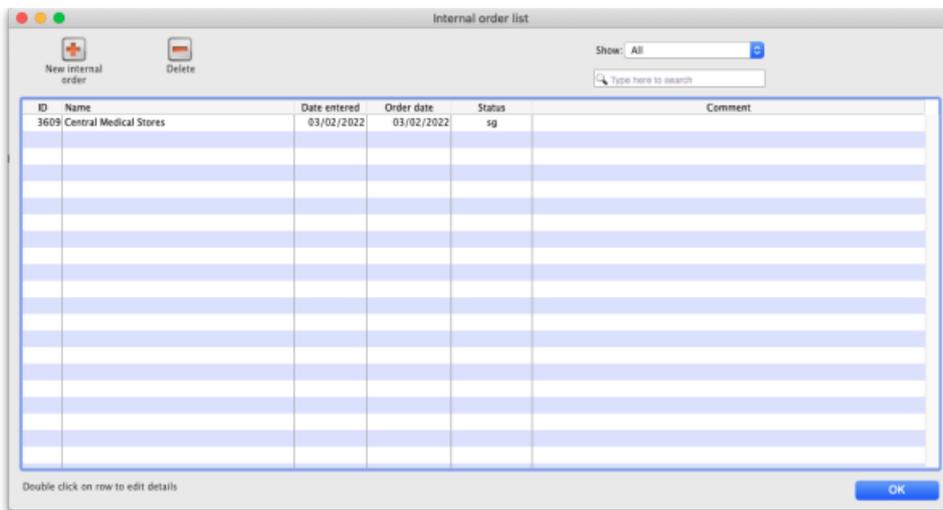
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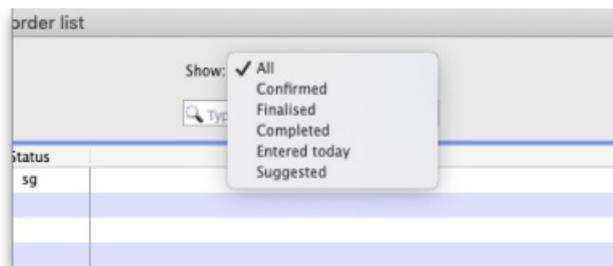




The following window will open, showing you a list of all existing internal orders:



Click on the *Show* drop down list to filter the list by the status of the internal orders:



After filtering this way, if the list is too long to find a particular internal order you are interested in then you can type something in the Search field. If you type anything in the Search field, only requisitions with a supplier name, requisition number, program or comment that contain what you typed will be displayed.

Either double-click on an existing order to edit it, or click the **New internal order** button to create a new one.

If you have activated [programs](#) in mSupply see the *Programs* heading below

The example below has a few lines already entered:

L.I.	Item code	Item name	Unit	Our stock on hand	Average monthly consumption	Months of stock	Calculated quantity	User requested quantity	Comment
1	NC0071	Amoxicillin 250mg tabs	ea	43,962	17,651	2	8,993	9,000	
2	NC0082	Paracetamol 500mg tabs	ea	27,328	9,389	2	841	1,000	
3	NP0060	Doxycycline 100mg tab	ea	1,200	309	3	0	100	
4	NP0100	Bandage 15cm x 5m	ea	375	117	3	0	50	
5	ND0080	Rabies vaccine	ea	32	8	3	0	0	
6	NP0090	Vitamin A 100,000 I.U. caps	ea	14	0	28	0	0	
7	NC0010	CRS sachet (1 litre)	ea	5,740	1,124	5	0	500	

- The **Name** will default to the supplying store for the current store, but any other store in the data file can be selected in the usual way (i.e. enter the first few characters and hit the **Tab** key to find matches).
- The **Order date** defaults to the current date. You can change it.
- Use either the **New line** button to manually add a single item, or **Add from master list** to add any items in the current store's master list which are not there already.
 - If adding from a master list, the cursor will go into the first new item's *User requested quantity* cell.
 - If adding a single item, the cursor will go into the *User requested quantity* cell for that item when it has been added. When you click on the **New line** button, this window opens:

- **Item:** Type the first few characters of the item's name and press the **Tab** key on the keyboard to select the item from a list of items whose name or code begins with what you typed.
- **User requested:** The quantity of units of the item the customer is requesting.
- **Comment:** Any comment you want the supplier to see for this item.
- Click on the **OK** button to add the line to the requisition, click the **OK & Next** button to add this line and empty the window so you can add another item right away or click the **Cancel** button to close the window without adding the current item to the requisition.

Info

- For each item,
 - mSupply already knows *Our stock on hand*
 - mSupply calculates the *Average monthly consumption* based on what the store has issued over the last 12 months (or less if the store hasn't been operating that long).
 - mSupply calculates the *Months of stock* from *Our current stock on hand* and the *Average monthly consumption* (this is therefore the months of stock at the current rate of consumption).
 - The *Calculated quantity* is then worked out by multiplying the *Average monthly consumption* by the *Max MOS* (maximum months of stock), and then subtracting *Our stock on hand*. If the resulting value is negative, a value of **0** will be displayed.
- If the *Use consumption and stock from customers for internal orders* store preference is turned on (see 25.08. Virtual stores, preferences for details) then the *Our current stock on hand* figure comes from the sum of all stock currently held by all the customers of this store and the stock consumed is taken as the stock issued to all customers. Note that customer stores are those that have this store set as their supplying store.
- The *Max MOS* is critical to this calculation, and you can change it.
 - There is an industry rule of thumb that the *Max MOS* should be set to **3 times** the ordering cycle.
 - The default *Max MOS* is **3.0**, which is based on a monthly ordering cycle.
 - If, for example the ordering cycle was every two months, then *Max MOS* should be set to $3 \times 2 = 6.0$.

- Hitting the **Tab** key will move the cursor into the *Comment* cell and, if there's another line below, hitting **Tab** again will move the cursor into the

next *User requested quantity* cell.

- If necessary, use the **Delete line(s)** button to remove selected item lines.

The screenshot shows the 'Edit internal order' window for 'Central Medical Stores'. The order date is 18/10/18. The reference is 'ref'. The comment is 'regular order'. The Max MOS is 4, and the Threshold MOS is 4. The 'Hide stock over threshold' checkbox is checked. The 'Filter items' field contains 'ites by item name as code'. The table below shows 5 items:

Li...	Item code	Item name	Unit	Our stock on hand	Average monthly consump...	Months of stock	Calculated quantity	User requested quantity	Comment
1	NC0071	Amoxicillin 250mg tabs	ea	43,962	17,651	2	26,645	26,645	
2	NC0082	Paracetamol 500mg tabs	ea	27,328	9,389	2	10,230	10,230	
3	HF0060	Doxycycline 100mg tab	ea	1,200	309	3	37	37	
4	HF0100	Bandage 15cm x 5m	ea	375	117	3	96	96	
5	ND0080	Rabies vaccine	ea	32	8	3	0	0	

If the order has a lot of item lines, you can filter them by typing into the *Filter items* field, which will change to display the number of visible items out of the total number in the order:

The screenshot shows the 'Edit internal order' window with the 'Filter items' field set to 'ind'. The table below shows 3 items:

Li...	Item code	Item name	Unit	Our stock on hand	Average monthly consump...	Months of stock	Calculated quantity	User requested quantity	Comment
1	NC0071	Amoxicillin 250mg tabs	ea	43,962	17,651	2	8,993	9,000	
2	NC0082	Paracetamol 500mg tabs	ea	27,328	9,389	2	841	1,000	
7	NC0010	ORS sachet (1 litre)	ea	5,740	1,124	5	0	500	

Note that, while a filter is active, some of the other buttons are disabled e.g. you can't save the sort order unless all lines are visible.

You can also filter item lines which have a lot of stock (and therefore don't need to be ordered) by entering a value in the *Threshold MOS* field. This will automatically tick the *Hide stock over threshold* checkbox, and hide any lines which have their *Months of stock* greater than or equal to *Threshold MOS*.

Name: Central Medical Stores CMS Reference: ref Black
 Order date: 18/10/18 Comment: regular order
 Max MOS: 5 Threshold MOS: 4 Hide stock over threshold:
 ID: 13852
 Status: ig
 Type: request
 Entry date: 18/10/18
 Entered by: Admin
 Store: OD Test Store

New line Add from master list Delete line(s) Filter items: Filter by item name or code Print

Data entry Log

LI...	Item code	Item name	Unit	Our stock on hand	Average monthly consump...	Months of stock	Calculated quantity	User requested quantity	Comment
1	NC0071	Amoxicillin 250mg tabs	ea	43,962	17,651	2	8,993	8,993	
2	NC0082	Paracetamol 500mg tabs	ea	27,328	9,389	2	841	841	
3	NP0060	Doxycycline 100mg tab	ea	1,200	309	3	0	0	
4	NP0100	Bandage 15cm x 5m	ea	375	117	3	0	0	
5	ND0080	Rabies vaccine	ea	32	8	3	0	0	

Save Sort order Finalise Cancel OK & Next OK

Once you are satisfied, tick the *Finalise* checkbox. This will prevent further editing, and automatically delete any lines which have a requested quantity of zero.

Name: Central Medical Stores CMS Reference: ref Black
 Order date: 18/10/18 Comment: regular order
 Max MOS: 4 Threshold MOS: 4 Hide stock over threshold:
 ID: 13852
 Status: fn
 Type: request
 Entry date: 18/10/18
 Entered by: Admin
 Store: OD Test Store

New line Add from master list Delete line(s) Filter items: Filter by item name or code Print

Data entry Log

LI...	Item code	Item name	Unit	Our stock on hand	Average monthly consump...	Months of stock	Calculated quantity	User requested quantity	Comment
1	NC0071	Amoxicillin 250mg tabs	ea	43,962	17,651	2	26,645	26,645	
2	NC0082	Paracetamol 500mg tabs	ea	27,328	9,389	2	10,230	10,230	
3	NP0060	Doxycycline 100mg tab	ea	1,200	309	3	37	37	
4	NP0100	Bandage 15cm x 5m	ea	375	117	3	96	96	

Save Sort order Finalise Cancel OK & Next OK

When the order is then saved, it will automatically generate a corresponding [response requisition](#) in the supplying store. From there, one or more customer invoices can be raised in the supplying store which, when finalised, appear as supplier invoices back in the requesting store in the same way as regular [stock transfers](#).

Programs

See the [4.05. Programs](#) page for information on setting up programs.

Using programs activates a comprehensive system for managing orders and supplies by program. When you click on the **New internal order** button, before the order window opens, another window appears to allow you to select the program and period etc. that the order belongs to:

- **Order type:** Selecting *General* will create a standard, non-program based requisition and none of the Order details section fields will apply. Selecting *Program* will create a program based requisition and you must fill in the details in the **Order details** section.
- **Order details section**
 - **Program:** The program this requisition belongs to. Select one of the programs you have defined and assigned to this store.
 - **Requisition type:** Select one of the types of order you have defined for this program. Normal orders will follow the quantification rules and be limited in the number of orders per period. Emergency orders will not follow quantification rules and will not be limited in the numbers of orders per period but will typically be limited in the numbers of lines that can be entered on them.
 - **Supplier:** The supplying store for this store will be selected by default. Other stores can be selected if required.
 - **Period:** The period this requisition is for. Will contain a list of all the periods which are still available for you to enter a requisition for i.e. those for which you have not already entered the maximum number of requisitions. The *Start date* and *End date* fields show the dates of the start and end of the selected period.

When you click on the **OK** button on this window, the requisition is created for you. The items defined for the program are automatically added to it and the suggested order quantity is calculated for you following the quantification rules.

Note that items belonging to the program will only be added to the order if they are also visible in the supplying store. This is to avoid the situation where you request an item that they don't have visible to them and therefore can never have any stock to supply!

Purchase orders

- This method of ordering stock from another mSupply store is deprecated: Internal Orders (above) is the way to do it.
- Purchase orders are used for [Ordering stock from suppliers](#) outside of mSupply

Using a purchase order to order from another store

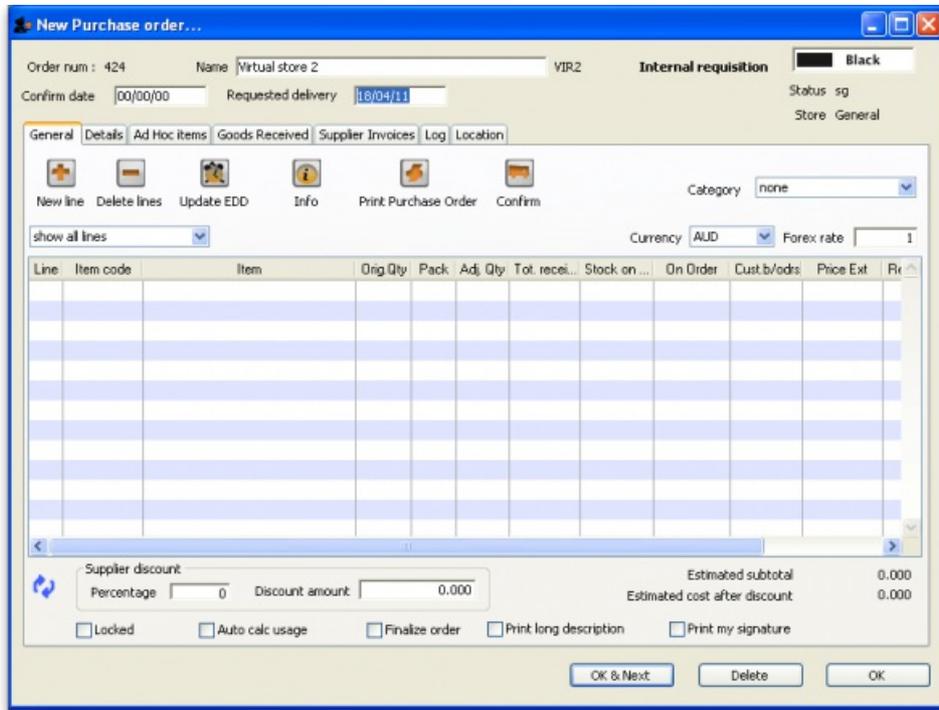
For the most part, the process is the same as for [creating a normal purchase order](#). There are, however, a few significant differences:

- In the *Name* field of the purchase order, enter the name of the store which will supply your goods.

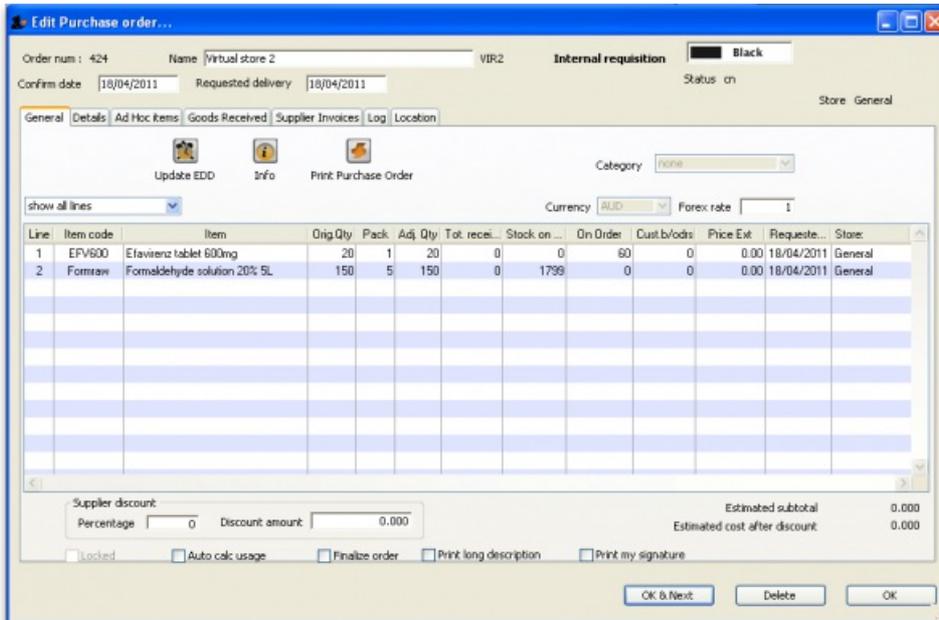
⚠ Important

The names of suppliers which are stores will appear in *RED* in the choice list of suppliers. If the name of the store you select as a supplier is *BLACK*, then you have not chosen another store as a supplier (you will be creating a standard purchase order not an internal requisition), and the instructions in the remainder of this section do not apply.

- The *Internal requisition* label will appear after the name to indicate that this is going to be an internal requisition.



Enter the purchase order lines as normal and when you're finished, confirm the purchase order (at this point you may be prompted to enter budget and/or category information, depending on your preferences):



Once confirmed, it will no longer be possible to:

- modify the purchase order lines, except for updating the expected data of delivery (EDD).
- delete the purchase order or any of its lines (mSupply will give you a warning if you try).

Processing the order (supplying store)

For versions of mSupply newer than v4.01, confirming the purchase order will create a [response requisition](#) in the supplying store (with your store's name in the *Name* field). This allows the supplying store to create multiple customer invoices to supply the order (and hence to better handle partially fulfilled orders). Once each customer invoice has been **finalised**, a goods received note for the purchase order will be created back in the store where you created the purchase order which started this whole process off (called the customer or receiving store).

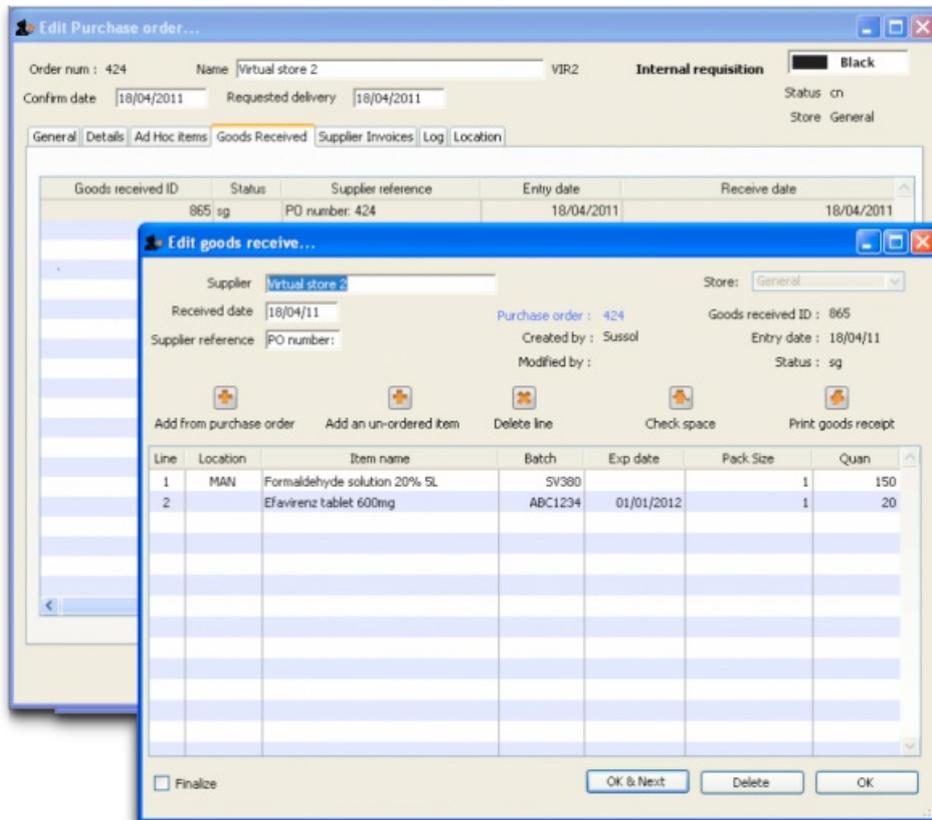
Handling partially fulfilled orders

If you have unfilled lines on the customer invoice (i.e. red placeholder lines), when you finalise the customer invoice you will be asked if you want to create a new invoice with the unfilled lines. This new invoice retains the link to the purchase order that created the original customer invoice, and can be used to issue further goods to the customer.

Note that you can also create another invoice that is linked to the original purchase order at any time by using the ["Duplicate"](#) button on the toolbar of the customer invoice list.

Receiving the goods (requesting store)

Now, back in your store, where you created the purchase order which started this whole process off, you can view the goods received record via the **Suppliers** tab on the Navigator or via the **File > Supplier > Show goods received** menu item (or via the **File > Supplier > Show purchase orders > Goods received** tab)



Notice that on the goods received note the lines from the customer invoice will have been filled in automatically. Process the goods received note in the [normal way](#) and note that, as with all other goods received, the goods are not added to your store's stock and available for issue until the goods received note has been finalised and the resulting supplier invoice confirmed. Note that, from mSupply v3.85, the original purchase order lines will only be updated with the stock received when the goods received note has been finalised.

Previous: [6.03. Purchase order categories](#) || Next: [6.05. Multi-store Purchase Orders](#)

Last modified: 2022/02/03 12:24 by Gary Willetts

6.05. Multi-store Purchase Orders

The multi-store purchase order will enable you to create a purchase order that includes lines for many stores at once.

Limitations

- You can only create a multi-store purchase order in supervisor mode.
- You can only create a multi-store purchase order as a blank purchase order. You cannot create a calculated multi-store purchase order (yet;-).
- You cannot use multi-store purchase orders to order from another store in the mSupply system.
- For a specific item, you cannot order different pack sizes for different stores. For any item, all stores must have receive the stock in the same pack size.

Set up

To make a store available for multi-store purchasing, you will need to go into the store preferences and add a custom field labelled `canBeIncludedInMultiStorePOs` with its value set to `true` :

1. Log into any store
2. **Special > Show stores...**
3. Double click on the store name in the list
4. Go to the **Custom fields** tab
5. Add a new line that looks like this (be VERY careful to get the spelling of `canBeIncludedInMultiStorePOs` correct. It is case sensitive):

□

How it works

Permissions

To be able to create a multi-store purchase order the user must have permissions to:

- Log in to [Supervisor - All stores](#)
- Create a purchase order in **Supervisor - All stores** - refer [The permission tabs](#)

Creating a new purchase order

To create a new multi-store purchase order

1. login to [Supervisor - All stores](#)
2. Choose **Supplier > New blank Purchase Order**.
3. Enter in PO general details as usual. As with a normal purchase order, only one supplier can be chosen, but for multi-store purchase orders this supplier cannot be an mSupply store in your system.

When entering a new line, you will be presented with this window.

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 - [How it works](#)
- [Limitations](#)
- [Set up](#)
 - [How it works](#)



New Purchase Order line... X

General Usage Quotes Receipt history Ledger

Item

Pricing for this item

Price before discount	Discount (%)	Price after discount	Line total
0.00	0	0.00	0.00

Store	No of packs	Pack size	Total Qty	Price extensi...	Requested delivery date	Expected delivery date
Totals	0		0	0		

Cancel OK **OK & Next**

- Select an item in the normal way.
- After choosing an item, a line will appear in the table for each of the stores that you have [setup](#) to be included in multi-store purchase orders, along with the default pack size for that item and the currently set requested delivery date.

New Purchase Order line... X

General Usage Quotes Receipt history Ledger

Item

Amethocaine Sterile Eye Drops, 0.5% (Individual Applicators), Pkt/5 101800

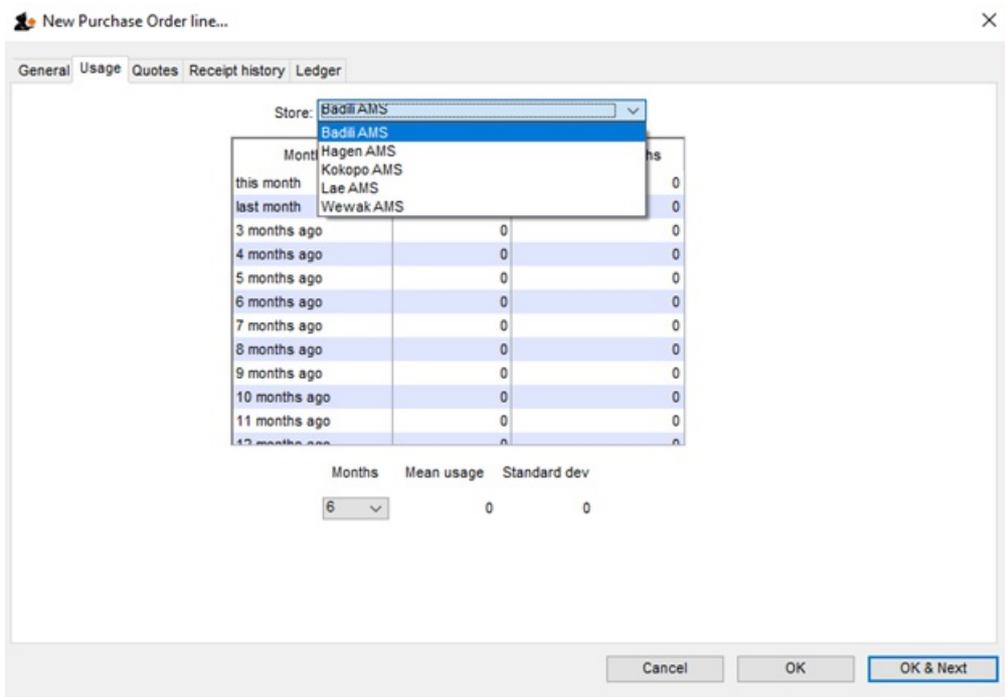
Pricing for this item

Price before discount	Discount (%)	Price after discount	Line total
1,000.00	5	950.00	23,750.00

Store	No of packs	Pack size	Total Qty	Price extensi...	Requested delivery date	Expected delivery date
Badili AMS	0	1	0	0	2019-01-15	
Hagen AMS	10	1	10	9500	2019-01-15	2019-03-31
Kokopo AMS	0	1	0	0	2019-01-15	
Lae AMS	15	1	15	14250	2019-01-15	2019-02-28
Wewak AMS	0	1	0	0	2019-01-15	
Totals	25		25	23750		

Cancel OK **OK & Next**

- If you put a price per pack and a discount, the discounted price per pack will be calculated and applied to each line.
- For each store, you can specify the number of packs to order.
- The total quantity will be automatically calculated.
- You can change the requested delivery date and add an expected delivery date either manually or through the calendar icon on the column to the right.
- When you click OK, only the lines for which the number of packs is not 0 will be included in the purchase order.
- The other tabs are the same as normal purchase orders with two exceptions:
 - [Usage tab](#) When adding a line for a normal purchase order, the usage is calculated for the currently logged in store only. For multi-store purchasing there is now a dropdown list that lets you choose for which store you want the usage to be calculated.



- **Ledger tab** There is also a dropdown list in the ledger tabs, where you can select the store for which you want the ledger to be displayed.

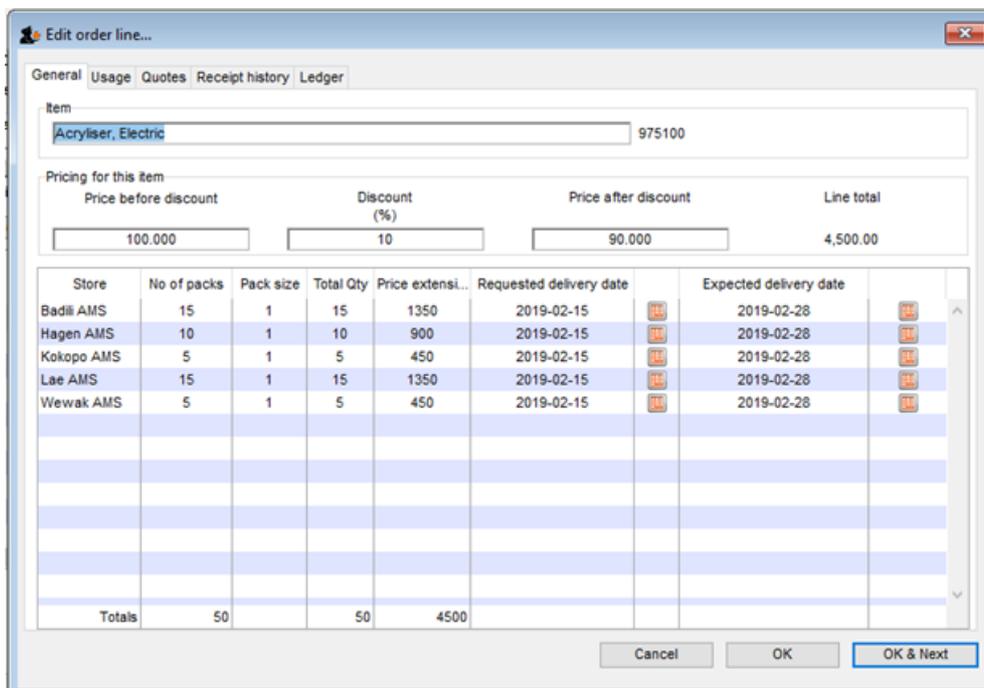
Editing a new purchase order

To edit a multi-store purchase order line

1. login to [Supervisor - All stores](#)
2. Open the purchase order
3. Double-click on the line you want to edit. All the lines pertaining to the same item will be loaded.

Here's an example of a multi-store purchase order opened in supervisor mode:

If you double-click on the first line of the "Acryliser, Electric", all five stores' order lines for that item will be loaded.



- You can change the pack size, the price, the discount and the requested and expected delivery dates.
- If you put 0 as the number of packs for a line that had previously contained a quantity, this line will be deleted when the user clicks the OK or OK & Next button.

As with normal purchase orders, when a purchase order has been confirmed it is no longer possible to go back and edit the order lines.

Viewing multi-store POs when logged in to the receiving stores

When logged in to the receiving stores, multi-store purchase orders can be identified by an asterisk (*) after the supplier name in the purchase order display list.

Order no	Status	Date	Supplier	Lock	PD reference	Target m...	Lines	Confirm
67109829	cn	2018-09-04	Badi AMS	<input type="checkbox"/>		0	2	2011 ^
3232	cn	2018-09-03	T8 Central Store	<input type="checkbox"/>		0	5	2011
3196	cn	2019-01-15	Access Bio*	<input type="checkbox"/>		0	8	2011

- A multi-store purchase order appears in the purchase order list of each store for which goods have been ordered.
- When viewed in a particular store, only the lines that belong to that store will be displayed - see example:

□

Furthermore, the displayed lines will not be editable. To edit the lines, you will need to accessing it in supervisor mode.

Goods receipt

Good receipting will function as normal (refer [Goods receipts](#)) but only the lines pertaining to the store you are currently logged in to will be available.

Previous: [6.04. Ordering from one store to another](#) | Next: [7. Receiving Goods](#)

Last modified: 2020/06/04 06:33 by lou



mSupply documentation wiki





User Guide



7. Receiving Goods

- [7.01. Supplier invoices](#)
- [7.02. Goods receipts](#)
- [7.03. Editing pack sizes](#)
- [7.04. Managing outstanding purchase order lines \(pipeline stock\)](#)
- [7.05. Custom stock fields](#)
- [7.06. Managing donors](#)

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Last modified: 2020/01/14 08:48 by lou



7.01. Supplier invoices

Introduction

All received goods should be recorded in mSupply either by:

- [Manually creating a supplier invoice](#)
- Working with a [supplier invoice that has been created automatically](#) as a result of a [stock transfer from another store in your mSupply system](#).
- Using the [purchase order system](#), which leads to the [automatic creation of a supplier invoice](#) when you finalise a [goods receipt](#) associated with that purchase order (PO).

Tip

In some countries a supplier invoice is called a “bill”, a “creditor invoice” or a “purchase invoice”

Important

Goods are only entered into stock once a supplier invoice is **confirmed**

Confirming the supplier invoice also calculates the selling price based on the margin you have chosen for that supplier or for that item, depending on how you have set your mSupply preferences.

You will notice there is a **Prices** tab in the supplier invoice window - this is for use with invoices received in foreign currencies, which will usually be done via the [goods receipt system](#).

Info

Each line received on a supplier invoice will be treated as a separate line in your stock. You can manually [consolidate](#) these later, or set a preference to [automatically consolidate](#) items with the same batch, expiry date, pack size, location, donor, cost and sell price.

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- Editing lines on a supplier invoice
- Working with the list of invoice lines
- Deleting a line on a supplier invoice
- Price tab
- Viewing supplier invoices
- Processing supplier invoices
- Printing supplier invoices

Creating a new supplier invoice

Alert

STOP! Don't proceed with creation of a new supplier invoice if the stock came as a result of:

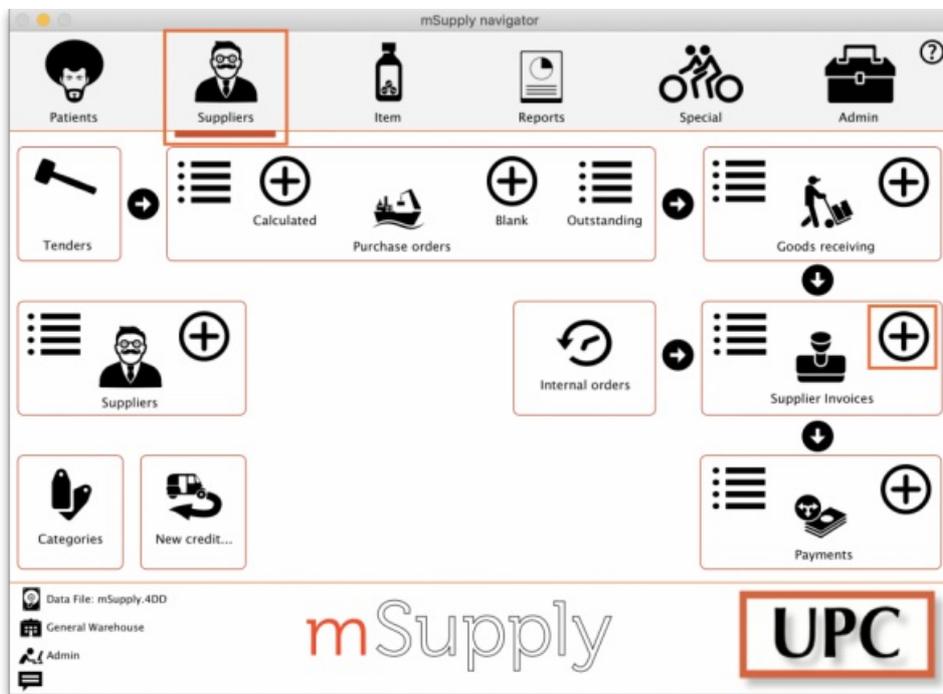
- Your store created a [Purchase order](#) to a supplier (either 'external' (not a store in mSupply) or 'internal' (is a [virtual store](#) in mSupply)), in which case you should be following the procedures described under [Ordering items from suppliers](#)
- Your store created an [internal order](#) to an 'internal' supplier (is a [virtual store](#) in mSupply), in which case they should have followed the procedure for handling [Response requisitions](#). Provided that they have [finalised their customer invoice](#), a new supplier invoice will be created automatically in your store, populated with the stock lines that they are sending to you.
- A stock transfer to your store from another store in mSupply (and they are **not** responding to a purchase order or internal order from your store), in which case they should have followed the procedure for [transferring goods to another store](#). Provided that they have [finalised their customer invoice](#), a new supplier invoice will be created automatically in your store, populated with the stock lines that they are sending to you.

In these cases, you should **NOT** create a new Supplier invoice, and can skip most of the following section.

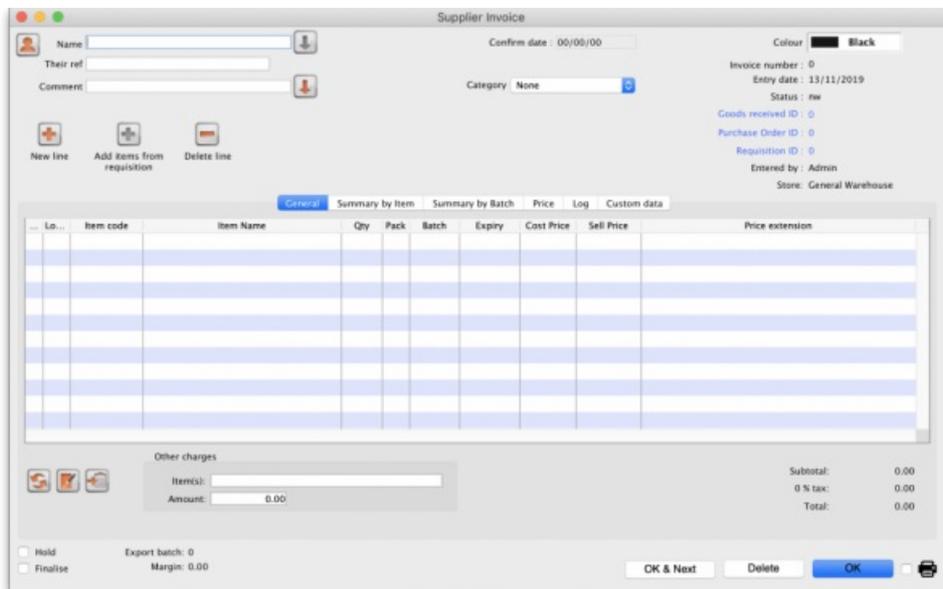
Search for these automatically created invoice using [Suppliers>Show invoices...](#)

Depending on the store preferences, the supplier invoice may be finalised. If not, you will be able to [add](#), [edit](#) or [delete](#) lines on the supplier invoice if what you actually received is different to what the supplier invoice states...

To create a new supplier invoice, navigate to the **Suppliers** tab and click the **New Supplier Invoice** button.



The supplier invoice entry window will open:

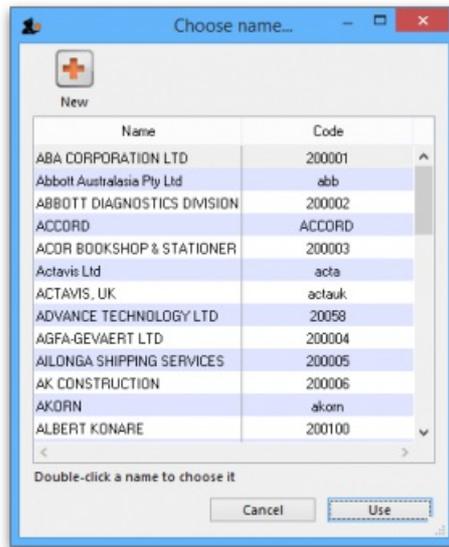


Info

If you have turned on any of the custom stock fields in store preferences they will be displayed as columns (between the Batch and Expiry columns) in the list of invoice lines and the information you entered for these fields will be shown in the appropriate cells.

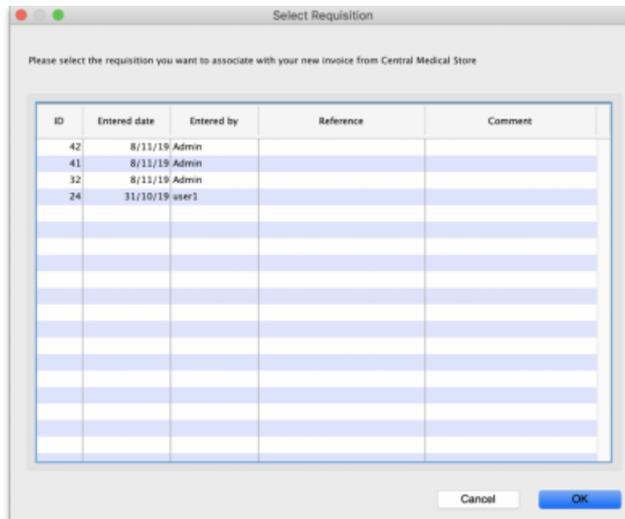
Information to enter in the main window

Name: The first thing to do is enter the Supplier's name in the **Name** field. Type the first few characters of the supplier's name or code, and then press the **Tab** key. If only one supplier name matches the entry, the supplier's name will be filled in. Otherwise, a list will be displayed:

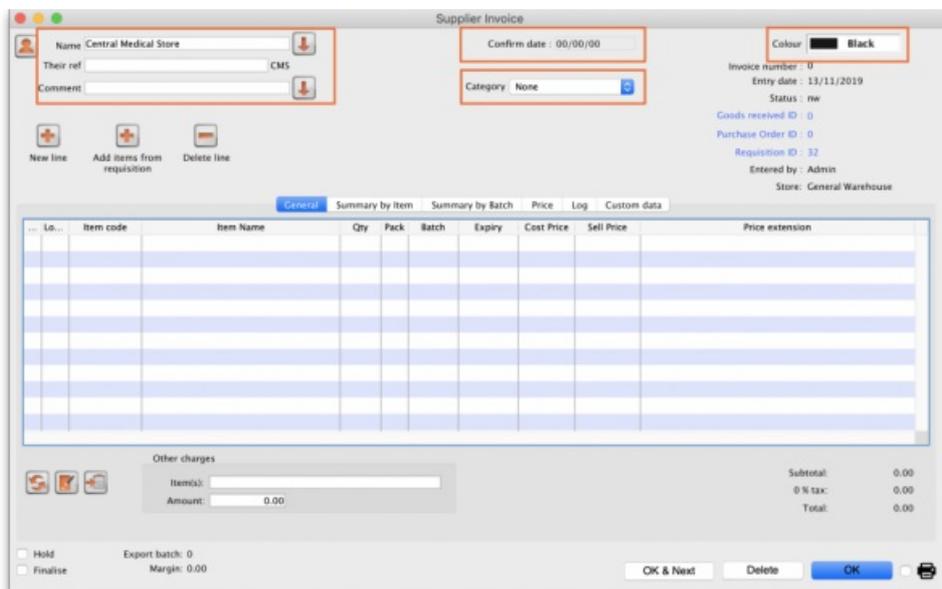


Double-click the appropriate entry, or click *Cancel* to try again. You can also use the *up* and *down* arrow keys or the “u” and “d” keys on the keyboard to move the highlighted item up or down, then click the **Use** button or use the *Enter* key to choose the highlighted item.

At this point the supplier's name will normally just appear in the **Name** field (and their code will appear at the end of the **Their ref** field) and you can continue as below. However, if the **Can manually link requisition to supplier invoice** preference is turned on for this store (see [Store preferences](#)), a list of requisitions the store previously made to that supplier will appear. Select a requisition to associate with this supplier invoice, then click OK:



The supplier invoice window will appear with the name of the supplier you have chosen in the **Name** field:



The arrow next to the **Name** field takes you directly to the *Edit Customer/Supplier* window, giving access to all the information relating to the supplier entered.

Their ref: Enter the serial number or delivery note number on the bill the supplier gave you.

Comment: Enter anything that needs to be remembered about this invoice. If you need more room, click on the arrow next to the **Comment** field to give a large area for entering the comment.

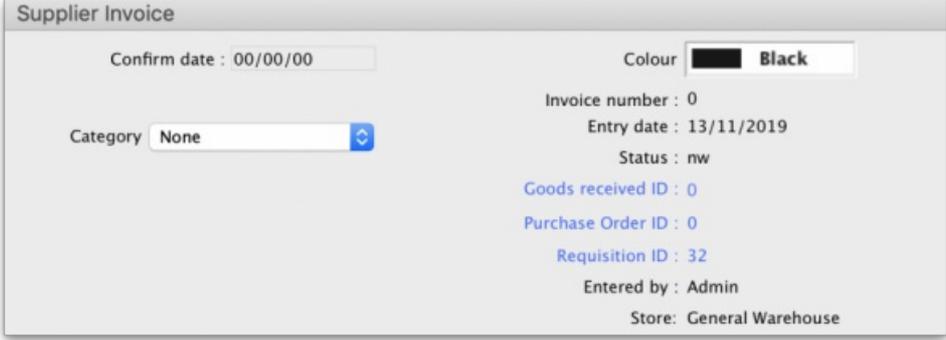
Category: Categories created for supplier invoices in *File > Preferences > Invoices 1* are listed here.

Colour: Clicking the colour box presents you with a selection of eight colours. When the list of supplier invoices is displayed, the text of this particular supplier invoice will appear in your chosen colour. The colour does not appear on the supplier invoice itself.

Confirm date: This is normally read only but will be editable if the **Allow entry of dates on invoices** preference is turned on (see the [Invoice preferences](#) page for details).

Read-only information at the top of the invoice

There is some information at the top of the invoice that is read-only and cannot be edited:



The screenshot shows a window titled "Supplier Invoice" with the following fields and values:

Confirm date : 00/00/00	Colour <input type="color" value="Black"/>
Category <input type="text" value="None"/>	Invoice number : 0
	Entry date : 13/11/2019
	Status : nw
	Goods received ID : 0
	Purchase Order ID : 0
	Requisition ID : 32
	Entered by : Admin
	Store : General Warehouse

Invoice number: This is the invoice number. The number is automatically incremented and assigned when the invoice is first saved (which actually occurs when the first line is added to it) and is unique within a store. Note that supplier invoices in different stores could have the same invoice number.

Entry date: The date the invoice was created.

Confirm date: The date the invoice was confirmed. Will be "00/00/00" if the invoice has not been confirmed.

Status: The current status of the supplier invoice:

- nw = new (just created, can still be edited, stock not yet added to mSupply)
- sg = suggested (has been opened since first creation, still editable, stock not yet added to mSupply)
- cn = confirmed (stock has been added to mSupply but invoice is still editable)
- fn = finalised (stock has been added to mSupply and the invoice is no longer editable)

Goods received ID: If the supplier invoice was created automatically when a goods received note was finalised then the goods received note's ID will appear here in blue, indicating that it is a link and, if clicked, will open the goods received note. A 0 here indicates there is no linked goods received note.

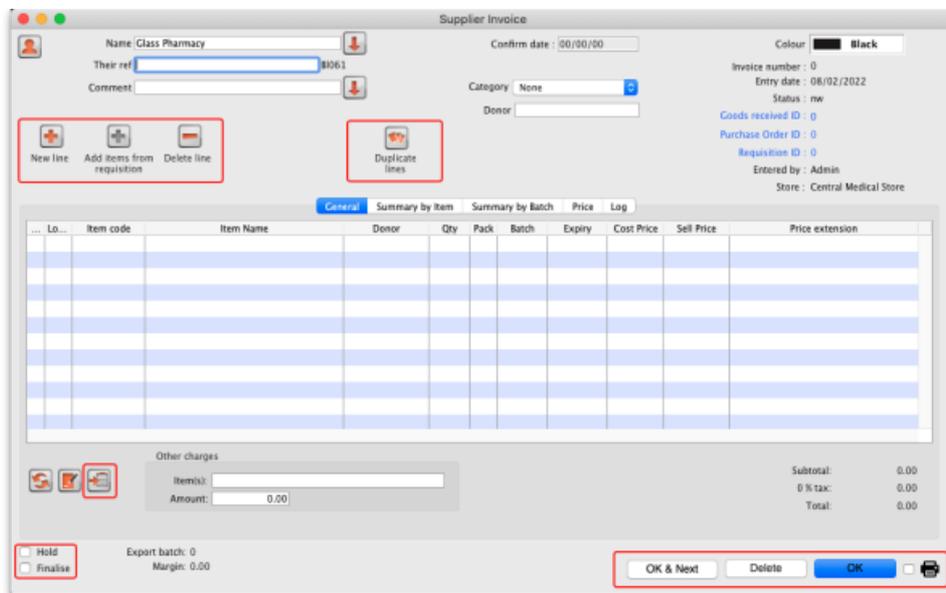
Purchase order ID: Again, if the supplier invoice was created automatically when a goods received note was finalised then the ID of the purchase order which the goods were ordered on will appear here in blue, indicating that it is a link and, if clicked, will open the purchase order. A 0 here indicates there is no linked purchase order.

Requisition ID: If the supplier invoice was linked to a requisition, the requisition number appears here. You can click on it to be taken directly to the requisition. A 0 here indicates there is no linked requisition.

Entered by: The user name of the user who created the invoice.

Store: The name of the store the invoice belongs to.

Buttons in the supplier invoice window



New line: Add an item to the invoice. See *Adding lines to an invoice* below for more details. To edit a line, double-click on it.

Add items from requisition: Only visible if the supplier invoice is linked to a requisition. Displays a list of items from the linked requisition, which you can add to the supplier invoice. You can add one or more items by highlighting them and clicking OK. To edit a line, double-click on it.

Delete line: Delete item(s) from an invoice. Highlight the line(s), then click this button. Multiple lines can be deleted simultaneously.

Duplicate lines: Select one or more lines on the invoice and click this button to add duplicates of those lines. Great time saver when receiving large quantities of the same item with similar batches into different shelf locations, for example.

Hold checkbox: If checked, the invoice status cannot be changed.

Tip

Items on a supplier invoice with new (nw) status have not been entered into the system yet. Putting a new invoice on hold allows you to enter the supplier invoice, but not allow the stock to be available for issuing until all the details have been checked.

Finalise check box: If checked, clicking the OK button will finalise the supplier invoice. Once finalised, the invoice can no longer be edited so be sure first that all the details are correct. Only users with the *Can finalise individual invoices* permission can check this box. Other users will be warned if they try to turn it on, and the check box will automatically uncheck.

When the OK button is clicked, you will be asked to **Confirm invoice and enter into stock now?**

- If you click **Later** the invoice will still have a new (nw) status
- If you click **Confirm** and the **Finalise box was not checked**, the invoice will be confirmed (cn)
- If you click **Confirm** and the **Finalise box was checked**, the invoice will be confirmed (cn) and finalised (fn)

Tip

A finalised invoice cannot be edited.

Should a finalised invoice need to be changed, the entire invoice may be cancelled, and the correct data may be entered as a replacement.

In order to maintain the accuracy of any subsequent audit trail, mSupply creates a transaction which reverses all the stock movements on the invoice being cancelled, having due regard to all appropriate details, such as batch numbers, etc. See [Cancelling finalised invoices](#)

If *Confirm supplier invoices without asking* is checked in the "Invoices 1" tab of the Preferences window, then all invoices will be finalised automatically.

Info

If you have the store preferences set to force supplier invoice authorisation, you will not be able to confirm supplier invoices until they have been authorised. See [here](#) for details.

Copy: Copies the invoice details to the clipboard, allowing you to paste them into a spreadsheet or email message.

Delete: Deletes the entire invoice. When deleted, there will be no trace of your entry and the invoice number assigned will be reused.

Important

Unless the invoice has a new (nw) status, if you have added lines to an invoice, you must manually delete each line using the

Delete line button before deleting the invoice. This is intentional, to save the "Oops, I just deleted my invoice with 100 lines on it" feeling.

Invoice status	Description
nw	The invoice has just been created - clicking Delete will automatically delete each line and the entire invoice
sg	The Delete button will only delete the invoice if you have first deleted all lines using the Delete line button
cn	Same as for suggested (sg) status
fn	No changes or deletions can be made and the Delete button will be disabled

Print checkbox: If checked, the supplier invoice or packing slip will be printed when the OK button is clicked. If the supplier invoice has a suggested (sg) status, a packing slip will be printed; otherwise an invoice will be printed.

OK: Saves the changes you have made and exits the window.

OK and Next: Saves the changes you have made and opens a new supplier invoice.

Tabs in the supplier invoice window

General tab

This shows a detailed view of each line on the invoice. This is the tab you see when you first open or create a supplier invoice.

Summary by item tab

Displays a summary of each item's requested quantity, sent quantity and received quantity. Different batch numbers of the same item are consolidated into a single line.

Line	Item Name	Requested Qty	Sent Qty	Received Qty	Cost Price	Price extension
1	Allopurinol 100mg tab	100	100	100	5.30	530.00
2	Erythromycin ethylsuccinate 250mg tab/cap	200	200	200	2.80	560.00
3	Albendazole tab 400mg	400	400	300	1.50	450.00

Summary by batch tab

This tab shows each batch but grouped by item and showing summary price information for each batch.

Line	Location	Item Name	Batch	Quantity	Pack Size	Cost Price	Price extension
1		Allopurinol 100mg tab	JR667	100	1	5.30	530.00
2		Erythromycin ethylsuccinate 250mg tab/cap	QOP876	200	1	2.80	560.00
3		Albendazole tab 400mg	LMN667	200	1	1.50	300.00
4		Albendazole tab 400mg	YRN779	100	1	1.50	150.00

Price tab

There can be a lot of information on this tab! It is all detailed in the [Price tab](#) section below.

Unsupplied items tab

This tab is only shown if this supplier invoice is the result of a stock transfer from another mSupply store and the supplying store has the *Use EDD placeholder lines in supplier invoices from this store* store preference turned on (see the [26.08. Virtual stores](#) page for details).

Supplier Invoice

Name: Central Medical Store Confirm date: 00/00/00 Colour: Black

Their ref: From invoice number: 33 Tamaki Invoice number: 1

Comment: Stock transfer Category: None Entry date: 07/02/2022

Donor: Status: nw

Be aware: modifying this invoice will not change the customer invoice which generated this invoice in the sending store Central Medical Store. Goods received ID: 0

Purchase Order ID: 0

Requisition ID: 0

Entered by: Admin

Store: Hufflepuff Health Centre

Item code	Item Name	Quantity	Pack Size	Notes
89893	Salbutamol Inhaler	30	1	1 EDD: 30/06/2022 PD: 19

Hold Export batch: 0 Margin: 0.00

Finalise

OK & Next Delete OK

The table on this tab shows all placeholder lines that were present on the customer invoice in the supplying store (they represent the quantities of items that could not be supplied). If the item is also present on a purchase order in the supplying store then the *Notes* column contains the Expected Delivery Date of the item and the purchase order this date is taken from. **Note:** this is the expected date the item will be delivered to the supplying store, not your store.

Log tab

The log tab displays all the log entries that have been made regarding this invoice. All log entries are stored in the [mSupply log](#) and this tab will display all the log entries in there which were made for this invoice.

Custom data tab

This tab shows the [custom fields](#) that have been set up for supplier invoices.

All custom data will be saved with the invoice (i.e. when you click the *OK* or *OK & Next* button).

Adding new lines to a supplier invoice

Click the *New line* button to add a line to the invoice. This window appears:

The dialog box 'Add/edit supplier invoice line' contains the following fields and values:

- Item: [Empty field with dropdown arrow]
- Received quantity: 0
- Pack size: 1
- Total quantity: 0.00
- Batch: [Empty field]
- Expiry: 00-00-00
- Invoice quantity: 0
- Invoice pack size: 0
- Invoice total quantity: 0.00
- Location: [Empty field]
- Volume per pack: m3
- Weight per pack: 0 kg
- Adjusted local cost: 0.00
- % Margin: 0.00
- Sell price: 0.000
- Price extension (PGK): 0.00
- Donor: [Empty field]

Buttons: Cancel, OK, OK & Next

The cursor will be in the field ready for you to enter the item name.

Item: Enter as much of the item name (or code) as you know, then press the *Tab* key. As usual, if only one entry matches, it will be filled in. More than one matching entry will present you with a list from you should double-clicking on the required item. The text you type will be matched against both the item name and the code. A match for either will display the item.

Note: To query for an item name or code that contains (rather than starts with) "250mg" (for example), enter "@250mg" in the search field (without the quotes).

Hint: you can use the "up" and "down" arrow keys to change the highlighted item (You can also press *u* to move up and *d* to move down!). Pressing the enter key will choose the highlighted item.

Item name	Item code	Stock on Hand
Acetazolamide 250mg tab	ace250t	0
Acetylsalicylic acid 100mg tab	ace100t	0
Acetylsalicylic acid 300mg tab	ace300t	0
Aciclovir 200mg tab	aci200t	5000
Aciclovir sodium 250mg inj	aci250t	0
Albendazole tab 400mg	alb400t	3800
Albumin, human injectable sol, 25%	alb25i	0
Albumin, human injectable sol, 5%	alb5i	0
Alcuronium chl 10mg/2ml inj	alci10	0
Allopurinol 100mg tab	all100t	3000
Aluminium diacetate solution, 13%	alu13s	0
Aluminium hydroxide 320mg/5ml oral susp	alu500s	0
Aluminium hydroxide 500mg tab	alu500t	0
Amiloride hydrochloride 5mg tab	ami5t	0
Amoxicillin + clavulanic ac 500mg tab	amoc500t	0
Amoxicillin 125mg Tab	amo125tab	78
Amoxicillin 250mg tab/cap	amo250t	20100
Amoxicillin 500mg tab/cap	amo500t	6700
Amphotericin b 50mg inj	amp50i	0
Ampicillin sod 500mg inj.	amp500i	0
Anti-d immunoglobulin (human) 250mcg inj	antd250i	0
Antiscorpion sera inj	antsi	0
Antitetanus immunoglob (human) 500IU inj	anttt500i	0
Antivenom serum	antvi	0
Artemether 80mg/ml inj	art80i	0

Double-Click the item you want..

Buttons: Cancel, Use

Note: If you did wish to apply a different margin to the whole invoice, click the cancel button, and edit the margin for that supplier by choosing *Supplier >Edit supplier* and change the margin. If you wish to apply a different margin to just some lines, you can do this as you enter the lines, as long as *Editing margins* is enabled in the Preferences.

If the the item you are entering is not listed, you can click *New item* to add it.

Note: it is a good idea to agree upon a standard form for entering items. For example, will you enter an "infant feeding tube" as:

- "infant feeding tube"
- "feeding tube, infant"
- "tube, infant feeding"

Duplicated items can later be merged, but it is better to get it right first time!

Note: if you need to see the full details of the item itself after selecting it, click on the down arrow icon  to the right of the item name field and you will be taken to the item's details window.

Now there are a series of fields to enter to fill in the basic information for the line

Received quantity: How many packs did you receive?

Pack size: How many units are in each pack? Once the item has been selected the item's unit will be displayed after this field.

Total quantity: mSupply will automatically calculate the total quantity of individual units (received quantity x pack size).

Note: Say you receive 50 packs of 100 amoxicillin caps, you should enter "50" in the received quantity field and "100" in the pack size field. However, if you issue the capsules in strips of 10 to customers (e.g. you allow them to order 20 or 30 capsules), you should enter quantity "500" and pack size "10".

Pack to one: Clicking this button will automatically redistribute the total quantity received to pack size to 1.

Invoice quantity: How many packs did the supplier claim to have sent? (Sometimes this is different to the quantity received!)

Invoice pack size: What is the pack size stated on the supplier invoice? It *should* match the received pack size, but if **Pack-to-one** has been applied to the received quantity (see above), this value will show the original pack size on the supplier invoice.

Invoice total quantity: mSupply will automatically calculate the total quantity of individual units stated on the supplier invoice (Invoice quantity x Invoice pack size).

Batch: The batch number or other identifying information. The batch appears on the invoice, so you can use this field to differentiate between brands if you need to (eg you operate using generic names, but occasionally want to give a specific brand- you can put an abbreviation for the brand name here as well as the batch).

Expiry: You can use "/" or "." to separate the day/month/year. Note: Use whichever date format you have set in your computer (dd/mm/yy or mm/dd/yy or yy/mm/dd). You can enter the year as 2 digits, which will be understood as a date between 1961 and 2060. This should cover the expiry date on most things you receive in the next 52 years!

Location: The location of the item should be entered in this field.

Volume per pack: How much space the pack occupies in metres cubed (m3).

Weight per pack: The weight of the pack in kilograms (kg).

Invoice line unit cost: Enter your **cost price** for one pack of the pack size you entered above. If your supplier's currency is different to that of mSupply the cost price will appear in the supplier's currency. **Note:** If you have set a default selling price for this item, if you set the **invoice line unit cost** to zero after setting it to some value, you will be asked to confirm whether you want to zero the cost price. If you confirm the change, the **Sell price** and **Price extension** will be set to zero.

Adjusted local cost: Displays the cost of a single unit of the item in local currency.

% Margin and sell price: If you have allowed editing of these fields in Preferences, you can adjust the margin (and the sell price will adjust automatically), or you can adjust the sell price (and the margin will adjust automatically). Please note that the sell price will initially be set to the item's default sell price if it has one set.

Manufacturer: This field displays the name of the manufacturer of the item. It will only be shown if you have turned the *able to specify manufacturer when receiving, ordering or quoting for items* preference on in the [store preferences](#).

Entering a manufacturer follows the same pattern as entering an item or supplier - type the first few letters of the manufacturer's name or code, and press the *Tab* key. Choose the required manufacturer from the list if more than one is displayed.

You can add a new manufacturer by clicking on the *New* button.

Donor: The donor of the item can be entered to this field. A valid donor should be entered, type the wildcard character '@' and press the *TAB* button to view your list of donors.

Price extension: This information field provides the cost price in local currency for the total quantity of the item you have entered.

Custom fields 1-8: The appearance of these fields is controlled by the [Custom stock field preferences](#). Any information you enter in these fields will be displayed wherever stock information is displayed (e.g. when issuing stock on a [customer invoice](#) or when viewing the stock of an item on the stock tab of the [item details](#) window). The fields can also be reported on so they are an important and powerful way of tracking different categories of stock. For full details please see [Custom stock fields](#).

Click *OK* if you are finished, or *OK & next* to add another line. (The invoice lines added will be displayed in Items Display Field.) Click *Cancel* to exit to the main screen without saving any of the details.

mSupply provides the feature of receiving service items into stock. Service items are items that are not normally held in stock and are called non-stock items in mSupply. See [here](#) for more information on those. You might be tempted to use service items to manage assets - if you are you might find the mSupply asset management functionality better. See the [21.02. Asset management](#) page for details.

⚠ Important

If the *Convert pack to 1 when receiving* preference is turned on for the item (see the [4.01.01. Items - General tab](#) page for details), the **Pack size** field will be changed to 1 and the **Cost price**, **Volume per pack** and **Weight per pack** field values will all be re-calculated when you enter the **Cost price** field value or click on the **OK** button. A warning in red text will be displayed on the window if the preference is turned on so that you don't get any nasty surprises when the values suddenly change!

Editing lines on a supplier invoice

Supplier invoice lines can be edited at any time until the invoice is finalised.

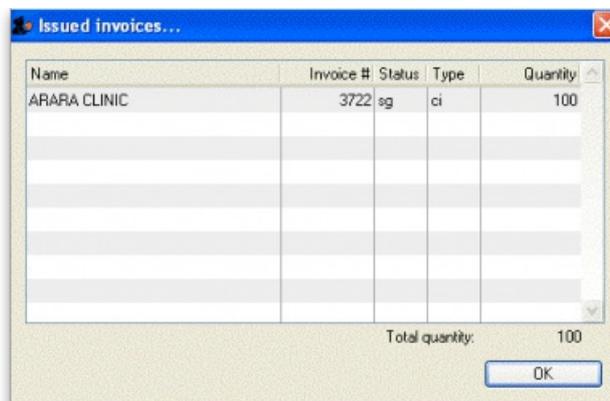
To edit a line, simply double-click on the line you wish to edit.

Editing lines if stock has been issued

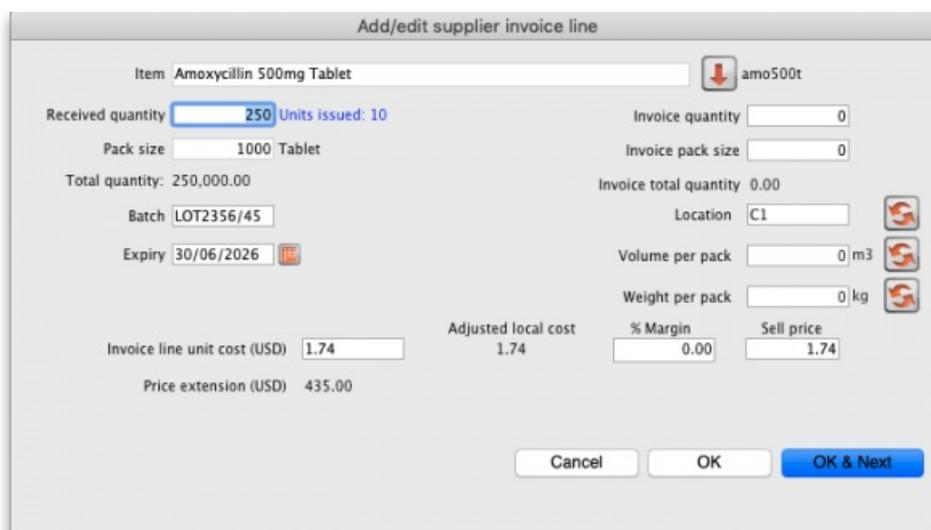
If you have already issued stock of this line to a customer, you will be warned with a window like this:



Clicking **View issued invoices** will show you a list of customer invoices containing stock entered on this particular line:



Clicking **OK** will take you to the item issue window:



A dialog box titled "Add/edit supplier invoice line" for the item "Amoxicillin 500mg Tablet" (code amo500t). It contains various fields for quantity, pack size, batch, expiry, and pricing.

Item: Amoxicillin 500mg Tablet (amo500t)

Received quantity: 250 (Units issued: 10) | Invoice quantity: 0

Pack size: 1000 Tablet | Invoice pack size: 0

Total quantity: 250,000.00 | Invoice total quantity: 0.00

Batch: LOT2356/45 | Location: C1

Expiry: 30/06/2026 | Volume per pack: 0 m3

Weight per pack: 0 kg

Invoice line unit cost (USD): 1.74 | Adjusted local cost: 1.74 | % Margin: 0.00 | Sell price: 1.74

Price extension (USD): 435.00

Buttons: Cancel, OK, OK & Next

For example:

Cost price	Pack size	Supplier margin	Item margin	Preference set for Item margin overriding Supplier margin	Item price	Price used
100	100	6	10	yes	1.15	115
100	100	6	10	no	1.15	115
100	100	6	10	yes	0	110
100	100	6	10	no	0	106
100	100	0	10	no	0	110
100	100	6	0	yes	0	106

Note that if you have turned on “allow editing margins and sell prices on supplier invoices” in the Preferences you will be able to over-ride the prices mSupply calculates.

Price tab

This tab provides functions for applying discounts and apportioning different charges to items.

Applying a discount to the whole invoice

If a supplier gives a discount at the bottom of the invoice rather than adjusting the price of each invoice line, you can use the discount button.

The screenshot shows the 'Supplier invoice' window. The 'Price' tab is active. A 'Discount' button is highlighted with a red box. The window displays the following information:

- Name: ALPHAMED P/L
- Entry date: 27/02/2015
- Colour: Black
- Their ref: 17222
- 200010
- Confirm date: 27/02/2015
- Invoice number: 8,086
- Status: cn
- Comment: goods received ID: 6076
- Period: Unconfirmed or none
- Goods receive ID: 6076
- Purchase Order ID: 3499
- Category: None
- Entered by: KONAREA
- Store: National Medical St

The 'Price' tab shows the following summary:

- Tender reference: [empty]
- Currency: AUD
- Currency rate: 6.4922
- Supplier subtotal: 39617
- Local charges: 0
- Extra foreign currency charges: 0
- Total foreign currency charges: 39617

The 'Discount' button is highlighted with a red box. The 'Other charges' section shows a subtotal of 257,201.48 and a total of 257,201.48.

Line	Item Name	Qty	Pack	Batch	Expiry	Price ...	Extension FC	Price	Local c...	Price exten
1	INSULIN INJ HUMAN ACTRAPID 10ML	300	1	D56L04	30/09/2016	27.88	8,364.00	181.00	0.00	54,300.76
2	INSULIN INJ HUMAN ISOPHANE 10ML	500	1	D56L79	31/07/2016	27.91	13,955.00	181.19	0.00	90,598.65
3	SALBUTAMOL METERED DOSE INHALERS 10	4000	1	G0J05	31/10/2015	3.89	15,560.00	25.25	0.00	101,018.63
4	DOXORUBICIN INJ 2MG IN 1ML/5ML	40	1	801233	31/10/2016	8.65	346.00	56.15	0.00	2,246.30
5	DOXORUBICIN INJ 2MG IN 1ML/25ML	80	1	Dx314C	31/03/2017	17.40	1,392.00	112.96	0.00	9,037.14

This window will be shown:

The 'Apply discount...' dialog box contains the following information:

- Apply discount on Cost Price
- Discount %: [input field]
- Recalculate sell price
- What will happen?
- Enter a positive number to reduce the cost price of each line on the invoice by the percentage you have entered.
- Enter a negative number to increase prices.
- Check the "Recalculate sell price" button to adjust the sell prices on the basis of the new cost price
- Buttons: Cancel, OK

If you enter “5” the cost price of each line will be reduced by 5%, and the invoice total will be recalculated. It should then match the amount the supplier is actually charging you.

If you want the sell price calculated based on the new cost price, check the “Recalculate sell price” checkbox. The selling price rules as described above will still apply.

Applying local charges

Local charges are any charges you want to add to the cost of individual items on this invoice in your data file's local currency (i.e. the default currency used in your data file - this might not be the same as the currency you use when you visit a local shop!). These could be administration charges, local freight charges, handling charges etc.

You can either enter the amount of local charge to apply to each invoice line or the total amount of charges to apply to the invoice.

Entering local charge amounts on each invoice line

You do this by directly entering the amounts to apply to each line in the cells of the *Local charge* column in the table. As you do this, mSupply will automatically increase the sell price per pack by the amount you have entered divided by the number of packs for the line and will add the amount you entered to the current value in the **Local charges** field above the table.

Entering the total amount to apply to the whole invoice

To do this, you simply enter the total amount in the **Local charges** field above the table. When you do that, mSupply will automatically apply a portion of the local charges to each invoice line's sell price, according to the ratio of that line's *Price extension* to the sum of all the *Price extensions* of all lines on the invoice. You can see how much mSupply added to each line in the *Local charge* column. If you wish, you can edit the local charges applied to each line after this by simply clicking on the appropriate *Local charge* cell in the table and typing in the cost to apply. As you do that, mSupply will keep track of the total local charges applied to all lines in the **Local charges** field.

Applying foreign currency charges

These charges are applied in the currency selected in the currency selected in the **Currency** drop down list, following the rate displayed in the **Currency rate** field (which you can manually adjust if the default shown by mSupply is not what you require). The charges could be, for example, international freight charges or administration charges.

Simply type the amount of foreign currency charges to apply to the whole invoice in the **Extra foreign currency charges** field and mSupply will apply a portion of the whole amount to each line, according to the ratio of the line's *Price extension* to the sum of the *Price extensions* of all lines. mSupply will automatically update the sell price value for each item.

Applying other charges

These charges will NOT be added to the sell or cost prices of the items on the invoice. You enter them in the *Other charges* section below the table of items:

- **Item(s) field:** Enter what the charges are for in this field.
- **Amount field:** Enter the total amount of the other charges in here. When you do this, you will see the amount added directly to the *Subtotal* and *Total* amounts and none of it will be added to the sell or cost prices of the individual items in the table.

Applying tax to the invoice

Tax, like other charges, will not be added to the sell or cost prices of the individual items. To add tax, click on the % *tax rate* below the *Subtotal* field on the right hand side below the table of items and enter the rate you wish to use. mSupply will calculate the amount of tax (the % you entered of the *Subtotal* value) and automatically add it to the *Subtotal* value to give you the new *Total*.

Info

If you have set a default tax rate in the preferences (see [General preferences](#)) you will see it applied as soon as you open the invoice. Also, you will only be able to edit the tax rate if the *Allow editing tax rate and amount on invoices* preference is turned on (see [Invoices preferences](#)).

Viewing supplier invoices

To view or edit any supplier invoice, choose *Supplier>Show invoices*. The details of how this works is virtually identical to that of [viewing customer invoices](#).

Tip

Rapid access to Goods Received note from Supplier invoice, and vice versa

If the Supplier Invoice came from a Goods Receipt, (which in turn came from a Purchase Order), Supplier invoices show the *Goods Received* transaction number in the upper right area of the window. By clicking on that, the *Goods received* transaction will be displayed. Similarly, the *Edit goods received* list has a link [Click here to open Supplier inv](#) which will display the required invoice.

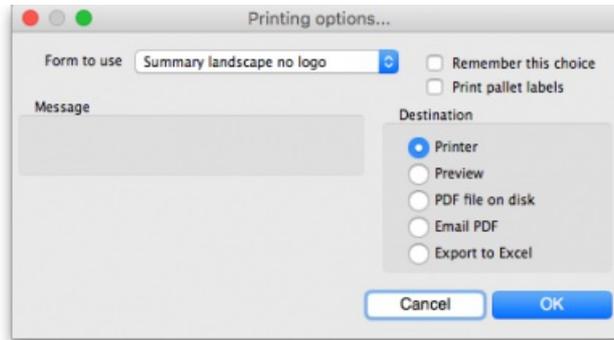
Processing supplier invoices

In order to bring the stock on a supplier invoice in to your store, you will need to confirm it.

Tip

If the supplier invoice was created by mSupply, then depending on the [store preferences](#), the supplier invoice may or may not be on *Hold* or *Finalised*:

This is the printing options window:



- **Form to use** drop down list: Select the form you want to use to print the invoice. There may be several in the list. There is also a *None* option if you don't want to print the invoice but just want to print pallet labels.
- **Remember this choice** checkbox: The form you choose in the Form to use drop down list will be selected (and everyone else!) next time the supplier invoice printing options window is opened if this checkbox is checked.
- **Print pallet labels** checkbox: Check this if you want 100x150mm pallet labels in a specific format to be printed out from a label printer. A label will be printed for each line on the supplier invoice. Note: the label printer has to be installed and configured in mSupply before this option will work - see [Label printer installation](#) and [Printing preferences \(setup\)](#) for details.
- **Destination** radio buttons:
 - **Printer**: the invoice will be printed out straight away.
 - **Preview**: a preview of what the invoice will look like when it is printed will be displayed in your installed PDF file reader. You might be able to print the invoice from the PDF reader, depending on its features.
 - **PDF file on disk**: the invoice will be saved to disk in PDF format.
 - **Email PDF**: the invoice will be created as a PDF file and attached to an email for you to send. You can double-click the email attachment to see a preview of the invoice. The email preferences in *File > Preferences* should be setup correctly before using this feature.
 - **Export to Excel**: the invoice will be exported as a spreadsheet file and opened for you (provided you have a spreadsheet application installed).

When you click on the OK button the invoice will be printed in the form you have chosen.

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mSupply documentation wiki





7.02. Goods receipts

Entering goods received

Alert

If the receiving store is receiving goods from another [virtual store](#) in your mSupply system, *in response to an Internal Requisition (Purchase Order) from that store*, the Goods Receipt will be created automatically - refer [Receiving the goods \(requesting store\)](#). Open this automatically created Goods Receipt. **Do not create a new Goods Receipt!**

Choose *Supplier > New goods received* and this window appears:

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There is some read-only information at the top of the goods received note that cannot be edited:

- *Store*: The name of the store the goods received note belongs to.
- *Goods received ID*: This goods received note's number. The number is automatically incremented and assigned when the goods received note is first created and is **unique within a store**. Note that goods received notes in different stores could have the same number.
- *Created by*: The name of the user who created the goods received note.
- *Modified by*: The name of the user who last modified the goods received note.
- *Entry date*: The date the goods received note was created.
- *Purchase order*: The number of the purchase order the goods on this goods received note were ordered on. It is a link and clicking on it will open the purchase order.
- *Supplier invoice*: The number of the supplier invoice produced from this goods received note. The number is filled in after the goods received note is finalised. Again, it is a link and clicking on it will open the supplier invoice.
- *Status*: The status of the goods received note:
 - nw = new, the goods received note is not complete yet and is still editable
 - fn = finalised, the goods received note is complete and is no longer editable

If you have goods receipt authorisation set up in [Store Preferences](#) there will be an extra *Authorised* column - see the [Authorising items on goods received notes](#) section below for more details.

Selecting the Purchase Order

In the **Supplier** field (which displays *Search Purchase Order* when it first opens), enter the first few characters of the name of the supplier from whom the order has been received. To display all Purchase Orders awaited, enter **@** in the Supplier field. (This has been done in the example shown below):

Supplier	Our Purchase order ID	Comment
PT Global Persada Farma	119	
EASTERN SURGICAL COMPANY	120	

From this screen select the entry which matches the purchase order against which you have received stock, either by double clicking on the entry, or by highlighting the entry and clicking on the *Use* button.

The *New Goods Receipt* window reappears with the supplier field and some other details completed.

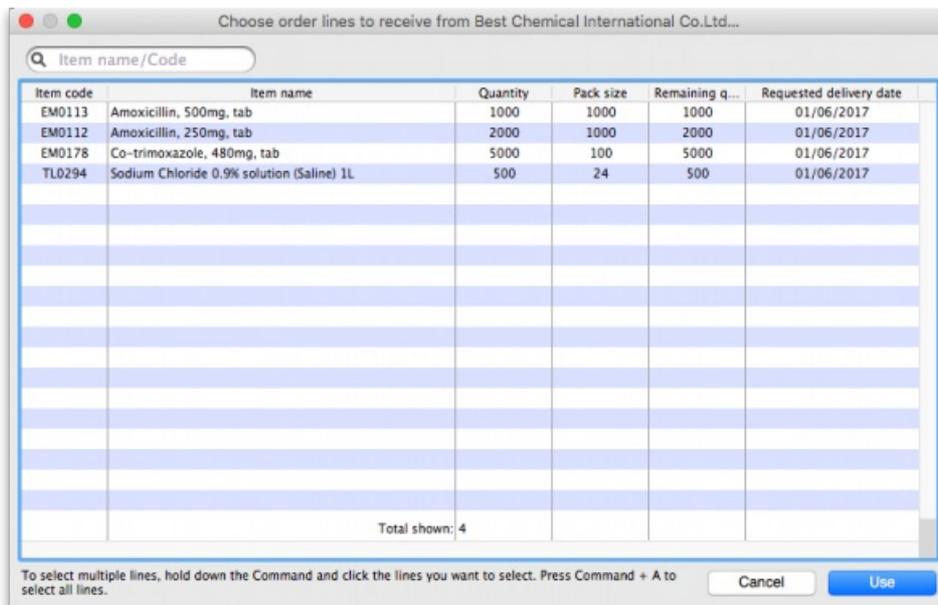
Filling in general details

At this point you should fill in the:

- *Supplier reference* field with, for example, the delivery note number
- *Comment* field with any extra information you need to record about the delivery

Adding items from the purchase order

Next, you should click on the *Add from Purchase Order* button to add the items which have arrived to the goods received note. Clicking the button brings up the *Choose order lines...* window:



This window displays the goods on the Purchase Order, and you may either select each item separately (click on a single item), the entire order (click on an item then press Ctrl+A on the keyboard, or Cmd+A on a Mac) or something in between (use Ctrl+click to select individual items and add/remove them to/from the selection and/or Shift+click to select a range of items) to enter the details of the items received!

If you're trying to find a particular item in a long list you can also type the start of the item's name or code into the search box at the top and the list will be filtered to show items which have a name or code starting with what you have typed.

Info

mSupply does allow you to create a Goods Receipt for stock for which you have already received all of the ordered stock, that is, Remaining (outstanding) quantity = 0).

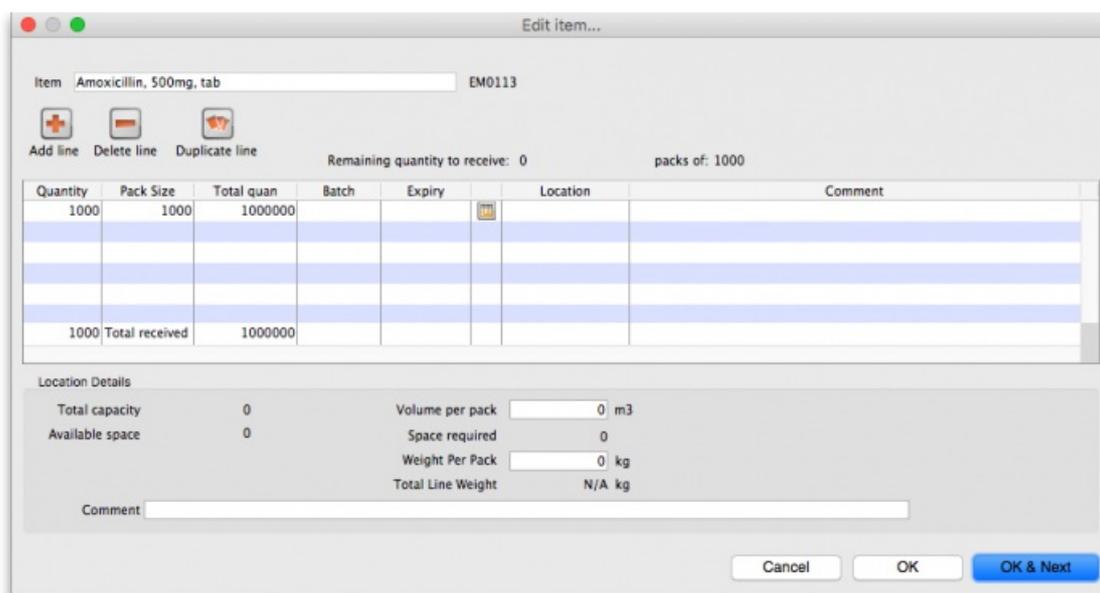
In any case, when you have selected the items to receive, click on the *Use* button.

Adding un-ordered items

Occasionally goods may be received which were not ordered; when this occurs, click on the *Add an un-ordered item* button and select the item before proceeding.

Goods receipt line entry

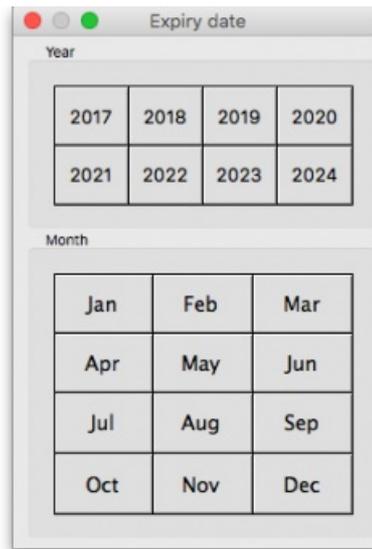
You are now presented with the *Edit goods received line* window for the first item:



Let's have a look around the window and see what information is being displayed:

- *Item*: the name of the item we're entering the information about. At the end of the field is the item's code.
- *Remaining quantity to receive*: the number of packs we're still waiting to receive from the supplier on the purchase order this goods receipt note is for. This is 0 on the screenshot because, by default, mSupply creates a line in the table which contains all the outstanding stock.
- *packs of*: the pack size (number of items in the packs) we're waiting to receive. So, the total number of individual pieces of this item we're waiting to receive is *Remaining quantity to receive x packs of*.

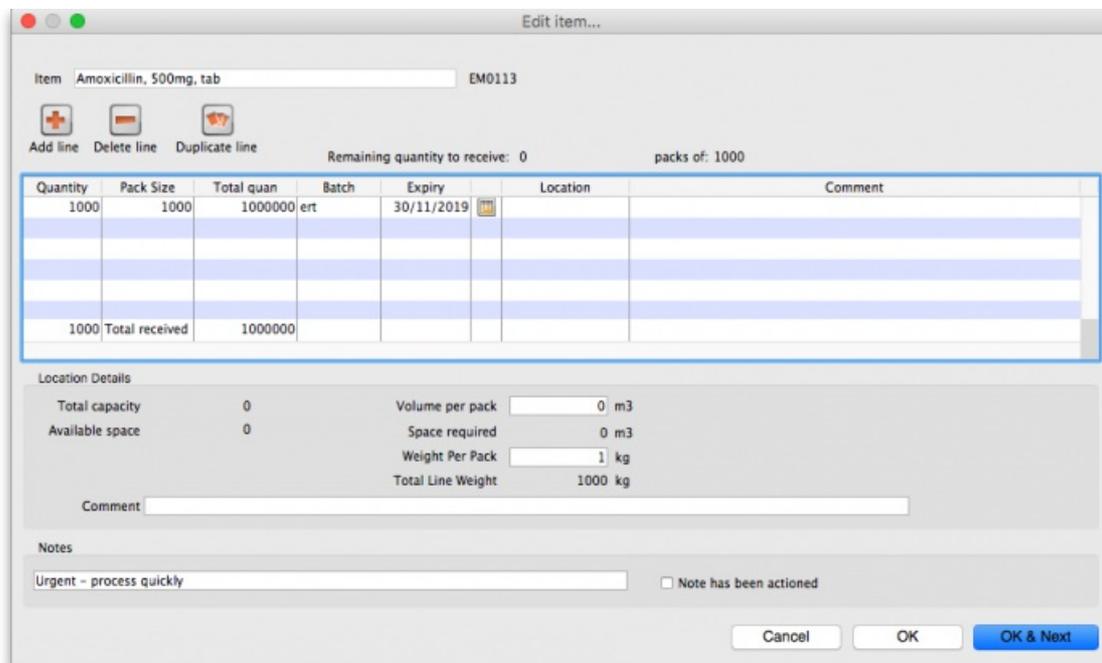
- table: contains all the lines of the item that we're receiving from the supplier. Click on any of the cells to edit them (they are all editable except the *Total quan* column because this is a calculated column and equal to *Quantity x Pack Size*). There will be a separate line in this table for each batch or location (and manufacturer if the [preference to record manufacturer](#) is turned on - entering a manufacturer is the same as entering a location i.e. enter the first few characters of the manufacturer's name and press the *Tab* key on the keyboard and select the manufacturer you want from the list displayed or click on the **New** button to create a new manufacturer).
- Expiry date picker: this is in the column just to the right of the *Expiry* column. Click on it to select the expiry date from a date picker:



Click on a month and year in either order and mSupply enters the last day of that month in the expiry date column. You can manually edit the date (or manually enter it without using the picker) if you don't want the last day of the month.

- *Volume per pack*: the volume per pack for the line currently selected in the table. Will be set to the item's default volume per pack if it has one, otherwise 0.
- *Weight per pack*: the weight per pack for the line currently selected in the table. Will be set to the item's default weight per pack if it has one, otherwise 0.
- *Total line weight*: the total weight of this line in the table (= *Weight per pack x Quantity* column figure for the line)
- *Total capacity*: the total volume the location for the selected line in the table has. 0 if the location is not set for the line or has no volume set.
- *Available space*: the available space in the location before putting this line in it.
- *Space required*: the volume this line requires (= *Volume per pack x Quantity* column figure for the line). So compare this with the *Available space* figure to see whether the line will fit in the location selected.
- *Comment*: Anything you want recorded for this line. Anything typed in here will appear in the *Comment* column in the table.

If you have set a note for this item on the purchase order (see [Notes](#) section in [Editing Purchase Order Lines](#)) then an extra Note section will appear at the bottom of the window:



Until the *Note has been actioned* checkbox is checked, lines for this item will appear in red on the overall goods receipt window (see below).

To add lines for new batches or locations, click on the *Add line* or *Duplicate line* line button - they both add a line, *Add line* adds a blank one, *Duplicate* copies the line currently selected in the table. No surprises but, to delete a selected line, you click on the *Delete line* button!

You can edit a row in the table by clicking on the various cells. It is best to click on the left-hand **Quantity** cell and adjust that one first. Then you can use the tab key to advance to the next cell in the row.

Let's take the following example for amoxycillin 500mg caps.

quantity	pack	batch	expiry
648	1000	b1234	30/6/18
324	1000	b1235	30/11/18

Let's say there are 12 packs in a box, and 27 boxes on a pallet, so you have 2 pallets of the first batch and one pallet of the second batch. You can only put one pallet in each location, so the first row will be split into two.

Enter the details into the first row as above.

Tip

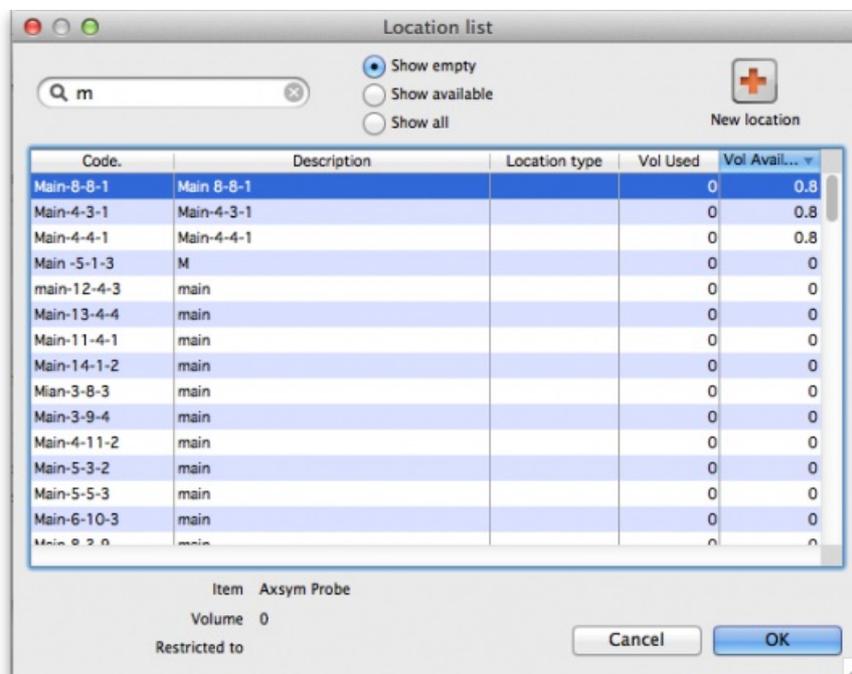
If you are entering details for an item which has its "Expiry date required on receive" preference set (see [here](#) for details) and you do not enter an expiry date for any of the item's batches then, when you click on the **OK** or **OK & Next** buttons, you will be shown a warning message and you will not be able to close the window without entering an expiry date for each batch or deleting all the item's batches.

Location management when receiving goods

If the items you are receiving have had a location and volume entered when the Purchase Order was created, these will be transferred to the goods receipt. If you want to edit these details you can do so by double-clicking a line and either changing the volume or the location.

You can then choose a different location by entering it in the location field, or enter the start of a location code and press **tab** to get a list of matching locations.

When you get to the location column, we type **m** then press tab. you are shown the location choosing window with locations that match "m"



Note we have then clicked the **Show empty** radio button, as we are putting away a whole pallet, and pallets only go in empty locations. The **Show available** radio button shows locations that have enough spare capacity to take the volume of the line we are receiving. We then double-click on the location to choose.

Tip

If the item you are receiving has a default location set for it, this will have already been filled in when the line was added to the purchase order. Default locations should be set if the same item is always put in the same place, otherwise leave it blank. In the current example we've assumed it has **not** been set for each item.

Now we have entered all details for the line, we can click on the row to highlight it, then click the **Duplicate line** button to create another row the same without entering all the details again - you then only need to click on the location column on the newly duplicated row, and you can edit the location to find another empty location for the second pallet.

Once done, you can duplicate the row again, and this time you have to change the batch (to b1235), expiry (to 30/11/18) and location.

Then your window should look like this:

Item: Amoxicillin, 500mg, tab EM0113

Remaining quantity to receive: 28 packs of: 1000

Quantity	Pack Size	Total quan	Batch	Expiry	Location	Comment
324	1000	324000	b1234	30/06/2018	A.01.B2	
324	1000	324000	b1234	30/06/2018	A.01.D2	
324	1000	324000	b1234	30/06/2018	A.01.E1	
972	Total received	972000				

Location Details

Total capacity: 4 m3
Available space: 4 m3
Volume per pack: 0 m3
Space required: 0 m3
Weight Per Pack: 1 kg
Total Line Weight: 324 kg

Comment: _____

Buttons: Cancel, OK, OK & Next

Note that the bottom row of the table shows you the total number of packs and total quantity being received.

If all the details are correct click **OK** (or **OK & Next** if you selected more items to be added from the purchase order) or click **Cancel** if you want to abandon this entry. You will be taken back to the window showing the overall goods receipt, this time including the lines you've just entered:

Review overall goods receipt

New goods receipt...

Supplier: South Austral Pty Ltd Store: General

Received date: 09/05/11 Purchase order: 32 Goods received ID: 903

Supplier reference: _____ Created by: Sussol Entry date: 09/05/11

Period: 01/01/11 - 31/12/11 Modified by: _____ Status: nw

Buttons: Add from purchase order, Add an un-ordered item, Delete line, Check space, Print goods receipt

Line	Location	Item name	Batch	Exp date	Pack Size	Quan
1		Water for injection 100mls bottle			1	0
2		Procaine Benzylpenicillin 1MU vial			50	0

Finalize

Buttons: OK & Next, Delete, OK

All the items you've selected have been added to the goods receipt. The quantity is set to the total remaining to be received for that item.

Double click on each item in turn and the window allowing you to enter quantities, pack, batch numbers, expiry dates.

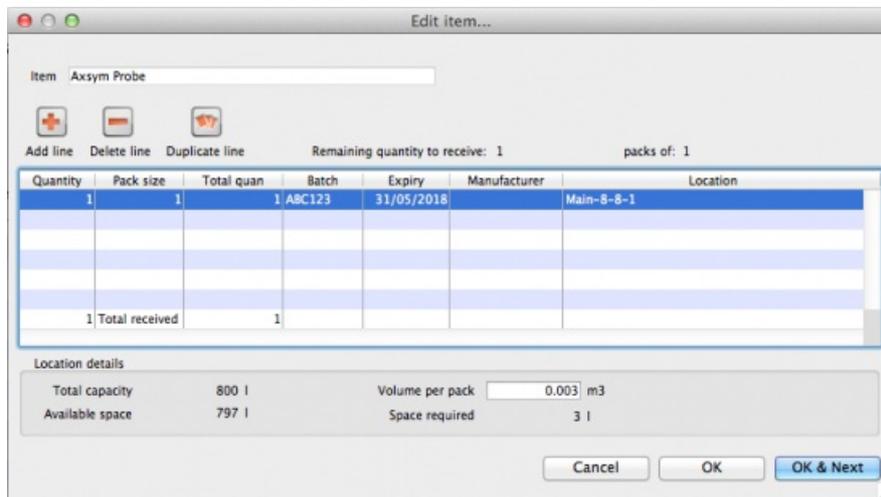
Info

Red line in the Goods Receipt?

If you see lines show up in red on the Goods Receipt that means that you have set a note that must be actioned for that line on the Purchase Order (see Notes section of Editing Purchase Order lines for details).

Once you have actioned the note, the lines will return to their 'normal' black colour.

The right hand side of the window shows you the shelf location, total capacity and available space for a particular item in a particular shelf location. You are also shown the volume or space required for a particular item. The small "refresh" icon the right inserts the default location for the items.



The volume of the shelf location is now reduced to reflect the space consumed by our newly added stock item.

After entering the details for each item, you can click on *OK & next* to proceed to editing the next item.

Finalising goods received

The next step in receiving your goods into mSupply is to create a supplier invoice (that is where you will enter pricing information if you need to). This is done automatically for you when you finalise the goods receipt.

When you have entered all the goods you have received onto the Goods Receipt note, you finalise it by checking the *Finalise* box in the bottom left hand corner of the window and clicking on the *OK* button. Only do this when you are sure the Goods receipt note is an accurate record of what you have received and contains all the information you want in it because finalised means finalised and you won't be able to change it afterwards (just like everywhere else in mSupply!).

Finalising a Goods Receipt will update the received (and outstanding) quantities in the Purchase Order for any goods receipt lines which came from a Purchase Order.

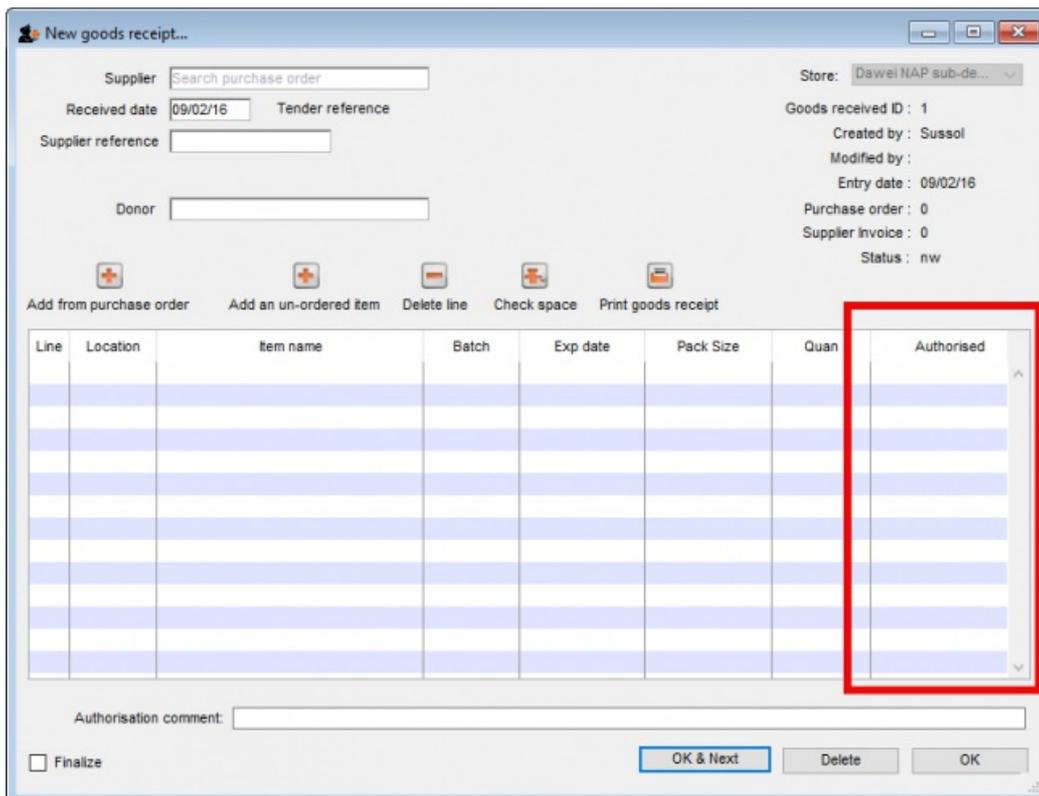
Your goods are not yet entered into stock in mSupply - that only happens when the supplier invoice is **confirmed**. The initial status of this automatically created supplier invoice is controlled by the "When finalising a Goods Receipt" store preference - see [here](#) for details.

Tip

If you have the store preferences set to force **supplier invoice** authorisation, you will not be able to confirm supplier invoices (and therefore bring items into stock) until they have been authorised. See [here](#) for details.

Authorising items on goods received notes

When you have goods received note authorisation turned on in [Store Preferences](#) you will see an extra "Authorised" column on your goods received note:



The column will contain a checkbox for each batch you add to the goods received note. If a batch is authorised then check its box in the *Authorised column* (only users with the *Can authorise goods received* permission can check these boxes). You can enter any notes on batches which fail authorisation in the *Authorisation comment box* at the bottom. When you finalise your goods received note **only the batches which have been authorised** will be put on the automatically created supplier invoice. In this way you have a complete record of what was received, what was satisfactory and what was sub-standard.

Viewing existing goods receipts

Choose Supplier > Show goods received...

A standard mSupply find window is shown:



Click the *OK* button to view the last 15 goods receipts, or enter a value to find in the lower field, and choose the field you are searching for in the left-hand drop-down list (if you enter something in the lower text box this filter only will be used and the top one - number of recent goods received notes - will be ignored). This window then opens to show the goods received notes that match your filter selections:

Supplier	Status	Goods ID	Purchase o...	Supplier ref	Entry date	Received date
South Austral Pty Ltd	fn	886	379 10244		27/01/11	27/01/11
South Austral Pty Ltd	fn	887	407 10287		04/02/11	04/02/11
South Austral Pty Ltd	fn	888	413 10288		04/02/11	04/02/11
South Austral Pty Ltd	fn	890	371 10211		16/02/11	16/02/11
Anspec Pty Ltd	fn	891	398 149162		16/02/11	16/02/11
Sustainable Solutions (NZ) Ltd	fn	892	339		16/02/11	16/02/11
Multichem Exports Ltd	fn	893	406 503908		16/02/11	16/02/11
South Austral Pty Ltd	fn	894	421 10314		16/02/11	16/02/11
South Austral Pty Ltd	fn	895	371 10211		17/02/11	17/02/11
Anspec Pty Ltd	fn	897	381 149162		21/02/11	21/02/11
Anspec Pty Ltd	fn	898	398 149163		21/02/11	21/02/11
Anspec Pty Ltd	fn	899	381 149162		21/02/11	21/02/11
Anspec Pty Ltd	fn	900	420		21/02/11	21/02/11
Anspec Pty Ltd	fn	901	422		21/02/11	21/02/11
South Austral Pty Ltd	nw	903	32		09/05/11	09/05/11

New button: Creates a new goods received note

Find button: Opens the search filter window again, allowing you to make a new search for goods received notes.

Viewing a related purchase order or supplier invoice

Accessing the related Purchase Order when the *Edit goods received* window is open is achieved by clicking on the blue "Purchase Order" on the right side.

Edit goods receive...

Supplier: PHARMACEUTICAL LTD Store: Warehouse St...

Received date: 23/10/14 Tender reference

Supplier reference

Period: 1/07/2014 - 30/06/2015

Donor

Goods received ID : 224
Created by :
Modified by :
Entry date : 23/10/14
Purchase order : 33
Supplier Invoice : 750
Status : fn

Print goods receipt

Line	Location	Item name	Batch	Exp date	Pack Size	Quan
1		Endotracheal Tube No. 7	1314565304...	31/05/2018	10	2
2		Endotracheal Tube No. 7	1319330342x	31/07/2018	10	2
3		Endotracheal Tube No. 7.5	1316227304...	30/06/2018	10	10

Finalize **OK & Next** OK

Similarly, if you want to see the linked Supplier Invoice then click on the blue "Supplier Invoice".

Supplier invoice

Name: PHARMACEUTICAL LTD Entry date: 23/10/2014 Colour: Black

Their ref

Confirm date: 23/10/2014 Invoice number: 750

Comment: goods received ID : 224 Period: 1/07/2014 - 30/06/20... Status: cn

Category: None Goods receive ID : 224

Donor

Purchase Order ID : 33

Entered by :
Store: Warehouse Sto

General Summary by Item Summary by Batch Price Log MoneyWorks

L...	Lo...	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension
1		Endotracheal Tube No. 7	2	10	1314565...	31/05/2018	0.00	0.00	0.00
2		Endotracheal Tube No. 7	2	10	1319330...	31/07/2018	0.00	0.00	0.00
3		Endotracheal Tube No. 7.5	10	10	1316227...	30/06/2018	28,400.00	28,400.00	284,000.00

Other charges

Item(s):
Amount: 0.00

Subtotal: 284,000.00
0 % tax: 0.00
Total: 284,000.00

Hold Export batch: 0 Margin: 0.00
 Finalize

OK & Next Delete **OK**

Tip

If you have turned on any of the custom stock fields in [store preferences](#) they will be displayed as columns (between the Batch and Expiry columns) in the list of items and the information you entered for these fields when the stock was received will be shown in the appropriate cells. If you double-click on one of the supplier invoice lines to edit it (assuming they are editable), you will see the custom fields and be able to enter information into them.

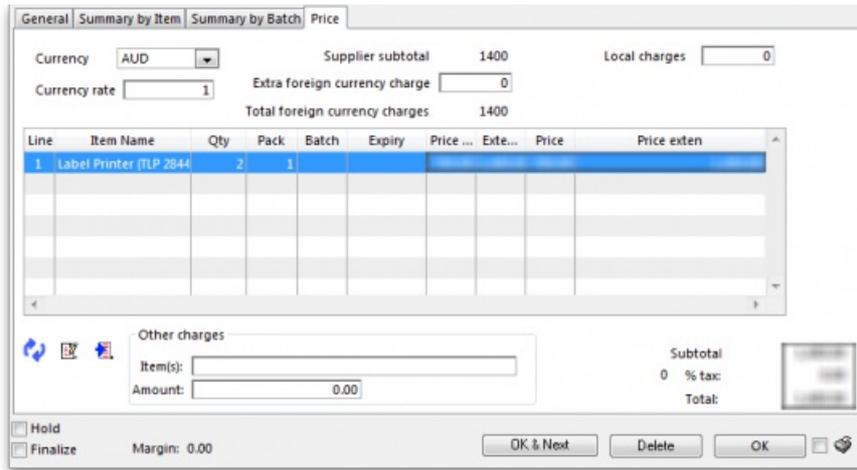
Outstanding purchase order lines

Outstanding PO lines are those which you are still waiting to be delivered from the supplier (also known as your pipeline stock). These will only be updated when a Goods Receipt is finalised. You can view them by either:

- Clicking on Show outstanding PO lines on the Navigator's Supplier tab or
- From the *Supplier > Show outstanding PO lines* menu item

Viewing and editing supplier invoices created via goods receipts

A supplier invoice will be created automatically once the [Goods Received note](#) is finalised.



Supplier invoices created via goods receipts differ slightly from standard supplier invoices.

Price tab

Here, you can add in any extra currency related charges

1. in the supplier's currency in the **Extra Foreign Currency charge** field , and
2. in your local currency in the **Local charges** field and mSupply will automatically calculate the updated invoice price.

Here's an example of how mSupply will do this with a currency "YXB" whose rate is YXB 7 = USD 1

Item	Foreign Price	Quantity	Foreign Currency Price Extension	Local Price	Local price Extension
Amoxicillin 250mg tabs	50	10	500	70	3,500
Paracetamol 500mg tabs	300	5	1,500	35	10,500

Now we add USD300 of freight charges and YXB1400 of import duties:

- The total USD value of the order is USD2000, so 15% must be added to each line to account for this
- The YXB1400 is equivalent to USD200 in local charges, so 10% must be added.
- Therefore a total of 25% is added.

Item	Foreign Price	Quantity	Foreign Currency Price Extension	Local Price	Local price Extension
Amoxicillin 250mg tabs	50	10	500	87.5	4,375
Paracetamol 500mg tabs	300	5	1500	43.75	13,125

Currency and currency rate

Select the supplier currency from this drop-down box, and enter the current exchange rate in the *Currency rate* field . Note that currencies must first be entered using the menu item *Special->Currencies*. See [Currencies...](#)

Extra foreign currency charges

In the supplier's currency, enter any extra charges from the supplier.

Local charges

Enter any local charges, in your local currency.

Application of charges

mSupply distributes any extra charges proportionally according to the invoice value of each item on the invoice; this is done automatically

MoneyWorks tab

If you are using the MoneyWorks accounting software (which is highly recommended), clicking on this tab allows you to export the invoice details to MoneyWorks. Elsewhere in this guide instructions on setting up mSupply to work with Moneyworks are to be found. See [Moneyworks](#).



7.03. Editing pack sizes

New: mSupply version 3.03

Changing pack sizes for items already received

If you have received goods and the supplier invoice is taken off hold, these goods will go into stock and be available for issue.

You can still edit the pack size if.

1. No stock has been issued, or:
2. You have the user preference set that allows editing pack sizes even after issue. ¹⁾

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- [Changing pack sizes for items already received](#)
- [Allowing editing of pack sizes](#)
- [Changing a received pack size after items have been issued](#)
- [How is this different to splitting a stock line?](#)
- [Changing pack sizes for items already received](#)
- [Allowing editing of pack sizes](#)
- [Changing a received pack size after items have been issued](#)
- [How is this different to splitting a stock line?](#)

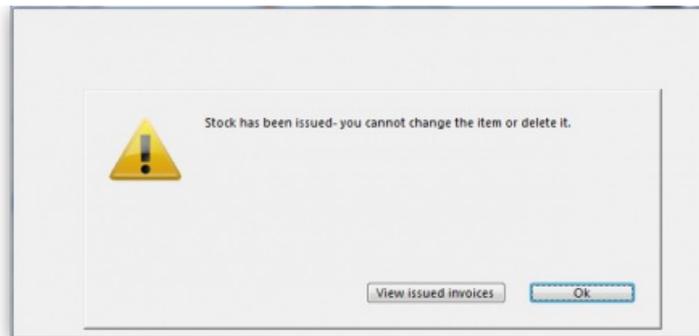
Allowing editing of pack sizes

The screenshot shows the 'Edit user...' dialog box for user 'sussol'. The 'Permissions' tab is selected. The 'Supplier invoices with issued stock' section is highlighted with a red box, and the checkbox 'Can update pack size, cost and sell price' is checked. Other permissions are also checked, including 'View purchase orders', 'Delete purchase orders', 'Edit purchase orders', 'Edit purchase order pricing', 'Manage tenders', 'Finalize purchase orders', 'Create purchase orders', 'Confirm purchase orders', 'Create & edit backorders', 'Create new quotes', 'Edit & delete quotes', 'Duplicate purchase orders', 'View goods received', 'Add/edit goods received', 'Add / edit currencies', 'Add / edit reminders', 'Add / edit misc labels', 'Add / edit abbreviations', 'Add / edit warnings', 'Add / edit prescribers', 'Add / edit transaction categories', 'Add / edit contacts', 'Merge prescribers', and 'Create & edit tenders'. The 'All on' button is visible in the bottom right of the dialog box.

Changing a received pack size after items have been issued

Take as an example chloramphenicol eye ointment; a delivery has been received, comprising 500 tubes, packed in packs of 100 - i.e. 5 boxes, each containing 100 tubes. When the entry is made into mSupply the operator in error enters a quantity of 5 and a pack size of 1, instead of a quantity of 5 and a pack size of 100.

Provided the user permission described above has been set, the error can be rectified, and the invoice altered to show the correct pack size of 100. From the **Supplier** menu, choose **Show invoices** to access the required invoice. Select the line *Chloramphenicol 1% eye oint*, and double click on it. If stock has already been issued, a window will appear to alert you, and allowing you immediate access to the customer invoices detailing the issues.



Tip

It should be noted that adjustments may be necessary on these invoices.

Click **OK** to display the **Add/edit supplier invoice line** where the correction can be made by changing the **Pack size** entry from 1 to 100.

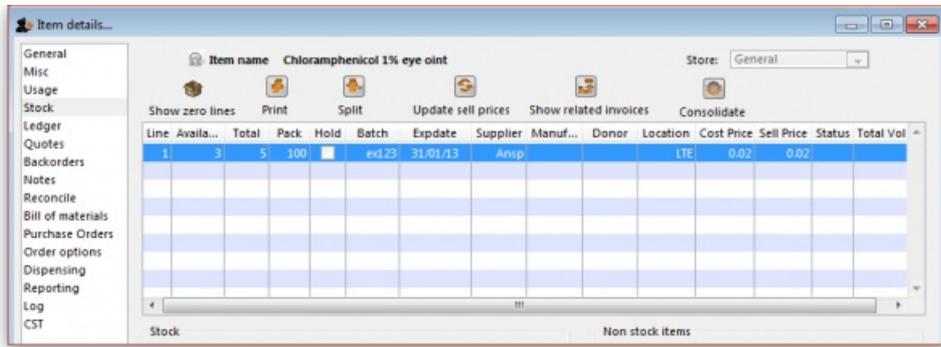
How is this different to splitting a stock line?

Splitting a stock line is required when a store receives and manages an item whose pack size contains a number of units in the pack, but typically issues the item to the store's customers in smaller quantities. Taking the example above, the store *receives* and *manages* chloramphenicol eye ointment in a pack size of 100, but *issues* in single tubes.

Important

- **Editing** the pack size in a supplier invoice, changes the total stock on hand (and / or issued)
- **Splitting** a stock line *does not* change the total stock on hand (and / or issued)

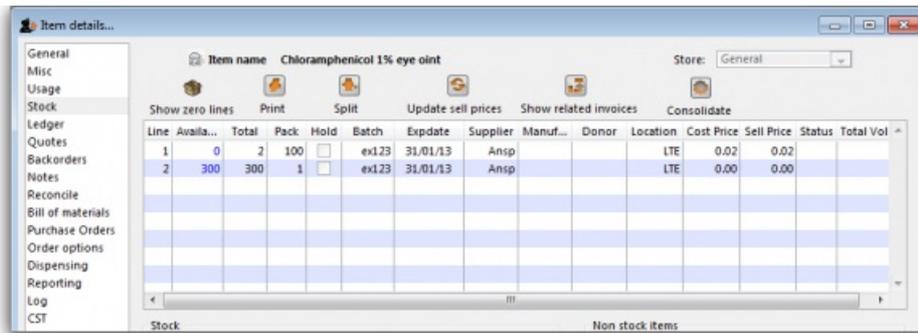
The **Item details** screen is displayed from the **Item > Show items** menu, by entering the first few characters of the item in the **Find item** window. From the list on the side bar, click **Stock**, and on the window which appears click on the appropriate line to select it; the window should now have this appearance:



Click the **Split** button, and fill in the appropriate details on the form - in this example the 3 packs of 100 are to be changed to 300 packs of 1.



Looking again at the Item details window, the stock is now displayed as 300 single units, and the store is now able to issue as little as a single tube, or any quantity up to the total available.



Previous: [7.02 Goods receipt](#) | Next: [7.04. Managing outstanding purchase order lines \(pipeline stock\)](#)

¹⁾ If you don't want to allow this, then simply turn the user preference off

7.04. Managing outstanding purchase order lines (pipeline stock)

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- [Filtering the list](#)
- [Finalising purchase orders](#)
- [Why can't we just un-finalise this PO ourselves?](#)

Stock that you have ordered and waiting to be delivered is called your pipeline stock. Sometimes it's helpful and important to monitor this stock so mSupply has functions to help you do that.

Pipeline stock is represented by all the outstanding purchase order lines i.e. purchase order lines on **confirmed purchase orders** which haven't been fully received into mSupply yet.

To see all your pipeline stock simply choose **Supplier > Show outstanding PO lines...** from the menus or click on the *Outstanding* icon in the Purchase orders section of the Suppliers tab on the navigator. This window will open:

PO #	Supplier...	Supplier Name	Item name	Order Confir...	Requested	Expected...	Days to E...	Adjusted Qua...	Qty Received	Qty Outstanding
59	UNPF	United Nations Population Fund	Male Latex Condoms - Social Marketing	04/03/2015	04/0...2015		0	2502144	0	2502144
53	CIPL	Cipla Limited	Ciprofloxacin 500mg Tablets	13/02/2015	13/0...2015		0	7690	0	7690
121	BMPC	BMS Pharmaceutical Company	Ciprofloxacin 250mg Tablets	28/07/2017	28/0...2017	28/0...2017	62	100000	0	100000
121	BMPC	BMS Pharmaceutical Company	Amoxicillin 500mg Capsules	28/07/2017	28/0...2017	28/0...2017	62	200000	0	200000
59	UNPF	United Nations Population Fund	Male Latex Condoms - Social Marketing	04/03/2015	04/0...2015		0	4499712	0	4499712
59	UNPF	United Nations Population Fund	Male Latex Condoms - Social Marketing	04/03/2015	04/0...2015		0	1499904	0	1499904

All lines in black are those where the expected delivery date (EDD) is after the current date i.e. where the *Days to EDD* column (which contains the difference between the EDD for a line and the current date) has a number greater than 0. These are items which are not yet overdue but, if the *Days to EDD* column contains a small number, you might want to call the supplier to check on the delivery.

All lines in red are those where the expected delivery date is on or before the current date i.e. where the *Days to EDD* column contains 0. These items are overdue and it probably means that the supplier could do with a call to find out what's happening with your delivery.

The *Adjusted quantity* column shows the actual number of items you ordered (number of packs x the packsize).

The *Qty received* column shows the number of items (number of packs x the packsize) you have already received into mSupply.

The *Qty Outstanding* column shows the remaining number of items on the order waiting to be received (*Adjusted quantity - Qty received*).

Double clicking on any line will open the Purchase Order with that line highlighted.

You can print the list of purchase order lines currently displayed in this window at any time by clicking on the **Print** button - as usual, you will be given the option of printing or exporting to Excel.

Update EDD button

If you speak with the supplier about a delivery or receive information from elsewhere about when goods are going to be delivered you can update the expected delivery date for those lines.

To do this, simply select the lines in the table that are affected then click on the **Update EDD** button. In the window that opens, enter the new EDD for the lines and click on the **Update** button. The EDD is immediately updated for the chosen lines and, if the lines were red, they will turn black.

Tip

You can select multiple lines to update using the usual Shift+click to select/deselect a range of lines and Ctrl+click (Cmd+click on Mac) to add/remove a line to/from what is currently selected.

Filtering the list

Sometimes the list of outstanding purchase order lines can be very long (just after running your annual tender for example, or when you have placed several large orders) and it can be hard to find a specific item or items expected from a particular supplier. To help in this situation, mSupply allows you to filter the displayed list.

To do this, select the type of filter you would like to apply by clicking on the filter icon (▼) just to the left of the textbox and select one of:

- *Search by supplier or code* - will show only those outstanding purchase order lines on purchase orders whose supplier name or code begins with what you type in the textbox
- *Item name or code* - will show only those outstanding purchase order lines whose item name or code begins with what you type in the textbox
- *Days to expected delivery is less than...* - will show only those outstanding purchase order lines with an expected delivery date less than the number of days you enter in the text box from the current date.

Then enter the value you wish to filter by in the textbox and click on the **Find** button. The list will then be changed to show only those purchase order lines matching the filter you have selected.

Finalising purchase orders

Any outstanding goods on **finalised** purchase orders will **NOT** be included in this window. So, if there are goods that you have ordered but will never receive from a supplier (maybe a substitute item has been shipped or you cancelled part of an order because a supplier said they couldn't deliver it), when everything else on the purchase order has been received you should finalise it. The goods on the purchase order that you have not received will then no longer be shown as outstanding in this window.

It is good practice to finalise purchase orders for which you have received everything because it also removes the purchase order from the list you can create a goods received note from (see [Receiving goods \(goods receipt function\)](#)), making it easier to find a purchase order you're wanting to create a goods received note for, and means that no changes can be made to the purchase order in the future.

But beware: don't finalise a purchase order **before** you have received everything the supplier is going to send because you won't be able to make any changes to it or receive goods against it using the [Receiving goods \(goods receipt function\)](#).

Why can't we just un-finalise this PO ourselves?

Purchase orders are a legal contract between you and your supplier, and are often the subject of particular attention by auditors. As such they must be protected from misuse.

When a PO is finalised, somebody with authority is saying "we are not receiving anything more on this PO". This will be because either:

- all ordered stock has been delivered
- the supplier has failed to supply in accordance with the PO contract and so is in breach of the contract. The decision to finalise the PO is then a decision to terminate the supply contract. It is **most irregular** for an organisation to turn around and say, "wait, we'll continue to deal with the supplier on this order even though the contract is in breach". Auditors will likely want to see good documented evidence to support why this was done. A new purchase order, needing new approval by management is normally the more appropriate way to proceed.

For this reason, mSupply does not have the facility for users to un-finalise a PO. However, mistakes can happen...

Alert

If you do *accidentally* finalise a purchase order and you need to receive more stock against it, then POs can be unfinalised. The following will be needed:

- Sustainable Solutions will need remote access to your database,
- An officer with authority must provide approval for the unfinalisation.

Sustainable Solutions keeps records of all communications and will be able to provide a copy of this approval to your auditor on request.

Previous: [7.03. Editing pack sizes](#) || Next: [7.05. Custom stock fields](#)

Last modified: 2020/05/19 00:22 by Mark Glover



7.05. Custom stock fields

Custom stock fields are a useful way of tracking your stock. You can think of them as providing stock tags or categories which can be seen wherever stock is viewed throughout the system and can be used for filtering reports.

There are 8 custom stock fields available. The first 4 are free text (the user can enter any text they like) and the final 4 allow the user to select values from preset lists defined by you.

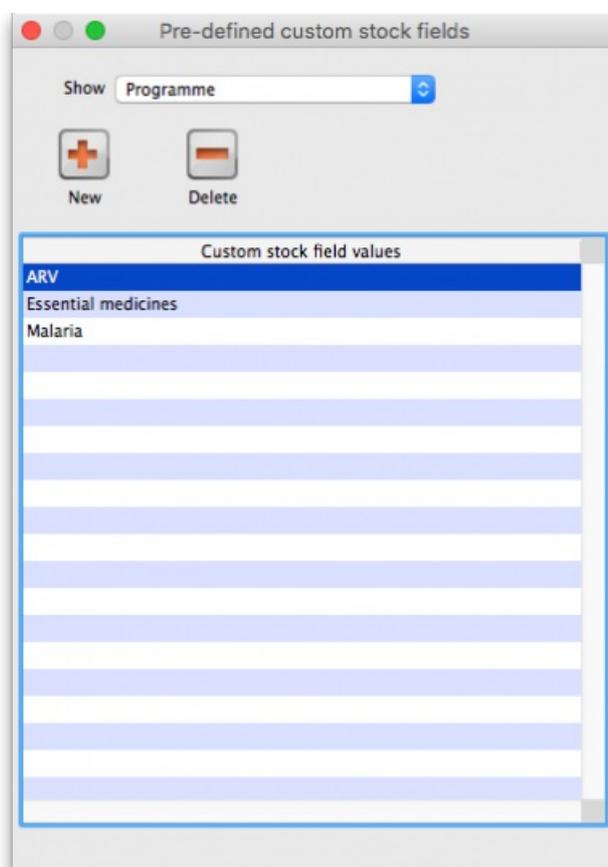
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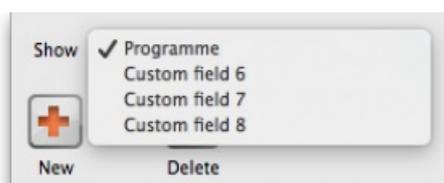
Setting them up

You turn them on in the stock tab of File > Preferences. See [here](#) for details.

To define the lists the user can select from for custom stock fields 5 to 8, click on the *Item > Show custom stock field value lists...* menu item. This window is displayed:



In the *Show* drop down list, select the custom stock field you want to add/edit/delete values for. Note that the items in the list will be “Custom stock field 5” to “Custom stock field 8” but those fields which have been given a Display name in the preferences will be replaced by it. In our example, Custom stock field 5 has been given the display name “Programme”:



The custom stock field values table below the drop down list shows all the values currently in the list for the selected field.

New button Click on this to enter a new item for list for the custom stock field currently selected in the show drop down list. Note that the list of items will always be displayed in ascending alphabetical order for a user to choose from.

Delete button select an item in the list and click on this button to delete an item from the list

Double click on an item in the list to edit its name

Using them

Now that they have been set up, when you receive goods in on a supplier invoice the enabled custom fields will appear on the supplier invoice line detail window. Enter the values in there as you receive stock into mSupply. The values will then appear wherever you see stock in the system e.g. on the stock tab of an item's details window.

The fields will also be available for filtering on when you are running any of the stock based reports.

Previous: [7.04. Managing outstanding purchase order lines \(pipeline stock\)](#) || Next: [7.06. Managing donors](#)

Last modified: 2020/03/13 17:38 by Gary Willetts



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7.06. Managing donors

What / who is a donor?

In mSupply, we have the idea of a 'name'. A name can be a customer, a supplier, a patient, ... or a donor.

A donor is the organisation that has either paid for, or somehow managed the supply of certain items.

Important

A donor *can* also be a supplier and / or a manufacturer or they can be just a donor. mSupply allows for any combination of that.

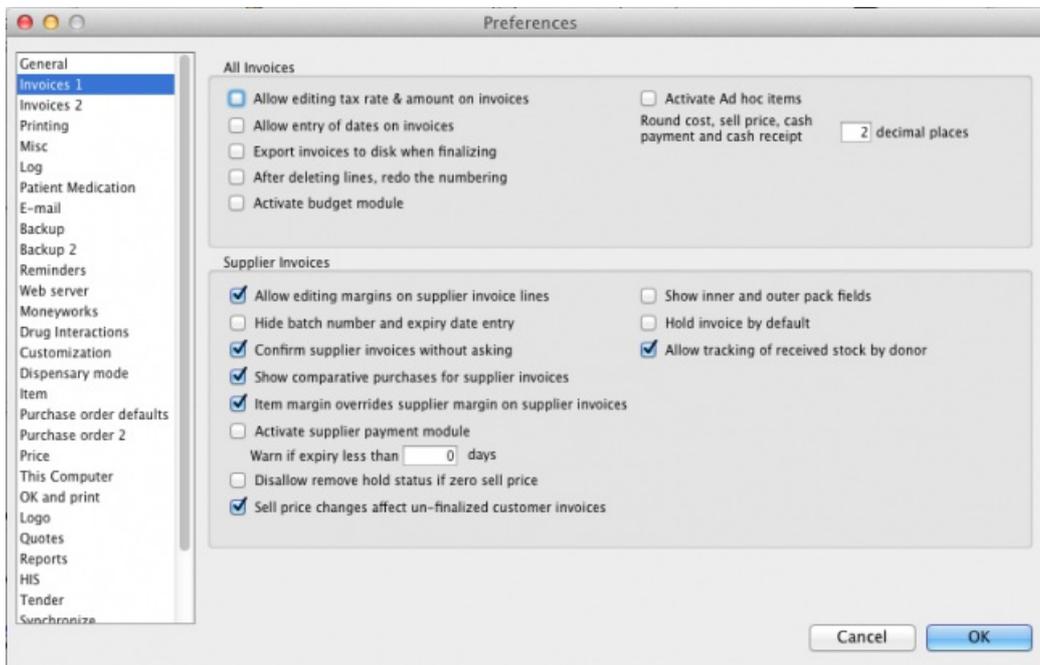
mSupply allows you to specify the donor for each incoming stock line independently of the supplier.

For example, GlobalFund might agree to supply certain malaria medicines, and then contract a supplier to deliver them to you. mSupply allows you to record this accurately, and to track and report on all the stock and transactions relating to those medicines donated by GlobalFund.

Using the donor module

To use the donor module, you must first turn it on:

- Click drop down menu **File>Preferences...**
- Click the **Invoice 1** tab in the left-hand list
- Check the box **Allow tracking of received stock by donor**



Once you have done this you can add donors and track stock by donor.

Adding or editing donors

To add or edit a donor you should first bring up the list of donors. Do this from the Navigator:

- Go to the **Suppliers** tab > **Show Suppliers** and check the box beside **Donors** so that the list shows donors rather than suppliers.

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- [Using the donor module](#)
- [Adding or editing donors](#)
- [Track a donor in mSupply](#)
 - [Donors and the purchase order](#)
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 - [Donors and the supplier invoice](#)
 - [Donors and the customer invoice](#)
- [Reporting](#)



Showsuppliers

Normal | Fuzzy

Name filter

Name contains

and District is

and Customer group is Don't Care

Search...

All names

Selection

Customers

Suppliers

Manufacturers

Donors

Exclude patients

Exclude hidden names

Complex Find Cancel Find

- Click **Find**. This will bring up a new window showing any donors that have been added to mSupply in your system
- You can edit a donor by double-clicking on it.
- You can add donors using the **New** tool bar at the top of the window. This will bring up a window like this:

New donor

General

Arch Foundation

Name

Code arch

Charge to arch

Name Arch Foundation

Master ID 0

Master name

Contact

email

web site

Phone

Fax

Status

Hold

Price Category

A

Store: General

Currency VUV

Supplier details

Margin 0

Freight factor 1

Printing

Print invoices alphabetically

Category

Customer

Supplier

Manufacturer

Benchmark

Donor

Other

Category 1 none

Category 2 none

Category 3 none

Category 4 none

Category 5 none

Category 6 none

Flag

Custom 1

Custom 2

Custom 3

Comment

Main/Billing Address

Address 1

Address 2

Address 3

Address 4

Address 5

Post code

Country

Postal address

Shipping address

Delete name

OK & Next Cancel OK

- Now add your donor details and click **OK**.

Track a donor in mSupply

Donors and the purchase order

- Create a Purchase Order in one of the usual ways - refer [Ordering Items From Suppliers](#).
- With donor tracking turned on, the Donor field will appear in the window - see below. The value you enter here will be tracked from this point on through to receipt, stock transfers and dispatch.

- In the **Donor** field type the first few characters of the donor name or code (or enter the wildcard character '@' in field) and press the **Tab** key on the keyboard. This opens the window below, showing the donor that match what you typed:

Name	Code
Arch Foundation	arch

- If your donor does not exist, you can add it at this point by clicking on the **New** button - see [Adding or Editing Donors](#) above.
- Once you have selected your donor, click on the **OK** button and the donor's name will appear in the **Donor** field:

Supplier invoice

Name: Central Medical Store Entry date: 22/05/2013 Colour: Black

Their ref: CMS Confirm date: 00/00/00 Invoice number: 2,229

Comment: goods received ID : 34 Status: nw

Category: None Goods receive ID: 34

Default Donor: Arch Foundation Purchase Order ID: 87

Entered by: sussol

Store: General

...	LO...	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension
1	TAB	AMOXICILLIN 250mg TAB/CAP	100000	10	ABC1234	30/09/2018	1.78000	1.78000	178,000.00000

Other charges

Item(s):

Amount: 0.00000

Subtotal: 178,000.00000

0 % tax: 0.00000

Total: 178,000.00000

Hold Export batch: 0

Finalize Margin: 0.00

OK & Next Delete OK

Default donor for each stock line

- Each stock line on a Supplier Invoice will inherit the **Default donor** from the Supplier Invoice.
- The **Default donor** can be edited.

Supplier invoice

Name: Abbot Laboratories (singapore PTE.LTD) Entry date: 11/01/2013 Colour: Black

Their ref: SNG102 Confirm date: 00/00/00 Invoice number: 0

Comment:

Category: None Goods receive ID: 0

Default Donor: UNFPA Purchase Order ID: 0

Entered by: Sussol

Store: General

...	LO...	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension
-----	-------	-----------	-----	------	-------	--------	------------	------------	-----------------

Other charges

Item(s):

Amount: 0.00000

Subtotal: 0.00000

0 % tax: 0.00

Total: 0.00000

Hold Export batch: 0

Finalize Margin: 0.00

OK & Next Delete OK

Changing the donor for a particular supplier invoice line

- There may be circumstances when delivered stock may be from a mix of donated and non-donated, or from different donors. You can change the donor for any stock line on a supplier invoice when editing the details of the stock line (double-click on the stock line).

Add/edit supplier invoice line...

Item 77/3310 New item

Quantity

Pack size **Cart/5**

Total quantity: 1 Location

Batch Volume per pack m3

Expiry Adjusted local cost (USD) % Margin Sell price

Invoice line unit cost (USD) Donor

If you change the **Default donor**, you will be presented with the following options:

Donor update confirm

You have entered or changed a donor. How do you want to affect existing invoice line(s) ?

Choose one of the options below

Do nothing

Update existing donor lines with this donor

Assign this donor to the lines with no donor

Assign this donor to all lines

- “Do nothing”: The change will have no effect on existing invoice line(s).
- “Update existing donor lines with this donor”: existing donor lines will be updated to match the newly selected donor.
- “Assign this donor to the lines with no donor”: lines with no donor selected will be updated with the newly selected donor.
- “Assign this donor to all lines”: all lines will be updated with the newly selected donor.

Donors and the customer invoice

Customer invoices, including stock transfers for donated goods are created in the usual way - refer [Issuing Goods to a Customer \(Customer Invoices\)](#).

- They key thing to note is that when selecting from the stock lines to add to the Customer Invoice, the donated stock lines can be distinguished from the other stock lines by the donor name in the **Donor** column - see below:

edit line

Item 40

Line Item category : 6.2.1 Beta Lactam Antibiotic

Quan of 100000

Pack ea Bulk/Outer pack size 0

L...	Issue	Available	Tot in st...	Pack	H...	Batch	Expdate	Supplier	Donor	Location	Cost Price	Sell price	Stz
1	0	0	2700	1	<input type="checkbox"/>	ANTUV00	30/06/201	CMS		TAB	1.86000	1.86000	
2	0	0	2400	1	<input type="checkbox"/>	ANTUV00	30/06/201	CMS		TAB	1.86000	1.86000	
3	0	160000	165000	1	<input type="checkbox"/>	ANTUV00	30/06/201	CMS		TAB	1.86000	1.86000	
4	0	116500	116500	1	<input type="checkbox"/>	6771204	30/04/201	CMS		TAB	1.86000	1.86000	
5	50	100000	100000	10	<input type="checkbox"/>	ABC1234	30/09/201	CMS	arch	TAB	1.78000	1.78000	

Total quantity issued 500
Total quantity available 1276500

Abbreviations

Abbreviation

Expanded directions

⚠ Important

mSupply will still suggest a stock line according to its selection criteria (primarily, FEFO). You will need to manually select the donated stock line if it is not the first expiring!

Reporting

Obviously, one of the points of entering all this donor information is to be able to report on it. When the donor tracking preference has been turned on, many of the stock based report filters in mSupply will have an additional donor filter added to them. Simply enter the donor filter settings you need, as appropriate, to filter the reports accordingly.

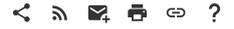
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Last modified: 2021/02/03 20:54 by Mark Glover



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User Guide



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- [8.02. Viewing customer invoices](#)
- [8.03. Backorders](#)
- [8.04. Electronic invoices](#)
- [8.05. Transferring goods to another store](#)
- [8.06. Box management](#)
- [8.07. Stock control methods for your customers \(requisitions\)](#)
- [8.08. Customer budgets](#)

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Last modified: 2020/01/14 08:50 by lou





8.01. Issuing goods to a customer (customer invoices)

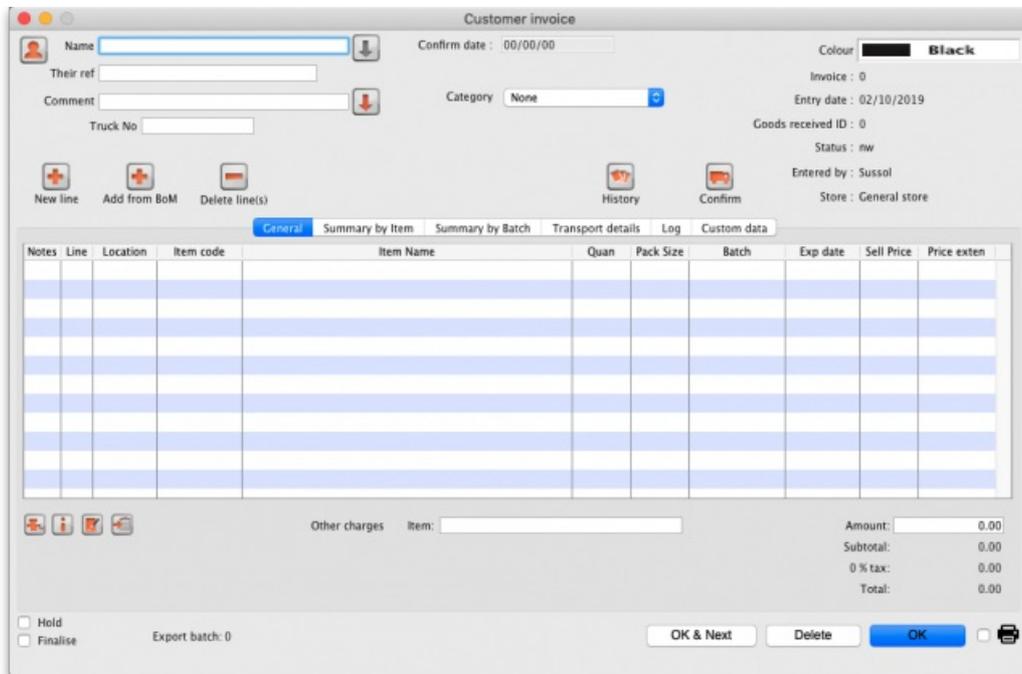
Creating a new invoice

Choose *Customer > New invoice*. A window like this will open:

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User defined fields are displayed in the above screenshot. To show or hide user defined fields go to *File> Preferences> Invoices 2*.

Information to enter in the main window

Name

Type as much of a customer name here as you know and then press *Tab*. If there is only one name that matches your choice, it will be entered automatically for you, otherwise you will be presented with a list of available choices. Once you have entered a valid name, the *New line* button will be enabled. If you can not find the name you are looking for, you can add a new name by clicking the person icon  to the left of 'Name'.

Info

By default, names with their code starting with a tilde (~) are not shown. This is a great way preventing a user selecting a name when it can't be deleted or hidden in a store - put a tilde character at the beginning of its code.

The downward pointing arrow to the right of the *Name* field takes you directly to the *Edit Customer/Supplier* window, giving access to all the information relating to the name entered

Their ref

Enter the customer's order number if there is one

Comment

Click on the downward pointing arrow to the right of the *Comment* field to display a window where any comment relating to this invoice can be noted.



Category

If you are using the category feature, and have defined them, the appropriate category is selected from the drop-down list.

User-defined transaction fields

If you are using the user-defined transaction fields, they will appear and can be filled in here. Should you wish to use them, they have to be activated in *Preferences>Invoices 2*, refer [Show customer transaction fields](#).

Read-only information on the invoice

There is some information on the top of the invoice that is read-only and cannot be edited:

- *Confirm date*: The date the invoice was confirmed. "00/00/00" if the invoice has not been confirmed. Note: this date can be made editable if the *Allow confirm date to be edited on invoices* preference is turned on. See the [15.03. Invoice preferences](#) page for details.
- *Invoice*: This is the invoice number. The number is automatically incremented and assigned when the invoice is first saved (which actually occurs when the first line is added to it) and is unique **within a store**. Note that customer invoices in different stores could have the same invoice number.
- *Entry date*: The date the invoice was created.

- **Goods received ID:** If the customer invoice is linked to a goods received note then its ID will appear here in blue, indicating that it is a link and, if clicked, will open the goods received note.
- **Status:** The current status of the customer invoice:
 - **nw** = new (just created, can still be edited, stock not yet removed from mSupply but available stock reduced so reserved stock can't be assigned to another invoice)
 - **sg** = suggested (has been opened since first creation, still editable, stock not yet removed from mSupply).
 - **cn** = confirmed (stock has been removed from mSupply but invoice is still editable).
 - **fn** = finalised (stock has been removed from mSupply and the invoice is no longer editable).

⚠ Important

In a multi-store system, a CI will not translate into a SI in the receiving store unless it is finalised. mSupply will warn you if the customer is another store in your system and you are trying to close a CI with status = **cn**.

- **Entered by:** The user name of the user who created the customer invoice.
- **Store:** The name of the store the customer invoice belongs to.

Buttons at the top of the customer invoice window

At the top of the Customer invoice window, there are a series of buttons:



New line

Will add a line to the invoice. This command can be used on any invoice that is not finalised. Clicking the button will present you with the window for adding a line from stock. See the [Adding lines to an invoice](#) section below for more details. To select a line to edit, simply double-click on it. Note that new line and edit line are disabled on finalised invoices.

Delete line(s)

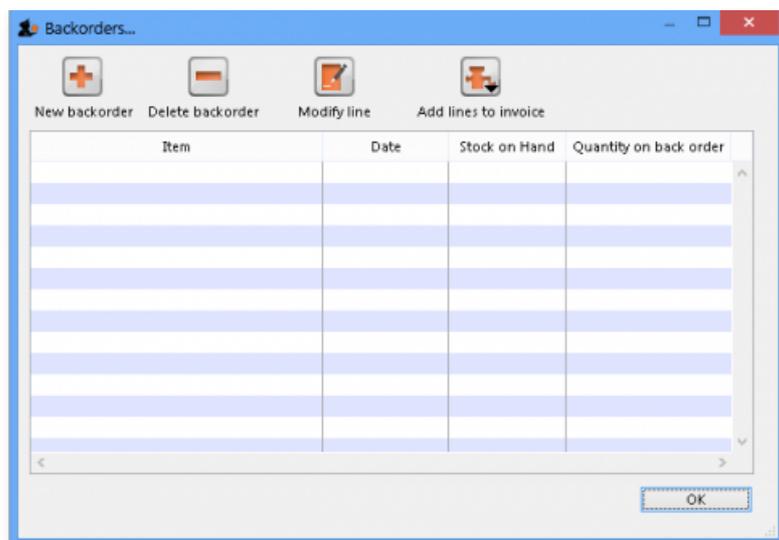
- Will delete any selected line(s).
- Selected line(s) will appear highlighted.
- Multiple selected lines do not need to be adjacent.

⚠ Important

Once an invoice has been finalised, you can not delete an item line from it.

Backorders

This icon is displayed only if 'We run a backorder system' is checked in the *Preferences > invoices 2* options - refer [We run a backorder system](#). Clicking this button shows you a list of items that are on backorder for the customer you have chosen. To view the backorder list of items, you must first confirm the transaction.



Info

Refer to [Issuing Goods - Managing Customer backorders](#) for a full coverage of the backorder topic.

History

Clicking on this icon will display a record of all that this customer has purchased in the past. This may produce a very long list! The list appears in chronological order, but clicking on any of the column headers will sort the list according to that parameter.

Confirm

When this button is clicked, the status of the order changes from **nw** (new) or **sg** (suggested) to **cn** (confirmed).

Info

If you have "confirm invoices automatically" set in the Preferences, the **Confirm** button will not be visible. The invoice will be confirmed as soon as you click on the **OK** button. Read below to see what confirmation does.

- The confirm button is only available for invoices with status **sg** (suggested).
- Confirming an invoice should be done when the goods have been *removed from the shelves* and have left the store or have been packed ready for dispatch). Most importantly, as far as mSupply is concerned, this stock is no longer in the store and a stocktake will not find it!

More detail around confirming a Customer Invoice:

- Each item line records two stock levels- the quantity is the total stock on the premises. the available amount is what can be issued on an invoice.
 - For example:
 - You have 10 bottles of Paediatric Paracetamol Elixir in stock.
 - You get an order for 3 bottles from Fred, and create an invoice for Fred. The *quantity in stock* is still 10, but *quantity available* drops to 7, as these 3 bottles are 'reserved' for Fred and can't be issued to anybody else.
 - You are about to dispatch the order. At this point you confirm the order. The *quantity in stock* also drops to 7.
 - In summary, the **Confirm** button does the following:
 - Each line has its *quantity in stock* reduced by the *amount issued* on that line
 - The Customer Invoice status changes to **cn**
- If you are running a backorder system, confirming a Customer Invoices also deletes any placeholder lines (those with a batch entry of "none") and adds them to that customer's backorder file.

Important

Modifications may still be made to the invoice (and those changes therefore directly affect the stock in mSupply). See [Confirming an invoice](#).

Info

If you have the store preferences set to force customer invoice authorisation, you will not be able to confirm customer invoices until they have been authorised. See [here](#) for details.

Buttons and checkboxes at the bottom of the Customer invoice window

At the bottom of the Customer invoice window, there are a series of controls.

Hold

Checking the *Hold* checkbox prevents the Customer Invoice from being confirmed or finalized.

Finalize

Checking the *Finalize* checkbox allows you to finalize an invoice when you click the *OK* button. Only users with *Can finalize individual invoices* checked in their user permissions can check this box. Other users will be warned if they try to turn it on, and the *Finalize* checkbox will automatically uncheck.

Important

If the *Finalize* checkbox is checked and you click the *Confirm* button, the invoice will be confirmed as well as finalised when the *OK* button is clicked, so be very careful! A finalised invoice may be viewed and/or printed, but it can not be edited.

Info

If the *Finalize* checkbox is checked but dimmed out, it means that *File>Preferences>Invoices 2>Finalize customer invoices automatically* is checked and all confirmed invoices will be finalised whether you like it or not!

OK & Next

The *OK & Next* button saves the changes you have made and exits the window. You are given the opportunity to print if the *Print* checkbox is ticked.

Delete

The *Delete* button allows the deletion of an invoice. If the invoice has a status of 'nw' you can delete the invoice even if has lines added. If the status is 'cn' or 'sg' you will have to delete the lines manually first - refer [Deleting line\(s\)](#). When an invoice has been deleted the invoice number that it was assigned will be reused.

OK

The *OK* button saves the changes you have made and exits the window. You are given the opportunity to print if the *Print* checkbox is ticked.

Printing the invoice

If the *Print* checkbox is ticked then print options will be presented when the *OK* or *OK & Next* buttons are clicked.

If the invoice status is 'nw' (new) or 'sg' (suggested), pick list options will be printable.

If the invoice status is 'cn' (confirmed) or 'fn' (finalized), invoice options will be printable.

Info

If the option to turn on the print check box has been set under *File>Preferences>OK and print*, you can override the printing process by holding down the *Shift* key as you click *OK*, and no invoice will be printed.

Tip

Instead of an invoice, should you wish to print a pick list for an invoice whose status is 'cn' or 'fn', hold down the *Alt* key (Windows) or the *Option* key (Mac) while clicking *OK*.

Tabs in the customer invoice window

The three tabs allow the invoice to be viewed in three different formats, but note that the lower area of the window remains the same and is available for appropriate input in all views.

General tab

Once an invoice has been created, a detailed view of the items on it may be seen by selecting this tab; where the supply of a single item is made up of different batch numbers, they will be displayed as separate lines:

The screenshot shows the 'Customer invoice' window with the 'General' tab selected. The window contains the following information:

- Name:** Highland Health Centre
- Their ref:** HC4
- Comment:** (empty)
- User defined 1-4:** (empty)
- Confirm date:** 00/00/00
- Category:** None
- User defined 2-4:** (empty)
- Colour:** Black
- Invoice:** 30,045
- Entry date:** 30/06/2015
- Goods receive ID:** 0
- Status:** sg
- Entered by:** Sussol
- Store:** General

N...	Li...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Price lc	Price lc ext	Sell Price	Price exten
1	AAA		Paracetamol 500mg tab	17	1000	8MH10	31/07/201	42.06	715.06	6.44	109.48
2	AAA		Amoxicillin 500mg cap	54011	1	M70123	30/10/201	0.24	13,054.45	0.03	1,998.41
3	TAB		Ciprofloxacin 250mg tab	90	1	07e01	27/02/201	0.26	23.51	0.04	3.60
4	TAB		Albendazole 400mg tabs	58	1	K90461		0.00	0.00	0.00	0.00
5	INJ		Dexamethasone 4mg/ml amp	66	1	07DP0201	28/02/201	12.93	853.55	1.98	130.68
6	AAA		Metronidazole 200mg tab	68	200	8112	30/06/201	6.53	444.15	1.00	68.00
7	AAA		Metronidazole 200mg tab	1	200	8113	30/06/201	0.00	0.00	0.00	0.00

Other charges: Item: (empty) Amount: 0.00

Currency: SBD
Currency rate: 0.1531
Foreign currency total: 15,090.78

Subtotal: 2,310.17
0% tax: 0.00
Total: 2,310.17

Buttons: Hold, Finalize, Export batch: 0, OK & Next, Delete, OK

Buttons in the General tab

There are a row of small icon buttons at the bottom left of the window. Hovering the mouse over each button gives a description of what it does.



Process button (grinder icon)

Clicking this button shows a menu with the following choices:

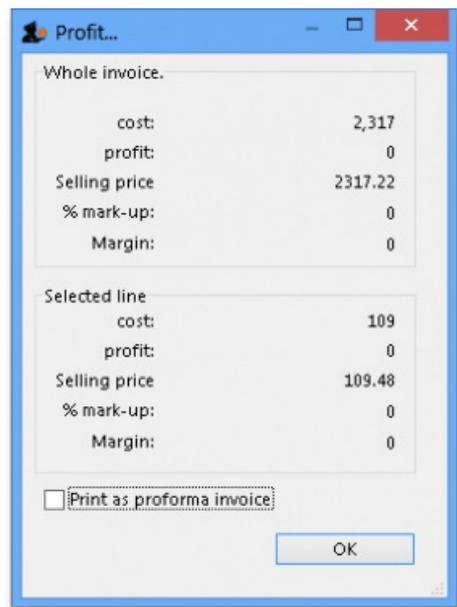
1. **Renumber lines:** will re-assign line numbers to all lines on the invoice according to their current order (you can move lines around by dragging and dropping to a new position).
2. **Issue stock for all placeholder lines:** This option will go through each placeholder line on the invoice and attempt to issue stock.

Info

- There are several factors that affect the success of the **Issue stock for all placeholder lines** operation, so you should review the automatic choices mSupply makes to ensure it is appropriate.
- mSupply will issue the oldest expiry stock first. There are good reasons why you might not want this to happen, including:
 - Availability of sufficient stock of the line in question
 - Pack sizes that fit with the quantity/pack on the placeholder line. mSupply will happily issue parts of a pack. In reality, you may wish to choose from a different stock line with different pack sizes!

Financial summary

Clicking this button shows you a summary of the cost and selling price information for the invoice.



The screenshot shows a dialog box titled "Profit..". It contains two sections: "Whole invoice." and "Selected line". Each section displays a table of financial data. At the bottom, there is a checkbox labeled "Print as proforma invoice" and an "OK" button.

Whole invoice.	
cost:	2,317
profit:	0
Selling price	2317.22
% mark-up:	0
Margin:	0

Selected line	
cost:	109
profit:	0
Selling price	109.48
% mark-up:	0
Margin:	0

Print as proforma invoice

OK

If you check the *Print as Pro-forma invoice* checkbox in this window, rather than printing a pick slip, a pro-forma invoice will be printed, allowing you to give a paying client a form showing expected charges.

Transaction note

Allows you to make a note relating to this invoice.

Copy to clipboard

Copies the entire invoice to the clipboard.

Summary by item tab

The Summary by Item tab displays the items on the invoice, consolidating different batch numbers and displaying the total quantities for each item only; the invoice above appears in the following format when the Summary by Item tab is selected.

Customer invoice

Name: Highland Health Centre
 Confirm date: 00/00/00
 Colour: Black

Their ref: HC4
 Invoice: 30,045

Comment:
 Category: None
 Entry date: 30/06/2015

User defined 1:
 User defined 2:
 Goods receive ID: 0

User defined 3:
 User defined 4:
 Status: sg

Entered by: Sussol
 Store: General

General | Summary by Item | Summary by Batch | Transport details | Log | MoneyWorks

Line	Item Name	Batch	Quantity	Selling p...	Price extension
1	Paracetamol 500mg tab	n/a	17000	0.00	109.48
2	Amoxicillin 500mg cap	n/a	54011	0.03	1,998.41
3	Ciprofloxacin 250mg tab	n/a	90	0.04	3.60
4	Albendazole 400mg tabs	n/a	58	0.00	0.00
5	Dexamethasone 4mg/ml amp	n/a	66	1.98	130.68
6	Metronidazole 200mg tab	n/a	13800	0.00	68.00

OK & Next | Delete | OK

Summary by batch tab

The Summary by Batch tab displays the items differentiating between batches, and showing a breakdown where more than one batch has been supplied on the order. The above invoice appears in the following format when the Summary by Batch tab is selected; note that two different batches of metronidazole tablets were supplied.

Customer invoice

Name: Highland Health Centre
 Confirm date: 00/00/00
 Colour: Black

Their ref: HC4
 Invoice: 30,045

Comment:
 Category: None
 Entry date: 30/06/2015

User defined 1:
 User defined 2:
 Goods receive ID: 0

User defined 3:
 User defined 4:
 Status: sg

Entered by: Sussol
 Store: General

General | Summary by Item | Summary by Batch | Transport details | Log | MoneyWorks

Line	Location	Item Name	Batch	Quantity	Pack Size	Selling p...	Price extension
1	AAA	Paracetamol 500mg tab	8MH10	17	1000	6.44	109.48
2	AAA	Amoxicillin 500mg cap	M70123	54011	1	0.03	1,998.41
3	TAB	Ciprofloxacin 250mg tab	07c01	90	1	0.04	3.60
4	TAB	Albendazole 400mg tabs	K90461	58	1	0.00	0.00
5	INU	Dexamethasone 4mg/ml amp	07DP02	66	1	1.98	130.68
6	AAA	Metronidazole 200mg tab	B112	68	200	1.00	68.00
7	AAA	Metronidazole 200mg tab	B113	1	200	0.00	0.00

OK & Next | Delete | OK

Transport details tab

Selecting this tab displays the following window:

Here you can add information about the method of transportation and other related information. You can then report on performance of your transport operations in various ways using the [Transport Report](#).

Order tracking data

The five date boxes enable you to track your order from it being generated (written) to the customer confirming receipt of it (actual arrival date). The five date fields are:

- **Order written date:** The date the customer wrote the order (this will usually be on their requisition form).
- **Order received date:** The date the customer's order was received by you
- **Order shipped date:** The date the order left your store
- **Expected arrival date:** Given the shipping method you're using, when you expect the goods to arrive at the customer's premises.
- **Actual arrival date:** The date the goods reached the customer you are supplying. Obviously you will only know this if they report the information back to you (e.g. via SMS message)

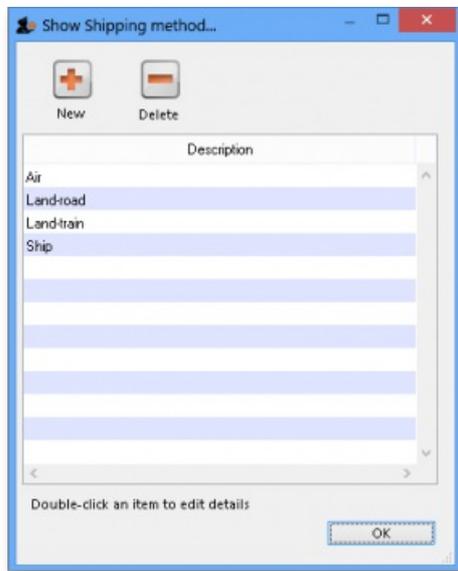
If you use these date fields, it allows reporting using the [Transaction Report](#) using the report form *Order Processing time*. Sometimes it is necessary to edit these dates after finalisation of a customer invoice so there is a special permission for users to allow them to do this (on the User details page, *Permissions 2* tab - see [Managing users, the Permissions tabs](#) for details).

Info

- You can make the *Order written date* and *Order received date* fields compulsory in *File > Preferences, Invoices 2 tab* as explained in *Invoices preferences*.
- You can add a *Shipped to* contact name if you select *Choose contact for transport details* in *File > Preferences, Invoices 2 tab* as explained in *Invoices preferences*

Shipping method

The list of options in the **Ship method** drop down list is set by choosing **Customer > Show shipping methods...**, when you are shown a window with a list of existing shipping methods:



To enter a new method, click the **New** button. To edit an existing method, double-click the item in the list and edit its details. To delete a method, click on it in the list to select it then click on the **Delete** button. You will not be able to delete a shipping method if it is being used by a customer invoice.

Responsible officer

The choice list for Responsible officers is a list of mSupply users for whom the "Can be responsible officer" check box has been checked. Choose *File>Edit users...*, then double-click a User Name to set up each user as a responsible officer (or remove them from the responsible officer list)

Box management and label printing

The Box Management feature is used to tell mSupply which items were put in which 'box' or container for transporting to your customer. This has a few advantages:

- You can print labels from mSupply to stick on each box (either from a label printer or a normal A4 paper printer - see the [Printing an invoice: Picking slips and delivery notes](#) section below for details).
- You can create (automatically or manually) weight and volume information which can be printed on the packing list or passed to your freight handlers.
- It tells the customer what's in each box to help their goods-inwards processing.

For details about how to use this feature, please see [Box management](#).

This is an example of a box label printed from a normal A4 paper printer:

Highland Medical Hospital			
Package Label			
<u>Shipper</u> Highland Medical Hospital		<u>Consignee</u>	
		Facility: Highland Health Centre	
		To be received by: David	
		Title: Director of Pharmacy	
		Email:	
		Phone:	
		Name of Sub Recipient:	
		Additional information (if needed):	
BOX NO: Carton A (1 of 1)			
Invoice Number:	30046	Weight (kg):	0
		Volume (m3):	0
PHARMACEUTICAL & OTHER ITEMS Store the product according to Manufacturer Storage instructions			

Log tab

Added: version 3.1

The log tab displays changes to the invoice that have been logged. Details of all logged activities are record in the [mSupply Log](#).

MoneyWorks tab

If you are using the Moneyworks accounting software then the link between mSupply and Moneyworks will need to be enabled in *File>Preferences>Moneyworks* - refer [General Preferences - Moneyworks](#). If this option has not been enabled, then the Moneyworks tab will not be visible.

The Moneyworks tab will show the status of the invoices inside Moneyworks accounting software once mSupply has carried out an export.

Custom data tab

This tab shows the custom fields that have been set up for customer invoices (see the [Custom fields](#) section for details).

All custom data will be saved with the invoice (i.e. when you click the *OK* or *OK & Next* button).

Adding lines to an invoice

Clicking *New line* will bring up the *Add Item...* window:

Finding the item you want

The first thing to enter is the Item Name or Item Code in the *Item* field. Type as much of the Item Name as you know, then press *Tab*. mSupply searches for all Items whose Name or Code starts with the text you have typed.

Info

By default Items with a Code starting with a tilde (~) are not shown. This is a great way preventing a user selecting an item that shouldn't be used when it can't be deleted or hidden in a store - put a tilde character at the beginning of its code.

If no entries match the request, the *Item* field will read '*try again*'. You can try as many times as you like! If you conclude that the Item you want does not exist in your system, click *New item* to add the Item.

Important

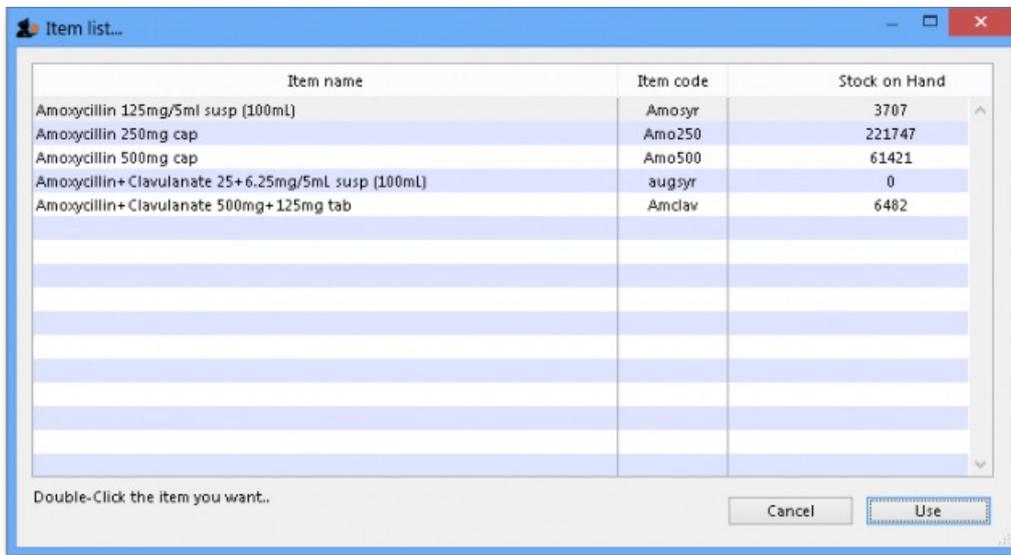
Caution should be exercised before adding a new Item to your mSupply system. Duplicate items cause problems. Ensure that the item you are looking for does not already exist in your system and is hidden in the store you are logged into or is under a different Item Name and Item Code.

If only one Item matches your request, it will be chosen automatically and you will be returned to the *Add item...* window with that Item already selected.

Tip

If your mSupply system has been set up with unique Item Codes for each Item, then the experienced user will find that typing in the full Item Code here will save mouse clicks and/or key presses.

If more than one Item matches your request, all of them will be displayed.



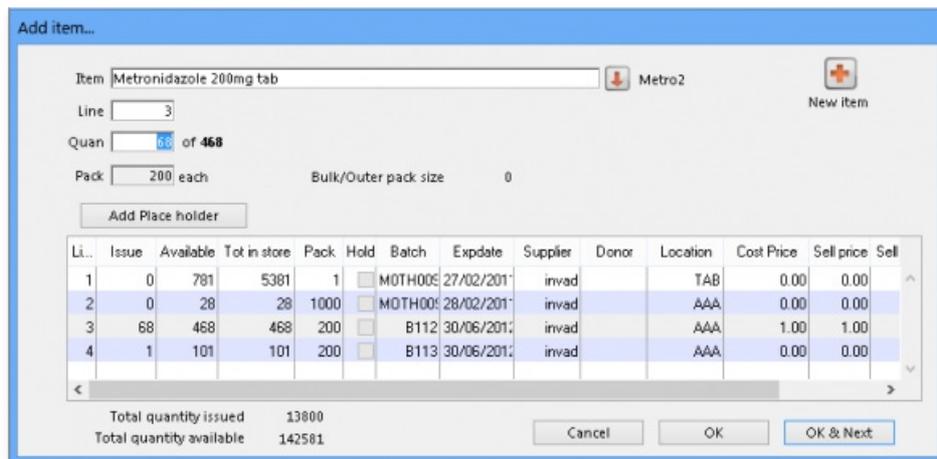
Note: if the **Show item unit column when issuing** store preference is turned on (see the [25.08. Virtual stores](#) page for details) then an *Item unit* column will also be included in the table.

If the wanted Item is visible, double-click on it or click on it once and then click *Use*.

If the wanted Item is not visible, click *Cancel* to try again to find it.

Selecting from stock lines

Once the item you want has been selected, the *Add item...* window will display a list of available stock lines (if any). Each stock line may be a different pack size, batch, expiry, or price. The stock lines are sorted by expiry date; first expiry at the top.



The lines are numbered in the left hand column and sorted according to these values, in this order:

- Expiry date (earliest expiry date at the top i.e. in FEFO order; **F**irst **E**xpiry, **F**irst **O**ut)
- Then, for all stock lines with identical expiry date, by location priority (lowest priority number first; see the [4.06. Stock locations and location types](#) page for details).
- Then, for all stock lines with identical expiry dates, in locations with identical location priority, by Location code in ascending alphabetical order.
- Then, for all stock lines with identical expiry dates, in locations with identical location priority, in locations with the same code (including the same location!) by batch number (ascending alphabetically).
- Then, for all stock lines with identical expiry dates, in locations with identical priority and code and with identical batch numbers, the number of available packs (in ascending numerical order i.e. smaller quantities first).

The first line is selected by default but you can choose another line in one of three ways:

- Type the line number into the *Line* field and press *Tab*. The cursor moves to the *Quan* field.
- Double-click on the line in the list. That line number is displayed in the *Line* field and the cursor moves to the *Quan* field.
- Single-click on the line in the list. Clicking again in the *Issue* column will allow you to directly edit the issue amount in the list - see following.

Once you have chosen your line, the number of packs available will be shown to the right of the *Quan* field, the *Pack* size will be shown in the *Pack* field, and the total quantity to be issued will be shown below the list of lines.

In the *Quan* field, you can enter any number greater than zero.

Tip

If you need to see the full details of the item itself, click on the down arrow icon () to the right of the item name field and you will be taken to the item's details window.

⚠ Important

The number entered in the *Quan* field is the number of **packs**. The pack size of the currently selected line will be used to calculate the total quantity of units issued - which is shown below the list of lines as **Total quantity issued**.

Custom data fields for invoice lines

If you have entered any custom data fields for the *trans_line* table (see the [16.11. Custom fields](#) page for details) then, when you have selected the item, the stock lines will appear on a *Select stock* tab like this:

Line	Issue	Available	Tot in st...	Pack	Hold	Batch	Expdate	Supplier	Donor	Location	Cost Price	Sell p
1	0	62	62	60	<input type="checkbox"/>	3059038	30/09/2020	invad		-Floor-	0.00	
2	0	228	228	60	<input type="checkbox"/>	3078584	31/12/2021	invad	G/F	B12A	9.25	

and the *Custom data* tab will display the *trans_line* custom data fields you created in the preferences like this:

These custom data fields are all enterable and you can enter values as required. If you come back to this window when editing customer invoice lines later, the custom data fields will also be available for editing.

Issuing from a single line

If the number entered in the *Quan* field is less than or equal to the number available for the selected line, then that value will be shown in the *Issue* column in the list.

Click *OK* to return to the main invoice screen, or *OK & Next* to add another Item.

Please note: If the **Allow editing selling price on customer invoice lines** store preference is turned on (see [Virtual store preferences](#)) and the **Price editable when issuing** checkbox on the General tab of an item's details page (see [item basics - General tab](#)) is turned on then there will be an extra **Sell price** field for the user to enter the desired selling price for this customer invoice line:

packs), then you can add a *placeholder line* that will record the desired quantity and pack size until either you get stock, or go to confirm the order, at which time the item will be either moved to backorder or deleted (depending on how you have set your Preferences).

A Placeholder line can be added manually or automatically.

Manually adding a placeholder line

A Placeholder line can be added by clicking the *Add Place holder* button.

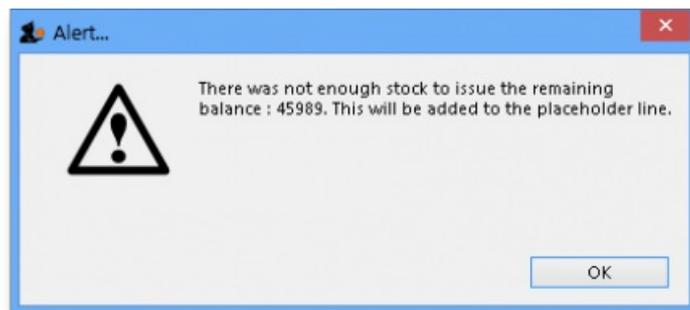
As shown in the window displayed below, placeholder lines are coloured in red and have a batch of "none" so you can easily identify them.

Li..	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Donor	Location	Cost Price	Sell price	Sell
1	45989	0	0	1	<input checked="" type="checkbox"/>	none					0.00	0.00	
2	54011	54011	61421	1	<input type="checkbox"/>	M70123	30/10/2010			AAA	0.03	0.03	

The quantity to be issued in the placeholder line is entered in the same way as any other Item Line - refer [Manually issuing from multiple lines](#)

Automatically adding a placeholder line

If the number entered in the *Quan* field is greater than the total stock available from all of the available lines, then mSupply will prompt you with an Alert:



After clicking OK, all existing stock lines will have the *Issue* column populated with the total quantity available for each line, and a placeholder line will be created with the outstanding quantity inserted in the *Issue* column.

Info

If you have allowed placeholder lines in the Preferences, and you choose an item that has no available stock, a placeholder line will be created automatically.

Confirming an invoice with placeholder lines

When confirming an invoice that has placeholder lines, the following actions will occur:

- If you have activated backorders, a backorder line will be created for each placeholder line.
- If you have set the Preferences to delete placeholder lines when confirming, they will be deleted, otherwise they will remain on the invoice to show the client that their order was received, but the goods were not supplied.

Issuing all available stock of a batch

Sometimes you might end up with an unusual available amount of a particular batch. Due to the fact that mSupply rounds the available quantity, it may be hard to enter the exact amount to completely issue the batch. In such situations you can issue the total amount available by holding down the shift key while you double-click a line. This will issue the total available amount of that batch.

Lines on hold

Sometimes you will see that a stock line has a tick in the tick-box in the **Hold** column and the line cannot be selected for issue, like the bottom one in this screenshot:

Item: Albendazole 400mg tabs Albe400

Line: 1 New Item

Quan: 58 of 358

Pack: 1 each Bulk/Outer pack size: 0

Li...	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Donor	Location	Cost Price	Sell price	Sell
1	58	358	358	1	<input type="checkbox"/>	K.90461		invad		TAB	0.00	0.00	
2	0	100	100	1	<input type="checkbox"/>	30956	30/10/2011	invad		TAB	0.00	0.00	
3	0	13650	13650	1	<input checked="" type="checkbox"/>	0440258	30/10/2012	UNICEF		TAB	0.00	0.00	

Total quantity issued: 58
Total quantity available: 14108

There are two possible reasons for this:

- The *stock line* itself is On Hold - see the [Editing a stock line](#) section for details.
- The *location* is On Hold - see the [Locations and location types, Adding a location, General](#) tab section.

You can find out whether it is the stock line or location (or both!) that is On Hold by double clicking on the line in question. If it is the location that is on hold then, in the window that has opened, the **Hold** checkbox on the **General** tab will not be checked. If the item line itself is on hold then it will be checked.

If there is insufficient stock in 'off-hold' stock lines to fulfill the invoice, a placeholder line can be created.

Adding lines from a bill of materials

Added: version 3.72

If the "Show 'Add from BoM' button" preference is turned on (see [here](#) for details) there will be an additional *Add from BoM* button on the customer invoice form:

Name: ↓

Their ref:

Comment: ↓

General Summary by Item

...	L...	Location	Item Name	Quan

When you click this button it shows you a list of all the Bills of Material that exist in mSupply. Select one of those then mSupply will add all the items on that bill of materials (with the quantities they have on the bill of materials) onto the customer invoice as placeholder lines. You can then assign stock to the placeholder lines in the normal way (see, for example, [Editing a placeholder line on an invoice](#) below).

See the [Bill of materials](#) section for details about creating and using bills of material.

Editing an invoice line

To edit an invoice line, double-click on it. You will be presented with the *Edit line* window, which is identical to the *New line...* window, except that the item name is already chosen.

Info

In the *Edit line* window the quantity you have already chosen is added back into the *Available* stock column. You are viewing the stock records as if the line has not yet been processed.

Similarly, any other invoice lines for the same item are also shown in the same way; the *Issue* column is filled out with the amount being issued from each batch on the invoice and the *Available* column **includes** the Issue amount.

For example, in the window below, there are three lines on the invoice for different batches of paracetamol, and all three are shown when editing, irrespective of which of the three lines was double-clicked.

At this stage you can:

- Edit the *Issue* value for the selected line item, or change the value in the *Quan* field
- Select a different item line (that is, a different batch) and edit it's *Quan* or *Issue* value.
- Click in the item name field, and select an entirely different item!

⚠ Important

Selecting a different item has the following effects

- If you proceed to issue the new item, all invoice lines for item you were editing will be deleted, and invoice lines will be added for batches being issued of the new item.
- If you choose a new item for which there is already an invoice line(s) on the invoice, the stock to be issued on those lines will be shown in the "issue" column. If you proceed you are effectively editing the quantities of the item you have just selected, and you are deleting all invoices lines of the item that was originally on the invoice.

Changing the batch to be issued

If you want to choose a different batch for an existing invoice line:

- double-click the invoice line
- set the quantity of the batch you don't want to zero,
- double-click the batch you do want, and enter the quantity you want to issue.
- Note that if possible the new batch will be added to the invoice at the bottom of the other lines, and the former invoice line will be deleted. You can use drag and drop to reorder invoice lines if this is a problem.

Editing a placeholder line on an invoice

When you double-click a placeholder line, an extra button is displayed:

The Redistribute all button takes the quantity on placeholder lines and re-assigns it to actual batches in stock.

When you are not editing a placeholder line, the button is not visible.

Invoice line custom data

If you have custom data fields created for the trans_line table in the preferences then the custom data tab will be visible and you can also edit the custom data field values. See the [Custom data fields for invoice lines](#) section above for more information.

Reordering invoice lines

Invoice lines can also be reordered by drag-and-drop of a line to a new location. This can be useful to group lines for the same item.

If the invoice lines are currently sorted by line number, the renumbering will happen, otherwise you will be shown an alert message.

If you really want to reorder lines when sorted by a different column, hold down the shift key as you drag-and-drop to override the message.

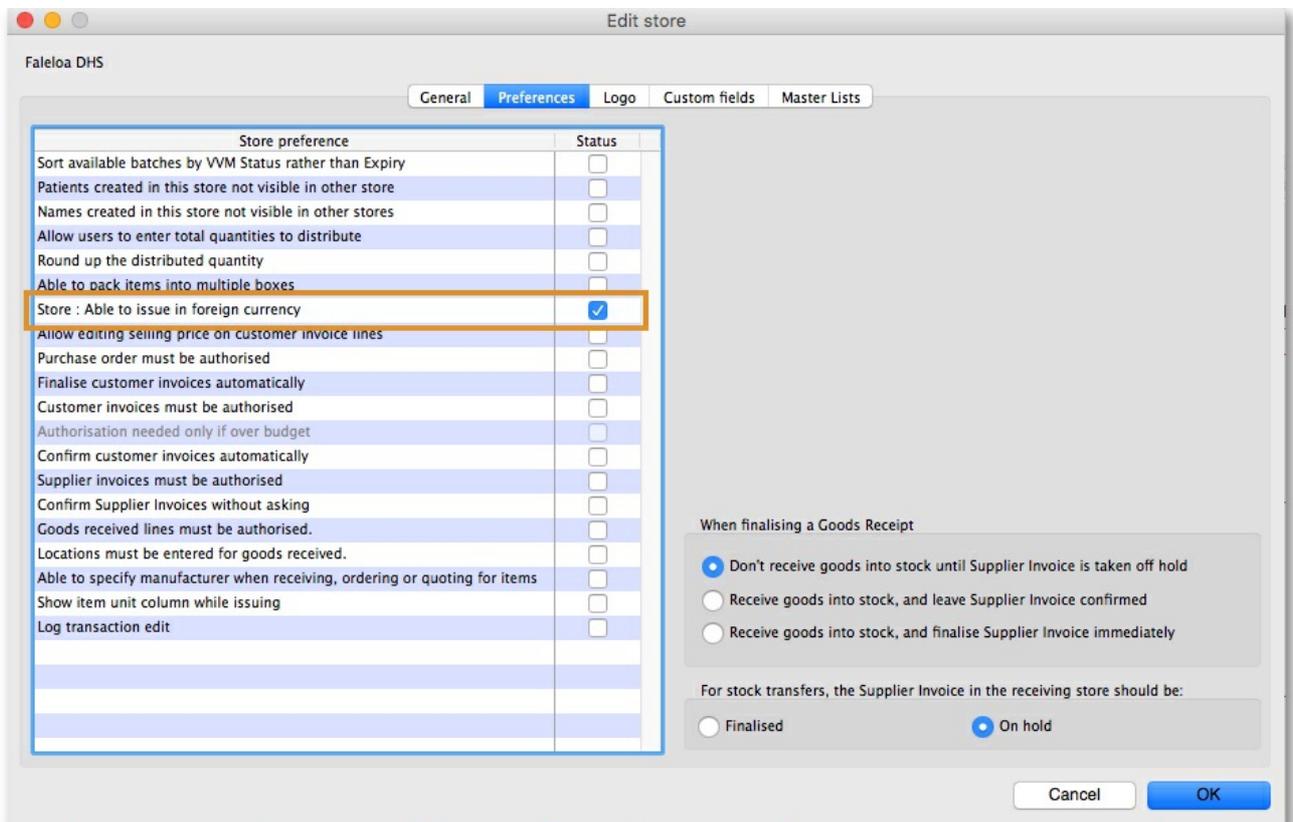
Note that reordering can not be undone, apart from you manually dragging lines back to their original location.

Tip

- Lines in most mSupply forms can be sorted according to any column by clicking on the heading of the column that you want to sort by.
- To make any sort order 'stick' when it is printed, you will need to renumber the lines - refer [Issuing Goods to a Customer \(Customer Invoices\)](#), [The Grinder button](#) above.
- A common desired sort order for a pick slip is to sort lines by Location, so that when a pick slip is printed, the picker can work their way through the store systematically by Location. In fact, this is such a popular feature, we have set a printing preference so that it will happen automatically without needing to manually sort the list - refer [Printing Preferences](#) 😊

Currency settings

If you have customers that use a currency other than your own, mSupply can be configured to use your customer's own currency. Firstly you need to make a selection in the Store's preferences to enable issuing in a foreign currency.



The screenshot shows the 'Edit store' window for 'Faleloa DHS'. The 'Preferences' tab is active, displaying a list of store preferences. The preference 'Store : Able to issue in foreign currency' is checked. Other preferences include 'Sort available batches by VVM Status rather than Expiry', 'Patients created in this store not visible in other store', 'Names created in this store not visible in other stores', 'Allow users to enter total quantities to distribute', 'Round up the distributed quantity', 'Able to pack items into multiple boxes', 'Allow editing selling price on customer invoice lines', 'Purchase order must be authorised', 'Finalise customer invoices automatically', 'Customer invoices must be authorised', 'Authorisation needed only if over budget', 'Confirm customer invoices automatically', 'Supplier invoices must be authorised', 'Confirm Supplier Invoices without asking', 'Goods received lines must be authorised.', 'Locations must be entered for goods received.', 'Able to specify manufacturer when receiving, ordering or quoting for items', 'Show item unit column while issuing', and 'Log transaction edit'. There are also radio button options for 'When finalising a Goods Receipt' (selected: 'Don't receive goods into stock until Supplier Invoice is taken off hold') and 'For stock transfers, the Supplier Invoice in the receiving store should be:' (selected: 'On hold').

Store preference	Status
Sort available batches by VVM Status rather than Expiry	<input type="checkbox"/>
Patients created in this store not visible in other store	<input type="checkbox"/>
Names created in this store not visible in other stores	<input type="checkbox"/>
Allow users to enter total quantities to distribute	<input type="checkbox"/>
Round up the distributed quantity	<input type="checkbox"/>
Able to pack items into multiple boxes	<input type="checkbox"/>
Store : Able to issue in foreign currency	<input checked="" type="checkbox"/>
Allow editing selling price on customer invoice lines	<input type="checkbox"/>
Purchase order must be authorised	<input type="checkbox"/>
Finalise customer invoices automatically	<input type="checkbox"/>
Customer invoices must be authorised	<input type="checkbox"/>
Authorisation needed only if over budget	<input type="checkbox"/>
Confirm customer invoices automatically	<input type="checkbox"/>
Supplier invoices must be authorised	<input type="checkbox"/>
Confirm Supplier Invoices without asking	<input type="checkbox"/>
Goods received lines must be authorised.	<input type="checkbox"/>
Locations must be entered for goods received.	<input type="checkbox"/>
Able to specify manufacturer when receiving, ordering or quoting for items	<input type="checkbox"/>
Show item unit column while issuing	<input type="checkbox"/>
Log transaction edit	<input type="checkbox"/>

When finalising a Goods Receipt

Don't receive goods into stock until Supplier Invoice is taken off hold

Receive goods into stock, and leave Supplier Invoice confirmed

Receive goods into stock, and finalise Supplier Invoice immediately

For stock transfers, the Supplier Invoice in the receiving store should be:

Finalised On hold

Cancel OK

Once you have done this, you can select a currency for a customer from the edit customer window.

Printing an invoice: picking slips and delivery notes

You can print an invoice at any time when it is open in two ways:

1. by checking the print icon checkbox (next to the **OK** button) and clicking the **OK** button:

N...	Li...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Price to	Price to ext	Sell Price	Price exten
1	AAA	AAA	Paracetamol 500mg tab	17	1000	8MH10	31/07/201	42.06	715.08	6.44	109.48
2	AAA	AAA	Amoxicillin 500mg cap	54011	1	M70123	30/10/201	0.24	13,054.45	0.03	1,998.41
3	TAB	TAB	Ciprofloxacin 250mg tab	90	1	07c01	27/02/201	0.26	23.51	0.04	3.60
4	TAB	TAB	Albendazole 400mg tabs	58	1	K90461		0.00	0.00	0.00	0.00
5	INJ	INJ	Dexamethasone 4mg/ml amp	66	1	07DP0201	28/02/201	12.93	853.55	1.98	130.68
6	AAA	AAA	Metronidazole 200mg tab	68	200	8112	30/06/201	6.53	444.15	1.00	68.00
7	AAA	AAA	Metronidazole 200mg tab	1	200	8113	30/06/201	0.00	0.00	0.00	0.00

2. by holding down the Shift key on the keyboard and clicking the print icon instead of checking it.

Method 1 will close the invoice after printing, method 2 will leave it open after printing.

But note: you print different things depending on what status the invoice has:

- If the invoice is suggested (sg) then a picking slip is printed.
- If the invoice is confirmed (cn) or finalised (fn) then a customer invoice or delivery note is printed.

Whether you use method 1 or 2, you are shown the print options window:

Form to use: Delivery note with logo

Remember this choice:

Print dispatch labels:

Message: [Empty text area]

Destination:

- Printer
- Preview
- PDF file on disk
- Email PDF
- Export to Excel

Cancel OK

The **Form to use** drop down list contains all the options for the format of the print out you will get. All the standard mSupply options will be here, as well as any custom forms we have created for you.

If the form you selected to use wasn't the one offered by default and you want to set it to be the default from now on (beware, this will set it for everyone!) then check the **Remember this choice** checkbox before you click on the **OK** button.

If you want to print dispatch labels to go on each box then check the **Print dispatch labels** checkbox. This will print labels on 100x150mm labels on a label printer, not the usual A4 paper printer you print the picking slips and delivery notes with so you must have configured that in mSupply first - see [Printing preferences \(setup\)](#) for details on how to do this. If you only want to print the dispatch labels and not a delivery note then select the **None** option in the **Form to use** drop down list.

The print **Destination** options:

- **Printer:** the invoice will be printed out straight away.
- **Preview:** a preview of what the invoice will look like when it is printed will be displayed in your installed PDF file reader. You might be able to print the invoice from the PDF reader, depending on its features.
- **PDF file on disk:** the invoice will be saved to disk in PDF format.
- **Email PDF:** the invoice will be created as a PDF file and attached to an email for you to send. You can double-click the email attachment to see a preview of the invoice. The email preferences in *File > Preferences* should be setup correctly before using this feature.
- **Export to Excel:** the invoice will be exported as a spreadsheet file and opened for you (provided you have a spreadsheet application installed).

The general process for distributing your goods should be this:

1. Create the customer invoice (new or suggested status).
2. Print the picking slip and give it to the staff who will pick the goods off the shelves.
3. As the goods are picked, note down any discrepancies between what was actually picked and what was on the picking slip.
4. When the pick is complete, enter any changes into the customer invoice in mSupply (Note that inventory adjustments or location adjustments of stock may be needed to correct issues found by the pickers). This step is very important to make sure your stock remains accurate in mSupply.
5. Confirm the customer invoice when it matches exactly what was picked.
6. Print the invoice again - this time a delivery note is printed.
7. Send off your goods with the delivery note!

Info

A note about picking order on picking slips

You can print picking slips by item name in alphabetical order (the default) or, if this does not match the way goods are stored in your warehouse, you can change the order to make the top-to-bottom picking order more efficient. Use location priority (see [Locations and location types](#)) and the printing preferences (see [Printing preferences](#)) to achieve almost any order you want to match the most efficient way of picking in your warehouse.

Entering a service line on an invoice

All “normal” customer invoice lines represent the issue of stock lines to a customer. (These lines appear in the large section in the middle of the “Customer invoice” window).

mSupply also allows you to charge a customer for “service” item(s) such as freight, or advice or a refundable deposit on a cool box.

Enter the description and amount at any time until the invoice is finalised.

Note: the “subtotal” amount on the invoice includes any service charges, and tax (if any) will be added to the amount you enter.

Editing tax on invoices

The tax rate on an invoice is determined by the “default tax rate” setting in the mSupply Preferences.

To edit the tax rate on an invoice, click on the tax rate box at the bottom of the invoice entry window. You will be asked to enter a new percentage tax rate. Click the *cancel* button if you do not want to change the tax rate.

Note: you can not change the tax rate on finalised invoices.

Finalise the invoice

Finalising the invoice prevents any further editing of the invoice.

Alert

Also, if the customer is a [store](#) in your mSupply system then you **MUST** finalise the CI for the receiving store to be able to process receipt of the stock.

- If this CI has been created (automatically) as a result of a [Purchase order](#), then finalising the CI in your store will result in creation of a Goods Receipt in the ordering store
- If this CI has been created (manually) as a result of an [Internal order](#), then finalising the CI in your store will result in creation of a Supplier Invoice in the ordering store

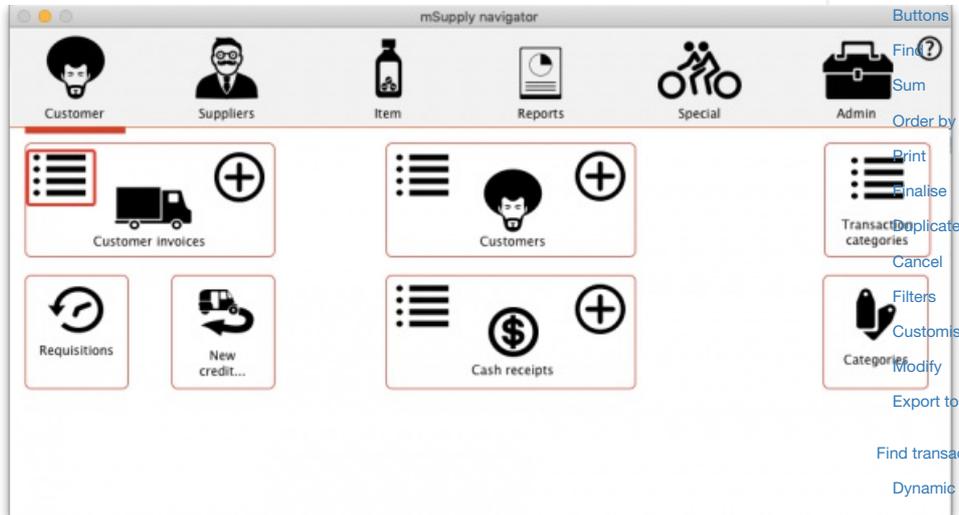
Previous: [8. Issuing Goods](#) | | Next: [8.02. Viewing customer invoices](#)

Last modified: 2022/02/16 01:23 by Mark Glover



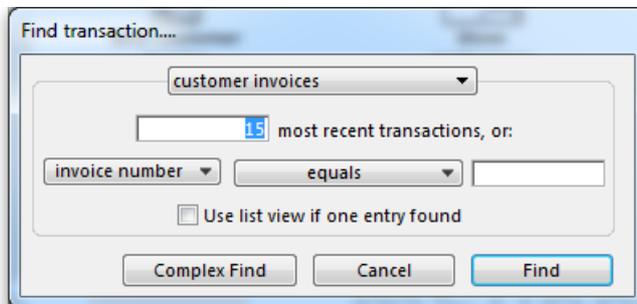
8.02. Viewing customer invoices

To view or edit any customer invoice, choose **Customer > Show invoices** from the menu or click on the *Show me a list* icon in the *Customer invoices* section on the Customer tab of the Navigator:



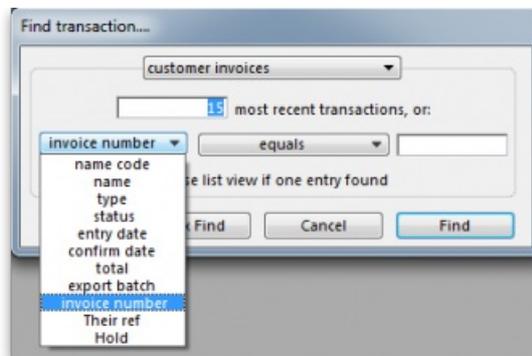
Find transactions window

You will be presented with this window:



If you just press *Enter*, that is the same as clicking on the **OK** button, and it will display a list of the 15 most recent invoices.

Click on the drop down list on the left to display the options available for determining which field to query:



Choose the comparison from the next drop down list (*equals*, *starts with* etc.)

Tip

The comparison popup menu will change depending on the type of field you have chosen in the first list.

Enter any values that you want to query against in the field at the bottom right.

Some examples:

If you..	Transaction(
Type 1 and press <i>Enter</i>	You will be taken directly to the most recent invoice
Type 25 and press <i>Enter</i>	A list of the 25 most recent invoices
In the lower, right field, type 123	Invoice number 123 will be displayed.
Click on the invoice number dropdown button and select one of the other search filters (e.g. Name) Click on the equals dropdown button and change it to, say Starts with Type the first few letters of the name of a customer, e.g. maj and press <i>Enter</i>	A list of all customer invoices to customers whose name starts with maj

This window is very useful for quickly finding a group of invoices. If you'd like the challenge of engaging with mSupply's data structure, you can query on multiple criteria. Click on the **Complex Find** button, which takes you to the Query Editor, which has powerful features to perform queries with multiple conditions. Detailed guidelines for using the Query Editor are to be found in [Working with lists](#)

The list invoices window uses the *Transactions list* window, which looks like this:

Name	Type	St...	Entered	Confirmed	Inv...	Total	Their ref	PS pri...	Comment	Exp bch
Rural clinic	ci	In	08/02/11	08/02/11	53	0	SP 52			0
Urban clinic	ci	In	08/02/11	08/02/11	54	0			Backorder fulli	0
Rural clinic	ci	In	08/02/11	08/02/11	55	0			Backorder fulli	0
Pharmacy	ci	In	08/02/11	08/02/11	56	0	MD 05/2			0
Rural clinic	ci	In	08/02/11	08/02/11	57	0	S 25			0
Medical Care	ci	In	08/02/11	08/02/11	58	0	PCY21			0
Urban clinic	ci	In	08/02/11	08/02/11	59	0	MR 3			0
Urban clinic	ci	In	08/02/11	08/02/11	60	675			Backorder fulli	0
Urban clinic	ci	In	08/02/11	08/02/11	62	0				0
Urban clinic	ci	In	08/02/11	08/02/11	63	675				0
Urban clinic	ci	In	08/02/11	08/02/11	64	0				0
Rural clinic	ci	In	08/02/11	08/02/11	65	0				0
Rural clinic	ci	In	08/02/11	08/02/11	66	0				0
Rural clinic	ci	rw	08/02/11		67	0				0
Hazardous item Store	ci	In	10/02/11	10/02/11	68	180				0

Note. All of the columns may be adjusted in width to meet your requirements; for the screenshot above to fit on the page, most of the columns were reduced in width.

Dynamic filter

Down the left side is a sidebar, with 6 headings:

1. Types
2. Find...
3. By date
4. By status
5. My transactions
6. My custom filters.

You can click on them and some of them will expand to show sub-headings (and contract to show just the heading if you click them again). This is what the bar looks like when it is first shown, with the Types heading expanded and all the others contracted:



The *Find...* option does not expand but shows the [Find Transactions window](#) again when clicked.

Once the type of transaction has been selected, it remains selected while you further refine the required criterion from one of the four remaining headings, *By date*, *By status* etc. Be aware that a single criterion only from this group of 4 headings may be selected.

At the bottom left of the window you'll notice there are 3 numbers separated by slashes, "1/15/67" in the example above. These numbers, in order, are the number of highlighted rows, the number of found rows, and the total number of transactions in the database.

Selecting multiple transactions

Once you have a list which includes the transactions you are interested in, you may wish to carry out certain actions (described below) on more than one of them. To do this, control-click (command-click on Mac) the lines you wish to highlight.

Types	Store name	Name	Address 1	Type	Status	Entered	Confirmed	Innum	
Supplier invoices	Kinga DH Main/Store	Kinga DH DT	North Fly	ci	fn	09/07/2020	09/07/2020	280	stock transfer
Supplier invoices	Kinga DH Main/Store	Kinga DH DPD	North Fly	ci	fn	09/07/2020	09/07/2020	279	stock transfer
Supplier invoices	Kinga DH Main/Store	Kinga DH DPD	North Fly	ci	fn	08/07/2020	08/07/2020	278	July Order#1
Supplier credits	Kinga DH Main/Store	initial RUM HC	North Fly	ci	fn	06/07/2020	06/07/2020	277	Sock transfer
Customer credits	Kinga DH Main/Store	Kinga DH MCH	North Fly	ci	fn	03/07/2020	04/07/2020	276	July Order#1
Builds	Kinga DH Main/Store	Kinga DH General	North Fly	ci	fn	02/07/2020	02/07/2020	275	sundries order
Repacks	Kinga DH Main/Store	Kinga DH Dispensary	North Fly	ci	fn	02/07/2020	02/07/2020	274	July Order#1
Find....	Kinga DH Main/Store	Kinga DH DPD	North Fly	ci	fn	30/06/2020	01/07/2020	273	Emergency Or
By date	Kinga DH Main/Store	Kinga DH General	North Fly	ci	fn	26/06/2020	30/06/2020	272	June Order#3
By status	Kinga DH Main/Store	Kinga DH TB Ward	North Fly	ci	fn	25/06/2020	25/06/2020	271	June Order#1a
My transactions	Kinga DH Main/Store	Kinga DH DPD	North Fly	ci	fn	24/06/2020	24/06/2020	270	Urgent Order
My custom filters	Kinga DH Main/Store	Kinga DH Consultation Clinic	North Fly	ci	fn	24/06/2020	24/06/2020	269	June order#2
	Kinga DH Main/Store	Kinga DH STI Clinic	North Fly	ci	fn	19/06/2020	19/06/2020	268	JuneOrder#2
	Kinga DH Main/Store	Kinga DH DPD Theatre	North Fly	ci	fn	17/06/2020	19/06/2020	267	June Order#1
	Kinga DH Main/Store	Kinga DH DPD	North Fly	ci	fn	17/06/2020	17/06/2020	266	June Order#2

Buttons

Along the top of the window are these buttons:



Their functions are:

Find

Click on this button to bring up the [Find Transactions window](#) again.

Sum

Click on this button to display the total value of the highlighted invoices. Highlight more than one invoice by control - clicking (Mac: command-clicking) invoices. Highlight a block of invoices by clicking on the first invoice of the series, then shift-clicking on the last invoice in the series.

Order by

The invoices displayed may be sorted according to any of the columns by clicking the column heading. A more comprehensive sort facility is available when you click the *Order by* button. This displays the *order by* window, where you can drag fields from the list on the left to the right-hand pane to sort the list by the fields you have chosen.

Print

Click on this button to print the list of invoices displayed. This does not print the actual invoices, just a list of them.

Finalise

Click on this button to change the status of the invoice to *finalised*.

Duplicate

Click on this button to duplicate the transaction. You would use this feature, for example, to supply exactly the same items to another customer. You will be asked if you want to duplicate all lines on the invoice, or just the placeholder lines.

Tip

If the invoice was part of the internal requisition process (from one virtual store to another) then the links to the originating purchase order will be maintained, and a goods receipt will be created if you finalise the customer invoice at a later date.

Please note: you are not allowed to duplicate some transactions such as payments, cash receipts and any type of cancellation transaction (an “inverse” transaction created to cancel another).

Cancel

Click on this button to cancel the highlighted transaction ¹⁾. This command only works on finalised invoices. The invoice is not deleted from the system; mSupply makes a duplicate finalised invoice with the same invoice number but with negative quantities matching those on the invoice you're cancelling. This ensures that all transactions are preserved and will appear in an audit trail. But note that you will not be able to cancel a finalised customer invoice which put stock into mSupply and some of that stock has been used. An exception to this is a stock transfer: if none of the transferred stock has been issued then the original finalised customer invoice which initiated the transfer can be cancelled if the supplier invoice produced from it is first deleted.

Tip

If you have accidentally finalised a transaction you can use the **cancel** and **duplicate** buttons to

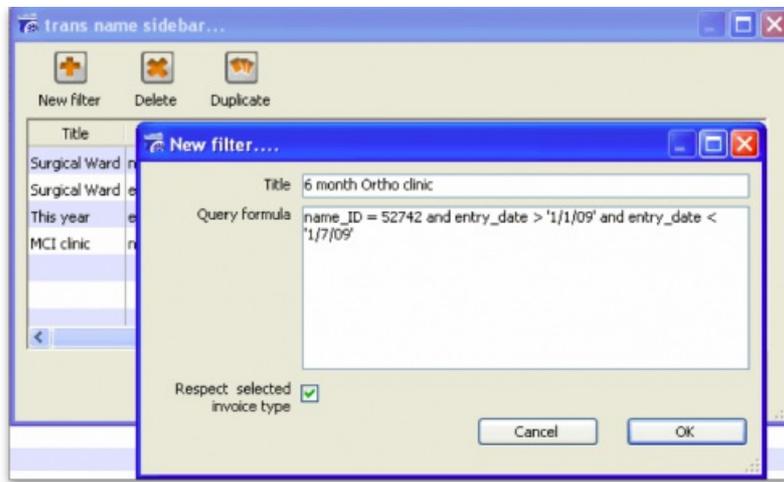
- Highlight the finalised invoice and click **Cancel**
- Highlight the finalised invoice again and click **Duplicate** to duplicate the original transaction
- You can then edit the duplicated transaction to the correct values before finalising it again.

Filters

Click on this button to apply filters to reduce the volume of information displayed to reflect more precisely what you require.

Take as an example, a hospital where you have searched on a large number of customer invoices, but you are really only interested in issues to the Orthopaedic Clinic during the first six months of a year.

Clicking on the *New Filter* icon presents you with a window where you can define the criteria for your filter, in our case the customer's ID is entered, and the period under review - i.e, January to June 2009 using the syntax of a WHERE clause in SQL



The *Respect selected invoice type* checkbox has the effect of applying the filter to the type of invoice which has been selected in the sidebar, and if we do this in our example, instead of displaying several hundred invoices, only the handful of invoices for the Orthopaedic clinic will be shown.

Any filters so created are listed under *My custom filters* , and are available for use as required until they are deleted.

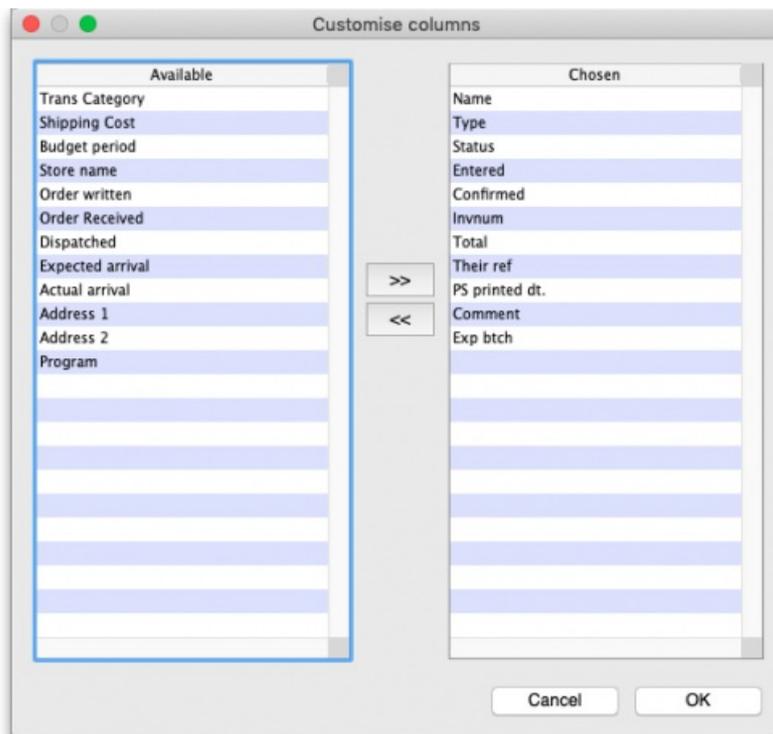
Customise

This button allows you to change the columns of information that appear for you when this window is displayed in future. Please note that this same window is used to display a list of different types of transactions, not just customer invoices.

The button also allows you to change the order the columns appear in the list.

Display the information you require

When you click on the **Customise** button this window opens:



Displayed under *Available* on the left are the available fields (these columns are all hidden), while displayed under *Chosen* on the right are the presently selected fields (these are the ones that are displayed).

To add a column to the display, click on the required one to select it in the *Available* column, then click the upper button between the two displays, and it will appear at the bottom of the *Chosen* list.

The **Program** column (shown in the *Available* table in the above screenshot) will show which customer invoices belong to which programs (obviously, the column will be empty if the customer invoice doesn't belong to a program because it was not created from a program based requisition).

mSupply provides the feature of analyzing customer invoices by their despatch/delivery/arrival dates. Once a customer invoice has delivery dates entered for it, [Transport details](#), choose the customer delivery columns 'Order written', 'order received', 'dispatched', 'expected arrival', 'actual arrival' to be included in your transaction list:

Name	Type	St.	Entered	C.	Innum	Total	Order written	Order received	Dispatched	Expected arrival	Actual arrival
Aileu dental Clinic (Oral Health)	ci	sg	10/04/2013		9298	1011.57	09/04/2013	10/04/2013			
Maubisse Hospital	ci	sg	10/04/2013		9299	1036.81	10/04/2013	10/04/2013			
Baucau Referral Hospital	ci	sg	11/04/2013		9300	8529.68	09/04/2013	11/04/2013			
District Services Manatuto	ci	sg	12/04/2013		9302	11082.04	10/04/2013	12/04/2013	13/04/2013	14/04/2013	17/04/2013
District Services Manatuto	ci	sg	11/04/2013		9301	940	11/04/2013	11/04/2013	15/04/2013	20/04/2013	23/04/2013
Soai Kota Referral Hospital	ci	sg	17/04/2013		9303	22822.01	15/04/2013	17/04/2013	19/04/2013	23/04/2013	04/05/2013

This list shows customer invoices in mSupply ordered by Expected Arrival Date. Click on the column header to order on that column (as with nearly any column in mSupply).

Arranging column order

This is done by clicking then dragging the column heading to the required position in the *Chosen* table. The higher it is in the table, the further left it appears in the transactions list window.

Sorting the list

Click a column heading to select it, then click on the small triangle on the right to display the list in order or reverse order as required. This is the same for nearly all column headers throughout mSupply.

Modify

Click on this button to edit the selected invoice. This is the same as double-clicking the invoice.

Export to MYOB

Click on this button to export the selected invoices to the [MYOB software](#) - refer to [Exporting to MYOB](#).

Previous: [8.01. Issuing goods to a customer \(customer invoices\)](#) || Next: [8.03. Backorders](#)

¹⁾ also known as "Cancel invoice" or "Cancel a transaction" or "Cancel an invoice"

8.03. Backorders

Overview

mSupply's backorder system allows you to record items you were unable to supply to clients, and (hopefully) supply them at a later date when you have enough stock.

When you do not have enough stock of an item that a customer orders, it is normal to add a placeholder line to the invoice you are creating. If you have local suppliers, it is possible you will be able to receive stock in time to fill the order, and the placeholder line can be edited and replaced with a normal stock line.

Once it is time to ship the order, placeholder lines will be converted to backorder lines, and you will be invited to enter a comment for each item (e.g. "We're very sorry- it's coming next week.")

Backorder preferences

The behaviour of mSupply in handling backorders is controlled by several preference settings:

- To do anything at all with backorders, you need to choose *File > Preferences* and go to the *Invoices 2* tab . There, check *We run a backorder system*



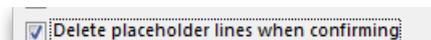
- If you wish to have customer invoices automatically created when goods on backorders are received, the appropriate box should be checked.



- On the same tab, check *Allow placeholder lines on customer invoices* . This allows you to use placeholder lines to record stock ordered by a customer but not able to be issued.



- On the right side of the same tab is the option to *Delete placeholder lines when confirming invoices*. If this option is not checked, placeholder lines will be left on an invoice when it is confirmed. Otherwise they will be deleted. In either case, as long as the *We run a backorder system* option is checked, confirming an invoice will result in placeholder lines being transferred to backorders.



How much is on backorder?

There are four ways in which you can view backorders

- When creating a customer invoice, there is a *backorders* button. This is described in detail below.
- Use the backorders report to view some or all backorders.
- When viewing details for a particular item, see all the backorders for that item on the backorders tab.
- When viewing details for a particular customer, see all the backorders for that customer on the backorders tab.

Backorder management from the Customer invoice window

Clicking the **Backorders** button when viewing a customer invoice will show all lines for the entered customer that are on backorder.

Tip

The **Backorders** button will be hidden if " *We run a backorder system* " is not checked in *Preferences > Invoices2*.

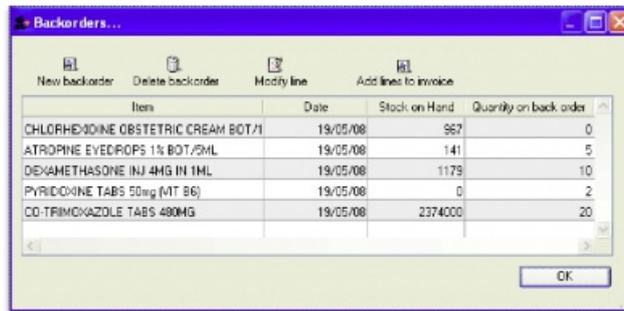
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- Overview
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If you are entering a new invoice, you need to have entered a customer name on the invoice before clicking the button.

The window also shows current stock, so you can easily see which backordered lines can be added to the current invoice

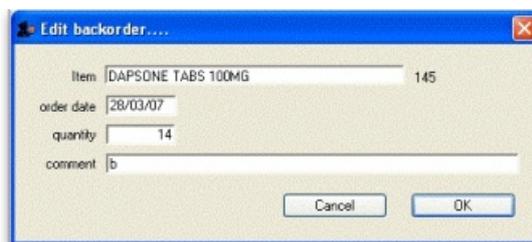


Buttons in the backorder window

New backorder: Placeholder lines are automatically changed to backorders when an invoice is confirmed, but there may be occasions when the manual entry of a new backorder is necessary: click this button to create one.

Delete backorder: You can delete an item line or multiple item lines by selecting the line(s) and clicking on *Delete backorder* button.

Modify line: This button is used to edit the item line. Select the desired line and click on *Modify line* button to display the following window.



Add lines to invoice

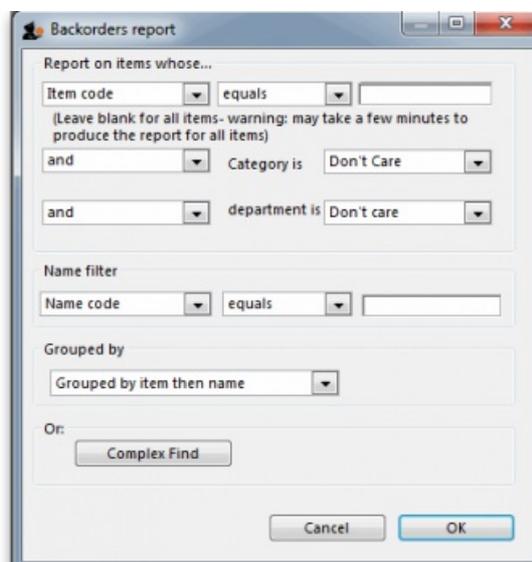
Highlighting lines and then clicking the *Add lines to invoice* button will (surprise) add the highlighted lines to the invoice. The backorder quantity will be set to zero, and may then be deleted.

Note that as you issue lines on an invoice, the quantity on backorder is automatically reduced. However, once a line reaches zero, it is not automatically deleted. This is because it is possible the user will delete or edit the line on invoice, and hence the reduction in backorder quantity may have to be reversed.

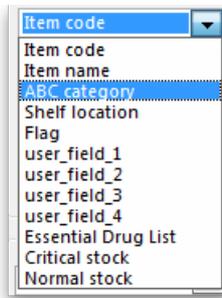
Backorder report

Choose Reports > Backorder report.

You can enter settings to reduce the scope of items or customers for which the report is produced.



The first drop down list allows the report to be filtered by many options, but note that if *Item name* is chosen, then the full name must be entered and not just partial details.



Two options are available: for display:

- each customer and the items on backorder for that customer
- each item and the customers having backorders for that item.

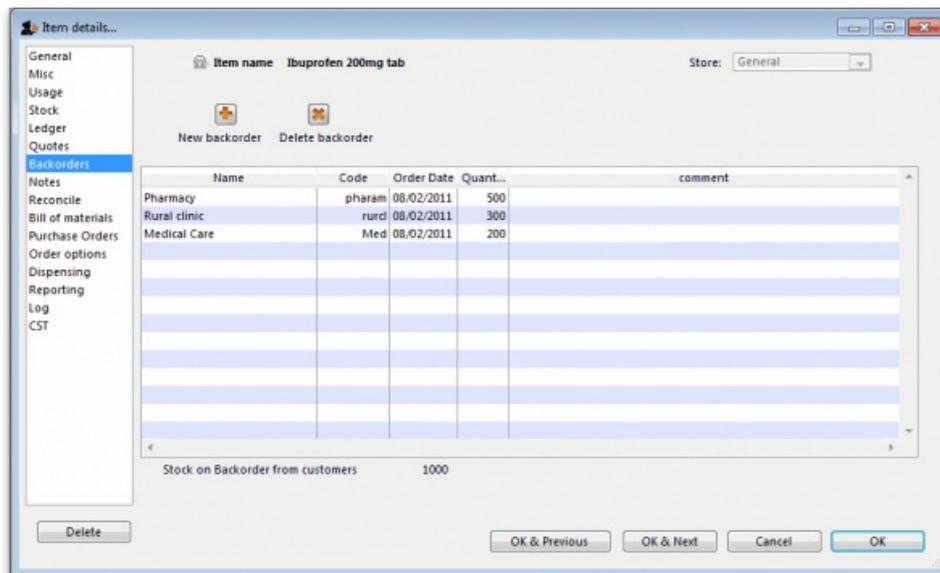
Backorder Report (General)

Item Code	Item Name	Stock	Cust Name	B/ord Quanti
4204	ARTHEMETHER SUPPOSITORY 50MG	0	GOOD SAMARITAN HOSPITAL	
			Total	
2035	ATROPINE EYEDROPS 1% BOT/5ML	141	SASAMUNGAMINI HOSPITAL	
			Total	
4065	BAG, AUTOCLAVE 100MM X 520MM	0	KIRA KIRA HOSPITAL	
			Total	
4076	BAG, URINE DRAINAGE WITH TAP, 2L DISPOSABLE	1	SEGHE AHC	1
			Total	1
3013	BANDAGE, CREPE 15CM	132	TULAGI MINI HOSPITAL	
			Total	
3020	BANDAGE, P.O.P. 10CM	1387	GOOD SAMARITAN HOSPITAL TULAGI MINI HOSPITAL	1
			Total	1
51	BENZHEXOL TABS 5MG	53800	MALU'U AHC	
			Total	

Note that this report does have limitations, as if a customer orders the same item more than once, it is likely that demand will be overstated.

Viewing backorders for a customer or an item

Clicking the backorders tab when viewing a customer or item details shows a window where you can view or edit items on backorder. The example shows backorders for an item, ibuprofen 200mg tablets.



Notes

- If you have set the preference to leave placeholder lines on confirmed invoices, then you can use the *Item ordered shortfall* report to display the difference between customer demand and what was actually supplied.

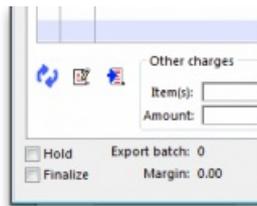
Automatic creation of customer invoices for backorders

With the required boxes checked under *Files > Preferences > Invoices*, mSupply will automatically create invoices for those customers having items on backorder when the items are received from suppliers.

This description is illustrated by the situation in which two customers, Urban Clinic and Rural Clinic both have Promethazine 25mg tablets on backorder - Urban Clinic awaiting 5 x 100, and Rural clinic awaiting 2x 100. The supplier is Arbuckle.. This may be confirmed by previewing a backorder report:

Item Code	Item Name	Cust Name	Stock	
pro25t	Promethazine 25mg tab	Rural clinic	0	200
		Urban clinic	0	500
		Total		700

On receiving the goods from the supplier, a new goods received record is created in the usual way, and finalised. When you click on *OK* to create the supplier invoice, you are required to confirm your intention to finalise the order, which you would normally do. The supplier invoice is displayed, and in the bottom left corner of the supplier invoice, you will see that the *Hold* box is checked. You should click on it to remove the check mark.

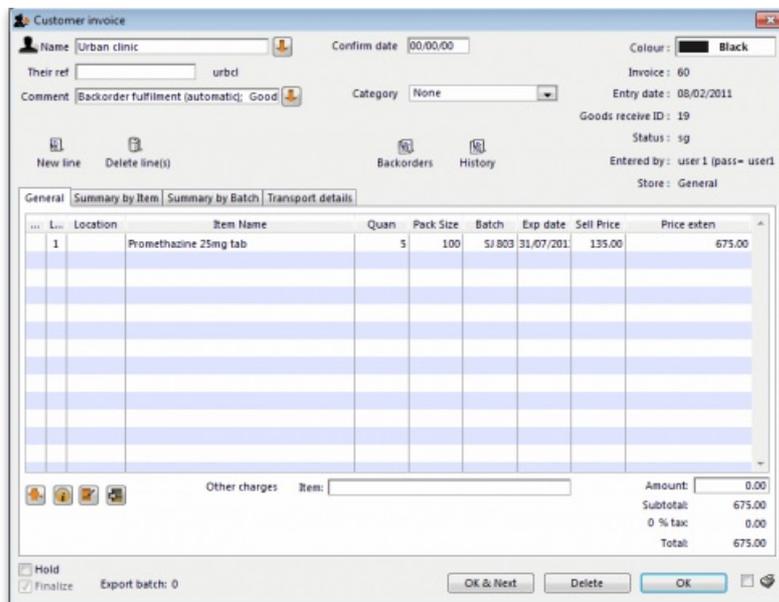


A dialog box for creating a supplier invoice. It includes fields for 'Other charges', 'Item(s)', and 'Amount'. There are checkboxes for 'Hold' and 'Finalize', and labels for 'Export batch: 0' and 'Margin: 0.00'.

and this alert message is displayed:



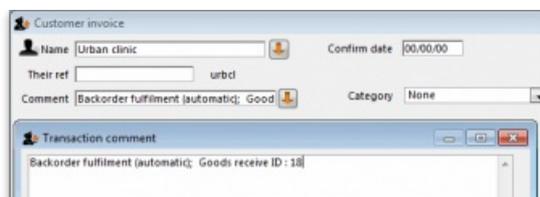
Review the invoices as alerted, and for this example the invoice generated for the Urban Clinic is shown:



A screenshot of the 'Customer invoice' window. The customer is 'Urban clinic'. The invoice number is 60, dated 08/02/2011. The status is 'sg'. The comment is 'Backorder fulfilment (automatic); Good'. The table below shows one line item: Promethazine 25mg tab, quantity 5, pack size 100, batch 5J803, expiry 31/07/2011, sell price 135.00, and price extension 675.00. The subtotal is 675.00, tax is 0.00, and the total is 675.00. The 'Hold' checkbox is checked, and 'Finalize' is checked.

...	Ln.	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
	1		Promethazine 25mg tab	5	100	5J803	31/07/2011	135.00	675.00

The invoice generated has all the relevant details, e.g. batch no., expiry, etc., copied across from the supplier invoice, and the comment has been added to the effect that the invoice has been generated automatically, and also identifies the Goods Received ID:



A 'Transaction comment' dialog box showing the comment: "Backorder fulfilment (automatic); Goods receive ID: 18".





8.04. Electronic invoices

mSupply has a system that allows users to send electronic invoices to other users of *mSupply*.

Possible uses include:

- If you have a manufacturing unit and a separate warehouse, you can run two copies of mSupply and move stock from one location to another using electronic invoices.
- If you have customers using mSupply, they can import a 100 line invoice in a few seconds, where entering manually might take thirty minutes to an hour.

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- [Setting up electronic invoices](#)
- [Steps to use electronic invoices](#)
- [Setting up electronic invoices](#)
- [Steps to use electronic invoices](#)



Setting up electronic invoices

Supplier

- In the Preferences of the copy of mSupply that is sending invoices, enter the supplier code that your customers will use for you.
- If your customer(s) have an email address and you want to send the electronic invoices via email, then enter their email address in the customer details window.

Customer

- For each item that will be received from a particular supplier, enter a quotation for the item. This is most easily done from the *quotes* tab of the supplier details window.
- For each quotation, enter the supplier code for that item. This means your own code for the item does not need to match the supplier code. (Note that you do not have to enter quotation prices for the electronic invoice system- just the item code).

Steps to use electronic invoices

1. Supplier creates an invoice
2. Supplier chooses *customer | export invoice* to create an invoice
3. Supplier sends the invoice to the customer (If the customer has an e-mail address entered, the invoice can be automatically attached to an email or, the file produced can be attached to an e-mail using your normal e-mail client. Alternatively it may be transferred on removable medium (floppy, Zip, CD etc..)
4. Customer receives electronic invoice
5. Customer chooses *Supplier | import invoice* to import the invoice.
6. Customer checks the supplier invoice that is created against other documentation and against actual goods received.

Note:

- The invoice can still be edited after import
- The standard rules for calculating selling prices are used.
- If you want your suppliers to send you electronic invoices, persuade them to buy mSupply! Alternatively, we can supply the mSupply invoice format to their software vendor for inclusion in their own software.
- We recommend you perform a trial of the system on a backup data file before using in a production situation.

Previous: [8.03. Backorders](#) | | Next: [8.05. Transferring goods to another store](#)

Last modified: 2020/03/13 17:31 by Gary Willetts



8.05. Transferring goods to another store

This feature is available only to those users who are managing more than one store on their systems e.g. if you have a central warehouse that supplies district or regional warehouses, or if you have a general store for holding stock and you supply a dispensary with their day to day needs - see [Virtual stores](#).

Alert

- If you are transferring goods to the receiving store in response to an [Internal Order](#) or [Purchase Order](#) from that store, **DO NOT** Create a new [Customer Invoice](#) as described at the top of this section. Instead process the [Response requisitions](#).
- Remember to take care to [Finalise the Customer Invoice](#).

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- [Create a Customer Invoice](#)
- [Need to finalise Customer Invoice](#)
- [Visibility of items in both stores](#)
- [Reversal of stock transfer](#)
- [Receiving the goods \(customer store\)](#)
- [Create a Customer Invoice](#)
- [Need to finalise Customer Invoice](#)
- [Visibility of items in both stores](#)
- [Reversal of stock transfer](#)
- [Receiving the goods \(customer store\)](#)

Create a Customer Invoice

Info

If you're not able to perform a transfer, there are several possible reasons:

- The customer you're trying to use is not set up as a store in your copy of mSupply.
- You don't have the user permission to perform transfers.
- The store you're transferring to is not visible to the store you're logged into. To make it visible choose [Special > Show stores](#) and double-click the store you want to transfer to, then on the preferences tab click the [View name](#) button and set the visibility on the [Stores](#) tab.

This procedure follows closely the steps as described under [Issuing Goods to a Customer \(Customer Invoices\)](#); to avoid unnecessary repetition, please make sure you are familiar with that procedure.

You must be logged in to the **issuing** store (the store you're transferring stock from); the 'customer' in this process is the receiving store. So, you create a new invoice from the *Customer* menu, and in the *Name* field you put the name of the receiving store in the normal way (i.e. type the first few letters of the store's name, press the *Tab* key on the keyboard, and select the store in red colored text from the list displayed)

As soon as you select the receiving store name a red *Stock transfer* label confirms that you are creating a stock transfer:

The screenshot shows the 'Customer invoice' form in mSupply. The 'Name' field contains 'Test dispensary'. The 'Confirm date' is '000000'. The 'Period' is '30/11/2017 - 31/12/2020'. The 'Colour' is 'Black'. The 'Invoice' number is '0'. The 'Entry date' is '05/05/2020'. The 'Goods received ID' is '0'. The 'Status' is 'mw'. The 'Entered by' is 'sussol'. The 'Store' is 'General Warehouse'. The form has a table with columns: Notes, Line, Location, Items code, Item Name, Quan, Pack Size, Batch, Exp date, Sell Price, Price exten. The table is currently empty. At the bottom, there are fields for 'Other charges', 'Item', and 'Amount' (0.00). The 'Subtotal' is 0.00, '0% tax' is 0.00, and 'Total' is 0.00. There are checkboxes for 'Hold', 'Finalise', and 'Authorised'. The 'Export batch' is '0'. A red label 'Stock transfer' is visible at the bottom. Buttons for 'OK & Next', 'Delete', and 'OK' are at the bottom right.

The procedure from this point is identical to that described under [Issuing Goods to a Customer \(Customer Invoices\)](#).

Need to finalise Customer Invoice

⚠ Important

It is necessary to finalise the transfer when you have finished entering the items to be transferred. Only after finalising the transfer will the new invoice appear on the system, as a supplier invoice in the receiving store, linked to the customer invoice in the issuing store. The status of the supplier invoice in the receiving store will either be confirmed and on hold or finalised, according to the setting you have for the "For stock transfers, the supplier invoice in the receiving store should be..." store preference. See [here](#) for details.

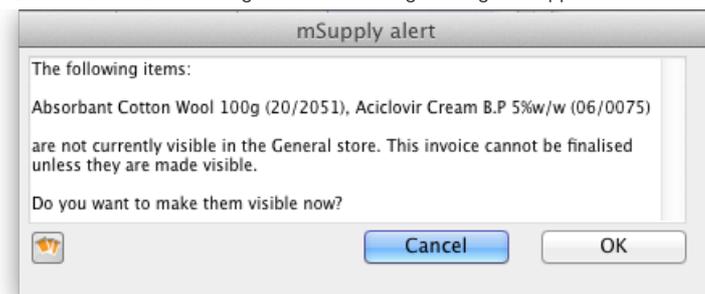
If you confirm the stock transfer but do not finalise it, you will be shown a warning if you try to close it, just in case you have forgotten the finalise step:



If you did forget to finalise it then click on the *Finalise* button and mSupply will finalise the invoice for you (and create a supplier invoice in the receiving store). If you want to keep the invoice at confirmed status (and not create the supplier invoice in the receiving store) then click on the *Leave as confirmed* button.

Visibility of items in both stores

If the item(s) you are transferring are not visible in the receiving store the following message will appear:



Check whether there is any reason for the item(s) in question not to be visible in the destination store. If there is no reason to prevent visibility click **OK**.

ⓘ Info

If you are running a syncing system (see [Remote Synchronisation](#)) and the receiving store is active on another site, the receiving site will send back a confirmation log message to confirm that it has received the transfer. This will show up in the *Log* tab of the sending customer invoice.

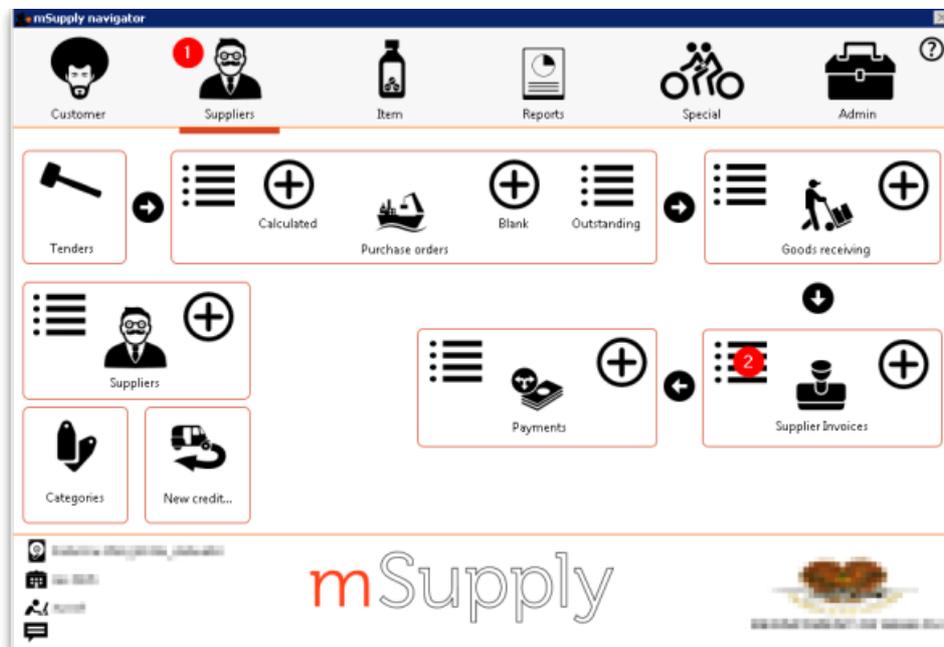
On a syncing system, the sending site does not have access to the item visibility records in the receiving store if it is a transfer store, so it cannot do the item visibility check above. In this case, the primary server will automatically make the items visible in the receiving store when it receives the transfer.

Reversal of stock transfer

Should a reversal of a stock transfer be necessary, this may be achieved by the operator at the sending store, and only if the receiving store has not issued any of the transferred stock.

Receiving the goods (customer store)

When a **Customer Invoice** (CI) is created *and finalised* (see [above](#)!) in a Supplying store, a **Supplier Invoice** (SI) will be automatically generated in the customer store. You can view the customer invoice via the *Suppliers* tab on the Navigator or via the **Supplier > Show invoices...** menu item:



- Double-click on any supplier invoice in the list to open it.
- On the supplier invoice, the lines from the customer invoice will have been filled in automatically.

For instructions on processing the stock from the Supplier Invoice in to your store, refer [Processing supplier invoices](#)

Previous: [8.04. Electronic invoices](#) || Next: [8.06. Box management](#)

Last modified: 2022/02/07 12:24 by Gary Willetts



mSupply documentation wiki



8.06. Box management

Added: Version 3.1

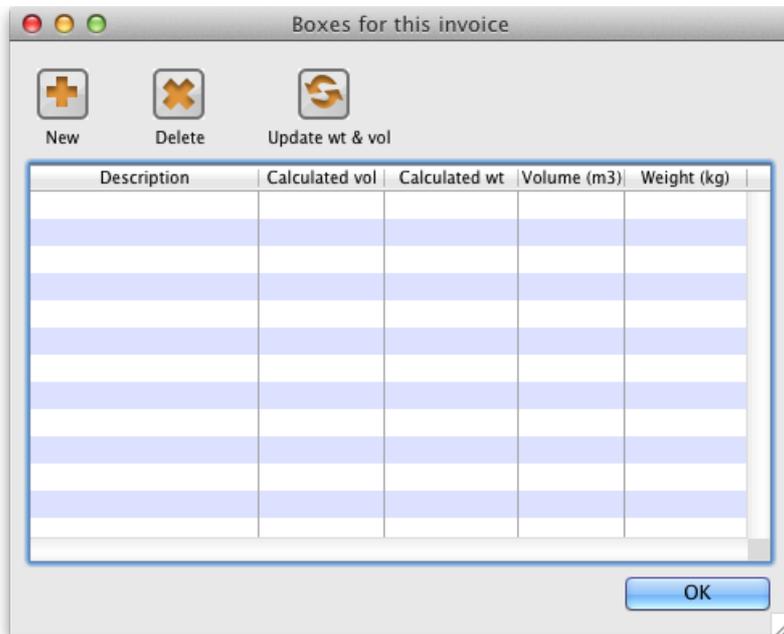
On the transport tab of a customer invoice window, there are two methods for managing boxes.

- The simple method allows you to directly enter any Box identifiers in the **Boxes** column
 - To use this method you should **not** turn on the preference mentioned below. You simply click twice (slowly) in the box numbers column of the "Transport details" tab on a customer invoice and enter box numbers.
- If you want to assign exact quantities of each invoice line to a box or boxes, and also possibly record box weights and volumes, you need to:
 - Choose Special > Show Stores
 - Double-click on the store in question (you might only have one)
 - Click on the **preferences** tab
 - Check "Able to pack items into multiple boxes" - see details on the [24.08. Virtual stores](#) page.

The rest of this page assumes you're using mSupply with this preference checked.

Setting up boxes

- Once you've created a customer invoice, and picked goods, the pickers should have marked the pick slip with what quantities of each item were put into what box.
- Now go to the **Transport** tab of your customer invoice.
- Click **Manage Boxes** (Note: if you haven't turned on the preference as above, these buttons are hidden)
- You'll see this window:



- Click **New** to add boxes
- We suggest you keep box names short. e.g. 1, 2, 3, 4 or A, B, C, D
- Type a box name, click **OK & Next** (shortcut: the Enter key) to add another box.
- On the last box click **OK** to save and close the window.
- If you're Gary, you might have clicked **OK & Next** one too many times. In that case you can use the **Cancel** button to close the window. 😊
- Note that you can't have a blank box name, and you can't have two boxes *on the same invoice* with the same name (You can just use the same series of box names over and over on different invoices).
- If you make a mistake with a box name you can double-click a row to edit it.
- Click **OK** to close the Box Management window when you're done.

Using the Box Selected Button

- In most cases you will be able to put the total contents of an invoice line in the one box.

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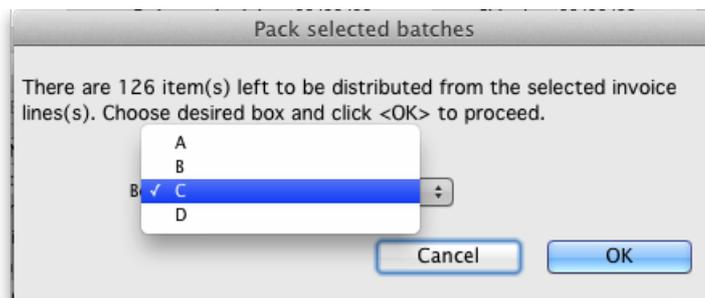
- Setting up boxes
- Using the Box Selected Button
- Splitting a single invoice line over multiple boxes
- Removing an invoice line from all boxes
- Seeing what is in a box
- Printing packing list for each box
- Setting up boxes
- Using the Box Selected Button
- Splitting a single invoice line over multiple boxes
- Removing an invoice line from all boxes
- Seeing what is in a box
- Printing packing list for each box



- In that case, click on a row, or hold down <control> (Windows) or <command> (Mac) and click on multiple rows.
- In the example below we have highlighted rows 2, 3 and 4.

Line	Location	Item Name	Quan	Pack Size	Batch	Weight	Exp date	Sell Price	Box number
1		Salbutamol inhalation solution bottle	2	1	EX23	0	30/1/12	8.35	
2		Salbutamol Inhaler 100mcg/dose	6	1	G92192	0	30/3/12	1.95	
3		IV, Metronidazole inj 500mg/100mL	20	1	S13N5	0	30/5/13	6.44	
4		Water for injection inj 10mL	100	1	1004824	0	30/10/15	0.26	
5		Optium strips (glucose electrodes)	2	50	45001F594	0	30/10/12	36.31	

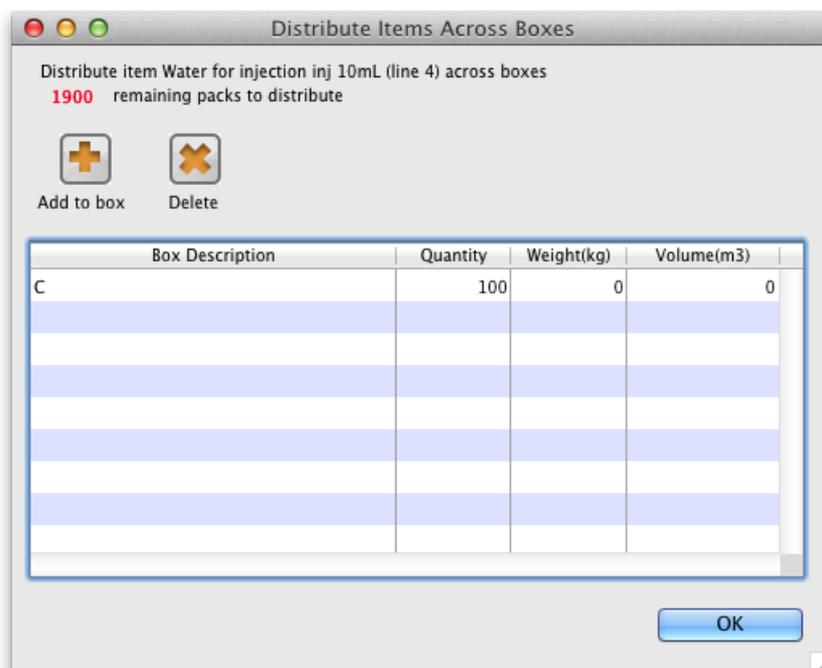
- Now click **Box selected**
- You'll be shown the "Pack selected boxes" window:



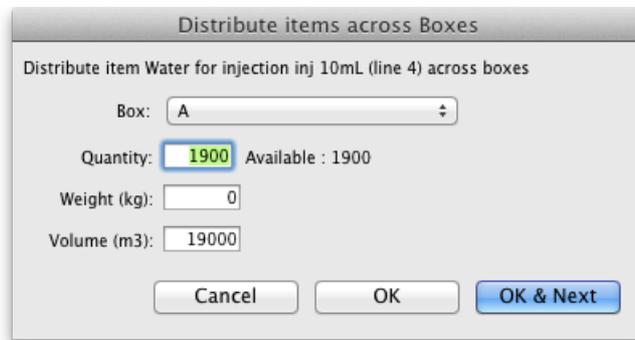
- Choose the box for the items from the drop-down list.
- Click **OK** to close the window.
- You'll see the boxes column in the list has been filled out.

Splitting a single invoice line over multiple boxes

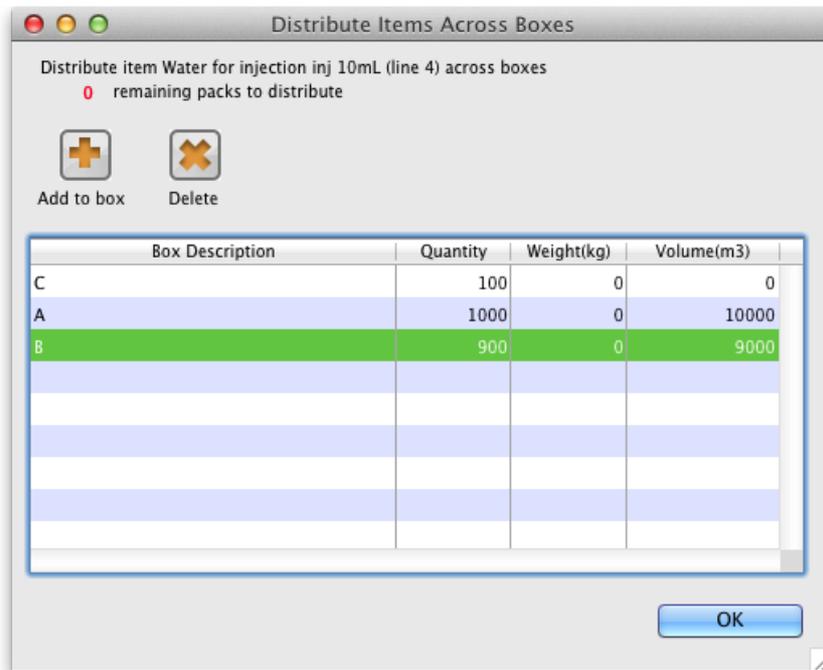
- If you have bulky invoice lines or large quantities, you will need several boxes to hold the one line.
- Double-click the line to assign to boxes.
- Let's say in the example above, you got a supplementary request to increase the water for injection quantity from 100 to 2000. You go back to the "general" tab and do this. Now back on the transport tab you double-click the water for injection. This is what you would see:



- Notice that at the top of the window "1900" is in red. That's the quantity still to distribute.
- Click the **Add to box** button.
- You'll see this window:



- Let's say we're going to put 1000 in box A and the remaining 900 in box B
 - Enter 1000 in the quantity field
 - Choose **A** from the drop-down list
 - Click **OK & Next**
 - Fill out the window to enter 900 in box **B** and click **OK** to close the window.
 - Now your window should look like this:



- You can double-click a row to edit it.
- To delete a row, click on it to highlight it, then click **Delete**
- Note that the weight and volume for the item will be calculated automatically if you have set them in the item details window, but you can also override the calculated weight/volume when you are assigning an item to a box.

Removing an invoice line from all boxes

- You can use the **Unbox** button to remove an invoice line from all boxes at once.
- Highlight one or more invoice lines.
- Click **Unbox**
- You're done.

Seeing what is in a box

- If you click **Manage Boxes** and then double-click a box you will be shown a list of items in that box.
- You can also set the measured weight and volume in this window, which will usually be somewhat higher than the calculated weight/volume:

Manage Boxes

Box name:

Packed weight (kg):

Packed volume (m3):

 Update wt & vol

Current box contents

Description	Quantity	Weight (kg)	Volume (m3)
Water for injection inj 10mL	2000	26	0.02

Total in box: 26 kg 0.02 m3

Printing packing list for each box

- We have custom printing forms available that will print packing lists for each box. Ask us for more details.

Previous: [8.05. Transferring goods to another store](#) || Next: [8.07. Stock control methods for your customers](#)

Last modified: 2020/06/19 13:53 by Gary Willetts

8.07. Stock control methods for your customers (requisitions)

Stock supply philosophy

mSupply is designed for situations such as a central supply facility within a country or region, or within a hospital where the supply of stock to customers is controlled by the supplying facility. That is, supply of stock to customers is managed by the supplying store.

Regardless of who controls the supply of stock, it needs to be made principally on the basis of information about the customer's anticipated usage. mSupply has several ways of arriving at quantities to be supplied to customers:

- [Responding directly to paper-based customer orders/requisitions](#)
- [The stock history method](#)
- [The imprest method](#)
- [Response requisitions](#)
 - [Full Entry of Request & Requisition Forms by the Supplying Facility](#)
 - (This was developed for Côte d'Ivoire but can be activated for any country on request)

Collectively, these are grouped together as different types of **requisition**. When editing an item, you can view all types of requisition records for that item. More information is available on the [requisitions](#) page (if you can think of better names, please tell us!).

Please note that it is possible for all of these to be done by programme if required - see the [4.05. Programs](#) page for details.

Defining the list of items to be included in the re-supply

The lists of items that a customer can receive can be defined by master lists.

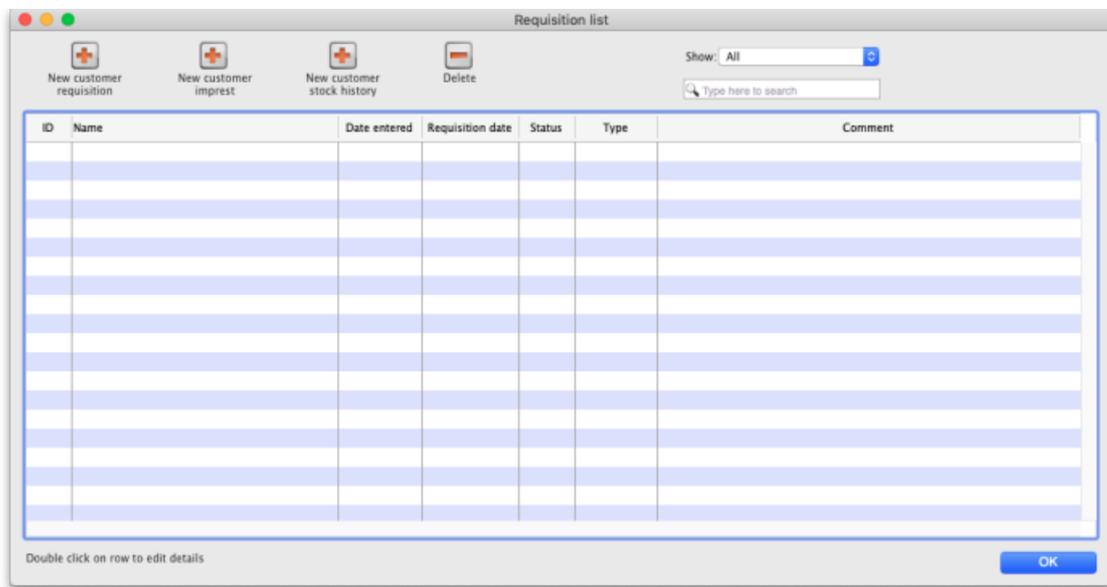
See the [4.04. Item master lists](#) page for information on managing master lists and see the [Assigning a list to a customer](#) section for how to assign a master list to a customer.

Viewing existing requisitions

Choose *Customer > Show requisitions...* from the menus or click on the Requisitions icon on the Customers tab of the Navigator:



This window will open, showing you a list of the requisitions already in the system:



- **ID:** Unique identifier of the requisition.
- **Name:** The name of the customer the requisition has been entered for.
- **Date entered:** The date the requisition was first saved in mSupply.
- **Requisition date:** The date the requisition as given by the customer.
- **Status:** The status of the requisition *sg*, *cn*, or *fn* normally, web requisitions can also be *wf* or *wp*).
- **Type:** The type of requisition; *sh* for customer stock history, *im* for imprest or *response* for a response requisition.
- **Comment:** The comment entered on the requisition.

Use the **Show** drop down list to filter the requisitions by status.

After filtering this way, if the list is too long to find a particular requisition you are interested in then you can type something in the **Search** field. If you type anything in the **Search** field, only requisitions with a customer name, requisition number, program or comment that contain what you typed will be displayed.

To edit a particular requisition, double-click on it in the list. A window will open, populated with the requisition's details; the window will be different depending on the type of requisition (see sections below).

To create a new requisition of a particular type (see below), click on the appropriate  button - a new, blank window will open ready for you to enter the requisition.

To delete a requisition, click on it in the list to select it then click on the **Delete** button. You will be asked to confirm the deletion before it is carried out. **Please note:** You cannot delete a requisition if a customer invoice has been created from it - mSupply will tell you if this is the case. You can still delete the requisition but you must delete the customer invoice first.

Stock history method

The theory behind the stock history method (sometimes referred to as the Historical Logistics Method) is based on the assumption that future customer usage will be similar to historic usage.

We can calculate the customer's average usage over time if we know their stock levels at two points in time, and what stock they received from us in that intervening period. We assume that this average usage rate will continue over the coming supply period.

There are three more variables that need to be estimated:

- The number of months in the coming supply period
- The lead time required to supply them (that is, the time lag between the customer doing a stocktake in order to trigger re-supply, and receipt of the stock)
- The number of month's worth of buffer stock they need

With this data, the calculation is like this:

- A = Stock on hand on date1
- B = Amount supplied to customer between date1 and date2
- C = Stock on hand on date2
- D = Quantity used in period between date1 and date2 = A+B-C
- E = number of months between date1 and date2
- F = Usage rate = D/E
- G = Number of months in coming supply period
- H = Number of buffer stock months desired
- I = Lead time (months) between date2 and delivery of stock
- J = Amount to supply = F*(G+H+I)-C

Using the stock history method:

- A and C are reported by the customer on date1 and date2 respectively
- B is calculated by mSupply based on mSupply records

- G, H and I are entered by the user
- D, E, F and J are calculated by mSupply

⚠ Important

mSupply uses stock issued by the supplying store to arrive at the parameter B.

Obviously, if the customer has received goods from other sources during the calculation period, B will be inaccurate!

First stocktake record

In order to calculate the usage rate, mSupply requires stock on hand figures of the items on the list recorded on an earlier date (date1) = A, above. This becomes the *initial stock history record*.

To create such a record, follow the procedure described below for [entering a stock history](#), noting particularly, the following:

1. Enter the date as the correct date at the time the stocktake was performed.
2. Ignore the figures that automatically appear along each row, except for the *Their current stock* column.
3. Enter their current stock figures in the *Their current stock* column
4. Close the window using the *OK* button.

Regular use

Once your customer's [first stocktake record](#) has been entered, and a period of time has passed with some customer stock usage, re-supply can be generated on the basis of this usage.

A re-supply using the stock history method needs to be triggered by a customer stocktake. If your customer is set up with [mSupply customer web interface](#), then this process can be initiated by the customer directly, and then completed in the supplying store as described below.

If your customer has not used the mSupply customer web interface to report their stocktake, then their stock data needs to be entered in manually to the supplying store.

Manual entry of customer stock history

To begin the process, choose *Customer > Show requisitions*, and the list of any historic customer stock histories is displayed along with the other requisition types. The *Status* column lets you know the status: **sg** (suggested) or **cn** (confirmed). The *Type* column shows the stocktake type: **im** (Imprest), **sh** (Stock History) or **response** (Requisition):

ID	Name	Date entered	Requisition date	Status	Type
2	Cactus Hospital	15/02/2018	15/02/2018	sg	response
6	Amnesty Hospital	06/06/2018	06/06/2018	sg	im
7	Bike Hospital	06/06/2018	06/06/2018	sg	sh

Double-clicking on a line will allow you to edit the selected record (provided that you have permission to do so).

With the passage of time, entries on the list will rapidly grow in number, and so mSupply allows you to apply a filter selecting exactly what will be displayed. The default display is for *Suggested*, as these are most likely the ones you will be processing; other options include *All*, *Confirmed*, *Web entries to be processed* - this covers histories submitted via the web customer interface - and *Entered today*

Add new customer stock history

Click the **New customer stock history** button, to display the *Enter new customer stock history...* window:

Enter the first few letters of customer's name in the *Name* field, then press the *Tab* key to call up the list of customers' names from which the required customer may be chosen. In this example, our customer is Medical Ward.

Once you have chosen a customer, the window is populated with the items that are members of any item lists that:

- Have been assigned to that customer (both master lists and local lists)
- and that have the "Stock history" check box checked for that list

You are presented with this window:

Lin...	Item code	Item Name	Unit	Our SOH	Their Old S...	They recei...	Their curren...	Their usage	Their daily ...	Suggested quan	Actual quan
1	CAFdr	Chloramphenicol 0.5% eye drop	each	4923	5	15	0	20	5	150	150
2	CAPoint	Chloramphenicol 1% eye oint	each	73	4	0	0	4	1	30	30
3	Salinh	Salbutamol 100mcg/puff aerosol	each	3198	6	12	0	18	4.5	135	135
4	Salneb5	Salbutamol 5mg neb (neb vial)	each	31225	3	12	0	15	3.75	113	113

Fill in customer stock history

The **Our SOH** column is the stock on hand in our own store, while figures in all subsequent columns are the customer's data.

The first entry to be made is in the *Days to supply* field, where the appropriate figure should be entered - e.g. 30 if the ordering frequency is monthly, 90 if it is quarterly, etc.

You will see in our example that

- 29 days have passed since the last stocktake
- The column headed *Their old SOH* shows their stock on hand at the last stocktake
- The column headed *They received* shows the amounts supplied when their last order was processed
- The column headed *Their current SOH* is the column where the customer's current stock figures (as provided by the customer) are entered. But note that, just as with the imprest method, if the name you entered in the Name textbox is actually another store then this column will be automatically filled in with the current stock in the store - saving you a lot of time (you only need to edit those figures where the stock in mSupply does not actually match what's on the store's shelves).
- As figures are entered, mSupply® calculates a suggested quantity to order, and this appears in the *Suggested quan* column. These suggested quantities should be reviewed, and any adjustment entered in the *Actual quan* column to reflect, for example, pack sizes and to ensure that actual quantities match exact multiples of the pack size.

After entries have been made in the column *Their current SOH* the window will look like this:

Lin...	Item code	Item Name	Unit	Our SOH	Their Old S...	They recei...	Their curren...	Their usage	Their daily ...	Suggested quan	Actual quan
1	CAFdr	Chloramphenicol 0.5% eye drop	each	4923	5	15	2	18	0.62	17	17
2	CAFoint	Chloramphenicol 1% eye oint	each	73	4	0	4	0	0	0	0
3	Salinh	Salbutamol 100mcg/puff aerosol	each	3198	6	12	1	17	0.59	17	17
4	Salneb5	Salbutamol 5mg neb (neb vial)	each	31225	3	12	3	12	0.41	9	9
5	Haemoint	Antihæmorrhoid 30g oint	each	1017	11	20	7	24	0.83	18	18
6	Clopes	Clotrimazole 100mg pessary (6 tab)	each	11871	4	10	4	10	0.34	6	6
7	Glycsup	Glycerol 2.8g suppos	each	556	4	12	2	14	0.48	12	12
8	Parsup2	Paracetamol 250mg suppos	each	4780	9	40	14	35	1.21	22	22
9	Adr1	Adrenaline (Epinephrine) 1mg/ml e	each	1977	16	20	8	28	0.97	21	21
10	Amininj	Aminophylline 250mg/10ml amp	each	2871	5	10	6	15	0.52	16	16

All that remains is to make adjustments in the *Actual quantities* column, to reflect appropriate pack sizes.

Once you are satisfied, the *Confirm* box (bottom left corner) should be checked, the *Create customer invoice* button should be clicked, and you will proceed to [creating the customer invoice](#), which is the same for all requisition types.

Printing forms

Clicking the **Print** button provides several options for printing forms:

1. **Customer stock takes:** This form you can give to the customer (for example, if they are a ward in a hospital that has mSupply running in it's pharmacy store), and they can fill out the quantities they have on hand, and then values are entered into mSupply.
2. **Customer stock supply:** This form provides information to give to the customer about the quantity they will be supplied.
3. **Customer stock request and issue:** This form provides information for the customer comparing what was requested with what was actually supplied.

The second two reports are for use after you have entered quantities to be supplied into the customer stock history window.

Imprest method

The Imprest method is probably the most commonly understood and used method of stock control, and has been used for many years, probably since before the invention of the computer!

Tip

As can be seen by the discussion below, the Imprest method is a simplification of the Stock History method discussed above. We argue that the Stock History method is superior to the Imprest method because it dynamically calculates a number of values based on live customer consumption data, rather than relying on some historic calculation that is likely out of date. It is quite understandable why the Imprest method is the standard approach in hospitals - because it was developed before the computer age, and its hard to change old habits. However, now that you have mSupply ready to do the number crunching, we suggest that you seriously consider using the Stock History method instead of the Imprest method... 😊

With the Imprest method, the quantity to be ordered is the quantity necessary to restore the stock on hand to a pre-agreed fixed quantity. This imprest stocktake must be carried out on a regular fixed frequency (daily, weekly, fortnightly, monthly, whatever.) This pre-agreed fixed quantity is arrived at on the basis of a number of simplifications to the stock history method:

- A = Stock on hand on date1
- B = Amount supplied to customer between date1 and date2
- C = Stock on hand on date2 **THE ONLY INFORMATION COLLECTED**
- D = Quantity used in period between date1 and date2.

- E = number of days between date1 and date2
- F = Usage rate **PRE-DETERMINED AND FIXED**
- G = Number of days in coming supply period **PRE-DETERMINED AND FIXED**
- H = Number of buffer stock days desired **PRE-DETERMINED AND FIXED**
- I = Lead time (days) between date2 and delivery of stock = 0

The Imprest Quantity = $F \cdot (G + H + I)$

- J = Amount to supply = **Imprest Quantity** - C

If stocktakes are not taken at the pre-determined frequency, and particularly if they are missed, the system will fail. It is a fairly rigid system, in that once set, F, G and H must remain constant. It is frequently used for supplying wards in a hospital setting, where operations are generally more controllable.

Using the imprest system

The *imprest system* operates in this way:

- The stock of a particular item which a customer (usually a clinic, ward or department) should hold is agreed. This is the **Imprest quantity**.
- A stocktake is carried out at the facility, giving us a **Stock on hand**
- The amount to be ordered by the facility is calculated as:

Order quantity = Imprest quantity - Stock on hand

For example, take the case of a rural clinic which receives a monthly order from a central store:

- It is agreed that the clinic, when fully stocked, should hold **10,000** paracetamol 500mg tablets. This is the **Imprest quantity**.
- At the end of a particular month, a stocktake shows that the **Stock on hand** is **2,400** paracetamol tablets.
- To restore the stock of paracetamol tablets to the Imprest quantity, the amount to be ordered is calculated as:

Order quantity = 10,000 (Imprest quantity) minus 2,400 (Stock on hand) = 7,600

This feature caters for mSupply users who operate an imprest system, where a central store supplies goods on a *regular basis* to a number of customers, who may/may not be mSupply users themselves. We advise that the customers should be provided with a list - perhaps for a 12 month period - of the dates on which they should perform a stock check and submit the figures, ideally on a customised form, to the central store according to the prearranged schedule. It is important to note that the customer needs to supply only the current stock on hand figures, a relatively simple task; customers are not required to submit details of what they perceive to be order quantities.

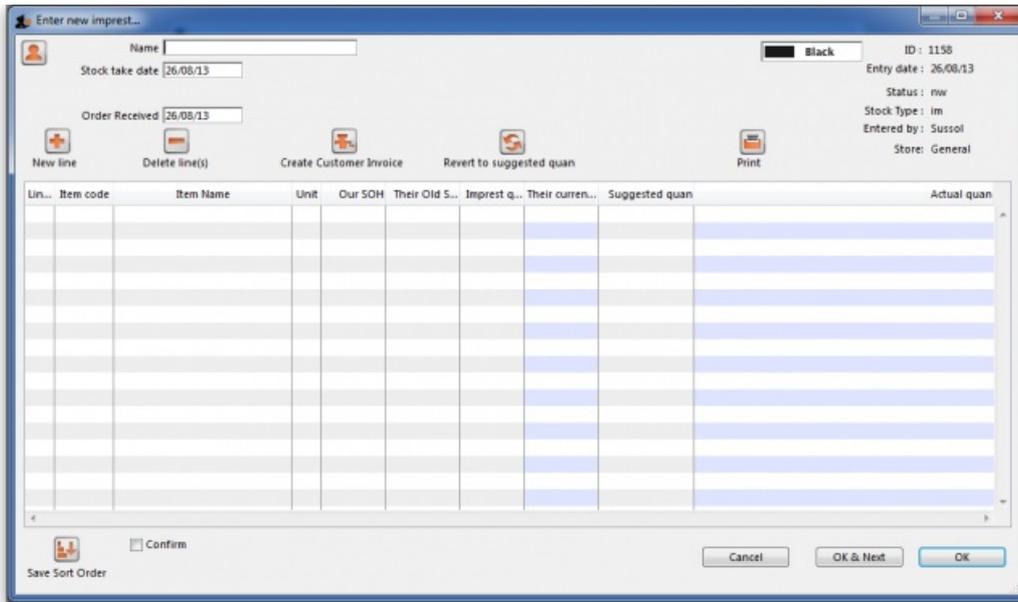
It should be remembered that the items to be included in the list and their imprest quantities must be defined for each customer individually. The imprest quantity defined for a particular customer is unique to that customer, and has no bearing on imprest quantities defined for other customers.

Processing the order from the customer

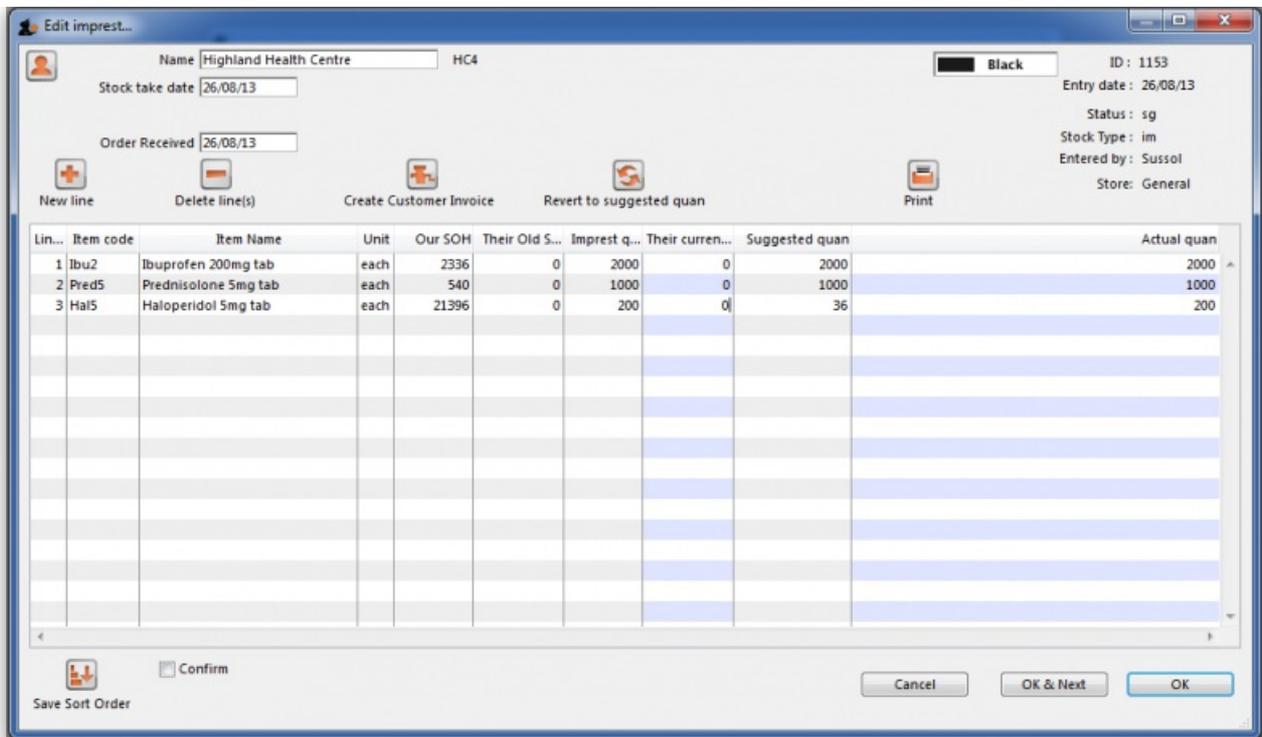
The central store, on receiving the stock on hand details from the customer, selects from the Navigator or Customer menu the item *Show requisitions*, which displays this window:

ID	Name	Date entered	Requisition date	Status	Type
2	Cactus Hospital	15/02/2018	15/02/2018	sg	response
6	Amnesty Hospital	06/06/2018	06/06/2018	sg	im
7	Bike Hospital	06/06/2018	06/06/2018	sg	sh

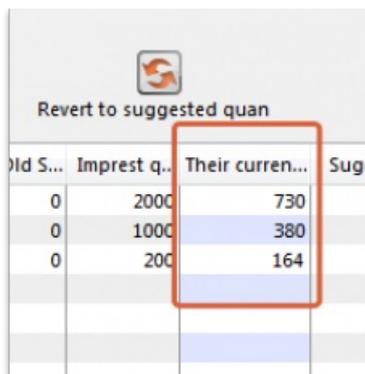
If you are working with a customer for whom no imprest list has been defined, clicking on the *New customer imprest* will display the *Enter new imprest* window, where appropriate entries are made.



Continuing to use Highland Health Centre as our example (for whom we have created an imprest list), double clicking on that entry displays this new window on which the imprest list appears:



You will note that there are no entries in the *Their current stock* column, and the figures supplied by the customer should be entered; click on each line, and after a second or two the zero appearing in that column can be edited with the required figures.

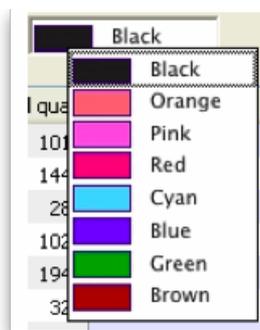


There is an important exception here: if the name you entered in the Name textbox is actually another store in mSupply then the *Their current stock* column will be automatically filled in with the stock in the store. Very useful time saving feature!

Simultaneously, mSupply completes the next two columns, *Suggested Quantity*, and *Actual Quantity*. The *Actual Quantity* entries may be edited to reflect, for example, pack sizes, to ensure that actual quantities match exact multiples of the pack size. After editing, the window may appear like this:

Lin...	Item code	Item Name	Unit	Our SOH	Their Old S...	Imprest quantity	Their current SOH	Suggested quan	Actual quan
1	Ibu2	Ibuprofen 200mg tab	each	2336	0	2000	730	1270	1500
2	Pred5	Prednisolone 5mg tab	each	540	0	1000	380	620	1000
3	Hal5	Haloperidol 5mg tab	each	21396	0	200	164	36	100

Should you have any reason to identify one or more lines, this may be performed by highlighting the line(s), and changing the colour of the font. Black is the default, but other options may be selected from the drop-down list:



Selecting 5 or more lines brings up an alert requiring confirmation of your intention.

Once you are satisfied, the *Create customer invoice* button should be clicked, and you will proceed to [creating the customer invoice](#), which is the same for all requisition types.

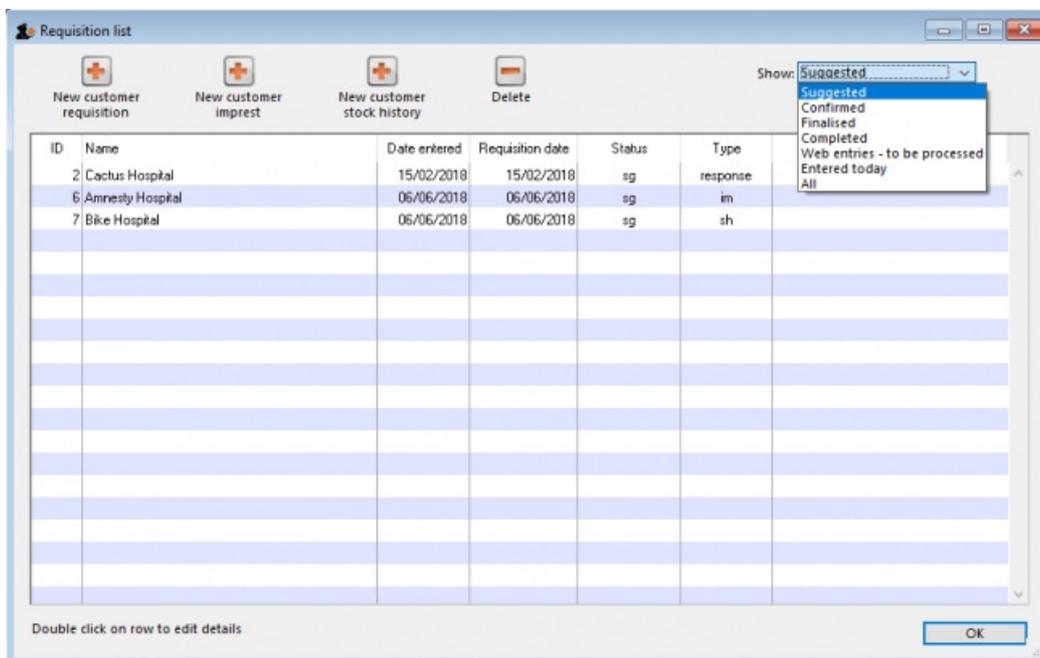
Response (internal) requisitions

These work in much the same way as [customer stock histories](#), but with some notable differences:

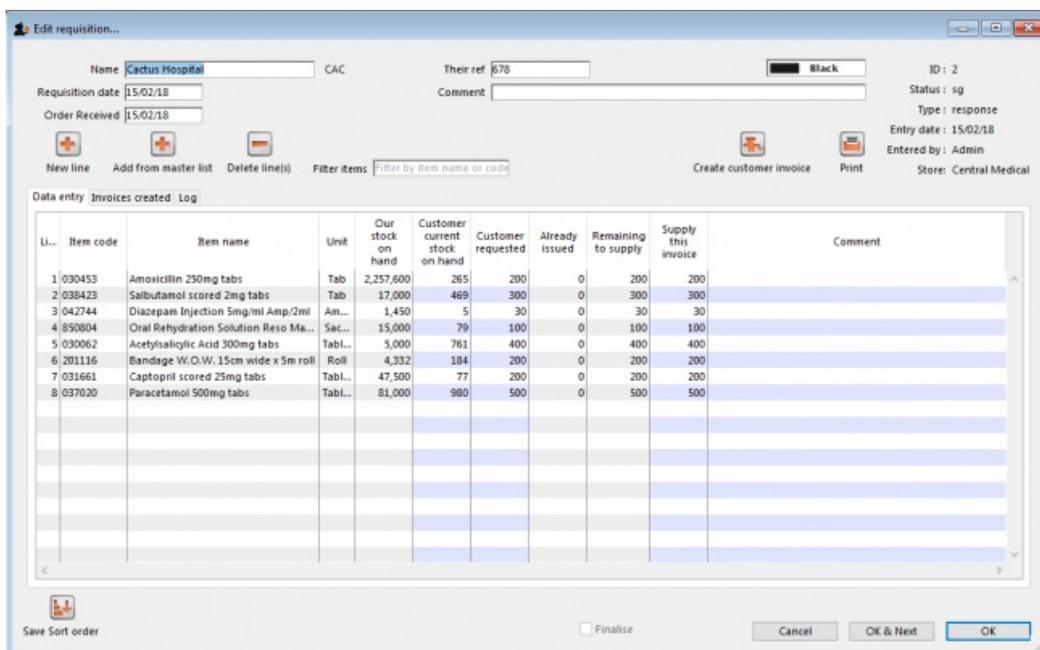
- Most importantly, you don't need to create it! A response requisition will be automatically created in your (supplying) store as a result of a request requisition from an mSupply mobile (see [here](#) for details) or an [internal order](#) from another store (e.g. on another mSupply 'desktop' site). In both of these cases, the customer is another store in your mSupply system and most of the data will have been entered already by them.
- It doesn't attempt to calculate usage or suggest an amount to supply - this data is expected to have come from the customer.
- It is possible to generate multiple customer invoices from a single response requisition e.g. if not all of the requested stock is available at the time the requisition is entered, this allows for an initial customer invoice to be sent to partially fulfil the request and another to be sent at a later date when more stock becomes available.
- It provides a more accurate way to track demand vs supply.

Entering a requisition

To begin the process, choose *Customer > Show requisitions*, and the list of any historic response requisitions is displayed along with the other requisition types. A *Status* of **sg** (suggested) means that no customer invoices have been created yet - as soon as the first customer invoice is created, the status will go to **cn** (confirmed):



Either double-click on an existing requisition to edit it, or click the **Add new requisition** button to create a new one. The example below is for a manually entered requisition:



If this is a manually entered requisition:

- Enter/update the customer *Name* in the same way as a customer stock history (i.e. enter the first key characters and hit the **Tab** key to find matches), but note that changing the customer will invalidate any other data that you've already entered.
- If necessary, update the *Requisition date* and *Order received* - these will default to the current date.
- Use either the **New line** button to manually add a single item, or **Add from master list** to add all items from a **master list**.

Important

When you click on the **Add from master list** button you will see a list of all the master lists assigned to your store and your customer (see the 4.04. [Item master lists](#) page for details on master lists and how to assign them). Whichever master lists you choose to add items from, only the items visible in your *customer's* store will be added to the requisition. This will avoid the situation where you send a store an item that they didn't previously have visible to them!

- If the customer is another store, mSupply already knows their current stock, otherwise adding a single item will give you the opportunity to enter the customer's current stock for that item. Either way, the cursor will go into the *Customer current stock on hand* cell, which will already be filled in.
- If adding from a master list, the cursor will go into the first new item's *Customer current stock on hand* cell, but you'll then have to type in a value (unless the customer is another store, in which case the value will have been filled in for you).
- Either way, hitting the **Tab** key will move the cursor into the *Customer requested* cell. Type in a value and this will be automatically copied to the *Remaining to supply* cell and also the *Supply this invoice* cell, which will now have the cursor.
- Amend the *Supply this invoice* value if necessary and optionally enter a *Comment* (e.g. if the amount supplied is less than requested).
- If necessary, use the **Delete line(s)** button to remove selected item lines.

If the requisition has come in automatically from another store (e.g. mobile or an internal order):

- The customer *Name* is already filled in and cannot be changed.
- The *Customer current stock on hand* and *Customer requested* columns are already filled in and cannot be changed i.e. only the *Supply this invoice* and *Comment* columns are editable.
- If necessary, you can still add and/or delete item lines manually.

If the requisition has a lot of item lines, you can filter them by typing into the *Filter items* field. If you do that, only the lines with items beginning with the letters you have typed in the field will be displayed. The text *X/Y* will be displayed after the search field to indicate that *X* lines of the total *Y* lines in the requisition are currently being displayed (2/8 in the following screenshot):

The screenshot shows the 'Edit requisition...' window. At the top, there are fields for Name (Cactus Hospital), Their ref (678), Requisition date (15/02/18), and Order Received (15/02/18). Below these are buttons for 'New line', 'Add from master list', and 'Delete line(s)'. A 'Filter items' field contains the letter 'A', with '2/8' displayed to its right. To the right of the filter field are buttons for 'Create customer invoice' and 'Print'. Below the filter field is a table with the following data:

Li...	Item code	Item name	Unit	Our stock on hand	Customer current stock on hand	Customer requested	Already issued	Remaining to supply	Supply this invoice	Comment
1	030453	Amoxicillin 250mg tabs	Tab	2,257,600	265	200	0	200	150	partial supply
5	030062	Acetylsalicylic Acid 300mg tabs	TabL...	5,000	761	400	0	400	300	partial supply

At the bottom of the window, there are buttons for 'Save Sort order', 'Finalise', 'Cancel', 'OK & Next', and 'OK'.

Note that, while a filter is active, some of the other buttons are disabled e.g. you can't create an invoice or save the sort order unless all lines are visible. To make them active again, simply delete any text in the *Filter items* textbox (which will remove the filter).

Once you are satisfied, the *Create customer invoice* button should be clicked, and you will proceed to [creating the customer invoice](#). The *Supply this invoice* values will be used to populate the new customer invoice and the requisition status will change to confirmed.

Finalise Checkbox

Clicking on the "Finalise Checkbox" finalises the requisition form. After this no changes can be made.

Finalised requisitions will no longer appear on reports that show "Remaining Quantities" as pending. Finalised requisitions are be considered as fully processed.

Requisition status

Summarising from above, the status of the requisition has the following meanings:

- Status = **sg** (suggested): No customer invoices have been created yet
- Status = **cn** (confirmed): At least one customer invoice has been created from the requisition
- Status = **fn** (finalised): No changes can be made to the requisition. It will no longer appear on reports that show "Remaining Quantities" as pending. Finalised requisitions are be considered as fully processed.

Creating the customer invoice

Regardless of the requisition type, when the *Create customer invoice* button has been clicked, and the following window appears:

Customer invoice

Name: Highland Health Centre Confirm date: 00/00/00 Colour: Black

Their ref: HC4 Invoice: 30,034

Comment: Invoice from customer stock history Category: None Entry date: 26/08/13

Goods receive ID: 0

Status: sg

Entered by: Sussol

Store: General

New line Delete line(s) History Confirm

General Summary by Item Summary by Batch Transport details Log

N...	Li...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1			Ibuprofen 200mg tab	1500	1	none		0.00	0.00
2			Prednisolone 5mg tab	1000	1	none		0.00	0.00
3			Haloperidol 5mg tab	100	1	none		0.00	0.00

Other charges Item: Amount: 0.00

Subtotal: 0.00

0 % tax: 0.00

Total: 0.00

Hold Finalize Export batch: 0

OK & Next Delete OK

Info

If the customer invoice has been generated from an original internal order in another store, the customer invoice window will have a red **Stock transfer** label.

Similarly, if the customer invoice has been generated from an original internal requisition in another store, the customer invoice window will have a red **Internal requisition** label.

All the entries appear as (red) placeholder lines. The operator needs to allocate stock to each of these placeholder lines before a pick list can be printed. The operator can either [manually allocate stock](#) or by using the [Grinder](#) button.

Manually allocate stock

The next step is to double click on each entry and allocate stock. In the example, the 1st item on the invoice, *Ibuprofen 200mg tablets*, is being processed; there are several batches in our store, some of which have reached their expiry; although line 4 indicates there are sufficient to meet this order in the store, you will note that only 106 tablets are available, so we select line 6.

edit line

Item: Ibuprofen 200mg tab Ibu2

Line: 6

Quan: 1500 of 2500

Pack: 1 each Bulk/Outer pack size: 0

Add Placeholder Re-lookup Sell Price

Li...	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price	Status
2	0	600	600	1	<input type="checkbox"/>	IDIH0280	30/11/10	ida	TAB	0.01	0.01	
3	0	140	140	1	<input type="checkbox"/>	IDIH0280	30/11/10	ida	TAB	0.01	0.01	
4	0	106.0000	1596	1	<input type="checkbox"/>	IDIH0280	29/11/16	ida	TAB	0.01	0.01	
5	0	1000	1000	1	<input type="checkbox"/>	G366	31/12/16	invad	AAA	0.00	0.00	
6	0	2500	4000	1	<input type="checkbox"/>	DP8081	31/01/17	ida	AAA	0.01	0.01	

Total quantity issued: 2000

Total quantity available: 4346

Cancel OK OK & Next

Clicking on **OK & Next** displays the next item on the invoice, *Prednisolone 5mg tablets*.

edit line

Item Pred5

Line

Quan of 0

Pack each Bulk/Outer pack size 0

Li...	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price	Status
1	1000	0	0	1	<input type="checkbox"/>	none				0.00	0.00	
2	0	540	540	1	<input type="checkbox"/>	wE201	31/12/16	invad	AAA	0.00	0.00	

Total quantity issued 1000
Total quantity available 540

Click *Redistribute all*, which is the normal procedure. There is only one batch available, but there is insufficient stock to meet the order, so mSupply® creates a placeholder line for the outstanding amount.



When the final item has been processed, clicking on OK will display the completed invoice.

Customer invoice

Name Confirm date Colour:

Their ref Invoice: 30,034

Comment Category Entry date: 26/08/13

Goods receive ID: 0

Status: sg

Entered by: Sussol

Store: General

New line Delete line(s) History Confirm

General Summary by Item Summary by Batch Transport details Log

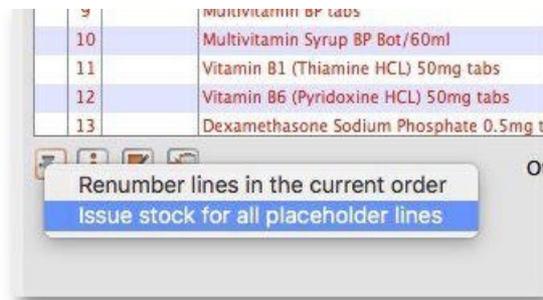
N...	Li...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1			Ibuprofen 200mg tab	1500	1	none		0.00	0.00
2			Prednisolone 5mg tab	460	1	none		0.00	0.00
2	AAA		Ibuprofen 200mg tab	1500	1	DP8081	31/01/17	0.01	15.00
3	AAA		Prednisolone 5mg tab	540	1	wE201	31/12/16	0.00	0.00
3	TAB		Haloperidol 5mg tab	100	1	7MK29	31/10/10	0.06	6.00

Other charges Item: Amount:
Subtotal: 21.00
0 % tax: 0.00
Total: 21.00

Hold Finalize Export batch: 0

The Grinder button

If your store is organised well, particularly by use of [location priorities](#), you can automatically allocate stock to all placeholder lines by use of the grinder icon at the bottom left. 



Make sure the *Hold* checkbox is not checked, and at this stage the invoice may be confirmed.

Info

If the customer invoice is for another store (i.e. if it has a red **Stock transfer** label or red **Internal requisition** label), it must be **finalised** in order to transfer the goods to the other store:

- For a stock transfer, this will generate a supplier invoice in the other store - see Transferring goods to another store
- For an internal requisition, this will generate a goods received record in the other store - see Receiving goods from another store

After creating a customer invoice

- The *Already issued* column will be updated to reflect any non-placeholder lines (i.e. those not coloured red in the customer invoice) in any customer invoices which have been generated from the requisition regardless of the customer invoice status (i.e. it doesn't have to be confirmed).
- The *Remaining to supply* column will be reduced by the amount already issued, and *Supply this invoice* will be updated accordingly:

Edit requisition...

Name: Cactus Hospital CAC Their ref: 678 Black ID: 2

Requisition date: 15/02/18 Comment: Status: cn

Order Received: 15/02/18 Type: response

Entry date: 15/02/18

Entered by: Admin

Store: Central Medical

Buttons: New line, Add from master list, Delete line(s), Filter items (Filter by item name or code), Create customer invoice, Print

LI...	Item code	Item name	Unit	Our stock on hand	Customer current stock on hand	Customer requested	Already issued	Remaining to supply	Supply this invoice	Comment
1	030453	Amoxicillin 250mg tabs	Tab	2,257,600	265	200	150	50	50	partial supply
2	038423	Salbutamol scored 2mg tabs	Tab	17,000	469	300	300	0	0	
3	042744	Diazepam Injection 5mg/ml Amp/2ml	Am...	1,450	5	30	30	0	0	
4	850804	Oral Rehydration Solution Reso Ma...	Sac...	15,000	79	100	100	0	0	
5	030062	Acetylsalicylic Acid 300mg tabs	Tabl...	5,000	761	400	300	100	100	partial supply
6	201116	Bandage W.O.W. 15cm wide x 5m roll	Roll	4,332	184	200	200	0	0	
7	031661	Captopril scored 25mg tabs	Tabl...	47,500	77	200	200	0	0	
8	037020	Paracetamol 500mg tabs	Tabl...	81,000	980	500	500	0	0	

Buttons: Save Sort order, Finalise, Cancel, OK & Next, OK

In the example above, a single customer invoice has been created to supply most of the requested stock, apart from two items. You can then create a second customer invoice to supply the outstanding amounts.

Details of the related customer invoices can be seen in the **Invoices created** tab:

Edit requisition...

Name: Cactus Hospital CAC Their ref: 678 Black ID: 2
 Requisition date: 15/02/18 Comment: Status: cn
 Order Received: 15/02/18 Type: response
 Entry date: 15/02/18
 Entered by: Admin
 Store: Central Medical

Data entry Invoices created Log

Invoice number	Invoice confirmed	Invoice status	Item code	Item Name	Number of packs	Pack Size	Total quantity	Batch	Expiry date
27	06/06/2018	cn	030062	Acetylsalicylic Acid 300mg tabs	0	1,000	300	c7878	30/04/2020
28	06/06/2018	sg	030062	Acetylsalicylic Acid 300mg tabs	0	1,000	100	c7878	30/04/2020
27	06/06/2018	cn	030453	Amoxicillin 250mg tabs	0	1,000	150	82929	31/12/2020
28	06/06/2018	sg	030453	Amoxicillin 250mg tabs	0	1,000	50	82929	31/12/2020
27	06/06/2018	cn	201116	Bandage W.O.W. 15cm wide x 5m roll	3	12	36		
27	06/06/2018	cn	201116	Bandage W.O.W. 15cm wide x 5m roll	13	12	164	D456486	30/04/2021
27	06/06/2018	cn	031661	Captopril scored 25mg tabs	0	500	200	C67562	30/07/2022
27	06/06/2018	cn	042744	Diazepam Injection 5mg/ml Amp/2ml	1	25	30	sdlj28	31/03/2020
27	06/06/2018	cn	850804	Oral Rehydration Solution Reso Mal 42g sachet for 1 litre/ CAR-100	1	100	100	654TD47	
27	06/06/2018	cn	037020	Paracetamol 500mg tabs	0	1,000	500	D56756	
27	06/06/2018	cn	038423	Salbutamol scored 2mg tabs	0	1,000	300	56D7678	31/03/2022

Cancel OK & Next OK

Double-clicking on any of these lines will open the corresponding customer invoice.

Danger of failing to re-supply in time

⚠ Important

Obviously, regardless of the calculation method employed, if the supplying store fails to re-supply the customer within the supply period (G) then the customer will start eating into the buffer stock and is in danger or running out of stock!

Previous: [8.06. Box management](#) || Next: [8.08. Customer budgets](#)

Last modified: 2022/02/08 15:35 by Gary Willetts

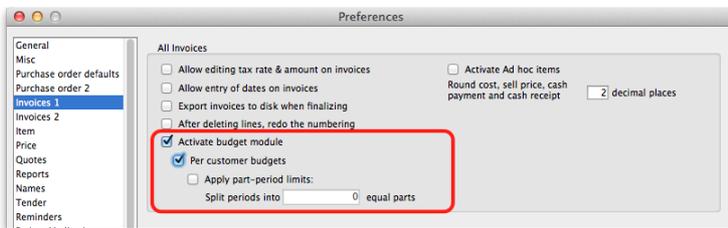
8.08. Customer budgets

This feature enables you to manage the budgets of customers in your system. Remember, in mSupply customers are names to which you supply goods. To enable the feature you need to turn it on and then set preferences for its use and allocate budgets to your customers. When using it, you see extra fields on a customer invoice which tell you how much budget the customer has been allocated and the amount you have remaining. Once a customer has reached their budget limit a customer invoice cannot be confirmed unless it is first authorised. All the details you need are below.

Setting up the customer budgets feature

Turning the feature on: File preferences

- Go to File > Preferences...
- Select the Invoices 1 tab.
- Check the 'Per customer budgets' checkbox. Note that 'Activate budget module' must be checked first and you should have previously set up your budget periods (see [Budgets](#) for details).
- After clicking **Per customer budgets** checkbox confirm dialog box is shown with message “Turning on the customer budgets functionality requires that the preferences for authorising customer invoices be turned on and automatically confirming and finalising customer invoices be turned off. Is this OK?”
- You must click OK to activate the functionality. When you do, the “Customer invoices must be authorised” and “Authorisation needed only if over budget” store preferences are turned on for all stores.
- Optionally, you can divide budget periods up into smaller equal parts and apply the same fractional amount of the period budget to each part-period. For example, if your budget period is a year you might want to split this up into quarters and allow customers to freely spend up to a quarter of their annual budget in this time. To activate these additional limits check the **Apply part-period limits** checkbox and type into the textbox the number of part-periods you want to split the budget periods into. To split annual periods into quarters you would enter 4 into the textbox:



Important

Note that any unused amounts of part-period budgets roll over to the next part-period. Full period budget amounts do **not** roll over to the next period.

Configuration: Store preferences

- If Per customer budgets is turned on then “Customer invoices must be authorised” checkbox and “Authorisation needed only if over budget” are turned on. This is done automatically for you when you turn the feature on (as mentioned above). You can, however, uncheck these checkboxes for individual stores to have the feature work in different ways:
 1. “Customer invoices must be authorised” and “Authorisation needed only if over budget” both checked - customer invoices can be confirmed freely until the budget limit is reached. After that, customer invoices must be authorised before they can be confirmed.
 2. “Customer invoices must be authorised” and “Authorisation needed only if over budget” both unchecked - mSupply will display the budget information on the customer invoice but it will not enforce the budget.
 3. “Customer invoices must be authorised” checked, “Authorisation needed only if over budget” unchecked - all customer invoices must be authorised, regardless of whether the customer has exceeded their budget.

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Allow editing selling price on customer invoice lines
 Purchase order must be authorised
 Finalize customer invoices automatically
 Customer invoices must be authorised
 Authorisation needed only if over budget checkbox
 Confirm customer invoices automatically
 Supplier invoices must be authorised
 Confirm Supplier Invoices without asking

Custom field label 4

When finalising a Goods Receipt

Don't receive goods into stock until Supplier Invoice is taken off hold
 Receive goods into stock, and leave Supplier Invoice confirmed
 Receive goods into stock, and finalise Supplier Invoice immediately

Add budget periods

- These are the system-wide budget periods that mSupply uses for its budget functionality. Customer budgets are assigned to these budget periods so you must set them up before you can start setting up individual customer budgets.
- From the Navigator click the drop down menu **Special > Show budgets....** You click on the **New** button to create a new budget period but for the full details please see [Budgets](#).

Setup: Set individual customers' budgets

Tip

If you have a lot of customers to setup budgets for, you might like to import them instead. See the [17.06. Importing customer budgets](#) page for details on that.

- Note that if you want to set up many or all customers' budgets at one time you can use the import feature, details of which are [here](#)
- To set up the budget for each customer, go to Customer > Show customers..., click on the Find button, and double click on the first customer to show their details
- Click on the Budget tab
- **Add budget:** Click on this button to add a budget. This opens the edit budget window shown below.
- **Delete budget:** Select a budget in the list and click on this button to remove the budget for the customer.
- **Edit a budget** by double clicking on a budget in the list. This will also open the edit budget window (shown below) pre-populated with the budget's current settings, all of which are editable.

Edit customer/supplier

Store: 

Add budget Delete budget

Budget description	Start date	End date	Amount
Yearly budget	01/01/2013	31/12/2013	100000

General
Invoices
Backorders
Quotes
Notes
Contacts
Group
Purchase orders
Web log-in
Item lists
Stock history
Store
Photo
Budget

Customer budget edit window

Budget input

Description

Budget period

Amount

Additional budget

Effective date

- **Description:** The description for the budget. This is for your reference, only displayed in the budget tab of the customer details window.
- **Budget period:** The period that the budget applies to. This list contains only the budget periods previously set up using [Budgets](#).
- **Amount:** The amount of the budget in your local currency
- **Additional budget:** If checked this tells mSupply that the budget amount is to be considered as an additional amount available only from the part-period in which its effective date falls. For example, if you have a budget of 100,000 which runs from 1st January to 31st December in a given year and is split into 4 part periods and you then have an additional budget amount of 10,000 with an effective date of 30th July, the

following budget limits will apply: for the 1st quarter the customer has 25,000 available, the 2nd quarter 50,000 available (25,000 + 25,000 because part period amounts roll over), the 3rd quarter 85,000 available (25,000 + 25,000 + 25,000 + 10,000) and the 4th quarter 110,000 available (25,000 + 25,000 + 25,000 + 10,000 + 25,000).

- **Effective date:** This field is only visible if the *Additional budget* checkbox is checked. The date that the budget amount is to be effective from: mSupply applies the additional budget amount to the part period in which this date falls. Note that if part periods are not in use then additional amounts simply add to the total budget available for the whole budget period.

Using the customer budgets feature

The customer invoice window

This is where you see the customer budgets feature doing its job; when you're distributing goods to a customer:

- Create a new customer invoice (Customer > New invoice...)
- Enter the customer name
- Select the budget period that this invoice belongs to from the Period drop down list (this list contains the periods you set up using [Budgets](#)).
- If you haven't set up a budget for the customer you are warned with this message: "There is no budget set for this customer in that period. You will not be able to confirm the invoice until the budget has been set."
- If you've followed the instructions above and setup the customer's budget correctly then the **Total budget used** and **total budget** fields are populated to show you exactly how much of their budget the customer has used so far.
- Add items to the invoice as required.
- Everything will behave exactly as it has done before until the customer's budget amount has been exceeded.
- When the customer's budget has been exceeded (this can be the full period amount or the part-period amount if the part-period limits are turned on) and the **confirm button** is clicked you will be alerted with the message "This invoice exceeds the budget set for this customer. You cannot confirm it without authorisation (Note: you cannot confirm the invoice at the same time as authorising it, you must save the authorisation first by clicking the OK button, then re-open the invoice and confirm it)".
- The invoice must now be authorised by a user with suitable permissions before it can be confirmed: See [Invoice Authorisation](#) for details on authorising customer invoices.

Customer invoice

Name: Kabangaki Dispensary
 Their ref: AMRD38
 Comment: []

Confirm date: 00/00/00
 Period: 01/01/2013 - 31/12/...
 Category: None

Colour: Black
 Invoice: 133,071
 Entry date: 31/12/2013
 Goods receive ID: 0
 Status: sg
 Entered by: Sussol
 Store: General

...	L...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1	TAB		Amoxicillin 500mg cap	10000	1	70512100	30/10/20:	0.02	200.00

Other charges: Item: [] Amount: 0.00
 Subtotal: 200.00
 0 % tax: 0.00
 Total: 200.00

Total budget used: 1,977.89 of 100,000.00

Hold Finalize Authorised Export batch: 0

OK & Next Delete OK

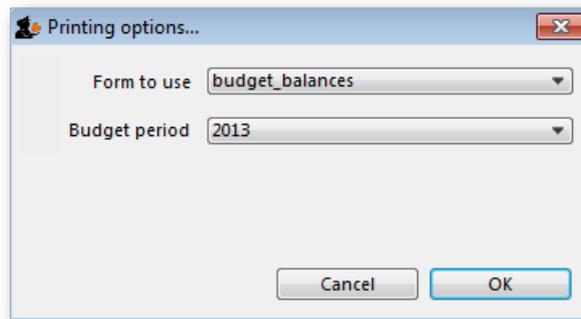
Reporting on customer budgets

There are several reports that provide various information on customer budgets, they are:

- Disbursement Report - shows items with their values which have been distributed to customers during a budget period.
- Expenditure report - shows spending against budgets with remaining available budget.
- Trend Report - shows, in graph format, spend against budgeted amount.

Disbursement report

- From the Navigator click drop down menu **Reports** and click option **Customer Budgets**.
- Choose budget_balances from the print options window which appears:

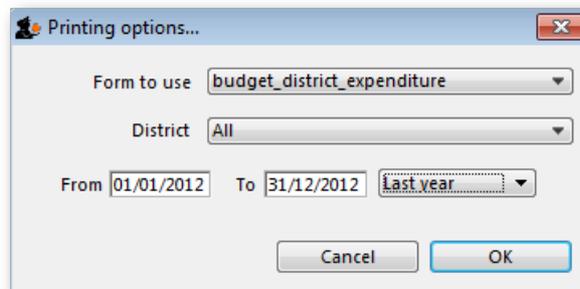


The dialog box titled "Printing options..." contains two dropdown menus. The first is labeled "Form to use" and is set to "budget_balances". The second is labeled "Budget period" and is set to "2013". At the bottom, there are "Cancel" and "OK" buttons.

1. Budget period: select the period you want to report on.

Expenditure report

- From the Navigator click drop down menu **Reports** and click option **Customer Budgets**.
- Choose budget_district_expenditure (or budget_facility_expenditure) from the print options window which appears:

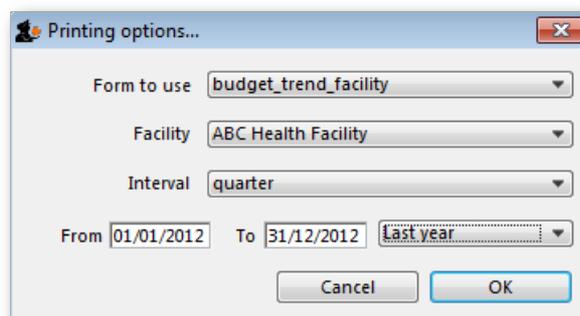


The dialog box titled "Printing options..." contains three dropdown menus. The first is labeled "Form to use" and is set to "budget_district_expenditure". The second is labeled "District" and is set to "All". The third is labeled "From" and "To" with a date range of "01/01/2012" to "31/12/2012" and a reporting interval dropdown set to "Last year". At the bottom, there are "Cancel" and "OK" buttons.

1. If District: Select "All" to see expenditure for all districts, or select a district to see expenditure for the facilities in that district
2. If Facility: Select the facility to see expenditure for that facility, and select the reporting interval
3. Select the date range you want to report on.

Trend report

- From the Navigator click drop down menu **Reports** and click option **Customer Budgets**.
- Choose budget_trend_district (or budget_trend_facility) from the print options window which appears:



The dialog box titled "Printing options..." contains four dropdown menus. The first is labeled "Form to use" and is set to "budget_trend_facility". The second is labeled "Facility" and is set to "ABC Health Facility". The third is labeled "Interval" and is set to "quarter". The fourth is labeled "From" and "To" with a date range of "01/01/2012" to "31/12/2012" and a reporting interval dropdown set to "Last year". At the bottom, there are "Cancel" and "OK" buttons.

1. District/Facility: Select "All" to see a graph for all, or select a district/facility to see a graph for just the selected district/facility
2. Interval: Choose the intervals you want for the horizontal axis, eg. quarterly, yearly, etc.
3. Select the date range you want to report on.

Note that this is a cumulative report, so the graphs generated need to include the entire budget period. This means that the date range is only used to determine which budget periods intersect with the selected dates e.g. if the date range covers more than one budget period, a graph will be generated for each one.



mSupply documentation wiki





User Guide



9. Returning Goods

[9.01. Return goods to a supplier](#)

[9.02. Receiving goods back from a customer](#)

Previous topic: [8. Issuing Goods](#) || Next topic: [10. Dispensing Goods](#)

Last modified: 2020/03/16 11:16 by Gary Willetts



9.01. Return goods to a supplier

⚠ Important

It is important to be able to return goods to a supplier without it being counted as goods being issued to a customer. If you just issue goods to your supplier through a Customer Invoice, then those goods will be counted as part of your store's 'issuance' (consumption). A Supplier credit is the right way to return goods to a supplier.

Goods are returned to a supplier using a supplier credit transaction. There are two ways to create one:

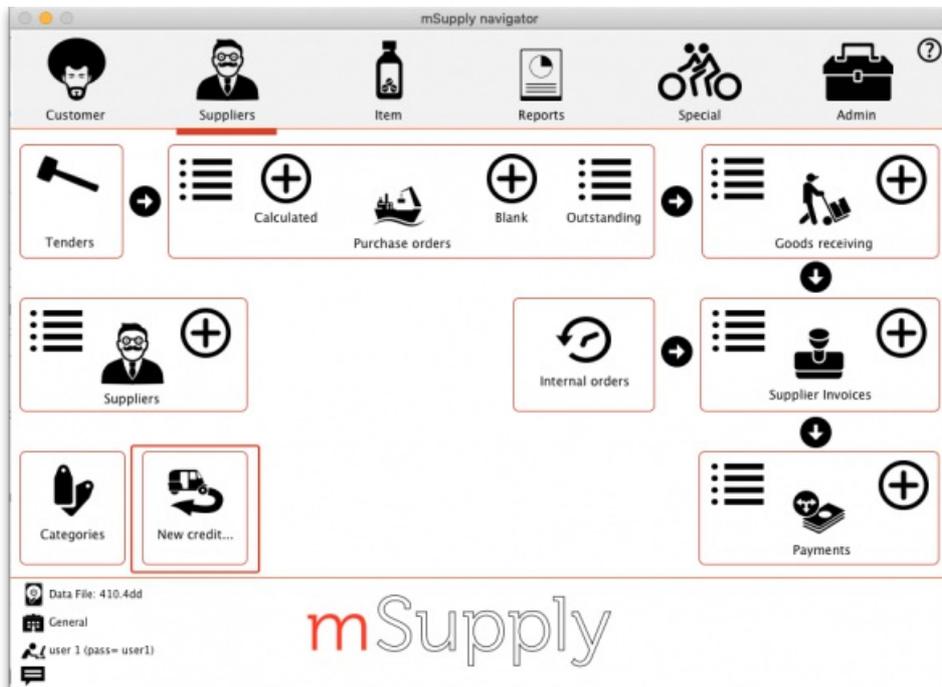
1. [Manually create a supplier credit](#)
2. [Create a supplier credit from a finalised supplier invoice](#)

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- [Create a supplier credit from a finalised supplier invoice](#)
- [Viewing supplier credits](#)
- [Manually create a supplier credit](#)
- [Create a supplier credit from a finalised supplier invoice](#)
- [Viewing supplier credits](#)

Manually create a supplier credit

On the Suppliers tab of the navigator, click on the **New credit...** icon (*Supplier > New supplier credit...* in the menus):



This will open the new supplier credit window:

In the *Name* text box, type the first few characters of the supplier's name then press the Tab key on the keyboard and select the correct supplier in the usual way. Enter a reference and comment in the *Their ref* and *Comment* fields if needed.

Info

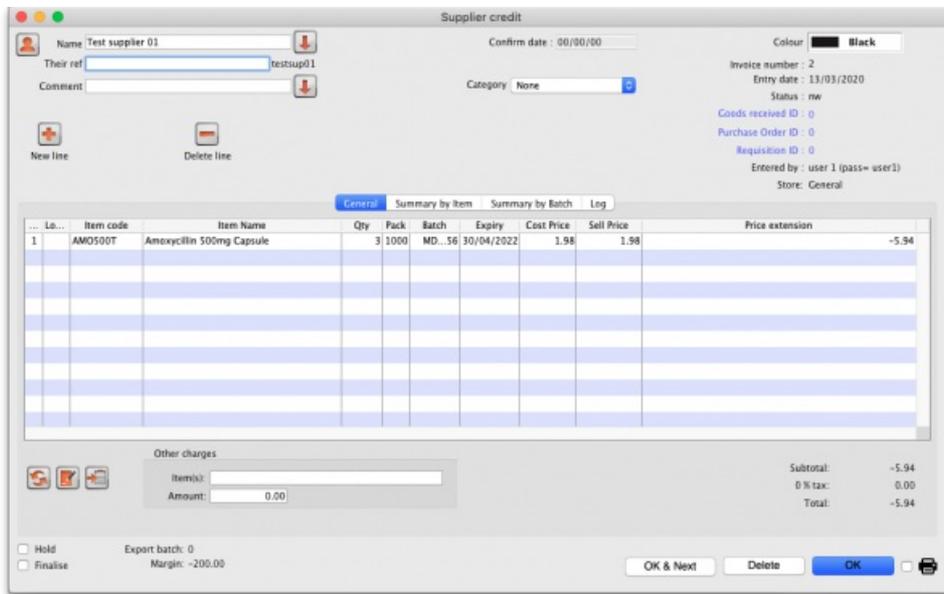
If the supplier is on hold you will be warned and asked if you wish to proceed with sending the goods back to them.

Now click on the *New line* button to open the new line window:

Just as you do on a customer invoice, you enter the name of the item and then select the line of stock you wish to return to the supplier (obviously, you're selecting what to return from what you already have in stock). So type the first few characters of the item's name or code in the *Item* field and press the tab key on the keyboard to select the item in the usual way. When you have selected the item, you will be shown the list of all batches you have in stock:

Line	Issue	Available	Tot in st...	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price	Sta
1	0	200	200	1000		MDO345/56	30/04/2022	testsup01		1.98	1.98	

Enter the number of packs to return in the *Quan* field and click on *OK* or *OK & Next* if you want to add another item. When you've finished adding items you'll be back at the supplier credit window:



Click on the **OK** button and the supplier credit will be automatically confirmed and the stock will be taken out of your system. If you need to print out a packing list or delivery note the click on the printer icon on the bottom right hand corner of the supplier credit window before clicking on the **OK** button.

If the supplier is another store

If the supplier in the *Name* field is another store, mSupply will create an on-hold customer credit in that store so that the users there can easily receive the goods in when they physically arrive at their warehouse. However, just as with normal customer invoice stock transfers, the customer credit will only be created when this supplier credit is finalised. So, if you have not checked the *Finalise* checkbox on the supplier credit before you clicked on the **OK** button, you will be shown this confirmation message:



If you click on the *Finalise* button the supplier credit will be finalised and the customer credit will be created in the supplier store. If you click on the *Leave as confirmed* button the supplier credit will be left at confirmed status (so the goods will still have been deducted from your store) but the customer credit will not be created in the supplier store. You can open the supplier credit again later and finalise it to create the customer credit in the supplier store.

A note about transaction categories: If you have set a transaction category in the supplier credit (the **Category** field in the screenshot above) then, when the customer credit is created in the supplier store, mSupply will look for a customer credit category with the same category code. If it finds one then it will assign it to the customer credit, otherwise it will not assign a category to the customer credit.

Create a supplier credit from a finalised supplier invoice

If a user has the *Return stock from supplier invoices* preference set (see the [21.15. Managing users](#) section for details), then, when they open a finalised supplier invoice, a *Return selected lines* button will be displayed:

Supplier Invoice (Read only)

Name: Test supplier 01 Confirm date: 13/03/2020 Colour: Black

Their ref: testsup01 Invoice number: 1

Comment: Category: None Entry date: 13/03/2020

Status: fn

Goods received ID: 0

Purchase Order ID: 0

Requisition ID: 0

Entered by: user 1 (pass= user1)

Store: General

Return selected lines

General Summary by Item Summary by Batch Price Log

...	Ln...	Item code	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension
1		AM0500T	Amoxicillin 500mg Capsule	200	1000	MD...56	30/04/2022	1.98	1.98	396.00
2		PAR500T	Paracetamol 500mg Tablet	2000	100	KLDR452	31/08/2023	2.40	2.40	4,800.00

Other charges

Itemis: Subtotal: 5,196.00

Amount: 0.00 0 % tax: 0.00

Total: 5,196.00

Hold Export batch: 0 Margin: 0.00

Finalise

OK & Next Delete OK

Select the lines you wish to return by clicking on them in the table (the usual Shift and Ctrl/Cmd+click and Ctrl/Cmd+A combinations are available) then click on the button to see the window where you enter the number of packs you wish to return:

Set the number of packs to return

Enter the number of packs to return for the lines you selected Reason for return: Please select...

Item code	Item name	Location	Batch	Expiry	Pack size	Number of packs available for return	Number of packs to return
AM0500T	Amoxicillin 500mg Capsule		MD0345/56	2022...000Z	1000	197	197
PAR500T	Paracetamol 500mg Tablet		KLDR452	2023...000Z	100	2000	2000

Cancel OK

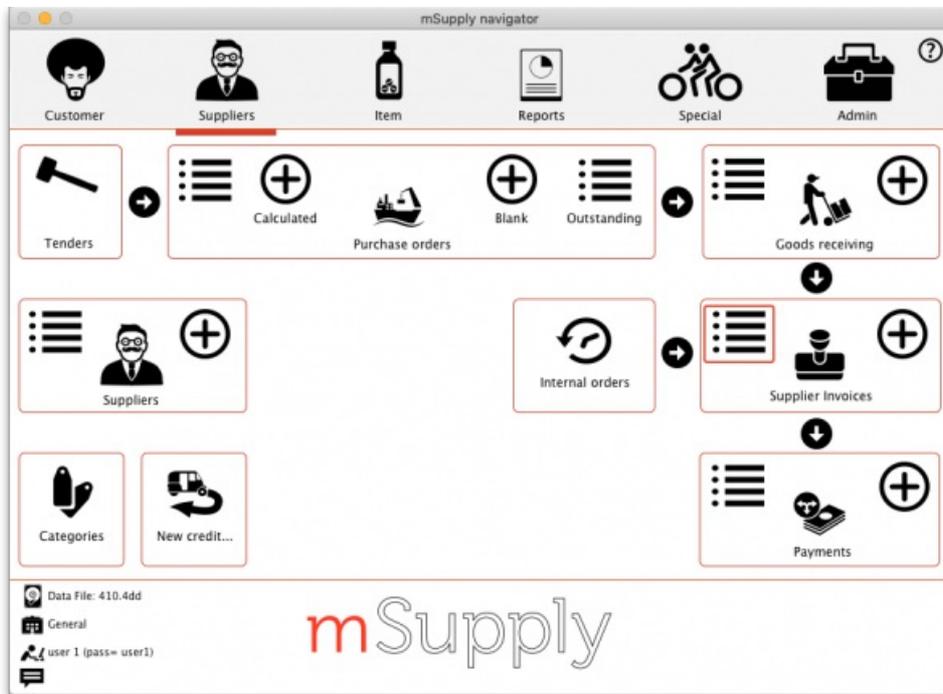
Each line you selected on the supplier invoice is shown in the table. In the *Number of packs to return* column, enter the number of packs you wish to return for each line. If you wish, select the reason for return in the drop down list in the top right hand corner of the window. This drop down list is populated with your supplier credit transaction categories (see the [22.07. Transaction categories](#) section for details on this).

When you're done, click on the OK button. mSupply will check you have the quantity you selected in stock. If you do not, you will be warned and you must set a different quantity. If all is well you are asked for confirmation and then a finalised supplier credit (with the transaction category you selected in the *Reason for return* drop down list) is created for you, which you can view as described in [Viewing supplier credits](#).

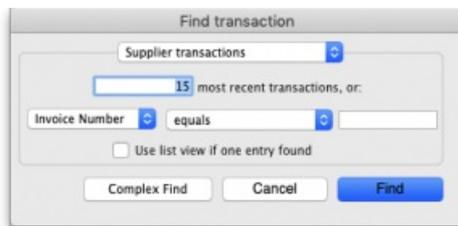
If the supplier is a store, you will be informed that a customer credit has automatically been created in the supplier's store, just as when you create a supplier credit manually. Note that, if you selected a reason for the return, mSupply will look for a customer credit transaction category with a code matching that of the reason you selected and, if it finds one, will apply that to the customer credit.

Viewing supplier credits

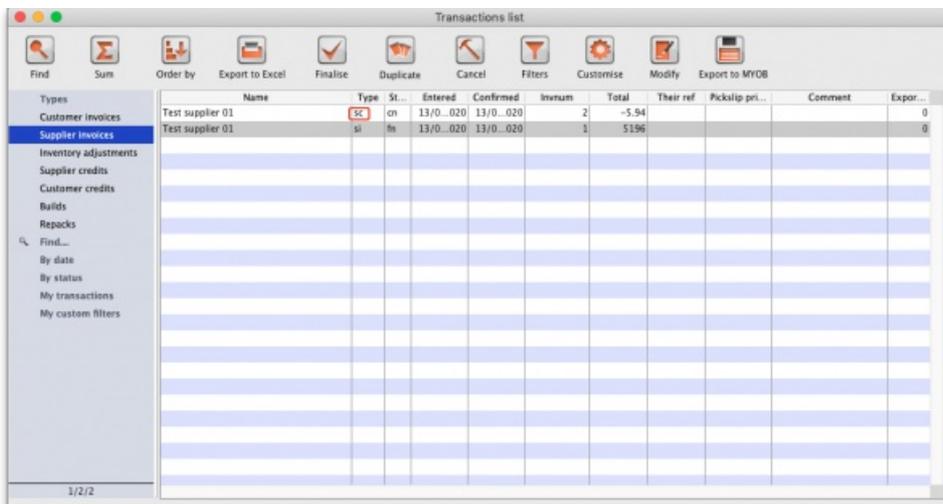
To view supplier credits you have created before, click on the show supplier invoice icon on the Suppliers tab of the navigator (*Supplier > Show invoices...* in the menus):



This will show you the search filter window:



Note that the drop down list at the top is set to *Supplier transactions*. Edit the other filter selections as required (leave the top drop down list as it is) and click on the OK button to see a list of all supplier transactions (invoices, credits etc.). The supplier credits are the ones with “sc” in the *type* column:



To see only supplier credits in the list you can click on the *Supplier credits* item on the left in that window.

Previous: [9. Returning Goods](#) | | Next: [9.02. Receiving goods back from a customer](#)

Last modified: 2022/02/16 04:58 by Mark Prins

9.02. Receiving goods back from a customer

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- [Viewing and editing customer credits](#)
- [Creating customer credits](#)
- [Viewing and editing customer credits](#)
- [Creating customer credits](#)

⚠ Important

It is important to be able to receive goods back from a customer without it being counted as goods coming from a supplier. If your customer issues the goods to you on a Customer Invoice, and you then receive it through a Supplier Invoice, then those goods will be counted as part of your store's 'supply' from suppliers, which is not correct. A Customer credit is the right way to receive goods back from a customer.

💡 Tip

If you have accidentally confirmed (and finalised) a Customer Invoice, then you should be able to [cancel it](#) to bring the stock back in, rather than creating a customer credit.

If one of your customers wishes to return goods to you, you should receive them back into your store using a customer credit transaction.

You can create a customer credit manually or it can be created automatically in your store if your customer is a store in mSupply and they create a supplier credit to return the goods to you - see the [9.01. Return goods to a supplier](#) page for details about that.

Customer credits created automatically will have the status *new* (**nw**) and placed on hold so that they do not affect stock in your store. When the goods physically arrive at your store, you can check them over, verify quantities, batches, condition, etc., make any necessary adjustments to the customer credit before taking it off hold and receiving the returned goods in to stock in mSupply.

Viewing and editing customer credits

Choose *Customer > Show invoices...* from the menu or click on the Show customer invoices icon on the Customers tab of the navigator:



This will show you the search filter window:



Note that the drop down list at the top is set to Customer transactions. Edit the other filter selections as required (leave the top drop down list as it is) and click on the OK button to see a list of all customer transactions (invoices, credits etc.). The customer credits are the ones with “cc” in the Type column:

Name	Type	St.	Entered	Confirmed	Innum	Total	Their ref	Picking pri...	Comment	Expor...
Test store 02	cc	in	13/0..020	13/0..020	2	-6				0
Test store 01	cl	in	13/0..020	13/0..020	1	63.6				0

Double click on any transaction in the list to view or edit it.

Creating customer credits

Choose **Customer > New credit...** from the menu bar or click on the *New credit...* icon on the Customer tab of the navigator to open this window:

Enter the name of the customer you are receiving the goods from in the *Name* field by typing the first few characters of the name and pressing the **Tab** key on the keyboard to select it.

i Info

If the customer is on hold you will be warned and asked if you wish to proceed with receiving the goods back from them.

Enter a reference and comment in the *Their ref* and *Comment* fields if required.

Now you need to add the goods that are begin returned to you. There are two ways of doing this:

1) Click on the **New line** button to add a line to the credit and this window will open:

Here you can enter the details of the first batch you are receiving. This is exactly the same as filling out the details for a supplier invoice line. Enter the name of the item first by typing the first few characters of the name or code then press the **Tab** key on the keyboard to select the right item. Now enter the rest of the details as required, to match the stock being returned.

Note that on the customer credit you should enter items with zero margin. This is because *mSupply* uses the cost price entered to calculate the amount to credit the customer, so you must enter the amount you charged them as the cost price for each line. Presumably you want to sell the item again for the same price you sold it originally, hence the cost and selling price should be the same.

When you have finished entering this line's details, click on the **OK** button if you're finished or the **OK & Next** button to add another line. When you've finished adding lines, click on the **OK** or **Cancel** button and you'll be taken back to the customer credit window, now showing the lines added.

2) Click on the **History** button. This window will open:

Date	Number	Prescriber	Item	Quantity	Credit Qua...	Batch	Direction
18/09/2020	1		AMOXICILLINE 500 MG GELULE	100	100	8092	
18/09/2020	1		PARACETAMOL 500 MG CP	150	150	000724	
26/08/2020	2372		NEVIRAPINE 10 MG/ML FL/100 ML	2	2	LA90342	
14/08/2020	2335		PARACETAMOL 100 MG SCH	120	120	3704	
13/08/2020	2327		AMODIAQUINE/...ADULTE PLQ/6 CP	25	25	PA0819G	
13/08/2020	2327		AMODIAQUINE/...4 ANS) PLQ/3 CP	50	50	CY2499065	
13/08/2020	2327		AMODIAQUINE/...1 MOIS) PLQ/3 CP	10	10	PA0859G	
13/08/2020	2327		ARTEMETHER/LU...ANS) PLQ/12 CP	30	30	KU816	
13/08/2020	2327		ARTEMETHER/LU...3ANS) PLQ/6 CP	10	10	PA2390B	
13/08/2020	2327		ARTEMETHER/LU...ULTE PLQ/24 CP	30	30	DJ0150B	
13/08/2020	2320		BOITE DE SECURI...OBJETS SOUILLES	3	3	NEANT	
13/08/2020	2320		DETERMINE HIV TEST KIT/100	2	2	06285K200R	
13/08/2020	2320		DOLUTEGRAVIR /...mg comp. bte/90	4320	4320	19071711	
13/08/2020	2320		EFAVIRENZ/LAMI...300/300 MG CP	4800	4800	3096204	
13/08/2020	2320		GANT DEXAMEN LATEX MM PQT/100	2	2	21208...SLPZA	

The list shows all the items that have been issued to this customer in date order, most recent at the top. Click on the line you wish to be returned and click on the **Add to credit** button. If you do not want to return the whole of the line then click on the **Credit quantity** cell and enter the quantity to be returned. Click on the **Add to credit** button to add the entered quantity of that line to the credit.

You can only add a single line to the credit at a time. If you wish to close the window without adding anything to the credit, click on the **OK** button.

Repeat the process as many times as you wish until you have added all the items to be returned.

Info

If the *Limit patient and customer credits to previously prescribed items* preference is turned on (see 15.03. Invoice preferences) then the **History** button is the only way you can add items to the customer credit (the **New line** button will be disabled).

Whichever way you add the lines to the credit, when you have finished doing so, click on the **OK** button to save the customer credit. This will automatically confirm it and put the items on it into your stock in *mSupply*.

Tip

There is no need to enter negative values for quantities or prices in *mSupply*. Even when you are entering returned goods from customers, or returning goods to suppliers, enter positive values. *mSupply* automatically converts the amounts to negative values as required to keep all the figures in correct balance.



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User Guide



10. Dispensing Goods

- 10.01. Dispensary mode
- 10.02. Prescription entry
- 10.03. Patients
- 10.04. Patient insurance
- 10.05. Prescribers
- 10.06. Abbreviations for dispensing
- 10.07. Diagnoses
- 10.08. Label printing preferences
- 10.09. Warnings
- 10.10. Patient medication records
- 10.11. Printer setup for Remote Desktop Client
- 10.12. Patient type and Ward setup

Previous topic: [8. Issuing Goods](#) || Next topic: [11. Payments and Receipts](#)

Last modified: 2020/03/16 11:08 by Gary Willetts





10.01. Dispensary mode

Dispensary mode allows you to issue medicines to individual patients. It is ideally suited for pharmacies, clinics, hospital dispensaries, and facilities where medicines are supplied to individual patients.

In dispensary mode:

- Prescription data can be entered into mSupply including:
 - [Patient details](#)
 - [Prescriber details](#)
 - [Prescribed items](#)
 - [Item directions](#) which can be quickly selected from standard abbreviations, and edited as necessary. Item directions can be printed in languages other than English.
- **Labels** can be printed with:
 - Item description and quantity issued
 - Patient name
 - Prescriber name
 - Directions
 - Institution name
 - More...
- [Patient histories](#) are recorded, allowing repeat prescriptions to be:
 - [Duplicated](#)
 - [Repeated](#)
- [Prescription payments](#) can be recorded

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- [Setting dispensary mode preferences](#)
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- [What changes in dispensary mode?](#)



Info

- Use of Dispensary mode depends on your mSupply registration type. Contact Sustainable Solutions if you wish to upgrade your registration.
- Regardless of mode, each user can only use those functions for which they have permission.
- In client-server versions of mSupply, different users can be logged in in different modes at the same time, allowing you to dispense to patients and supply wards, stores, clients or cost centres simultaneously.
- Users whose permissions allow them to operate in either Store mode or Dispensary mode may change from one to the other by pressing *Ctrl+2* on the keyboard. Re-entry of the user's password is not necessary.

Activating dispensary mode

Info

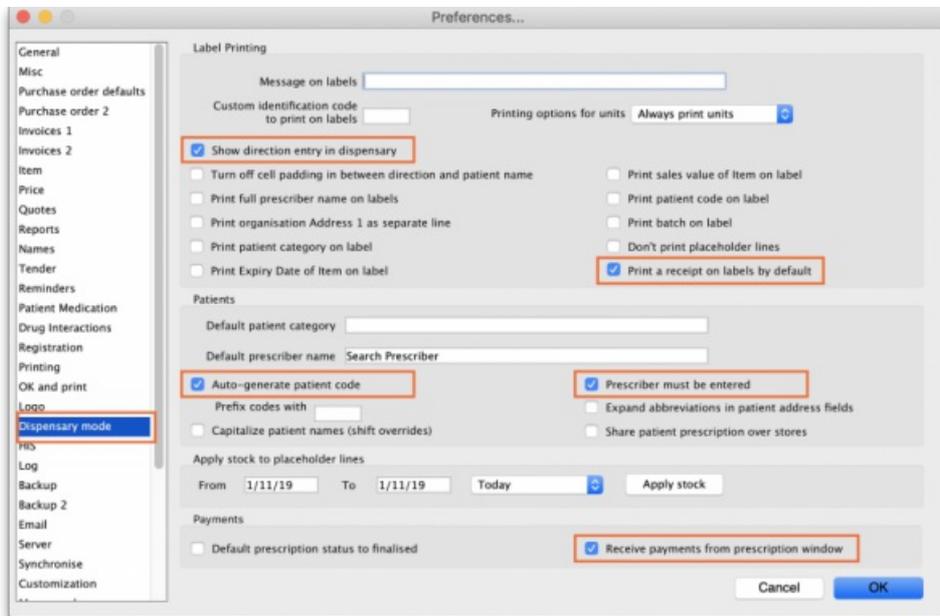
Prior to version 3.5 you controlled dispensary mode for each user, and had to choose **File > Edit users...** Now it's a setting for a store.

1. Choose **Special > Show stores...** from the menus.
2. Double-click on the store you want to set to dispensary mode.
3. Select **Dispensary** in the drop down list next to the store's code field.
4. Log out of the store and log in again to activate dispensary mode.

Setting dispensary mode preferences

Choose **File > Preferences > Dispensary mode** tab to set preferences. See the [16.01. General preferences](#) page for details about all the preferences but here are some important preferences to consider:

- Ensure the **Show direction entry in dispensary** box is ticked. This allows users to enter patient directions for dispensed items.
- Specify what information will be printed on **dispensing labels**.
- Specify if you want a **receipt** to automatically print on labels.
- Specify if you want mSupply to **auto-generate patient codes** (alternatively, the user must enter a unique code for each patient).
- Specify if a **prescriber** must be entered for each prescription.
- Specify if you want to be able to **receive payments** from the prescription window.

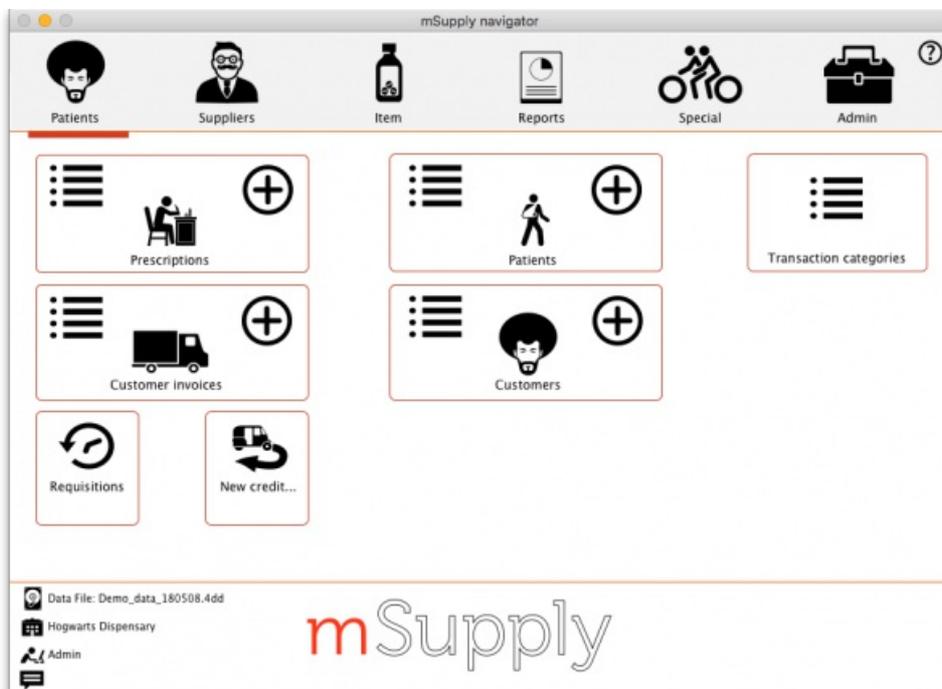
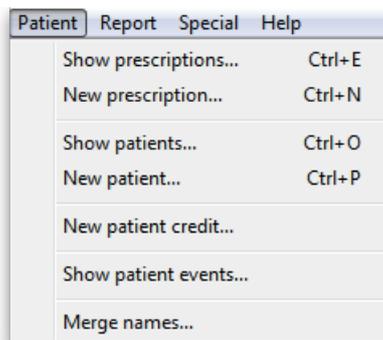


What changes in dispensary mode?

Most of the things you can do in store mode are also available in dispensary mode. The main differences are:

- The **Customer** menu becomes the **Patient** menu; and
- The **Customers** tab on the navigator becomes the **Patients** tab, which has a slightly different selection of icons
- The windows displayed are appropriate for dispensing medicines to individual patients. For example, a patient's dispensing history is maintained and you can also record patient notes (e.g. allergies).

Note that a facility using dispensary mode can distribute stock to both patients **and** customers (e.g. hospital wards, outreach programs), and can still handle customer requisitions.



Previous: [10. Dispensing Goods](#) | | Next: [10.02. Prescription entry](#)

Last modified: 2021/04/29 13:20 by Gary Willetts



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10.02. Prescription entry

In dispensary mode, supply of items is made using a patient's **prescription** (rather than a **customer invoice** for a standard customer in store mode). Choose **Patient > New prescription** from the menus or the new prescription icon on the Navigator:



This will show the prescription entry window:

Selecting the patient

Type something in the Name field in the prescription entry window shown above and press the **Tab** key on the keyboard to see a list of patients matching what you typed.

Anything you type before a comma is treated as the start of a last name, anything typed after a comma is treated as the start of a first name.

- For example, to find **John Smith**, you could enter "Smi,J" or "smith,joh"

If you know the patient's code, enter the start of it prefixed with an asterisk (*)

- For example, to find the patient with code **5829854** you could enter “*58298”

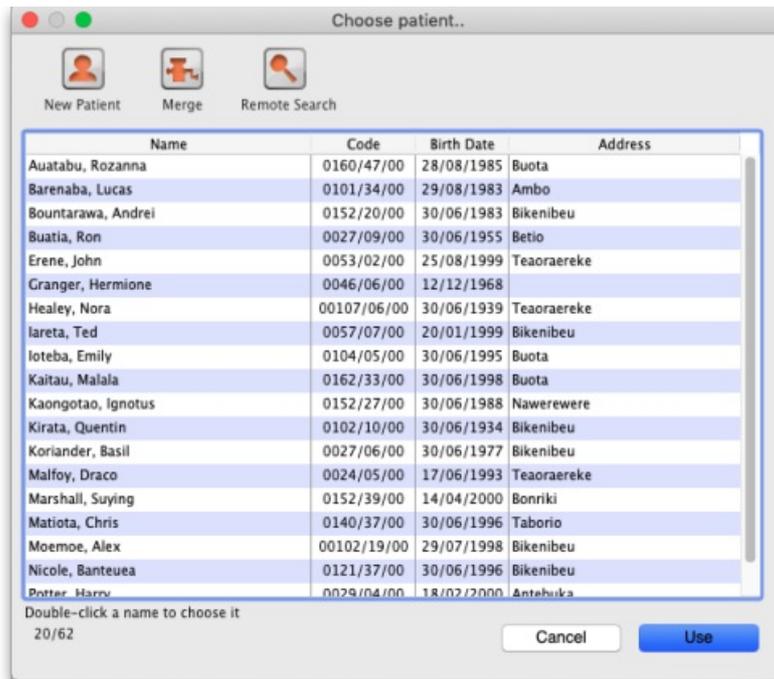
If your patient has already been created in the system, then these entries should bring up the patient in question, or a small enough list of patients for you to choose from.

Info

Always search for your patient in this way first, before entering a new patient, to avoid entering the same patient multiple times.

If only one patient matches what you have typed, after pressing the *Tab* key on the keyboard their last and first name will be put in the **Name** field separated by a comma and their other details will be filled in on the prescription entry window e.g. patient code, date of birth, gender, address.

If more than one patient matches what you have typed, after pressing the *Tab* key on the keyboard you are shown a list of the patients that matched:



- Find the correct patient in the list and double-click on them or single-click on them and click the **Use** button to select them.
- If you can't see the correct patient, click on the **Cancel** button to try the search again or to add them as a new patient as described on the [Patients page](#).
- When you select a patient a few of their details will be displayed in the *Patient details* section of the window and any **Notes** they have will be displayed (see [here](#) for details on how to update their notes).

The **Remote search** button is only visible if you are on a *remote site* in a synchronisation system. If the patient you want is not shown then you can click on the button to include all patients that are not visible in your store to be included in the search. If you select one of those patients they are made visible in your store and their details are downloaded for you.

Please note that if you are on a *remote site* in a synchronisation system then this window will appear, regardless of whether 0, 1 or more patients match what you typed in the **Patient** field - this is to ensure you always have the option of doing a remote search for the patient.

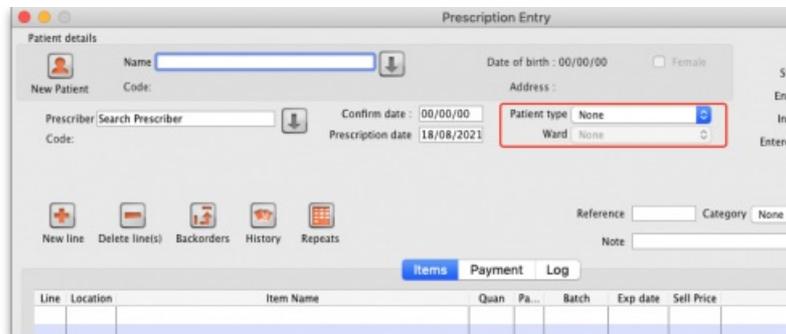
Editing patient details

Once you have chosen a patient, you can click the small down-arrow to the right of the patient name to display a window where the patient details can be viewed and edited (see below):

Double-click the prescriber you want or single click it and click on the **OK** button.

The **Remote search** button will only be displayed if you are on a remote site in a sync system. Click it to include prescribers that are not visible in your store in the search. Note that if you are on a remote site in a sync system, this window will always be shown when you search for a prescriber, regardless of whether there are 0, 1 or more prescribers that match what you have typed in the **Prescriber** field so that you always have the chance to do a remote search for a prescriber.

Patient type and ward entry



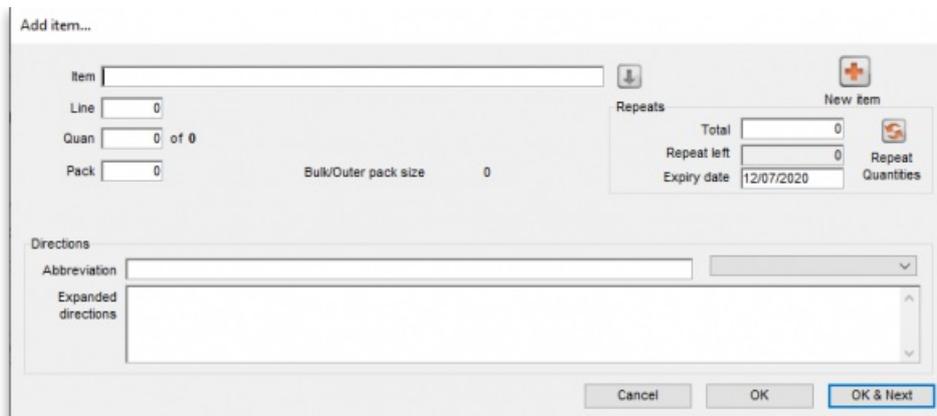
The screenshot shows the 'Prescription Entry' window. The 'Patient details' section includes fields for Name, Date of birth (00/00/00), and a checkbox for Female. Below this is a 'New Patient' section with a 'Code' field. The 'Prescription' section contains 'Prescriber' (Search Prescriber), 'Confirm date' (00/00/00), 'Prescription date' (18/08/2021), 'Patient type' (None), and 'Ward' (None). The 'Patient type' and 'Ward' fields are highlighted with a red box. At the bottom, there are buttons for 'New line', 'Delete line(s)', 'Backorders', 'History', and 'Repeats'. A table with columns 'Line', 'Location', 'Item Name', 'Quan', 'Pa...', 'Batch', 'Exp date', and 'Sell Price' is visible at the very bottom.

The **Patient type** and **Ward** fields only appear if their contents have been setup in mSupply first. See the [10.12. Patient type and Ward setup](#) page for details on setting them up.

When the prescription window first opens, the **Ward** field will be disabled. It will only be enabled when a **Patient type** of *Inpatient* or *Discharge* is selected. So a ward can only be selected for a patient of *Discharge* or *Inpatient* type.

Entering prescribed items

On the *Prescription entry* window click on the **New line** button and the *Add item* window appears:



The screenshot shows the 'Add item...' window. It has an 'Item' field with a dropdown arrow. Below it are 'Line' (0), 'Quan' (0 of 0), and 'Pack' (0) fields. A 'Bulk/Outer pack size' field is set to 0. On the right, there is a 'Repeats' section with 'Total' (0), 'Repeat left' (0), and 'Expiry date' (12/07/2020) fields. A 'New item' button is also present. The 'Directions' section has an 'Abbreviation' field and an 'Expanded directions' text area. At the bottom are 'Cancel', 'OK', and 'OK & Next' buttons.

Type the first few characters of the item's name or code in the **Item** field and press the **Tab** key on the keyboard to select the right item from a matching list. Tip: if you enter the complete code mSupply will be able to identify the item and will select it straight away, saving you time and mouse-clicks.

Another tip is that if the **Show item unit column when issuing** store preference is turned on (see the [25.08. Virtual stores](#) page for details) then an *item unit* column will also be included in the table used to select the items from.

When you have selected the item, the details of the stock available for that item are filled out:

Add item...

Item

Line Repeats Total Repeat left Repeat Quantities

Quan of 9998 Expiry date

Pack Bulk/Outer pack size

Line	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price	St
1	0	9998	9998	1	<input type="checkbox"/>	qwerty@90	30/04/2025	Transit		15.03	15.03	^

Total quantity issued
Total quantity available

Directions

Abbreviation

Expanded directions

⚠ Important

After you have selected the item, if you have told mSupply to inform you of interactions (see the [15.01. General preferences](#) page for details) then an additional **Interacting items** button will be displayed on this window. Click on it if you wish to see interactions that this item has with other items. If there are any interactions between this item and any dispensed to the patient within the set length of time, you will be shown a warning message.

The first line of stock in the table is selected by default (the first expiring one). If you want to dispense from another, double-click it in the list. Enter the amount you want to give the patient of the selected stock line in the **Quan** field and click on the **OK** button if you've finished adding lines or the **OK & Next** button if you want to add another line.

Note that if the store preference **Edit prescribed quantity on prescription** is turned on (see [Store preferences](#) for details), an additional **Prescribed quantity** field is present for you to enter the appropriate quantity:

Add item...

Item

Line

Quan of 9998 Repeats Total Repeat left Repeat Quantities

Pack Bulk/Outer pack size Expiry date

Line	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price	St
1	0	9998	9998	1	<input type="checkbox"/>	qwerty@90	30/04/2025	Transit		15.03	15.03	^

Total quantity issued
Total quantity available

Directions

Abbreviation

Expanded directions

If the **Show direction entry in dispensary mode** preference in **File > Preferences** (Dispensary mode tab) is turned on then you can now enter the directions telling the patient how to take the medicine.

Entering directions

For many commonly prescribed items, default direction abbreviations can be defined - refer to the section on [Item Default Directions](#). In the example below, the item being dispensed is FRUSEMIDE 40mg tablets, and the default directions are "Take ONE tablet in the morning". Alternative directions present may be displayed by clicking on the down arrow to the right of the abbreviated direction field; directions not already present may be typed in using either the *Abbrev* entry area, or the *Expanded* entry area.

Note that you can mix abbreviations and text like this.

Abbreviations	
Abbreviation	lt om
Expanded directions	Take ONE tablet in the morning

The drop-down list shows any default abbreviations you have entered for the chosen item. If one or more default abbreviations exists, the highest priority default abbreviation will be 'suggested' when you choose the item. If there is more than one standard abbreviation available, you can choose another one by choosing it from the drop-down list.

Info

mSupply stores the expanded text for each line, not the abbreviation. This means that there is a full audit trail of what was printed on the label (unless you edit the directions after printing!).

Default directions

The set up of default directions is done on the dispensing tab when editing an item. You will find it described [here](#).

View history

In the new prescription entry window, once you have entered a patient name you can click the "history" button to view a patient's history of what you have dispensed.

Date	Number	Item	Quantity	Directions
17/08/2006	2105	CIMETIDINE TABS 400MG	28	Take ONE tablet TWICE a day until all taken
17/08/2006	2113	AMOXICILLIN TABS/CAPS 250MG	42	Take TW/D capsules THREE times a day until all taken
17/08/2006	2113	PARACETAMOL 500MG + CODEINE P	20	Take TW/D tablets FOUR times a day when necessary for pain

Duplicating a prescription

Once you have a history window open you can click to select a single entry or control-click to select multiple entries, then click the "duplicate" button to create new prescription line(s) with exactly the same details. Stock will be issued for these lines automatically.

Repeats

mSupply allows for the recording of repeat prescriptions. This is achieved when the prescription is first dispensed; in the *Add item* window, click on *Total* field in *Repeats* box in the top right corner of the window, and enter the number of repeats that the prescriber has authorised. The Repeat Dispensing procedure is described below.

Item	Quantity	Total repeats	Repeat left	Expiry date
ABACAVIR TABS 300MG	20	4	3	13/4/07

Repeat dispensing

The Repeats panel (upper right of the window shown below) allows details of repeat prescriptions to be recorded. Take the example of a patient presenting a prescription for Frusemide 40mg tabs x 30 on 1st January 2007, with the prescriber requesting "Repeat monthly x5"; in the *Total* field you should enter "5", and in the *Expiry Date* field you have the option of entering (a) the actual date on which the final repeat may be issued - in this example, "1 July 2007" (allowing the patient one month's grace) - or (b) "6m" for 6 months. Note that the characters "D", "W" & "M" in upper or lower case are interpreted in this particular field as the specified number of days, weeks or months before the repeat instruction expires. mSupply defaults to an expiry date two months later than the current date, but this may be edited as appropriate. The system automatically updates the number of repeats remaining as the patient makes further visits to have the repeats dispensed. The window below is displayed when you click on the *New line* in "Prescription window"

The 'Add item' window displays the following details:

- Item: FRUSEMIDE TABS 40MG
- Line: 1
- Quan: 20 of 867.55
- Pack: 1 EA
- Bulk/Outer pack size: 0
- Repeats: Total 4, Left 4, Expiry date 13/04/07
- Buttons: Add Place holder, New item, Repeat Quantities

Line	Issue	Available	Tot in store	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price
1	20	867.55	867.55	1	<input type="checkbox"/>	E014	4/7/10	TAIWAN		0.00	0.00

Summary: Total quantity issued 20, Total quantity available 867.55

Directions/Note: Abbrev: 1t om, Expanded: Take ONE tablet in the morning

Buttons: Cancel, OK, OK & next

The number of repeats is assigned in *Total* field in Repeats box, and as the repeats are dispensed, the number remaining is displayed in the *Left* field. When you click on the blue arrows on the upper right side, the total repeat number and total quantity for each repeat is shown. Clicking on the small arrow displays the window below.

The 'Repeat' window displays the following table:

Repeat number	Quantity
1	20
2	20
3	20
4	20

Buttons: Refresh, OK

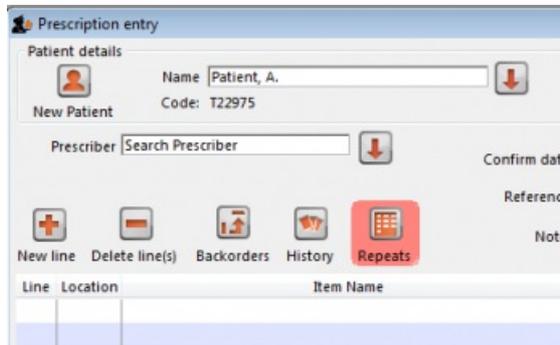
This window allows the user to alter the quantity of a particular repeat - e.g. if there is insufficient stock on a particular visit of the patient; the quantity can be edited by clicking on the quantity line, and again clicking on the quantity, which may now be edited. The arrow on the left bottom corner enables you to restore the default quantity setting.

Once you have filled repeat and other details on the *Add item* window properly, click on *OK* button to save details.

The *Repeats* icon is contained in *Prescription entry*.



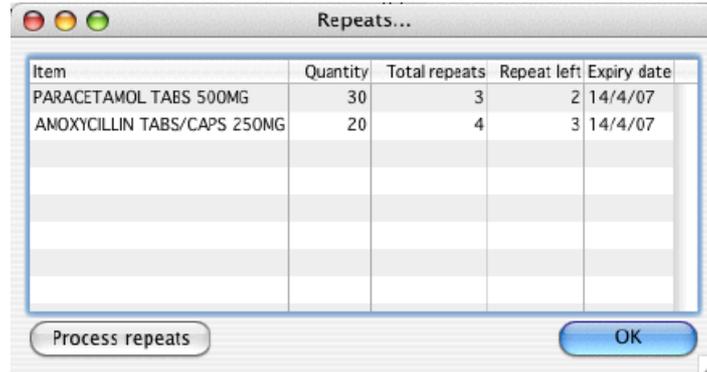
When the *Repeat* function is used, and there are future repeats to be issued, the icon appears on a red background:



The red background disappears when either:

- expiry date is reached
- all repeats have been dispensed

You can issue the repeat to a particular patient. Clicking on the *Repeats* icon displays this window:



The repeat window shows items to be dispensed, quantity, total repeats, repeats remaining and expiry date for a particular repeat.

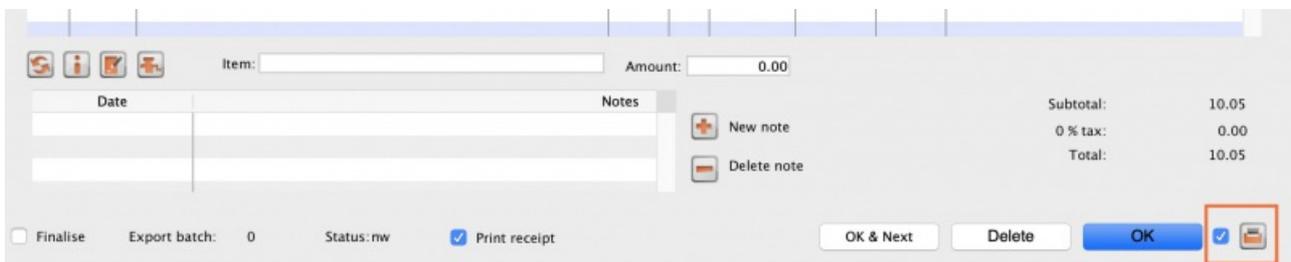
- **Process repeats button:** This button is used to issue the repeat for a particular patient and for a particular item line. For issuing the repeat, first select a desired item line and then click on the *Process repeats* button. Now the system automatically manages the repeats internally.
- **OK button:** Click the *OK* button to exit from the *Repeats* window.

Info

There is an *Alert* if repeat is dispensed before the defined interval of X days preference you can set to ask the user to donfirm if they wish to proceded if a repeat is issued within a selected number of days of confirmation of the original prescription. See the 15.01. General preferences page for details.

Printing labels

Dispensing labels are printed when the *Print labels* box is checked in the *Prescription Entry* window. You can specify what information gets printed on dispensing labels in [Dispensary Mode Preferences](#).



Sample labels, produced by the Zebra TLP2844 printer are reproduced below:



mSupply currently is designed to work with the Zebra TLP 2844 label printer. The Zebra is a very nice printer. It can use either thermal labels or a thermal ribbon which gives non-fading results.

We currently support plain 90 x 40mm label stock as this is cheap and readily available. The Zebra printer is auto-sensing of the ending of a label, so you can most likely use labels longer than 40mm with no problems.

- Label specifications:
- 90mm x 40mm high
- White Matt Thermal Transfer Paper
- Wide Edge Leading
- 1 Across on a roll
- Perforation between each label
- Produced on 1" core to suit TLP2844

We are happy to support other printers if you use a different brand.

Reprinting labels

If you need to print the labels for an item again, choose Patient > Show Prescriptions to locate the prescription entry.

In the list of items dispensed, click on the line you wish to reprint, and then click OK (with the printing checkbox checked)

If you wish to reprint labels for all the items on the prescription, first click in the list of items below the last item so that now one item is highlighted. Then all labels will be printed when you click OK

Printing multiple labels

If you want to print more than one label for an item, hold down the *Alt* key (*Option* on Mac) as you click the OK button. You will be asked for the number of labels required as the label is about to print.

What if there is not sufficient stock of one batch?

As the quantity of a particular batch of an item gets used up, you will need to issue stock from more than one batch to a patient. mSupply handles this when printing labels, and combines the totals for any item on a prescription so that only one label is printed for the total quantity.

The directions for the item with the first line number will be used, so enter directions for the first batch you dispense, and leave the directions empty for subsequent batches.

Note: if you have the rare situation where you need to issue the same item to one patient with different directions you should either combine the directions onto the one label, or enter two prescriptions with the directions entered differently on each prescription (That is enter the line, then print the label(s), then choose Patient > New prescription and issue the item again with the second set of directions).

Receiving payments

You can receive payments for prescriptions directly from the prescription window if you wish (an alternative is to receive them using the [customer receipts module](#)). Both result in the same transactions being created in mSupply but will suit different physical workflows.

See the special page on receiving payments from the prescription window here [11.03. Prescription payments and credits](#)

Printing receipts

You can print a receipt for a patient's payment of a prescription if you have the **Receive payments from prescription window** preference turned on (see [Dispensary preferences](#) for details) .

Receipts are printed (from the same printer as the labels) when the **Print receipt** box is checked on the *Payment* tab of the prescription entry window:

Receipts may also be reprinted later by opening the prescription and checking the *Print receipt* box again - in which case they will have the text “COPY” printed at the bottom.

After printing the medicine labels, a patient receipt will be printed as shown below.

Craig Droun		Kyan Rhdleh	
Invoice#: 122731		Date: 25/04/07	
#	Qty	Item name	Price
1	21	Amoxicillin 250mg cap	0.27
2	20	Paracetamol 500mg tab (0.07
		Total:	0.34
Vaiola Hospital Pharmacy Nuku alofa, Tonga			

If you don't have a printer setup in **Special > Printing preferences** you will be prompted to select one or set one up. If that is not possible, receipt printing will be cancelled.

Prescriptions and barcode scanners

It is possible to print barcodes on prescription labels and use barcode scanners to open the prescription quickly. For details, please see the [15.07. Barcode scanning and prescriptions](#) page.

Previous: [10.01. Dispensary mode](#) || Next: [10.03. Patients](#)

Last modified: 2022/02/11 16:50 by Gary Willetts

10.03. Patients

Updated version 5.01

In mSupply, patients are a type of name. They are a special form of customer that can have first names, last names, genders and dates of birth. You dispense stock to a patient on a prescription, rather than distributing it to a customer on a customer invoice.

Entering a new patient

You can enter a new patient by clicking on the **Patient > New patient...** menu item to by clicking on the New patient icon on the Patient tab of the navigator.

If you are already creating a prescription and discover the patient is missing you can click on the New patient button on the prescription (Shortcut: Ctl-Shift-P):

Either way, the same window will open:

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- [Merging patients while dispensing](#)

- **Code** and **Last** are the only required fields but all applicable fields should be completed so that it is easier to recognise the patient next time. Please note that if there are non-printable characters before or after the **First**, **Last** or **Code** they will be removed. Any non-printable characters in the **First**, **Last** or **Code** (and spaces in the **Code**) will be replaced with an underscore (`_`).
- The patient code will be filled in automatically for you if the *Auto-generated patient code* preference is turned on (see [Setting dispensary mode preferences](#) for details).

Tip

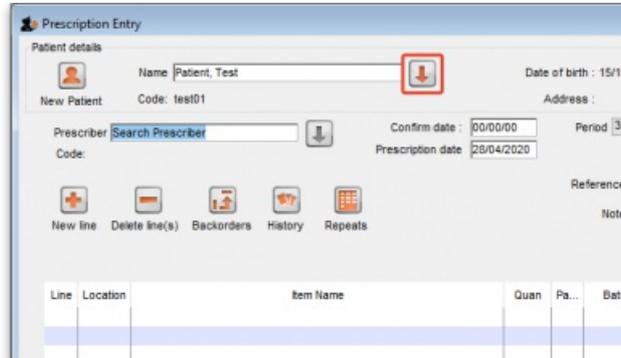
If the new patient's date of birth is known, it should be entered, otherwise an entry should be made in the Age field; for a

patient aged 18 months, valid entries in the Age field may be in one of 3 formats, namely 18m, 1.5, or 18/12.

- When a patient's code is known, that patient's record can be rapidly displayed. Note also that the **Male** radio button is checked; if you are entering details of a female patient, remember to check the **Female** radio button!
- Custom fields are available for storing extra information relevant to your situation.

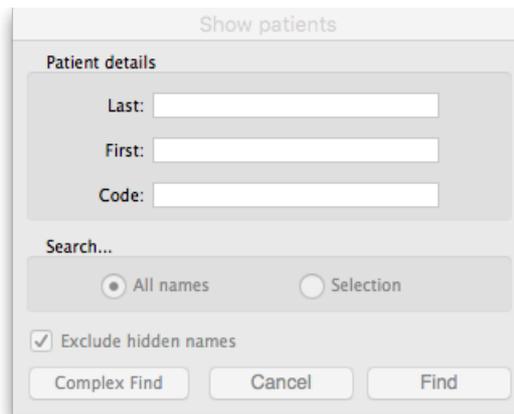
Viewing and editing patient details

You can view a patient's details from a prescription; just click on the patient details button next to their name when they have been selected on a prescription (Note that this button is not enabled until a patient has been selected on the prescription):



The screenshot shows the 'Prescription Entry' window. The 'Patient details' section includes fields for Name (Patient, Test), Code (test01), Date of birth (15/10/20), and Address. Below this is a 'New Patient' section with a 'Search Prescriber' field and a 'Prescription date' field (28/04/2020). At the bottom, there is a table with columns: Line, Location, Item Name, Quan, Pa..., and Batch. A red box highlights a button next to the Name field.

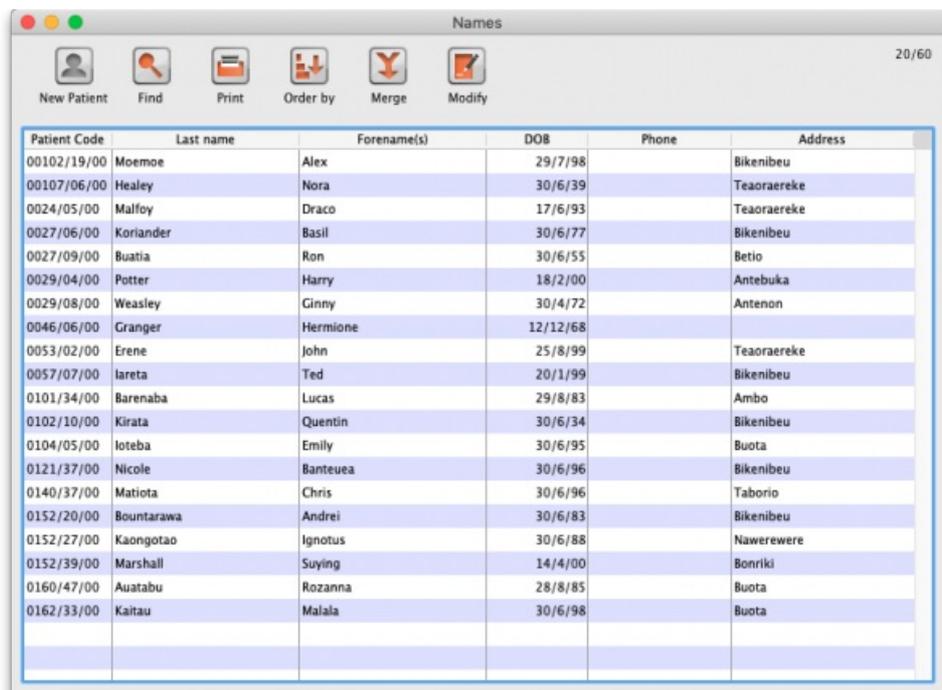
If you are not entering a prescription then you can select the **Show patients** icon on the *Patients* tab of the navigator or click on the **Patients > Show patients** menu item:



The 'Show patients' dialog box has a 'Patient details' section with fields for Last, First, and Code. Below this is a 'Search...' section with radio buttons for 'All names' (selected) and 'Selection'. There is a checked checkbox for 'Exclude hidden names'. At the bottom are buttons for 'Complex Find', 'Cancel', and 'Find'.

Enter the details you want to search for the right patient (or leave everything empty to show a list of all patients) and click the *Find* button.

You will be shown a list of matching entries (double-click on the one you want to view or edit), or taken directly to the detail view if only one patient matches the values you entered:



The 'Names' window shows a list of patients with columns: Patient Code, Last name, Forename(s), DOB, Phone, and Address. The list contains 20 entries.

Patient Code	Last name	Forename(s)	DOB	Phone	Address
00102/19/00	Moemoe	Alex	29/7/98		Bikenibeu
00107/06/00	Healey	Nora	30/6/39		Teaoraereke
0024/05/00	Malfoy	Draco	17/6/93		Teaoraereke
0027/06/00	Korlander	Basil	30/6/77		Bikenibeu
0027/09/00	Buatia	Ron	30/6/55		Betio
0029/04/00	Potter	Harry	18/2/00		Antebuka
0029/08/00	Weasley	Ginny	30/4/72		Antenon
0046/06/00	Granger	Hermione	12/12/68		
0053/02/00	Erene	John	25/8/99		Teaoraereke
0057/07/00	Iareta	Ted	20/1/99		Bikenibeu
0101/34/00	Barenaba	Lucas	29/8/83		Ambo
0102/10/00	Kirata	Quentin	30/6/34		Bikenibeu
0104/05/00	Ioteba	Emily	30/6/95		Buota
0121/37/00	Nicole	Banteuea	30/6/96		Bikenibeu
0140/37/00	Matiota	Chris	30/6/96		Taborio
0152/20/00	Bountarawa	Andrei	30/6/83		Bikenibeu
0152/27/00	Kaongotao	Ignotus	30/6/88		Nawerewere
0152/39/00	Marshall	Suying	14/4/00		Bonriki
0160/47/00	Auatabu	Rozanna	28/8/85		Buota
0162/33/00	Kaitau	Malala	30/6/98		Buota

Whichever way you access the patient's details, the same window opens:

Home store

Updated version 4.10 Updated version 4.12

As of version 4.10, you'll notice that at the top of the details window is the **Home store**. For new patients, the home store is the store the patient was created in; for previously existing patients the version upgrade will assign the home store to be the store where the patient was most recently issued a prescription.

- A patient's details can only be edited in any dispensary store which is active on the same site as the home store (i.e. on their **Home site**). This ensures that a patient can only be edited in one location at a time.
- In version 4.10 and 4.11, a patient's *home store* cannot be changed. However, from version 4.12 it will be possible to edit the home store (if you're logged into the primary server). Doing this will make the patient's records (repeats, patient medication records and insurance policies) available to the new home site. If the patient has previous prescriptions from stores which are visible in the new home store, these will also be made available to the new home site, but will only show up in the patient's history if the *Share patient prescriptions over stores* preference is turned on (see [setting_dispensary_mode_preferences](#)). Note that you will not be able to edit a patient's details if their record is currently waiting in the sync queue to be transferred to another home store. A "Not editable pending transfer to XX" (where XX is the new home store) message will show at the bottom of the screen and all fields will be disabled if this is the case.
- You can create prescriptions for a patient in any store they are visible in, not just their home store, but repeats can only be processed in any dispensary store on the home site.
- If you're on the primary server, you can make a patient visible in other stores (just like any other type of name) - doing this will make the patient's records (repeats, patient medication records and insurance policies, but not their prescription history) available to the store.

The patient detail window tabs

General tab

The date of birth field for a patient uses the same date format as your computer's operating system. If you enter an age, the date of birth is guessed and a patient comment is added to mention that the date was guessed so you know it's not accurate.

Hold do not issue: If this is checked then no stock can be dispensed to the patient

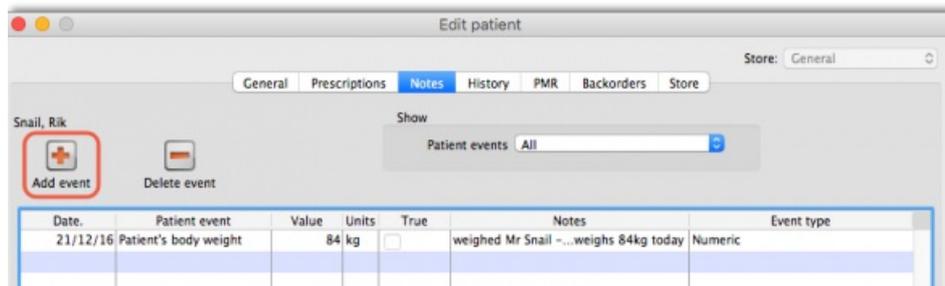
Credit limit: This is the maximum negative value a patient's account can have when the payments module is activated. They will not be able to receive stock on a prescription without paying for it when they reach this limit.

Prescriptions tab

Here each prescription created for the patient in this store is shown. Double-clicking a row in the list will open that prescription.

Notes tab

Any notes/events you enter in the notes tab will display each time you enter the patient name in the *Prescription entry* window. These notes can be used to remind you of patient Preferences for certain dosage forms, or drug sensitivities.



Before you add an event for a patient, you need to make sure that *patient events* have been set up.

Patient events

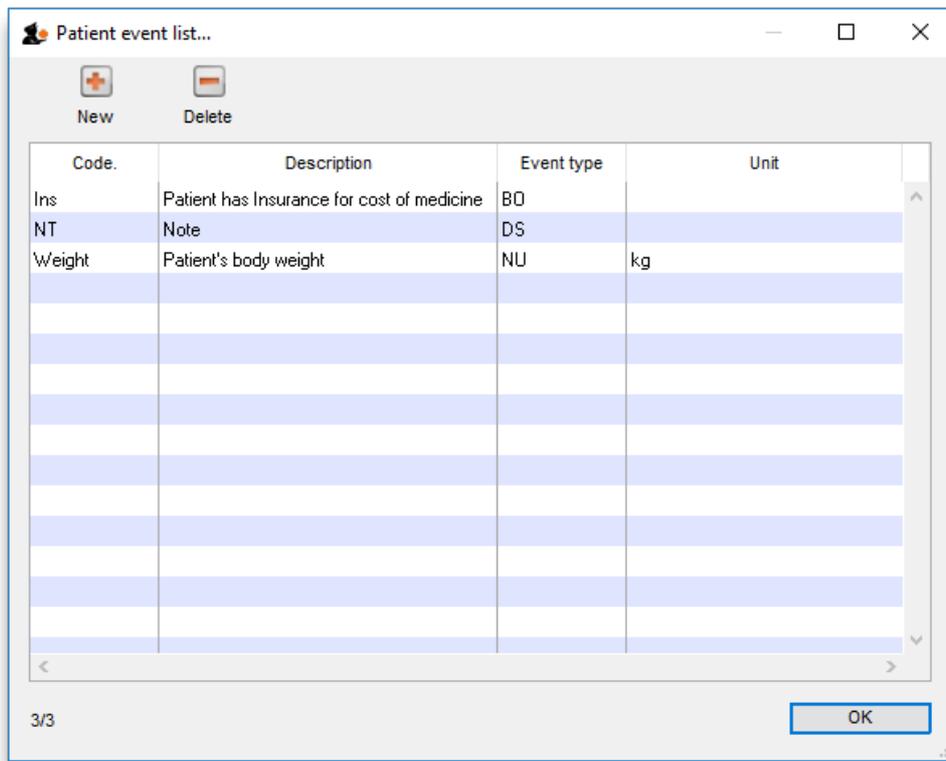
This is the term mSupply uses to denote any item of information relating to a particular patient; for example, you may want to record the patient's weight, the patient's blood pressure, any allergies from which the patient suffers, vaccination records, etc. - a wide range of information relating to a particular patient may be recorded here.

First, some definitions of patient events need to be made; choose *Patient > Show Patient events*, then click the **New** button.

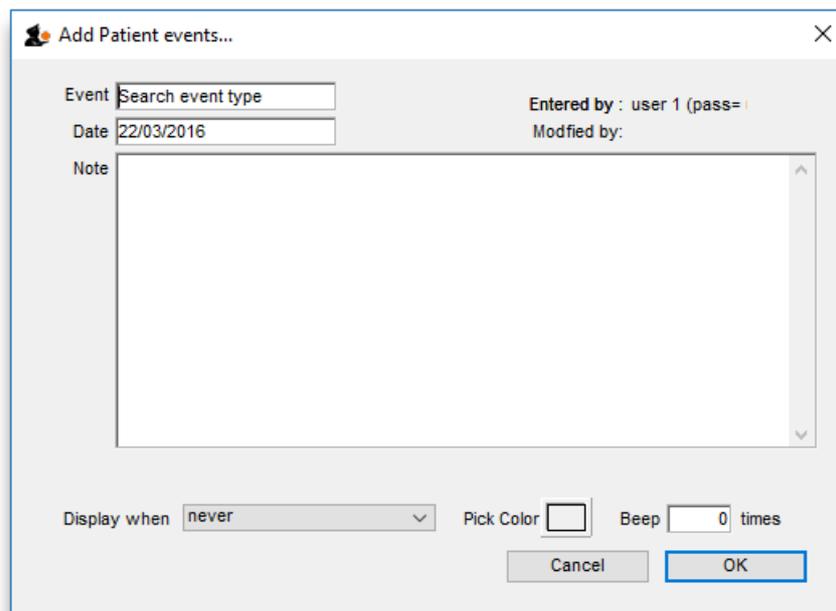
One patient event is already defined, the code is 'NT', the description is 'Note', and the type is *Text*; you can also have events of type *Numeric* or *Boolean*. For example, to create a patient event recording a patient's weight, the completed *Add patient event* window would look like this:

A further example, this time using the *Boolean* type - i.e. where the options are limited to two, 'Yes' or 'No' - could be to identify patients who have insurance cover to meet the cost of their prescriptions; for this event, the *Add patient event* window, once completed, would appear like this:

Once a number of patient events have been defined, choosing *Patient > Show Patient events*, will produce a window like this:



Now it is possible , using the *Notes* tab of the patient details window, to add individual items of information to the profile of any patient.



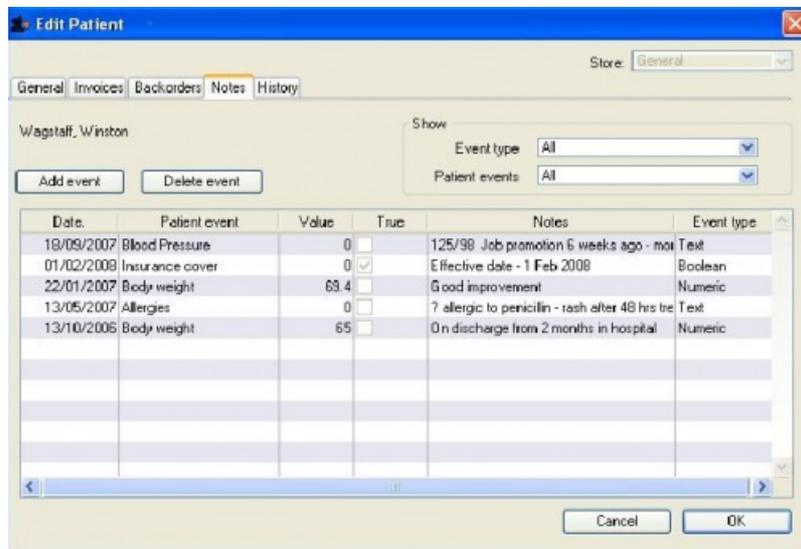
View the record of the patient in the normal way (from *Patient > Show Patients*, enter the patient's name & double click the appropriate patient from the 'names output') , and select the *Notes* tab. Click on the *Add event* button to bring up the window shown above.

In the *Event* field, *Search event type* appears by default. To display all the events you have defined so that you may choose the one you require, enter the character "@" (without the quote marks), press the TAB key, and make your required selection from the list.

Alternatively, you may enter a word from the description of the event - e.g. if you have defined *Patient's body weight* as an event, you may enter the start of the event name or code (e.g. *pat*), and that event will appear in the *Event* field. If more than one event matches what you have entered, a list will be displayed for you to choose the event you want to enter.

Should you wish to add any note or comment, you may do so by moving the cursor into the *Note* area, clicking, then typing your entry. You can customise the note in terms of when it will be displayed on screen etc. as described in the *Items* chapter of this guide. Here's the link - [The Notes tab](#).

After a period of time, a patient's notes may look like this:



The default view shows all patient events, but you have the ability to view single events by selecting the event code from the drop down menu *Patient events* under *Show*

A new event may be added by clicking on the *Add event* button, and an event which is no longer of any relevance may be deleted by clicking on the *Delete event* button.

Events may be edited by selecting the specific event, double clicking on it, when the *Edit patient event* window appears.

History tab

This tab shows a list of all the items dispensed of this patient. Double-clicking an item will open the prescription it was dispensed on.

PMR (Patient Medication Record) tab

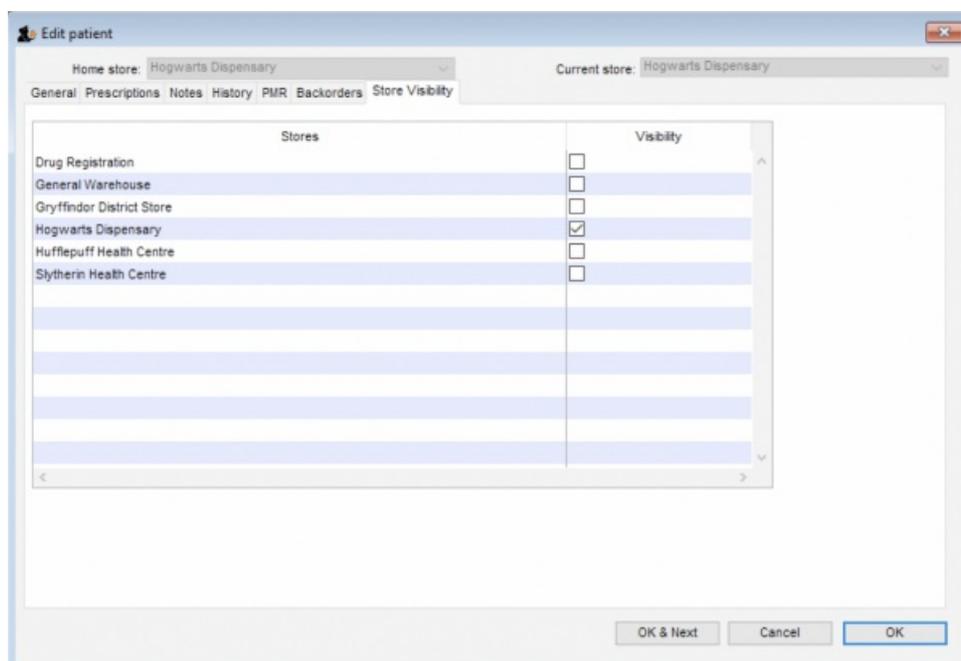
See the separate section on this here [Patient Medication Records](#)

Backorders tab

If you are using a backorder system and you have any backorders for this patient, they will show here.

Store Visibility tab

The tab shows which stores the patient is visible in. Only when the visibility checkbox is checked will the patient be visible to that store. The patient must be visible in a store to be able to create prescriptions for them in that store.



Visibility for patients created on a synced system

Tip

Remember that in a synced system, patients can be created in any dispensary on any sync site. This is unlike 'normal' Names (customers, suppliers, etc.) that can only be created on the primary server.

When a patient is created on any site, it will be made visible in:

- Its home store (i.e. the current store), and
- All other stores of type "Dispensary" which have their store preference *Patients created in other stores not visible in this store* switched **OFF**.

Info

Data that syncs with a patient:

- Their insurance policies
- Their repeats (Note, other sites won't be able to see and use them)
- Their PMR records

Data that does NOT sync:

- Transactional/prescription history
- Patient events

Important

While it can be used to make all patients visible across all dispensary stores across all sync sites, use caution with the store pref *Patients created in other stores not visible in this store*. Doing so does not scale well on large systems if it is turned **OFF** for many stores as it causes exponential data growth and sync traffic:

- (50 stores) x (100,000 patients) = 5 million visibility records
- Initialising a site with 3 dispensaries with the pref off will require syncing 100k patients, and 300k visibility records.
- It does not include prescription data. If it did it'd only add to the above.

Once a patient has been created in a dispensary, its store visibility can then be amended in this tab.

Merging patients while dispensing

 Updated version 4.12

While dispensing, you may observe that a patient has been inadvertently entered twice. For example:

Patient Code	Last name	Forename(s)	DOB	Phone	Address
1	Smith	John	8/01/47	+44 207 234 7646	
3	Smith	John	14/09/83	+44 2973657654	
8	Smith	John	29/08/58		
9	Smith	John	1/01/64	02116537165	
10	Smith	John	14/09/83	+44 207 1234 532	
14	Smith	John	23/09/85	123456789876	
16	Smith	John	7/03/58	0207 456 2020	
17	Smith	John	19/05/53		
18	Smith	John	13/03/70	0211546759	
22	Smith	John	7/03/58		
29	Parasol	George	25/02/43		
25	Parasol	George	4/06/43		
30	Parasol	George	10/06/58		
27	Parasol	George	25/02/43		
34	Parasol	George	25/02/43		

When the *Choose patient* window appears, you can highlight the two patients to be merged, then clicking on the *Merge* button displays this window:



Here you need to decide which record should be kept, and which one should be merged, and check the appropriate radio buttons. This combines the information in the record to be merged with the information in the record to be kept.

Note that, from version 4.12, merging patients will be restricted to only those having the same *home site* - see [home_store](#).

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Last modified: 2021/08/02 00:49 by Chris Petty



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10.04. Patient insurance

Updated version 4.10

Insurance policies are used by patients to pay part or all of the cost of a prescription.

Insurance policy details for a patient are set up on the *Insurance* tab of the patient details window. These policies are then available for selection when receiving payments from the prescription entry window (see the [11.03. Prescription payments and credits](#) page for details).

At the moment, this functionality is only available in Côte d'Ivoire (see [Insurance](#) for a description of how it is used). Please contact us if you need to use this functionality.

Insurance providers

Insurance providers are the institutions which provide the insurance policies for patients. They are recorded by selecting them from a drop down list when adding an insurance policy to a patient. This functionality is for managing the contents of that drop down list.

To see a list of all the current insurance providers, choose the **Special > Insurance providers...** menu item. This window opens:

Provider Name	Comment	Validity Days	Is active?
ALLIANCE	ALLIANCE	30	<input checked="" type="checkbox"/>
ORAS SAUVIE	ORAS SAUVIE	30	<input checked="" type="checkbox"/>
STATE ASSURANCES	STATE ASSURANCES	30	<input checked="" type="checkbox"/>

To add a new provider click on the button. This will add a new entry to the end of the list in the table with the *Name* "new provider". Edit the values for this entry in the fields at the top:

- **Name:** the name of the insurance provider. This will appear in the drop down list for the user to select when adding an insurance policy to a patient
- **Prescription Validity Expiry (days):** The maximum number of days that can elapse between a prescription being created by the prescriber and being presented to the mSupply dispenser and the provider's insurance policy can still be used against a prescription's cost. 0 days means no expiry. mSupply will not allow an insurance policy to be used to pay for a prescription if this number of days has been exceeded.
- **Comment:** Anything you wish to remember about this provider. Will not be displayed anywhere else.
- **Is active:** Check this if the insurance provider can be used for assigning to new insurance policies for patients. If this is unchecked, the insurance provider will not appear in the drop down list when recording new insurance policies.

To remove a provider click on the button. This will delete the currently selected provider, but only if you have not saved it before. If a provider has been saved, edit it and uncheck the **Active** checkbox to remove it from future selections.

To edit a provider select it in the list by clicking on it and then edit the details shown in the **Name**, **Prescription Validity Expiry (days)**, **Comment** and **Is active** fields.

The **Save** button will save any new providers you have entered and will also close the window.

The **Cancel** button will close the window without saving any new providers or unsaved edits.



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10.05. Prescribers

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From the *Special* menu choose *Prescribers*

When you are in dispensary mode, issuing items to a patient allows you to add a prescriber. This menu item allows you to set up your list of prescribers.

To add a new prescriber, click the “New” button.

Add a code for the prescriber. You can use the code quickly to look up the prescriber when dispensing. Any non-printable characters before or after the code will be removed and any spaces or non-printable characters in the code will be replaced with an underscore (`_`).

Other fields are fairly self-explanatory. Note that the code, first name and last name can all be used for looking up prescribers when dispensing. Also note that any non-printable characters before or after the Last name or First name values will be removed and any non-printable characters in either of the values will be replaced with an underscore (`_`) - this will make sure that your searches work as they should!

From version 4.10, prescribers will have a *home store* like patients (see the [10.03. Patients](#) page for details), which will be the current store for new prescribers or the store with the most recent prescription (assigned during the version upgrade):

- A prescriber can only be edited in any dispensary store which is active on the same site as the home store (i.e. on their **Home site**). This ensures that it can only be edited in one location at a time
- In version 4.10 and 4.11, a prescriber's *home store* cannot be changed. However, from version 4.12 it will be possible to edit the home store (if you're logged into the primary server). Doing this will make the prescriber available to the new home site. If the prescriber has previous prescriptions from stores which are visible in the new home store, these will also be made available to the new home site, but will only show up in a patient's history if the *Share patient prescriptions over stores* preference is turned on (see [setting_dispensary_mode_preferences](#))

Initials

The text you put in the “Initials” field will print on dispensary labels.

Active status

If you have a prescriber that is no longer used, you can change their status to “inactive” and the prescriber will not show in the choice list when dispensing. Inactive prescribers will still show when you choose Special > Show Prescribers...

We suggest you might want to add a “Miscellaneous Prescribers” item to the list, and use this if you have a lot of prescribers whose prescriptions you only dispense infrequently.

Category

This field can be used to group prescribers together, and can then be used to filter prescribers when producing a transaction report.

Merge prescribers

[Updated version 4.12](#)

This item from the *Special* menu is used to merge two prescribers, where the same prescriber has inadvertently been entered twice. You are shown a window like this:

Enter the two prescriber names by entering the start of their surname or their code, and then pressing *Tab* . The top prescriber is the one who will be kept. The lower prescriber will be deleted.

Once you have entered the two names, check the details are correct, and then click *OK*. You will be warned one last time, and then the operation will be completed.

All transactions that recorded the deleted prescriber will now show the name of the prescriber that was kept.

Note that, from version 4.12, merging prescribers will be restricted to only those having the same *home site*.

Import prescribers

For information on the procedure for importing a file containing your prescribers see [Importing prescribers](#)



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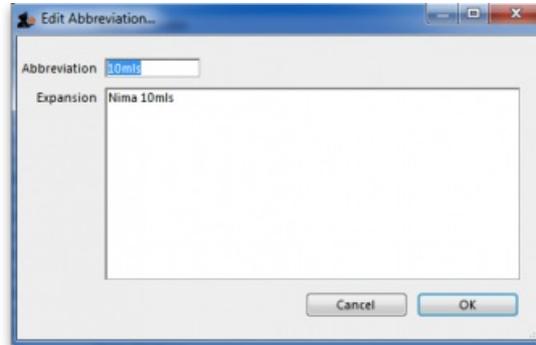
⚠ Important

Note: your abbreviations cannot contain the underscore (_), period (.) or comma (,) characters.

Any non-printable characters entered before or after the abbreviation will be removed. Any entered in the abbreviation will be replaced with an underscore (_).

Edit an abbreviation

To edit an abbreviation, double-click it in the list. A similar window to the add abbreviation window will open, pre-populated with the abbreviation's details:



Edit the abbreviation and expansion as required then click on the **OK** button to save it.

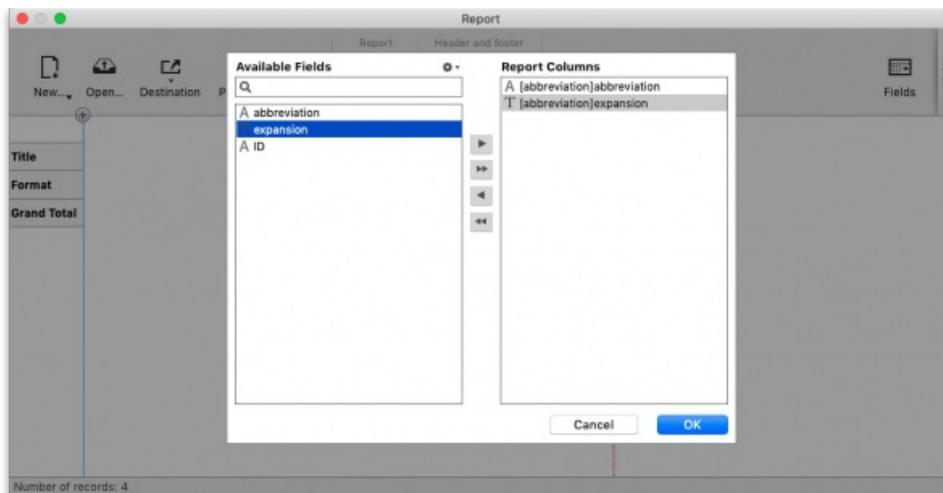
Delete an abbreviation

Select a single abbreviation in the list by clicking on it then click on the **Delete** button. You will be asked to confirm the deletion - if you do, it is deleted from the list.

Print a list of abbreviations

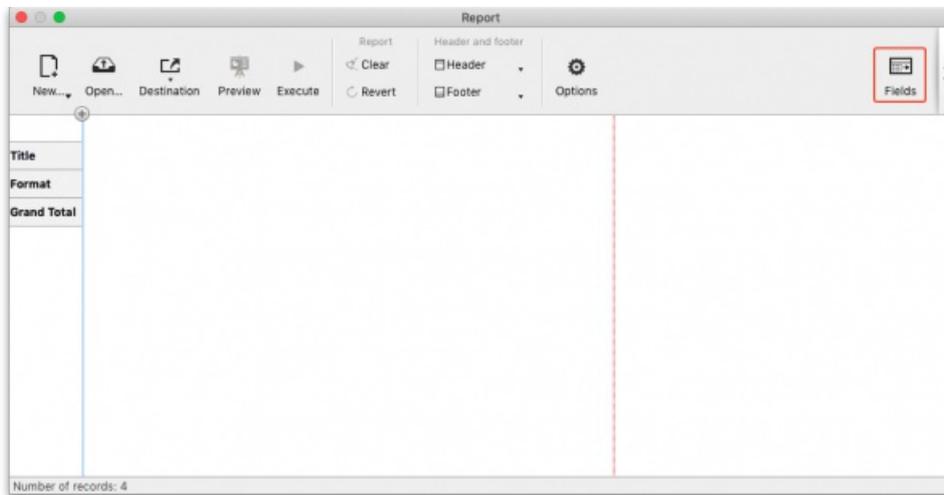
Click the *Report* button to construct a simple report listing all abbreviations. This report can be previewed or printed.

After clicking on the button, you will be shown the report editor window. In older versions of mSupply it looks like this:

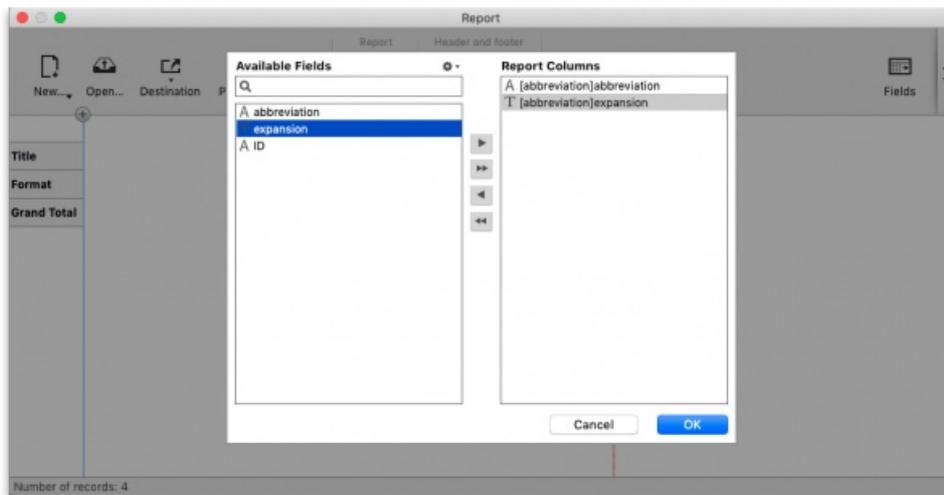


1. Double-click on **Abbreviation**
2. Double-click on **Expansion**
3. Right-click on **Detail** and set font size to 8 or 9
4. You can use the lines on the column headers to adjust column width
5. Choose **File > Generate** to print the list

In newer versions of mSupply, the report editor will look like this:



Click on the **Fields** button and then double-click on *abbreviation* then *expansion* in the left hand *Available fields* section to move them to the *Report columns* section like this:



Click on the **OK** button then click on the **Execute** button to run the report and print it out.

Importing abbreviations

The procedure for importing a file containing your abbreviations is found [here](#).

Item default directions

Once you have entered abbreviations, don't forget to enter the default directions for all common items - the default directions are the abbreviations that are used by default for an item when it is added to a prescription. Instructions are [here](#).

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Last modified: 2021/05/10 14:27 by Gary Willetts

10.07. Diagnoses

The **Diagnoses** functionality allows you to quickly save a diagnosis on a patient's prescription.

Viewing and Adding Diagnoses

Select the **Diagnoses** icon from the **Special** tab on the mSupply navigator window.

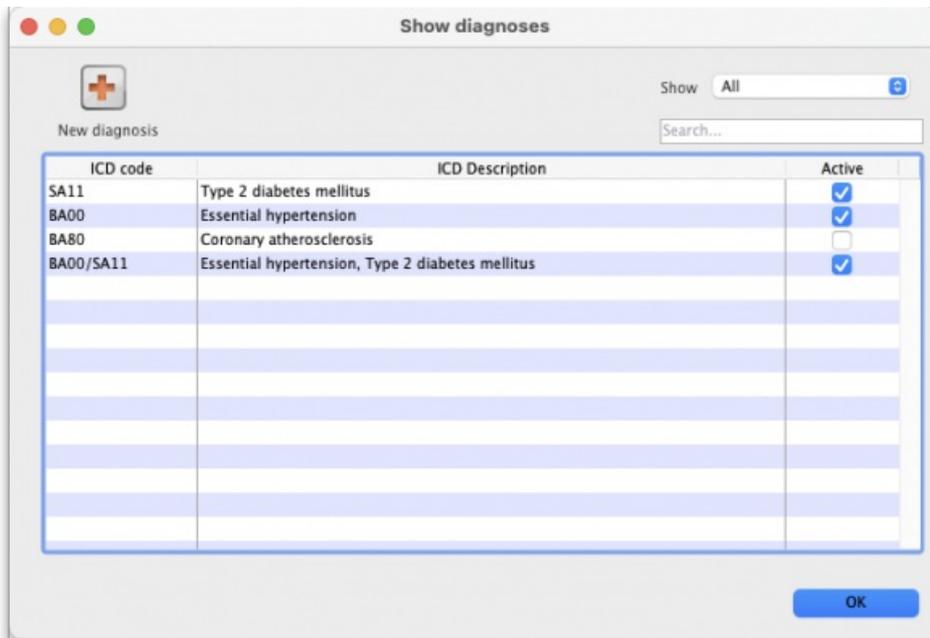


This will open the **Show diagnoses** window with a list of all diagnoses.

- The list will initially be ordered by date created. However, the list can be sorted by the ICD code or ICD description by clicking on the respective column header.
- You can use the search box to search for a diagnoses using either an ICD code or the ICD description.

Tip

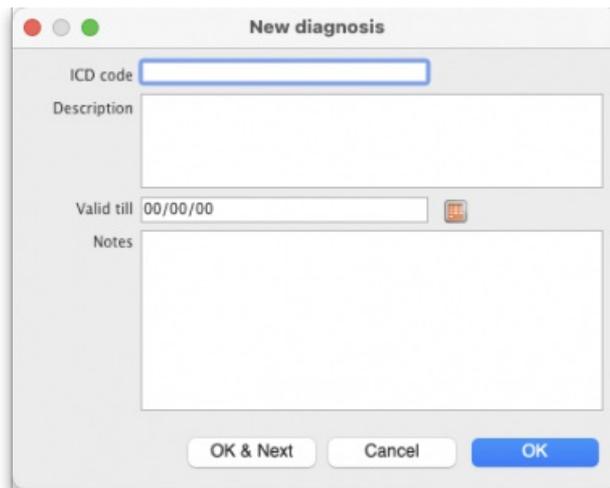
Standard mSupply search functionality applies when searching for diagnoses.



The list can be filtered using the **Show** drop-down box on the top right of the window:

- **All:** active and inactive diagnoses.
- **Active:** diagnoses that have not yet reached their specified valid till date.
- **Inactive:** diagnoses that have passed their specified valid till date. Inactive diagnoses will not appear in other windows, and cannot be saved to a patient prescription.

Click on the **New diagnosis** button on the top-left of the window to add a new diagnosis. This window will open:



Enter the **ICD Code** and **Description**. Please note:

- Both code and description boxes are mandatory.
- mSupply does not check the data entry in these boxes. Please double-check that you have entered the information correctly.

Enter the **Valid till** date. You can use the date selection tool by clicking on the calendar to the right of the box.

- The date entered determines how long the diagnosis will remain active. After this date the diagnosis will be automatically made inactive.
- The valid till field is non-mandatory. Leaving this field blank results in the code remaining permanently active.

Diagnoses on Prescriptions

Alert

You must first turn on the *Allow users to choose diagnoses on prescriptions* store preference to allow diagnosis selection on prescriptions. See the [25.08. Virtual stores](#) page for details.

When this preference is turned on, when you create a new prescription you will be able to select a diagnosis using a drop-down list. The drop-down list will display and allow selection of any active diagnosis:

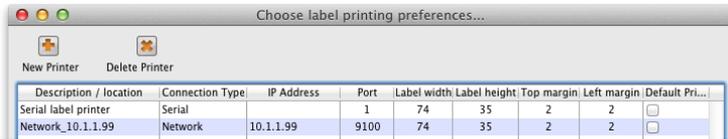
The diagnosis selected will be saved against the prescription together with all other information provided in the Prescription entry window.

Previous: [10.06. Abbreviations for dispensing](#) || Next: [10.08. Label printing preferences](#)

Last modified: 2021/09/22 05:23 by Mark Glover

10.08. Label printing preferences

In mSupply the settings for label printer are set in the “Choose label printing preferences window”, which you open via the mSupply menu bar: Special > Printing preferences



This window will show you **ALL** mSupply printers that have been set up for your whole organisation. Your mSupply printer descriptions must include your site name and make sure that you **do not delete printers for other sites!!!**

Changing your mSupply default printer

To change the mSupply default printer in the “Choose label printing preferences window” simply click the checkbox in the right-hand **Default Printer** column for the printer you wish to use.

Note this is different from your Windows default printer. You are setting the default printer for mSupply to use (the default printer you have set for Windows can be another printer altogether).

The mSupply printing preferences are stored for the **computer** you're setting it from (not the mSupply user or the mSupply site you're logged in to). When you change the mSupply default printer you are changing it for everyone who uses the computer.

Editing a printer

In the “Choose label printing preferences” window double-click the printer entry in the list. This will open the “Add label printing preferences” window - see below for info on each setting.

Adding a printer

If you are setting up up your label printer hardware for the first time, you will first need to follow the instructions here: [25.18. Label printer hardware setup](#).

When your printer hardware is connected and ready to be set up in mSupply open the “Choose label printing preferences” window and click the **New Printer** button. This will open the “Add label printing preferences” window - see below for info on each setting.

The printer preference settings

Description

Since the mSupply printing preferences window lists **ALL** the mSupply printers for your organisation it is vital that the Description includes the site name to avoid confusion.
e.g. [Busby Pharmacy GK420t](#)

Connection Type

If printer connected with a network cable (recommended) choose **network**

If printer connected with USB choose **USB**

If printer connected with a serial cable choose **serial**
See [below](#) for the printer connection settings for each type of connection

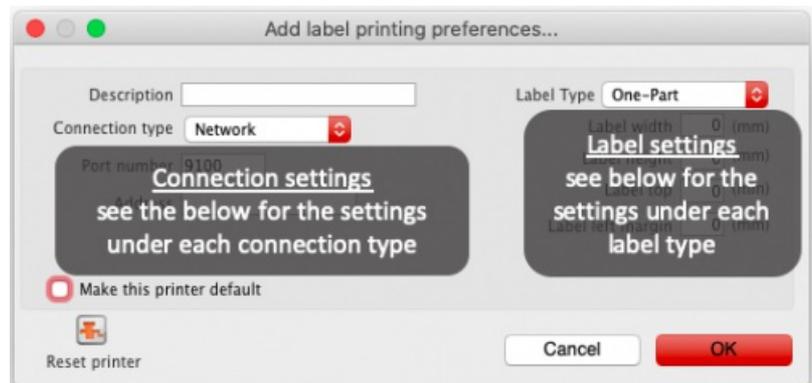
Label Type

One-Part

Three-Part See [below](#) for the printer connection settings for each type of connection

Make this printer default

Checking this box means that mSupply on this computer will always print to this printer. Refer to the [Changing your mSupply default printer](#) section



above to find out what setting a default mSupply printer does.

Reset printer

You can use this button to send a command to the printer to reset it. Occasionally a printer may misbehave if it's memory is corrupted by an electricity spike or the like, and this button may help. If your printer is not behaving we recommend you contact Sustainable Solutions support@msupply.org.nz rather than charging ahead on your own.

Printer connection settings

Network

Connection type	<input type="text" value="Network"/>	Port number	For network connections this will usually be 9100
Port number	<input type="text" value="9100"/>	Address	The IP address of the printer e.g. 10.1.1.253 For info on creating a static IP address for the printer refer to label_printer_hardware_se
Address	<input type="text"/>		

USB

Connection type	<input type="text" value="USB"/>	Address	Enter the Windows name of the printer. It must be entered exactly . There is no need for To confirm the Windows printer name go to the Windows Control Panel > Printers and S Right click on the printer and select properties. The Windows printer name is recorded on the General tab.
Address	<input type="text"/>		



The screenshot shows the 'Zebra TLP2844 Properties' dialog box with the 'General' tab selected. The printer name 'Zebra TLP2844' is displayed in the text field.

Serial

Connection type	<input type="text" value="Serial"/>	Port number	Enter the Windows serial port number for the printer. To confirm the port number go to the Windows Control Panel > Printers and Scanners. Right click on the printer and select properties. The Windows port number is recorded on the Ports tab.
Port number	<input type="text" value="1"/>		

Printer label settings

One-Part label

Label Type	<input type="text" value="One-Part"/>	Label width:	the physical width of the full label
Label width	<input type="text" value="74"/> (mm)	Label height:	the physical height of the full label
Label height	<input type="text" value="35"/> (mm)	Label top:	the height of margin wanted from the top of the label
Label top	<input type="text" value="2"/> (mm)	Label left margin:	the width of margin wanted from the left of the label
Label left margin	<input type="text" value="2"/> (mm)		

Three-Part label

Label Type	Three-Part	▼
Label width	<input type="text" value="75"/>	(mm)
Label height	<input type="text" value="35"/>	(mm)
Label top	<input type="text" value="1"/>	(mm)
Label left margin	<input type="text" value="1"/>	(mm)
Label bottom margin	<input type="text" value="10"/>	(mm)
Bottom left label width	<input type="text" value="15"/>	(mm)

Label width: the physical width of the full label
Label height: the physical height of the full label

Label top: the height of margin wanted from the top of the label
Label left margin: the width of margin wanted from the left of the label

Label bottom margin: the margin between the top label and lower labels.
Bottom left label width: the width of the bottom left label.



Other settings

There are other general preferences that can affect the way your labels are printed. See the [15.01. General preferences](#) page for details.

Previous: [10.07. Diagnoses](#) | Next: [10.09. Warnings](#)

Last modified: 2021/10/05 22:59 by Dhanya



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10.09. Warnings

From the *Special* menu this command allows you to view and edit the standard list of warnings.

Once this list is created, you can apply one or more warnings to each item, and choose which warning will be automatically printed on labels.

To apply a warning to an item, see [Adding a New item](#)

Double-click a warning in the list to edit its details.

Click the “New” button to add a new warning.

We suggest you use the standard set of warnings as specified by the pharmaceutical authorities in your country.

Previous: [10.08. Label printing preferences](#) | | *Next:* [10.10. Patient medication records](#)

Last modified: 2020/11/27 01:40 by rowena



10.10. Patient medication records

Added: Version 3.11

Introduction

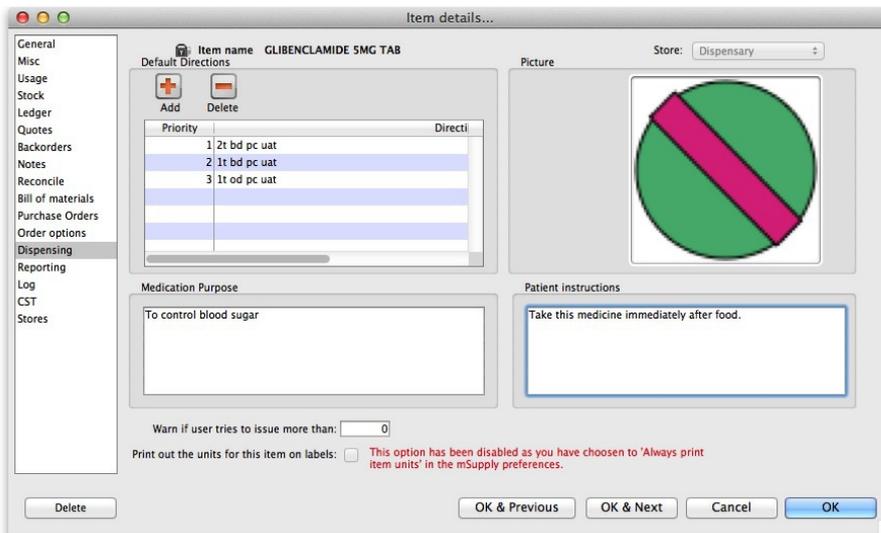
A Patient Medication Record (PMR) is a way of recording all the medications a person is using, whether or not they were dispensed by you. The record contains useful information for the patient such as

- The dosage in a clear easy-to-understand format.
- An (optional) picture of the dose form (tablet, capsule, etc)
- The medication's purpose.
- Common instructions for taking/using the medicine, which may be customised for each patient

Setting up items

Before adding items it is good to set up the standard purpose, instructions and item photo for common items at least. Once set up, you can add these to a particular patient's PMR with just the click of a button.

1. Find the item you are interested in and go to the dispensing tab
- 2.



3. Enter purpose and instructions. Both these fields can take as much text as you wish to enter.
4. Add a photo by either dragging a photo from another application or pasting a photo from the clipboard.

Tip

mSupply will automatically resize large photos when you add them- there is no need to resize photos yourself first.

Default direction

On the default direction list, you can add a combination of abbreviation which can be used to fill in the direction while issuing drugs to patients.

To set up abbreviation, view [10.05. Abbreviations for dispensing](#)

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- Introduction
- Setting up items
- Default direction
- Adding items to a PMR
 - Editing a PMR entry
 - Deleting a PMR entry

- Printing a PMR
 - Setting up printing preferences
 - Printing a PMR

- Introduction
- Setting up items
- Default direction
- Adding items to a PMR
 - Editing a PMR entry
 - Deleting a PMR entry

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 - Printing a PMR



Add This is to add default directions. You may combine multiple abbreviation code to make up a sentence. You may even add a full sentence.

Delete This is to delete direction.

Direction for items that were added above will be available when dispensing to patients.

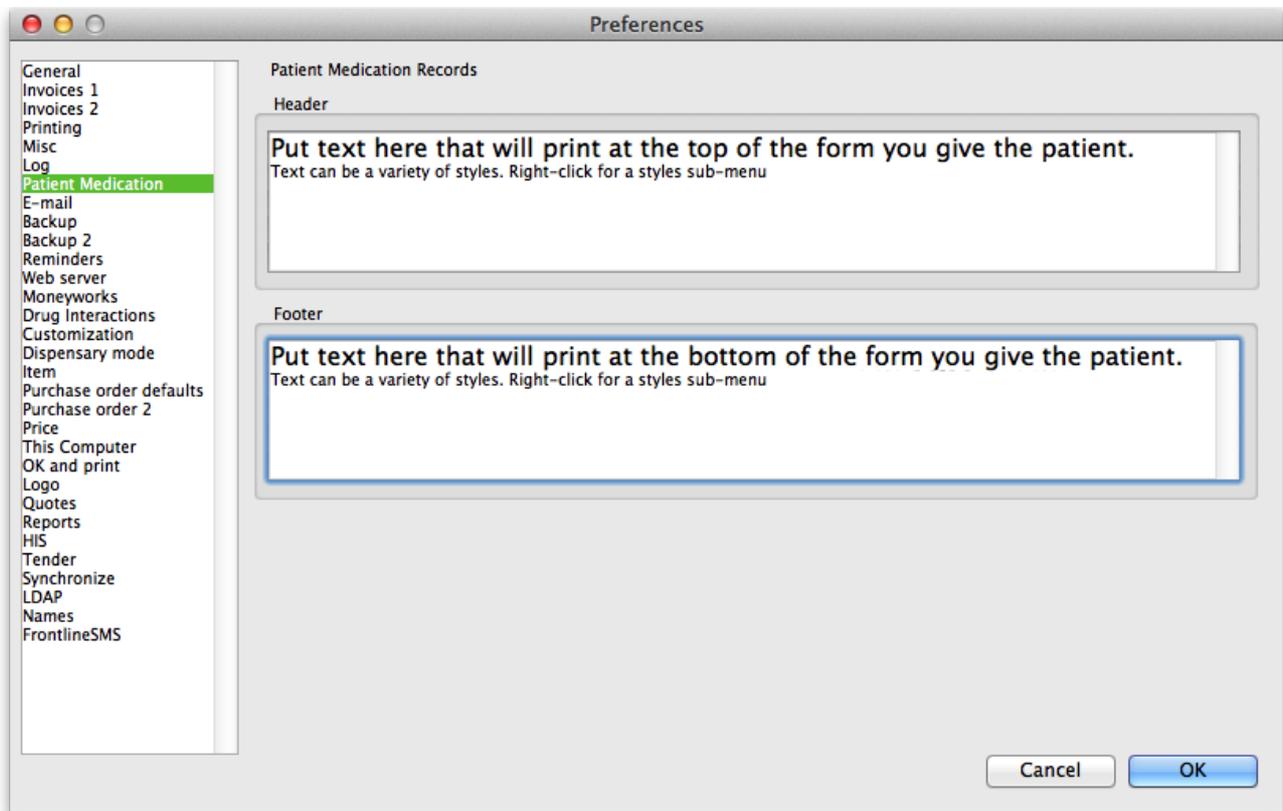
Line	Issue	Available	Tot in st...	Pack	Hold	Batch	Expdate	Supplier	Location	Cost Price	Sell price	Sta
1	0	0	15	1		TN180721	01/01/2019			0.00	0.00	
2	0	8895	8895	1		NL2591	30/11/2020	invad		0.00	0.00	

Note the Drop down list will now be populated by the default directions. Once a direction is chosen, mSupply will expand valid abbreviation to sentences. It is possible to have more than one set of direction as options.

Adding items to a PMR

There are 2 ways of adding items to a PMR

1. From the patient history tab:
 - o Highlight the items from the patient's history you wish to add, then click the **Add to PMR** button.
 - o The record will be shown on the "PMR" tab if you switch to it.
 - o Note that on the PMR tab you still have to double-click on the added record and fill in the dose, instructions etc.
2. From the Patient details PMR tab
 - o Here you can add any item that is in the mSupply catalogue.
 - o For example, a patient might be regularly taking paracetamol or aspirin that they buy themselves. You can add such items here.



Note that you can style the text in these boxes by selecting text and right-clicking on your highlighted text to get a contextual menu to apply font styles, colour and size.

Printing a PMR

Simply click the **Print** button. Note that you do not have to highlight records- all records will be printed.

Currently we have included a single PMR printing form in mSupply. We are happy to include others- send us your designs.

Previous: [10.09. Warnings](#) | Next: [10.11. Printer setup for Remote Desktop Client](#)

Last modified: 2020/11/27 01:33 by rowena



10.11. Printer setup for Remote Desktop Client

In low bandwidth situations the mSupply client can become laggy and unstable, in these cases it may be recommended to use RDP through the Windows Server Remote Desktop Client application. If the site is dispensing and using a printer, this introduces some complicated steps.

Requirements

At dispensary: - A computer **with serial/com port** and with RDP access to server - A Zebra printer with serial/com port

Server/machine that is remoted to: - mSupply Client installed and can connect to mSupply server - Windows server installed that has Remote Desktop Client

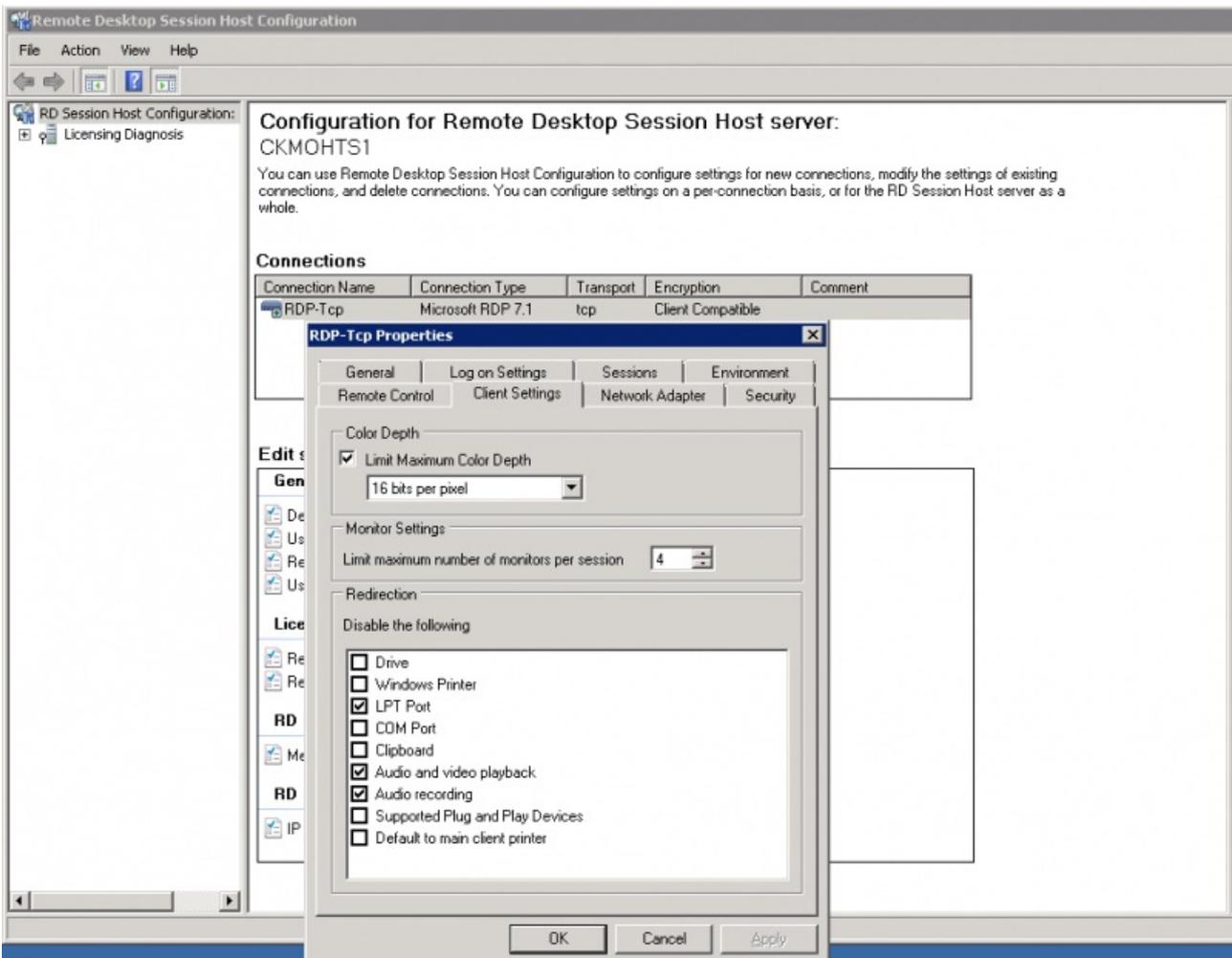
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- [Requirements](#)
- [Setup the Remote Windows Server Machine](#)
- [Setup the Local Machine](#)
- [Remote Desktop Connection Settings](#)
- [Requirements](#)
- [Setup the Remote Windows Server Machine](#)
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- [Remote Desktop Connection Settings](#)

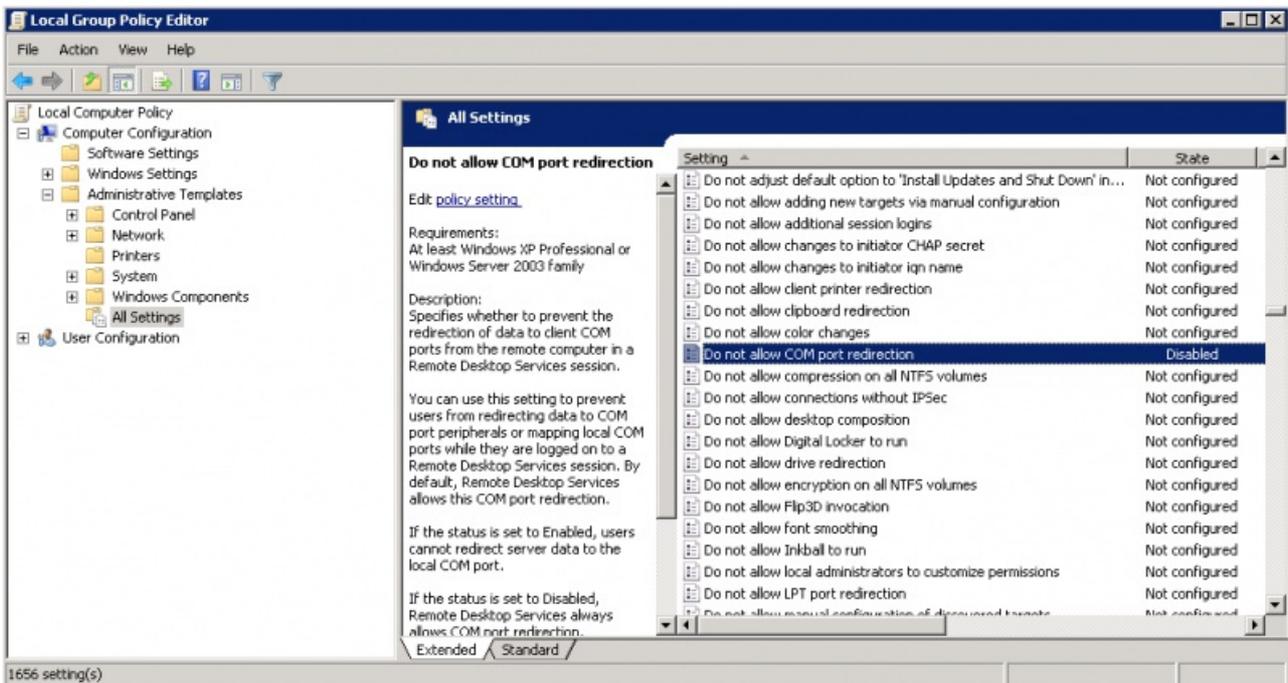
Setup the Remote Windows Server Machine

Use Windows Run (i.e. command prompt/powershell) to run *tsconfig.msc* and *gpedit.msc*.

- In the tsconfig window, right click on "RDP-Tcp" and click "properties". Go to client settings and make sure that the COM port is unchecked in "Redirection - disable the following" list.



- In the gpedit window, follow the hierarchy shown below and make sure "Do not allow COM port redirection" is disabled (not configured probably fine).

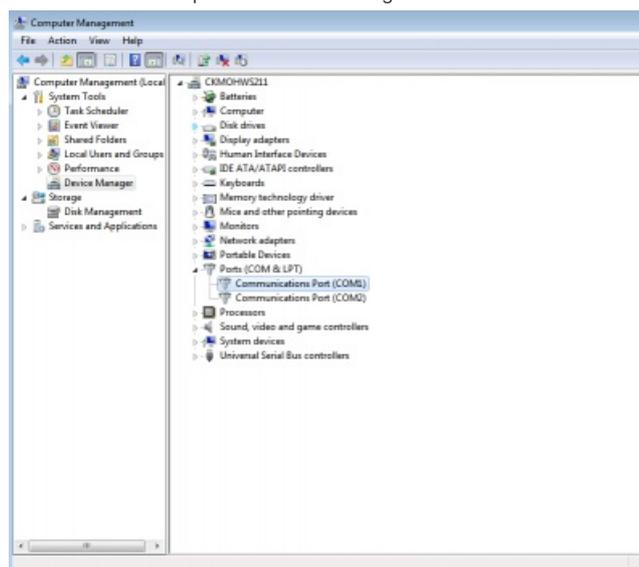


Setup the Local Machine

- The machine that you will be dispensing from needs to have the appropriate Zebra printer. - Check that your printer has a 9 pin serial/com port on the rear - Check your Computer also has a 9 pin serial/com port (right most port below).



- You can verify that the computer has detected its external ports via device manager



- Using a RS232 serial cable, plug the printer into the computer.

Caution: If you have a cable that has the female plug at both ends, it is likely a *Null Modem* cable. This cable will not work (even with adapter).

- If you have mSupply available locally on the machine, you can try testing printing a label to confirm your local setup is correct using *misc. labels* in the special menu.

Remote Desktop Connection Settings

You must enable port sharing on the remote machine (at dispensary) in Remote Desktop Client for the machine you are going to remote into.

1. Enter the connection details for the machine you are going to RDC into
2. Show connection options
3. Select "Local Resources" tab
4. In the section "Local devices and resources" click the "More..." button
5. Ensure that the "Ports" checkbox is ticked
6. OK!

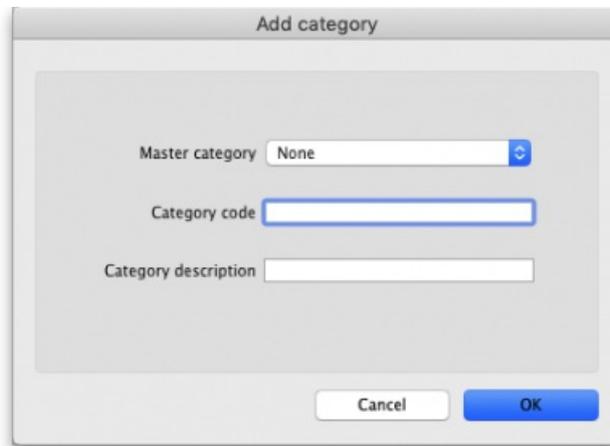


Open mSupply Client in the rdc window and test printing, hopefully it works!

Previous: [10.10. Patient medication records](#) | Next: [11. Payments and Receipts](#)

Last modified: 2020/11/27 01:43 by rowena





- **Master category:** You can ignore this, it isn't used for patient types.
- **Category code:** Enter a short code for each patient type. If you are wanting to enter wards for patients then you need to add an *Inpatient* category with a code of **IP** and a *Discharge* category with code **DI**.
- **Description:** The name of the category as it will be seen throughout mSupply (if you are using wards then two of these will be *Inpatient* and *Discharge*).

Click on the **OK** button to save your changes.

Wards

If you want to select the patient's ward on a prescription you must first turn on the *Allow users to select ward on prescriptions* preference. See the [16.01. General preferences](#) page for details on that.

In mSupply, wards are names that have been assigned a tag of *Ward*:

- For details on creating names, see the [5.01. Names: using, adding and editing](#) page
- For details creating and editing name tags, see the [5.05. Name tags](#) page.
- For details on assigning the *Ward* tag you created to the ward names see the Tags tab section of the [5.01. Names: using, adding and editing](#) page.

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Last modified: 2022/02/04 15:59 by Gary Willetts





User Guide



11. Payments and Receipts

- [11.01. Payments to suppliers](#)
- [11.02. Receiving payment from customers](#)
- [11.03. Prescription payments and credits](#)
- [11.04. Cash register](#)

Previous topic: [10. Dispensing Goods](#) | Next topic: [12. Supplier Hub](#)

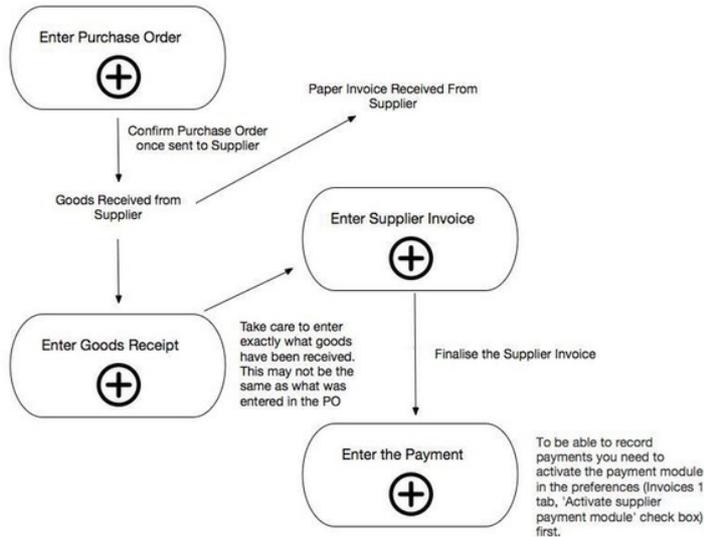
Last modified: 2020/04/24 09:48 by lou



11.01. Payments to suppliers

Updated: version 3.1

The best practice payment flow is diagrammed below. These steps ensure accuracy is maintained and payments are made for the correct amounts based on the actual goods received.



mSupply can be used to record payments that you have made to suppliers for goods received from them. To do this, you need to activate the payment module in the preferences ([Invoices 1 tab](#), ['Activate supplier payment module' check box](#)) first.

⚠ Important

- Any Supplier Invoice that is finalised *after* the Payments Module is activated will have its **amount outstanding** recorded (the amount left to pay to the supplier). Payments can then be entered against those Supplier Invoices.
- Therefore, it is important to finalise any Supplier Invoices that have *already* been paid *before* the Payments Module is activated. Any Supplier Invoices finalised *before* the Payments Module is activated will have their **amount outstanding** set to zero, and so will not show for payment. Use the **File > Finalize supplier invoices** command to finalise all invoices. Or, view invoices (**Suppliers > Show supplier invoices**) and finalise them individually once all the details are correct.
- You cannot pay a supplier more than the total outstanding (as if you'd want to!). This is different to a [cash receipt](#), where you can accept an overpayment from a customer.

Entering payments

To enter a new cash payment, choose **Supplier > New Cash Payment** from the menus (or click on the icon in the Payments section on the Suppliers tab of the navigator to be shown the new cash payment window:

Supplier payment

Name: _____ Entered by: sussol Invoice No.: 0
 Their ref: _____ Entered date: 6/6/12 Status: mw
 Note: _____ Confirm date: 6/6/12 Store: _____
 Payment currency: VUV Currency rate: 1.00
 Payment: 0.00
 Distribute

Disabled lines below are in a different currency

Entry date	Confirm date	Invoice	Their ref	Comment	Total	Currency	Outstanding	Payment
6/6/12	6/6/12				15000	VUV	15000	0
6/6/12	6/6/12				1000	AUD	1000	0
6/6/12	6/6/12				140000	VUV	140000	0
6/6/12	6/6/12				10800	AUD	10800	0

Double-click lines to enter payment amount
 Hold down shift to allocate whole invoice amount

Total outstanding: 155,000.00
 To allocate: 0.00
 Allocated: 0.00
 Allocated in local currency: 0.00
 Extra charges (VUV): 0.00
 Total payment in local currency: 0.00

OK & Next Cancel OK

The table of invoices you can enter a payment against is populated with all the finalised invoices in the store you are currently logged into (in all currencies).

Entry steps

1. Enter the supplier name or code in the Name field. Once you have chosen the supplier, a list of finalised supplier invoices for that selected supplier that still have an amount outstanding will be displayed.
2. Enter a comment about the payment in the Note box. If you leave this blank mSupply will automatically create a note containing a list of the invoices the payment is paying off.
3. Select the currency you want to pay in. You can only enter payments in one currency at a time so all those invoices that are in a different currency to what you have selected will be greyed out in the list and you will not be able to enter a payment amount against them.
4. The rate stored in mSupply for the particular currency you have selected is displayed in the Rate box. If you wish to use a different rate (e.g. the rate you know the bank will use) you can change the rate to match it (and the calculated payment amounts will be updated automatically). Note that the rate is set to 1 and is unchangeable if you have selected your local currency.
5. Enter the total amount you wish to pay in the Payment box and click the **Distribute** button. This will distribute as much of your payment as it can among all the outstanding invoices in the currency you selected, in the order they appear in the list. If there is any left over it will be shown in the To allocate box.
6. Alternatively, you can shift-double-click each non-greyed out invoice to pay the full amount of that invoice. (Note that shift-double-clicking toggles between allocating nothing and full payment against an invoice). A quick way to find out the total outstanding amount for a supplier in the selected currency is to shift double click all the non-greyed out invoices. The total will then be displayed in the Allocated amount.
7. To partially pay an invoice you can double-click it's line and enter the amount you wish to pay.
8. If there are any local charges that need to be added onto the payment, they can be entered after you have allocated the full amount entered in the Payment box to invoices.
9. As well as adding in local charges you can edit the total amount of the payment in local currency if needs be so that the actual payment amount matches your bank records (such a situation might arise if your bank uses a different currency conversion rate to that stored in mSupply® but you don't know what it is).
10. Once you are happy with the details, click the **OK** or **OK & Next** button. If you want to print the information, make sure the **print** checkbox is checked.
11. Note that the **OK** and **OK & Next** buttons will remain disabled until the Payment amount is non-zero and the To allocate amount is zero (i.e. a payment amount has been entered and has all been allocated to invoices).

Viewing cash payments already made

Choose **Suppliers > Show cash payments...** from the menus or click on the  icon in the Payments section on the Suppliers tab of the navigator. You will be presented with the standard transaction find window which allows you to filter the cash payments you see:

Find transaction....

cash payments

15 most recent transactions, or:

invoice number equals

Use list view if one entry found

Complex Find Cancel Find

When you click on the *Find* button will be taken to the usual transaction viewing window with the cash payments you selected displayed:

Name	Type	Sta.	Entered	Confirmed	Invenum	Total	Their ref	PS printed dt.	Comment	Exp btch
Customer Invoices	ps	fn	2/5/12	2/5/12	7	500				0
Supplier Invoices	ps	fn	2/5/12	2/5/12	8	200				0
Inventory adjustments	ps	fn	2/5/12	2/5/12	9	95810000				0
Supplier credits	ps	fn	2/5/12	2/5/12	10	1540				0
Customer credits	ps	fn	4/5/12	4/5/12	11	20000				0
Builds	ps	fn	7/5/12	7/5/12	12	29243				0
Repacks	ps	fn	7/5/12	7/5/12	13	48005				0
Find...	ps	fn	8/5/12	8/5/12	14	2000				0
By date	ps	fn	8/5/12	8/5/12	15	4000				0
By Status	ps	fn	8/5/12	8/5/12	16	2000				0
My transactions	ps	fn	8/5/12	8/5/12	17	2000				0
My custom filters	ps	fn	9/5/12	9/5/12	19	3250				0
	ps	fn	10/5/12	10/5/12	20	750			Payment of invoices	117
	ps	fn	10/5/12	10/5/12	29	67067			Payment of invoices	118
	ps	fn	10/5/12	10/5/12	30	14371.5				0

To view an individual payment simply double click on its line in the list and you will be shown a read-only view of the cash payments form containing all the details of the payment you made and the invoices it was paying. If you have the correct user [permissions](#) you can edit the payment note at this stage even if the payment has been finalised.

Previous: [11. Payments and Receipts](#) | Next: [11.02. Receiving payment from customers](#)

Last modified: 2021/08/09 03:19 by Mark Glover



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11.02. Receiving payment from customers

Tip

Note that the “Activate customer receipts module” checkbox on the Invoices 2 tab of the Preferences must be checked before you can use the **Customer Receipts** module (see the [14.03. Invoice preferences](#) section). Once this option is checked, new invoices will have the outstanding amount recorded. If this option is not checked, the outstanding amount of invoices is set to zero. <https://docs.msupply.org.nz/preferences:invoices>

A payment from a customer (which can be a standard customer or a patient) is referred to as a *Cash Receipt* in mSupply (regardless of whether the payment is by cash, cheque, transfer or some other method).

The system mSupply uses to record payments is the accounting standard “open invoice” system, which means that the outstanding (that is, unpaid) amount of each invoice is tracked by mSupply.

Payments from customers can be received in any currency that customer invoices have been issued in. But a single payment transaction can only record payment in one currency - if you need to record multiple currency payments from a particular customer then record a separate payment for each currency.

Viewing cash receipts

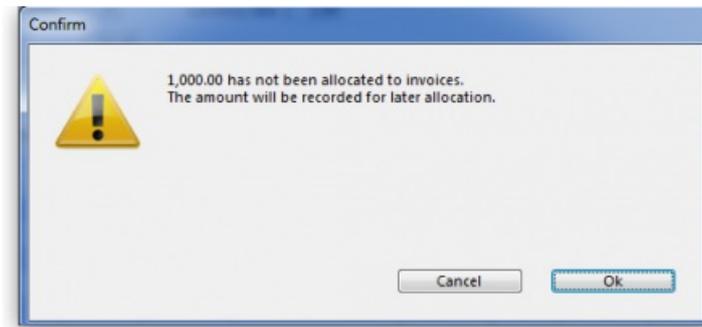
To view the existing cash receipts that have been entered, choose **Customer > Show cash payments** in the menus or click on the 'Show me' icon in the *Cash receipts* group on the *Customer* tab of the Navigator:



The usual transaction filter window opens to enable you to choose which cash receipts you want to see. By default you will be shown the 15 most recent receipts. When you have finished your selection, click on the **Find** button to be shown a list of the matching cash receipts (Note: if only 1 receipt matches, you will taken straight to it rather being shown a list):

Overpayments

- Sometimes a customer might pay you more than the amount owing (not so likely, but it does happen to some nice organisations!), or the customer might pay you for an invoice that is not yet finalised. If this happens, allocate any amount that relates to invoices in the list. When you click **OK** you will be warned there is an overpayment and you will be asked if you want to continue.



- Click **OK** if you want to continue, or **Cancel** if you want to allocate the extra amount to invoices.
- The next time you enter a payment for that customer you will be presented with a window asking you if you want to use the overpayment for this transaction:



- Click **Use** if you want to use the overpayment, or **Don't use** if you want to enter another payment (Some customers just keep sending in the money...)

Customer statements (reporting on customer payments)

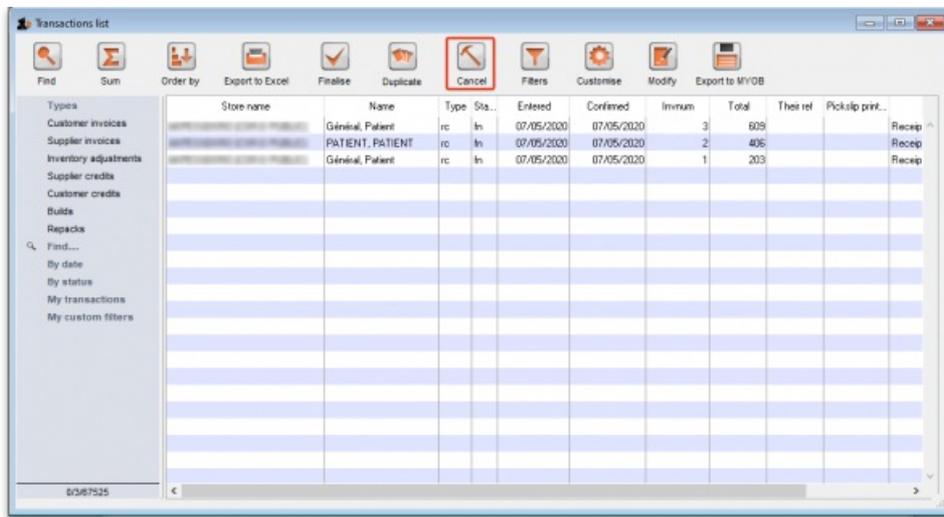
To see each customer's payment history and their current outstanding balance, run the Customer statements report - go to *Report > Debtors and Creditors > Customer statements...* in the menus (it's also on the Reports tab of the Navigator) and use the filters to select which customers you want included in the report.

To see details for an individual customer you can go to their details page. See the instructions in the [Viewing a customer's invoices](#) section for that.

Cancelling payments

All payments, whether they are for prescriptions or customer invoices will appear in the cash receipts list described in the [Viewing cash receipts](#) section above.

If you wish to cancel one (because it was a mistake or the customer brings the goods back), select it in that list and click on the **Cancel** button above the list:



You will be asked to confirm that you want to cancel the selected payment - make sure you have selected the right one and you really want to do it because you can't undo the cancellation once it's done!

When you cancel a payment, the transaction that the payment was for is **not** also cancelled i.e. if you cancel a payment of a customer invoice, the customer invoice is **not** also cancelled.

Previous: [11.01. Payments to suppliers](#) || Next: [11.03. Prescription payments and credits](#)

Last modified: 2020/05/18 15:03 by Gary Willetts

11.03. Prescription payments and credits

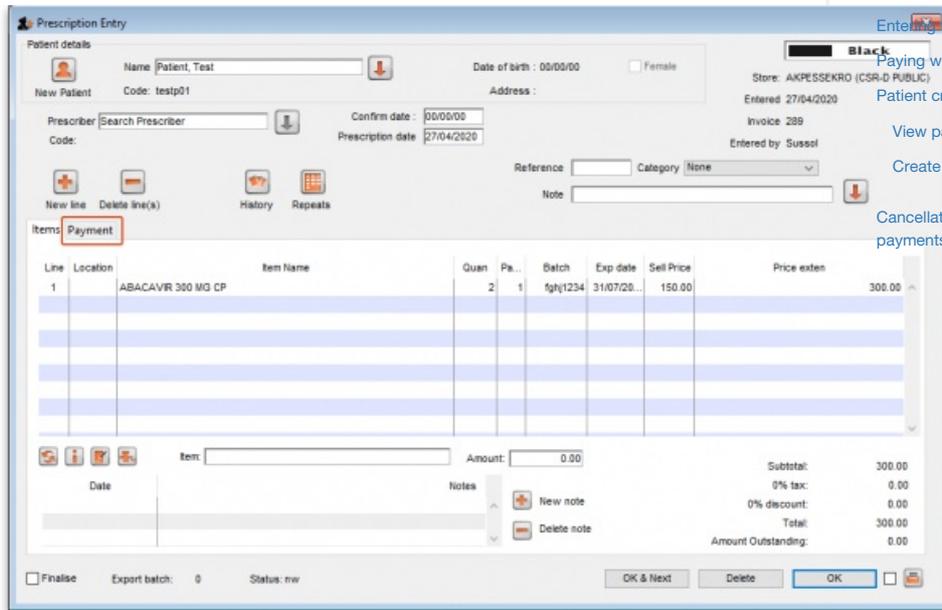
Prescription payment preferences

To receive payments for prescriptions in a dispensary, go to [Dispensary Mode Preferences](#) and check the **Receive payments from prescription window** box.

Once activated, a **Payment** tab will appear in the *Prescription Entry* window:

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- [Prescription payment preferences](#)
- [Entering the payment](#)
- [Paying with credit](#)
- [Patient credits](#)
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 - [Create patient credits](#)
- [Cancellations for prescription payments](#)
- [Prescription payment preferences](#)
- [Entering the payment](#)
- [Paying with credit](#)
- [Patient credits](#)
 - [View patient credits](#)
 - [Create patient credits](#)
- [Cancellations for prescription payments](#)



Entering the payment

To enter a payment from the Prescription Entry window:

1. Click on the **Payment** tab.
2. The **Total payment** field shows the amount that needs to be paid by the patient. Enter the amount the patient actually gives you in the **Amount given** field, then press the *Tab* key on the keyboard:

Prescription Entry

Patient details
 Name: Patient, Test | Date of birth: 23/11/1974 | Female
 New Patient Code: Testp01 | Address:
 Prescriber: Search Prescriber | Confirm date: 00/00/00 | Invoice: 431
 Code: | Prescription date: 04/06/2020 | Entered by: Sussol

Items: Payment

Other details
 Cheque #: | Note: |
 This invoice will be automatically finalised if a payment is entered.

To Pay
 Invoice total: 300.00
 Total to pay: 300

Patient's credit status
 Current balance: 0.00 | Credit limit: 0.00 | Available credit: 0.00

Payment details
 Amount paid by credit: 0.00
 Amount paid by patient: 300.00
 Total payment: 300
 Select the payment type: | Amount given: 0
 Change to give back:

Finalise | Export batch: 0 | Status: nw | Print receipt | OK & Next | Delete | OK

3. In this example, the prescription cost is \$300 and the patient will pay with a \$500 note, so 500 is entered in the **Amount given** field and the **Tab** key pressed. mSupply then shows you the change that is to be given back to the patient in the **Change to give back** field:

Prescription Entry

Patient details
 Name: Patient, Test | Date of birth: 23/11/1974 | Female
 New Patient Code: Testp01 | Address:
 Prescriber: Search Prescriber | Confirm date: 00/00/00 | Invoice: 431
 Code: | Prescription date: 04/06/2020 | Entered by: Sussol

Items: Payment

Other details
 Cheque #: | Note: |
 This invoice will be automatically finalised if a payment is entered.

To Pay
 Invoice total: 300.00
 Total to pay: 300

Patient's credit status
 Current balance: 0.00 | Credit limit: 0.00 | Available credit: 0.00

Payment details
 Amount paid by credit: 0.00
 Amount paid by patient: 300.00
 Total payment: 300
 Select the payment type: | Amount given: 500
 Change to give back: 200

Finalise | Export batch: 0 | Status: nw | Print receipt | OK & Next | Delete | OK

If payment types have been set up, then you can select the type of payment being made in the **Payment type** drop down list.

Please note: You cannot overpay a prescription. If you edit the **Amount given** field to be more than the **Total payment** amount the **Amount given** field will be reduced to the **Total payment** amount and the **Change to give back** will be increased by the difference.

4. Click **OK to finalise** the prescription and payment and close the window (if a payment is entered the prescription will be automatically finalised, you have no choice). If the **Print receipt** checkbox is checked then a payment receipt will print at this point.

Important

Once you click OK, the prescription and payment are finalised and can no longer be edited. Check carefully before pressing OK!

Please note: You can save a prescription without a payment when the *Receive payments from prescription window* preference is turned on (see the top of this page) but the prescription will not be finalised, it will only be confirmed. You will be warned and asked to confirm that this is what you want to do if you do not enter a payment. If you want to enter the prescription payment later, you can find the prescription, open it and enter the payment then.

Paying with credit

Patients can be given a credit limit (see [10.03. Patients](#)) and can use some or all of that credit at any time to pay off some or all of a prescription. Patient credits (see below) and cash paid into the cash register by a patient (see the [11.04. Cash register](#) page for details) will add to the amount of credit a patient can use.

The process of using credit in a payment is exactly the same as the payment process described above, the only difference is that, if the patient has

some credit available, mSupply will automatically use as much as it can to pay for the patient's prescription. You can see the amount of credit the patient has available (made up of their credit limit, patient credits and cash they have paid in) in the **Patient's credit status** section and the amount of credit used to pay for the prescription in the **Amount paid by credit** field:

The screenshot shows the 'Prescription Entry' form. The 'Patient details' section includes Name: Patient, Test; Date of birth: 23/11/1974; Gender: Female; Store: AKPESSEKRO (CSR-D PUBLIC); Entered: 04/06/2020; Invoice: 431; Entered by: Susael. The 'Items: Payment' section shows 'Other details' with a red message: 'This invoice will be automatically finalised if a payment is entered.' The 'To Pay' section shows 'Invoice total: 300.00' and 'Total to pay: 300'. The 'Patient's credit status' section is highlighted with a red box and shows: 'Current balance: 100.00', 'Credit limit: 100.00', and 'Available credit: 100.00'. The 'Payment details' section is also highlighted with a red box and shows: 'Amount paid by credit: 100.00', 'Amount paid by patient: 200.00', and 'Total payment: 200'. At the bottom, there are buttons for 'Finalise', 'Export batch: 0', 'Status: on', 'Print receipt', 'OK & Next', 'Delete', and 'OK'.

In this example, the patient has 100 credit available (made up of their credit limit only, which is 100) and all of that credit has been used to pay the prescription charge.

If you or the patient does not wish to use their credit, or wishes to reduce the amount of their credit used to pay the prescription, simply change the amount of credit used in the **Amount paid by credit** field and press the **Tab** key on the keyboard so that mSupply re-calculates the amount to be paid by the patient. Here is a screenshot if the patient in the example above decides to pay 250 towards their prescription and only use 50 of their credit:

The screenshot shows the 'Prescription Entry' form with the same patient details as the previous screenshot. The 'Payment details' section is updated to show: 'Amount paid by credit: 50.00', 'Amount paid by patient: 250.00', and 'Total payment: 250'. The 'Patient's credit status' section remains the same: 'Current balance: 100.00', 'Credit limit: 100.00', and 'Available credit: 100.00'. The 'To Pay' section shows 'Invoice total: 300.00' and 'Total to pay: 300'. At the bottom, there are buttons for 'Finalise', 'Export batch: 0', 'Status: on', 'Print receipt', 'OK & Next', 'Delete', and 'OK'.

Patient credits

You can allocate funds in a patient's favour by giving them a **Patient Credit**. You might need to do this if, for example, a patient returns faulty medicines they already paid for. Creating a patient credit increases the amount of credit a patient has. Patient credit can be used to pay for future prescriptions.

View patient credits

To view already created patient credits, choose **Patient > Show prescriptions** in the menus or click on the show prescriptions icon on the Patients tab of the Navigator:



In the filter window that appears, select the appropriate filter options and click on the **Find** button to show the prescriptions that match the filters (just click on the **Find** button without changing anything if you want to see the default 15 most recent prescriptions):

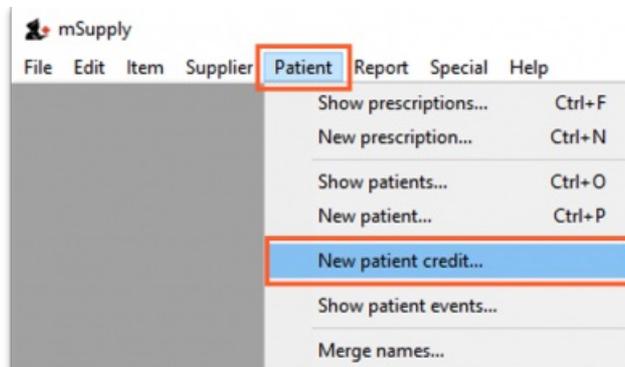
Store name	Name	Type	St...	Entered	Confirmed	Insum	Total	Their ref	Pickup pri...	Comme
Général, Patient	Général, Patient	cc	cn	21/05/2020	21/05/2020	443	-443			
Général, Patient	Patient, Test	ci	fn	18/05/2020	18/05/2020	442	58			
Général, Patient	Général, Patient	ci	fn	07/05/2020	07/05/2020	437	29			
Général, Patient	Général, Patient	ci	fn	07/05/2020	07/05/2020	436	29		07/05/2020	
Général, Patient	Général, Patient	ci	fn	02/05/2020	02/05/2020	435	58			Offset for a...tr.
DISTRIC...OUKRD	DISTRIC...OUKRD	ci	fn	01/05/2020	01/05/2020	433	20000			Offset for a...tr.
Général, Patient	Général, Patient	ci	fn	01/05/2020	01/05/2020	432	58		01/05/2020	
Général, Patient	Général, Patient	ci	fn	01/05/2020	01/05/2020	431	87			
Général, Patient	Général, Patient	ci	cn	01/05/2020	01/05/2020	430	0			
DISTRIC...OUKRD	DISTRIC...OUKRD	cc	fn	01/05/2020	01/05/2020	429	-20000			Offset for a...tr.
Général, Patient	Général, Patient	cc	fn	01/05/2020	01/05/2020	427	-100			Offset for a...tr.

Patient credits have cc (for "customer credit") in the *Type* column, prescriptions have a type of *ci*. If you only wish to see patient credits then click on the **Customer credits** item on the left hand side.

Create patient credits

To create a new patient credit:

1. In the menus, choose **Patient > New patient credit...**



2. Enter the patient in the **Name** field just as you would for a prescription. You can also enter other details such as **Reference** (e.g. the prescription number this patient credit is related to) and a **Note** explaining why a patient credit is being issued.

3. Click the **History** button to view the items previously dispensed to this patient:

4. Select the item(s) to be returned from the patient's dispensing history, then click **Add to credit**. Multiple items may be added at once:

Date	Number	Prescriber	Item	Quantity	Directions
01/11/2019	24	CAR	Amoxicillin 250mg tab/cap	1	
01/11/2019	19	CAR	Amoxicillin 500mg tab/cap	1	
01/11/2019	20	CAR	Amoxicillin 500mg tab/cap	1	
01/11/2019	21	CAR	Amoxicillin 500mg tab/cap	1	
01/11/2019	23	CAR	Amoxicillin 500mg tab/cap	1	
01/11/2019	24	CAR	Amoxicillin 500mg tab/cap	2	

5. Review the patient credit. Note that the price appears as a *negative* value in the patient credit window since it is a credit to the patient, not a charge.

Tip

You can also add items *not* linked to a patient's history by clicking the **New line** button and entering item details just like you would for a prescription.

If you *only* want to allow users to issue patient credits for items linked to a patient's history, turn on the **Limit patient credits to previously prescribed items** preference in the *Invoices 2* tab of **File > Preferences** (see *Invoices 2 Preferences*). This will disable the **New line** button, and all items must be selected from the **History** button.

6. Once you are sure the patient credit is correct, check the **Finalise** box and click **OK**.

⚠ Important

Remember you have also just returned items to your mSupply inventory! If you are going to destroy returned items, you now need to remove them from your mSupply inventory in a separate transaction (either a [Reduce stock Inventory Adjustment](#) or a [Stocktake](#)).

When the patient pays for their next prescription, their credit will be *automatically* applied in the Payment window.

In this example, the patient's current prescription is \$300 but they had a \$100 credit which is automatically applied to the invoice. Now, they only need to pay \$200.

The screenshot shows the 'Prescription Entry' window. At the top, 'Patient details' include Name: Patient, Test; Date of birth: 23/11/1974; and Store: AKPESSEKRO (CSR-D PUBLIC). Below this, 'Items: Payment' is shown with a 'To Pay' summary: Invoice total 300.00, Total to pay 300. A red box highlights the 'Patient's credit status' section, which shows Current balance 100.00, Credit limit 100.00, and Available credit 100.00. Another red box highlights the 'Payment details' section, showing Amount paid by credit 100.00, Amount paid by patient 200.00, and Total payment 200.00. At the bottom, there are buttons for 'Finalise', 'Export batch', 'Status on', 'Print receipt', 'OK & Next', 'Delete', and 'OK'.

Cancellations for prescription payments

When a prescription is cancelled, any payment made against it is not automatically cancelled because the patient might give you the goods back but not receive a cash refund. However, a patient credit is automatically created equal to the amount of the payment and assigned to the patient. This means the patient is refunded in credit, not cash.

If you really wish to refund cash to the patient, you need to find the patient credit created for them, cancel it and then go to the [cash register](#) and enter a cash out transaction for the patient. This will appear as a "ps" type transaction in the register. It is a good idea to have a separate payment type [Option \(16.10. Options \(standard reasons\)\)](#) for this type of cash out payment to allow you to report on them separately from other types of cash out transactions.

Previous: [11.02. Receiving payment from customers](#) | Next: [11.04. Cash register](#)

Last modified: 2020/12/07 06:38 by Mark Glover

11.04. Cash register

The **Cash Register** allows you to see and create in and out payments for the customers and patients in your store. It also shows you the current balance of the cash register and you can use it to manage cash reconciliation in a store if you are using a physical cash repository of some sort.

Any payments made in the [customer receipts module](#), [supplier payments module](#) or [made on a prescription](#) will also be show here. Those payments differ to those made in this module in that they are attached to a transaction (customer invoice or prescription). Any payments made in this module are not attached to any other transactions.

Viewing the cash register

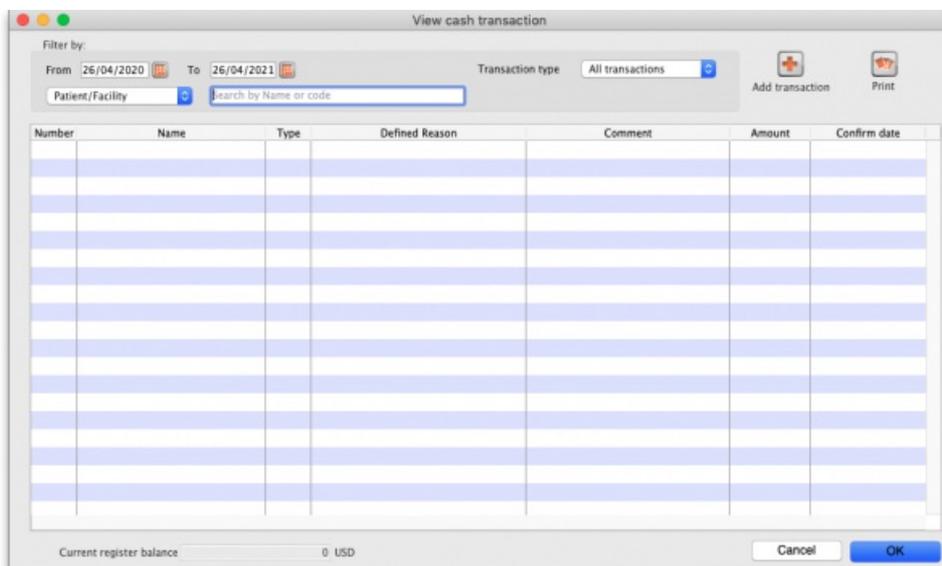
1. Click the **Special** tab in the navigator.
2. Click the **Cash Register** button:

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- [Viewing the cash register](#)
- [Adding or removing cash](#)
 - [Permissions for manual cash in/out transactions](#)
 - [Manual cash in/out transactions](#)
 - [Cancellations for prescription payments](#)
- [Printing a cash transaction report](#)
- [Viewing the cash register](#)
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 - [Permissions for manual cash in/out transactions](#)
 - [Manual cash in/out transactions](#)
 - [Cancellations for prescription payments](#)
 - [Printing a cash transaction report](#)



3. The **Cash Register** will open:



By default the window will show all of today's transactions when it opens but you can use the filters at the top in the *Filter by* section to see just the payments you want in the table:

- **From and To date fields:** include only cash transactions that have an entry date between (and including) these 2 dates
- **Patient/Facility drop down list:** has *Patient/Facility* and *Comment/Reason* options.
 - Patient/Facility: the search will be for all facilities with a name or patients with a surname that starts with what is entered in the text box (can separate surname and first name by a comma i.e. *surname,first name* to refine a patient search)
 - Comment/Reason: the search will be for any cash transactions with a comment or reason starting with what is entered in the text box
- **Transaction type drop down list:** has All transactions, Cash receipts and Cash payments options. Will include transactions of the selected type only in the list.
- All these search fields are ANDed together so only cash transactions that match all of the filter values set will be shown in the list.

Note that only *finalised* cash transactions will show in the cash register.

The *Current register balance* shows you the current balance of all the in and out payments in the datafile - this is the amount of cash you should have in your physical cash repository if you're using one.

For each transaction in the table you can see:

- Who the cash was received from or paid to
- Payment type:
 - **rc** is a cash receipt (cash paid to you by a customer or patient)
 - **ps** is a cash payment (cash paid by you to a supplier)
- Amount received or paid, where a **positive** number is **cash in** and a **negative** number is **cash out**
- Date of the transaction
- Other details such as reasons and comments

Adding or removing cash

All transactions involving payments will be *automatically* added to the cash register. Those payments are made using the customer receipts module, the supplier payments pmodule or by receiving payments on a prescription and all those payments are cponnected to their transaction.

You can use this cash register functionality to manually add **cash in** or take **cash out** from the cash register, without it being attached to another transaction. For example, this may be necessary for depositing cash in the bank.

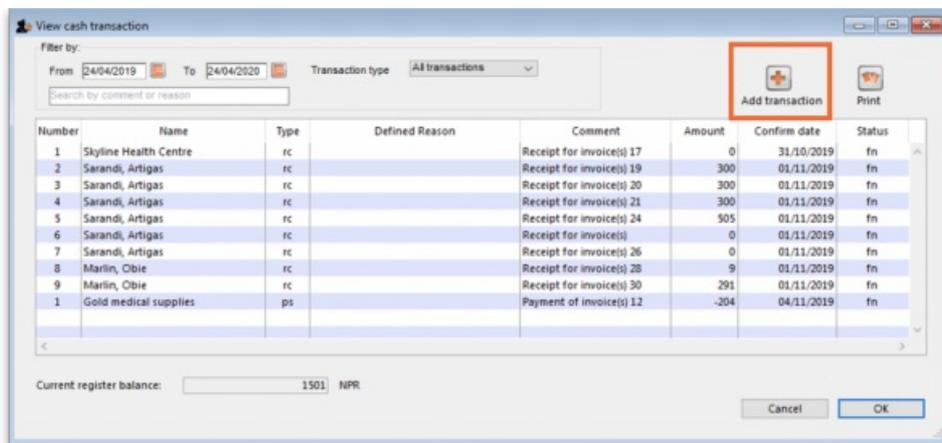
You can set permissions to allow users to manually add **cash in** or take **cash out** from the cash register.

Permissions for manual cash in/out transactions

Users need to have the **Create cash transactions** permission set on the **Permissions(2)** tab of the user's details window to be able to add or remove cash from the cash register. See the [Managing users page](#) for details.

Manual cash in/out transactions

1. Click the **Add transaction** button:



Note: If the user does not have permission to make cash register transactions, an alert message will appear and they will not be able to proceed.

2. The Add cash transaction window appears:

Add cash transaction

Copy ID to Clipboard

Invoice Number: 2

Entered by: user 1 (pass= user)

Entry date: 04/11/2019

Confirm date:

Name
National Bank
NBK

Transaction type
Cash out

Amount: 500

Option
Bank deposit

Description
Weekly bank deposit

New cash register balance: 1001
NPR

Cancel OK

Add the **Name** of the person/organisation who is giving you the cash or receiving it from you. Type the first few characters of the patient or organisation name and press the *Tab* key on the keyboard to select the right name from the list of those matching what you typed.

If you are searching for a patient, you can enter their surname followed by a comma and their first name (e.g. *Smith, Deborah* to search for Deborah Smith) to narrow the search.

3. Select the **Transaction Type** from the dropdown list: **Cash out** (remove cash) or **Cash in** (add cash) and enter the **Amount** of cash being removed or added:

Add cash transaction

Copy ID to Clipboard

Invoice Number: 2

Entered by: user 1 (pass= user)

Entry date: 04/11/2019

Confirm date:

Name
National Bank
NBK

Transaction type
Cash out

Amount: 500

Option
Bank deposit

Description
Weekly bank deposit

New cash register balance: 1001
NPR

Cancel OK

4. If you are making a cash out transaction and the **Option** dropdown list is activated, you must select a reason for removing cash. You may also add a **Description** to give further details of the transaction:

Tip

The **Option** drop down list will be activated when you are making a **Cash out** transaction if you have entered Cash out transaction reasons on the Options tab of the Preferences (see the [Preferences > Options](#) section for details).

Add cash transaction

Copy ID to Clipboard

Invoice Number: 2
Entered by: user 1 (pass= user)
Entry date: 04/11/2019
Confirm date:

Name: National Bank
NBK

Transaction type: Cash out

Amount: 500

Option: Bank deposit

Description: Weekly bank deposit

New cash register balance: 1001
NPR

Cancel OK

5. Click **OK**, then click **Save & Close** to finalise the transaction:

Confirm...

Clicking OK will finalise this transaction, and you won't be able to edit it further. Would you like to finalise?

Save & Close Cancel

Once finalised, the transaction can no longer be edited.

6. The new transaction will now appear in your cash register and the **Current register balance** will be updated.

View cash transaction

Filter by: From 24/04/2019 To 24/04/2020 Transaction type All transactions

Search by comment or reason

Number	Name	Type	Defined Reason	Comment	Amount	Confirm date	Status
1	Skyline Health Centre	rc		Receipt for invoice(s) 17	0	31/10/2019	fn
2	Sarandi, Artigas	rc		Receipt for invoice(s) 19	300	01/11/2019	fn
3	Sarandi, Artigas	rc		Receipt for invoice(s) 20	300	01/11/2019	fn
4	Sarandi, Artigas	rc		Receipt for invoice(s) 21	300	01/11/2019	fn
5	Sarandi, Artigas	rc		Receipt for invoice(s) 24	505	01/11/2019	fn
6	Sarandi, Artigas	rc		Receipt for invoice(s)	0	01/11/2019	fn
7	Sarandi, Artigas	rc		Receipt for invoice(s) 26	0	01/11/2019	fn
8	Marlin, Obie	rc		Receipt for invoice(s) 28	9	01/11/2019	fn
9	Marlin, Obie	rc		Receipt for invoice(s) 30	291	01/11/2019	fn
1	Gold medical supplies	ps		Payment of invoice(s) 12	-204	04/11/2019	fn
2	National Bank	ps	Bank deposit	Weekly bank deposit	-500	04/11/2019	fn

Current register balance: 1001 NPR

Cancel OK

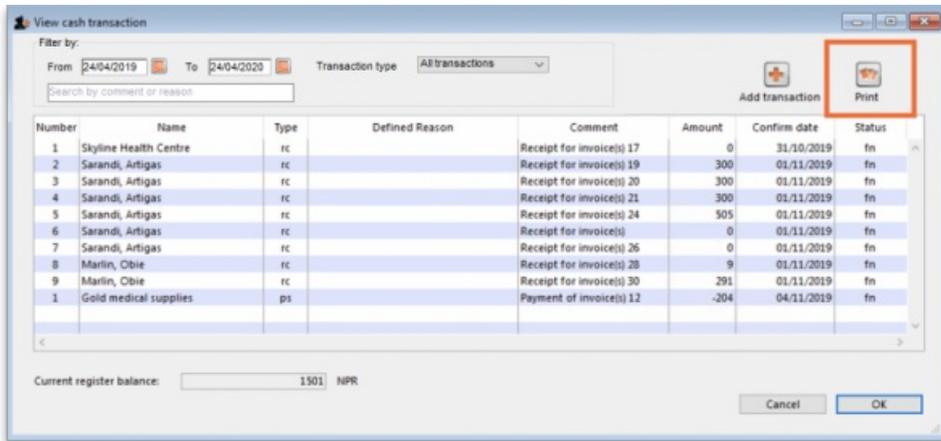
Cancellations for prescription payments

When a prescription is cancelled, any payment made against it is not automatically cancelled because the patient might give you the goods back but not receive a cash refund. However, a patient credit is automatically created equal to the amount of the payment and assigned to the patient. This means the patient is refunded in credit, not cash.

If you really wish to refund cash to the patient, you need to find the patient credit created for them, cancel it and then go to the cash register and enter a cash out transaction for the patient. This will appear as a "ps" type transaction in the register. It is a good idea to have a separate *Option* (16.10. Options (standard reasons)) for this type of cash out payment to allow you to report on them separately from other types of cash out transactions.

Printing a cash transaction report

1. Click the **Print** button:



2. An Excel spreadsheet will open containing the list of transactions shown in the table:

Cash transactions							
Invoice Number	Name	Type	Option	Amount	Status	Confirm date	Comment
1	Skyline Health Centre	rc		0	fn	31/10/19	Receipt for invoice(s) 17
2	Sarandi, Artigas	rc		300	fn	1/11/19	Receipt for invoice(s) 19
3	Sarandi, Artigas	rc		300	fn	1/11/19	Receipt for invoice(s) 20
4	Sarandi, Artigas	rc		300	fn	1/11/19	Receipt for invoice(s) 21
5	Sarandi, Artigas	rc		505	fn	1/11/19	Receipt for invoice(s) 24
6	Sarandi, Artigas	rc		0	fn	01/11/2019	Receipt for invoice(s)
7	Sarandi, Artigas	rc		0	fn	01/11/2019	Receipt for invoice(s) 26
8	Marlin, Obie	rc		9	fn	01/11/2019	Receipt for invoice(s) 28
9	Marlin, Obie	rc		291	fn	01/11/2019	Receipt for invoice(s) 30
1	Gold medical supplies	ps		-204	fn	04/11/19	Receipt for invoice(s) 12
Current register balance:		1501					

If you want different transactions to appear in the report, change the filters before clicking the **Print** button. You can then save and/or print the spreadsheet from Excel. The *Search by comment or reason* filter will remove any transactions from the selection that do not have a comment or reason that starts with what is typed into the field. In this way, you can report on any different selection of payments and receipts, including cancellations.

Previous: [11.03. Prescription payments and credits](#) | Next: [12. Reports](#)

Last modified: 2021/04/26 15:10 by Gary Willetts





User Guide



12. Supplier Hub

- [12.01. Configuring the Supplier Hub](#)
- [12.02. Ordering Process with Supplier Hub](#)
- [12.03. Supplying a Supplier Hub site](#)
- [12.04. Receiving goods](#)

Previous topic: [11. Payments and Receipts](#) | | Next topic: [13. Reports](#)

Last modified: 2020/04/24 14:33 by lou



12.01. Configuring the Supplier Hub

The Supplier Hub is an intermediary service for requesting, sending and receiving stock between separate mSupply instances.

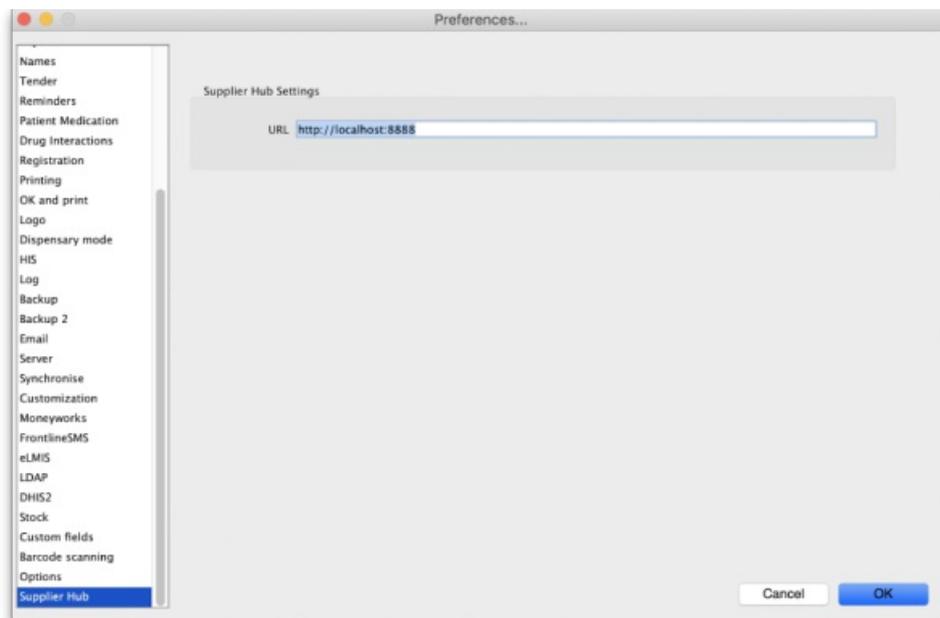
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- [Server Settings](#)
- [Store Settings](#)
- [Server Settings](#)
- [Store Settings](#)

Server Settings

To use the Supplier Hub, you first need to define the supplier hub URL - this is the URL to which the mSupply instances will be connecting. If you don't know what this should be, contact us at support@msupply.foundation.

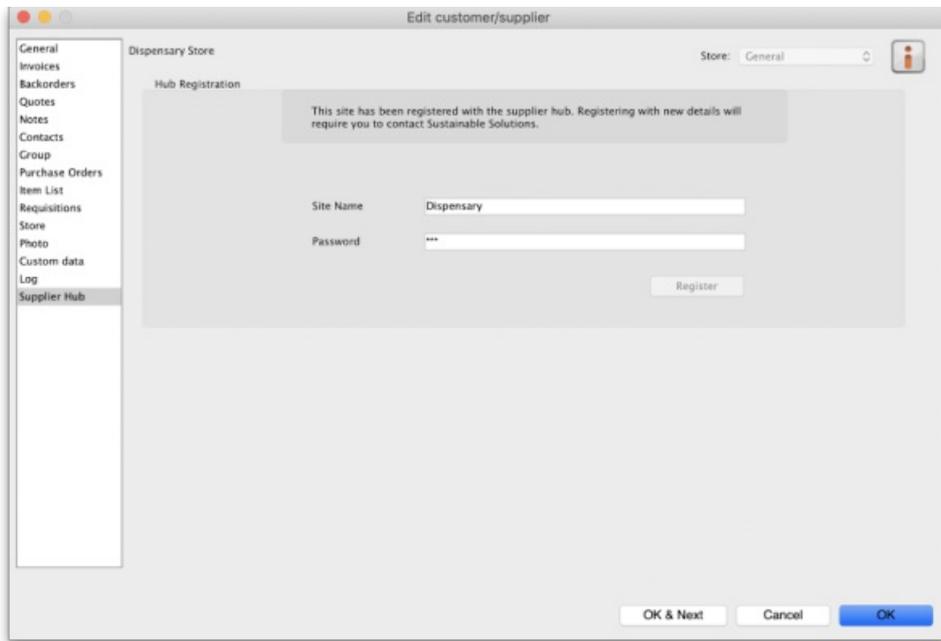
This can be done through the Preferences window. Navigate to the *Supplier Hub* tab:



In the URL field, enter the supplier hub url that you are using. Click OK to save these details.

Store Settings

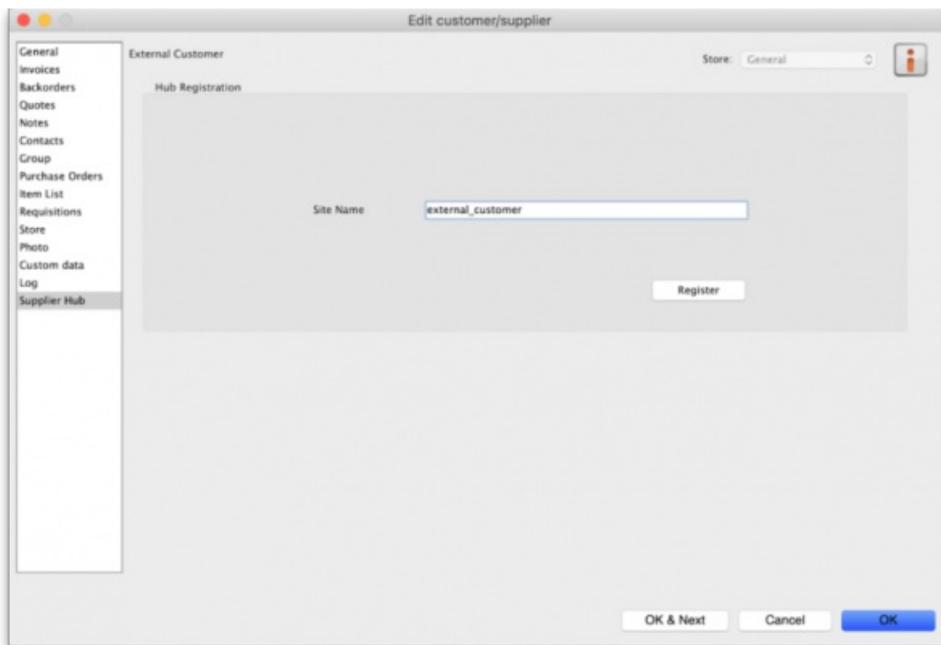
To use the supplier hub, you must register at least one store on your own mSupply instance as a Supplier Hub site. To do this, choose *Customer > Show customers* in the menus and find the store. Open the details window for the store by double-clicking on it. Click on the *Supplier Hub* tab on the left hand side:



In the **Site name** and **Password** fields, enter the name and password that will have been supplied to you by Sustainable Solutions.

Finally, click on the **Register** button to register the site with the supplier hub. A message will be displayed as shown in the above screenshot if the registration is successful.

To interact with facilities on other mSupply installations, they must also be set up as a customer or supplier on your instance, and registered with the Supplier hub using the same process described above. However, this time only the site name needs to be entered: this must be the same site name as the one stored on the Supplier Hub (contact Sustainable Solutions if you are not sure):

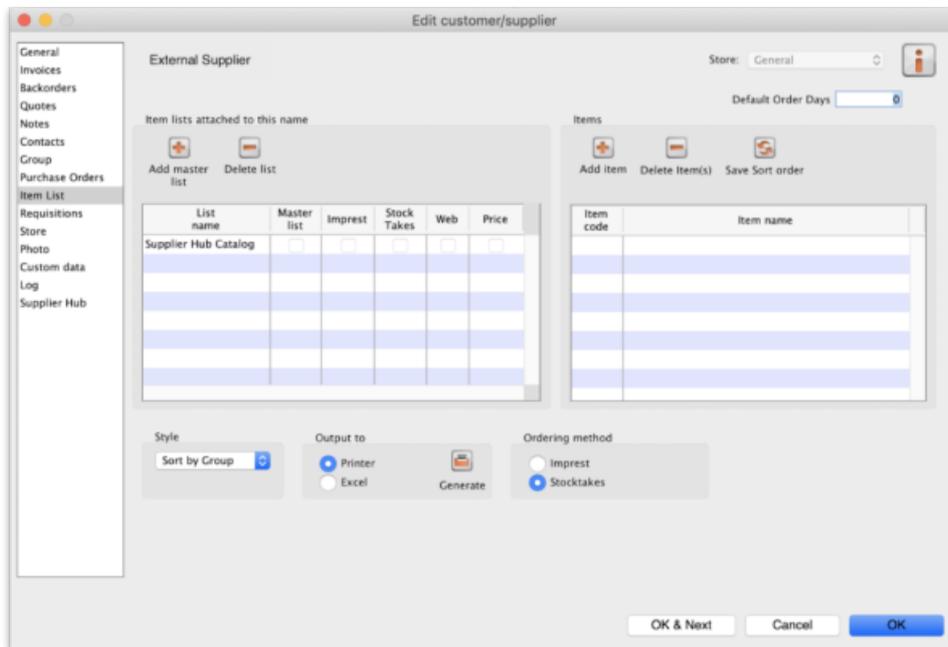


Setting up Catalogues

If you are a supplier site, you can define which goods a supplier hub site can order from you via catalogues. All master lists that you assign to a customer will be added to their Supplier Hub Catalogue for your site. They will only be able to order the items on those lists from you.

For details on how to assign master lists to customers, please see the [4.04. Item master lists](#) page.

When you have done this, on the customer's site they will see a new master list for the supplier called *Supplier Hub Catalog*. This is created by the supplier hub, contains all the items on the master lists assigned to the customer by the supplier and does not need to be edited:



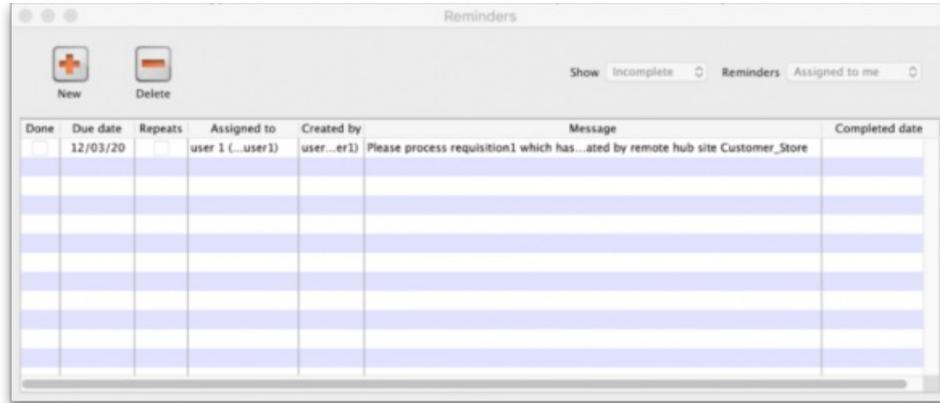
Previous: [12. Supplier Hub](#) | | Next: [12.02. Ordering Process with Supplier Hub](#)

Last modified: 2022/02/17 08:35 by Gary Willetts

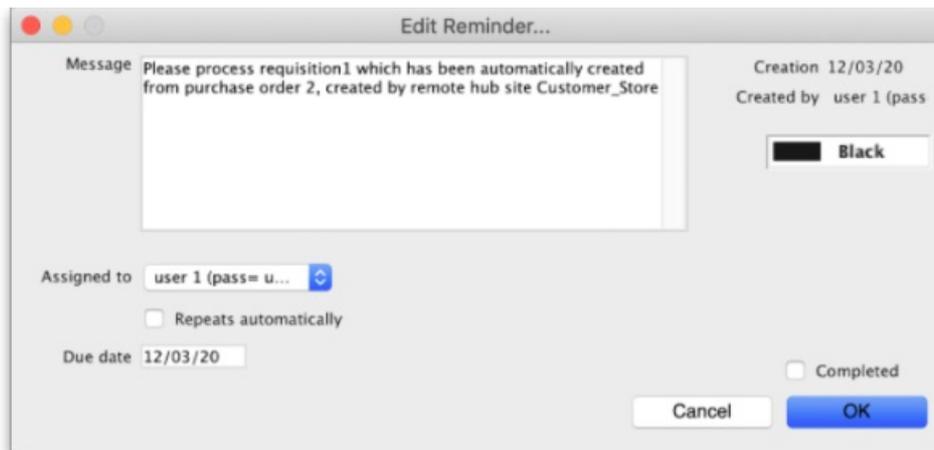


12.03. Supplying a Supplier Hub site

An order from a supplier hub customer will appear in your mSupply instance as a customer requisition. The responsible officer for the store will get a reminder to process the requisition when they login:



Double-clicking on the reminder will show the detail:



See the [26.02. Reminders](#) page for more detail about reminders.

The customer requisition can be processed as usual; see the [8.07. Stock control methods for your customers \(requisitions\)](#) page for information about this but please note this:

- The customer site will only receive notification of the stock being sent to them once you finalise the customer invoice created from the customer requisition.
- Once the customer receives the goods, the customer invoice you created from the customer requisition in the step above will be updated with details of the goods they received, including when they were received.
- The actual arrival date of the goods in the customer's store (the date they confirmed the supplier invoice) can be seen on the *Transport Details* tab of the customer invoice:

Customer invoice (Read only)

Name: External Customer Confirm date: 9/01/20 Colour: **Black**

Their ref: Vanu Category: None Invoice: 9

Comment: A test Entry date: 9/01/20

Goods received ID: 0

Status: fn

Entered by: user 1 (pass= user1)

Store: General

General Summary by Item Summary by Batch **Transport details** Log

Order written date: 00/00/00 Order received date: 00/00/00 Ship date: 00/00/00 Ship method: None

Expected arrival date: 00/00/00 **Actual arrival date: 09/01/20** Responsible officer: None

Line	Location	Item Name	Quan	Pack Size	Batch	Weight	Exp date	Sell Price	Boxes
1		DMPA SC (Sayana Press) Inj	1	1	MUL - 6781	1	31/05/24	1.11	
2		Ethinylestradiol and Levon...cg) Strip/28 (Microgynon)	1	1	ABC123	1	30/09/26	0.03	
3		Female Condoms	1	1	HJ789	1	30/04/20	0.27	
4		Implanon NXT implants	1	1	GHY5674	1	31/01/21	3.21	
5		Implant Consumable Pre-packed kit	1	1	GFT472	1	28/02/21	1.32	

Total Item Weight: 5

Print labels OK & Next Delete **OK**

- The details of the items and batches received can be seen by clicking on the **View Goods Received Confirmation** button (which is only displayed on supplier hub related customer invoices):

Customer invoice (Read only)

Name: Vanuatu Confirm date: 9/01/20 Colour: **Black**

Their ref: Vanu Category: None Invoice: 9

Comment: A test Entry date: 9/01/20

Goods received ID: 0

Status: fn

Entered by: user 1 (pass= user1)

Store: General

General Summary by Item Summary by Batch **Transport details** Log

View goods received confirmation

Notes	Line	Location	Item code	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
	1		DMPA	DMPA SC (Sayana Press) Inj	1	1	NURW56781	31/05/24	1.11	1.11
	2		Micro1	Ethinylestradiol and Levonorg... 50mcg) Strip/28 (Microgynon)	1	1	ABC123	30/09/26	0.03	0.03
	3		Condoms_fem	Female Condoms	1	1	HJ789	30/04/20	0.27	0.27
	4		Implanon	Implanon NXT implants	1	1	GHY5674	31/01/21	3.21	3.21
	5		Implant_kit	Implant Consumable Pre-packed kit	1	1	GFT472	28/02/21	1.32	1.32

Other charges Item: Amount: 0.00

Subtotal: 5.94

0% tax: 0.00

Total: 5.94

Hold Finalise Export batch: 0 OK & Next Delete **OK**

This window will open to show you the details:

Goods Received Confirmation

Confirmation No.: 19

Customer: External Customer

Entry date: 9/01/20

Code	Item Name	Sent Qty	Received Qty	Batch Sent	Batch Received	Expiry Sent	Expiry Received
Micro1	Ethinylestradiol and Levonorgestrel (30/150mcg) Strip/28 (Microgynon)	1	1	ABC123	ABC123	30/09/26	29/09/26
Condoms_fem	Female Condoms	1	1	HJ789	HJ789	30/04/20	29/04/20
Implanon	Implanon NXT implants	1	1	GHY5674	GHY5674	31/01/21	30/01/21
Implant_kit	Implant Consumable Pre-packed kit	1	1	GFT472	GFT472	28/02/21	27/02/21
DMPA	DMPA SC (Sayana Press) Inj	1	1	NURW56781	NURW56781	31/05/24	30/05/24

OK

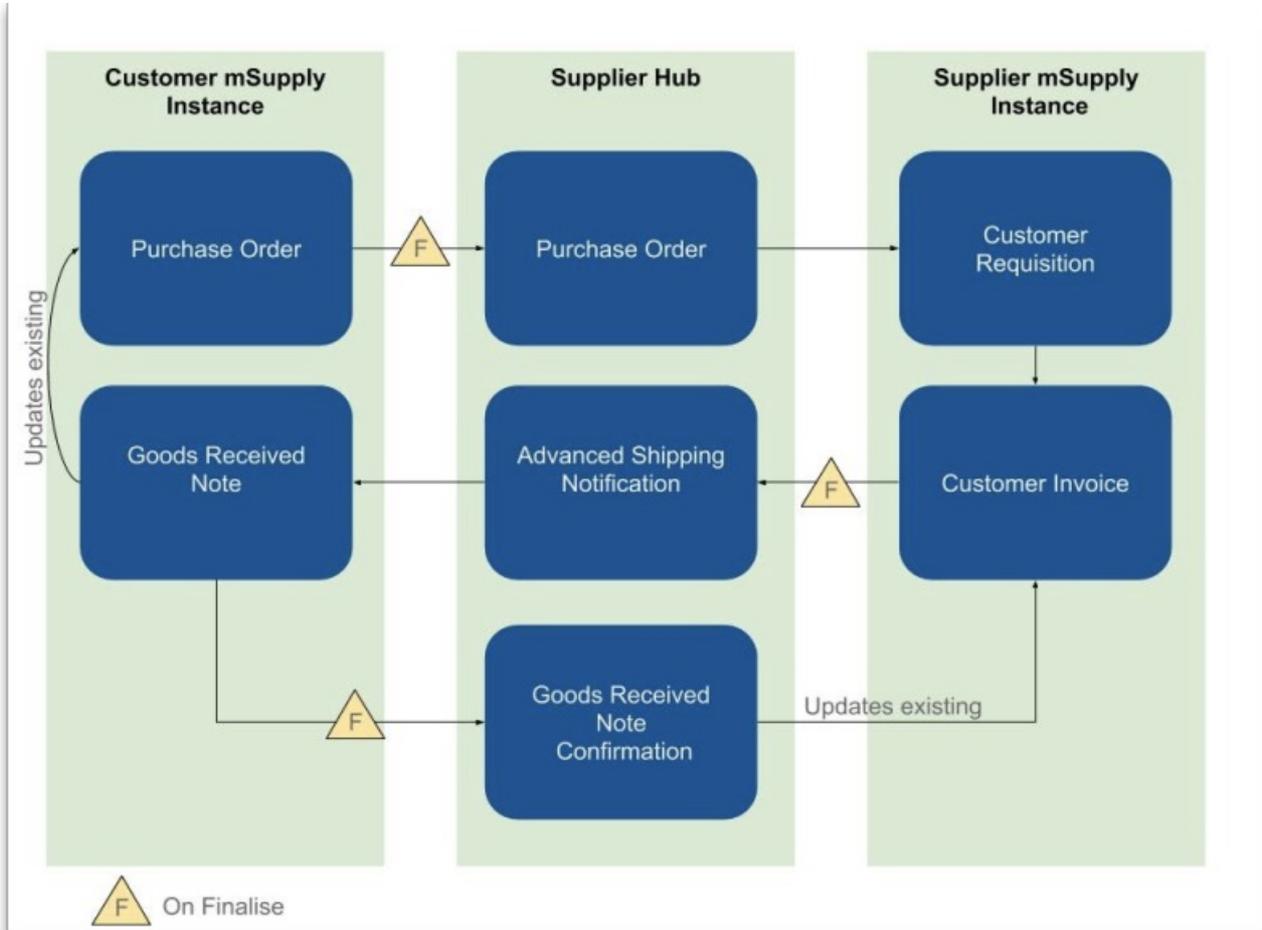


mSupply documentation wiki



12.02. Ordering Process with Supplier Hub

The complete ordering process for the supplier hub is summarised in the diagram below:



1. The customer creates a purchase order in their mSupply instance (top left in the diagram) which, when confirmed, is sent to the Supplier Hub.
2. The Supplier hub sends this as a customer requisition to the supplier's mSupply instance.
3. The supplier creates a customer invoice from the customer requisition; this determines the stock that is sent to the customer.
4. Once finalised, the customer invoice is sent to the Supplier hub as an Advance Shipping Notification (ASN).
5. The customer receives this as a Goods Received note in their mSupply instance.
6. The Goods Received note can be edited to correctly reflect the stock received in the customer's store.
7. Once finalised, the Goods Received note information is updated on the customer's original purchase order and sent to the Supplier Hub. It then updates the customer invoice originally created in the supplier's mSupply instance to show the quantity, batches and date of reception of the stock received.

Ordering from a Supplier Hub site

You order from a supplier hub site by sending them a calculated purchase order. You cannot create a purchase order manually for a Supplier Hub supplier. For full details about creating calculated purchase orders, please see the [6.01. Ordering stock from suppliers](#) page.

Creating a calculated order for a Supplier Hub supplier has a small difference from the process described on the page given above. After clicking on the *Calculated* icon on the *Suppliers* tab of the Navigator, select the *Order from a hub supplier* option in the top drop down list:

This will make a **Supplier** text field appear:

Type the first few characters of the supplier's name or code in the field and press the *Tab* key on the keyboard to select the correct one from a list of those which start with what you typed (if there is only one, it will be selected and entered for you).

When you click the **OK** button, the order will be calculated for all the items in the supplier's catalogue (i.e. master list - see the [Setting up Catalogues](#) section on the [12.01. Configuring the Supplier Hub](#) page).

When you confirm the order it will be sent through the Supplier Hub to the supplier's mSupply instance as a customer requisition.

Info

- Once created, you cannot change the supplier on a Supplier Hub purchase order.
- If you create a purchase order for a non-Supplier Hub supplier then you cannot change it to be a Supplier Hub supplier.

Previous: [12.01. Configuring the Supplier Hub](#) | Next: [12.03. Supplying a Supplier Hub site](#)





12.04. Receiving goods

Once a Supplier Hub supplier has sent stock to you, you will receive notification that a goods received note has been created in your store. You should process that as normal; see the [7.02. Goods receipts](#) page for details on that.

Previous: [12.03. Supplying a Supplier Hub site](#) || Next: [13. Reports](#)



Last modified: 2022/02/16 15:03 by Gary Willetts





User Guide



13. Reports

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- [13.02. Stock and items reports](#)
- [13.03. Transaction reports](#)
- [13.04. Purchasing reports](#)
- [13.05. Requisition reports](#)
- [13.06. Dashboard](#)
- [13.07. Customer ordered shortfall report](#)
- [13.08. ATC and DDD code based reports](#)
- [13.09. Other reports](#)
- [13.10. Manage reports](#)
- [13.11. Saving report templates](#)
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- [13.13. SuperReport editor](#)

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Last modified: 2021/10/08 08:55 by Gary Willetts



13.01. Report basics

Click *Report* , and this menu appears:

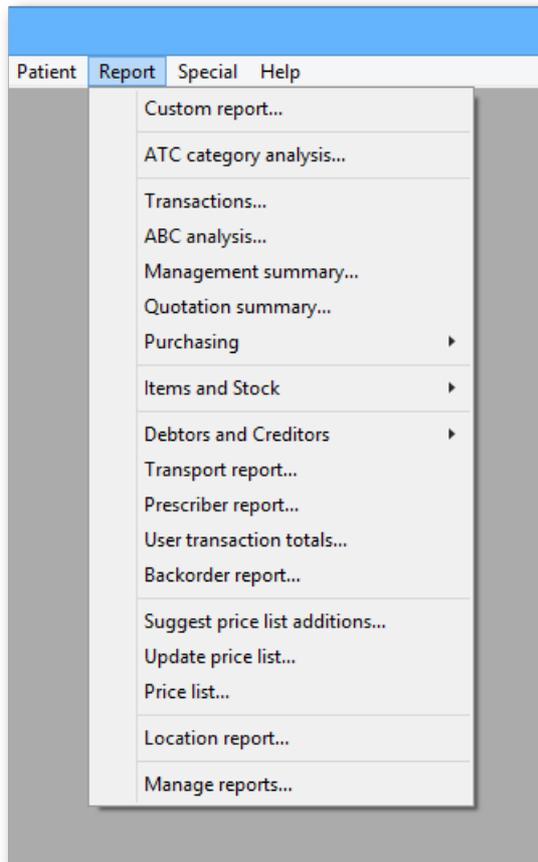


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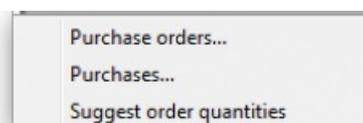
- [Report destinations](#)
- [Header and footer](#)
- [Preview on screen before printing](#)
- [Output to Excel](#)
- [Supervisor mode \(reporting over multiple stores\)](#)
- [Report destinations](#)
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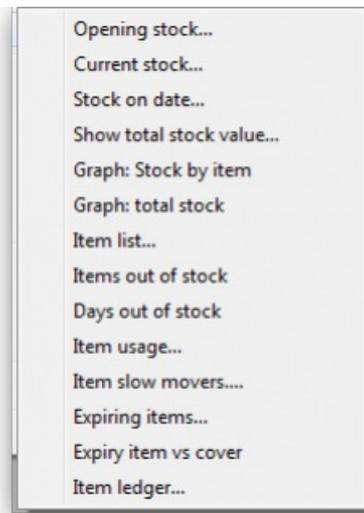
⚠ Important

For some reports, the default setting includes *all items*, and as most stores will have several hundred items - maybe over 1,000 - reports on all items will, if printed, use a great deal of paper. If you must have a printout of your report, please exercise caution when selecting the criteria, and so avoid wasting paper.

Reports on purchasing are displayed when *Purchasing* is selected:



Reports on items and stock are displayed when *Items and Stock* is selected:



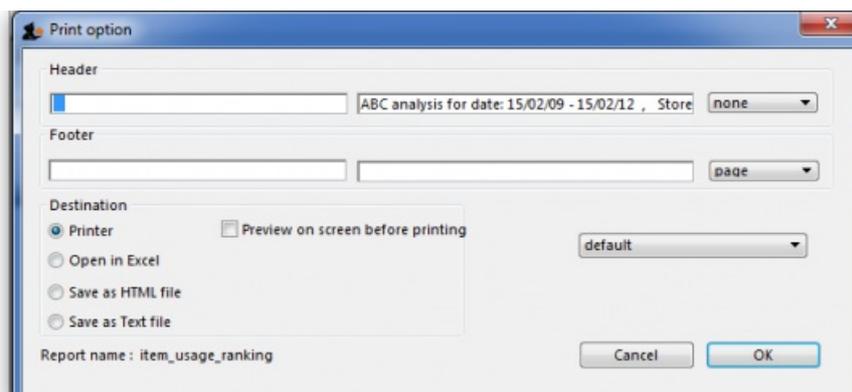
Reports on debtors and creditors are displayed when *Debtors and Creditors* is selected.



Many reports are available from the Reports page of the Navigator, as shown below:



Many of the reports present you with a window like this before printing the report:



This window allows you to set various options:

Report destinations

Printer: Select this option to display the print window. The preview of the report can be displayed by turning on the print preview.

Open in Excel: If the *Open in Excel* box is checked, mSupply will immediately open the report as a spreadsheet in the spreadsheet application (MS Excel, OpenOffice/LibreOffice Calc etc.) you have installed on your computer.

- When this box is checked, you will first be asked to save the report. Once you have given it a name, the report will be saved, and then automatically opened in spreadsheet form.
- mSupply automatically detects any spreadsheet application you have installed on your computer (i.e. any application that is associated with .xls or .xlsx files). You do not have to set the location of this application.

Save to HTML file: If this option is selected, your report will be saved with extension “.html”. Hence, it can be opened by any web-browser or spreadsheet application on any platform or operating system.

Save as Text file: Your report will be saved to a file as a tab-delimited text file. (That is, a tab character between each column and a return character at the end of each row). After saving, you can open the file in a spreadsheet or word processing program.

Header and footer

You can choose what information will be displayed at the top and bottom of each page. The default report heading is set according to the report you are printing. By default, the date will print on the left and the page number on the top right of each page.

If you have filled in a default header and footer in the Preferences, these will be displayed at the top left (for the header) and the bottom centre (for the footer)

Preview on screen before printing

This option turns on print preview. Note that you can also turn on print preview from the print window that is displayed after you click the OK button.

Output to Excel

Most reports can be output to an Excel file. This is particularly helpful if you are wanting to analyse a large amount of data.

As at July 2021, there are three methods of producing Excel reports from mSupply:

- **Quick reports** - Easiest to create, fastest to run, but least flexible in terms of formatting. mSupply users can create these - refer [Custom reports](#)
- **SRP reports** - More powerful than Quick reports
- **XL Plugin reports** - Most powerful in terms of formatting, but slowest in terms of operation.

Info

Sometimes new, more powerful versions of existing reports have been created using the XL Plugin specifically for the purpose of analysis using pivot tables and filters. We have not wanted to delete the older reports, so we have kept them, and named the new report with **[Excel]** in the title.

Tip

Reports produced for Excel will sometimes not have the data formatted correctly, particularly, dates - refer to [this](#).

Supervisor mode (reporting over multiple stores)

If you wish to report over multiple stores at once, you can be given permission to use Supervisor mode. When you are in this mode, report filter windows will have an additional store list added to the window so that you can choose which stores' records are to be included in the report.

See the [25.01. Miscellaneous topics](#) page for details.

Previous: [13. Reports](#) | Next: [13.02. Stock and items reports](#)

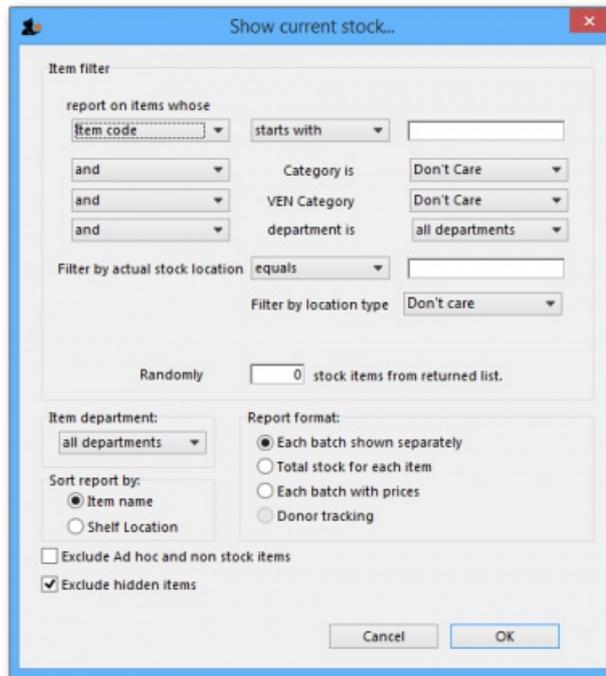
Last modified: 2021/07/02 00:40 by Mark Glover

13.02. Stock and items reports

When **Reports > Items and Stock** is chosen, a range of available reports are displayed; click on the one you require to select it:

- Current stock...
- Stock on date...
- Show total stock value...
- Graph: stock by item...
- Graph: total stock...
- Item list...
- Items out of stock...
- Days out of stock...
- Item usage...
- Item slow movers...
- Expiring items...
- Expiring items vs cover...
- Item ledger...

Current stock



A report will be produced that lists each stock line that is currently showing stock greater than zero. Should you wish the report to include items/batches with zero stock, the box in the lower left needs to be checked.

Item filter

A "Find" report allows you to enter the normal item find criteria to choose which items to include.

A random report allows you to enter a number only. That number of items will be randomly chosen, and stocktake sheets for those items printed. This facilitates spot checking of your actual stock situation.

Additional options

Should you wish the report to be department specific, then that department should be selected from the drop down list of the departments which you have created.

Should you wish the report to give information on a particular location, then that location should be specified, selecting the appropriate operator of the three available in the drop down box alongside the *Filter by actual stock location* option.

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- Donor reporting
- Stock on date
- Type of report
- Open report in Excel
- Show total stock value
- Graph: stock by item
- Graph: total stock



Report format

You can choose from three formats:

- “Each batch shown separately” will also give you a column on the right where, having done a physical stocktake, you can enter the quantity that is actually in stock, allowing any corrections to be made in mSupply.
- “Total stock for each item” will not show individual batches, but the total quantity on hand of each item.
- List the price of each batch in stock, with a total at the end of the report.

The lines are reported alphabetically either by item name or shelf location, depending on what you have chosen in the “Sort report by” options

Donor reporting

mSupply provides the feature of printing the Donor name on the Current Stock report so that organisation donating the goods can be identified and tracked.

Stock detail for store(s) General

Lac	Item Name	Batch	Expiry Date	Pack	Quan	Actual Stock	Donor
Main-8-3-1	Amoxicillin 500 mg	A800251J	30/09/15	1.00	4,670,400.00	-----	
	Amoxicillin 500 mg	batch	01/01/15	1.00	20.00	-----	Donor
	Amoxicillin, dry powder for Suspension 125mg/ 5ml	1204-0866	30/04/15	1.00	30,000.00	-----	
	Amoxicillin, dry powder for Suspension 125mg/ 5ml	1012-0866	31/03/15	1.00	28,522.00	-----	
	Amoxicillin, dry powder for Suspension 125mg/ 5ml	1012-0866	30/05/15	1.00	51,000.00	-----	
	Amoxicillin, dry powder for Suspension 125mg/ 5ml	1012-0866	31/05/15	1.00	65,880.00	-----	
	Amoxicillin, dry powder for Suspension 125mg/ 5ml	same	01/01/15	1.00	12.00	-----	SAMES
	Amoxicillin/Cevulurate Potassium 500 mg/ 125 mg	1148019	31/08/14	1.00	92,500.00	-----	

[Item list](#)

[Local / remote report](#)

[Items out of stock](#)

[Days out of stock](#)

[Item usage](#)

[Only include items whose stock cover is less than...](#)

[Include items with no usage in the last 12 months](#)

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[Item usage report preview](#)

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[Category and department](#)

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[Expiring items](#)

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[Expiring items vs. cover](#)

[Cover calculation](#)

[Item ledger](#)

Stock on date

This report allows you to produce a report for the stock in your store on a particular date. You are shown a window like this:

Stock report on a particular date...

Show stock value on

Type of report

Show items only

Show items with batches

Show batches with Summary

Start or end of the day

Stock at start of the day

Stock at end of the day

Report on items whose...

Item code starts with

and Category is Don't Care

and VEN category is Don't Care

and department is Don't care

Include item with no stock

Exclude Ad hoc and non stock items

Exclude hidden items

Open report in Excel

Cancel OK

Enter the date for which you wish to show the stock.

Type of report

You have 3 options:

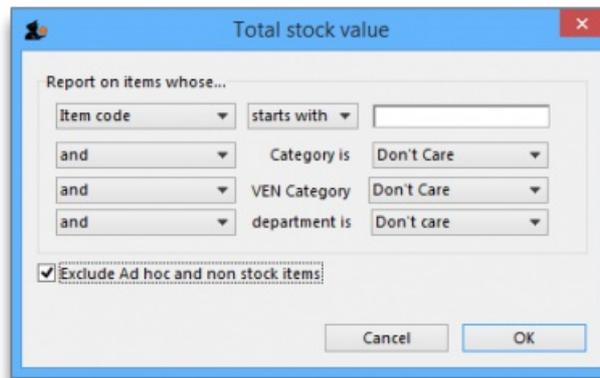
1. *Show items only*: each item in your system will have a single entry with the total quantity on that date.
2. *Show items with batches*: each batch, its expiry and batch number along with the quantity of stock will be shown.
3. *Show batches with summary*: as 2, but every item has an aggregate line before the lines for each batch, showing the total quantity for all batches of the item. So it's a bit like a combination of 1 and 2.

The *Report on items whose* box allows you to restrict the report to certain items only, using item properties or different categories as filters.

Open report in Excel

Check this checkbox to view the report directly in your chosen Spreadsheet program.

Show total stock value



This report is used to find the total stock value either for a particular department or all departments. The drop down menus allow customisation of your report by entering appropriate search criteria from the many options.

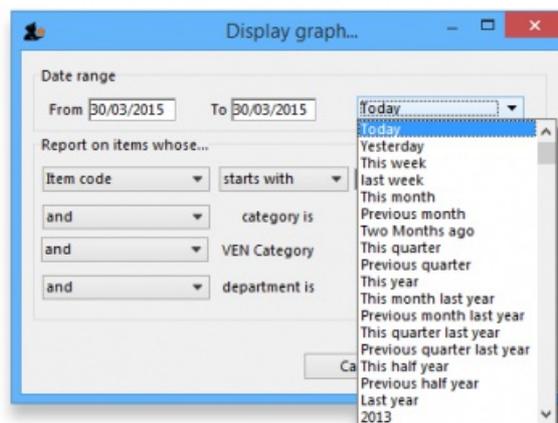
Check this checkbox to directly open the report in Excel rather than printing.

Graph: stock by item

This report shows a graph for an item or items showing the quantity of stock on hand for each day over a defined period.

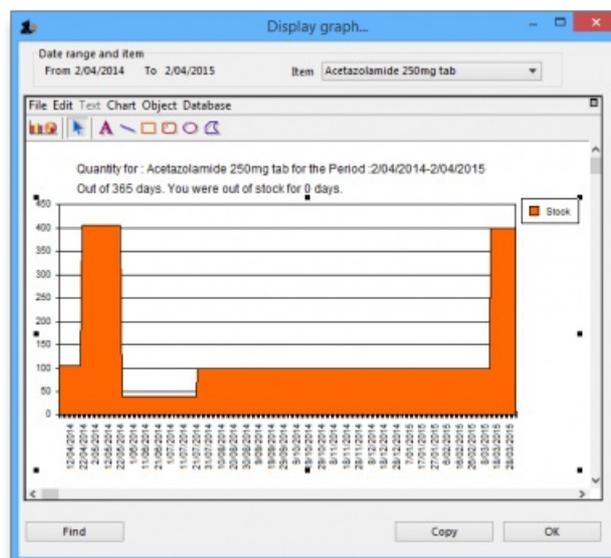
Note that if you have allowed editing of *confirm dates* on transactions, mSupply's ability to calculate accurately the data used in this report may be affected.

Choosing this item from the menu displays this window:



Enter the date range, or select the required period from the drop down list, the items on which you wish to report, and appropriate filters, if any. Remember you can use the item flag field to select an ad hoc list of items to include in your report.

Clicking OK displays a window where you are shown a graph of the quantity in stock on each day for the first item that matched the criteria you entered.

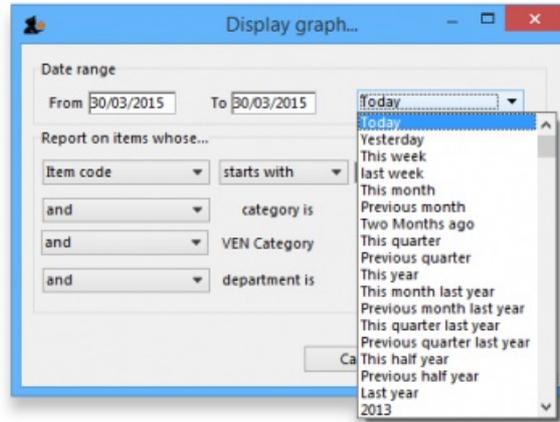


This window also displays a list of items that were found. To display the graph for a different item, choose it from the list.

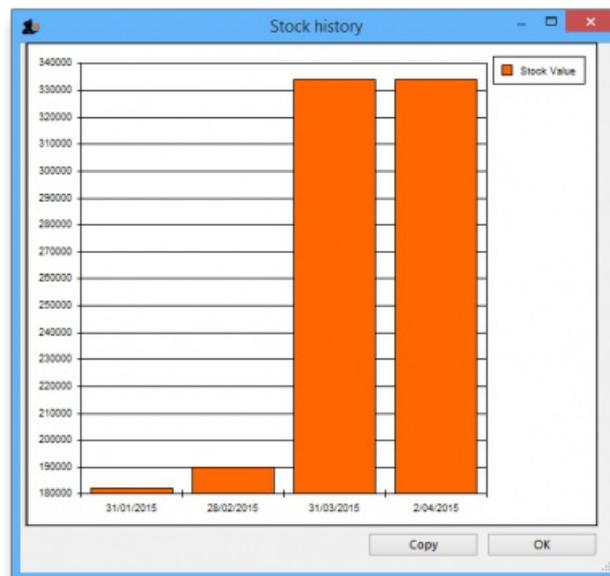
This report can be used as one of a set of key indicators for performance of a facility by comparing days out-of-stock of key items from one year to the next.

Graph: total stock

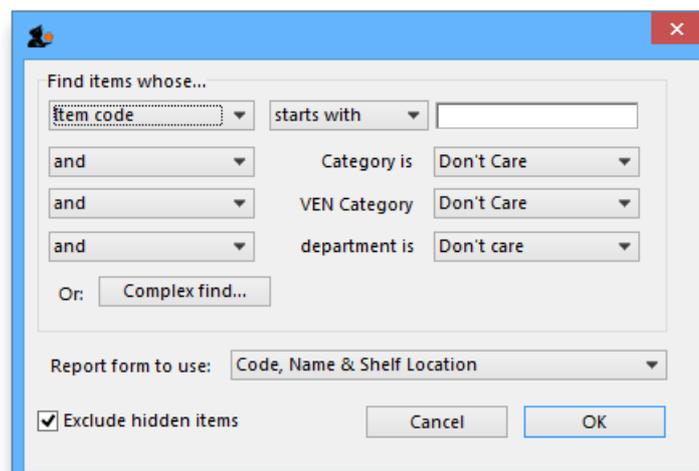
The total stock graph report allows you to view the value of your stock over a desired period of time. When you choose total stock graph, you are able to enter the required period which you would like to view:



Select OK and a graphical stock history report showing stock value will be displayed



Item list



This report allows you to print a list of you items in certain formats.

There are 3 options in the **Report form to use** drop down list:

- *Code, Name and Shelf Location*: Shows exactly what is says with current stock on hand:

Item list report: for store(s) Tamaki Central Medical Store

code	item name	Item Location	Stock on hand
030063	Acetylsalicylic Acid 100mg tabs	A1.B01.C3	199300
030062	Acetylsalicylic Acid 300mg tabs	B1	4000
030453	Amoxicillin 250mg tabs	-	6506500
050457	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	B1	420
041011	Artesunate Injection Ampoule/60 mg	A1.B01.C3	5750
201116	Bandage W.O.W. 15cm wide x 5m roll	A1.B01.C3	4308
047288	Benzyl penicilin Injection 1000000 Unit	B3	850
047290	Benzyl penicilin Injection 500.0000 Unit (300 mg)	A2.01.C	50150
031661	Captopril scored 25mg tabs	A2.01.C	47000
78373	Clotrimazole cream 60 ml	-	2300
042304	Cloxacillin Sodium Injection Powder Vial/500mg	A1.B01.C3	350
12653	Cotrimoxazole syrup 5ml	-	7350

- *Code, Name, Shelf Location with Item Long Description*: Shows the same as the previous one but includes the Item long description.
- *List of items in Catalogue*: Shows item details including the catalogue pack size and item custom field 6 value all separated out by the hierarchical item category 1. Looks like this:

List of Items in Catalogue

Dressings
Dressings

DRESSINGS

Code	Description	Item		Catalogue	
		Category 2	VEN	Pack size	user field_6
201116	Bandage W.O.W. 15cm wide x 5m roll	V	12	534	

Medicines
Anit-infectives

ANTI-INFECTIVES

Code	Description	Item		Catalogue	
		Category 2	VEN	Pack size	user field_6
050457	Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml	V	10	273	
042304	Cloxacillin Sodium Injection Powder Vial/500mg		50	201	
047283	Penicillin Benzyl Penicillin PFI 1 MU=600 mg	V	50	238	
047287	Penicillin Procaine Benzyl PFI 3 MU=3g		25	241	
038510	Potassium Permanganate Aqueous Solution 1:10,000	E	1		
049542	Vancomycin HCL Injection Vial/250mg		1	264	
049543	Vancomycin HCL Injection Vial/500mg	E	1	265	

ANTI-TUBERCULOSIS

Code	Description	Item		Catalogue	
		Category 2	VEN	Pack size	user field_6
098350	TB Rifampicin+Isoniazid (R+H) 150/150mg tabs		672	419	

Cardiac

ANTI-ANGINAL

Code	Description	Item		Catalogue	
		Category 2	VEN	Pack size	user field_6
030063	Acetylsalicylic Acid 100mg tabs	V		100	

ANTI-HYPERTENSIVE

Code	Description	Item		Catalogue	
		Category 2	VEN	Pack size	user field_6
031661	Captopril scored 25mg tabs			250	52

General

Local / remote report

This option will only show "local data" as an option unless you purchase a web services enabled version of mSupply, in which case you can view reports from remote locations running mSupply. Contact us for more information.

Items out of stock

Selecting this report displays this window:

Specify your required options from the drop down lists;

Days out of stock

Selecting this report displays this window:

Specify your required options from the drop down lists; the desired period may be identified either by entering dates in the *From* and *To* fields, or by using the drop down list to the right.

Clicking ok will generate a report like the one below:

Days out of Stock Report

From : 01/02/2015 To : 10/03/2015

Item/s with less than 5% of maximum stock are out of stock

Page 13 of 74

Item Code	Item category	Item Name	Days out of stock	Days In Stock	Max Stock	C/S level
4141	Medical Supplies	CANNULA, INTRAVENOUS 16G GREY	0	28	12000	600
4142	Medical Supplies	CANNULA, INTRAVENOUS 18G GREEN	0	28	17718	885.9
4143	Medical Supplies	CANNULA, INTRAVENOUS 20G PINK	0	28	31606	1580.3
4144	Medical Supplies	CANNULA, INTRAVENOUS 22G BLUE	0	28	25579	1278.95
4139	Medical Supplies	CANNULA, INTRAVENOUS 24G YELLOW	0	28	13120	656
4145	Medical Supplies	CANNULA, OXYGEN NASAL	0	28	1538	76.9
1966		CANNULATED DRILL MACHINE, BATTERY OPERATED (INCLUDING HAND PIECE, JACOB CHUCK, BAT	28	0	0	0
1416	Medical Supplies	CAP & FLOAT ASSEMBLY, SUCTION BOTTLE, OHMEDA	28	0	0	0
2266		CAPNOGRAPH MONITOR WATER TRAP/FILTER	28	0	0	0
2827		CAPNOGRAPH MONITOR WATER TRAP/FILTER	28	0	0	0
1181	Antituberculosis medicines	CAPREOMYCIN INJ 1G	28	0	0	0
79	Antihypertensive medicines	CAPTORIL TABS 25MG	15	13	137500	6875
2878		carba	28	0	0	0
697	Ophthalmic	CARBACHOL INJ 0.01% 1.5ML	28	0	0	0
83	Anticonvulsants/Antiepileptics	CARBAMAZEPINE TABS 200MG	0	28	539000	26950
85	Thyroid antagonists	CARBIMAZOLE TABS 5MG	0	28	188200	9410
1194	Cytotoxics	CARDOPLATIN INJ 150MG IN 150ML	0	28	30	1.5
1180	Cytotoxics	CARDOPLATIN INJ 450MG IN 450ML	15	13	20	1
2749		CASTROVEDIO CORNEAL TREPINE	28	0	0	0
2789		CATHETER CENTRAL VENOUS (ARROWS) SET	28	0	0	0
2419		CATHETER TROCAR , SHARP 18FG	28	0	0	0
2418		CATHETER TROCAR , SHARP 16FG	28	0	0	0

Clicking the **Complex find** button opens the Query Editor, allowing you to enter specific criteria relating to your search.

You may also specify what level in percentage terms of the maximum stock should be considered as being "out of stock.." Here's an example over 1 month:

Day of month	1	2	3	4	5	6	7	8	9	10	11	12	13
stock on hand	20000	20000	20000	2000	1000	500	300	200	30000	25200	20200	18000	15000
Out of stock						🟡	🟡	🟡	This day had maximum stock. 5% of 30000=1500				
Note the 5% stock out level = 1500													

Item usage

This report gives you a breakdown of item usage for the last few months, with summaries for the last 2 years, It also includes stock on hand and stock on backorder for each item in the report.

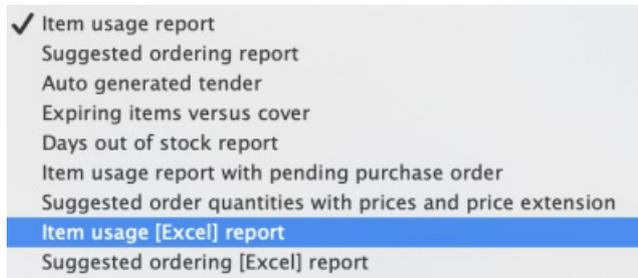
The report produced is very useful for forecasting or for seeing a list of items that need to be ordered.

When you choose the menu item you are shown a window like this:

The screenshot shows a 'Report options' dialog box with the following sections:

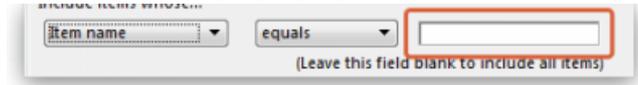
- Item usage report** (selected in the dropdown menu)
- Create a report on the usage of stock items. Customise the report to items based on name, code, usage frequency and/or stock remaining.**
- Include items whose...**
 - Item code: starts with []
 - and []
 - and []
 - and []
 - Category is: Don't Care
 - VEN Category: Don't Care
 - department is: Don't care
 - No. of items with these criteria: 0
- Unit Price**
 - Last price paid
 - Average price
 - According to supplier quote []
- Further options...**
 - Only include items whose stock cover (in months) is less than [0]
 - Include items with no usage in the last 12 months
 - Include usage for build ingredients
 - Exclude transfers from usage calculations
 - Exclude Ad hoc and non stock items
 - Exclude items if "never order" is checked
- Buttons:** Complex Find, Open report in Excel, Cancel, OK

You can choose the type of report you want to run from the drop-down menu. Select the **Item usage [Excel] report** to create an Excel report.



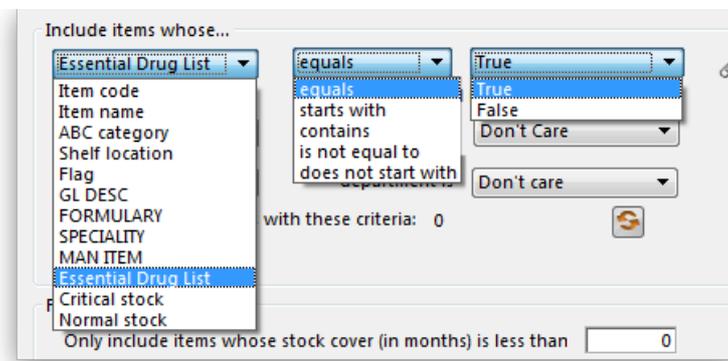
This menu also includes an item usage report, a suggested ordering amount report, or to auto generate a tender from the drop-down list at the top. This form is used for all 7 functions. (Note that the *Item usage report with pending purchase order* option will show you item usage with details of items currently on order and their expected date of delivery).

If you want to report on all items, leave the item name field blank:



otherwise enter an item name or code. For example, to report on amoxicillin stocks, you could enter "amox" into the field.

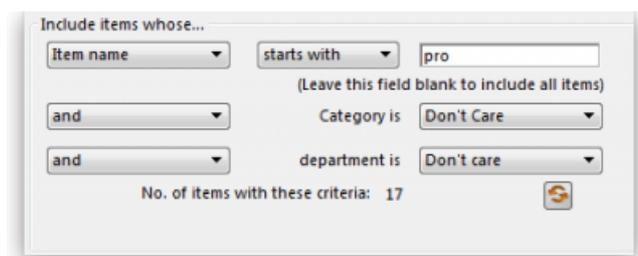
Depending on the entry in the first field, further options are available in the following two fields, but these will vary according to the entry in the first field. Among the options, the first field allows you to make your selection from the names given to custom item fields in the Preferences if this feature has been used.



If you wish to use shelf locations, then select the *shelf location* option and specify the desired shelf.

You can use the drop-down list to find Items with a particular code, or to use the values you have entered into one of the custom user fields. If this isn't powerful enough, use the *complex find* button to display the full query editor.

Click the refresh button  to calculate the number of items these basic parameters will find. This screenshot shows that 17 items meet the parameter specified, i.e. items whose names begin with 'pro':



Only include items whose stock cover is less than...

If you want only to report on items whose stock is low, enter the threshold for days of stock on hand into the second field. For example, entering 90 into this field will only include items in the report whose stock is not sufficient to cover average usage for the next 90 days.

Enter "0" (zero) for this field to report on items with any amount of stock remaining.

Include items with no usage in the last 12 months

If this box is checked, items with no usage over the last year will be included. This check box will have no effect if the previous "days cover" field is filled in, as an item with no usage will have "infinite" cover- any stock you do have is going to last you forever!

Include usage for build ingredients

If you manufacture items, you can choose whether the use of ingredient lines in manufacturing is included in the report or not.

Open report in Excel

Checking this box opens the report in Excel (or any installed spreadsheet program).

Note: If you chose the **Item usage [Excel] report** from the dropdown list, the Excel box will already be checked.

If you want to save the report in Excel (or any installed spreadsheet program), choose File > Save as.

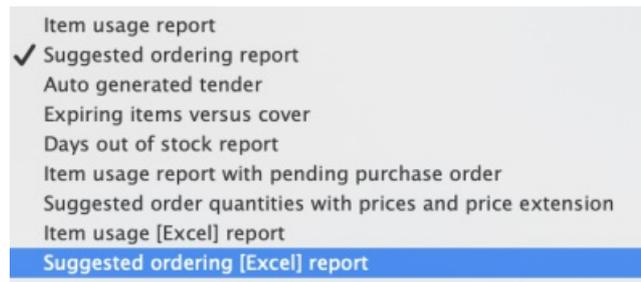
Item usage report preview

Item Usage Report ----- Months cover : 0 Search string : All Items												
code	Item	In stock	Stock on order	12 month average	24 month average	Months cover	This month	Last month	3 months ago	6 months ago	9 months ago	12 months ago
3110	ABDOMINAL GAUZE(SPOUSE) PES	2300	0	583	345	5.2	0	0	0	0	0	0
8	Acetazolamide 250mg 250mg TAB	2000	0	6	50	480	0	0	0	0	0	0
1110	ADRENALINE 1:2000 2mL VIAL	240	0	17	29	14	0	0	0	0	0	0
9	ALBENDAZOLE 200MG TAB	2200	0	1000	604	2.2	0	0	0	0	0	2800
10	ALBENDAZOLE 400MG TAB	600	0	446	1877	1.3	0	0	0	0	0	130
2019	ALCOHOL 30% 500ml	0	0	12	19	0	0	0	0	0	0	6
2021	ALCOHOL SWABS 1000	150	0	345	6117	6.5	0	0	0	0	0	141
1000	AMINOPIPHILINE 250mg/250mL INJEC	954	0	9	24	66.2	0	0	0	0	0	0
30	AMITRIPTYLINE 25mg TABLET	2300	0	135	175	14.8	0	0	0	0	0	1000
3450	AMPHOCIC DISPOSABLE	0	0	37	51	0	0	0	0	0	0	30
38	Amoxicillin 250mg AC 300/225mg	3450	0	834	873	4	0	0	0	0	0	320
2040	AMOXICILLIN 125mg/50mL SYRUP	31	0	23	41	3.3	0	0	0	0	0	9
40	AMOXICILLIN 250mg TAB/CAP	286700	0	72725	89979	3.9	0	0	0	0	0	66430
1090	AMPCICILLIN INJECTION	3247	0	625	706	5.2	0	0	0	0	0	324
50	ANAFANOL 50mg TABLET	86100	0	2568	19214	1.5	0	0	0	0	0	8820
2044	ANTI-HAEMORRHOID CREAM	301	0	10	11	28.9	0	0	0	0	0	0
COART12	ARTEMETER LUMEFANTRINE	219	0	69	106	3.5	0	0	0	0	0	70
COART18	ARTEMETER LUMEFANTRINE	200	0	55	105	3.6	0	0	0	0	0	40
COART24	ARTEMETER LUMEFANTRINE	110	0	45	108	2.7	0	0	0	0	0	20
COART6	ARTEMETER LUMEFANTRINE	463	0	59	165	7.8	0	0	0	0	0	130
1131	ARTESUNATE 200MG SUPPOSITORY	264	0	15	17	23	0	0	0	0	0	18
11204	ARTESUNATE 300MG SUPPOSITORY	278	0	12	16	22.2	0	0	0	0	0	18
123	ARTESUNATE 300MG INJ	405	0	0	2	972	0	0	0	0	0	0
60	ASPIRIN 300MG TAB	84800	0	19325	23951	4.4	0	0	0	0	0	17400
70	ATEMOLOL 50mg TABLET	13610	0	1536	2042	9	0	0	0	0	0	1090
1040	ATEMOLOL 5mg/ 20mg INJECTION	10	0	1	1	10.9	0	0	0	0	0	0
1060	ATROPINE 1mg INJECTION	453	0	20	40	18.3	0	0	0	0	0	20
118	AUTOCOLLANTING TAPE	80	0	5	5	6.2	0	0	0	0	0	5
75	AZITHROMYCIN 500MG TAB	2052	0	956	1226	2.2	0	0	0	0	0	830
4851	BACTERIAL FILTER MEMB TRAP	0	0	24	34	0	0	0	0	0	0	20
3130	BANDAGE Crepe 10cm	0	0	173	276	6.5	0	0	0	0	0	97
3120	BANDAGE CREPE 15CM	80	0	39	39	2.4	0	0	0	0	0	24
3131	BANDAGE CREPE 6CM X 4M	760	0	165	319	4.6	0	0	0	0	0	84
3142	BANDAGE GAZE 10cm	280	0	277	738	1	0	0	0	0	0	250
3140	BANDAGE GAZE 5cm	3194	0	215	179	14.8	0	0	0	0	0	112
3152	BANDAGE POP 30cm	36	0	27	42	1.4	0	0	0	0	0	14

Suggested ordering report

This report shows usage data, months cover of stock remaining and a suggested quantity to order for each item. The Purchaser can review this report to make a final decision on how much stock to order.

From the *Item usage report* dialogue box, select the **Suggested ordering report** option from the drop-down menu. Alternatively, select the **Suggested ordering [Excel] report** to create an Excel report.



Report options

Suggested ordering [Excel] report

Create a report to support ordering decisions. Customise the report by item name or code, or the number of days of stock cover required.

Include items whose...

Item code starts with (Leave this field blank to include all items)

and Category 1 is

and VEN Category Don't Care

and Department is Don't Care

No. of items with these criteria: 0

Unit Price

Last price paid

Average price

According to supplier quote

Builds...

Include planned builds

Make sure planned builds will be covered 1 times

Only include items whose stock cover (in months) is less than 0

Base analysis on 4 Months of usage data

Months stock required 3 Calculate

Expected delivery 17/10/19

Include usage for build ingredients

Include items with suggested zero order quantity

Exclude transfers from usage calculations

Exclude Ad hoc and non stock items

Exclude items if "never order" is checked

Exclude items which expire within 0 months

Complex Find Open report in Excel Cancel OK

Note the extra options for including item usage when calculating item ordering quantities. Also note the option to include ordering for build items. See [item builds](#) for more on built items.

Open report in Excel

Checking this box opens the report in Excel (or any installed spreadsheet program).

Note: If you chose the **Suggested ordering [Excel] report** from the dropdown list, the Excel box will already be checked.

If you want to save the report in Excel (or any installed spreadsheet program), choose File > Save as.

Suggested ordering report preview

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Suggested Ordering Report: Months cover : 24 months. Search string : amo. Based on last 12 months usage data.													
2														Page
3	Item Code	Item Name	VEN	Item category	Stock on hand	Backorder	12 months average	24 months average	Monthly usage for the last 12 months	Months Cover	Quantity on Order	Ordered quantity in use	Suggested order	Forecast used
4	Amosyr	Amoxicillin 125mg/5ml susp V	06.2.1	Beta Lact	4120	0	3297	3673	3549	1.2	40012	40012	41052	N
5	Amo500	Amoxicillin 500mg cap V	06.2.1	Beta Lact	129000	0	90300	92159	96633	1.3	600000	600000	1590200	N
6	Amclav	Amoxicillin+Clavulanate 500r E	06.2.1	Beta Lact	21600	0	2482	2283	2607	8.3	30000	30000	10960	N

Item usage with outstanding purchase orders

The window that appears when you choose this report is the same as the previous one; with exactly the same options available; the report produced differs only in that any lines having outstanding Purchase Orders have the relevant details of the Purchase Order displayed.

Item slow movers

You will be shown a window to enter the item details:

Enter your search criteria in the top section.

Item name field

- If you want a report for all items, leave this field blank. Otherwise enter some text to reduce the report to just a few items (e.g. entering “am” will produce a report of just the items whose name starts with “am” (Amitriptylline, Amoxicillin, etc)

Category and department

- Use the drop down boxes as appropriate to select Category and/or Department if required.

Months of stock

- Enter the number of months of stock to report on. Items with more than this number of months of stock on hand will be included in the report. The correct figure to enter here depends upon your desired stock turn. In general, if you are turning over your stock 3 or 4 times a year, you would want to know about items which have more than 8 months of stock on hand.
- The report is calculated using the last 12 months usage as a guide to the average monthly usage.

You can check the Open report in Excel box to open the report in Excel, or any installed spreadsheet.

The report produced is very useful for managing under-performing inventory. It allows you quickly to obtain a list of items where a reduction in stock is desirable.

Expiring items

This report will ask you to enter a date, and will then give a report of all item lines in stock whose expiry date is before the date you have entered.

For example, entering 31/8/11 will display all items with expiry dates before 31st August 2011 (Enter the date in short format in the way your computer is set to handle dates (DD/MM/YY or MM/DD/YY or YY/MM/DD).

You can additionally filter the stock by the location type or the actual location in the warehouse. This is helpful for reporting on items in certain sections of your warehouse.

Three report type options are offered; select as appropriate. You may refine the search by using the *Name filter* and/or the *Item filter*.

Donor reporting

mSupply provides the feature of printing the Donor name on the Expiring Items report so that the organisation donating the goods can be identified and tracked. This can help with disposing of or returning goods to the Donor.

Expiry item - sort by item, for store(s) General

Item Code	Item	Supplier Code	Value	Quantity	Pack Size	Exp Date	Accumulative Value	Donor
03/0452	Amoxicillin 500 mg	Gen21	200.00000	20	1	01/01/15	200.00000	Donor
05/0457	Amoxicillin,dry powder for Suspension 125mg/5ml	SNG102	0.00000	12	1	01/01/15	200.00000	SAMES
03/0460	Amoxicillin/Clavulanate Potassium 500 mg/125 mg	NZ_001	16,850.00000	92500	1	31/08/14	16,850.00000	
Total Value			16,850.00000					

Expiring items vs. cover

This is a versatile report which allows you to see at a glance the amount of any stock items, and the number of months' cover provided by that amount of stock you have. **Note:** The cover calculation uses the last 12 months of usage data to calculate your rate of consumption.

Report options

Expiring items versus cover

Create a report on the usage of stock items. Customise the report to items based on name, code, usage frequency and/or stock remaining.

Include items whose...

Item code starts with [] (Leave this field blank to include all items)

and Category is Don't Care

and VEN Category Don't Care

and department is Don't care

No. of items with these criteria: 0

Unit Price

Last price paid

Average price

According to supplier quote []

Cover calculation

Include only transactions with the following category properties

Description equals []

Further options...

Only include items whose stock cover (in months) is less than [0]

Include items with no usage in the last 12 months

Include usage for build ingredients

Exclude transfers from usage calculations

Exclude Ad hoc and non stock items

Exclude items if "never order" is checked

Complex Find Open report in Excel Cancel OK

Many filters may be applied in the drop down lists, which are the same as described under *Item usage...* above.

Include items whose...

Essential Drug List equals True

Item code starts with

Item name contains

ABC category is not equal to

Shelf location does not start with

Flag Don't care

GL DESC

FORMULARY

SPECIALITY

MAN ITEM

Essential Drug List

Critical stock

Normal stock

with these criteria: 0

Only include items whose stock cover (in months) is less than [0]

Note that If the field you are searching is a boolean field, e.g. Essential Drug List, "false" appears as the default entry, which you may change to "true".

Cover calculation

This allows the user to include or exclude specific categories to be used in calculating coverage. Clicking the magnifying glass to the right lists categories to be chosen.

If you wish mSupply to remember the criteria which you have entered, click on the paperclip icon, and your selections will appear the next time you open the report.

Once you have selected your required criteria, click on the *Refresh* icon to show the number of items which match your criteria, and which will, therefore, feature in the report.

Item ledger

Ledger entries may be viewed in this report; different formats of report are available in addition to several filter options from the drop down lists, so the report may be designed to meet your specific requirements.

Previous: [13.01. Report basics](#) | Next: [13.03. Transaction reports](#)

Last modified: 2022/02/09 16:29 by Gary Willetts

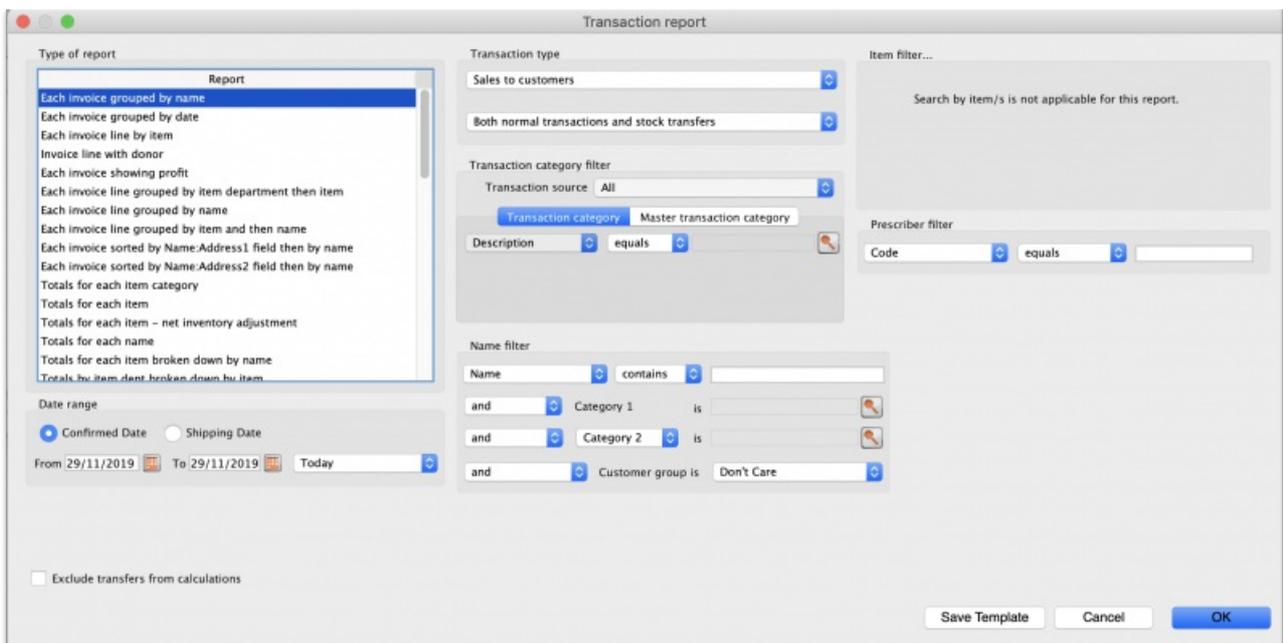


13.03. Transaction reports

Transaction based reports are accessed by choosing the **Report > Transactions...** menu item or by clicking on the Transactions item in the Transactions section on the Reports tab of the Navigator:

Table of Contents ▾

- [Standard transaction reports](#)
- [Type of report](#)
- [Transaction type](#)
- [Date range](#)
- [Transaction category filter](#)
- [Name filter](#)
- [Item filter](#)
- [Donor filter](#)
- [Which mode?](#)
- [Exclude transfers from calculations](#)
- [The 2 period comparison by item category report](#)
- [Custom transaction and trans lines reports](#)
- [Save template button](#)
- [Pivot table friendly transaction report](#)



All these reports (and there are many!) summarise supplier or customer transactions in many different formats. Many different filters have been incorporated, allowing filtering on transactions, names, prescribers, items, categories and departments. The filters that do not apply to different reports are hidden as required. Feel free to mix and match and experiment with the filters and different reports to see the different views of information that you can get.

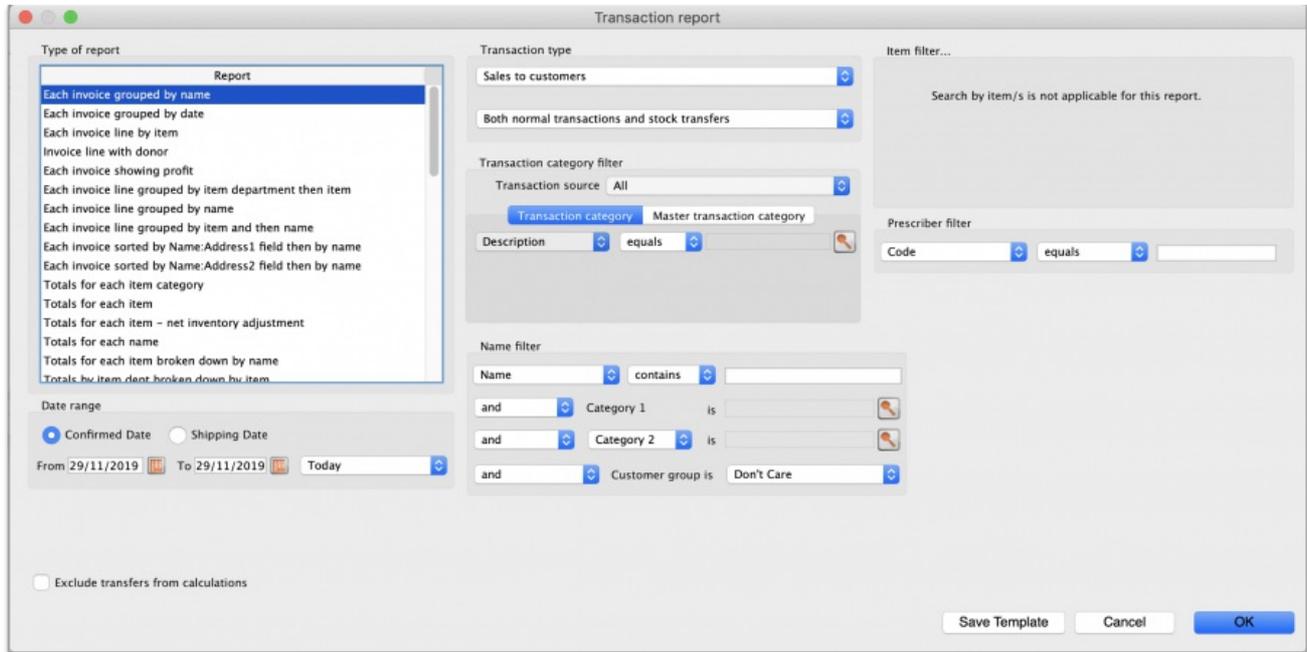
The basic sequence for creating a transaction report is this:

1. Select the type of report you want from the *Type of report* list in the top left.
2. Select the date range of transactions you want included in the report in the *Date range* section.
3. Select the transaction type you want the report to run over in the *Transaction type* section.
4. Set any other filters/settings you need to refine the contents of the report (Transaction category, Name, Item, Stock, Prescriber filter etc. sections).
5. Click on the **OK** button to run the report - you can select whether you export it to Excel or print it in the next window that opens (well, mostly - some reports are exported to Excel only so you won't have a choice for them).

See below for more in-depth detail on all these steps.

Standard transaction reports

This is the window you will see:



Type of report

Choose from several formats for displaying transaction information by:

1. selecting the report type in the Report list on the left, and
2. choosing the required radio button under *Transaction type*

The following table lists the available report names, and gives brief details of the information provided by each report .

Report name	What it does
Each invoice grouped by name	The report will sort each invoice in the date range according to the name (Supplier or C
Each invoice grouped by date	As above, but totals given for each day.
Each invoice line by item	Lists each batch supplied or received, and the transactions for that item. This report ca
Each invoice showing profit	The cost and selling price totals for each invoice are displayed.
Each invoice line grouped by item department then item	The invoice lines are grouped by item department assigned to each item. Each item de
Each invoice line grouped by name	The value of batches received/supplied from/to each name. Includes batch level inform
Each invoice line grouped by item and then name	Invoice lines are all displayed, grouped by item and then, within those groups, by name
Totals for each item category	The total value for each category will be displayed - each transaction will not be showr
Totals for each item	Each item that has been received (or issued) will be shown with the total quantity and v
Totals for each item - Net Inventory adjustment	Each item on which an inventory adjustment has been made is shown; the net adjustm
Totals for each name	The invoice lines for the chosen date range are grouped together for each name. This r
Totals for each item broken down by name	Lists all items, showing their distribution to recipient customers or delivering suppliers
Totals for each item dept broken down by item	
Totals for each name broken down by item	As above, but listing customers or suppliers and items received by or delivered by the
Totals for each item department	The total value supplied/received for each item department is shown
Totals for each item grouped by day	The total quantity and value of each item is shown for each day.
Totals for each item grouped by month.	The total quantity and value of each item is shown for each month.
Totals for each item grouped by item description.	First the report is sorted by item then the total quantity and price of each item is showr
2 period comparison by item category	User selects two periods, and the transactions for each period form a column. The row
Totals for each item broken down by packsize	The packsize for each item and the number of packs issued.
Prescription and general issues over time	This report shows the quantity of items given to patients and other customers over a pe
Prescriber report	This report allows you to view the total value, mean item value and item count for pres
Dispensing with patient name and prescriber	This report shows who dispensed what to which patients with which directions
Historic prices - Volume weight average price	This report produces a volume weighted average price for all transactions within th Transactions that have have no transactions or a Cost price of 0 are ignored. Calculations are done on the basis of the Catalogue pack size (often be the same as th

Report name	What it does
Items in rows, names in columns, quantity in cells	Warning: they can be slow to produce if you have a large number of items.
Cross tab: items in rows, names in columns, value in cells	See above
Cross tab: items in rows, days in columns, quantity in cells	See above
Cross tab: items in rows, days in columns, value in cells	See above
Cross tab: items in rows, months in columns, quantity in cells	See above
Cross tab: items in rows, months in columns, value in cells	See above
Cross tab: names in rows, months in columns, quantity in cells	See above
Cross tab: names in rows, months in columns, value in cells	See above
Distribution of quantities issued	First the report is grouped by item name and then by the pack size issued. It displays the total quantity issued for each item and pack size.
Totals for each item grouped by transaction category then item	The report is grouped by each item's transaction category first and then by each item.
Each invoice sorted by Name >Address1 field then by name	The invoices are firstly sorted by the address1 field, and then by the name they were sent to.
Each invoice sorted byName >Address2 field then by name	As above, but the first sort is by the entry in "Address2" field.
Customer ordered short fall report	Where there has been a shortfall, this report shows the shortfall of each item and of each customer.
Customer transaction report 1	This report and the following three are, in fact, templates, and are the starting point for creating reports.
Customer transaction report 2	
Customer trans line report 1	
Customer trans line report 2	
Months to expiry	
Order processing time	If you are filling out the order written date and order received date for incoming customer orders, this report will show the time taken to process each order.
Historic prices - Volume weighted average price	

Transaction type

In the first drop down list, you can choose to report on:

- **Sales to customers:** customer invoices i.e. transactions of type *eci*
- **Sales to and credits from customers:** customer invoices & customer credits i.e. *eci* and *cc* transaction types
- **Purchases from suppliers:** supplier invoices i.e. transactions of type *si*
- **Purchases from and credits to suppliers:** supplier invoices & supplier credits i.e. *si* and *sc* transaction types
- **Inventory adjustment - Add stock:** All inventory adjustment transactions that resulted in stock additions (e.g. when you did a stock take of an item and counted more on the shelf than the total shown in mSupply).
- **Inventory adjustment - Reduce stock:** All inventory adjustment transactions that resulted in stock reductions (e.g. discarding stock due to it being expired). Note that using a report that shows the total for each transaction category can give totals for expired/damaged etc.
- **Inventory adjustment - Net movement:** Taking into account both reductions and additions, the nett change in inventory due to adjustment transactions.
- **Customer invoice cancellations:** These are the "inverse" invoices created when a customer invoice is cancelled
- **Credits to customers:** The credits applied to customers when invoices are cancelled or when goods are returned.
- **Payment cancellations:** The "inverse" payments created to reverse a payment made by a customer for a customer invoice that has a payment against it and has been cancelled.

In the second drop down list, you have the following options:

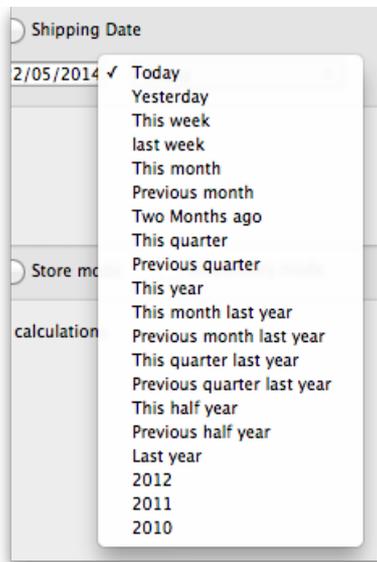
- **Both normal transactions and stock transfers** this is the default option and means that both stock transfer and non-stock transfer transactions will be included in the report
- **Normal transactions:** all transactions that are **not** stock transfers will be included in the report
- **Stock transfers:** only stock transfers will be included in the report

A stock transfer is a transaction made when the supplier or customer is another store in your datafile. A normal transaction is when the customer or supplier is a normal customer or supplier in your datafile, and not a store.

Date range

Enter the date range of transactions to report on, having selected *Confirmed date* or *Shipping date*. Note that the date used may differ from the original entry date, depending on how your system is configured in the Preferences.

- Note the popup menu to the right of the date entry fields that allows you to choose quickly from a list of common date ranges:



- Note that “last year” refers to the year preceding the current year (that is, if the current year is 2012, choosing “last year” will set the dates from 1st Jan 2011 to 31st Dec 2011).

Transaction category filter

Assuming you have set up transaction categories, your report may be filtered by category. For help setting up Transaction categories click see section [22.07. Transaction categories](#).

- Transaction source: Options are “All”, “Customers, Suppliers and Stores” or “Patients”. This allows you to select the type of Name the transactions must belong to. If you select *Patients*, only transactions which have a name that is a patient will be included in the results (e.g. prescriptions). If you select *Customers, Suppliers and Stores* then transactions that have a name which is a normal supplier (e.g. supplier invoice) or customer (e.g. customer invoice) or store (e.g. stock transfer) will be included in the report. If you select All then this filter is effectively not used and transactions with any name type are included in the report.
- Transaction category: Use the magnifying glass to choose the transactions categories to be included in the report. Note that you can select more than one category. The types of categories offered in the list will match your selection in the Transaction type section.
- Master transaction category: If you prefer, you can choose to filter by master transaction category instead. Master transaction categories are used to group together transaction categories (so selecting one of these is like selecting multiple categories in the Transaction category filter - it's just more convenient to do it this way if you regularly need to choose several. We love to make things easier for you!). Again, see [22.07. Transaction categories](#) for details on setting them up.

Name filter

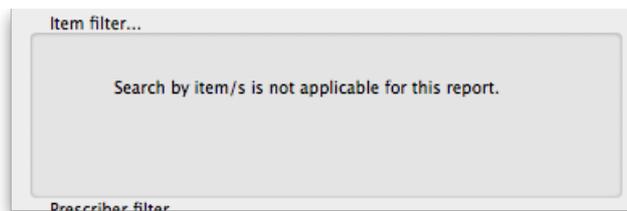
You can enter a particular customer code or category of transactions to be displayed.

- You can choose from either *equals* for an exact match or *starts with* to search for all names whose code or category starts with the entered text.
- Each name has 6 different categories that can be used to group certain kinds of names together. You can filter on category 1 (which is hierarchical) using the *Category 1* filter in the screenshot at the top of the page (note that the *Category 1* text will be replaced with any name you have assigned to this category in the preferences) and one of the other categories using the *Category 2* filter shown in the screenshot at the top of the page.
- If you want to report on transactions for a single name, you can find their code by looking up their details using *Supplier > Show suppliers* or *Customer > Show customers*.
- There is also a *Customer group* filter you can use to include names based on their customer group.

Item filter

Here you can specify the items to include in the report.

Note that sometimes the item choice options will be hidden because the chosen report is reporting on transactions, not on transaction lines:



Donor filter

If you have donor tracking turned on in the preferences, and choose a report that bases it's data on invoice lines, then you will be given the option to filter the report for a particular donor or group of donors.

Which mode?

If you are using mSupply in both store and dispensary mode, you might want to report only on transactions in store mode (items distributed to customers) or in dispensary mode (items distributed to patients). You can do this by checking *Store mode* or *Dispensary mode* radio button depending on your requirements.

Exclude transfers from calculations

This checkbox enables you to choose whether you include **stock transfers** (where stock is transferred from one store to another in mSupply) in the report calculations. If you want stock transfers to be included in your report then uncheck this checkbox. If you want stock transfers to be left out of the report then check this checkbox.

Info

Excluding transfers is only really useful if mSupply is being used in your central and regional warehouses (between which 'transfers' are happening, and *none* of your customers of interest are using mSupply).

The 2 period comparison by item category report

This report allows you quickly to compare sales or purchases for 2 periods of your choice based on item categories.

When you choose this report a different set of options is shown.

The screenshot shows the 'Transaction report...' dialog box with the following settings:

- Type of report:** 2 Period comparison by item category
- Date range:** Confirmed Date, From 27/2/12 To 27/2/12, Today
- Date range for second column:** From 01/01/11 To 31/12/11, Last year
- Which mode?:** Both modes
- Exclude transfers from calculations:**
- Exclude Ad hoc and non stock items:**
- Exclude hidden items:**
- Transaction type:** Sales to customers
- Transaction filter:** Code equals
- Name filter:** Name code equals
- Prescriber filter:** Code equals
- Summary level:** None
- Open report in Excel:**

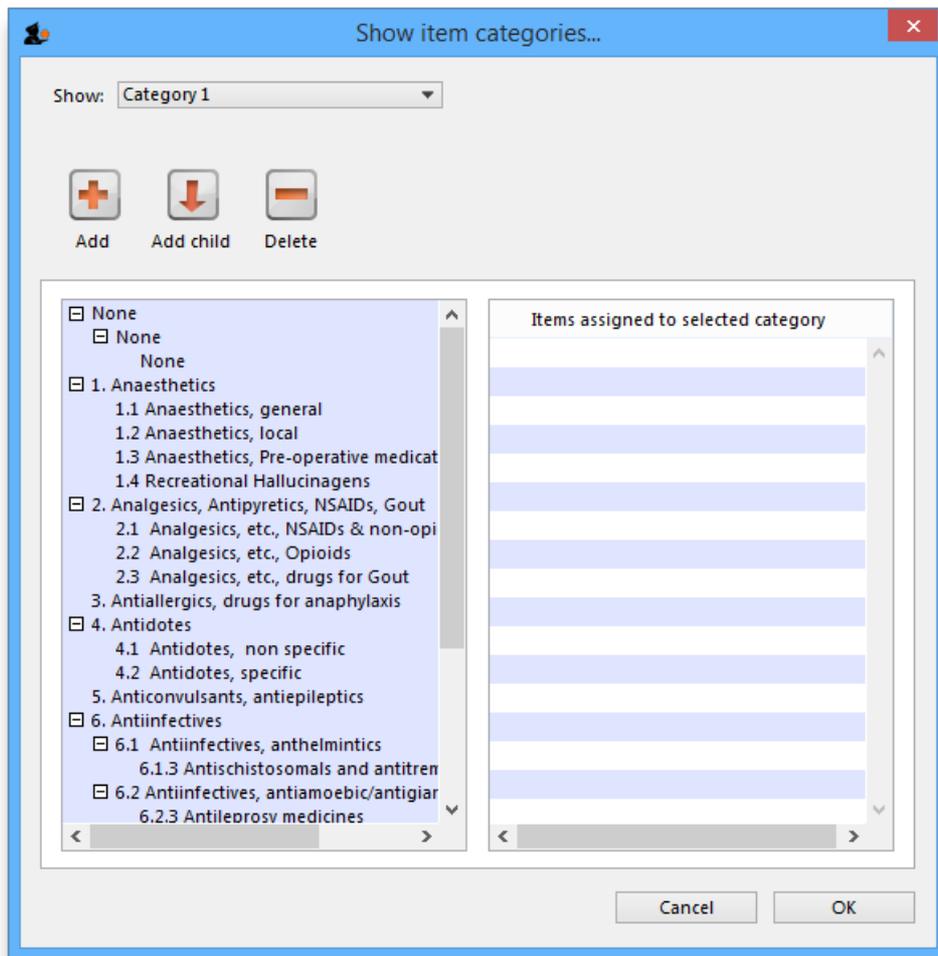
Set the date range for each of the columns and then choose a summary level. It should be noted that if no data is present for the first period defined, this report will not run.

Dot notation and summary levels

The summary level is based on the item category field. If you have set up item categories using dot notation, then you can summarise categories.

To set up item categories, choose **Items > Show item categories**

Take the following simple example of categories that have been set up as follows:



The rules for dot notation are

- Separate each level of your hierarchy with a period (dot).
- Within a level you can have as many characters as you like
- You can use any characters, as long as you don't use a period or a space within one level; e.g. "surgical.gloves.small" is a valid entry. (Level one is "surgical", level two is "gloves" etc.).
- When the hierarchy part of the category name is finished enter a space character. You can then enter a description for that level of the hierarchy.

If we run the report with a summary level of "none" each category is shown

Comparitive Transaction Report The secret pharmaceutical store		
Category	From 01/10/2005 to 28/12/2005	From 01/07/2005 to 30/09/2005
None	1,094,625.43	244,286.00
1 antibiotics	0.00	0.00
1.1 Penicillins	0.00	0.00
1.1.1 Broad spectrum penicillins	1,289.90	8,579.24
1.2 Tetracyclines	41.00	107.08
2 Antidiabetics2	0.00	0.00
2.1 Insulins	8,646.00	34,665.00
2.2 Oral Hypoglycaemics	466.40	1,848.00
3 surgical	0.00	0.00

If we run the same report with level one chosen, only the first level of the hierarchy is shown. Items with categories 1.1 and 1.2 and 1.1.1 have all been summarised under "1 Antibiotics"

Comparitive Transaction Report The secret pharmaceutical store		
Category	From 01/10/2005 to 28/12/2005	From 01/07/2005 to 30/09/2005
None	1,094,625.43	244,286.00
1 antibiotics	1,330.90	8,686.32
2 Antidiabetics2	9,111.40	36,513.00
3 surgical	0.00	0.00

And with level two chosen, items with category 1.1.1 and 1.1.2 are summarised under the heading "1.1 Penicillins"

Comparative Transaction Report The secret pharmaceutical store

Category	From 01/10/2005 to 28/12/2005	From 01/07/2005 to 30/09/2005
None	1,094,625.43	244,286.00
1.1 Penicillins	1,289.90	8,579.24
1.2 Tetracyclines	41.00	107.08
2.1 Insulins	8,645.00	34,665.00
2.2 Oral Hypoglycaemics	466.40	1,848.00

Note that if you have items to which no category has been assigned, they are shown under the heading "none" at the top of the report.

The categories are printed in the order that you have specified by drag-and-dropping in the window shown by choosing **Item > Show item categories....**

Transaction filter: Filters the report for given category

Prescriber filter: Reduces the found transactions to those for the given prescriber only, depending upon the selection made (equals, starts with, contains, is not equal to).

- Obviously only useful in dispensary mode.

Exclude transfers from calculations: The check-box *Exclude transfers from calculations* when checked will ignore transfers between stores within the organisation.

Exclude Ad Hoc and non stock items: The check-box *Exclude Ad hoc and non stock items* is displayed according to the type of report selected. By default, it is checked.

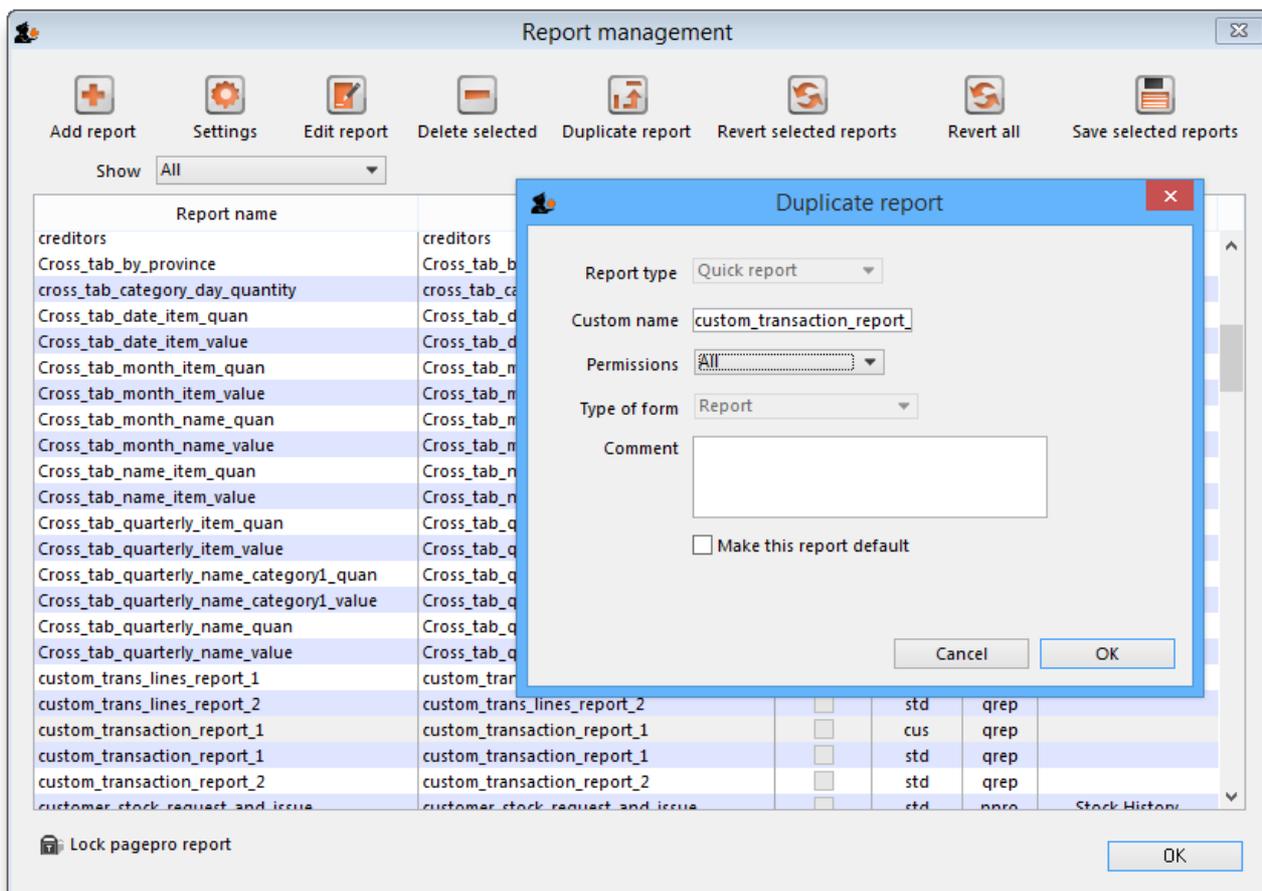
When checked, the transaction report generated will not include any Ad Hoc items or non stock items (items you don't normally keep in stock).

Custom transaction and trans lines reports

These four reports should be regarded as templates for you to design your own report .

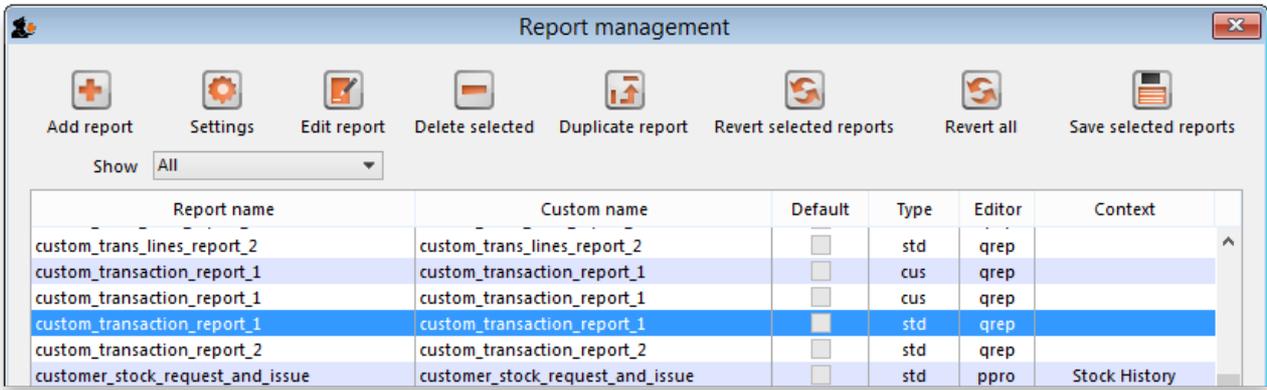
Having decided whether you wish to report on transactions or transaction lines, you need to design the report according to your specific needs. Coose *Reports > Manage Reports* :

You are presented with the *Report management* window. In this example, our report will be on transactions, so you should highlight *custom_transaction_report_1* , and click on the *Duplicate report* button:



Choose an appropriate name for your report, and any comment you wish, and click **OK**. You are returned to the *Report management* window, where you should scroll down until you reach the report you have created; note that the name you gave the report will appear in the *Custom name* column;

highlight the row and click *Edit report* .

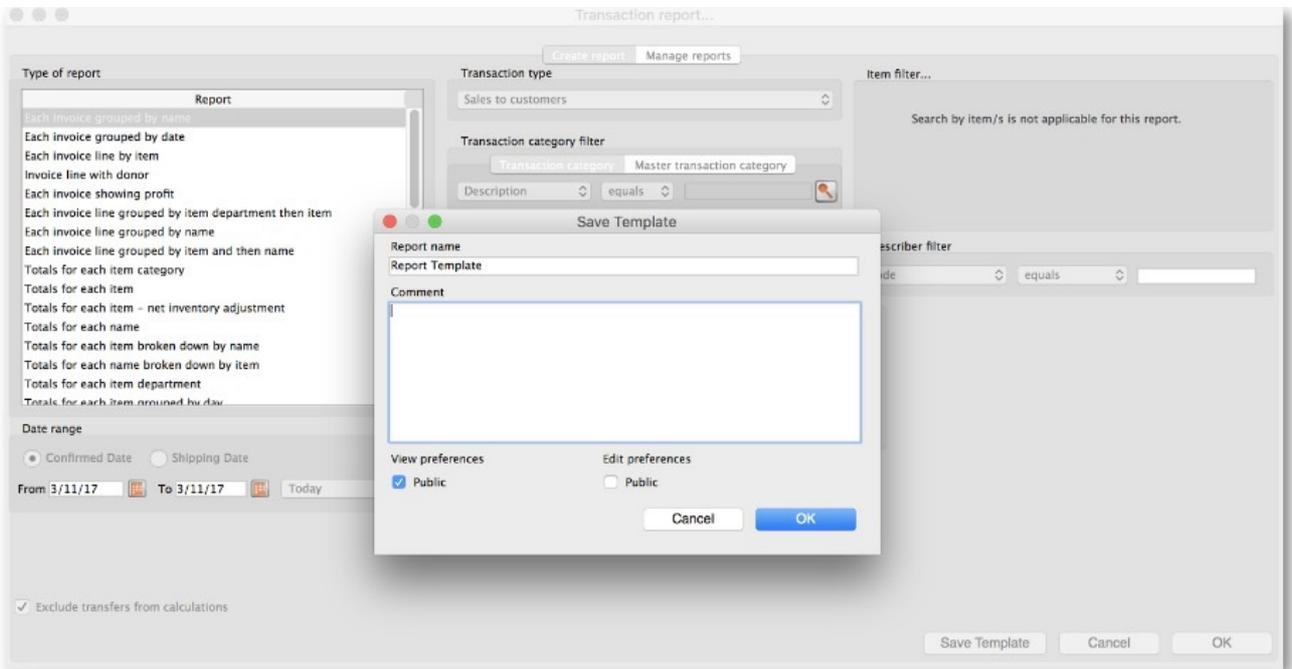


This brings up the **Edit report** window. Creating custom reports is described in detail earlier in this chapter. See the [Custom Reporting Tutorial](#)

Save template button

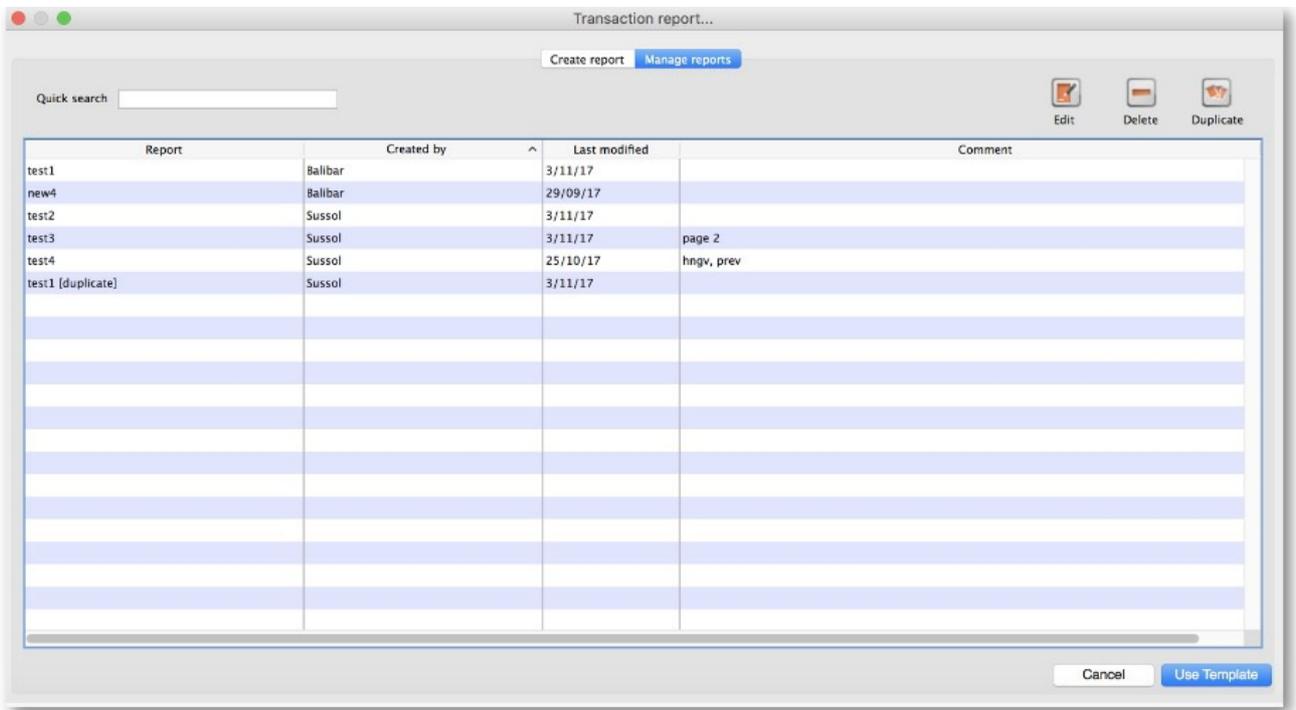
The save template button allows you to save a given report as a template once you have input your chosen settings. Templates can be reused as needed.

Pressing the Save Template button brings up the following window:



This dialog allows you to set a name and description for the report template. You can also define user permissions: at the moment, you can define these as 'Public' - for anyone, or 'Private', in which case the permissions only apply to the user who created the template.

- View Preferences: define which stores will be able to view and use the template on the 'Manage Reports' tab (next screenshot).
- Edit Preferences: define which stores will be able to edit or delete templates on the 'Manage Reports' tab.



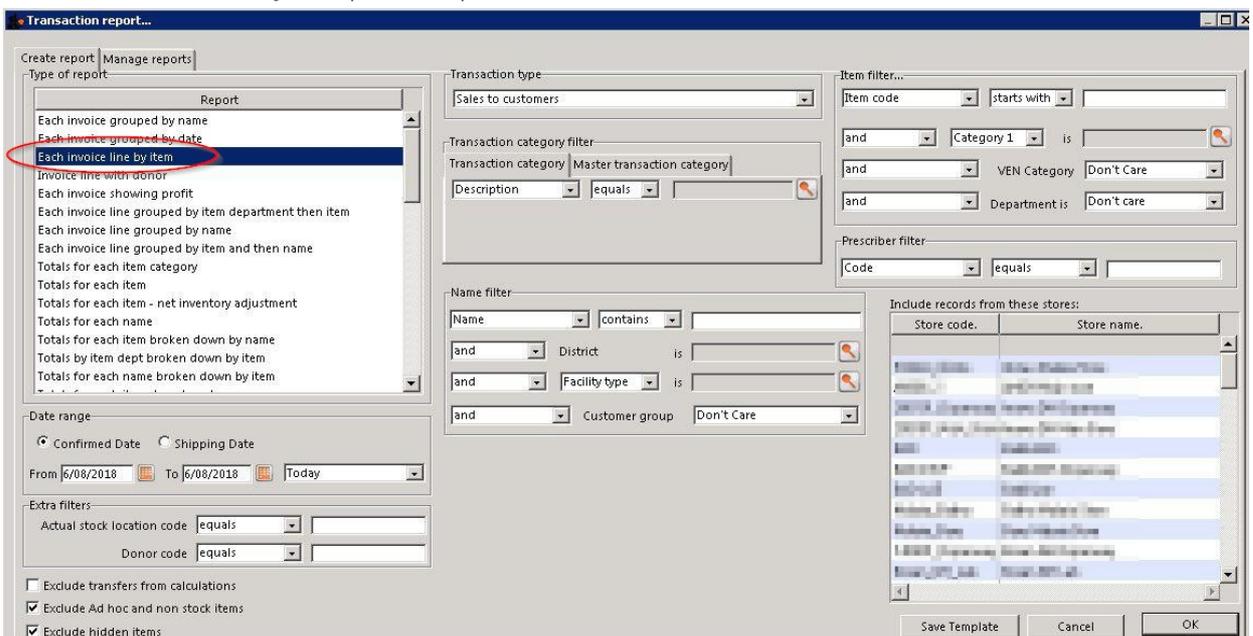
- Displays all template reports that the user has permissions to view.
- Allows user to use the template:
 - Redirects user to 'Create Report' tab
 - Settings here will be set according to the preferences of the template report
- Users can also edit, delete, and duplicate the reports if user permissions allow.
 - Duplicated reports will be named 'ReportName[duplicate]'
- Quick search searches in all text columns of the table.

Pivot table friendly transaction report

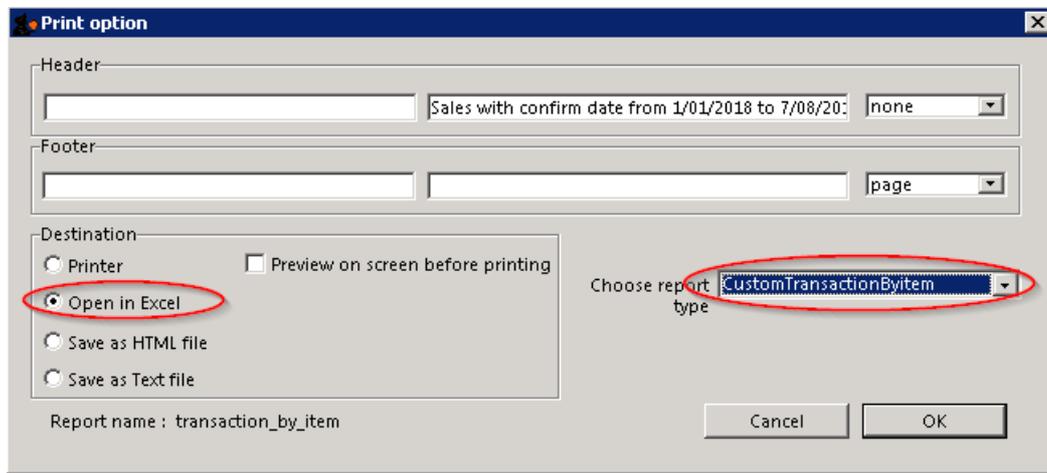
There is an almost infinite range of reports that you might want to generate from transaction data. If you are comfortable using [Excel Pivot tables](#), there is an mSupply transaction report format that you will likely find quite useful. This report has been designed to work in [Supervisor Mode](#) but will also work in a single store.

To generate it:

1. click on Reports > Transaction
2. After configuring the various date range, Item, Name, transaction type, etc. filters
3. Select the **Each Invoice Line by Item** report in the top left



4. Then, select **CustomTransactionByItem** report type and send the output to **Open in Excel**



The image shows a 'Print option' dialog box with the following fields and options:

- Header:** A text field containing 'Sales with confirm date from 1/01/2018 to 7/08/20:' and a dropdown menu set to 'none'.
- Footer:** Two empty text fields and a dropdown menu set to 'page'.
- Destination:** Radio buttons for 'Printer', 'Open in Excel' (selected and circled in red), 'Save as HTML file', and 'Save as Text file'. A checkbox for 'Preview on screen before printing' is also present.
- Choose report type:** A dropdown menu with 'CustomTransactionByItem' selected and circled in red.
- Report name:** 'transaction_by_item'.
- Buttons:** 'Cancel' and 'OK'.

The report will open in Excel in a form that can then be easily filtered, sorted and manipulated through a Pivot table. If fact, the records are not sorted at all, so they must be processed to make any sense!

Previous: [13.02. Stock and items reports](#) | | Next: [13.04. Purchasing reports](#)

Last modified: 2022/04/14 01:27 by Mark Glover

13.04. Purchasing reports

Purchasing reports (focused on what you have ordered and what you have received and what you want to order) are available at *Report > Purchasing*. The following report types are available:

- Purchase orders...
- Purchases...
- Suggest order quantities

The first 2 options contain several different reports (see below). Select the required report type by clicking on it.

Purchase orders

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- [Purchases](#)
- [Suggested order quantities](#)
 - [Report output](#)
- [Suggest order quantities with prices and price extension](#)
- [Purchase orders](#)
- [Purchases](#)
- [Suggested order quantities](#)
 - [Report output](#)
- [Suggest order quantities with prices and price extension](#)

Purchase order report options...

Type of report: **Ordered Item Report**

Find Multiple | Find Single

Date range

Search by date type: **Creation date**

From: **23/05/14** To: **23/05/2014** Today

Report on names whose...

Name contains

Report on items whose...

Item code starts with

and **Category 1** is **Don't Care**

and **department** is **Don't care**

Report on Purchase Orders whose...

Category is **All categories**

Status is **All**

cust_purchase_field equals

cust_purchase_field2 equals

Cancel OK

Types of report

There are seven reports currently available:

- ✓ **Ordered Item Report**
 - Goods received date vs Order date
 - Goods Received date vs Order date--Show Items
 - Outstanding Purchase Order Lines
 - Goods Received date vs Order date--Show Delivery Days
 - Purchase order vs good received broken down by batches
 - Purchase order Cash Flow Planning

- The *Ordered Item Report* will list items that are on Purchase Orders according to criteria specified.
- The *Goods Received date vs Order date* report lists each Goods Receipt for a particular Purchase Order and the number of lines received, then follows with details of the number of lines and date of the original Purchase Order, as in the example below. This is useful for tracking supplier delivery performance.

Name	Order no.	Status	Date ordered	Lines in PO	Date inv. rec'd	Date goods rec'd	# lines
					30/05/07	22/05/2007	8
					30/05/07	30/05/2007	2
Bronze Age supplies	16	cn	25/04/07	8			10

Note that the number of lines received may not match the number ordered as a single Purchase Order line may be supplied in split deliveries, as in example shown, or an ordered line may not be supplied at all.

- The *Goods Received date vs Order date - Show items* report.
- The *Outstanding Purchase Order Lines* report, which will display all Purchase Order lines for Purchase Orders provided that (1.) delivery is incomplete, and (2.) the Purchase Order has a *Confirmed* ("cn") status.
- Note that Purchase Orders whose status is *Finalised* ("fn") will be ignored when producing this particular report.
- The *Goods Received date vs Order date - show Delivery days* report shows the number of days taken to deliver items.
- The *Purchase order vs goods received broken down by batches* report shows the dates particular batches were received.
- The *Purchase order cashflow planning* report shows you the values and times of expected deliveries so that you can plan when money needs to be available to pay for them.

Date range and date type

A date option, for selecting which items/purchase orders to include in the report must be selected; options are:

- creation date - the date purchase orders were created
- sent date - the date purchase orders were confirmed
- expected delivery - the expected date of delivery for items
- actual delivery - the actual date that items were delivered

The report will include items/purchase orders with the selected *type* of date falling between two specified dates entered in the *From* and *To* fields. The drop-down list on the right affords many quick-choose preset date range options such as "today", "yesterday", "this week", "last week", "this month" etc.

Report on names...

The report may be confined to suppliers meeting specific criteria by selecting one of several supplier properties ("Name", "Name code", "analysis", "category", "Price code" etc.) in the left dropdown list, "equals", "starts with" or "contains" in the centre dropdown list and making an appropriate entry in the field on the right. If this field is left blank, the report will include purchase orders from all suppliers within the chosen date range.

Report on items...

Similarly the report may be confined to items meeting specific criteria; you choose an item's property to filter on in the left dropdown list followed by the comparator in the centre dropdown list and finally making an appropriate entry is made in the field on the right. Again, leaving this field blank will produce a report on all items within the chosen date range.

You can also report on items that have a certain category and/or department. By default these options are set to "Don't care", which means the item categories and departments will be ignored.

Note that only reports that report on *invoice lines* will produce meaningful results when you choose item criteria. Reports that report on whole transactions (e.g. "Each invoice grouped by name" or "Each invoice grouped by date") will not produce meaningful data, as any one invoice can contain multiple items. Choose reports that report on invoice lines (e.g. "Each invoice line by item" or "Totals for each item grouped by month") for these filters to have an effect.

Report on purchase orders...

In the same way, you can also filter your reports on properties of the purchase orders involved: category, status and both purchase order custom fields. For more information on purchase order categories see [here](#)

Purchases

This report finds all purchasing transactions over a certain value within a specified time period

You should enter:

- The date range of transactions on which to report
- Four filters are available to refine the report - a name filter, and three item filters; all are optionally and will be ignored if nothing is entered in the textbox or drop down lists are left at "Don't care".
- The value of a transaction line above which the report will cover.

It may be good for your organisation to have a purchasing policy that stipulates that transactions over a certain value must be authorised by a second party (that is, someone other than the purchaser). This report allows you to monitor such a policy easily.

Suggested order quantities

Use this report for mSupply to analyse your current stock and, based upon a required number of months of stock cover which you enter, suggest how much of each stock item you should consider ordering.

⚠ Important

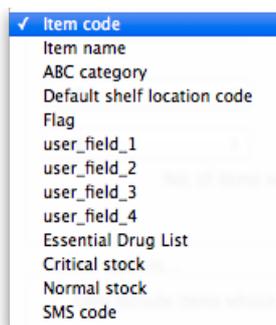
The logic behind the calculations involved in this report is described in detail on the [6.01. Ordering stock from suppliers page](#).

📘 Info

There are currently 2 options for the suggested order quantities report: **Suggested ordering report** and **Suggested ordering [Excel] report**. They both have the same options as defined below but the second Excel only report will run much more quickly than the first one, even if the first one is exported to Excel. This is a temporary situation: the first option will be removed in a later version of mSupply and the Excel option will be the only option available.

You'll see this window:

If you want to report on all items, leave the item name field blank, otherwise enter an item name or code. For example, to report on amoxicillin stocks, you could enter “amox” into the field.



The drop down list, after the item name and code choices, lists several other fields, including any user defined fields, where the names that you have defined for custom item fields in the *Preferences* are displayed.

If you wish to use item categories, then use the *Item category* list to choose the one on which you want to report.

You can use the drop-down list to find Items with a particular code, or to use the values you have entered into one of the custom user fields. If this isn't powerful enough, use the *Complex Find* button to display the full query editor.

Click on the refresh button (double orange arrows) to show the number of items these basic parameters will find.

Only include items whose stock cover is less than.... If you want to report only on items whose stock is low, enter the threshold for days of stock on hand into the second field. For example, entering 90 into this field will only include items in the report whose stock is not sufficient to cover average usage for the next 90 days.

Enter “0” (zero) for this field to report on items with any amount of stock remaining.

Expected delivery: Enter an appropriate date based on previous delivery times.

Include usage for build ingredients: If you manufacture items, you can choose whether the use of ingredient lines in manufacturing is included in the report or not.

Basis of analysis: Enter the number of months of data (from the current date) mSupply should use to calculate your consumption.

Exclude transfers from calculations: Check this box if you wish transfers within your organisation to be excluded from the calculations.

Include items with no usage in the last 12 months: If this box is checked, items which have not been used over the last year will be included. This check box will have no effect if the previous “days cover” field is filled in, as an item with no usage will have “infinite” cover- any stock you do have is going to last you forever

Order quantity for X months stock cover: In this field, enter the number of days stock cover you want to have available. The report will automatically take into account any stock you already have, so all you need to do is enter how many days cover you want, starting from right now, in this box.

Open report in Excel: Checking this box opens Excel (or any other installed spreadsheet application) and displays the report as a spreadsheet. If you want to save the report, choose File > Save as... in your spreadsheet application.

Report output

Cover column: if the column prints “»»” this means you have no usage of that item, so you have “infinite” cover (i.e. if you don't have any usage your current stock with last forever, from a usage point of view, if not from an expiry date point of view!)

Suggest order quantities with prices and price extension

This report is an extension of the previous one, allowing you to see what the suggested order will cost. The filter choices you have are the same as for the suggested order quantities report.

Previous: [13.03. Transaction reports](#) | | Next: [13.05. Requisition reports](#)

Last modified: 2021/10/18 10:08 by Gary Willetts



mSupply documentation wiki



13.05. Requisition reports

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- [Output](#)
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- [Output](#)
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You can report on requisitions in 2 ways:

- grouped by item, showing which customers the item was requisitioned by, what has been sent and what is outstanding or
- grouped by customer, showing which items a customer has requisitioned, what has been sent and what is outstanding.

You can access the reports from the *Reports > Requisitions* menu option or by clicking on the *Requisitions* option on the Reports tab of the navigator:



Whichever way you choose, the requisition report options filter is displayed:

Report type: **Grouped By Item**

Requisition filter

Entry date is from **01/09/19** To **19/09/2019** **This month**

Include requisitions with these statuses: Suggested (sg) Confirmed (cn) Finalised (fn)

Include lines that have been fully supplied

Item filter...

Item code **starts with**

and **Category 1** is

and **VEN Category** **Don't Care**

and **Department** is **Don't Care**

Requisition customer filter

Name **contains**

and **Category 1** is

and **Category 1** is

and **Customer group** is **Don't Care**

Buttons: **Cancel** **OK**

Use the **Report type** drop down list to select which type of report you would like: *Grouped by item, Grouped by Item (Pivot table/Excel friendly)* or

Grouped by customer.

Grouped by item and Grouped by Item (Pivot table/Excel friendly) reports have the same contents, they are just formatted slightly differently. The Grouped by Item (Pivot table/Excel friendly) format is made to be immediately usable as a pivot table in Excel; a blank row between the column headers and the data, no gaps in the data and no total rows (see screenshots below).

The **Requisition filter** settings enable you to select which requisitions you want to include in the reports, based on their entry date (this month so far is set by default but note the quick date selection drop down list and the date pickers to enable quick selection of reporting dates) or status.

If you leave the **Include lines that have been fully supplied** checkbox unchecked, the report will only include lines where not all the stock requested has been sent to the customer i.e. outstanding requisition lines only. If you check the checkbox, all requisition lines will be included in the report.

The **Item filter** section allows you to select which items will appear in the report (only requisition lines for items matching these filters will be included in the report. If you don't set any of these, there will be no filtering by item).

Finally, the **Requisition customer filter** section allows you to select the customers whose requisitions will be included in the report. If you don't set anything in this section, requisitions for all customers will be included in the report.

Output

The Type column tells you what type of requisition the information came from:

- **response (from purchase order)**: a requisition created from a purchase order made in the customer's store.
- **response (from requisition)**: a requisition created from an internal order (request requisition) made in the customer's store.
- **response**: a requisition made for the customer in the supplier's store.

The other fields are all self explanatory and are shown in the screenshots below.

Info

Note that all the columns that refer to a quantity of an item (e.g. *Their stock on hand*, *Quantity requested*, *Quantity already issued* and *To be supplied*) refer to the **number of units**, not the number of packs.

Examples

These are examples of what the requisition reports like like: **Grouped by item**

Requisitions grouped by item for requisitions entered from "From date" to "To date"												
Item name	Our stock on hand	Requisition ID	Customer name	Requisition comment	Status	Type	Requisition Date	Their stock on hand	Quantity requested	Quantity already issued	To be Supplied	
ALBENDAZOLE, 200mg, tab	5000	1234	CPI	R234	sg	request	10/11/17	0	500	100	400	
		1235	Metta	R296	sg	request	11/11/17	1	22	4	18	
		1236	DRC-Mindat	R245	sg	request	04/12/17	20	750	70	680	
		1237	DRC-Madupi	R233	sg	request	12/12/17	15	600	450	150	
									Total	36	1,872	624
COTRIMOXAZOLE, 200mg, tab	5000	1234	CPI	R234	sg	request	10/11/17	0	500	100	400	
		1235	Metta	R296	sg	request	11/11/17	1	22	4	18	
		1236	DRC-Mindat	R245	sg	request	04/12/17	20	750	70	680	
		1237	DRC-Madupi	R233	sg	request	12/12/17	15	600	450	150	
									Total	36	1,872	624

Grouped by item (Pivot table/Excel friendly))

Requisitions grouped by item for requisitions entered from "From date" to "To date"												
Item Code	Item name	Our stock on hand	Requisition ID	Customer name	Requisition comment	Status	Type	Requisition Date	Their stock on hand	Quantity Requested	Quantity already issued	Quantity to be Supplied
AR33197	ABACAVER / LAMIVUDINE 60/30 MG CP	10,709	380	Customer 1	From request requisition 97 (Urgent)	sg	Response (from requisition)	26/08/2019	420	300	0	300
AR33197	ABACAVER / LAMIVUDINE 60/30 MG CP	10,709	371	Customer 1	From request requisition 91 (urgent)	sg	Response (from requisition)	20/08/2019	420	420	0	420
AM13020	ACETYLSALICYLIC ACID 100 MG CP	230	320	Customer 1	From request requisition 16	sg	Response (from requisition)	06/08/2019	0	500	0	500
AM13020	ACETYLSALICYLIC ACID 100 MG CP	230	699	Customer 1	From request requisition 20	sg	Response (from requisition)	10/10/2019	5,243	5,000	0	5,000
AM13020	ACETYLSALICYLIC ACID 100 MG CP	230	837	Customer 2	From request requisition 24	sg	Response (from requisition)	04/12/2019	620	3,000	0	3,000

Grouped by customer

Requisitions grouped by name for requisitions entered from "From date" to "To date"												
Customer name	Our stock on hand	Requisition ID	Item name	Requisition comment	Status	Type	Requisition Date	Their stock on hand	Quantity requested	Quantity already issued	To be Supplied	
Customer 1	5000	1234	ALBENDAZOLE, 200mg, tab	R234	sg	request	10/11/17	0	500	100	400	
		1235	COTRIMOXAZOLE, 200mg, tab	R296	sg	request	11/11/17	1	22	4	18	
		1236	PARACETAMOL, 500mg, tab	R245	sg	request	04/12/17	20	750	70	680	
		1237	AMOXICYLIN, 500mg, tab	R233	sg	request	12/12/17	15	600	450	150	
Customer 2	5000	1244	ALBENDAZOLE, 200mg, tab	R235	sg	request	10/11/17	0	500	100	400	
		1245	COTRIMOXAZOLE, 200mg, tab	R297	sg	request	11/11/17	1	22	4	18	
		1246	PARACETAMOL, 500mg, tab	R246	sg	request	04/12/17	20	750	70	680	
		1247	AMOXICYLIN, 500mg, tab	R236	sg	request	12/12/17	15	600	450	150	

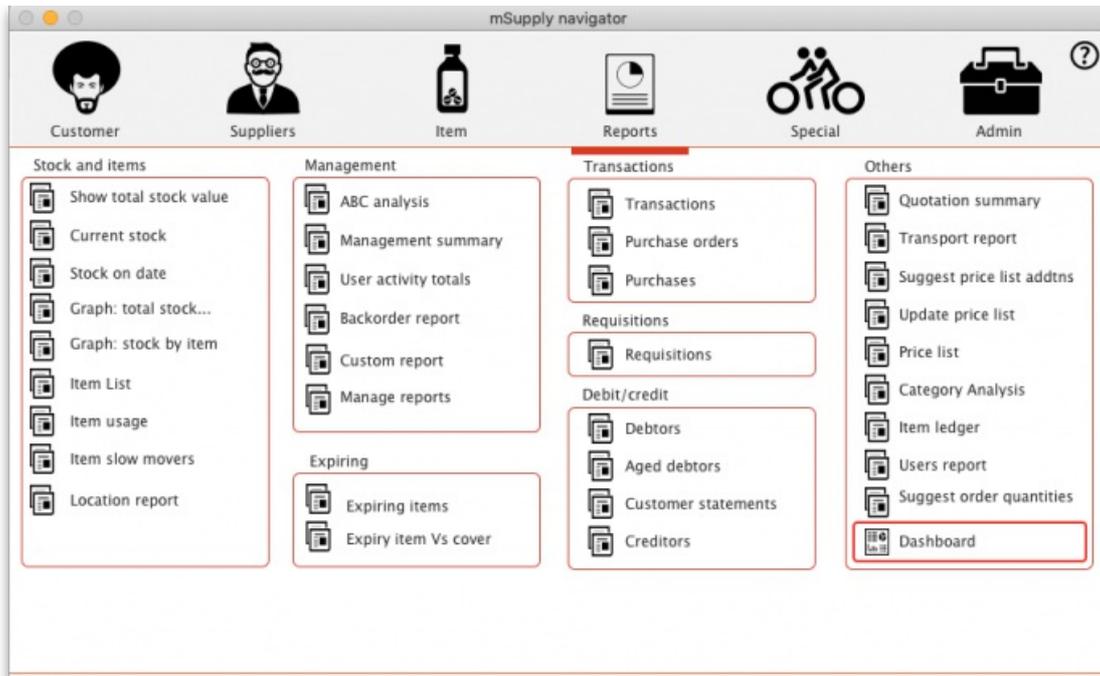


13.06. Dashboard

The mSupply dashboard is very helpful for providing visual representations of your data to support analysis and decision making at all levels of the supply chain.

To see all the information about the dashboard, please see the separate documentation for it here <https://docs.msupply.foundation/en:dashboard>.

To access the dashboard, you can click on the *Dashboard* button on the *Reports* tab of the Navigator:



If your dashboard has been setup and you have permissions to login to it (see details on setup here https://docs.msupply.foundation/en:dashboard:getting_started) then the dashboard will be opened in your browser and you will be automatically logged into it.

If your dashboard hasn't been setup then you will be shown an alert giving you an option to view the demo mSupply dashboard (which shows you a selection of visualisations and functionality for some dummy data) or to cancel and contact Sustainable Solutions to set your dashboard up for you:



Previous: [13.05. Requisition reports](#) | Next: [13.07. Customer ordered shortfall report](#)



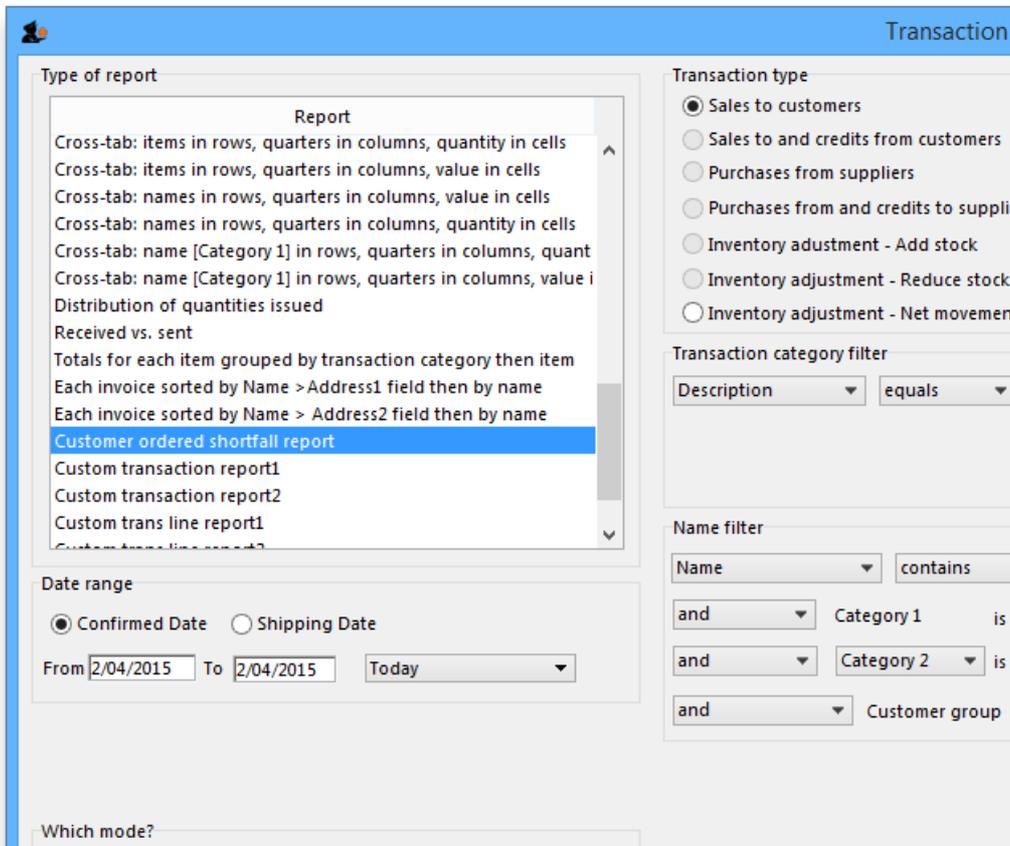
13.07. Customer ordered shortfall report

When you choose *Report > transactions* and then select *Customer ordered short fall report* , the transaction report like the one below will be produced. This report is used only for sales to customers.

⚠ Important

For this report to make sense, make sure that:

- The *Allow placeholder lines on customer invoices* preference is **checked**
- The *Delete placeholder lines when confirming invoices* preference is **un-checked**



From the report window, select the desired parameters and click *OK* . An example report is shown below.

Customer ordered short fall report
National Medical Store

Date range :01/01/2007 to 17/01/2007, Item name contains @ma@item category includes PHARMACEUTICALS
Transaction Type equals customer, Name code contains @2@, Mode: Both

Item Code	Item Description	Units of Demand	Units of supply	Shortfall	% shortfall
item category : MEDICAL SUPPLIES					
4465	MASK,RESUSCITATION,ADULT	586.02	43.02	543	92.66
4460	MASK,OXYGEN,ADULT,MWO TUBING	2838	1984	854	30.09
Totals for item category: MEDICAL SUPPLIES		3424.02	2027.02	1397	40.8
item category : PHARMACEUTICALS					
502	MAGNESIUM TRISIL CO. TAB PKT/20	5628	3895	1733	30.79
10	ACETAZOLAMIDE TAB \$ 250MG BOT/100	1889	1639	250	13.23
Totals for item category: PHARMACEUTICALS		7517	5534	1983	26.38
Grand total :		10941.02	7561.02	3380	30.89

Previous: [ATC based reports](#) Next: [Purchasing](#)

Setting up mSupply to use the customer ordered shortfall report

For this report to be used, you need to do the following

- Choose *File > Preferences > Invoices2* and ensure “Delete placeholder lines when confirming invoices” is **not** checked.
- Staff must enter requested amounts on invoices as placeholder lines.
 - For example, a customer orders 1000 x Paracetamol syrup 60ml. You have 800 in stock, so you add 800 to the invoice, and you also add a placeholder line for 200 bottles.

Important

You need to decide whether to (and if yes, how to) use the backorder system. If customers can rely on you to record shortfalls as backorders, then they will no need to re-order the shortfall in subsequent ordering cycles, as they know you will deliver it when available.

In our experience, general custom and practice in places that use mSupply is for facilities to simply re-order stock that wasn't delivered 'last' time. In this context, it would not be useful to turn the backorder system on.

Previous: [13.06. Dashboard](#) || Next: [13.08. ATC and DDD code based reports](#)

Last modified: 2021/08/10 11:51 by Gary Willetts



mSupply documentation wiki



13.08. ATC and DDD code based reports

ATCs and DDDs

“ATC” stands for “Anatomical, Therapeutic, Chemical”, and is a method of classifying chemical entities, and identifying them by category.

“DDD” stands for “Defined Daily Dose”, and provides a means of comparing the utilisation of different drugs in a meaningful way. - e.g. if a dispensary has issued 10,000 x doxycycline 100mg and 20,000 x amoxicillin 250mg, a greater number of amoxicillin capsules has been used; but according to the DDD method, a greater number of patients have received doxycycline.

Thanks to the help of the WHO Collaborating Centre on Drug Statistics and Methodology, we are able to offer a starting drugs file with their codes; we have plans (not yet implemented) to maintain on our website an up-to-date list of ATC and DDD codes for essential drugs.

Reports using ATC and DDD codes

mSupply is designed for the ATC code to be entered in the *Category* field for each item, and is then able to report on supply transactions, giving a breakdown according to the different levels of the ATC code.

The *DDD Factor* field is intended to store the item's number of dose units in its DDD; for example, if an item's DDD is 1,000mg, and the supply is made using 250mg units, the DDD factor is 4. When designing a report, the total quantity of this item used should be divided by the DDD factor to obtain the number of DDDs supplied.

Should you wish to store an item's DDD value (1,000mg in the above example), it is suggested that you record it in one of the available *user fields*. The DDD value should not be recorded in mSupply's *DDD factor* field

The category analysis report is designed to be used in conjunction with the “category” field and the “DDD factor” field for each item.

The screenshot shows a dialog box titled "Category analysis" with a close button in the top right corner. The dialog is divided into several sections:

- Summary level...:** A dropdown menu currently showing "level 1".
- Item filter...:** A dropdown menu showing "all items" and a checkbox labeled "Only items marked as 'essential drugs'" which is currently unchecked.
- Transaction type...:** Two radio buttons. The first is "Items supplied to customers" and is selected. The second is "Items received from suppliers".
- Date range...:** Two date input fields labeled "From" and "To", both containing "2/04/2015". To the right is a dropdown menu labeled "Today".
- Which customers/suppliers?:** A section with "Report on names" set to "code" and "equals" in a dropdown menu.

At the bottom right of the dialog are "Cancel" and "OK" buttons.

When you produce a report, only some simple criteria are entered in the form. It is a simple matter to create reports giving, for example:

- A level one ATC summary for all items supplied to a specific hospital during a 12 month period
- A level two ATC summary for all items in ATC category “J” supplied to customers who are coded as “h” (for hospital) for a particular month.
- A level three ATC summary for all essential drugs supplied to all customers for a particular quarter.

The report provides you with the number of DDDs supplied for each category at the level requested, presuming you have “DDD factor” values entered correctly. Only the totals for each category are shown (not each individual transaction). The report may be printed, or exported for use in another application.

Let's run through the different options in the window... summary level... - enter the summary level. The category field is then evaluated based on the ATC coding system. Note that the code is “broken down” as follows

level	position
1	character 1 (A-Z)
2	characters 2 & 3 (01-99)
3	character 4 (A-Z)
4	character 5 (A-Z)
5	characters 6 & 7 (01-99)

So, for example the code for “caffeine” is N06BC01. “N” is the level 1 code, “06” the level 2 code, “B” the level three code, “C” the level four code, and “01” the level 5 code.

Note that if you choose “level 3”, you will also be shown the summary values for “level 1” and “level 2” as well.

Which type of item?

You can report on all items, or you can report on just a certain category. For example, you can enter “J” here to report only on items whose ATC code starts with “J”. Note that you need to set the summary level to “level 2” or your report will only report the total for category “J” without any further breakdown of data.

Only report on essential drugs

Check this if you only want to analyze items whose *essential drug check box is checked*.

Transaction type?

- Normally we will be interested in supply to customers. However, we might also be interested in “what percentage of purchases from IDA (a supplier) are anti-infectives?”, in which case we would click on the “items received from suppliers”

Date range...

Enter a starting date and an ending date. Only transactions whose confirm date was within the range will be analyzed. The default range is the last 90 days. Note that the dates you enter are included in the range (that is the “from” date is “on or after” and the “to” date is “on or before”)

Which customers/suppliers...

Leave this value blank to report for all customers. Otherwise, choose “code” or “category” from the popup menu, and the appropriate comparison from the second popup menu. For example, if you want to report on a certain group of hospitals, you could enter those hospitals as having a category “h”, and then report on “names whose category starts with 'h'”

Previous: [13.07. Customer ordered shortfall report](#) || Next: [13.09. Other reports](#)

Last modified: 2021/08/10 11:47 by Gary Willetts



13.09. Other reports

ABC analysis

The screenshot shows a dialog box titled "ABC analysis" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- Number of items to include in report:** A text input field containing the number "50".
- Date Range:** A section with three input fields: "From" (containing "2/04/2015"), "To" (containing "2/04/2015"), and "Today" (with a dropdown arrow).
- Report on names whose...:** A section with a dropdown menu set to "Name", a dropdown menu set to "contains", and an empty text input field.
- Item filter...:** A section with four rows of filters:
 - Row 1: "Item code" dropdown, "starts with" dropdown, and an empty text input field.
 - Row 2: "and" dropdown, "category is" dropdown set to "Don't Care".
 - Row 3: "and" dropdown, "VEN Category" dropdown set to "Don't Care".
 - Row 4: "and" dropdown, "department is" dropdown set to "Don't care".
- Which mode?:** A section with three radio buttons: "Both modes" (selected), "Store mode", and "Dispensary mode".
- Exclude Ad hoc and non stock items:** A checkbox that is currently unchecked.
- At the bottom are "Cancel" and "OK" buttons.

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This report will rank the items based on the value sold in the period specified. Sometimes such a report is referred to as an "ABC" analysis or a "pareto" analysis. Statistics show that 20% of the items supplied by an organisation usually generates 80% of the total value of sales. Therefore, it is useful (and wise!) to concentrate first on the 20% of items that are most important. This report makes it easy to do just that.

You might be interested in [what Wikipedia has to say about ABC analysis](#)

You need to enter the following information:

Number of items to include in report: Enter the number of items to be included in the report.

Date range: Enter the dates you wish here. Each item will have its "analysis" field updated with the total value of sales during the period specified.

Filters: Should you wish to apply filters to the report, three are available - for items, categories and departments.

Which mode: You can choose store mode, dispensary mode or both modes of transactions for inclusion in the report.

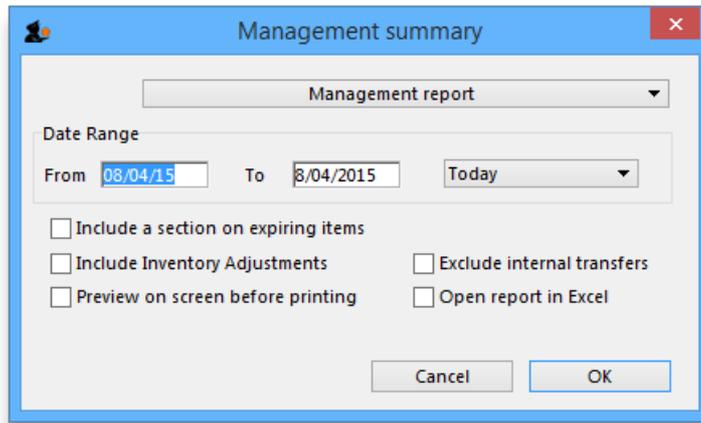
Exclude Ad Hoc and non stock items: If you check this box then Ad Hoc and non stock items will not feature in the report.

The report lists the number of items specified, ranked by value of sales, starting with the highest. The value of sales and the percentage of the total value are also shown. Note that the total value is the total for the items in the report, not the total sales for all items. If you want to report on the total for all items, set the *Number of items to report on* to a number greater than the number of items in your data file (Note that this may make the report very long, but you can choose just to print the first few pages if you wish).

Management summary

This report is designed with line managers in mind, or other people who want to "keep their finger on the pulse" of their organisation but are not interested in the fine detail!

You'll be shown a window where you can choose a date range for the report:



The report provides the following information:

- The total value of stock on hand
- The 10 items with the largest stock value
- The 10 items with the largest value of supply to customers in the date range chosen.
- The 10 suppliers from whom you have purchased the most in the date range chosen.
- The 10 customers to whom you have supplied the most in the date range chosen.
- If you check the "Include section on expiring items" checkbox, a section will be included that lists:
 - The cumulative liability for expiring items for each of the next 12 months.
 - The 12 most valuable expiring items (or at least batches of particular items)

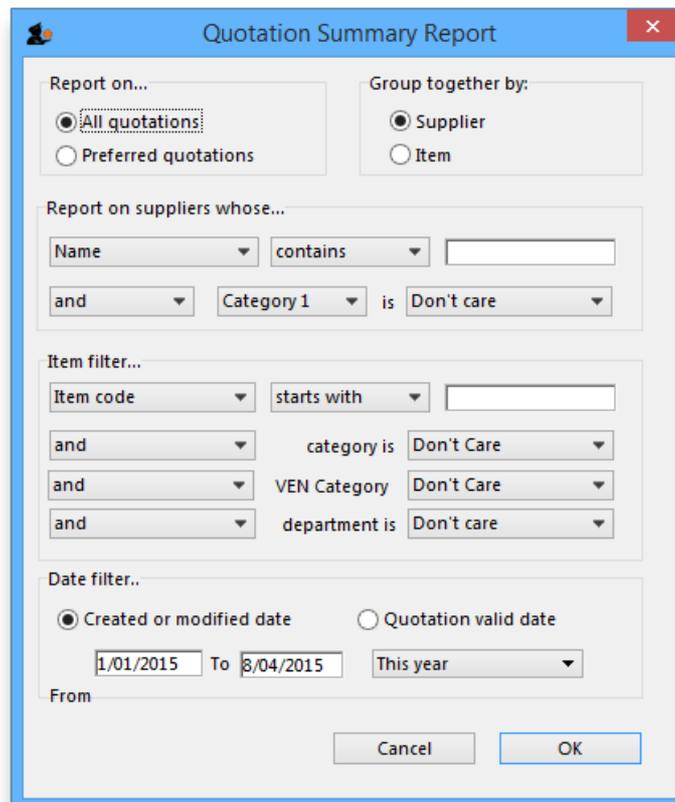
Preview on screen before printing

Check this box if you want to view your report on screen first.

Open report in Excel

Check this box to view the report directly in your chosen Spreadsheet program.

Quotation summary



There are two options in *Report on* section, namely: *All quotations* and *Preferred quotations* , and there are two options in *Group together by* section, namely *Supplier* and *Item*

All quotations shows the quotations in which *Preferred* is set to "true or false".

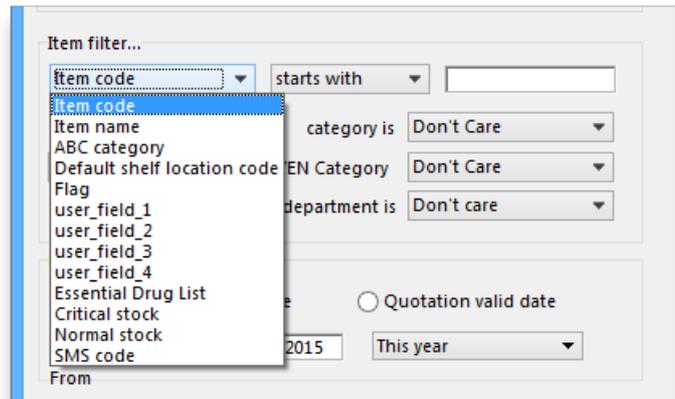
Preferred quotations shows only those quotations in which *Preferred* is set to "true".

Supplier option displays the quotation report on the basis of supplier. The quotations for the items related to a particular supplier are listed along with that supplier.

Item option displays the quotation report with the items arranged in alphabetical order along with the corresponding supplier's name.

In addition there are filters allowing you to narrow your search further by:

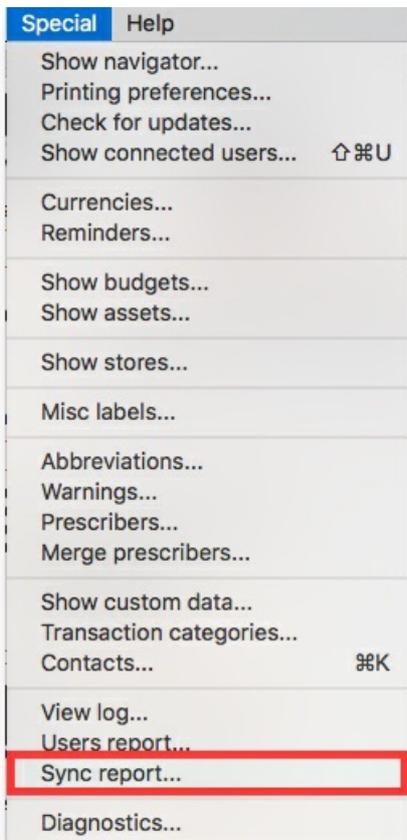
- limiting the report to suppliers meeting your specified criteria - e.g. the supplier's name code may be entered, so the resulting report will display only quotations from that particular supplier.
- specifying criteria relating to the item by choosing from the many options in the drop-down boxes as shown below:



There is an additional filter, the Date filter, allowing you to specify the dates on which the Quotations you are examining were created or modified, and the radio button toggles display of the quotations' expiry date (*Quotation valid date*) on or off.

Sync report

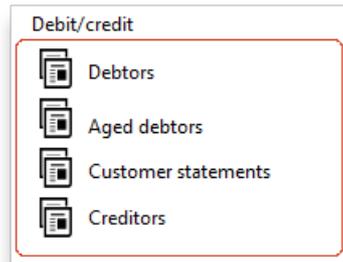
This report allows you to track remote site activity. It is available from the special menu. The report is only visible in the menu if you're on a primary server (the main server in a sync system).



Page 1 of 1				
Date	Time	Client name	Table number	Comment
Receiving				
26/05/2017	14:41:29	Banaba_hc	Stock_take	Communication received: Data deleted
29/05/2017	11:18:09	Tabuهران_pael_hc	requisition	Communication received: Data inserted
01/06/2017	15:00:44	Maiana_h/c	requisition	Communication received: Data inserted
07/06/2017	11:29:29	Kiritimati_hosp_phar	item_line	Communication received: Data updated
07/06/2017	16:05:49	Eita_clinic	transact	Communication received: Data updated
09/06/2017	08:35:33	Absiang_tabu_hc	transact	Communication received: Data updated
12/06/2017	19:33:56	Marakei_rawa_hc	requisition_line	Communication received: Data updated
12/06/2017	15:00:20	Bonriki_clinic	Stock_take_lines	Communication received: Data inserted
13/06/2017	16:32:26	Bikenibeu_east_clinic	trans_line	Communication received: Data updated
13/06/2017	14:33:47	Temaiku_clinic	requisition_line	Communication received: Data deleted

Debtors and creditors

The following reports are available:



Select the required report by clicking on it.

Debtors

This report will produce a list of all debtors. *mSupply* uses an open-invoice system of accounting for debtors, so the outstanding amount for each debtor is displayed; for debtors with more than one invoice outstanding, the amount displayed is the cumulative total of all outstanding invoices.

Note that the total outstanding on invoices is not reduced for any previous overpayment by a customer, but this is listed in a separate column in the report.

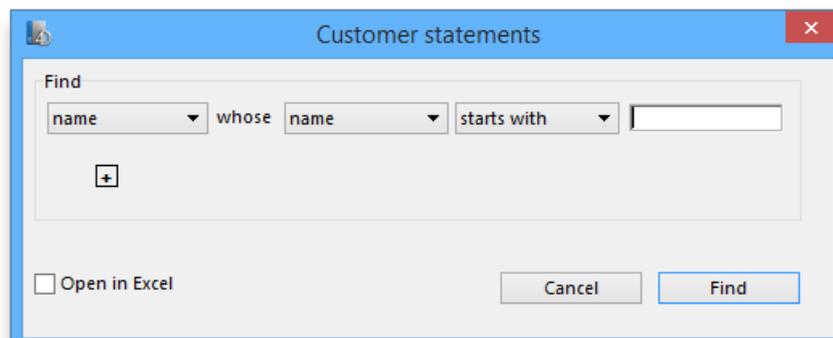
To remove overpayment amounts from the system, choose *customer | new payment...* and enter the name of the customer with an overpayment. You will be asked if you want to use the overpayment amount for this payment. Choose *use*, then allocated the overpayment to outstanding invoices.

Creditors

Aged debtors

Customer statements

You will be presented with a window to find customers.

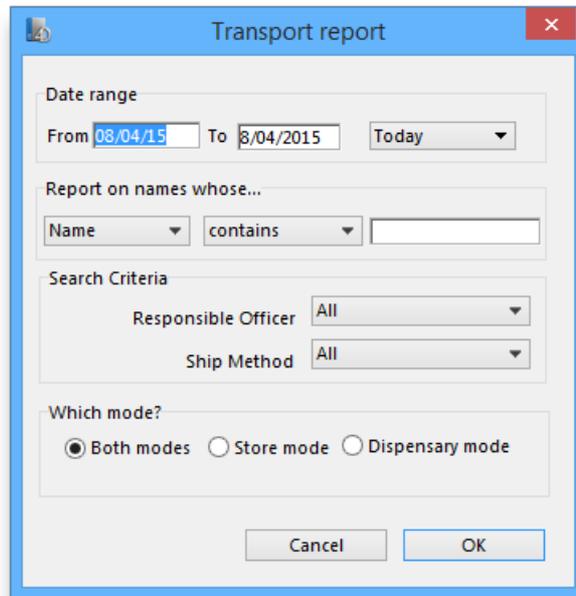


If you want a report for all customers, leave the entry field blank. Click *OK* and a report will be produced for any customers who match the criteria entered. Note that customers with no amount outstanding will not have a statement printed for them.

Transport report

This report allows you to print information about the transport details for a range of invoices.

First you are shown a window where you can select a date range and choose to report on only invoices supplied by a particular method, by a particular responsible officer, or to a particular name or names.



Click "OK" to run the report.

Note that transport details can only be entered on customer invoices if you have checked the "We use box numbers" option in the Preferences

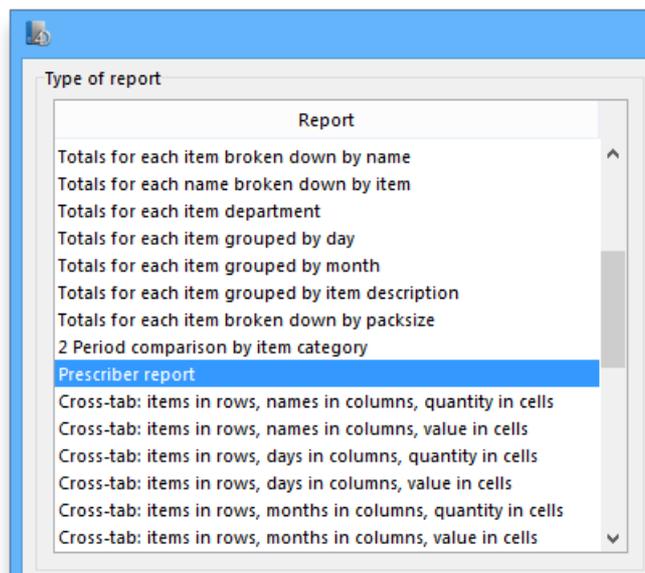
Prescriber report

The Prescriber report allows you to view the total value, mean item value and item count for prescriptions dispensed for each prescriber.

You will be shown a window with the normal date range options, and the option to report only on prescribers whose type field is set to a certain type.

Click OK to proceed.

The window that appears is the Transactions report, but you will see that the *Prescribers report* is highlighted.



As usual, the report options window is shown where you can choose the destination and set headers and footers.

User activity totals

This report was initially made for use in dispensing situations where you want a quick count of the number of prescriptions and items issued in a day. However, it is also useful for getting a quick view of workload for a month or a year in store mode. This report gives the number of supplier invoices (or

prescriptions) and the number of stock lines on them, reported by user.

Choosing this menu item shows a window like this (once you have selected a date range).

User, Store and Transaction Type	No. of transactions	No. of transaction lines
▶ Adara		
▶ Adriano Hornai		
▶ Agosto		
▶ Ailok		
▶ Alex Bongers		
▼ Anartuto		
▼ Anartuto PS		
Supplier invoices	13	46
Supplier credits	21	89
Customer invoices	40	377
▶ Angelica Brito Ribeiro		
▶ Angelina Mariz		
▶ Atauró		
▶ Balibar		
▶ Becora		
▶ Beloi		
▶ Biqueli		
▶ Comoro		
▶ Dare		
Total	6810	44481

You can drop down to view data by clicking on the green arrows. Alternatively, you can click on the printer icon on the bottom right and export the full list to Excel.

Date range

You can either enter dates manually or choose from the drop-down list to the right of the date fields.

Time range

Enter times here in 24 hour format (e.g.. 9:00 in the “from” field and 17:00 in the “to” field. Leaving these fields on 00:00:00 will calculate for the whole day.

To calculate totals, click the *Show* button. If there are a lot of transactions to evaluate, a progress bar will be shown.

Click the *OK* button to close the window when you are finished.

Backorder report

This report shows the backorders that have been placed for items. Backorders are made when there is insufficient stock to meet the requirements of an order placed by the customer. Information about the item code, item name, current stock, customer code, the backordered quantity (number of units, not packs) and the date of the backorder is displayed.

If you are running a backorder system this gives you a quick way to check if backordered items are now in stock so they can be supplied to customers.

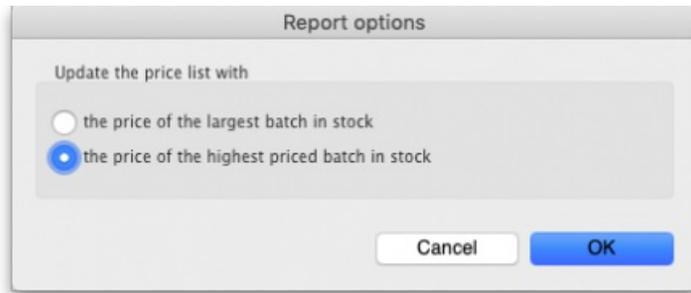
Suggest price list additions

Note: the price list menu items are for those organisations that produce a price list or price indicator. (It is useful to call your publication a “price indicator”, as it implies the published price is a guide, and not a fixed price). You are asked to specify the number of transactions and the number of months (e.g. 2 transactions in the last 3 months) that would make an item eligible for inclusion in the price list. A search is performed using the criteria you enter, and a list of items is shown that meet the criteria but are marked as not being in your price list. You can double-click on items in the list and click their “price list” check box to add them to the price list.

Update price list

This item updates the catalogue or price list prices of items with prices from their current stock lines. All items have separate catalogue prices in each store and they are displayed on the *Misc* tab of an item’s details window catalogue (see the [4.01.03. Items - Misc\(ellaneous\) tab](#) page for details).

When you click on the *Update price list* option, the report options window is shown, allowing you to check what price is used:



- **the price of the largest batch in stock** sets the price list (catalogue) price to the sell price of the batch with the largest number of units (pack size x number of packs) in stock.
- **the price of the highest priced batch in stock** sets the price list (catalogue) price to the sell price of the batch with the highest price (i.e. highest sell price/batch pack size value) of all current batches in stock.

Note that in both options, the *Catalogue pack size* is also set to the pack size of the batch that is used to set the catalogue price.

Only items whose *On price list* check box is checked are updated. If no items have this checked then mSupply will tell you so and the update won't run.

Note that if an item has no stock, then the price for that item will not be altered.

mSupply will show you the progress of the update and will also tell you when it is complete.

It is a good idea to run the "suggest price list additions" report before running this function.

Price list

Only items that are marked as included in the [price list](#) (**Item > Misc** tab) are placed in a report, whether or not you have any in stock.

If you wish to export to a text file, choose "save to disk" in the report options dialog that is shown.

The exported file has fields separated by tabs and records separated by returns. The field order is:

- Item
- pack size
- price.

If you wish to include different information, you can create a custom report to do this.

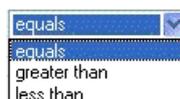
Location report

This report is available in version 1.96 and later.

This report lists the location description, type, capacity, used volume and percentage available. Choosing this menu item shows you the location report filter options window as below:



The report may be restricted to certain locations by using specific search criteria. Choose either "Code" or "Volume" from left drop-down list is . The centre drop-down list allows you to choose a comparator.



You have to make an appropriate entry on the right-hand field. Leaving the field blank means no filter will be applied.

Location type

It allows you to choose a location type. You can select the one from the drop-down list on the right side. The graphic of location type is shown below.



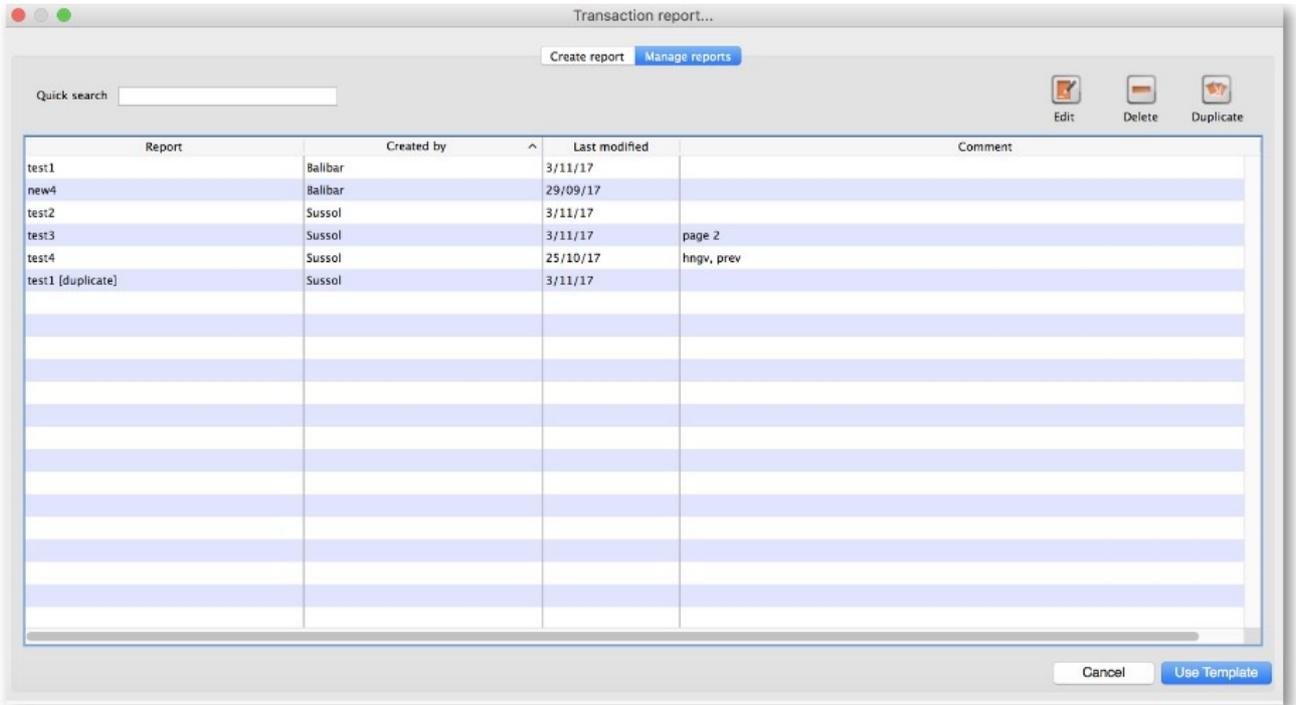
For example, you can specify the location type “COOL” to show only refrigerated locations.

Check the “open in Excel” checkbox if you wish to directly open the saved report in Excel (or any installed spreadsheet).

Click the OK button to run the report.

Manage reports

Choosing this item shows a list of built-in reports and any custom reports which have been designed:



The built-in reports may well be sufficient for your needs, but mSupply's versatility allows you to manage the reports to meet any specific requirements you have.

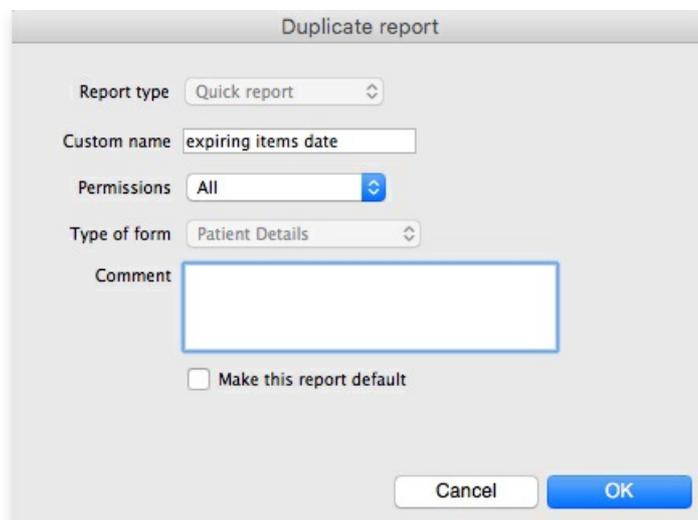
Options in the Report Management window:

Delete selected reports

Report(s) no longer required may be selected and deleted from mSupply

Duplicate report

Should one of the built-in reports not quite meet your needs, you have the opportunity to create a duplicate of that report, and then modify it to meet your needs. The first step is to select the closely matching in-built report; in our example we'll use the *expiring_items_date* report, then click on the *Duplicate report* button;

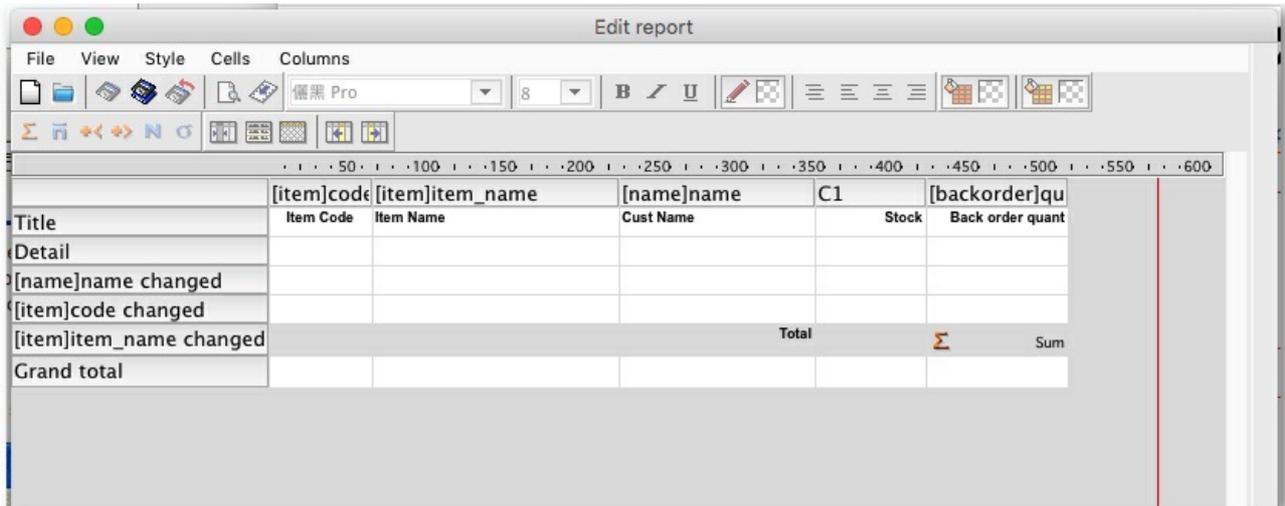


the window that appears has already selected a name for your report, using the name of the in-built report prefixed by “my_”; you may change this name should you wish. The Permissions drop down list allows you to specify users having access to your report; the options are *All users*, or *Only me*.

Should you wish your report to become the default one rather than the in-built report, then check the *Make default* checkbox. When you click on OK, the report you have just created now appears at the foot of the list of reports from the item on the menu Report>Manage reports.

Edit report

The editing of reports using the powerful editor has been extensively covered earlier in this section.

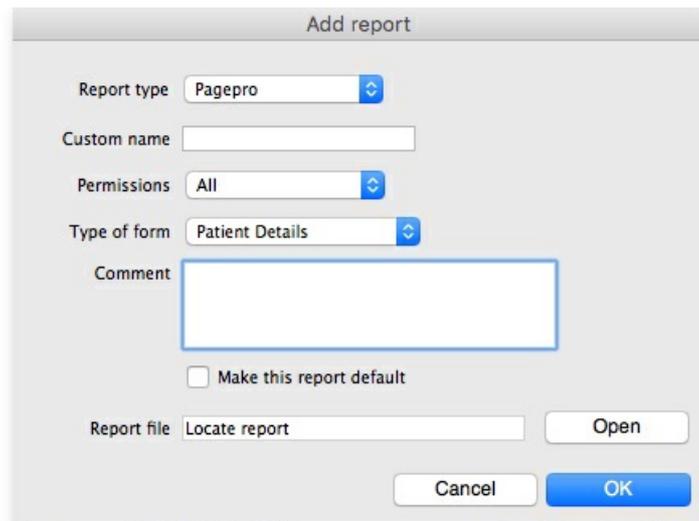


Using the report editor is complex, but it has the potential to produce a wealth of useful information. Contact Sustainable Solutions for a link to download a separate manual on the subject.

Note that in a multi-user installation, changes you make to a report will affect all users, so don't change a report without some forethought.

Add report

Click on this button, and the following window appears



The "Add report" dialog box contains the following fields and controls:

- Report type: Pagepro (dropdown)
- Custom name: (text input)
- Permissions: All (dropdown)
- Type of form: Patient Details (dropdown)
- Comment: (text area)
- Make this report default
- Report file: Locate report (text input) with an Open button
- Buttons: Cancel, OK

Revert selected reports

This button allows intrepid souls to save face by undoing the damage they have done to a particular report! The report that was installed with mSupply will be reloaded from the disk, and any changes you have made to the version stored with the data will be discarded.

Revert all

This button returns all in-built reports to their original state when you installed mSupply; exercise caution when using it. Custom reports which you have designed are not affected.

Save selected reports

All reports are automatically saved by mSupply in the default folder. There may be occasions when you wish to save one or more reports on a removable storage medium - e.g. a pen drive - and this button allows you to do this; a window appears allowing you to specify the location in which you wish to save the selected reports.

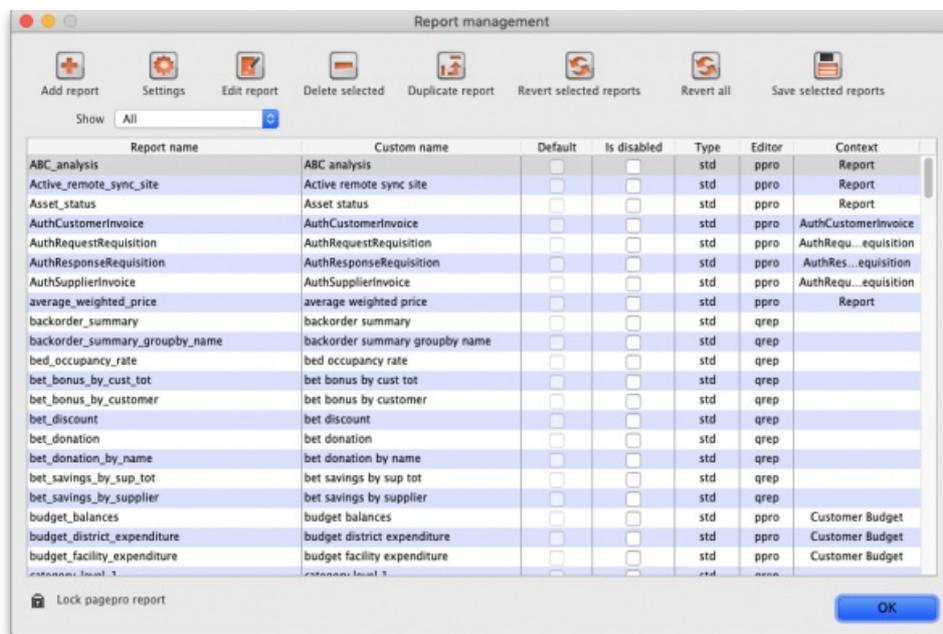
Previous: [13.08. ATC and DDD code based reports](#) | Next: [13.10. Manage reports](#)



13.10. Manage reports



Choosing this item shows a list of built-in reports and any custom reports which have been added to your system:



The built-in reports may well be sufficient for your needs, but mSupply's versatility allows you to add and manage custom reports to meet any specific requirements you have.

Options in the Report Management window:

Delete selected reports

Report(s) no longer required may be selected and deleted from mSupply. This only applies to custom reports (*cus* in the *Type* column); standard reports (*std* in the *Type* column) cannot be deleted.

Disable reports

You can disable reports that you no longer wish users to be able to select when printing. Do this by checking the checkbox in the report's *Is disabled* cell. This applies to *ppro* type reports only (see the *Editor* column); *qrep* type reports cannot be disabled.

Duplicate report

Should one of the built-in reports not quite meet your needs, you have the opportunity to create a duplicate of that report, and then modify it to meet

your needs. The first step is to select the closely matching in-built report; in our example we'll use the *expiring_items_date* report, then click on the *Duplicate report* button;

Duplicate report

Report type: Quick report

Custom name: expiring items date

Permissions: All

Type of form: Patient Details

Comment: [Empty text area]

Make this report default

Cancel OK

the window that appears has already selected a name for your report, using the name of the in-built report prefixed by "my_"; you may change this name should you wish. The Permissions drop down list allows you to specify users having access to your report; the options are *All users*, or *Only me*. Should you wish your report to become the default one rather than the in-built report, then check the *Make default* checkbox. When you click on OK, the report you have just created now appears at the foot of the list of reports from the item on the menu Report>Manage reports.

Edit report

The editing of reports using the powerful editor has been extensively covered earlier in this section.

Edit report

File View Style Cells Columns

Item Code Item Name Cust Name Stock Back order quant

Title	[item]code	[item]item_name	[name]name	C1	[backorder]qu
Detail					
[name]name changed					
[item]code changed					
[item]item_name changed				Total	Σ Sum
Grand total					

Using the report editor is complex, but it has the potential to produce a wealth of useful information. Contact Sustainable Solutions for a link to download a separate manual on the subject.

Note that in a multi-user installation, changes you make to a report will affect all users, so don't change a report without some forethought.

Add report

Click on this button, and the following window appears:

Report type: Select the type of report you are going to add; PagePro if it was created using the PagePro editor, Quick Report if it was created using the Quick Report editor (shown in the **Edit report** section above) or PPro Multiple if you want to select 2 or more previously created PagePro reports to be printed out at the same time.

Custom name: Enter the name the report will have in the system. Users will select this from the appropriate list to run the custom report.

Permissions: Defines who has permission to edit this report, you only or everyone who has the *Edit reports* permission ("All"). Normally you would set this to "All".

Type of form: This defines where your report will appear in the system i.e. its context in the report manager list (Note: this only applies to PagePro reports, not Quick reports - Quick reports do not have a type). For example, if you select "Pick list" then the custom report will be available when a printing a suggested status customer invoice, if you pick "Supplier invoice" it will be available when printing a supplier invoice. If your custom report should be available as a normal report and not for some specific purpose in the system then select "Report" here.

Comment: Enter anything here that you want to remember about the report or to help you recognise it in the future. The comment will only appear in this window, when you open it to edit the settings of the report in the future.

Make this report default: Check this box if you want your report to be the default one of this type for all users of the system. You would check this if, for example, you were adding a new supplier invoice printout that everyone should use.

Report file: This is the actual file containing the report. Locate it on your computer using the *Open* button.

Revert selected reports

This button allows intrepid souls to save face by undoing the damage they have done to a particular report! The report that was installed with mSupply will be reloaded from the disk, and any changes you have made to the version stored with the data will be discarded.

Revert all

This button returns all in-built reports to their original state when you installed mSupply; exercise caution when using it. Custom reports which you have designed are not affected.

Save selected reports

All reports are automatically saved by mSupply in the default folder. There may be occasions when you wish to save one or more reports on a removable storage medium - e.g. a pen drive - and this button allows you to do this; a window appears allowing you to specify the location in which you wish to save the selected reports.

Previous: [13.09. Other reports](#) || Next: [13.11. Saving report templates](#)

Last modified: 2021/08/24 07:56 by Gary Willetts

13.11. Saving report templates

Report templates are pre-set values for the filters used to create particular reports. They are a great way of assembling a set of frequently run reports and making sure they are generated with the correct settings.

Creating templates

To create a template, simply choose a report to run by clicking on its option in the Navigator or menu, choose all the filter settings that are to be part of the template then click on the **Save Template** button on the bottom of the report's filter window. Here's the current stock report's filter window showing the button:

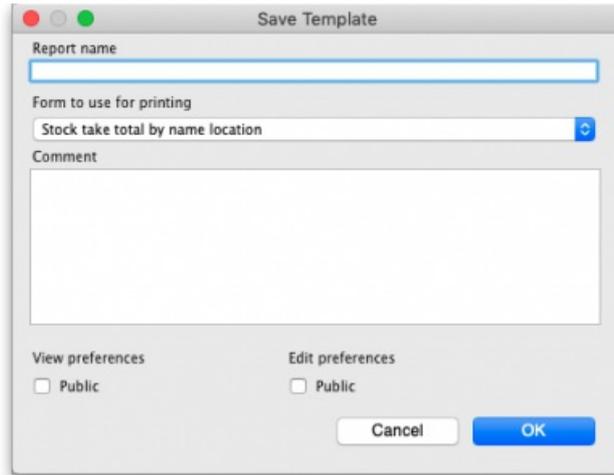
You can choose settings for any of the drop down lists, checkboxes or radio buttons or enter any text in any of the text fields, in fact any of the elements that make up the filter - all will be remembered in the template. Below is an example for the current stock report which is set to report on all items with a name beginning with 'a' in the category 1 of 'Antibiotics', showing the Total stock for each item and which will be opened in Excel:

Important

If you are in supervisor mode, you can select which stores the report is run over. The stores you include in the report are also saved with the template. The first store in the list is selected by default so that at least one store is always selected so, if you forget to select the correct stores you wish a report template to be run over, you might get a shock when you run it outside supervisor mode - the report might be run over a different store!

If you want the report to be run over the currently logged-in store only then don't create it in supervisor mode, create it while

When you click on the **Save Template** button, a window opens for you to enter the template's details:



The 'Save Template' dialog box contains the following fields and options:

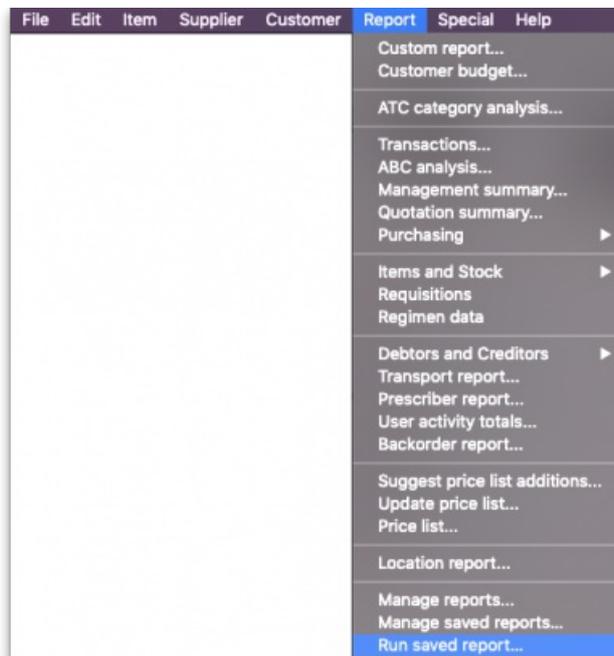
- Report name:** A text input field.
- Form to use for printing:** A dropdown menu with 'Stock take total by name location' selected.
- Comment:** A large text area for entering notes.
- View preferences:** A checkbox labeled 'Public'.
- Edit preferences:** A checkbox labeled 'Public'.
- Buttons:** 'Cancel' and 'OK' buttons at the bottom right.

- **Report name:** Enter the name the template will have in mSupply. Make it meaningful so that you know what report you're running when you select it. e.g. "Monthly stock report"
- **Form to use for printing:** Select which of the report printout forms you want to use for this template. If you have had a custom report made for you, it will probably appear in this list. If you haven't there will only be one item in this list.
- **Comment:** Enter anything you want to remember about the template for you and others to see. You could enter the purpose of the report or the reason the template was created.
- **View preferences:** Check the *Public* checkbox if you want all users to be able to see the template in the list and therefore run it. If you leave it unchecked then this template will only be visible, and therefore runnable, by you.
- **Edit preferences:** Check the *Public* checkbox if you want all users to be able to edit the template, leave it unchecked if only you should be able to edit it. Please note that you can only edit the details on this window for a template, not the actual filter settings made on the previous screen. If you want to edit those, just delete the template and re-create it with the changed filter settings.

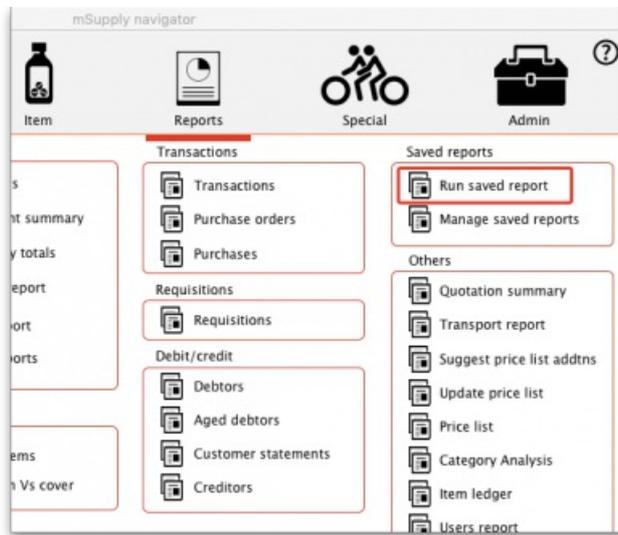
When you're finished, click on the **OK** button to save the template.

Running templates

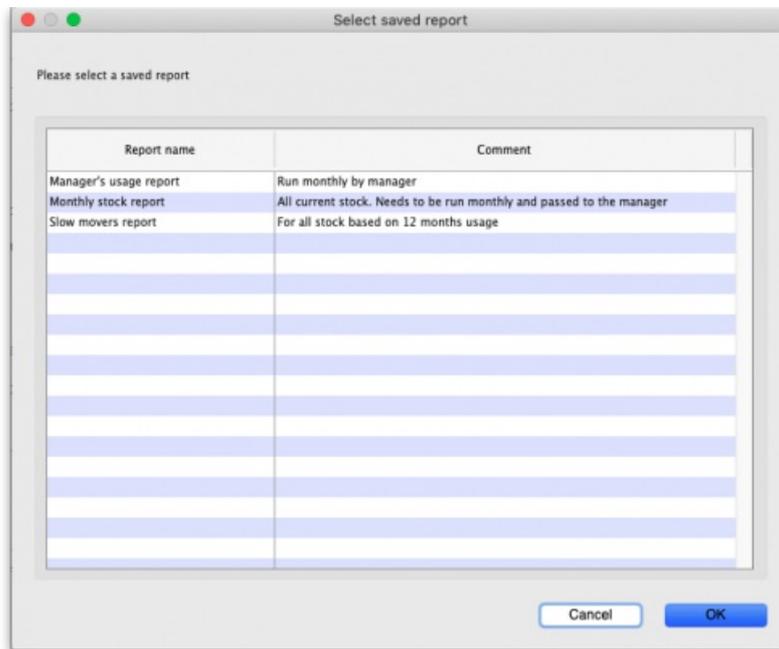
To run the templates you have created, choose **Report > Run saved report...** in the menus:



or click on the *Run saved report* item on the *Reports* tab of the Navigator:

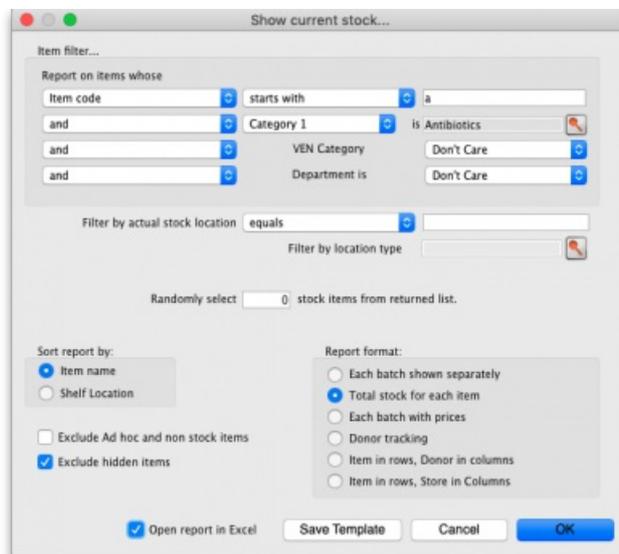


Either way, a window is displayed containing all the names of the report templates that have been created and that you are allowed to run (either you created or others created with the *Public* viewing preference checked):



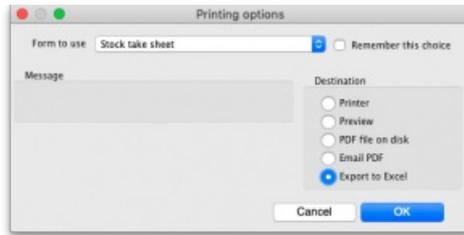
Note that the report templates are displayed in alphabetical order of name so, if you want them to appear in a particular order in this window, put a number at the beginning of all your template names.

To run a report template, simply double-click on it and the report filter window will appear with the settings you selected when you created the report template. In this example, selecting the "Monthly stock report" template, created in the Creating templates section above, opens the report filter window like this:



Note that the filter settings are exactly the same as saved in the template. You can still manually change the filter settings in this window if you wish.

Clicking on the **OK** button will run the report as usual and bring up the print options window:

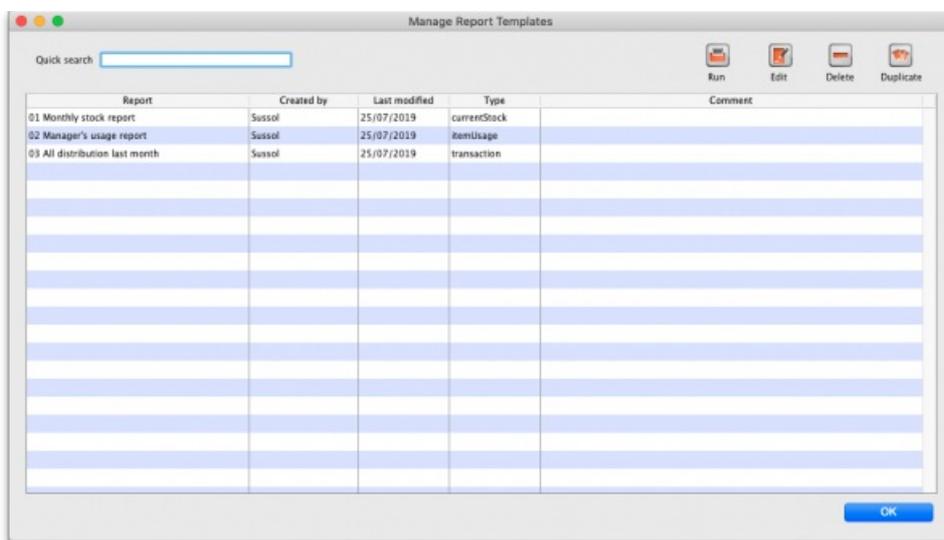


The **Form to use** drop down list will be set to the form you selected in the **Form to use for printing** drop down list when you saved the template. Again, you are free to manually change any of the settings in this window if you want to. To finally print out the report, click on the **OK** button.

In this way, you can see that to run any particular report template takes only 3 mouse clicks, no typing and no thinking. That's very helpful if you have to run the same set of reports every month for example!

Editing and deleting templates

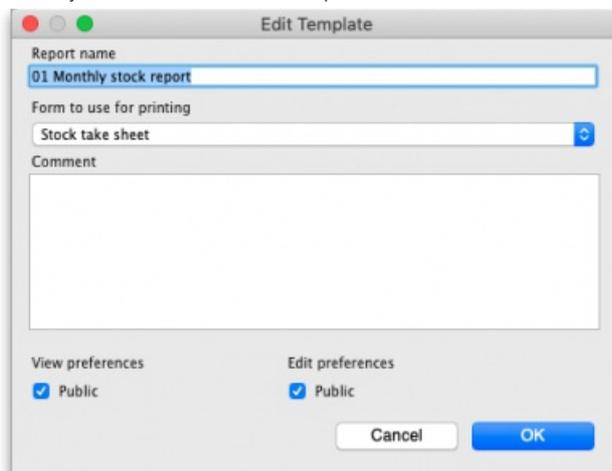
To edit or delete report templates, choose **Reports > Manage report templates...** in the menus or click on **Manage saved reports** on the *Reports* tab of the Navigator to open this window:



The table contains a list of all the report templates that have been created in the system.

The **Quick search** text field allows you to filter which templates are displayed: only templates with names containing the text you type in here are displayed in the list. Handy for finding a particular template if there are a lot in the list.

- **Delete** button: to delete a template, click on it in the list to select it then click on the **Delete** button to delete it. After you confirm the deletion the template will be removed.
- **Run** button: select a template from the list then click on this button to run it (same as selecting *Report > Run report templates...* from the menu and selecting the template there).
- **Duplicate** button: you can duplicate a template by selecting it in the list and clicking on this button. The duplicate is added to the end of the list and has the same name as the template you selected but with "[duplicate]" added to the end.
- **Edit** button: To edit a report template either select it in the list and click on this button or double-click on it in the list. When you do so, the template's details window is displayed and you can edit the details as required:



Note that these are the only details you can edit for a template; you cannot edit the template's filter settings. If you want to do that, delete the template and re-create it with the new filter settings.

Previous: [13.10. Manage reports](#) | | Next: [13.12. Custom reports](#)

All Good

Draft

Needs Checking

Needs Revision

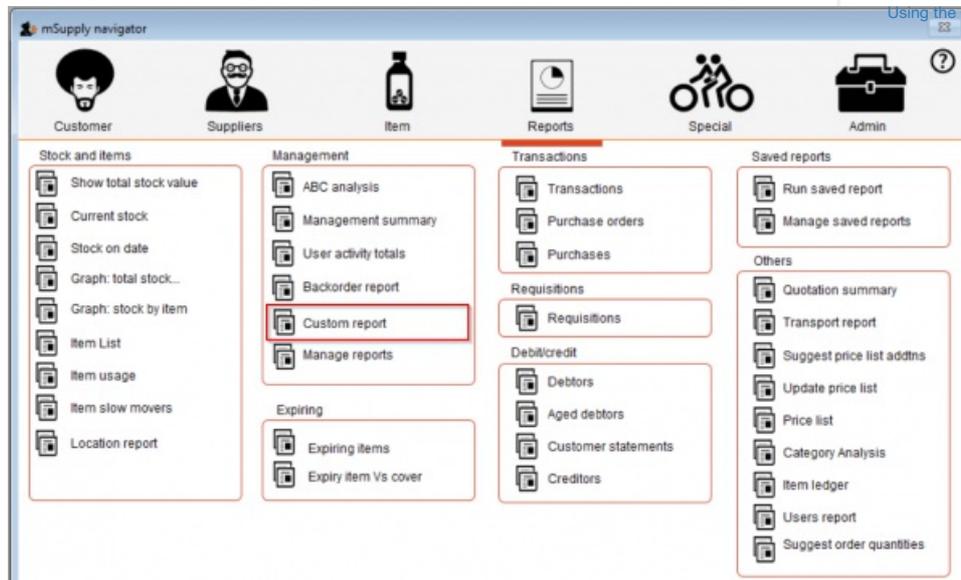
Last modified: 2022/02/15 12:55 by Gary Willetts



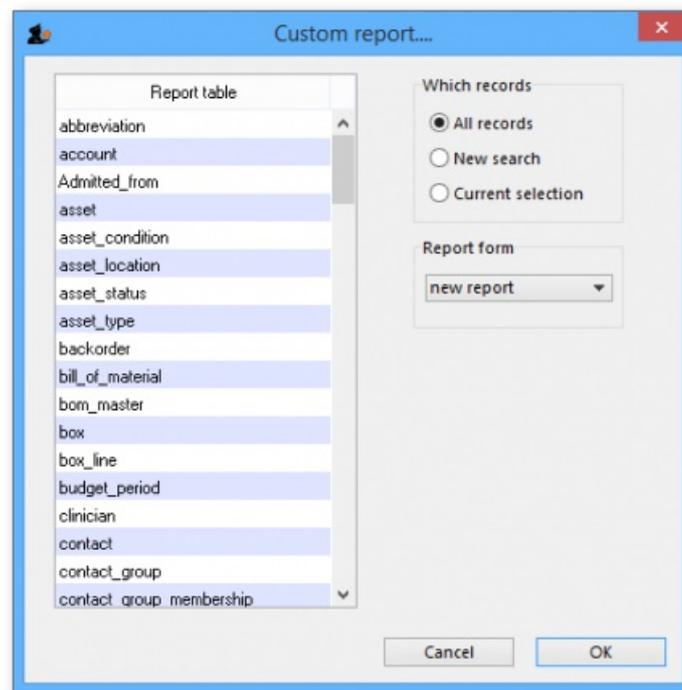
mSupply documentation wiki



13.12. Custom reports



Choosing this item brings up a window for creating a custom report:



The custom report window is displayed allowing you to create a report according to your own requirements using the Quick Report editor; once created you may save the form of the report in the *custom reports* folder for future use.

The window requires you to make three choices:

Report table

A list of tables on the left to choose which table (which type of records) you want to report on, e.g. Names, Items, etc.

As of version 1.6 there are two options for transaction lines. The "Transaction lines (Transaction query)" option allows you to search much faster on a large number of transaction lines. For example, if you are wanting to get the quantity of each item given to customers in a specific month, you would use this option.

Which records

A series of radio buttons to choose which records to examine

- All records
- New search (query), if you want to report on records meeting specific criteria. If chosen, you will be presented with the Query (search) editor,

where you can build search statements to your heart's content! A short description of using the query editor is given below, and two example searches are later described. For a more comprehensive description, a range of books is available either in electronic or hard copy versions. Please email info@mSupply.org.nz for more information.

- The “Current selection” is the group of records that were last displayed. For example, you can use the Item | View or edit item command quickly to find all items starting with “a”. When you click the OK button, the items in the list are the “current selection”. If you are not sure which records represent the current selection, you should click the “new search” radio button.

Report form

A drop down list displaying available options:

- New report
 - After clicking the OK button you will be presented with the report editor where you can design a report. The report editor is somewhat complex, but time spent in learning how to use it is time well spent. It is a powerful and invaluable feature. A brief introduction together with designing two simple reports are given in *Designing a Report* below, and more details are available in training courses on using mSupply, and in publications available from Sustainable Solutions.
 - If you want to save a report or search (query), you can save them on your hard disk, and retrieve them next time you run the report.
 - If you save the report you have created in the Custom reports folder it will show up in the report form drop-down menu on future occasions when you choose custom report.
 - The default location for saving your custom reports is My Documents\mSupply\custom reports; it is important to note here that any custom reports you have created *should not* be saved in the My Documents\mSupply\Reports folder, otherwise problems may arise.
- New label layout
 - Presents you with the label editor, where you can design and save label layouts. These are useful for use with names for addressing envelopes, and with Items for making tags for labeling shelves in your warehouse.
 - If you choose this option the “Order by” window will appear after a query. This allows you to sort the records into a particular order before printing labels. (In a nutshell: Drag fields from the list on the left to the list on the right to use them for sorting)
- Other items in the menu
 - If you have saved any reports in the custom reports folder they will be listed here.

A list of the fields in each table, and what each field contains is given in section 24. [Data Tables and Fields](#).

Using previously saved layout

Any report layouts which you have used previously, and saved, may be accessed by clicking on *File >Open* on the menu bar, and selecting the required layout.

Using the Query search editor

There are now many reports included in mSupply®, but there may still be occasions when you require a report that we have not included. The query editor is a bit daunting, but is very powerful and once you are familiar with its capabilities, your competence to access the precise information you may require from within the mSupply database will increase significantly.



When you open the Custom Report editor, it is ready to take input values for a simple single line query.

1. **The field to query.** Choose this by clicking on the Find drop-down list which allows you to also choose fields from related tables. If you want to perform related queries, see note below.
2. **The Comparator.** Choose the comparator from the list of fields by using the middle drop-down list.
3. **The Query value.** Is entered in the third box. In the example above, the field chosen is an alphanumeric field (the item ID), so an entry area is displayed where you can enter text or a numeric value - in this instance the item code “amox” has been entered. Note that you can also use the “@” symbol as a wildcard in your query value to perform “contains” queries.
4. **The Conjunction.** This does not apply to the first line of a query, but the second and any further lines need to start with a conjunction. Set the conjunction for the selected line by clicking the appropriate button in the left area of window (*And, Or or Except*)

To add lines to a query, click the *Add Line* button.

Tip

Related queries: If you want to perform related queries, you need to know a little about the internal structure of mSupply data. Please contact us if you would like a diagram of the table layouts. A simple example of a related table is that each transaction line is related to a transaction (many to one relationship). This means that you can use the information stored in the transactions table (eg invoice date, number, status, etc.) to query transaction lines.

If you have created a complex query that you might wish to use on future occasions, you can save it to your hard disk and select it again using the *Save* and *Load* buttons in the window.

Once your completed query is entered, click the *Query* button to proceed.

For more detailed information on the Query search editor see: <http://doc.4d.com/4Dv16R6/4D/16-R6/Query-editor.300-3561635.en.html>

Designing a report

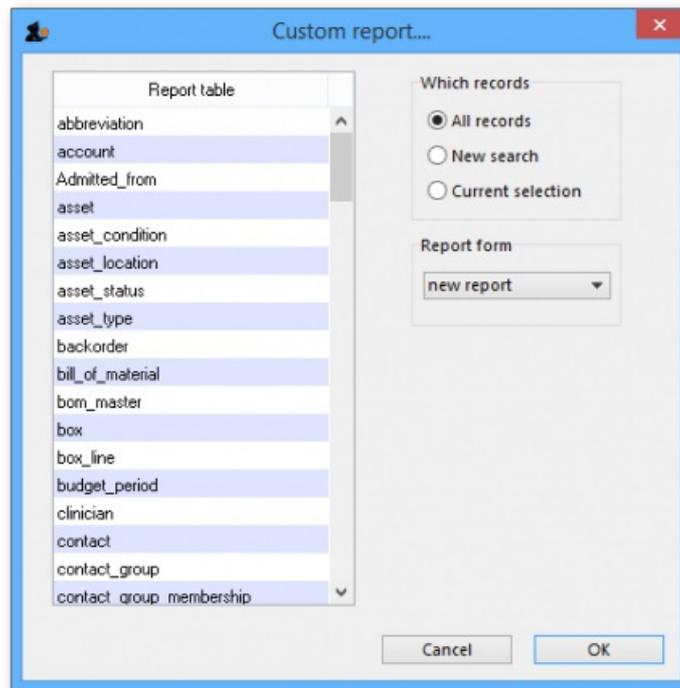
The designing of two custom report is now described:

1. listing in alphabetical order the small number of items which may be supplied to staff or customers who wish to make a purchase without a prescription. These items have already been identified by making use of their User field 2, which contains the entry "Retail permitted".
2. listing the sources (suppliers) and the distribution (customers) of a particular batch number of an item - useful if a manufacturer recalls a particular batch of an item.

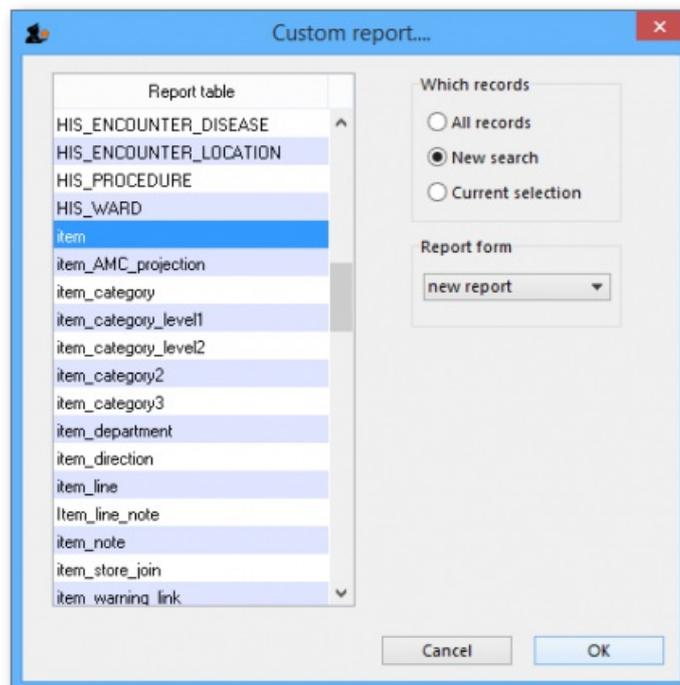
It is recommended that you study both examples, as features described in the first example will not be repeated in the second.

Report 1

Having selected Custom Report from the Reports page in the Navigator, you are presented with this window:



For our example report, we select the *Items* table, and to perform a *New Search*, using a *new report* form, so with these options selected, the window now looks like this:

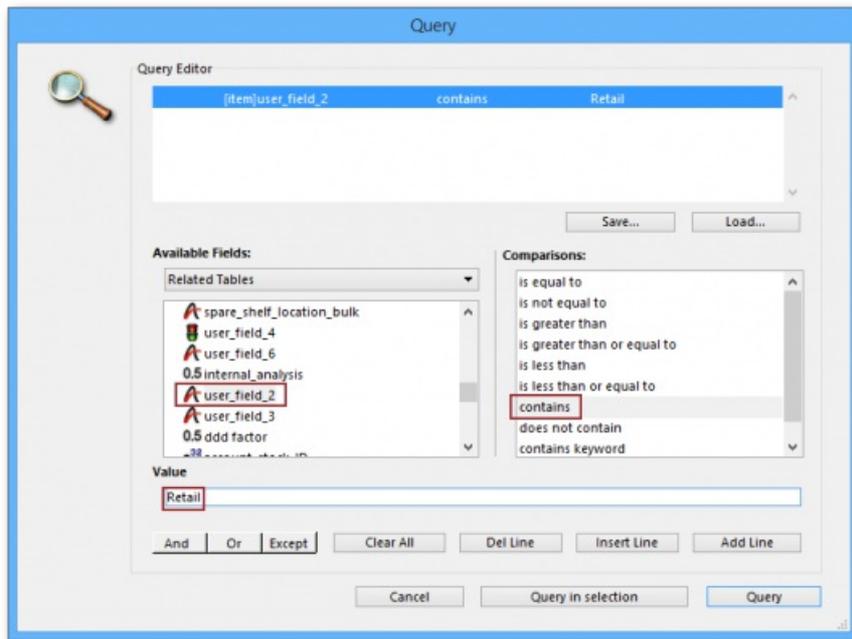


Click OK, and the Query Editor window appears, as shown in the upper figure below; this is where you specify the criteria on which you wish to create your report - in our simple example, the single criterion is that there should be stock on hand of the item. In the lower window, we have specified this by:

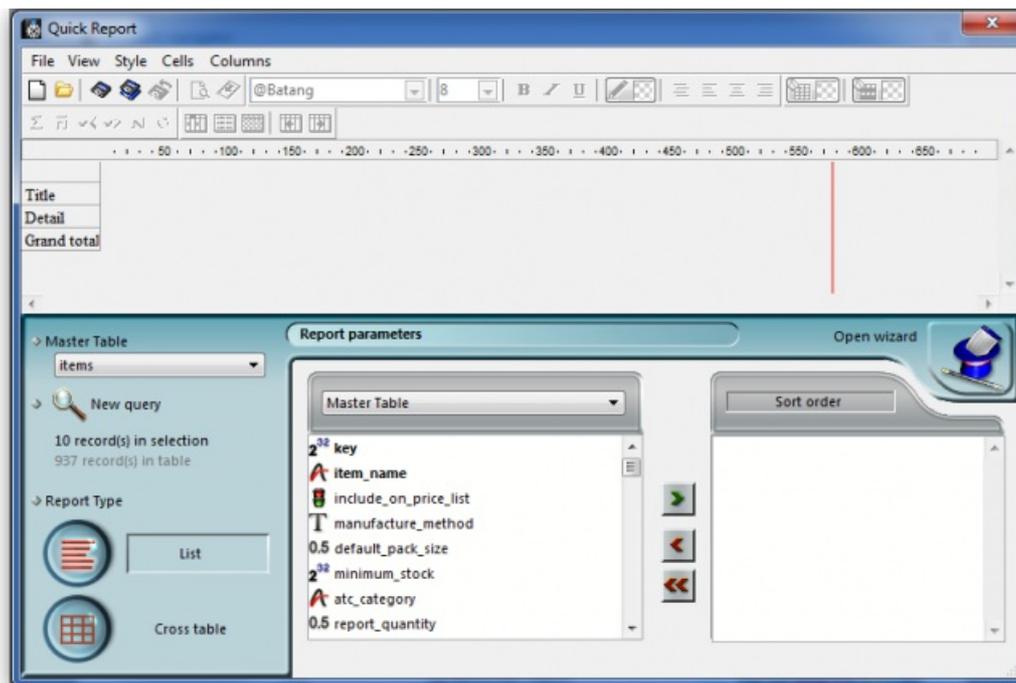
1. clicking on *user_field_2* in the *Available Fields* panel on the left,
2. clicking on *contains* in the *Comparisons* panel on the right, and
3. entering "Retail" in the *Value* panel below.

You will see that the conditions we specified now appear in the upper panel - it's always a good idea to check here to confirm that the report will conform to your specified criteria.

Now click on the Query button in the lower right corner.



The Quick Report window appears; this is where you can design the layout of the report, and specify how you want the records to be sorted:



We'll start by taking a closer look at the Quick Report features.

Tip

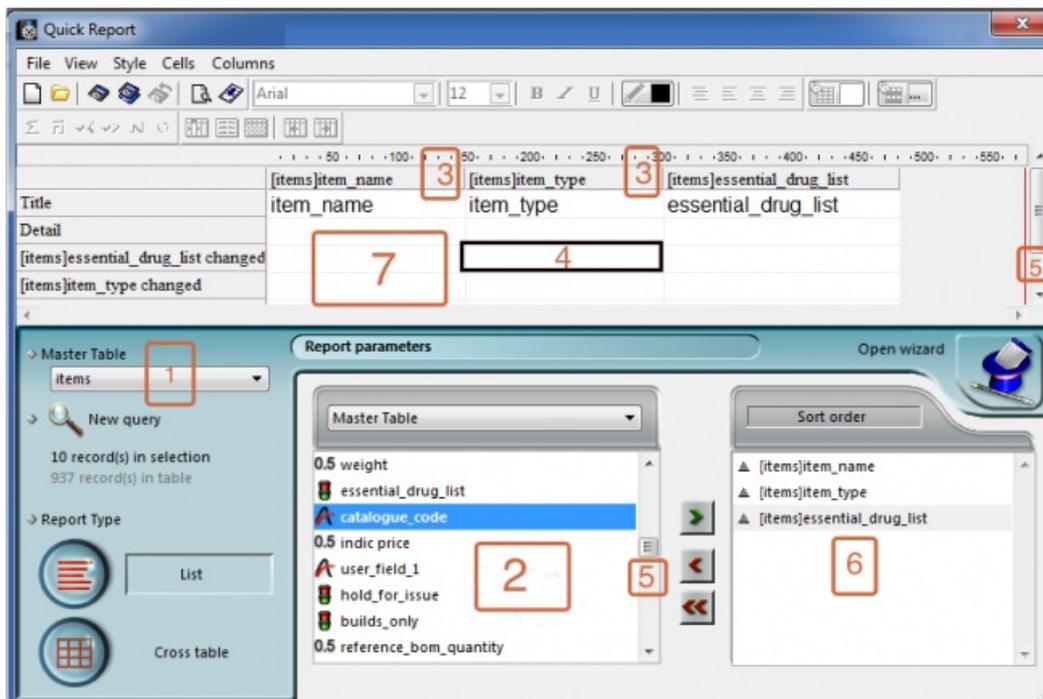
There are two operation modes available which generate two specific types of reports: *List* and *Cross table*. Our examples are limited to the *List* mode. The *Cross table* mode will not be described.

In the List mode, reports typically display records as a list with break rows where calculations are performed.

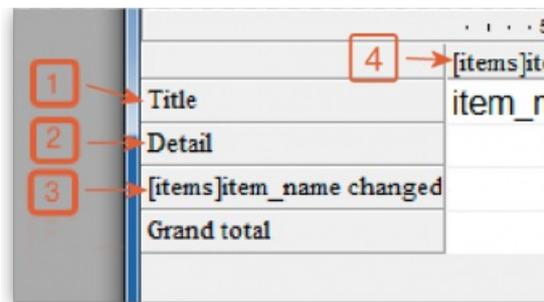
When you create a quick report, you can specify the following:

- Columns that display fields or formulas, either from the current table or from related tables.
- Sort levels and order.
- Summary calculations.
- Display format.
- Text for labels.
- Formats for numeric and Boolean data.
- Font, font size, style, and justification for labels, summary calculations, and data.
- Background colours on a cell column or row basis.

- Borders, Page headers and footers.
- Presentation style from a wide range of templates.



1. **Master Table:** This is the master table that will be used as a basis for generating the report. The fields of this table are displayed in the Fields list and the related fields will be displayed in relation to this table.
2. **Fields list:** This list lets you select the fields to be inserted into the report by double-clicking or by drag and drop. You choose the type of display in the Field selection list located just above the area. Indexed fields appear in bold. You can also display and select the fields of related tables.
3. **Column dividers:** These lines show the boundaries between columns of the report. They can be moved manually to enlarge or reduce the size of each column. Manual resizing deselects the Automatic Width option if it has been activated for the column concerned.
4. **Cells:** A cell is the intersection of a row and a column.
5. **Scroll bars:** You use the scroll bars to view parts of the quick report design that extend beyond the area of the quick report form.
6. **Sort list/Sort order display area:** This list displays the fields of the report on which the sort will be carried out, as well as the sort order and whether it will be ascending or descending. Each field inserted into this list causes a sub-total row to be added in the Quick Report area.
7. **Quick Report area:** This area lets you build your report by inserting fields using drag and drop, double-clicking or via the contextual menu; you can also adjust the width of the columns added, or delete breaks or formulas, define the colors and borders of cells, etc.



1. **Title row:** This row displays the names of fields or formulas that have been inserted into the report. It is repeated for each page of the report. The Quick Report editor inserts field names by default, but you can modify the contents.
2. **Detail row:** This row contains information drawn from each record and is repeated in the report for each record. You can associate a display format with it, depending on the type of data represented.
3. **Subtotal rows:** These rows display intermediate calculations as well as the wording that is associated with them. A row is created for each sort order.
4. **Column data sources:** These titles indicate the source of the data for each column.

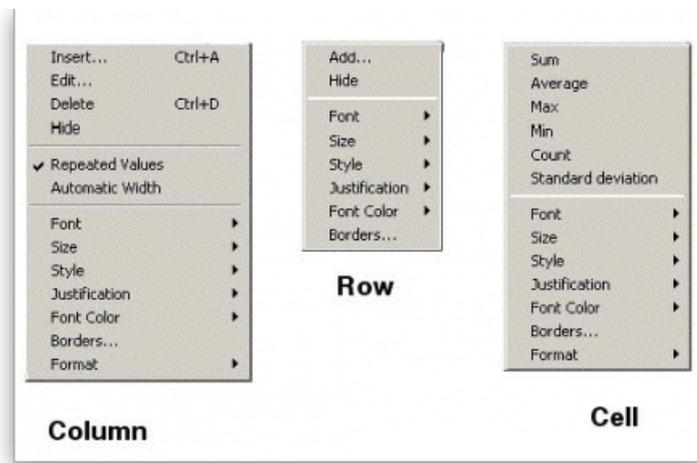
Contextual menus

The Quick Report editor has contextual menus that make it easy to access certain row, column, and cell operations. Instead of making menu selections or working with the Cell or Column properties areas, you can perform certain operations by displaying a Quick Report contextual menu.

There are separate contextual menus for row, column, and cell operations.

To use a contextual menu:

1. Position the pointer in a cell, a row title, or a column heading and hold down the right mouse button (on Windows) or press the Control key while clicking in the report area (MacOS).
A contextual menu appears. The commands in the contextual menu depend on where your pointer is (i.e., a row label, column heading, or cell). Also, menu commands that are inappropriate for the particular row, column, or cell are disabled..
2. Choose the desired menu command:



Selecting rows, columns, and cells

When designing a Quick Report, you need to select rows, columns, and cells in the quick report form. A cell is the intersection of a row and a column.

- To select a row: - Click on the Title, Detail, Subtotal, or Grand total cells in the row label area.
- To select a column: - Click the Header row of a column.
- To select a cell: - Click the cell.

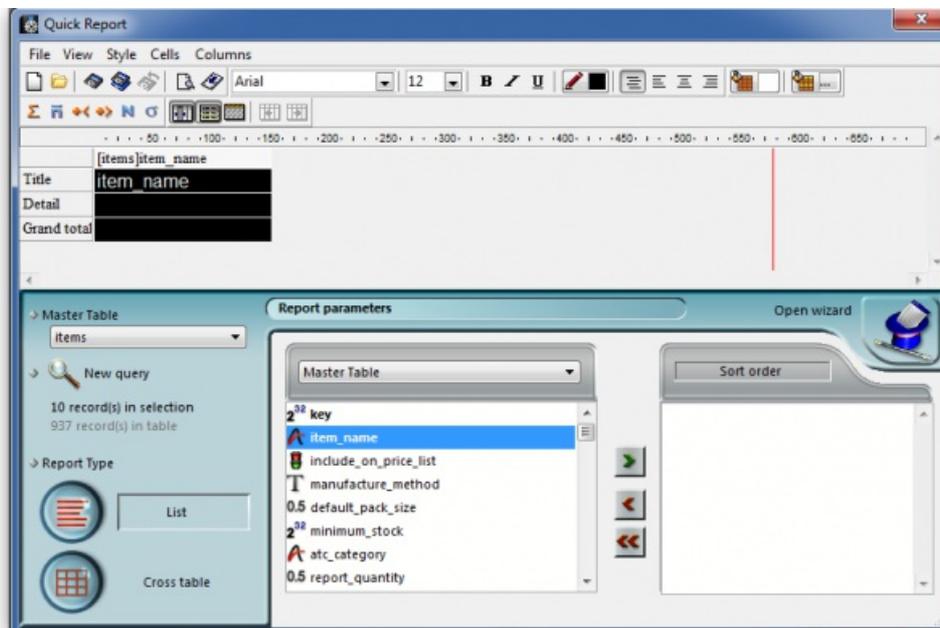
Adding and modifying text

You can add or modify text in the quick report form to label parts of the report. For example, if you requested summary calculations, you can label them by adding text to other cells in the Subtotal and Grand total rows.

You can add and modify text as follows:

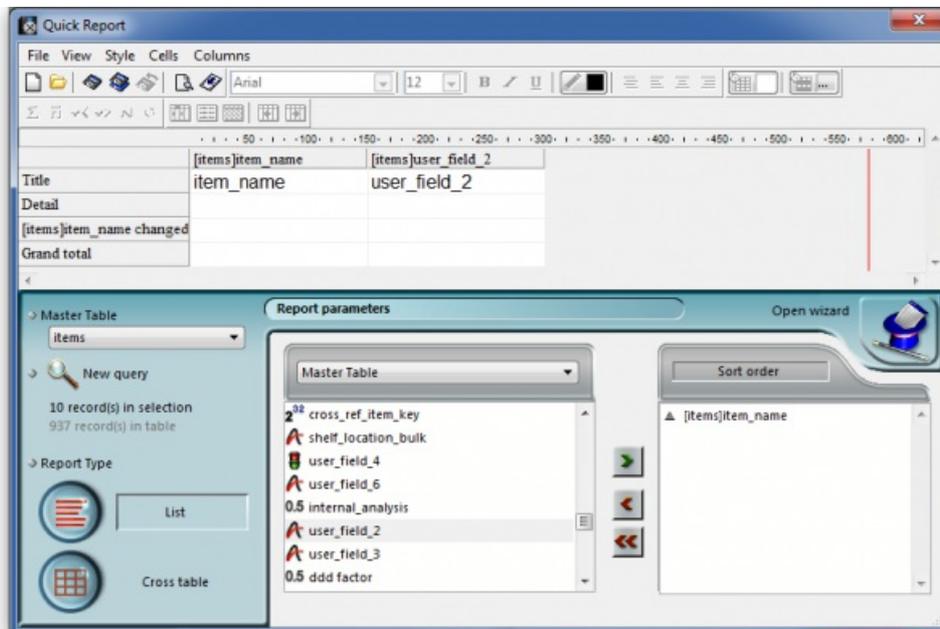
- Edit the text that automatically appears in the Title row of the report,
- Insert text in empty cells of the Subtotal and Totals rows,
- Insert the value of a Subtotal field in the Subtotal rows,
- Specify the font, font size, justification, and style for any text that appears in the report.

Returning now to our first report, we want two columns only, the first listing the items in alphabetical order, and the second confirming the entry in User field 2. This is achieved by double clicking on *item name* in the list, and then to have the list sorted alphabetically, make *sure item name* remains highlighted, and click on the green arrow in the centre:



The second column in our report will show the present stock of each item, and the same procedure is followed; select the *user_field_2* entry in the list, and double-click on it. You should be aware that items which are presently out of stock will not appear in the report.

The Quick Report window should now look like this:



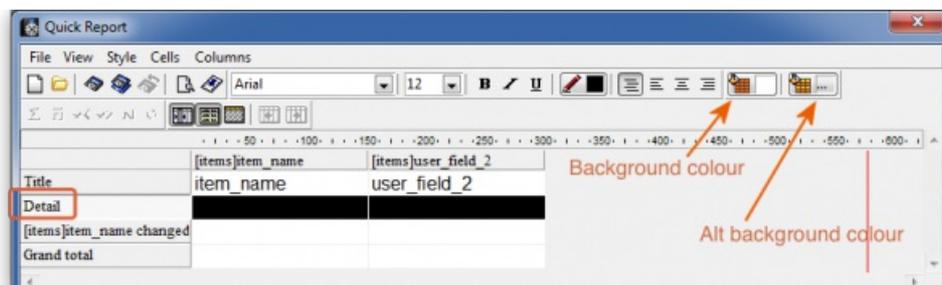
The column widths can be adjusted as appropriate by positioning the cursor on the dividing line between the column headings, clicking and dragging to the left or right until the desired column width is obtained:

The vertical red line to the right of the columns indicates the right hand edge of the page as it will be printed, so to keep the report to single page width, columns should be positioned to the left of this line.

To preview on screen the report as it will be printed, click on *File* on the menu bar, and select *Print Preview*. Our example is very brief, but in reality, reports may run to two or more pages, and you can scroll through the pages of the report. This shows how our simple report will appear:

item name	user field 2
Aspirin 100mg tab	Retail permitted
Aspirin 300mg tab	Retail permitted
Calamine 15% lotion (mL)	Retail permitted
Gentian Violet 0.5% solution (mL)	Retail permitted
Ibuprofen 200mg tab	Retail permitted
Magnesium Trisilicate Compound tab	Retail permitted
Multivitamin tab	Retail permitted
Paracetamol 500mg tab	Retail permitted
Paracetamol Elixir 120mg/5ml (mls)	Retail permitted
Vitamin B complex tab	Retail permitted

The printed report may benefit from shading or colouring of alternate rows, and this is achieved while the report format is being set. In the *Quick Report* editor, click on *Detail* to highlight the row, then click on the *Alt.background colour* icon, and a chart appears from which you can select the colour(s) of your choice.



For our report, pale yellow has been selected for the alternate row colour, and the report now has this appearance:

item name	user field 2
Aspirin 100mg tab	Retail permitted
Aspirin 300mg tab	Retail permitted
Calamine 15% lotion (mL)	Retail permitted
Gentian Violet 0.5% solution (mL)	Retail permitted
Ibuprofen 200mg tab	Retail permitted
Magnesium Trisilicate Compound tab	Retail permitted
Multivitamin tab	Retail permitted
Paracetamol 500mg tab	Retail permitted
Paracetamol Elxir 120mg/5ml (mls)	Retail permitted
Vitamin B complex tab	Retail permitted

Adding report title

You may want to give your report a title to appear at the head of each page; this is achieved by clicking on *File*, then *Header and Footer*; a window appears in which you can create and/or edit such a header. You will most probably want the header to appear in the centre of the line, and in this case, type your entry into the *Center* panel in the *Text Settings* area; here you can also select the font of your choice, and features such as bold, underlined, etc.; these apply only to the header, not to the body of the report. A title has been added to our example:

Example Report no.1

item name	user field 2
Aspirin 100mg tab	Retail permitted
Aspirin 300mg tab	Retail permitted
Calamine 15% lotion (mL)	Retail permitted
Gentian Violet 0.5% solution (mL)	Retail permitted
Ibuprofen 200mg tab	Retail permitted
Magnesium Trisilicate Compound tab	Retail permitted
Multivitamin tab	Retail permitted
Paracetamol 500mg tab	Retail permitted
Paracetamol Elxir 120mg/5ml (mls)	Retail permitted
Vitamin B complex tab	Retail permitted

To print the report, click on *File* on the menu bar, and select *Generate* and - provided that your printer is connected, online and loaded with paper - your report will be printed.

Report 2

The second report lists the sources (suppliers) and the distribution (customers) of a particular batch number of an item - useful if a manufacturer recalls a particular batch. The item chosen for our example is Metoclopramide 10mg tablets, the code for which is Metclp10, and the batch no. is BN1234

Having displayed the custom report window, this report requires us to select the *trans_lines* table, and to perform a New Search, using a new report form:

Custom report....

Report table

- repeat_table
- report
- Reports_By_User
- ship_method
- Stock_take
- Stock_take_lines
- store
- sync_out
- Tender_condition_category
- tender_conditions
- tender_lines
- tenders
- trans_lines**
- trans_notes
- Transaction lines (Transaction query)
- transaction_category
- transactions
- Translations
- units
- user_stores

Which records

All records

New search

Current selection

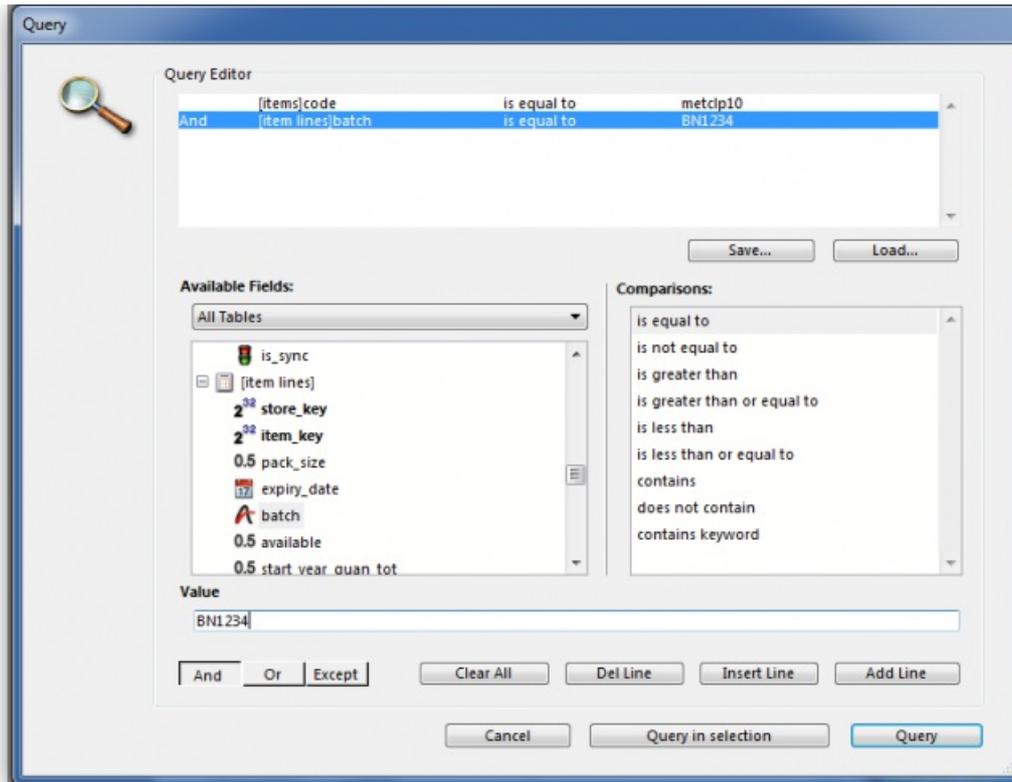
Report form

new report

Cancel OK

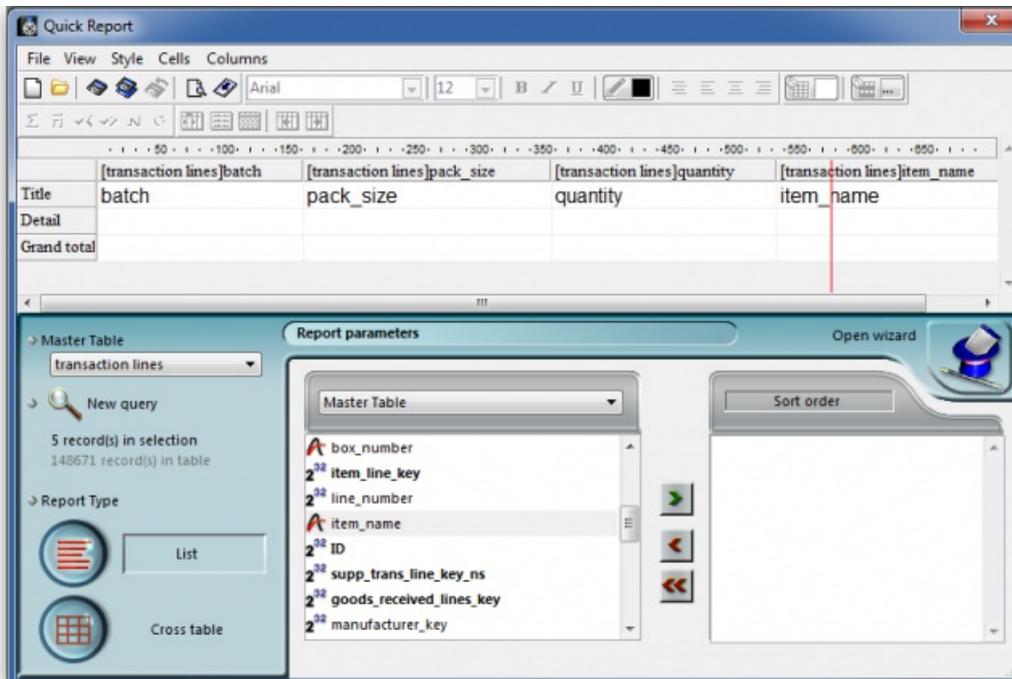
When the Query Editor window appears, expand the [Items] table, and once expanded, move down the list until *code* appears, and select it by clicking

on it; the upper panel now shows `[items]code`, the default comparator is `is equal to`, and so to complete the line, move the cursor to the `Value` entry panel in the lower part of the window and enter `'metclp10'`. Click on `Add Line` and accept the default conjunction `And`; In the `Available Fields` panel, shrink the `[Items]` table, expand the `[item_lines]` table and select `batch`, accept the `is equal to` comparator, and enter `'BN1234'` in the `Value` entry panel. You have now defined the criteria for the report, and the Query Editor window should look like this:

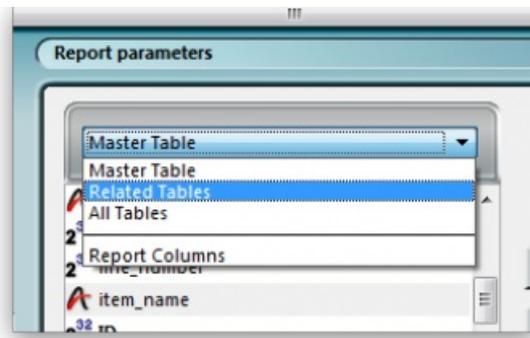


You are now ready to click on the `Query` button.

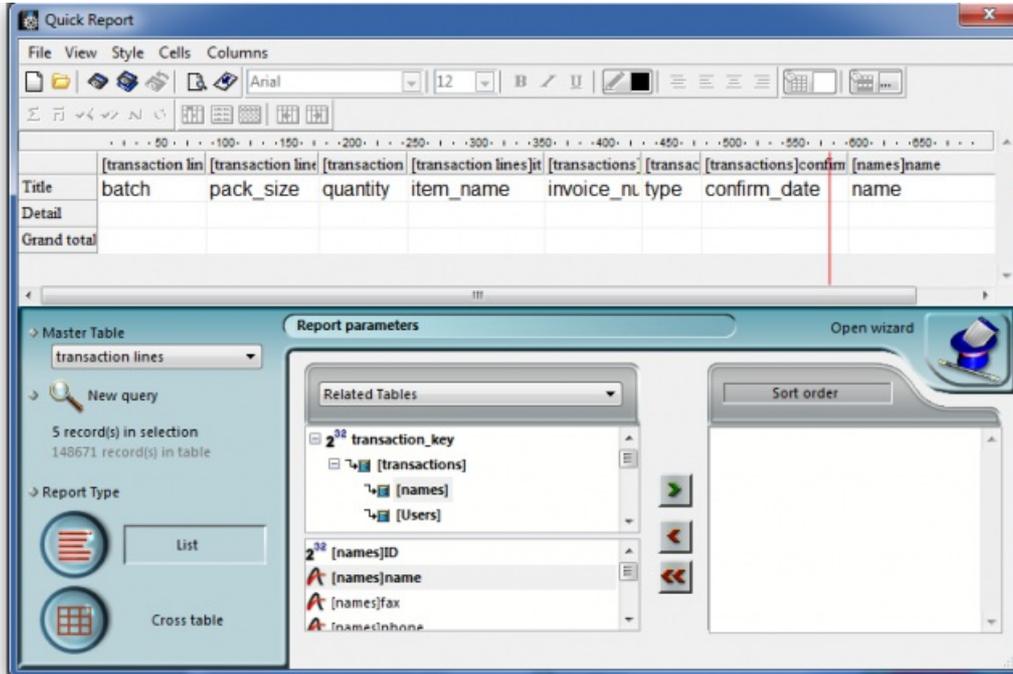
The Quick Report design window appears, with the Master Table - in this example the 'Transaction lines' table - expanded for selection of the fields required by our report; we'll be using four fields from the master table, namely item name, batch, pack and quantity; double-click on each of these in the list, and the Quick Report design window should appear as shown:



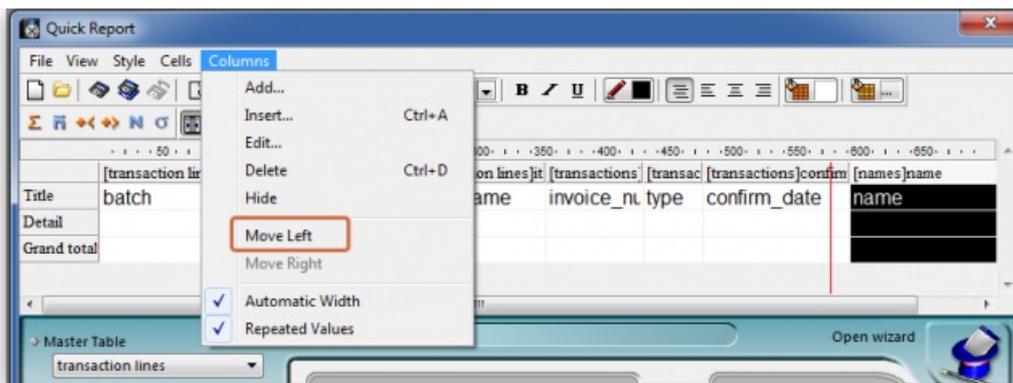
Don't be concerned at the order in which these fields appear in the report - we'll rearrange the order once all the fields have been selected. The fields we now need to add are in other tables; presently `Master Table` is selected, and we need `Related Tables`, which is selected from the drop-down menu.



The table to access is the *Transactions* table, and the fields we require are *Invoice number*, *type*, and *confirm date*. Double-click on each, then expand the *Names* table, and double-click on *[names]name*.



All eight fields for the report are now selected, and we can arrange them in their required order. This is easily performed by selecting the column to be repositioned - we want the item name to be the first column, so we select it by clicking on the column heading, and move it by clicking on the 'Move Left' icon.



Select and move the columns using the 'Move Left' icon and the 'Move Right' icon until the column order from the left is:

- Item_name
- Batch
- Name
- Type
- Invoice_num
- Confirm_date
- Pack_size
- Quantity

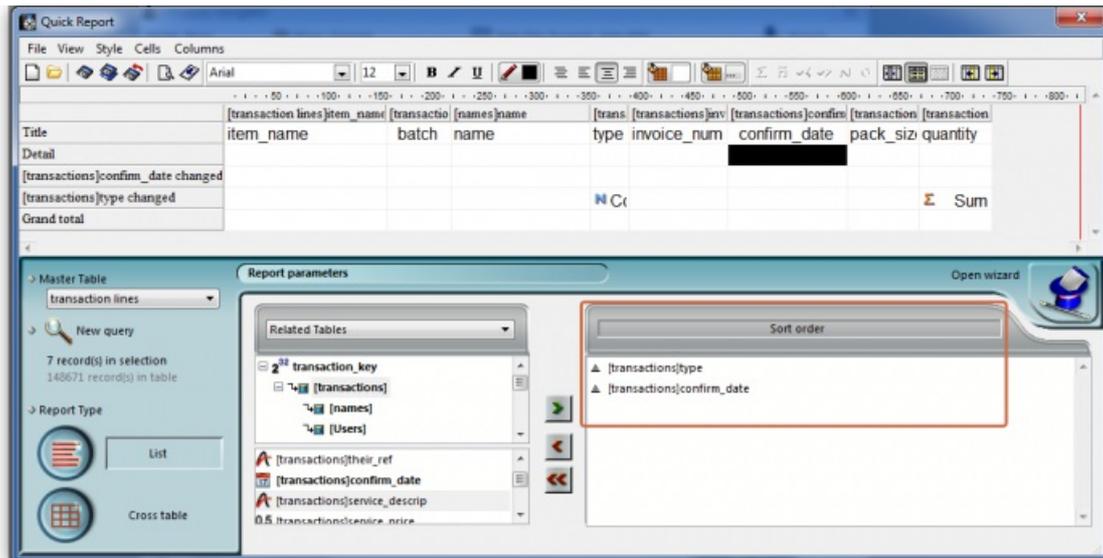
The report will look better in landscape rather than portrait form, so click on *File > Page Setup*, and select *landscape*. Once you have done this, you can view your report on screen by clicking on the 'Print preview' icon.

The next steps are :

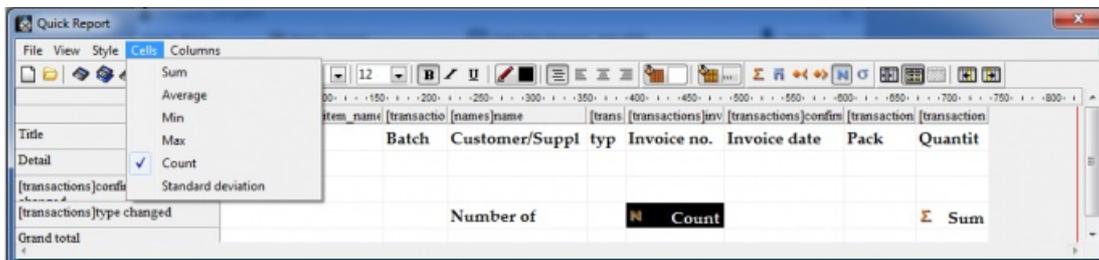
1. to sort the report
2. to perform some simple calculations

3. to display this information.
4. to adjust the column widths

All these are simple to perform on the Custom Report window:



1. Sorting the report. Drag and drop in the 'Sort order' panel the parameters required - in this example [Transactions]type and [Transactions]confirm_date.
2. Performing calculations and displaying the information. We need to count the number of transactions, and display the totals involved. Observe the two rows added to the report annotated with the sort parameters followed by 'change'; these are the break points in the report, and the results of any calculations are displayed in these rows here's how:
 - a. position the cursor in the *Invoice* column on the [Transactions]type changed row
 - b. click *Cells* on the menu, and check *Count*; we need to know how many customers have been supplied with this batch, so the Count icon is inserted in the row - it does not matter which column has the Count icon - for the time being it is entered in the 'Invoice' column, and the reason for this will soon become apparent.
 - c. also required is the total quantity ordered, and the total quantity distributed, so the cell in the same row but in the *Quantity* is selected, and this time the *Sum* box is checked in the Cells drop down list.



1. Column widths can be adjusted as described earlier, and having a look at the Print preview will enable appropriate widths to be defined.

The report should now appear something like this:

item name	batch	name	type	invoice num	confirm date	pack size	quantity
Metoprolamide 10mg tab	BN1234	Christmas Hospital	ci	26297	29/09/09	1	100
Metoprolamide 10mg tab	BN1234	Betio Hos pital	ci	30082	05/11/09	1	200
Metoprolamide 10mg tab	BN1234	Medical Ward	ci	31252	24/11/09	1	50
Metoprolamide 10mg tab	BN1234	Tab North Hos pital	ci	30810	02/12/09	1	70
Metoprolamide 10mg tab	BN1234	Betio Hospital	ci	33295	26/12/09	1	200
Metoprolamide 10mg tab	BN1234	Medical Ward	ci	33552	29/12/09	1	200
			6				820
Metoprolamide 10mg tab	BN1234	International Dispensary Association	si	756	31/07/09	1000	50
			1				50

Only two tasks remain! It's not necessary to display the Invoice type, so this column may be hidden - right click on the column heading, and from the contextual *Column* menu, click on 'Hide'.

mSupply® by default enters the field name in the displayed column heading, but you can edit these column headings by double clicking on the cell in the 'Title' row, when an insertion point cursor appears and the current entry is highlighted; you can replace the default text with whatever you consider appropriate. This has been done in our example.

Finally, there is a large selection of presentation styles available, any of which can be applied to your report. On the menu bar, click on *Style > Presentation*. In our example, after defining a header for the report, we have opted for *Report 1*, giving our report the appearance you see below.

Example Report no.2

Name	Batch	Customer/Supplier	Invoice no.	Invoice date	Pack size	Quantity
Metoclopramide 10mg tab	BN1234	Christmas Hospital	26297	29/09/09	1	100
Metoclopramide 10mg tab	BN1234	Betio Hospital	30082	05/11/09	1	200
Metoclopramide 10mg tab	BN1234	Medical Ward	31252	24/11/09	1	50
Metoclopramide 10mg tab	BN1234	Tab North Hospital	30610	02/12/09	1	70
Metoclopramide 10mg tab	BN1234	Betio Hospital	33295	26/12/09	1	200
Metoclopramide 10mg tab	BN1234	Medical Ward	33552	29/12/09	1	200
		Number of transactions	6			820
Metoclopramide 10mg tab	BN1234	International Dispensary Association	756	31/07/09	1000	50
		Number of transactions	1			50

At some time in the future, you may wish to run your reports again. You should, therefore, save a copy of each report in the *Custom Reports* folder; this is performed by clicking on *File* on the menu bar, and selecting *Save* or *Save as*, giving the report a name, and saving it in the *Custom Reports* folder, or any other appropriate location of your choice. Then when you're ready to run the report next time, having specified your criteria in the *Query Editor*, when the *Quick Report* window first appears, click on *File* on the menu bar, select *Open*, and retrieve the desired report from its saved location, preview it and print it.

Using custom methods in quick report columns

Sometimes you will need to use a custom method in a column to extract data from a related table.

The following methods are available.

Method	Description	Parameters
date_day_number_to_text	returns 1 for Sunday, 2 for Monday etc.	
qr_account_code_return	Returns the account code of an item	item_id
qr_flag_value_change		
qr_get_currency		
qr_get_current_patients_stat		
qr_get_item_store_field	return value of field as text	1:item.id 2:"price" or "is_in_catalogue" or "sellprice"
qr_get_location-from_key		
qr_get_loc_from_key_new_process		
qr_get_Name_code_from_key		
qr_get_stockOnHand_from_itemKey		
qr_get_store_name		
qr_keep_accumulative_value		
qr_ns_customer		
qr_responsible_officer		
qr_ship_method		

Previous: [13.11. Saving report templates](#) || Next: [13.13. SuperReport editor](#)

Last modified: 2021/08/10 11:48 by Gary Willetts





13.13. SuperReport editor

- mSupply includes the [SuperReport editor](#) plugin.
- This gives almost unlimited customisation possibilities for forms and reports.

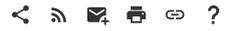
Info

Due to security issues, report customisation using SuperReport can only be done by Sustainable Solutions. Contact us for more details

Previous: [13.12. Custom reports](#) || Next: [15. Barcode Scanning](#)

Last modified: 2021/08/10 11:49 by Gary Willetts





User Guide



14. Notifications

14.01. Notifications (Alerts)

Previous topic: [13. Reports](#) || Next topic: [15. Barcode Scanning](#)

Last modified: 2021/10/08 08:41 by Gary Willetts





14.01. Notifications (Alerts)

i Available in version 5.05 onwards

To help with the proper management of your stock, mSupply can inform you of things that need attention; transactions that need completing, stock that you are running out of etc.

This page will tell you how to set up and use the notifications (alerts) that mSupply can give you.

i Info

If you want to receive alerts via SMS, email or social media then you can use the mSupply dashboard for that. See the [mSupply dashboard pages](#) for details.

You can also get notifications/alerts for cold chain monitoring events. See the [20.02. Cold Chain App Notifications page](#) for details.

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 - [Set the store parameters](#)
 - [Select which notifications a user will see](#)
- Notifications in use
 - [Setup](#)
 - [Set the store parameters](#)
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 - [Notifications in use](#)



Setup

Set the store parameters

Some of the notifications, like understocked or overstocked items, require some parameters to be set for each store. To set them choose *Special > Show stores* from the menus, double-click on the store to change the settings for and go to the *Preferences* tab. The settings you need to make are in the *Notifications* section.

All the details about these settings can be seen on the [26.08. Virtual stores](#) page.

Select which notifications a user will see

The notifications a user will see and whether they see them on login or only when they click on the Notification icon (see below) is set in a user's settings.

From the menus, select *File > Edit users*, double-click on the user you wish to adjust the settings for and click on the *Notifications* tab. The details on the various preferences and how to set them can be found on the [25.15. Managing users](#) page.

Notifications in use

On the top right of the Navigator, you will see the Notifications (bell) icon:



Click on it to show the notifications window:

Alert type	Value
Expiring items	47
Overstocked items	Calculating...
Understocked items	Calculating...
Pending supplier invoices - status "nw"	2
Pending customer requisitions - status "nw"	0
Pending customer invoices - status "nw" or "sg"	99
Pending customer credits - status "nw" or "sg"	0
Overdue purchase orders	269

All the alerts selected to show for the logged-in user are displayed in the list and their values are calculated as the window opens. Some of the alerts might take a while to calculate, in which case you will see the word *Calculating...* in the *Value* column. While any of the alerts are still being calculated there will be a busy indicator in the top right hand corner of the window, as shown in the screenshot above.

When all the calculations are finished and the notifications are complete, the window will look like this:

Alert type	Value
Expiring items	47
Overstocked items	2
Understocked items	975
Pending supplier invoices - status "nw"	2
Pending customer requisitions - status "nw"	0
Pending customer invoices - status "nw" or "sg"	99
Pending customer credits - status "nw" or "sg"	0
Overdue purchase orders	269

The meaning of each notification:

- **Expiring items:** The number of items which have one or more batches whose expiry date is equal to or less than the threshold number of months away.
- **Overstocked items:** The number of items which, at the current rate of consumption (calculated using the last 12 months consumption data), have more than the threshold months of total stock. The calculation also takes into account the amount back ordered and on purchase orders still to be delivered. These items are in danger of expiring in the warehouse before they will be used.
- **Understocked items:** The number of items which, at the current rate of consumption (calculated using the last 12 months consumption data), have less than the threshold months of total stock. The calculation also takes into account the amount back ordered and on purchase orders

still to be delivered. You are in danger of running out of stock of these items.

- **Pending supplier invoices:** The number of supplier invoices that are waiting for processing i.e. that have a status of new (*nw*) or suggested (*sg*). The goods on these supplier invoices have not yet been added to your stock.
- **Pending customer requisitions:** The number of customer requisitions that are at suggested (*sg*) status. These requisitions have not had a customer invoice created from them yet.
- **Pending customer invoices:** The number of customer invoices that are at new (*nw*) or suggested (*sg*) status. These invoices might have been picked but have not been confirmed yet so the goods on them are reserved for the customer (i.e. they have been removed from the **available** stock) but not removed from the **total** stock in your store.
- **Pending customer credits:** The number of customer credits that have new (*nw*) or suggested (*sg*) status. The goods on these customer credits have not yet been added to your stock and credited to the customers.
- **Overdue purchase orders:** The number of purchase orders that have at least one item on them that has not been received by their expected delivery date (or does not have an expected delivery date).

Info

If the user's *Show notifications window on login* preference is turned on, the notification window will open as soon as the user logs in and the notifications that are selected to show for the user will be displayed.

The notifications will not refresh automatically. To make sure they are up to date, click on the **Refresh** button and the notifications will be recalculated.

To find out which transactions or items are involved in any of the alerts, simply double-click on the notification. mSupply will then open the list of transactions or items that triggered the alert and you can investigate in the usual way.

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Last modified: 2021/10/12 09:26 by Gary Willetts





User Guide



15. Barcode Scanning

- [15.01. Barcode scanning](#)
- [15.02. Adding barcodes to items](#)
- [15.03. Barcode scanning and receiving goods](#)
- [15.04. Barcode scanning and stocktaking](#)
- [15.05. Barcode scanning and pick list checking](#)
- [15.06. Barcode label printing](#)
- [15.07. Barcode scanning and prescriptions](#)

Previous topic: [13. Reports](#) || Next topic: [16. Preferences](#)

Last modified: 2021/10/08 09:09 by Gary Willetts





15.01. Barcode scanning

Added: Version 4.01

mSupply has the ability to use barcode scanners to read the barcodes on stock to help speed up and improve the accuracy of some processes.

Introduction

A warning

Alert

Please be aware that using barcode scanning is not to be entered into lightly and is not the problem-free solver of all supply chain problems that some people think it is. It can have large implications for your organisation, in terms of changing processes and increasing workload in other areas.

Currently, very few barcodes on pharmaceutical products contain batch and expiry information. Our own checking (2018) shows it's only around 10% in typical warehouses. So, for barcodes to be really useful, you will probably need to print and stick new labels on most stock as it comes into your warehouse. And you'll need to do it again if you have barcode labelled the outer carton and you need to split the carton - you will need to label each of the inner packs. This alone can be a huge amount of work and can easily outweigh any benefits of using barcode scanners.

With those warnings out of the way, let's find out how barcode scanning works in mSupply.

mSupply and barcodes

mSupply follows the GS1 specification for the barcodes that it uses and you can find out all about them [here](#). Barcodes are stored against items in mSupply and these stored ones are compared with what is read by a scanner to tell mSupply what it is dealing with.

Setup

The barcode scanner

A single barcode scanner can be attached to each computer running mSupply. The barcode scanner must:

- be able to read both the 1D 128 bit barcodes and 2D datamatrix barcodes used by the GS1 standard
- communicate with the computer through a serial port. Note that this does not mean that it must connect to the computer via a serial port (these disappeared from computers many, many years ago!). The best way of achieving this is to buy a scanner that connects by USB and has serial port emulation software provided by the manufacturer
- append a carriage return and line feed character to the end of all its scans.

To set the barcode scanner up, the first thing to do is connect it to the computer (usually by a USB port) and make sure it can communicate with it. You may need to install a driver for the scanner, depending on the scanner make and model and the operating system of the computer. The best way to check the scanner is communicating correctly with the computer is to install a piece of dedicated serial port reading software, and make sure that scans from the scanner appear in the software. If you are using Windows, you could use this one [here](#).

Once you are happy that the scanner is communicating correctly with the computer, you can open mSupply, enter the port settings and check that mSupply can receive the scans. See the [mSupply settings](#) section below for details.

The label printer

The label printer is used for printing barcode labels for the stock in your warehouse. You will need to do this if the stock does not have barcodes

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 - The barcode scanner
 - The label printer
 - mSupply settings



containing batch and expiry information already on it, or if you repack the stock into a different pack size.

The label printer must:

- be able to communicate with the computer by Ethernet, USB or serial connection
- be able to understand ZPL 2 (Zebra programming language 2) commands

We recommend Zebra printers, like the GK420t model for this purpose.

To set the printer up, attach it to the computer or your local area network (if using an Ethernet connection), and enter the settings into mSupply; see instructions for this on the Label printing preferences page [here](#).

mSupply settings

See the full description of the preferences and their use on the [16.09. Barcode scanning preferences](#) page.

Previous: [15. Barcode Scanning](#) | | Next: [15.02. Adding barcodes to items](#)

Last modified: 2022/04/12 12:23 by Gary Willetts



mSupply documentation wiki



15.02. Adding barcodes to items

Added: Version 4.01

Assigning barcodes to items is an important setup activity. It is this step that enables mSupply to recognise which item a particular barcode belongs to.

You can add barcodes to items before or during the goods receipt process. The process described here is used for both - to see how the goods receipt process fits in, see [Barcode scanning and receiving goods](#).

To start the process, view the details page of the item you want to add barcodes to (go to *Item > Show items...*, click on the *OK* button, double-click on the item you want in the list). Then click on the *Barcodes* tab on the left hand side of the details window:

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- [Deleting a barcode](#)
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- [Adding a barcode](#)
- [Deleting a barcode](#)
- [Editing a barcode](#)
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Item details...
General
Item name: test item 01
Item code: test01
Units: None
Department: None
Category: None
Category 2: None
Category 3: None
Interaction group: None
Item flag:
Universal code:
Hold: do not issue
Issue in builds only
Allow pack to one conversion
Convert pack to 1 when receiving
Shelf locations
Shelf location: None
Bulk shelf location: None
Preferred pack size: 1
Volume per pack: 0 m3
Restricted to: None
Outer pack size: 0
Outer pack volume: 0 m3
Weight per pack: 1 kg
Pricing
Default margin: 0
Default sell price of preferred packsize: 0.00
Price editable when issuing
Full description
VEN Category
 Not assigned
 Vital
 Essential
 Necessary
Stock category
Normal stock
Critical stock
On essential drug list
Custom fields...
user_field_1
user_field_2
user_field_3
user_field_5: 0.00
user_field_6
user_field_4
user_field_7
Buttons: Delete, OK & Previous, OK & Next, Cancel, OK

This will show you a list of the current barcodes assigned to the item:

Item details...
General
Item name: Test item 03
Item code: test03
Add Delete
Table:
Number | Manufacturer | Pack size | Barcode | Parent
Buttons: Delete, OK & Previous, OK & Next, Cancel, OK

This item currently has no barcodes assigned to it but this is the information each column displays:

- Number:** a sequential number for each barcode, starting at 1

- **Manufacturer:** the name of the manufacturer of the medicine
- **Pack size:** the number of individual items (tablets, bottles etc.) in the pack this barcode represents
- **Barcode:** the human readable form of the barcode, just the type identifier (01) and the 14 digit GTIN (it could be a 13 or 8 digit (or any valid length!) GTIN but it must be padded with leading zeros to 14 digits in total - this is part of the GS1 standard). A barcode that starts 0104 identifies an internal mSupply barcode (assigned because the manufacturer didn't put one on the item's packaging). A barcode that starts with 01 followed by anything else is a global barcode not assigned by mSupply.
- **Parent:** the number (shown in the Number column) of the barcode that is the parent (i.e. has the next largest pack size) of this barcode

Deleting a barcode

To delete a barcode, click on it in the table to select it and click on the *Delete* button. You will be asked to confirm the deletion. But please note, you will not be able to delete any barcode that has been assigned to a line of stock.

Editing a barcode

To edit a barcode, simply double-click it in the table. This will open the 'add a barcode' window shown in the *Adding a barcode* section below but the window will be populated with the barcode's details. Simply edit the details as described in the *Adding a barcode* section. Please note that, if a barcode has already been assigned to stock, you will not be able to edit the pack size or the barcode itself.

Adding a barcode

To add a barcode to the item, click on the *Add* button. This window appears:

Item: this is the name of the item you're adding a barcode to, followed by its code. It is non-editable

Barcode: the human-readable form of the barcode; the 2 or 3 digit type identifier followed by the 14 digit GTIN only (it could be a 13 or 8 digit (or any length!) GTIN but it must be padded with leading zeros to 14 digits in total). You can't type anything in here, you have two options:

- Scan the item's barcode with a barcode scanner - the barcode's identifier and GTIN will appear in the textbox. If the barcode is not GS1 compliant you will see a warning message and you will not be able to save the barcode (just in case you've scanned the wrong thing. Why would anyone go wild with a scanner and start scanning anything they can find? 😊)
- Click on the  icon next to the Barcode field to have mSupply supply its own unique, internal GS1 compliant barcode. Each time you click on the icon, mSupply will supply a new barcode.

Pack size: the pack size (number of individual items in one pack) that this barcode belongs to

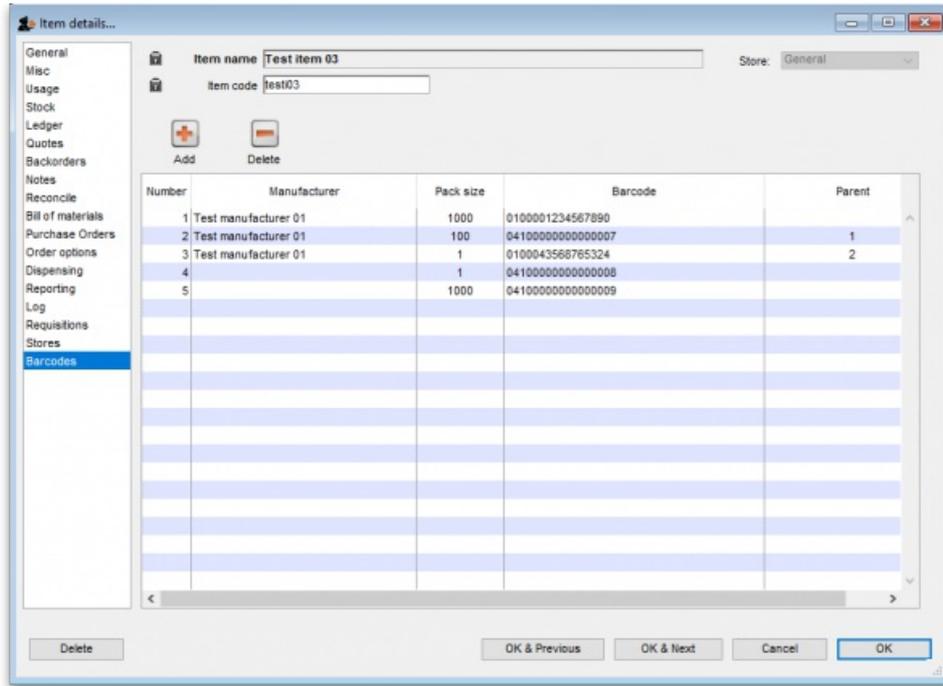
Manufacturer: the manufacturer that this barcode belongs to. Type the first few characters of the manufacturer's name and press the Tab key to select it from a list of matching names. If the manufacturer you want doesn't exist in mSupply, click on the  button next to the manufacturer field to add it.

Barcode for next outer-level packaging table this is where you select the barcode that is the 'parent' of this one i.e. the one with the next biggest pack size. Selecting one is optional but it allows mSupply to identify barcodes that should go on tertiary level packaging (they can have different printing requirements). The table will show all the other barcodes entered for this item. To select the parent, simply click on the checkbox in the *Select* column to check it.

Info

GS1 barcodes are unique to the combination of item, pack size and manufacturer. So you won't be able to add 2 barcodes to the same item with the same pack size and manufacturer.

Here is an example of an item with several barcodes added:



Previous: [15.01. Barcode scanning](#) | Next: [15.03. Barcode scanning and receiving goods](#)

Last modified: 2021/10/08 09:10 by Gary Willetts

15.03. Barcode scanning and receiving goods

Added: Version 4.01

When you receive goods into mSupply, that is when you tell mSupply about the barcode that belongs to each line of stock. At the moment it is not possible to receive stock using a barcode scanner (the functionality is coming soon though - watch this space) but this is still the point in your process where you tell mSupply about the barcode that belongs to each line of stock.

This is a vitally important step: once the barcode associated with the stock you receive is recorded, mSupply can recognise it anywhere when you scan it later.

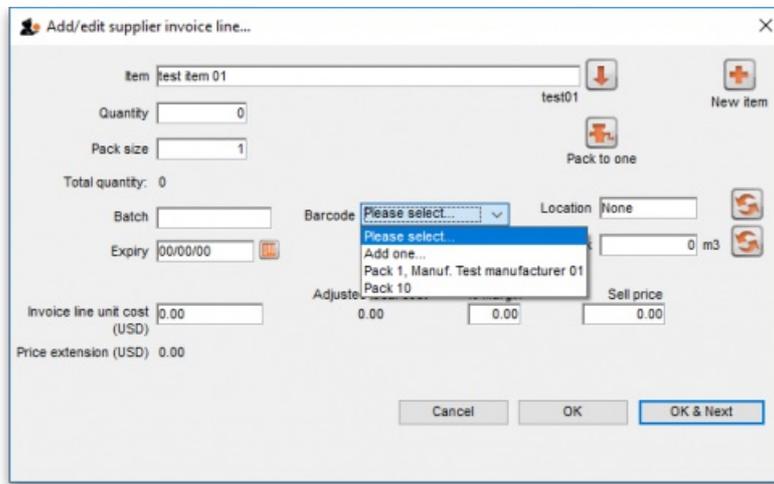
The linking of barcodes with received stock is carried out on a supplier invoice.

Create a supplier invoice in the normal way (either manually (see [Receiving goods - a supplier invoice](#) or by finalising a goods received note (see [Goods receipt notes](#))). If the *We use barcode scanners* preference is turned on (see [Barcode scanning preferences](#)), this is what a blank supplier invoice window looks like:

It is exactly the same as a standard supplier invoice, except for an additional *Print barcode labels* button (see [Barcode label printing](#) for details)

Clicking on the *Add line* button shows an extra *Barcode* field on the invoice line window:

When the item has been selected in the usual way, the *Barcode* drop down list is filled with a list of all the barcodes assigned to the item, showing the pack size and manufacturer for each:



If one of the barcodes matches the stock that is being received, select it: this will set the *Pack size* field to match the pack size that belongs to the barcode. You can still manually edit the *Pack size* field but if it doesn't match the barcode you have selected when you click on the *OK* or *OK & Next* buttons, you will be warned and told to correct it (either select another barcode with a matching pack size or alter the pack size).

If none of the barcodes in the drop down list match the one on the stock, you can click on the *Add one...* option. This will immediately open the Add barcode window so you can add the new barcode. See [Adding barcodes to items](#) for details.

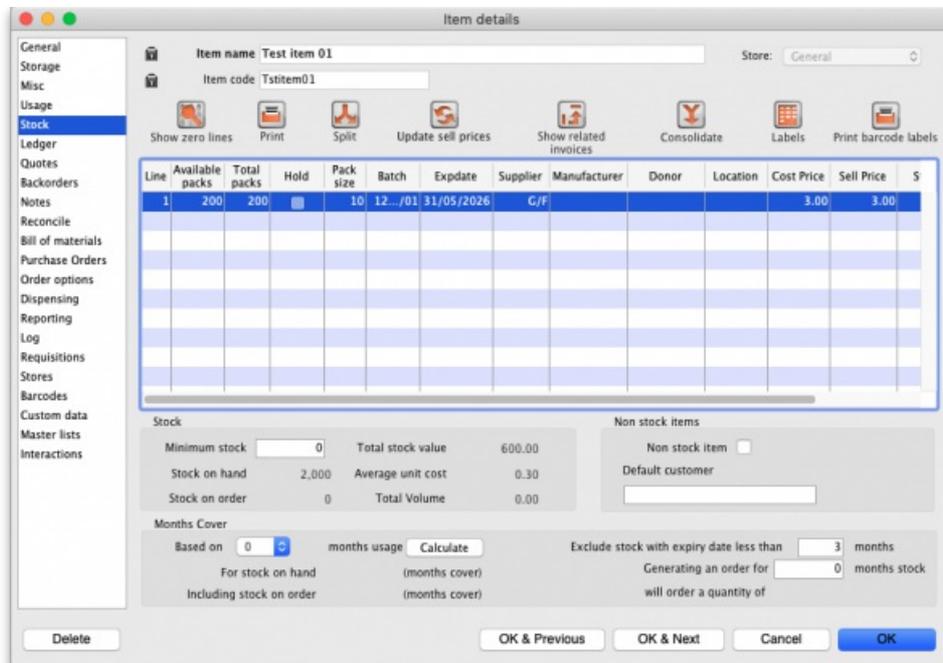
Note that once you have selected a barcode, the *Please select...* option in the **Barcode** drop down list becomes *Remove barcode* to show that selecting this option will remove the barcode from this line.

When you are using barcode scanning, you must select a barcode from the *Barcode* drop down list, you will not be allowed to add the line without it.

Manually assigning barcodes to stock lines

Sometimes it might be necessary to manually add or edit the barcode that belongs to a stock line. For example, any stock you have in mSupply before you turn on the barcoding functionality will not have barcodes entered against it they will need to be added manually. Or an incorrect scan may have been made at goods receipt and the barcode might need to be changed.

To do this, first choose *Items > Show items* from the menus, search for the item whose stock you wish to edit and open its details window by double-clicking on it. Then click on the *Stock* tab:



Now double-click on the stock line whose barcode you wish to change. This will open the stock line details window:

Item stock line details...

Item code Tstitem01 Item name Test item 01

General Ledger Status Reference documents Log

Quantity according to stock
 Total Quantity 200 Available 200

Cost price Hold Volume per pack m3
 Sell price Location
 Expiry date Pack size 10
 Batch Quan per inner 0 Initial quantity 0
 Supplier Global Fund Inners per Outer 0
 Barcode 0104000000000117
 Donor
 Note

Custom stock fields

The **Barcode** drop down list displays the current barcode assigned to the stock line (it will say *Please select...* if it has no barcode assigned). The current barcode will also be shown to the right of the drop down list, as in the screenshot, if one is currently assigned.

Click on the drop down list and you will be shown a list of all the barcodes of the same packsize as this stock line for this item. You can select any one of these or the *Add one...* option to open a new window to add a new barcode (see the [14.02. Adding barcodes to items](#) page for details on that window).

If a barcode is already assigned to the stock line, the first option in the **Barcode** drop down list will be *Remove barcode* - select this if you want to remove the barcode currently assigned to this stock line.

Previous: [15.02. Adding barcodes to items](#) || Next: [15.04. Barcode scanning and stocktaking](#)

Last modified: 2021/10/08 09:10 by Gary Willetts

15.04. Barcode scanning and stocktaking

Added: Version 4.01

During a stocktake, it is possible to save a lot of time and increase accuracy by using barcode scanners to scan stock instead of manually counting it.

Stocktaking with barcode scanners is a little different to doing it without them. With barcode scanners, the assumption is that you will go to a particular location in your warehouse and then scan everything in that location. As you scan, mSupply counts the stock in that location. This means two things:

1. You must tell mSupply which warehouse location you are currently counting
2. When first created, a stocktake with barcode scanning turned on has a zero in the *Counted number of packs* column for every line. Without barcode scanning turned on, the *Counted number of packs* is set to the *Snapshot number of packs* when it is first created.

Here's how it all works.

Create a stocktake in the usual way (see [Stocktakes](#) for details). The stocktake window is exactly the same as when not using barcode scanners, except that the item filter has changed to a location filter:

Line number	Location	Item code	Item name	Batch	Expiry	Snapshot number of packs	Pack Size	Counted number of packs
1	a1	test01	test item 01	ryu65476	31/05/2024	2000	1	0
5	a1	test01	test item 01	BLA7J71	30/09/2020	2250	1	0
6	a1	test01	test item 01	cla771	30/09/2020	200	1	0

Edit the *Description* and *Stocktake date* fields as required as usual and enter any comments in the *Comment* field. Now enter the location you are going to count in the *Scanning for location* field. As you type the location name, the lines that have locations starting with what you have typed remain displayed in the table, all others are hidden (The line's locations are shown in the *Location* column). What you enter in the *Scanning for location* field must result in lines for a single location only being displayed in the table. If you start scanning before this is the case you will be shown a warning message and nothing will be counted.

Note:

- The *Scanning for location* field is not case sensitive
- You can enter "none" in the *Scanning for location* field if you want to count the lines that have no location. Very handy if you don't use locations in your warehouse.

When you have correctly entered the location you want to count in the *Scanning for location* field, you can start scanning the physical stock in that warehouse location. Be careful to scan the correct GS1 barcodes on the stock. mSupply will ignore anything you scan that is not GS1 compliant.

There are a number of possible outcomes of the scan:

Scan result	
The barcode you scanned matches one of the lines in the location you are scanning for	The line's <i>Counted number of packs</i> value is increased by 1
The barcode matches a line in the stocktake that is not in the current location	mSupply asks you whether you want to move the line to the cu
The barcode matches an item not in the stocktake	A line is added to the stocktake in the current location for the it
The barcode is not a valid GS1 barcode	mSupply displays an error message and the scan is ignored
The barcode is a valid GS1 barcode but it is not registered against an item in mSupply	mSupply displays a warning message and ignores the scan

Continue scanning items until you have scanned everything in the location.

Then, enter the next location in the *Scanning for location* field and start scanning the items in that location.

When you have scanned the stock in all the locations in the stocktake, you've finished the count. When you're sure you have finished, click on the *Create inventory adjustments* button as normal to finalise the stocktake and make the stock in mSupply match what you counted.

Previous: [15.03. Barcode scanning and receiving goods](#) | Next: [15.05. Barcode scanning and pick list checking](#)

Last modified: 2021/10/08 09:10 by Gary Willetts



mSupply documentation wiki



15.05. Barcode scanning and pick list checking

Added: Version 4.02

Another way barcode scanning can be useful is in checking that goods picked off the shelf for distribution to a customer match what was on the pick list.

This is done when distributing goods to a customer on a customer invoice. When the preference to use barcode scanners is turned on (see [Barcode scanning preferences](#)), the customer invoice window for new or suggested status customer invoices has a new *Pick list check* button:

N...	Li.	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1			test item 01	20	5	dsfgr167		0.20	4.00
2	b1		Test item 02	15	1	uipoo675	31/01/2020	0.00	0.00
3	a2		Test item 02	40	2	zxc v67	30/04/2023	0.00	0.00

When you have finished adding lines to the customer invoice, you print the pick list in the normal way (see [Issuing goods to a customer](#)), pass the pick list to the warehouse staff and they pick the goods off the shelf.

You can then check the right goods have been taken off the shelves as they are picked or when the pick is complete. To do this, click on the *Pick list check* button and the following window will open:

Item name	Number of packs	Number scanned	Batch	Expiry	Status
test item 01	20	0	dsfgr167		▼
Test item 02	15	0	uipoo675	31/01/2020	▼
Test item 02	40	0	zxc v67	30/04/2023	▼

The *Customer* and invoice number fields are for reference and are read only. The table contains all the lines on the customer invoice. The status column contains a ▼ symbol for each item, indicating that less packs have been scanned than are on the pick list.

Scan the GS1 barcode on each item and mSupply will increase the *Number scanned* value of the correct line as you scan.

Symbol	Meaning
✓	The number scanned is the same value as the <i>Number of packs</i> , indicating it is the correct number.
▲	More have been scanned than are on the pick list
▼	Less have been scanned than are on the pick list
✗	An item has been scanned that is not on the pick list. It will be added to the bottom of the table with <i>Number of packs</i> set to zero. Subsequent

Info

The number scanned column is editable as a time-saving measure for large picks. If you have many packs of the same item, you can manually count them then add the correct number to the value in the column.

Info

If you scan a barcode that is not a valid GS1 barcode or is a valid GS1 barcode but not linked to an item in mSupply, you will be shown an error message and the scan will be ignored.

When you have finished scanning all the picked items, a simple look at the *Status* column will tell you if the pick matches the pick list. If every row has a ✓ then all is well. If any row doesn't have this status then something needs to be changed:

1. either put the wrong item back on the shelf and pick the correct one or
2. return to the customer invoice and edit it to match the items picked (this might involve inventory adjustments so that you can put the correct stock on the customer invoice)

When you have finished checking the pick, click on the *OK* button. Nothing is saved, the pick list check is for reference only.

You can run the pick list check as many times as you like after correcting the picked items or the customer invoice.

But, once you have finished picking the items and have confirmed the customer invoice, the picking process is counted as complete and the *Picklist check* button is removed.

Previous: [15.04. Barcode scanning and stocktaking](#) | | Next: [15.06. Barcode label printing](#)

Last modified: 2021/10/08 09:10 by Gary Willetts



15.06. Barcode label printing

Added: Version 4.01

You might want to print barcode labels for your stock if an existing label is damaged, if you break a box down into smaller pack sizes and the contents don't have individual GS1 barcodes or if some stock comes into your warehouses and it doesn't have valid GS1 barcodes on it.

mSupply prints barcode labels onto stocky labels using a label printer. Before you try to print any barcode labels you must setup your printer. See for [Label printing preferences](#) details.

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- [Item details page](#)
- [Supplier invoice](#)
- [Stock list](#)
- [Item details page](#)
- [Supplier invoice](#)
- [Stock list](#)



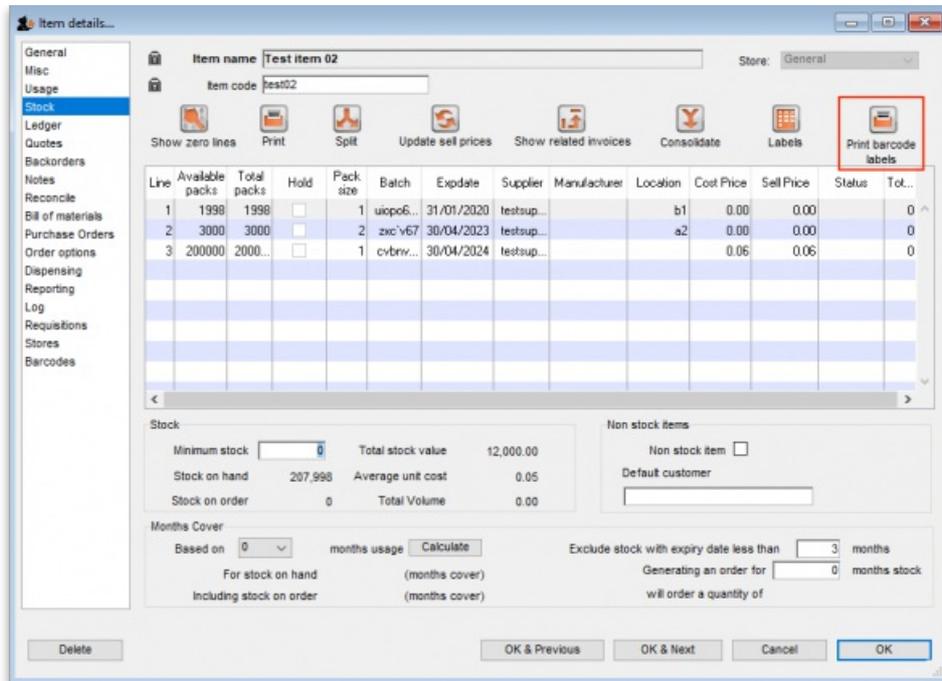
Info

Please note that any stock or invoice lines that are not associated with a barcode will NOT have a label printed for them. If all lines you have selected to print labels for have no barcodes associated with them then no labels will be printed. The association of invoice and stock lines with a barcode is carried out during goods receipt (see Barcode scanning and receiving goods)

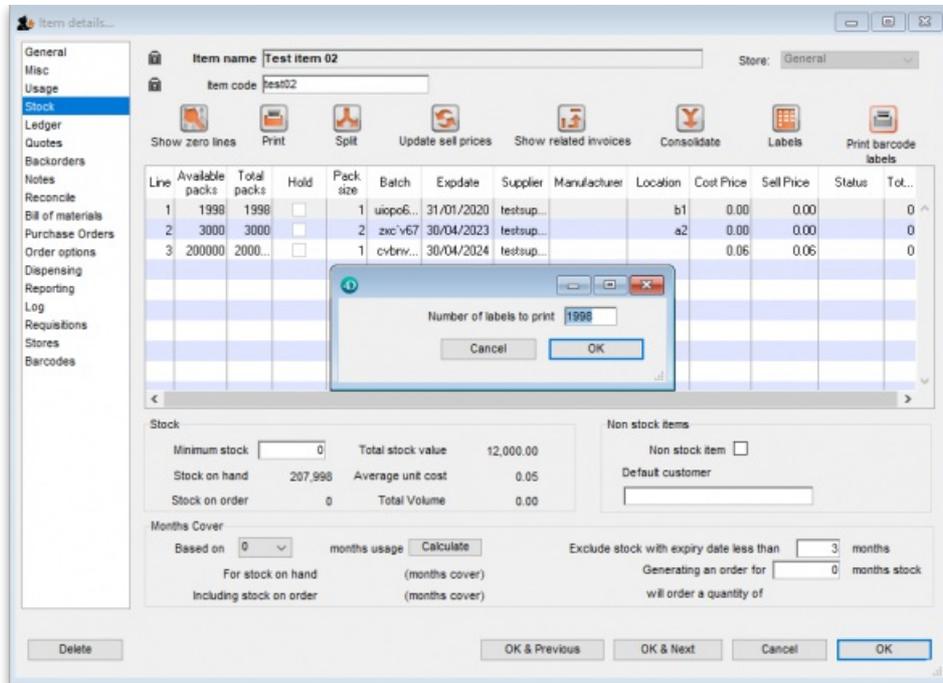
There are several places in mSupply where you can print barcode labels for your stock.

Item details page

You can print out the barcode labels for a single line at a time. Select the line you want to print the labels for then click on the *Print barcode labels* button:



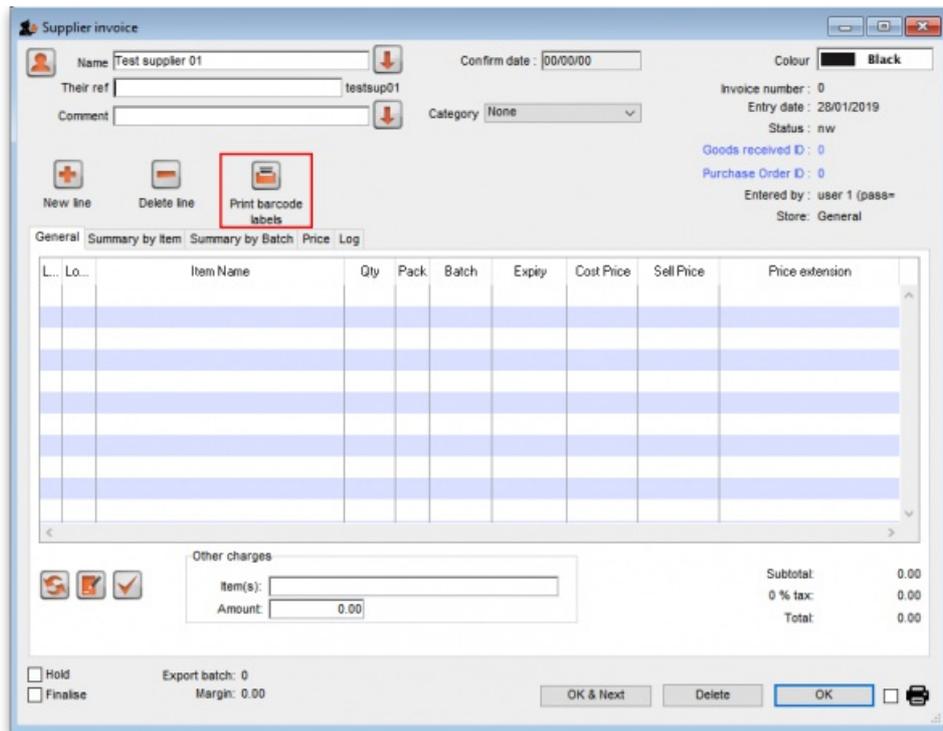
mSupply will offer to print a label for each pack in the selected line by default:



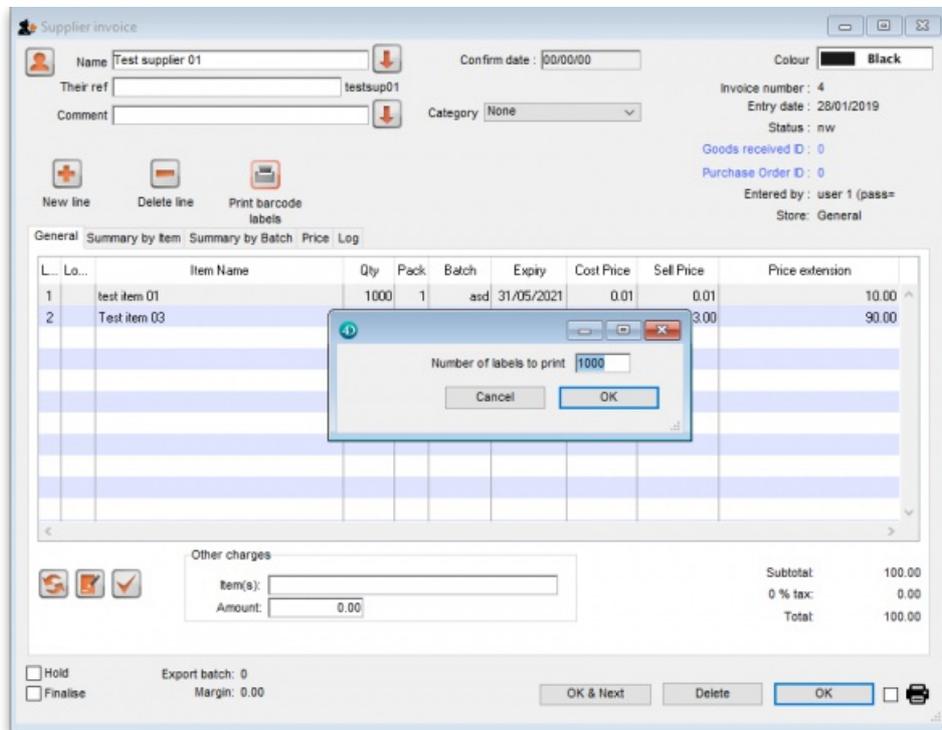
You can edit the number of something else if you wish. When you click on the *OK* button, the entered number of labels will be printed from your label printer.

Supplier invoice

When the preference to use barcode scanners is turned on, a supplier invoice has a *Print barcode labels* button:

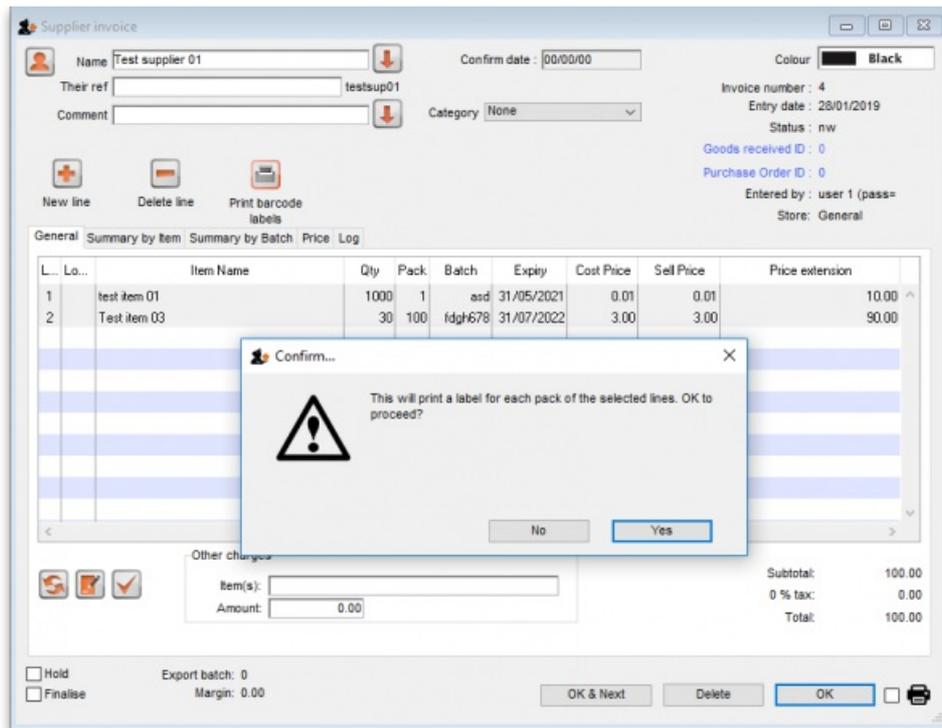


After adding lines to the supplier invoice you can print barcode labels for them. If you select a single line then click the button, mSupply will by default offer to print a label for each pack in the line:



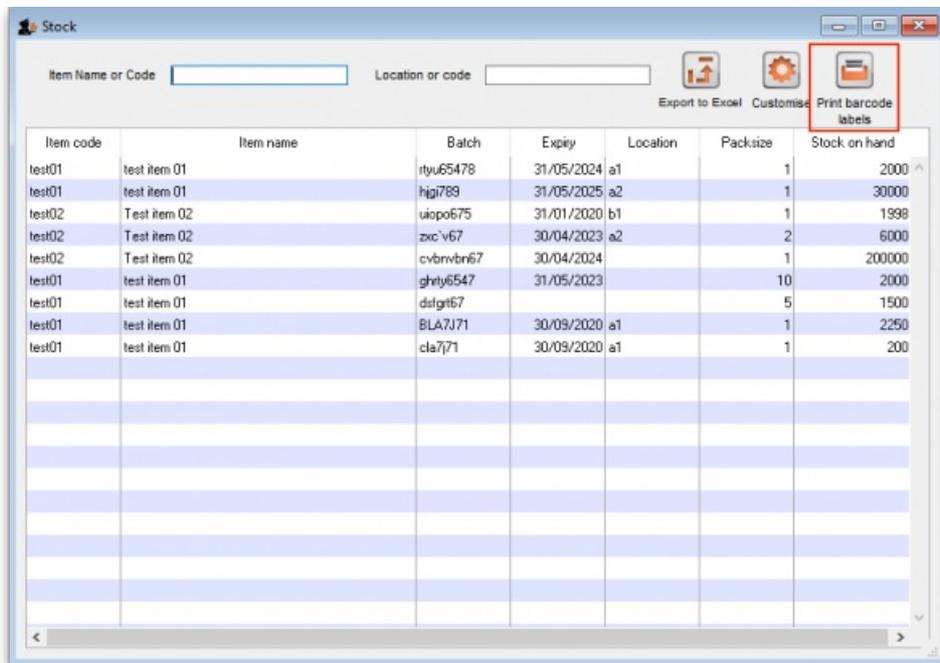
You can edit the number to something else if you wish. When you click on the *OK* button, the entered number of labels will be printed from your label printer.

If you select multiple lines on the supplier invoice before clicking on the *Print barcode labels* button, mSupply will print a label for each pack in the lines selected. This could be a lot of labels so mSupply asks you to confirm before telling the label printer to print them all:

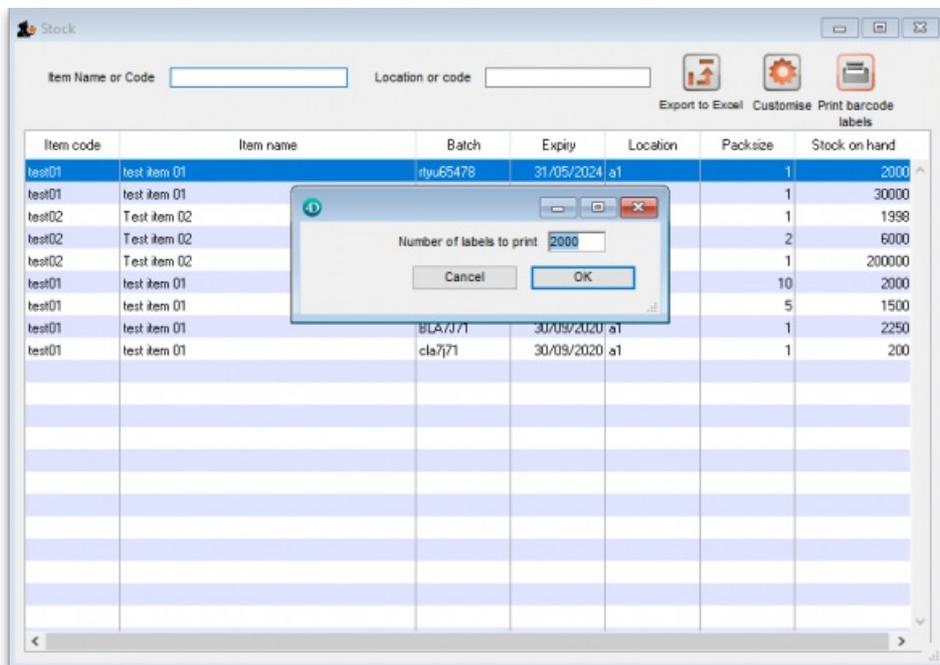


Stock list

Like a supplier invoice, the stock window (*Item > Show items with stock* on the menus) has a *Print barcode labels* button when the preference to use barcode scanners is turned on:

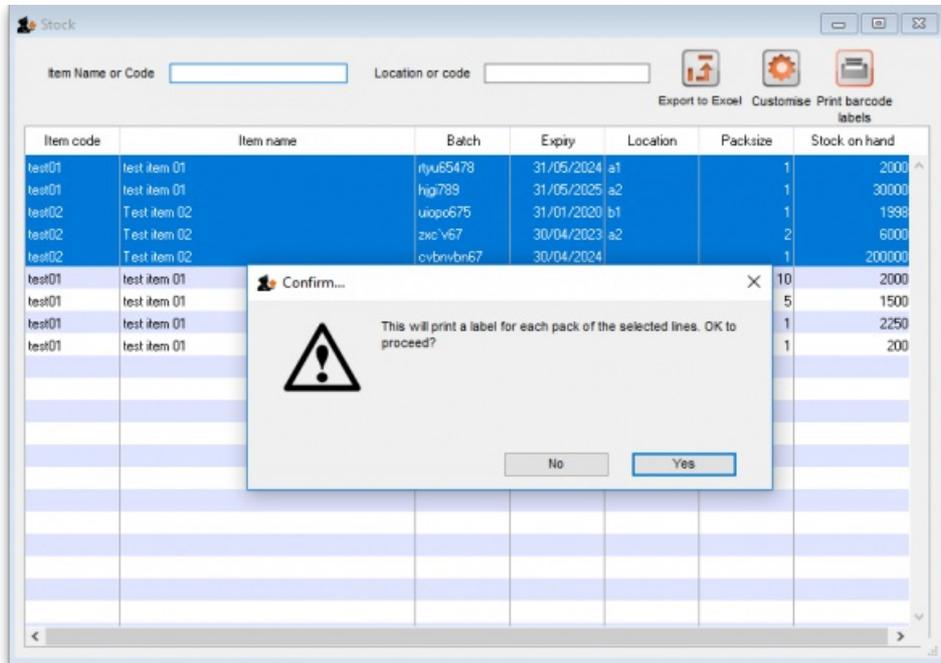


You can click on a single line before clicking on the *Print barcode labels* button, in which case mSupply offers to print a label for each pack in the selected line. You can edit the number to something else if you wish:



When you click on the *OK* button, the number of labels entered will be printed from your label printer.

You can also select multiple lines before clicking on the *Print barcode labels* button. If you do that, mSupply will offer to print a label for each pack in all the lines you have selected. Obviously, this could be a lot of labels, so mSupply asks you to confirm before it asks the printer to print them all:



Previous: [15.05. Barcode scanning and pick list checking](#) | Next: [15.07. Barcode scanning and prescriptions](#)

Last modified: 2021/10/08 09:12 by Gary Willetts



15.07. Barcode scanning and prescriptions

Added: Version 5.01

If you have turned on bacrode scanning for prescriptions (see the [15.09. Barcode scanning preferences](#) page for details) then, when you print out a prescription label, a second label containing a barcode will be printed with it. The label will look something like this:



When you scan this label from the prescription search window (choose *Patient* > *Show patients* in the menus) with a barcode scanner, it will open the prescription at the *Payment* tab ready for payment to be entered. See the [11.03. Prescription payments and credits](#) page for details on Prescription payments.

Previous: [15.06. Barcode label printing](#) | | Next: [16. Preferences](#)



Last modified: 2021/10/08 09:10 by Gary Willetts





User Guide



16. Preferences

- [16.01. General preferences](#)
- [16.02. Purchase order preferences](#)
- [16.03. Invoice preferences](#)
- [16.04. Printing preferences](#)
- [16.05. Mobile Dashboard set up \(before v4.0\)](#)
- [16.06. Entering a new logo](#)
- [16.07. Synchronisation preferences](#)
- [16.08. FrontlineSMS](#)
- [16.09. Barcode scanning preferences](#)
- [16.10. Options \(standard reasons\)](#)
- [16.11. Custom fields](#)

Previous topic: [15. Barcode Scanning](#) || Next topic: [17. Data Import and Export](#)

Last modified: 2021/10/08 09:13 by Gary Willetts



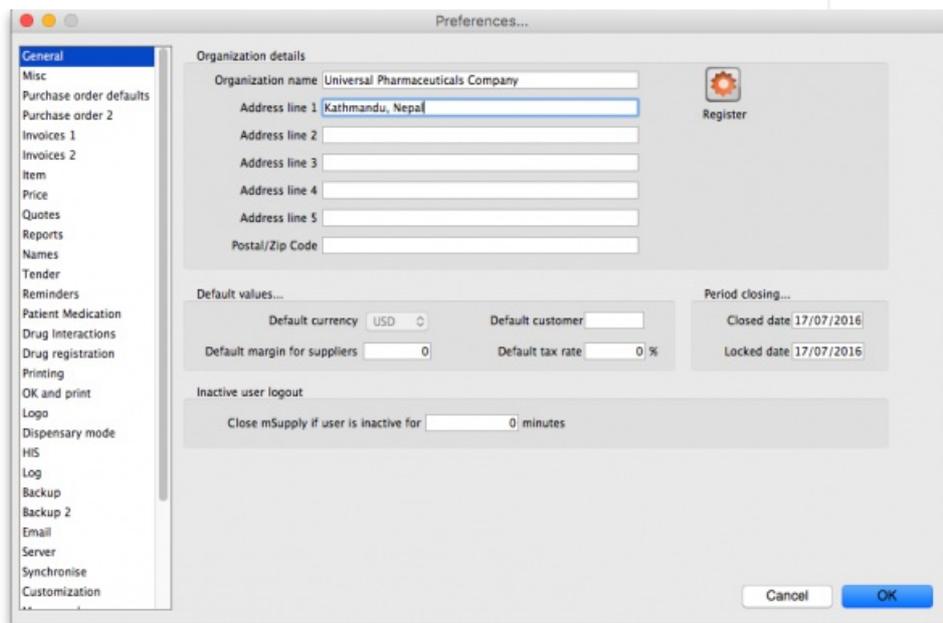
16.01. General preferences

⚠ Important

- The preferences described here (accessed through **File > Preferences...**) apply to all stores in an mSupply datafile.
- In a **synced system** there will be multiple 'sync satellites' and these settings can be different on each sync satellite (because they are not synchronised from the primary server).
- There are some settings that are 'per store' i.e. they affect only a single store in a datafile. Please see the [Store preferences](#) section for details on those.

Preferences are used to configure some of mSupply's functionality to more closely match your needs. mSupply is very flexible and highly configurable so there are lots of preferences! To access them, choose **File > Preferences...** from the menus. There is a scrolling side bar on the left containing a list of tabs; click on the one you want to see the preferences on that tab.

General tab



Organisation name: What is filled in here is quite important. Not only will it print on the top of invoices and various reports, but it is also tied to your registration code. Please think carefully about what it should be before entering it. If you need to change your organisation name, please do so and then re-contact info@msupply.org.nz for a new registration code.

Address lines (1, 2...): Enter the address information about your organisation that you wish to appear on invoices.

Close mSupply if user is inactive for # minutes: This determines how long a user can be inactive on mSupply before mSupply window closes. Entering any value bigger than 9 will close mSupply if the user has been inactive for that many minutes (note: entering any value smaller than 10 will currently not do anything!). This timer is re-set when:

- a user clicks on a:
 - supplier invoice
 - customer invoice
 - request/response requisition
 - stocktake
- anytime the software checks a user's permission (normally when creating a new transaction)
- anytime the software updates some (but not all) progress bars

Register button

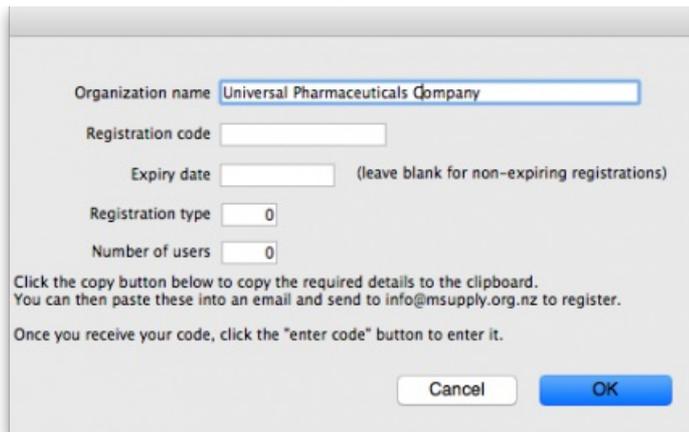
This button is used for registering mSupply. (It will be dimmed if you have already registered). If you have not registered, clicking this button will display the registration details window:



Info

If you check the **Connect to hub server** checkbox then your copy of mSupply will periodically send information to our hub server. This information includes the mSupply version, operating system details, the active stores and the last date they synchronised with the server and other synchronisation information. This information is used in our hub to support your system and contains no user or personal information.

- Here you are provided with the information needed to register. Two of these, if changed, will invalidate your mSupply registration:
 - Your organisation name
 - Your hardware ID
- Clicking the **Copy details** button will copy this information to the clipboard, which you can paste into an email and send to support@msupply.org.nz.
- Once we have received this registration information we will generate a registration code and send it back to you.
- The code is entered by clicking the **Enter code** button in the window shown above. You will then be shown another window where you can enter the registration details you have been supplied:



Your registration instructions supplied with the registration code will describe what information to put in each field.

Info

- mSupply registration codes are specific to the Hardware ID, organisation name, Number of users and Expiry date of your licence (if it is time-limited - nearly all mSupply licenses are NOT time limited).
- If you change either your organisation name or the computer on which you are running mSupply, you will need to contact Sustainable Solutions for a new code.
- From version 3.85, the registration code depends on the machine UUID which is unique to every single computer and consists of 36. If your machine UUID is

General tab

Register button

Other fields on the General tab

Misc tab

Purchase order defaults tab

Purchase order 2 tab

Invoices 1 and 2 tab

Item tab

Default account code for new items

Title for "N" classification for VEN items

Item list (master and local)

Suggest the next available number for new item codes

Price tab

Quotes tab

Reports tab

Names tab

Tenders tab

Reminders tab

Patient medication tab

Drug interactions tab

Registration tab

Printing tab

OK and print tab

Logo tab

Dispensary mode tab

Label printing section

Patients section

Payments section

Apply stock to placeholder lines section

HIS tab

Backup tab

Backup 2 tab

E-mail tab

Server tab

Synchronise tab

Customisation options

Moneyworks tab

FrontlineSMS tab

eLMIS tab

LDAP tab

Dashboard tab

DHIS2 tab

Stock tab

Custom fields tab

Barcode scanning tab

Options tab

Supplier Hub tab

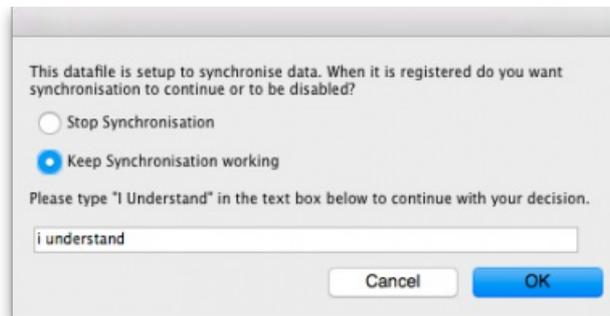
Alternate server tab

Assets tab

Web catalogue tab

- blank, please make sure that windows program CMD is allowed to run (it may be blocked by anti-virus or anti-malware software). Please make sure you keep mSupply as a trusted application and unblocked by any anti-virus or anti-malware software you are using.
- For versions before 385, the registration code is dependent on the MAC address of the computer. If you have a 3G USB dongle (modem) plugged into the computer at the time you click on the registration button, Hardware ID will likely be based on the MAC address of the 3G USB dongle rather than that of the computer's Ethernet card. This can cause problems because if the 3G USB dongle is removed or changed at a later date, mSupply can become unregistered. To avoid this, make sure mSupply uses the MAC address of its inbuilt Ethernet card rather than the 3G USB dongle:
 - Disconnect any 3G USB dongles from the computer and restart mSupply.
 - Proceed with retrieving the registration details as described above and send them to us to create the unlocking code for you.
 - If the Hardware ID field is empty, for pre-3.85 versions this indicates that you do not have an Ethernet card or 3G USB dongle installed on your computer and for version 3.85 and above that mSupply or the Windows CMD programme is being blocked by anti-virus or anti-malware software. If you need help, please consult Sustainable Solutions.
 - If you move your data file to a new computer you will need to obtain a new registration code from us and enter it within 3 months to prevent mSupply not working.

After entering your registration details and clicking on the OK button in the screenshot above, if the datafile is set to use [synchronisation](#) then the following window will appear:



This is a very important window and you must be careful to make the right choice! When a datafile is unregistered, synchronisation is prevented from running for data security reasons. Your datafile is just about to be registered so you are being asked whether you want synchronisation to continue working or whether it should be stopped.

If you select "Stop Synchronisation", then the synchronisation settings will be cleared and synchronisation will not work. You would select this option if you were using a copy of live data for training, for example.

If you select "Keep Synchronisation working", then synchronisation will keep working (surprise!). You would use this option if you were using this datafile in a live synchronisation system, either for the first time or if you've moved it to a new computer.

When you have made your choice, type "I understand" in the textbox as confirmation (the consequences of turning on synchronisation to the live system for a duplicate datafile intended to be used in a training environment can be dire!) and click on the OK button. Whichever choice you have made, mSupply will now quit and you will need to restart it.

Hooray, the registration process is now complete!

Other fields on the General tab

Default customer

Leave this field blank for normal operation. If you usually (or always) only issue to one customer, enter that customer's code here. You must set the value to the name code of an existing customer. Doing so will mean that this customer's details are automatically filled in when you create a new customer invoice.

Default margin for suppliers

The percentage margin that will be filled in when you enter a new supplier. This value can be edited for each supplier at any time. Enter "0" if you do not apply a mark-up to items you sell (for example, if you are issuing stock to hospital wards at cost).

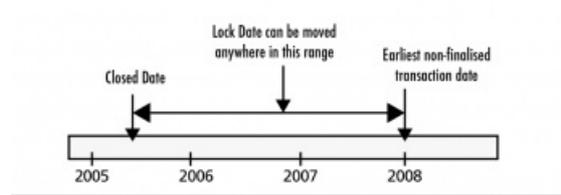
Default tax rate

The rate entered here will automatically be applied to customer and supplier invoices. Note that this amount can be edited when you are entering an invoice by clicking on the tax rate at the bottom of the invoice entry window.

Period closing

There are two fields allowing the entry of dates:

- The **Closed date** is the date prior to which no transactions can be entered. Setting the closed date means that all transactions up to that date are finalised and mSupply will not allow the entry of any transactions with an earlier date. The closed date can not be moved backwards- only forwards.
- The **Locked date** is the earliest date that can be entered for a transaction. The lock date can be moved forwards as far as the oldest non-finalised transaction, and backwards as far as the closed date



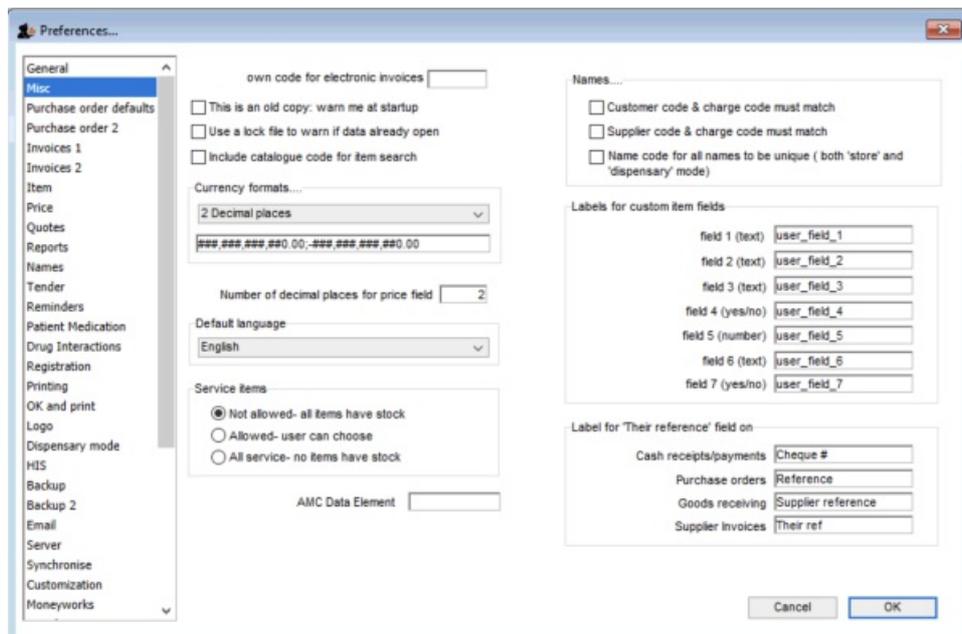
If you try to set an invalid locked or closed date you will be warned.

Be very careful setting the closed date. Changes to the closed date can not be undone.

Inactive user logout

This setting is only visible if you are using an mSupply client in a multi-user setup, not if you're using the single user version of mSupply (because it's not applicable to the single user version). This is where you set the time in minutes before the mSupply client is closed and the user is automatically logged out. To disable the function, set the time to 0 minutes (the default setting). This is really useful for preventing inactive users holding onto a user license when they've forgotten to logout of mSupply. Any unsaved work will be lost when mSupply is closed so remember to save your work regularly. The good news is that most of the things you do in mSupply are automatically saved as you do them (adding and removing lines to customer and supplier invoices, inventory adjustments, stocktakes etc.) so the chances of losing work is actually very small!

Misc tab



Own code for electronic invoices The code that customers must have for your organisation in their copy of mSupply. This code is added to invoices you export, and allows customers to import the invoice into their system automatically.

This is an old copy: warn me at startup. You may want to save an old copy of your data (for example the data as it stood on the last day of the financial year). If you check this box, you will be warned at startup if the database is an old copy, to reduce the risk of accidentally entering current transactions into an old file rather than your current file.

Use a lock file to warn if data already open If this box is checked, mSupply will maintain a record of when it is open outside of the database. This option only applies to the single-user version of mSupply. This means that if a second user attempts to open your data file while the data file is already in use, the user will be alerted, and no damage to the data will occur. Note that this option only applies to the single user version of mSupply. The client-server version of mSupply allows multiple users to access mSupply at the same time.

What if your machine crashes? If, for example, you have a power failure and your computer shuts down suddenly, mSupply will not be able to delete the lock file, and you will get a message when you attempt to restart mSupply that another user is already using the data file. If you are sure this is not the case, use Windows Explorer or the Mac Finder to locate the folder that contains your mSupply data. Delete the file that has the same name as your data file but ends in "_locked.txt". You will now be able to start mSupply.

We recommend you do not turn this option on unless you understand the above paragraph or have a system administrator who authorises your use of this option.

An example of where turning on this option might be useful is when you store your mSupply data on a file server, and allow multiple single-user copies of mSupply to access the same data file. In such a situation to have 2 users attempt to access the data simultaneously would be disastrous.

Item codes must be unique When this box is checked, mSupply will ensure that each new item entered has a unique code.

⚠ Important

It was likely never a good idea to allow two items to have the same code. As of v5 (or earlier) this preference has been removed and mSupply should not allow two items to have the same code.

Include catalogue code for item search When checked, a report can be produced where the item's catalogue code is one of the search parameters.

Currency formats This option specifies the format in which currencies will be displayed in mSupply. We provide two preset formats for currencies with 2 decimal places and currencies with none. If you want to enter a custom format you can change the field below the drop-down list. For example you may want to use a different separator than a comma. Note that if you type illogical values into the field the numbers may not display at all, or display erroneous data. Contact Sustainable Solutions if you need more information.

Service items Service items are items that do not have any stock associated with them. For example, a fee for special handling of goods, or for reprinting an old invoice, or a consulting charge.

These Preferences determine whether new items are allowed to be service items or not. Note that changing this preference will not affect existing items.

Names

- **Customer code and charge code must match**- If checked, when entering or editing a Customer, you will have to enter the same code for both the "code" and the "charge code" fields. (It is a good idea to leave this checked unless you have several customers that are invoiced separately, but whose invoices are collated onto a single statement at the end of the month)
- **Supplier code and charge code must match**- If checked, when entering or edit a Supplier, you will have to enter the same code for both the "code" and the "charge code" fields. (It is a good idea to leave this checked unless you have several suppliers that are invoiced separately, but whose invoices are collated onto a single statement at the end of the month)
- **Name code for all codes to be unique (both 'store' and 'dispensary' mode)**- If checked, when entering or editing a customer or supplier mSupply will not allow the creation of a second name with the same name code.

Labels for custom item fields

mSupply provides you with seven custom fields that you can use to record your own data for each item.

- the first three fields hold text or numbers,
- the fourth field is yes/no (or true/false)
- the fifth field is a numeric field
- the sixth field holds text or numbers
- the seventh field is yes/no (or true/false)

Here you can specify the label(or name) for each field. Note that field one is also displayed when you list items. Note also that when using the search editor to search for items (for example when producing a custom report), the fields are labeled "user field 1" etc..., and not with the labels you might have assigned.

Label for 'Their reference' fields

On various transactions, there are **Their ref** fields for containing the other party's reference (delivery note number, order reference etc.). You can change the label for these fields on the various different transaction types; simply enter the label you want to see in the text boxes.

Purchase order defaults tab

For an explanation of the sections on *Purchase order defaults* see the [16.02. Purchase order preferences](#) section of this user guide.

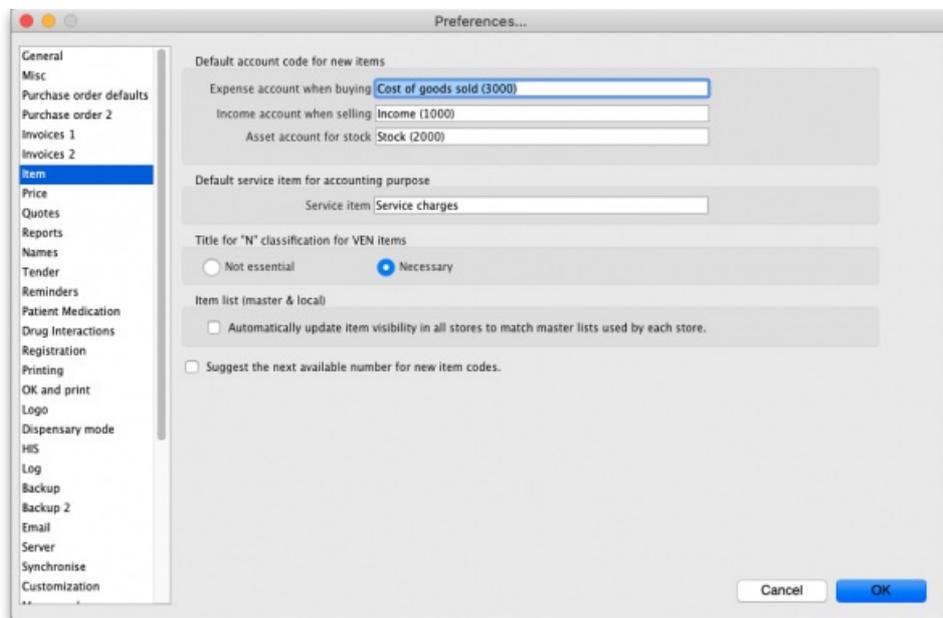
Purchase order 2 tab

For an explanation of the sections on *Purchase order 2* go to [Purchase Order Preferences](#)

Invoices 1 and 2 tab

For an explanation of these sections see [Invoices Preferences](#)

Item tab



Default account code for new items

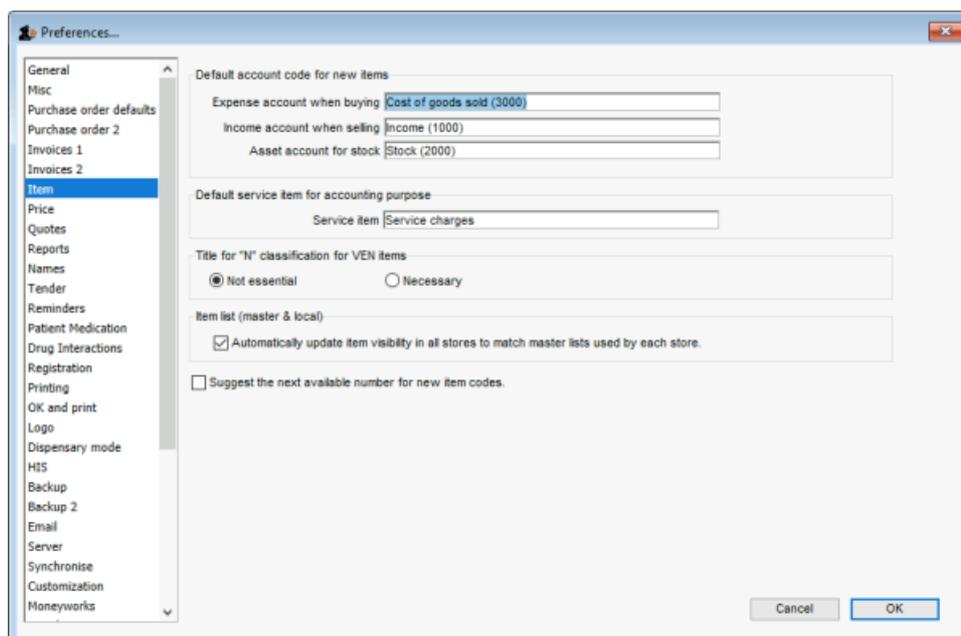
- There are 3 spaces for you to select the accounts to use. Choose one account for expenses when buying, one account for income when selling and an asset account for stock.
- The accounts you enter here will become the default accounts for newly created items.

Title for "N" classification for VEN items

You can choose what the “N” in the “VEN” classification of items stands for in mSupply; *Not essential* or *Necessary*. The classification is set for an item in its detail window, see the [Item basics](#), [General tab](#) page for details.

Item list (master and local)

If you check this box, then the visibility of items in stores will be set to match the items on master list(s) selected to be used by that store. For details on how this works and how to set it up, see [Controlling item visibility - the Master lists tab](#)



⚠ Important

This preference can drastically affect item visibility. For instance, if a store has no master lists assigned, all items will be made invisible in that store. Could lead to a scary moment!

If some items that are currently visible in a store need to be made invisible when this preference is turned on but they can't (because they have stock, for example) then a temporary master list is created for each store containing the problem items. mSupply will inform you but you should use that list to deal with those items.

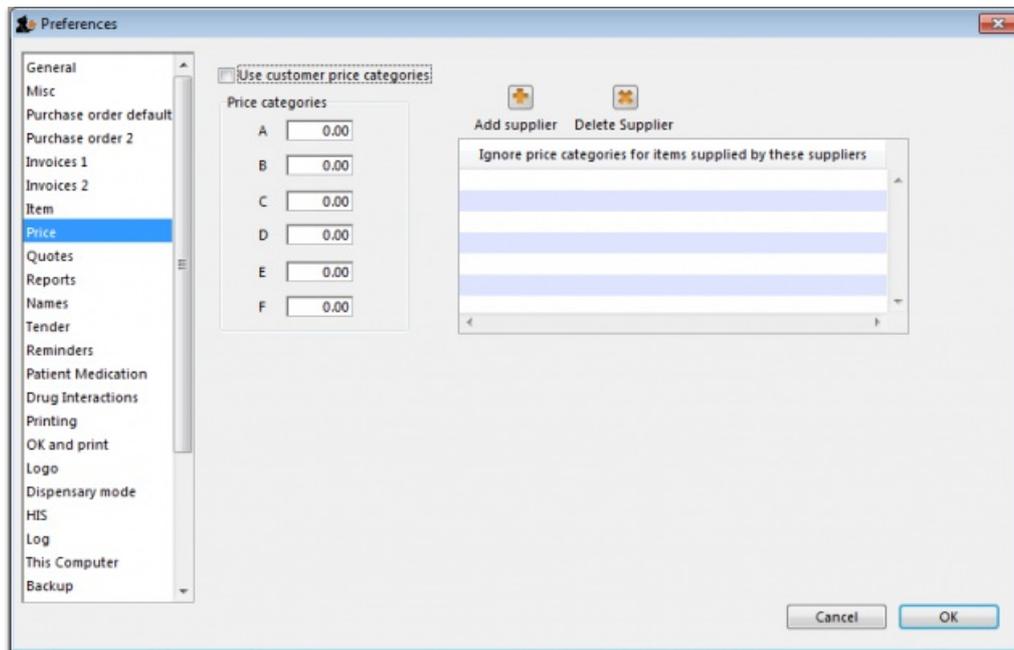
Do not turn it on unless you know what you are doing! It affects **ALL** stores in the system.

If the box is unchecked then the visibility of items in a store is not affected by master lists.

Suggest the next available number for new item codes

If you want item codes to be assigned automatically, check this checkbox.

Price tab



On checking the box for “Use customer price categories”, mSupply will activate the price categories.

Price categories

By default all customers are assigned a price category of “A”

To assign a different category to a customer, choose Customers > Show customers... and find the customer entry. Then set the price category field to a different value

Here in the Preferences, you specify what percentage change to the default price will be made for each category.

For example, you might have a group of customers to whom you charge commercial prices, which are 20% above your normal price. Enter “20” in the “B” category field, then assign your private customers a price category of “B”

Ignore price categories for items supplied by these suppliers

Suppliers in this list will have no price category assigned to the items they supply. To add a supplier in this list, click the **Add supplier** button. A window will appear with a space to write the supplier's name. You can write the first character or two and press enter/return to bring up a list of suppliers that start with those letters. You can then select your chosen supplier from the list. To delete a supplier from the list, highlight it by clicking on it and then press the **Delete Supplier** button.

Quotes tab

- Require entry of quote validity date
- Automatically turn off preferred status after validity date

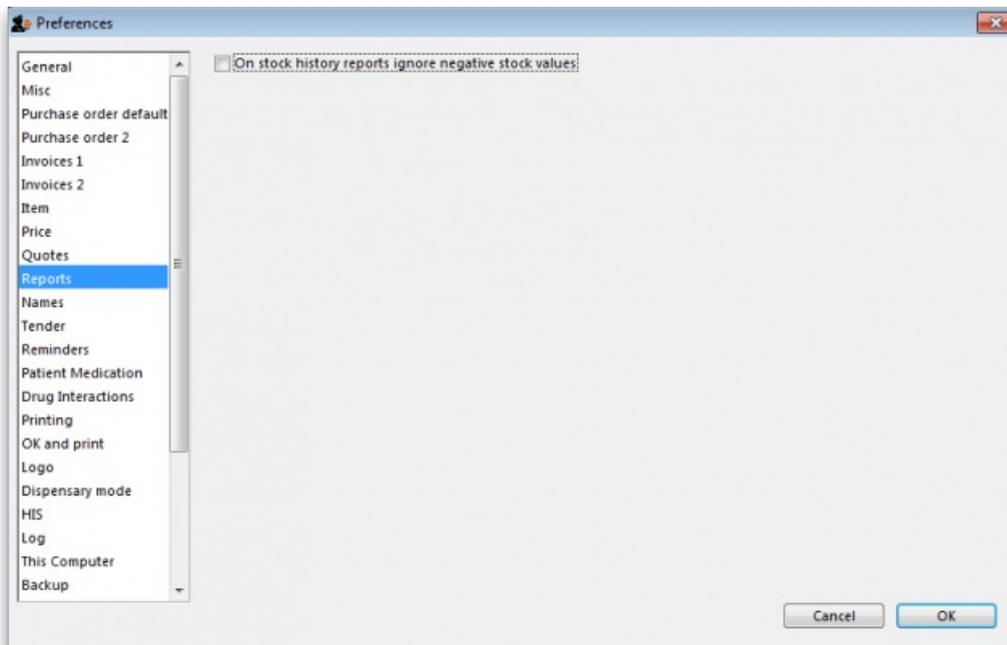
Require entry of quote validity date

Check this box if you want a validity date for a quote to be compulsory.

Automatically turn off preferred status after validity date

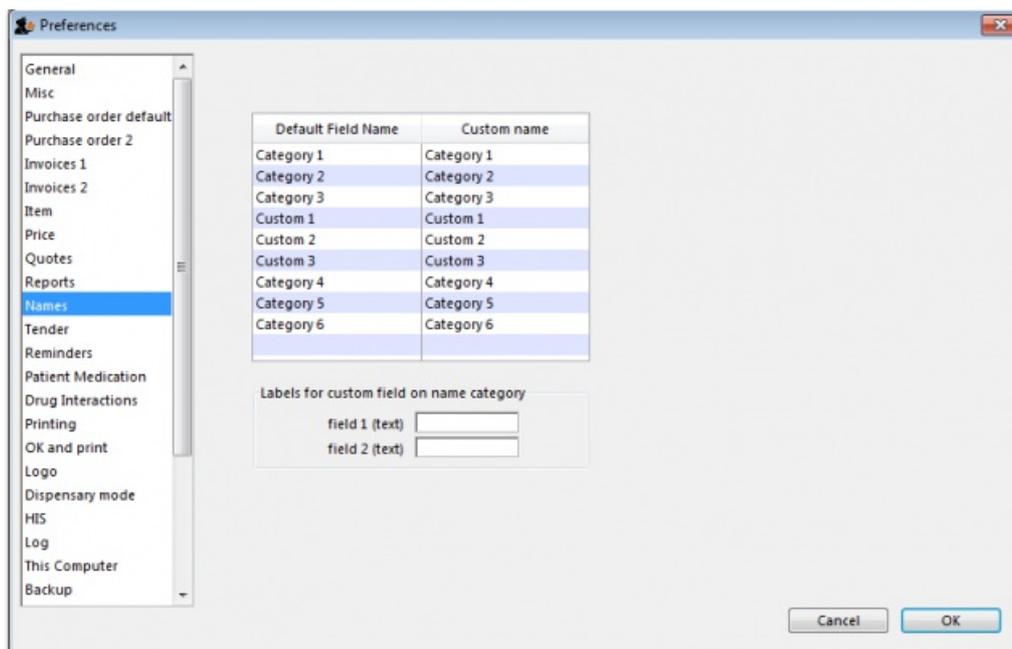
If you check this box then the preferred status will not appear when the validity date has passed.

Reports tab



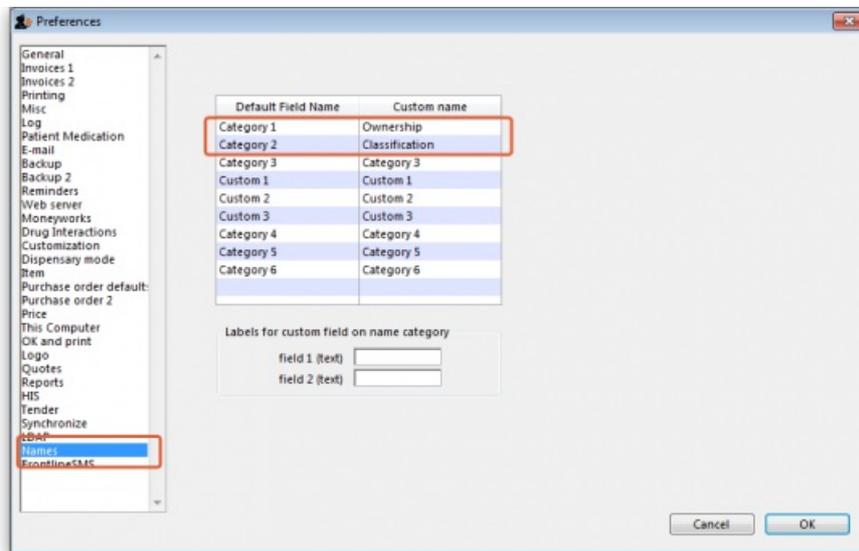
Check this box if you want negative stock values to be ignored on stock history reports (negative values can be legitimate but concerning for some users so negative values are left as zeroes if this preference is turned on).

Names tab

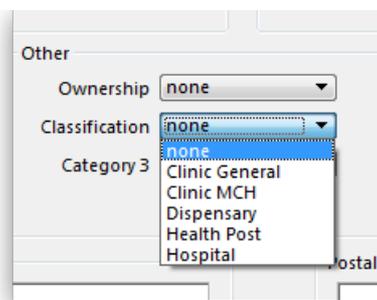


Default field name/Custom field name table: In this list you can change the labels for name categories and custom fields - not the categories themselves (see [Name categories](#) for instructions on how to do that) but the labels for the categories. To change one of the labels click on it in the *Custom name* column to select it and click on it once again to begin editing it. Type the new name and then click outside the label to finish editing it. Now, wherever you would have seen that label in mSupply you will now see the name you have given it. The defaults are shown in the screenshot above.

Example: If category 1 was to be called 'Ownership' and category 2 was to be called 'Classification' then you could change their labels like this:

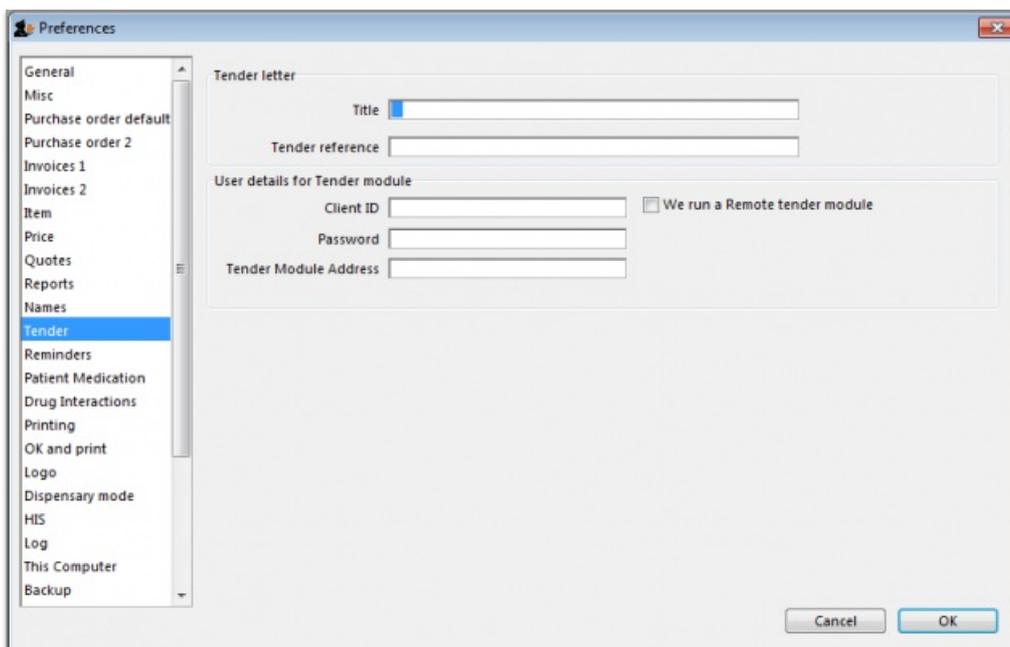


Now, wherever you would have seen the label 'Category 1' or 'Category 2' in mSupply, you will now see the label 'Ownership' or 'Classification' e.g. in report filters or, as in this screenshot, the General tab of the name details form:



Labels for custom fields on name category: Here you can enter labels for the custom fields used when creating or editing name categories. The labels you enter here will appear on the *New/Edit category* window instead of the *Category_user_field_1* and *Category_user_field_2* labels. These labels are used in some reports.

Tenders tab



Tender letter section

- **Title:** The title for the printed tender letter. If nothing is entered in here mSupply will use 'Invitation to tender'.
- **Tender reference:** The reference for the tender so that, when you communicate with others you both know which tender you are referring to. If nothing is entered in here mSupply will use 'Tender reference'.

User details for Tender module section

We run a remote tender module

Click this to indicate that you operate an mSupply remote tender service where suppliers and you will log into a common web page to submit and download tender information. You will need to contact Sustainable Solutions for the account information required below before using this option. If this box is unticked you will need to enter bids manually. If it is ticked, you will see an extra *Synchronise* tab when you view the details of any tender.

Client ID This is the ID that you use to login to the remote tender web page and is unique to you. This will be supplied to you by Sustainable Solutions.

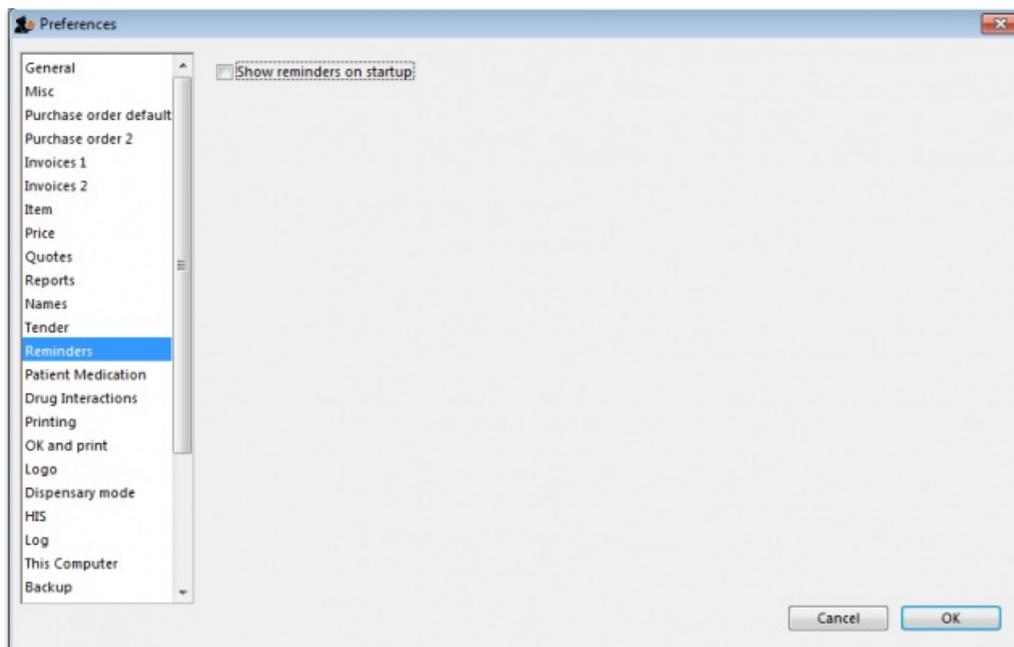
Password This is the password you use to login to the remote tender web page. Like the ID, this will be supplied to you by Sustainable Solutions.

Tender Module Address The internet address of the remote tender web page in the format *P address:port number*. Once again, this will be supplied to you by the indefatigable Sustainable Solutions.

Tip

Currently the Remote tender Module [URL](https://tenders.msupply.org.nz) is : <https://tenders.msupply.org.nz> On the Tender Module Address, you are expected to enter "tenders.msupply.org.nz" without the quotes

Reminders tab

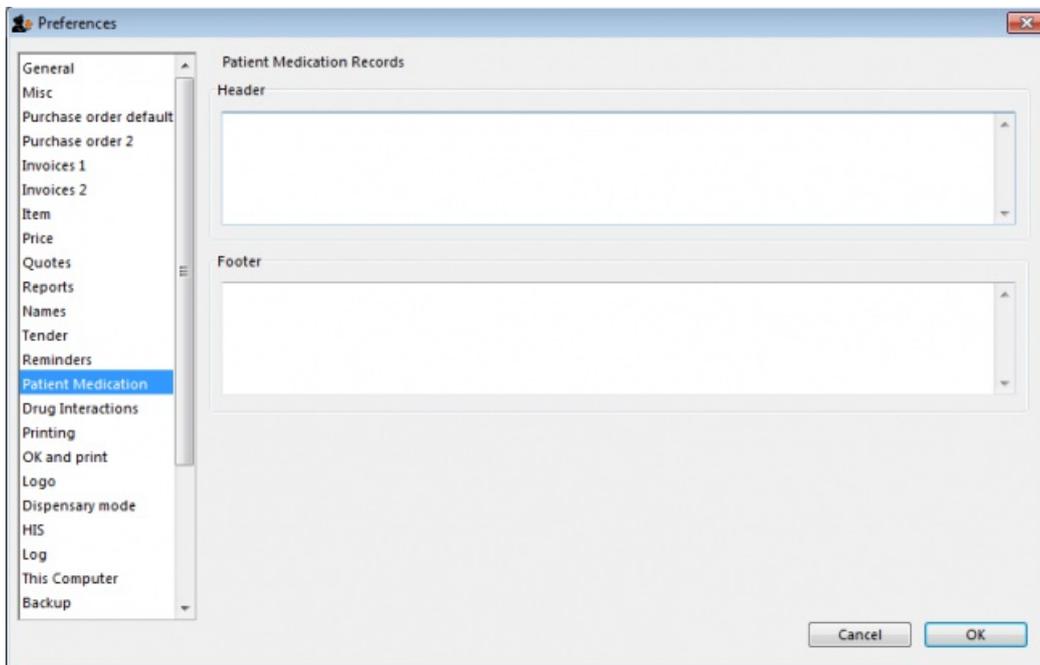


Reminders provide a simple to-do list built into mSupply.

If the *Show reminders on startup* box is checked, any reminders that are not completed and whose due date has been reached will be displayed in a window when a user logs on.

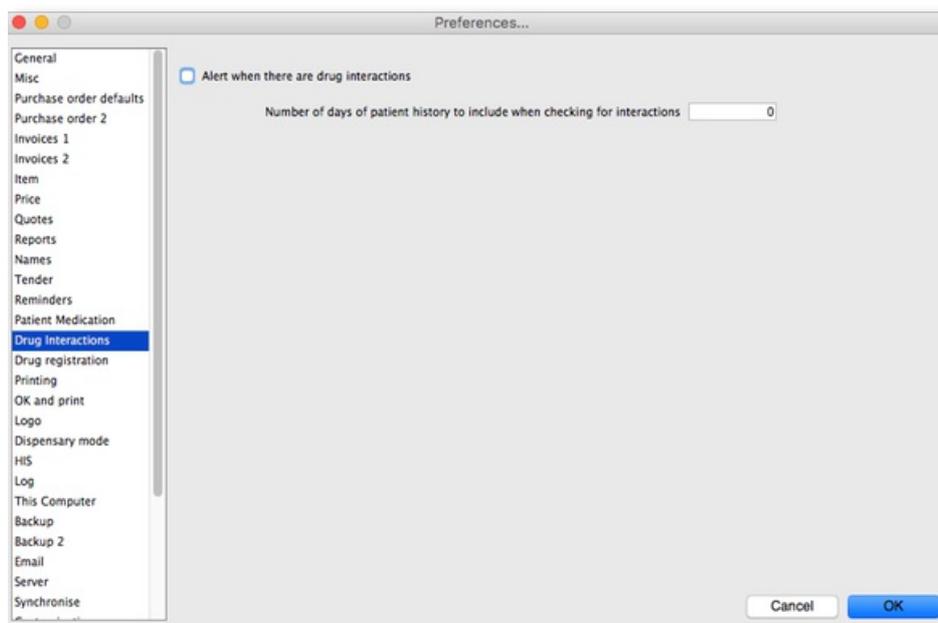
See [Reminders](#)

Patient medication tab



Here you can add a header and a footer that will appear on patient medication records.

Drug interactions tab



When operating in dispensary mode, you can choose to have mSupply alert you to drug interactions. Dispensary mode is covered fully in [this section](#)

The number of days of patient history... field determines how far back from the current date mSupply should look for drugs that have a known interaction with the drug you have just entered.

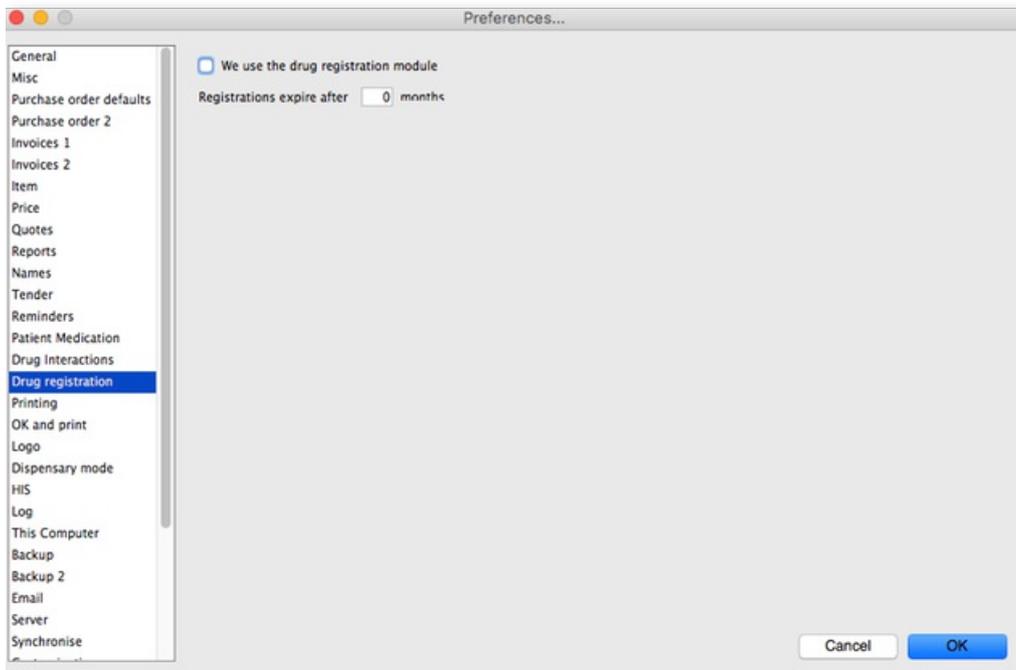
When drug interactions are activated, you will be shown a warning message when you enter a drug on a patient invoice that interacts with other medicines dispensed to that patient during the history period specified.

See the [10.02. Prescription entry](#) page for details about how interactions are used while dispensing to a patient.

Registration tab

If you have a license for the Registration Module (see [26.12. Product \(drug\) registration](#)), you will need to check this tick-box, and click **OK** in order to activate it.

You can specify the number of months before a drug registration expires. So when you register a drug, the expiry date of your registration will be calculated automatically by adding the number of months you have specified to that day's date. For example, if you specify 24 months until a drug registration expires and you register a drug on 24/07/2016, the expiration date will be set automatically to 24/07/2018. If you leave the number of months at 0, you will have to set the drug registration expiry date manually.



Printing tab

For an explanation of this tab please refer to the [16.04. Printing preferences](#) section of this user guide.

OK and print tab

For an explanation of this section please refer to the [ok_and_print](#) section of this user guide.

Logo tab

Here you can paste in a logo you have copied to the clipboard - you must copy the **contents** of a file to the clipboard, not the file itself. The file can be in .jpg, .png, .bmp, .gif, or .tiff format. This logo will be displayed at the bottom right of the navigator.

Tip

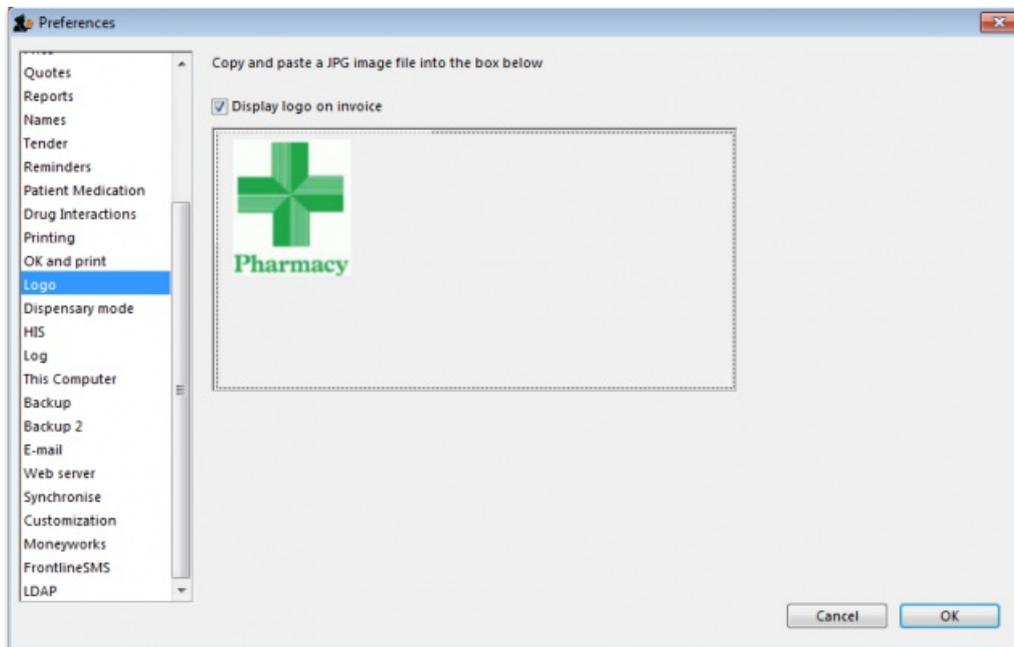
Make sure the image you use is twice as wide as it is high. If it is not, mSupply will convert it to this ratio which will make it look squashed or stretched, sometimes with interesting results!

For more information on this see the [16.06. Entering a new logo](#) section of this user guide.

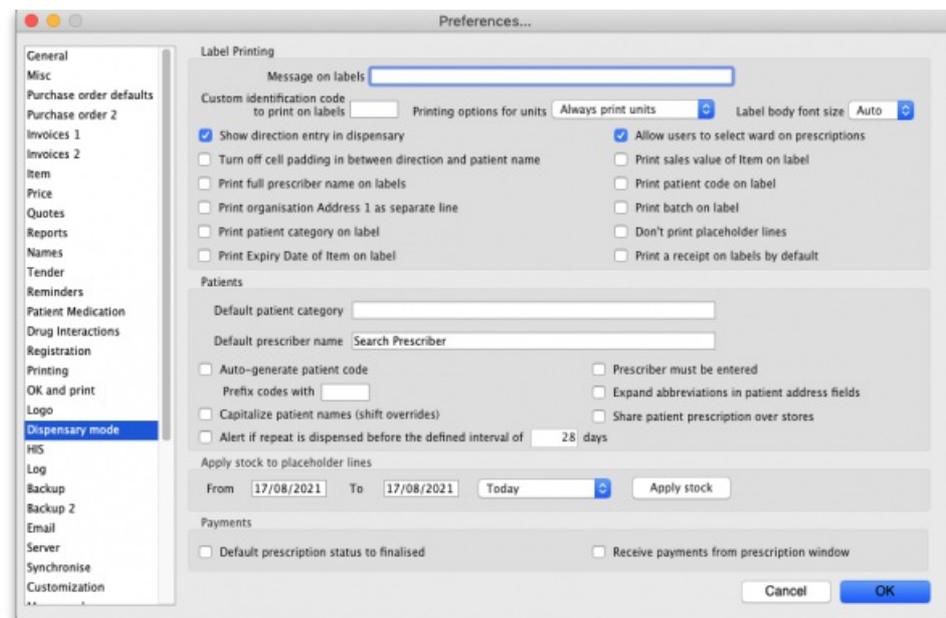
If you want the logo to be printed on invoices, check the **display logo on invoice** checkbox.

Please note that not all printing forms include the logo. If you would like customisation or assistance, Sustainable Solutions can quickly customize forms for you to meet your requirements.

If you have set a separate store logo (see the [26.07. Virtual stores > logo_tab](#)) for the store you are logged into this will be displayed on the Navigator and invoices instead of the one saved here.



Dispensary mode tab



See [Dispensary mode preferences](#) for more details about how these preferences are used in practice.

Label printing section

Message on labels The text you type here will be displayed on medicine labels on the last line.

Custom identification code If you wish to identify the origin of the dispensed item, e.g. In-Patient Dispensary or Out- Patient Dispensary, create an identification code, and enter it in this field. It will then appear as the last item printed on the the right of the third line of each label.

Printing options for units These are the units applied to items. Three options are available from the drop down menu. You can choose to always print the units on labels, you can choose for each item whether or not to print the unit or you can choose to never print the units.

Label body font size This defines the size of the font used in the body part of dispensary medicine direction labels. It is set to *Auto* by default, which means that the text will change size as the amount of text grows so that it can all fit onto a single label. If you choose one of the other sizes (the bigger the number, the bigger the font size), the body text will remain fixed at that size and, if the text cannot fit on a single label, it will overflow onto another label.

⚠ Important

If you use a fixed font size, be careful to make sure you get all the labels that belong to a particular prescription after printing them out, you could easily miss one if the directions are unusually long!

Show direction entry in dispensary If checked, users can enter patient directions for dispensed items on a prescription.

Turn off cell padding in between direction and patient name Supply will automatically pad the cell (leave some space in the cell) between *Direction* and *Patient name*. If you do **not** want this to happen then check this box.

Print full prescriber name on label To have the prescriber's full name printed on labels, check the box in *Print prescriber full name*. Otherwise, the initials will be printed.

Print organisation address 1 as separate line By checking the box *Print organisation address 1 as separate line*, you can print organisation address 1 as separate line. You have to set the text in Preferences: *General* » address 1 field. The text which you type here will be displayed on medicine labels on its own line.

Print patient category on label If checked, when a prescription label is printed the patient's category will be printed alongside the patient's name in the following format; *Patient name (category)*. Note that if the **Print Patient code on label** option is also checked then the patient's code and category will be printed alongside their name in the format *Patient name (code/category)*.

Print Expiry date of Item on label When checked, the stock line's expiry date will be printed on the label.

Allow users to select ward on prescriptions If checked, **Patient type** and **Ward** drop down lists are displayed on prescriptions. If *Inpatient* is selected as the patient type then the Ward drop down list is enabled and the patient's ward can be selected.

Print Sales value of item on label When checked, the stock line's sales value (based on its sell price) will be printed on the label.

Print Patient code on label If checked, when a prescription label is printed the patient's code will be printed alongside the patient's name in the following format; *Patient name (code)*. Note that if the **Print Patient category on label** option is also checked then the patient's code and category will be printed alongside their name in the format *Patient name (code/category)*.

Print Batch on label When checked, the stock line's batch number will be printed on the label.

Don't print placeholder lines If this box is checked, placeholder lines will not be printed.

Print a receipt on labels by default Supply allows you to print a patient payment receipt on a label. If you check this checkbox it means that the **Print receipt** checkbox on the *Payment* tab of a prescription will be checked by default for all prescriptions.

For more information on printing receipts, see [10.02. Prescription entry](#)

Patients section

Default Patient category The text you enter into this field will be assigned to the category field for new patients.

Default Prescriber name With the cursor in this field, enter the first letter or first few letters of the prescriber's name and press *Tab*. A window appears displaying prescribers who meet the criteria typed; note that both first and last names appear, and you should select the desired prescriber and click *OK* to make that prescriber the default one.

Auto-generate patient code If this box is checked each new patient created will have a serial number assigned to them. The assigned code can be overridden by the user.

Prefix codes with The text you enter in this field will be used as a prefix for automatically generated patient codes. e.g. if you enter "t" codes will be assigned "t1", "t2" etc.

Capitalise patient names Does what it says. The shift key will still override this option.

Prescriber must be entered If this checkbox is checked, then the user will be warned if a prescriber has not been entered when they click the *OK* button for accept and print a prescription.

Expand abbreviations in patient address fields In the patient address fields, any abbreviations will be written out in full instead of the abbreviation if you check this box.

Share patient prescription over stores If this box is checked, viewing a patient history in one store will show transactions entered in other stores.

Alert if repeat is dispensed before the defined interval of X days If checked then, if a repeat prescription is issued to a customer before the elapsed number of days, an alert is shown to the user for them to confirm whether they wish to continue dispensing the repeat.

Payments section

Default prescription status to finalised: If this is checked the **Finalise** checkbox on a prescription will be checked when it is first created so that it will be finalised by default when the prescription is first saved. Payments can only be received against finalised prescriptions so if you're going to receive payments from the prescription window on the *Payment* tab it would be wise to check this preference too.

Receive payments from prescription window. If checked then a *Payment* tab is added to the prescription entry window and the patient's payment can be entered there. You can still enter a patient's payment separately in the [Customer receipts](#) module if required. Whichever of the 2 places you enter the payment, they create an identical transaction. Please note that to activate this preference requires the **Activate customer receipts module** preference to also be turned on (see [General preferences, Invoices 2 tab](#)). If it isn't turned on already you will be asked to confirm that turning it on is OK.

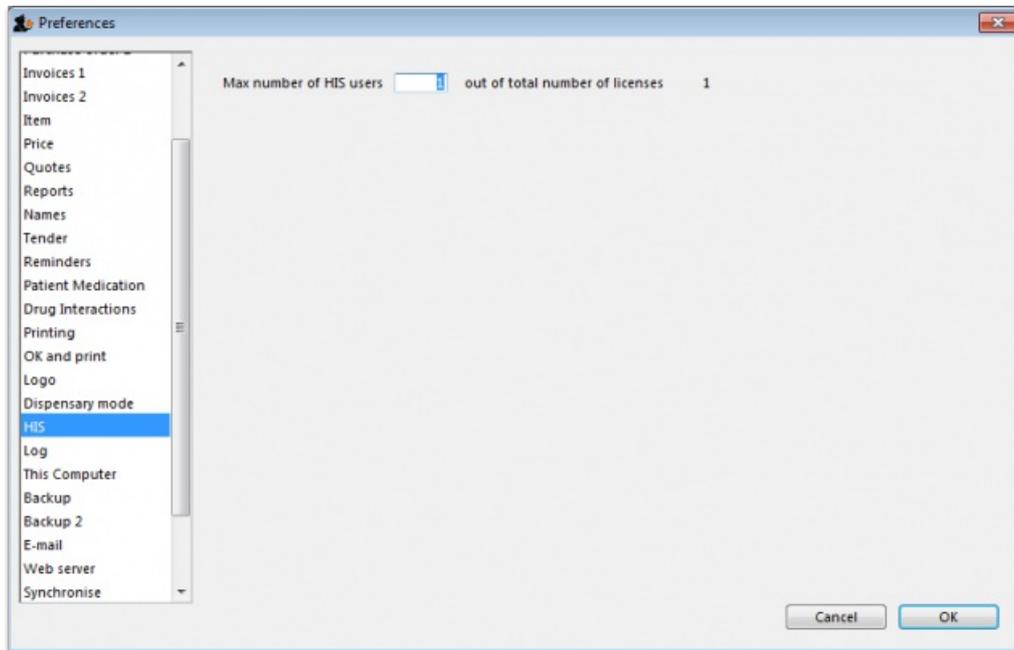
Apply stock to placeholder lines section

This section gives you the ability to apply stock to placeholder lines on prescriptions. We know that in a fast moving dispensary it's sometimes hard to

keep up with the stock coming into the dispensary so, sometimes you can get into the position where you physically have stock on the shelves to dispense to patients but you haven't been able to enter it into mSupply yet. mSupply allows you to keep dispensing by automatically adding placeholder lines to the prescriptions instead of normal stock lines. When you eventually enter the stock that you physically dispensed to the patients into mSupply, you need to allocate it to the prescriptions to keep your mSupply stock levels correct. This is the function to enable you to do that.

Simply select the dates between which you want mSupply to look for placeholder lines on prescriptions by manually entering them in the *From* and *To* fields or selecting one of the preset selections in the drop down list. Then click on the *Apply stock* button. mSupply will then search for placeholder lines on prescriptions between the dates you chose. If it finds one it will attempt to replace the placeholder line with real stock from your store on a FEFO basis. If there is enough stock then mSupply will replace the placeholder with a real stock line. If there is only enough to replace part of the placeholder line then it will allocate what stock there is and will leave a reduced quantity placeholder line to represent the stock that still couldn't be allocated.

HIS tab



Backup tab

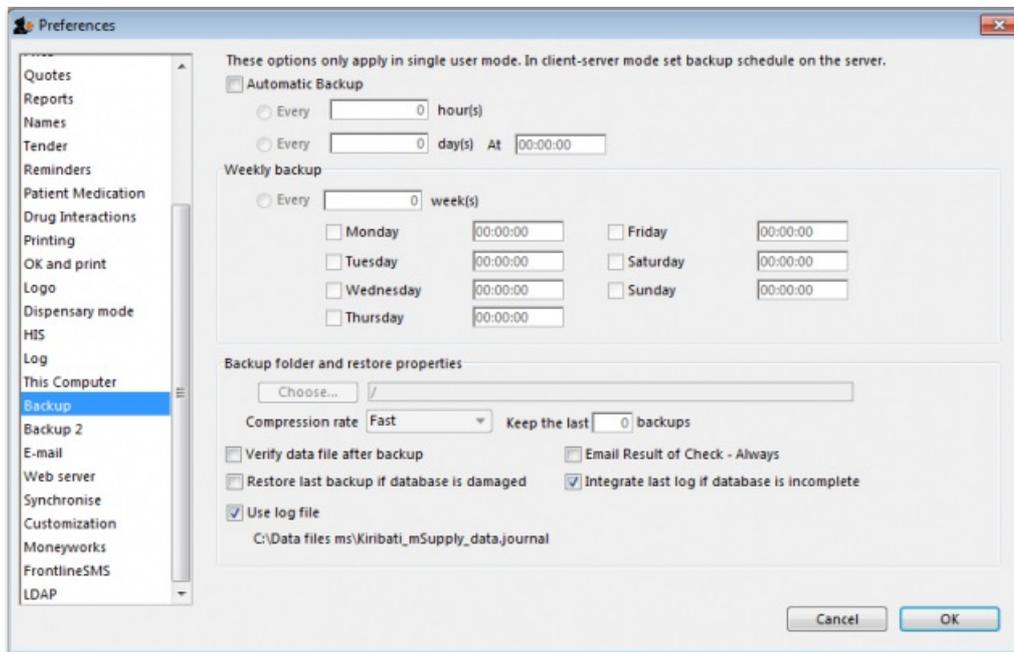
This tab is used to configure 'primary' backups to be performed automatically according to a schedule.

Alert

- These Preferences are applicable only in single user mode (including single-user sync).
- In client-server mode, these 'primary' backup details are set on the server.
- Supplementary backups need to be configured on the [Backups 2 tab](#), regardless of whether you have a single-user or client / server machine.

Info

- You can perform a manual backup (**File > Backup**) at any time, independently of this automatic backup schedule.
- Manual backups will be performed according to the configuration in the lower half of this tab, which can only be changed after automatic backups are enabled.
- It is not necessary to quit the database before performing backups, manual or automatic.



Automatic Backup

- To enable automatic backups, the **Automatic Backup** checkbox needs to be checked. This will then allow you to configure the backups.

Choose backup folder

- Click the “Choose” button to specify the destination of the backup files.
- The default location is the same folder as the database itself.
- If possible, select a different physical volume from the one where your mSupply data is stored.
- In any case, it is better to locate this in a folder which is available to any user, e.g. **D:\mSupply backups**

Compression rate

- This option selects the compression of the backup.
- Unless you have a very large database *and* a big bandwidth secondary backup solution, choose *Compact*. This will give the smallest backup size, but it will take longer to run.

Tip

The duplication and block-level comparisons that services such as Spideroak use mean that it *may* be better for you to use fast (uncompressed) mSupply backups, as then only the changed portion of your data file will be backed up.

Verify data file after backup

- This option causes the backup to be verified after each backup is made. This is extra insurance against hardware failures and other factors that can lead to data corruption.
- We recommend selecting this option.

Restore last backup if database is damaged

- This option will cause mSupply to attempt to restore from the last backup if the database is found to be damaged.
- We recommend selecting this option.

Use log file

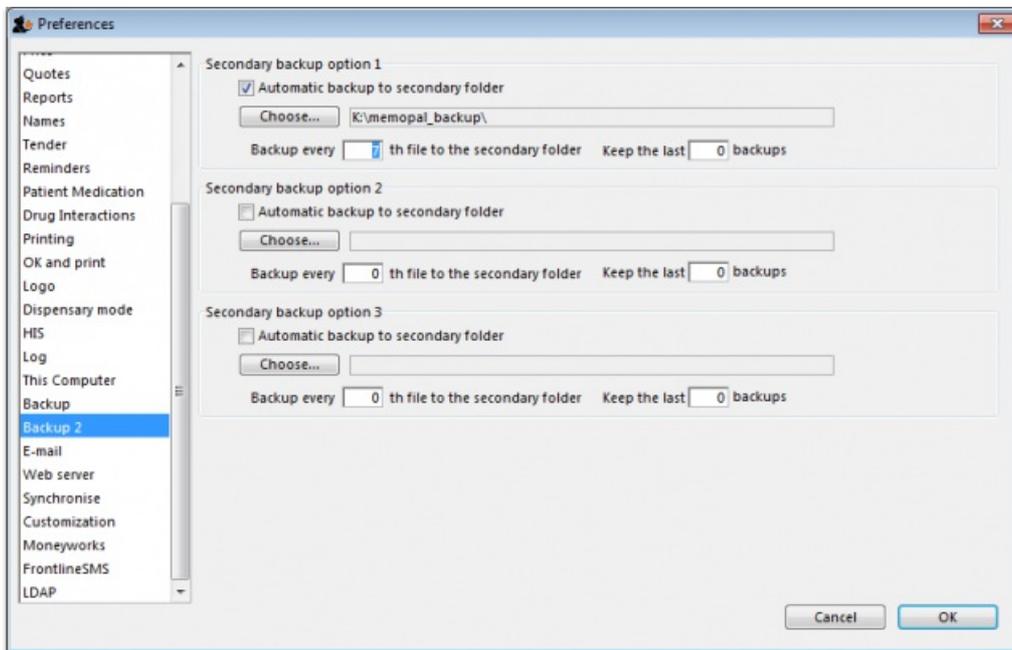
- This option causes a log file of mSupply activity to be created. This is like a running an interim backup in that it can be used with the next option to recover any lost activity *since* the last backup.
- We recommend selecting this option.

Integrate last log if database is incomplete

- If your database becomes damaged and this option is checked, then mSupply will automatically restore the data from a backup and use the log file to restore all transactions between the last backup and the end of the log.
- We recommend selecting this option.

Backup 2 tab

The Backup 2 tab allows configuration of supplementary backups. This is useful for making copies of just some of your backups that you can then send off-site, e.g. using Dropbox or Google Drive, etc.



Automatic backup to secondary folder:

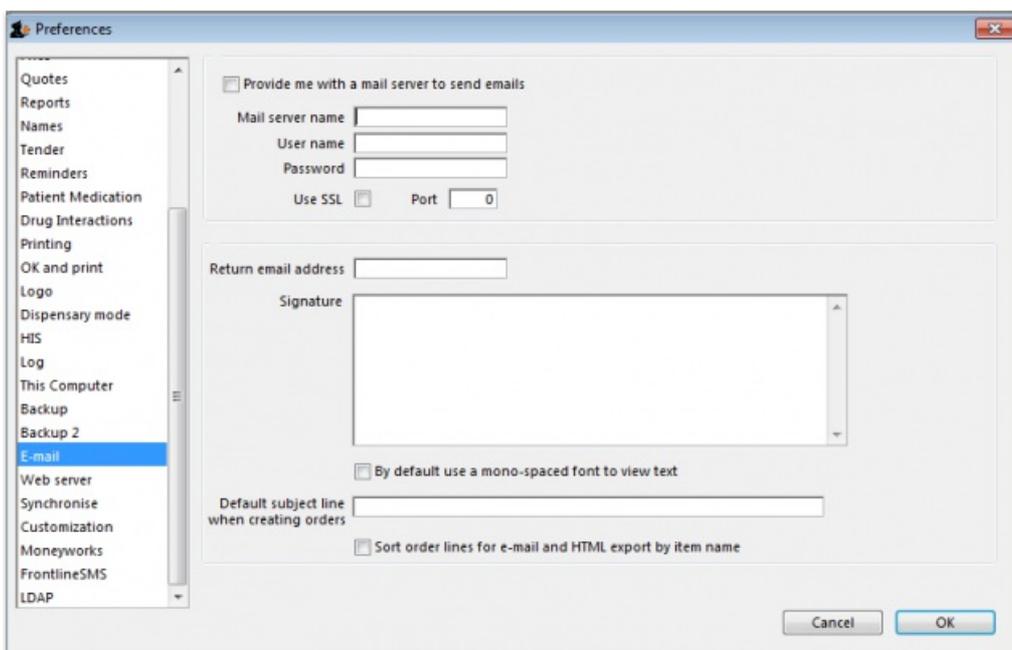
- Checking this option results in mSupply trying to copy completed backups to another folder which you specify with the *Choose* button below. Fill in the *Backup everyth file...* field with number of backups out of which one copy will be kept. That is, entering 7 will result in one backup per week being copied.
- You will need to configure your online backup software to use the folder chosen as the secondary backup location as the source folder for backups. Note that if you have plenty of upstream bandwidth, you might choose to ignore this Backups 2 tab and simply set your main mSupply backup folder as the source folder.

Secondary backup options 1, 2, 3

mSupply allows you to make up to 3 secondary backups to separate locations if you would like to. You can use 1, 2 or all 3 if you would like to. At least one is recommended for security purposes.

E-mail tab

You can choose to send orders, reports, invoices and notifications to recipients using e-mail in mSupply. However, before mSupply can send anything by e-mail you must tell mSupply about the server you wish to use and details of the e-mail described below:



Provide me with a mail server to send emails

If this is checked you will use mSupply's own internal email server to send emails. If it is unchecked you will use your own email server, the details of which you must enter in the Mail server name, Username, Password, Port and Use SSL fields.

Mail server name

The name of your mail (SMTP) server. eg "mail.mac.com". You can only enter this if you are not using mSupply's inbuilt e-mail server (i.e. Provide me with a mail server to send emails is unchecked).

User name

The username mSupply will use to authenticate itself to the mail server. Only needed if you are not using mSupply's inbuilt e-mail server (i.e. Provide me with a mail server is unchecked).

Password

The password which goes with the username. (Only when not using mSupply's e-mail server)

Use SSL

If this is checked mSupply will use the Secure Socket Layer protocol to send e-mail. A more secure way of sending e-mails but only check this if your mail server can support SSL.

Port

The port on the mail server which mSupply will send e-mail to (must be the same port the mail server is listening on!). (Only when not using mSupply's e-mail server)

Return email address

Enter an email address you would like any response to come to. mSupply cannot send email unless it also has a return address for email.

Signature

The text you enter here will be added to the end of all e-mails you send. You might want to put your organisation contact details here. It is generally poor etiquette to make your signature too long.

By default use a mono-spaced font to view text

A mono-space font such as "Courier" or "Monaco" is better for viewing text in columns, such as is produced by the automatic order generation in mSupply. However, visually it has less 'eye appeal'.

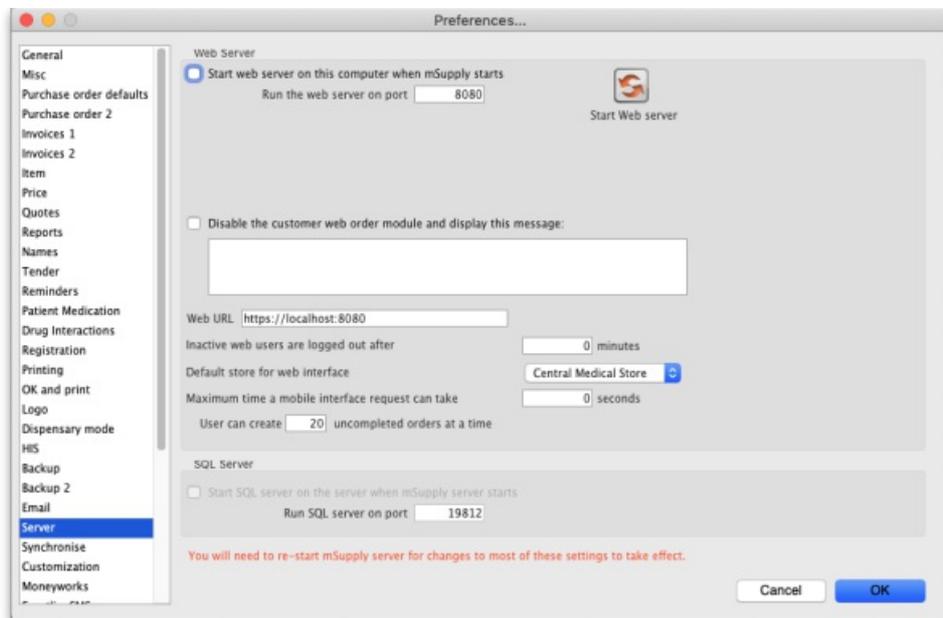
Default subject line when creating orders

When mSupply automatically turns an order for a supplier into an email, the text entered here will be put in the subject line. For example you might want to put "Acme Hospital order" to advise the supplier of its contents. Note that you can edit the subject line of automatically generated emails before you send them.

Sort order lines for email and HTML export by item name

This option allows emails generated automatically to be sorted alphabetically by item name before the email is created. If this option is left unchecked, emails will use the creation order of the order lines to create the email.

Server tab



These settings are all for mSupply's built-in webservice, which is used for things such as the [Dashboard](#), [mSupply mobile](#), [online catalogue](#) and the [Customer interface](#). Note: To use this feature an additional license is required. Please contact Sustainable Solutions for further information.

Starting the web server

The web server can be set to start automatically when mSupply starts by checking the box, or manually as and when you use the service by clicking the button.

Run Webserver on the following port

The default port is 8080.

Disable the customer order web module and display the following message:

Check this if you want to take the [customer ordering module](#) off line and enter the message you want to display to customers who access the module.

Web URL

The address of the remote authorisation web app. This is used by mSupply when emailing authorisers to tell them that a requisition needs their attention in the remote authorisation web app. Enter the full URL, starting with "http" and including any port that is used. See the [26.15. Remote authorisation](#) page for details.

Inactive users are logged out after X minutes

For clients connected to an mSupply server, this is the maximum period of inactivity after which the user is automatically logged out. The user must then log in again to continue using mSupply. A setting of 0 disables this function and then inactive users are never logged out.

Default store for web interface

Choose which store you want to be the default for the web interface (only applicable if you have more than one store). Be careful when changing this option because it will change the default store that **all** the web interfaces will use to get information from mSupply, not just one of them.

User can create XX uncompleted orders at a time

This limits erroneous submission of too many orders. Choose the maximum number of orders that a customer can make. If they have reached the maximum amount, they will be able to create more when other ones are completed.

Maximum allowable time a mobile interface request can take

This sets how long mSupply will keep trying to supply report data before it gives up and displays an error message.

Synchronise tab

For an explanation of this section please go to [Synchronisation](#).

Customisation options

If you are running a customized version of mSupply, enter the code given by Sustainable Solutions here. Do not change this code if you don't know what you are doing!

Customization Code

Should a client wish to have customised features which are specific to their version of mSupply, we are happy, whenever possible, to incorporate such features.

If you are running such a customised version of mSupply, you will have received from us a Customisation code . To activate the customised features, that code must be entered in this field.

Moneyworks tab

Preferences

Link to Moneyworks accounting: Gold

Export to Moneyworks when finalizing individual invoices

Location of the Moneyworks Application

Document Log on
Username
Password

Data Center Log on
Username
Password

Moneyworks data file name or location

IP address of machine running Moneyworks

Type of customer invoice export: Single income account

[Click to visit http://www.moneyworks.com.np for more information on Moneyworks.](http://www.moneyworks.com.np)

If you use the superb Moneyworks accounting software, you can have mSupply directly input invoices into Moneyworks.

Contact info@msupply.org.nz for more information on these options.

Visit <http://www.moneyworks.sussol.net> for more information on Moneyworks, including a free demonstration version.

Link to Moneyworks accounting software

The Moneyworks application must be installed on your machine, and this option establishes a link between mSupply and Moneyworks. Don't turn it on if you don't know what you're doing, or if you haven't set up Moneyworks as described below.

Three options are presented in the drop down menu:

- Gold - select this option if the Moneyworks application you are using is the one installed on your computer.
- Gold Client - select this option if you are connecting to the Moneyworks application installed on another machine on your network.
- Data Centre Client - select this option if you are connecting to a Moneyworks Data Centre

Export to Moneyworks when finalising individual invoices

This allows for production of individual invoices, e.g. for non credit customers, who make cash purchases; if you have such customers, check this box, but if all your customers are credit customers, receiving monthly statements, it may be left unchecked.

Location of the Moneyworks application

mSupply needs to know the location on your computer of Moneyworks, and by clicking on the *Choose* button, a window appears, and you should navigate to the location of the Moneyworks .exe file

Document log on

Enter your logon details to access the Moneyworks document that you want to access.

Data center log on

If you are using a partitioned data center, enter your logon details to gain access to the partition where your document resides. If you are not using a partitioned data center then leave this section blank.

Location of the Moneyworks document (datafile)

You need to identify the Moneyworks document (datafile) you are using

If your link is to Gold, this is done by clicking on *Choose*, and navigating to the file's location. If access to the file is restricted, you need to complete your user name and password in the fields under *Document Logon*

If your link is to the Client option, when you click on *Choose*, a window appears and you need to enter the name of the Moneyworks datafile to which you are connecting; the file's restrictions will require you to enter your user name and password in the fields under *Data Centre Logon*

Type of customer invoice export

The drop down menu allows you to choose from several options:

- Single income account
- Separate income accounts by item account
- Choose for store

I.P. address of machine using Moneyworks

You only need to fill in the I.P. address here if:

- You are on Macintosh and
- You are connecting to a remote machine across a network.

If you are on Windows or a Mac connecting to a local installation of Moneyworks, make sure this field is empty.

Notes on setting up Moneyworks

- The import into Moneyworks relies on using an import map. The map for supplier invoices must be named "si_import.imo" and the map for customer invoices "ci_import.imo". These map files must be stored in the "Import Maps" folder inside the "Moneyworks Customer Plug-Ins" which is next to your data file.
- The advantage of using import maps is that it gives you flexibility in deciding which accounts will be designated for sales and purchases, and the way the fields exported from mSupply are used inside Moneyworks.
- If you would like sample import maps from Sustainable Solutions, please email us at info@ss.org.np.
- Once you have set up the import maps and turned on the "Link to Moneyworks accounting software" checkbox, mSupply will attempt to send invoices to Moneyworks that are finalised using the "finalise customer invoices" and "finalise supplier invoices" commands.
- Note that the "Export invoices when finalising" option must also be checked. (See Preferences> Invoices)
- If you get an error when exporting, usually you will get a message telling you what the problem is. Things to check include
- Is Moneyworks running it must be!
- Make sure the correct I.P address is specified if connecting to a remote machine on Macintosh.
- Make sure any charge codes used are actually present in the Moneyworks data file you are using. We can supply a version of mSupply that automatically adds names to the Moneyworks data file if they aren't found when exporting, but this costs extra!
- Make sure that Moneyworks has open periods for the dates of the invoices that are about to be imported.
- If you still have no success, turn off the *Link to Moneyworks*... checkbox, and produce a file. Then manually import the records into Moneyworks using the File > Import > Transactions command (making sure you load the correct import map using the "Load" button). The file has errors, Moneyworks will give a more complete error report.
- Note that if export to Moneyworks is not successful, the transactions will not be finalised in mSupply, so you will not get invoices that are missed in Moneyworks.

We are also able to provide a similar option to link with Quickbooks accounting software. Please contact info@ss.org.np if this is of interest to you.

FrontlineSMS tab

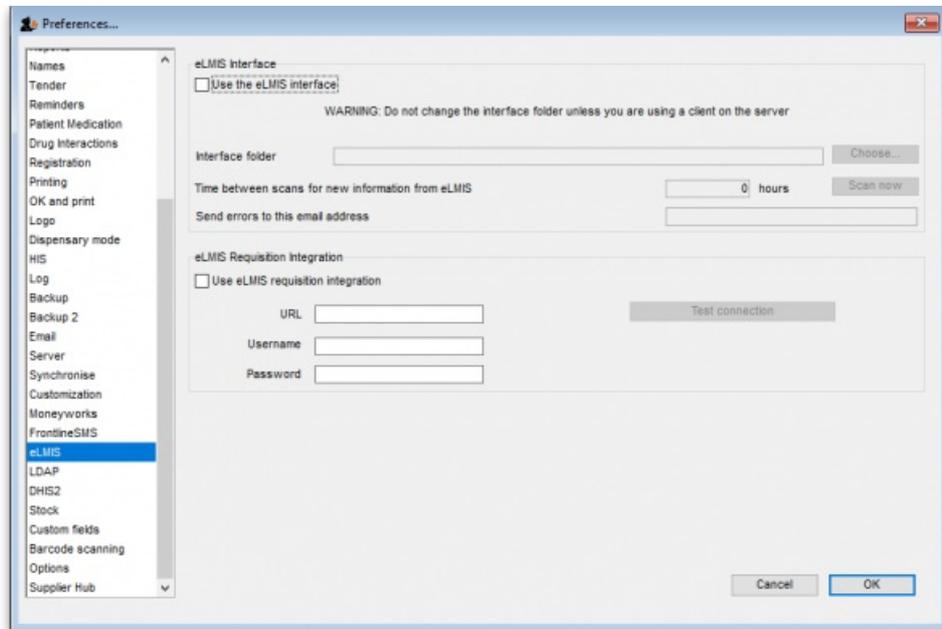
If you use FrontlineSMS for sending information to mSupply via SMS messages (using mobile phones), this is the tab where you enter all the settings.

For an explanation of this tab please go to [FrontlineSMS preferences](#).

eLMIS tab

This tab contains 2 different interfaces to OpenLMIS variants. The first is for an earlier variant and uses a common internet based folder to process incoming orders and create outgoing shipment files in csv format (for more information on this interface please see the [23.03. mSupply eLMIS interface](#) section). Countries such as Zanzibar and Tanzania use this variant.

The second is for a slightly newer variant of OpenLMIS used by countries like Côte d'Ivoire and sends requisition information from mSupply directly to the OpenLMIS database.



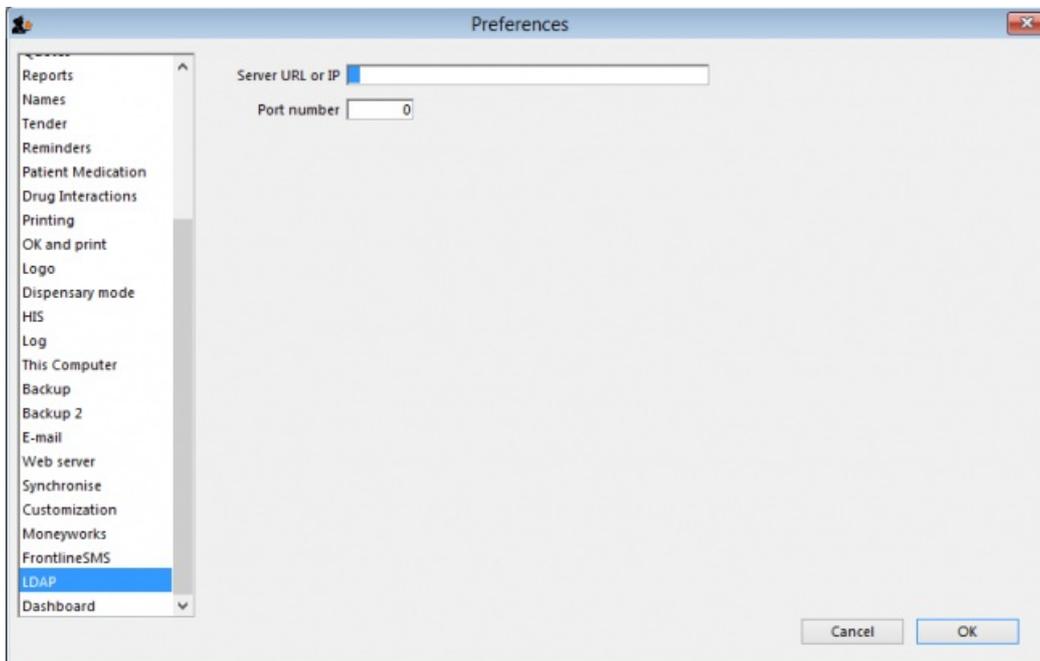
The eLMIS Preference fields:

Fields updated in mSupply v4.03

- **eLMIS Interface**
 - **Use the eLMIS interface:** Check this box to enable the interface.
 - **Interface Folder:** Click on the **Choose...** button to select the main folder that eLMIS and mSupply will use to share data. For information on creating this folder please see the [23.03. mSupply eLMIS interface > setup](#) section in this user guide. DO NOT click on the **Choose...** button unless you're using an mSupply client that is running on the mSupply server computer. Otherwise, you'll set a local folder on your local computer which the server will not be able to reach and the interface will not work.
 - **Time between scans for new information from eLMIS:** Enter the number of hours mSupply will wait between checking for new files to process.
When the *Use the eLMIS interface* checkbox is checked this setting tells mSupply to check the *Interface folder > Orders > Incoming* folder every X hours for any new order files to process.
 - **Scan now button:** Click this to make mSupply check the *Interface folder > Orders > Incoming* for new files to process immediately. Useful if you have manually added a file to the folder and want mSupply to process it immediately instead of waiting for the *Time between scans for new information from eLMIS* interval set above to elapse.
 - **Send errors to this email address:** The email address mSupply will send any error information to. This would normally be the address of your eLMIS helpdesk.
- **eLMIS Requisition Integration**
 - **Use eLMIS requisition integration:** Check this box to enable the interface.
 - **URL:** The URL for the eLMIS server. This must be in the form `http://xxx` or `https://xxx`
 - **Username:** Your eLMIS database username
 - **Password:** Your eLMIS database password
 - **Test connection button:** Click this to test the account credentials you have entered. You must have the **Use eLMIS requisition integration** check box ticked to use this. An alert will tell you whether the test connection was successful or not.

LDAP tab

This section is where you define the details of the LDAP (Lightweight Directory Access Protocol) server you are using to provide user authentication for logging into mSupply. There is no need to fill in these fields if you are not using an LDAP server to check user logins:



Server URL or IP: enter the URL or IP address for your LDAP server.

Port no.: enter the port number your LDAP database is being served on.

Dashboard tab

See the [16.05. Mobile Dashboard set up \(before v4.0\)](#) section of this user guide for a detailed description of the process.

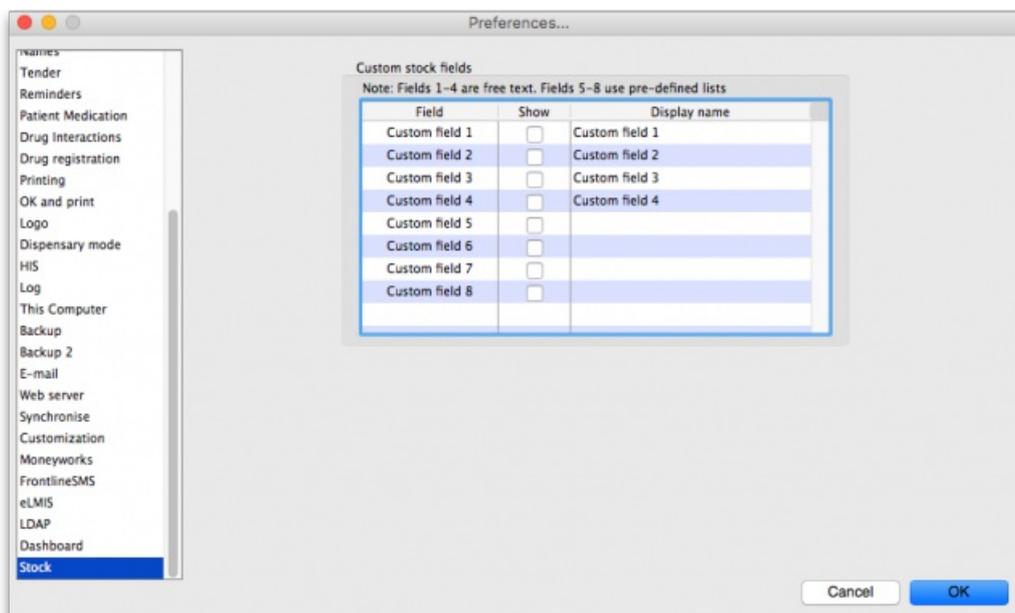
Note, from mSupply **v4.0 and later**, this dashboard tab has been removed and a new and improved dashboard has been introduced. The new dashboard has a different setup process, see the [19.06. Mobile Dashboard set up \(after v4.0\)](#) section for details.

DHIS2 tab

See the [23.01. DHIS2 integration](#) section of this user guide for a detailed description.

Stock tab

This section is where you tell mSupply which custom stock fields a user can fill in when receiving stock on a supplier invoice. There are 8 fields available. Fields 1 to 4 are free text but fields 5-8 contain values which are selected from a list you define:



Each of the fields you tick the “Show” checkbox for will appear on the bottom of the [supplier invoice line detail form](#) when receiving stock. They will appear with the label you give them in the “Display name” column (click once in the column to make the cell editable then type the name).

The values you enter in these fields (or select for the fields if it's one of fields 5-8) will be attached to the stock and follow it through the system. See the [7.05. Custom stock fields](#) section of this user guide for details.

Custom fields tab

You can create custom fields that appear in different areas in mSupply. These allow you to record additional information and customise mSupply for your needs. See the [16.11. Custom fields](#) section of this user guide for details.

Barcode scanning tab

This contains the settings for your barcode scanner. See the [16.09. Barcode scanning preferences](#) section of this user guide for details.

Options tab

You can create a list of options (or reasons) for the user to select from when they use perform certain transactions in mSupply. See the [16.10. Options \(standard reasons\)](#) section of this user guide for details.

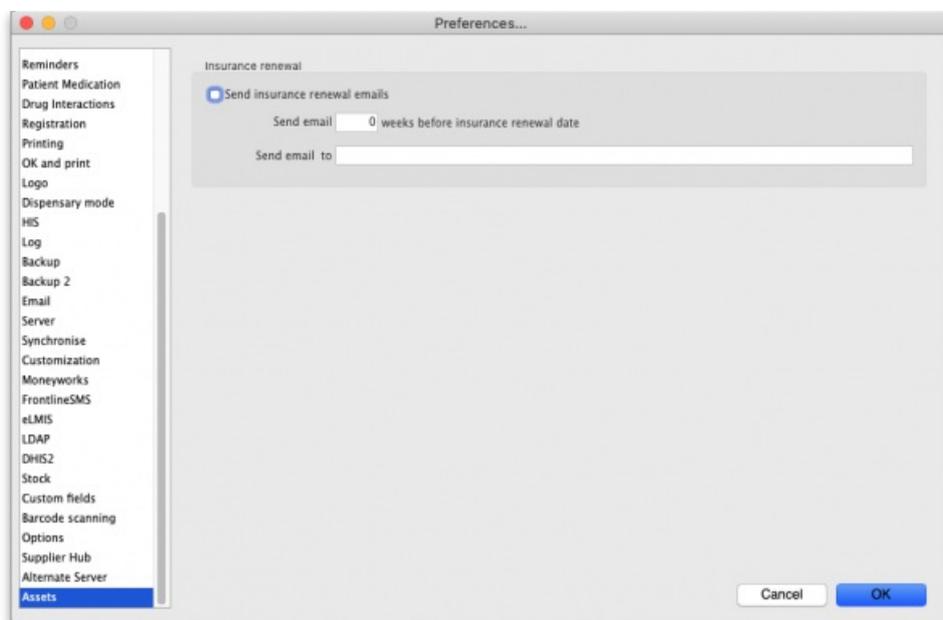
Supplier Hub tab

The Supplier Hub is an intermediary service for requesting, sending and receiving stock between discrete mSupply instances. For information on this please see the [12. Supplier Hub](#) section.

Alternate server tab

The alternate server is used for sending cold chain notifications. For more detail please see the [Setting up Cold Chain App Notifications](#) page.

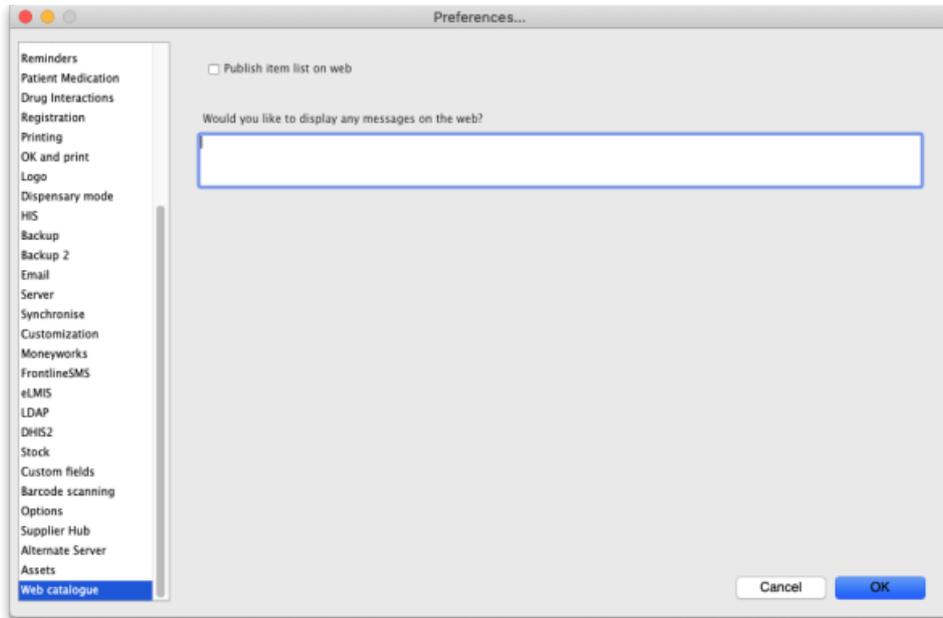
Assets tab



- **Send insurance renewal emails** checkbox: If this is checked then mSupply will check every night for assets with an insurance renewal date that is X weeks away from the current date (where X is set in the next preference below). If there are any then mSupply will send an email with a list of all the assets whose insurance renewal date is X weeks away to the email address specified. Only one email will be sent for the assets.
- **Send email X weeks before insurance renewal date** text field: The number of weeks before the insurance renewal date that an email should be sent. Must be greater than 0 and must be entered if the checkbox is checked.
- **Send email to** text field: The email address to send the email to. Must be in the right format and must be entered if the checkbox is checked.

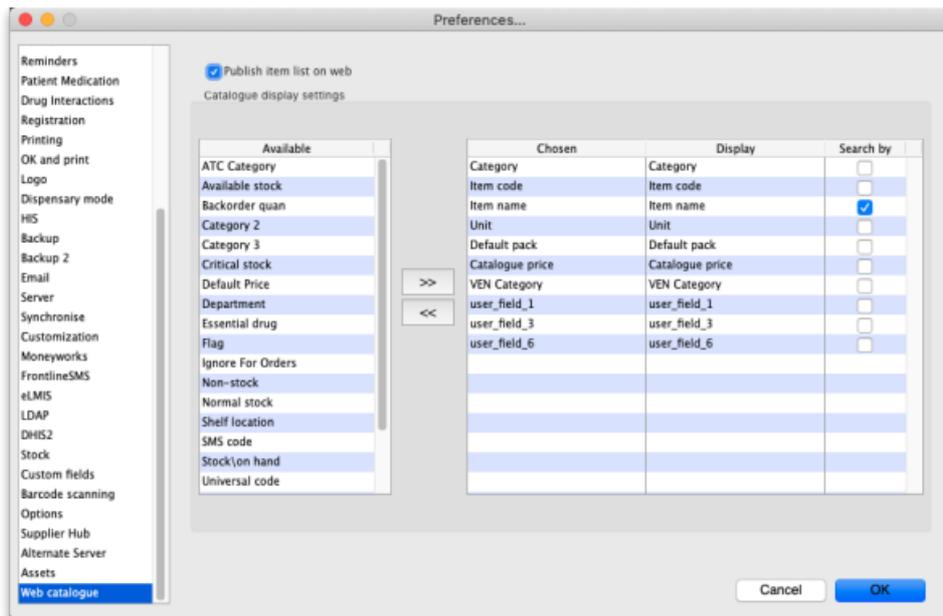
Web catalogue tab

This tab determines all the settings for the online catalogue:



If the web server is running (see the [Server tab](#) section above for details on how to turn it on) but the **Publish item list on web** checkbox is not checked, when a user goes to the catalogue web page (see the [19.07. Online catalogue](#) page for details) any message you enter in the **Would you like to display any messages on the web?** text field will be displayed on the page instead of the item catalogue. This would typically be used if the catalogue is under maintenance because the prices or other item details were being updated.

If you check the **Publish item list on web** checkbox the **Would you like to display any messages on the web?** text field is removed and replaced with a *Catalogue display settings* section:



In this section you select which columns are displayed, what their label will be in the catalogue and whether they are searchable in the web catalogue.

For details on how to configure the web catalogue generally, see [9.07. Online catalogue](#).

In the catalogue, the details of items matching the search filters are displayed in a table. That table has various columns which can be selected and defined on this tab.

- The *Available* list shows all the columns that are available but not chosen for display in the catalogue.
- The *Chosen* list shows you all the columns that are chosen for display in the catalogue - they will be displayed when the user visits the item catalogue.
- The *Display* list shows the display name of the corresponding *Chosen* column i.e. what name it will have in the catalogue.

To make a column shown in the *Available* list display in the catalogue, select it by clicking on it and then click on the **>>** button to move it to the *Chosen* column.

To remove a column from display in the catalogue, click on it in the *Chosen* list then click on the **<<** button to move it back into the *Available* column.

By default, any column in the *Chosen* list is given the same *Display* name. If you want it to have a different display name in the catalogue, simply click on it in the *Display* list and edit the name there.

To allow users to search by a column, check the checkbox in the *Search by* list. Any columns that have this checked will be added to the filters available in the catalogue.

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Last modified: 2022/02/10 15:06 by Gary Willetts



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16.02. Purchase order preferences



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⚠ Important

- The preferences described here (accessed through **File > Preferences...**) apply to all stores on an mSupply server.
- In a **synced system** there will be multiple 'sync satellites' and these settings can be different on each sync satellite.
- There are some settings that are 'per store' - refer [Store preferences](#), and store preferences can be different for each store on an mSupply server.

There are two tabs of purchase order preferences in the **File > Preferences...** menu item.

Purchase order defaults tab

The screenshot shows the 'Preferences' dialog box with the 'Purchase order defaults' tab selected. The sidebar on the left lists various preference categories. The main content area is divided into several sections:

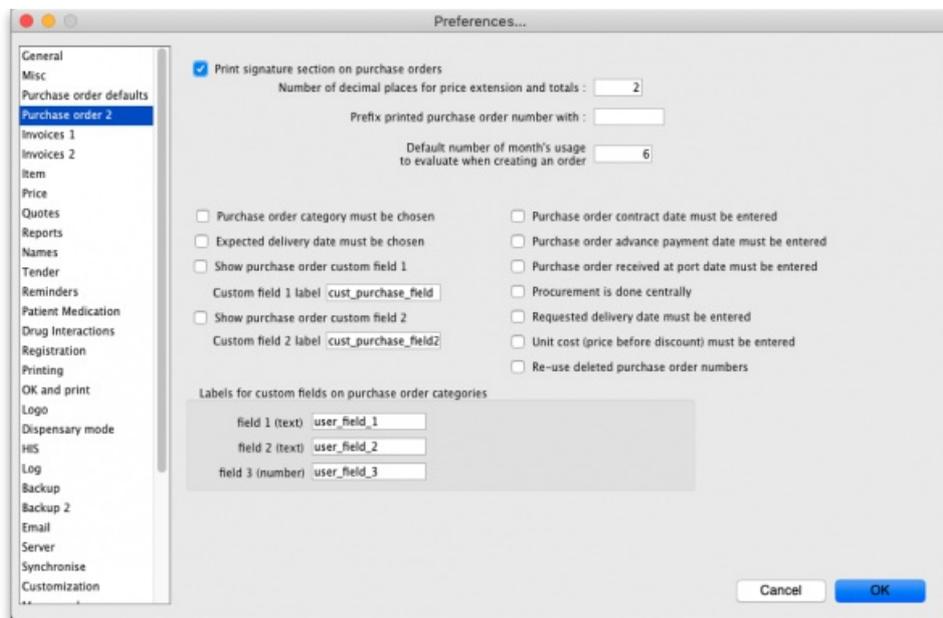
- Headings:** Three text input fields containing:
 - Heading 1: MINISTRY OF HEALTH & MEDICAL SERVICES
 - Heading 2: Department of Pharmacy, Republic of Singaland
 - Heading 3: Phone: +691 72400 Fax: +691 72300 Email: fin_mgr@gmail.com
- Notes:** A text area containing: Checked (Director of Pharmacy): _____
- Reply Address:** A text area containing: Director of Pharmacy, Ministry of Health & Medical Services, PO Box 320, Tulemakar, Republic of Singaland.
- CC to:** An empty text area.
- Delivery Address & Shipping marks:** A text area containing: Director of Pharmacy, Ministry of Health & Medical Services, PO Box 320, Tulemakar, Republic of Singaland.

At the bottom right, there are 'Cancel' and 'OK' buttons.

This window allows you to enter text that will be printed on Purchase Orders.

The easiest way to see how these fields will look on a Purchase Order is to fill in the fields and then print a sample Purchase Order. Note that we are willing to design custom Purchase Order forms to meet individual needs.

Purchase order 2 tab



Print signature section on purchase orders

When this box is checked a section will be printed on Purchase Orders that shows the authorising officer(s) and includes a space for signatures. This is applicable if you print Purchase Orders and post them to suppliers, but should most likely be turned off if you send Purchase Orders via email.

Number of decimal places for price

This field allows you to specify the number of decimal places that may be entered in the price field on Purchase Orders. This will override the currency format setting in the Misc tab only for the price field on Purchase Orders.

Prefix printed purchase order number with

Enter any required prefix in this field

Default number of days usage to evaluate when creating an order

Enter the number of days to “look back” when evaluating each item's usage to calculate the amount of stock needed. Entering a higher number will give a better long term average, but will mean that orders take longer to create.

Purchase order category must be chosen

Check if you need a Purchase order category to be chosen on every purchase order.

Alert

This can be overridden by the user if they hold down the shift key as they click **OK**

Expected delivery date must be chosen

Check if required, leave unchecked if not.

Show purchase order custom field

Check this box if you would like an extra field added that you can customise and use for your own purposes.

The space below this check box is for you to enter the name of your custom field.

Purchase order contract date must be entered

If you require this information on your purchase orders then check this box - this will force users to enter it when a purchase order is created.

Purchase order advance payment date must be entered

If you check this, the **Advance paid** field must be completed when a purchase order is created - a user will not be able to save a purchase order without entering it.

Purchase order received at port date must be entered

If you check this, the **Received at port** field must be completed when a purchase order is created - a user will not be able to save a purchase order without entering it.

Procurement is done centrally

This option is only relevant for a synchronised system (refer [Remote Synchronisation](#)). If you select this option, purchase orders for stores on sync satellites can only be prepared, confirmed and finalised on the sync primary. There is a work-around if you need some stores on some sync satellites to do their own purchase orders. For help with setting that up, contact support@msupply.org.nz.

Requested delivery date must be entered

If this is checked, the requested delivery date (RDD) on the purchase order must be entered before you can add lines to it. RDDs must also be entered for each line. If unchecked, entering a requested delivery date is optional.

Unit cost (price before discount) must be entered

If this is checked, the *Price before discount* field must be entered for every purchase order line. If unchecked, entering it is optional.

Re-use deleted purchase order numbers

If this is checked, the numbers of deleted purchase orders will be re-used on the next new purchase orders created. For example, if I delete purchase orders 7 and 10, the next purchase order to be created will be given the number 7 and the second to be created will be given the number 10.

Labels for custom fields on purchase order categories

Fields 1 and 2 accept text entries, field 3 accepts numeric entries. The use of these fields is optional.

Previous: [16.01. General preferences](#) | | [Next: 16.03. Invoice preferences](#)

Last modified: 2021/10/08 09:24 by Gary Willetts



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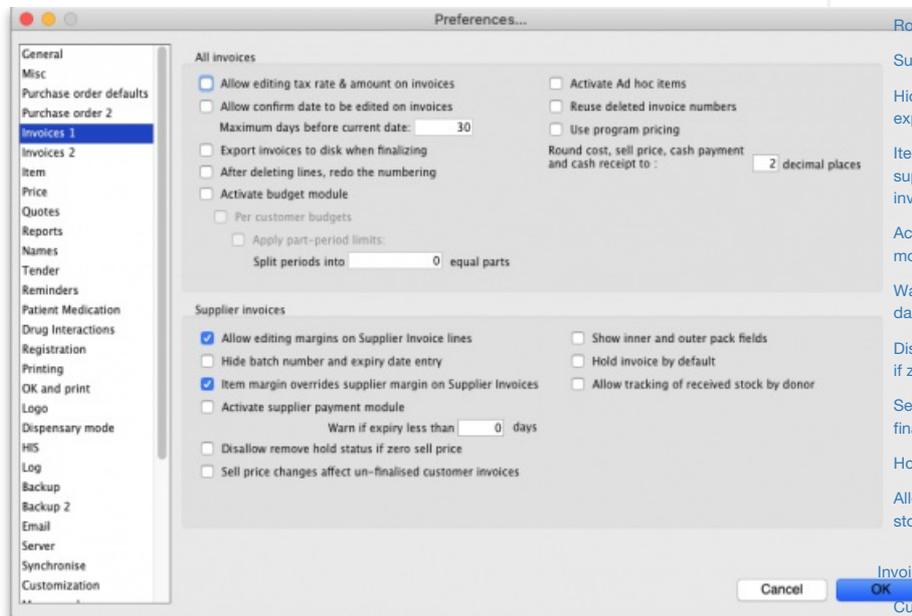


16.03. Invoice preferences

⚠ Important

- The preferences described here (accessed through **File > Preferences...**) apply to all stores on an mSupply server.
- In a **synced system** there will be multiple 'sync satellites' and these settings can be different on each sync satellite.
- There are some settings that are 'per store' - refer to [Store preferences](#), and store preferences can be different for each store on an mSupply server.

Invoices 1 tab



All invoices

Allow editing tax rate and amount on invoices

When checked the tax rate can be changed when entering an invoice. Otherwise, the default tax rate is always used. (On supplier invoices the actual tax amount can be directly edited if this option is checked. This allows perfect matching of tax amounts with amounts charged by a supplier).

Allow entry of dates on invoices

Normally the confirm dates on invoices are read only and are filled in automatically by mSupply when the invoice is confirmed. If you need to enter your own dates, check this option and enter a number in the 'Maximum days before current date' box (you might see a default number of 30 days in here which you can change). Note that you will not be able to modify the dates on finalised invoices.

The entry date is still maintained by mSupply. You can only edit the confirm date.

Export invoices to disk when finalising

If this box is checked, each time you finalise customer or supplier invoices, a tab-delimited text file of the finalised invoices will be created. This allows you to import the data into an accounting application.

After deleting lines, redo the numbering

If this box is checked, deleting invoice lines will result in all invoice line numbers being updated so there is no gap in the numbering.

Activate budget module

In order to use the Budget feature, this box must be checked. This feature is applicable to store mode only. For more information on the budget module see [Customer Budgets](#)

Activate ad hoc items

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 - Customer invoices
 - Other invoices
 - Invoice printing preferences

Ad Hoc items allow you to receive and issue items that you will only use once. That is, you have ordered the item for a particular customer, and do not want to hold it in stock. [For further information, see Ad Hoc items](#)

Reuse deleted invoice numbers

If checked then, when a customer or supplier invoice is deleted, the invoice number will be used again when a new invoice is to be created.

Use program pricing

If checked then the sell prices for items on **customer invoices** are taken from the first master list that is to be used as a price list.

Round prices

You can choose to round prices to a given number of decimal places. By default prices will be rounded to 2 decimal places.

Supplier invoices

Allow editing margins on supplier invoice lines

If this option is chosen, you can edit the margin for individual supplier invoice lines. Otherwise the margin will be locked at the margin set for that supplier in the window for editing supplier details (reached from the **supplier > edit supplier** menu.)

Hide batch number and expiry date entry

Some people use mSupply for inventory control of all sorts of general goods. Hiding these fields will speed up entering information if you do not use those fields.

Item margin overrides supplier margin on supplier invoices

When receiving an item where there is a margin set for both the supplier and the item, if this option is checked the item margin will be used. If unchecked, the supplier margin is used.

Activate supplier payment module

Check this box if you want mSupply to record the outstanding amount to be paid on each supplier invoice. If this system is not activated, supplier invoices will display a zero amount outstanding. (If you use a separate accounting system, and use *mSupply's* export facilities, there is no need to use the inbuilt payment system).

Warn if expiry less than XX days

An appropriate figure can be entered.

Disallow remove hold status if zero sell price

If this option is checked you can't receive goods that haven't had their sell price set.

Sell price changes affect un-finalised customer invoices

If you tick this, when you update a sell price the change will be reflected in all non-finalised customer invoices. You will be asked to confirm ticking this box because it can make irreversible changes to customer invoices. Here is a table that shows the differences with having this preference turned on or turned off

Original invoice

Item	Date	Invoice type	status	price
Amoxy 250	15 Feb	Supplier invoice	cn	8.00
Amoxy 250	15 Mar	Customer invoice	cn	8.00
Amoxy 250	15 Apr	Customer invoice	cn	8.00
Amoxy 250	15 May	Customer invoice	fn	8.00

With preference turned off

Item	Date	Invoice type	status	price
Amoxy 250	15 Feb	Supplier invoice	cn	9.00
Amoxy 250	15 Mar	Customer invoice	cn	8.00
Amoxy 250	15 Apr	Customer invoice	cn	8.00
Amoxy 250	15 May	Customer invoice	fn	8.00

You have found that the price should have been 9.00 No customer invoices are updated. Reports on old customer invoices will show the old price of 8.00

With preference turned on

Item	Date	Invoice type	status	price
Amoxy 250	15 Feb	Supplier invoice	cn	9.00
Amoxy 250	15 Mar	Customer invoice	cn	9.00
Amoxy 250	15 Apr	Customer invoice	cn	9.00
Amoxy 250	15 May	Customer invoice	fn	8.00

You have found that the price should have been 9.00 Old customer invoices are updated unless their status is "fn". Reports on old customer invoices will show the new price of 9.00 (as long as no invoices were finalised)

Show inner and outer pack fields

If checked, mSupply will allow the entry of the 'inner' and 'outer' pack sizes - if an item is packed 100 to a container, and 12 containers to a box, the 'inner' field entry would be '100' and the 'outer' field entry would be '12'

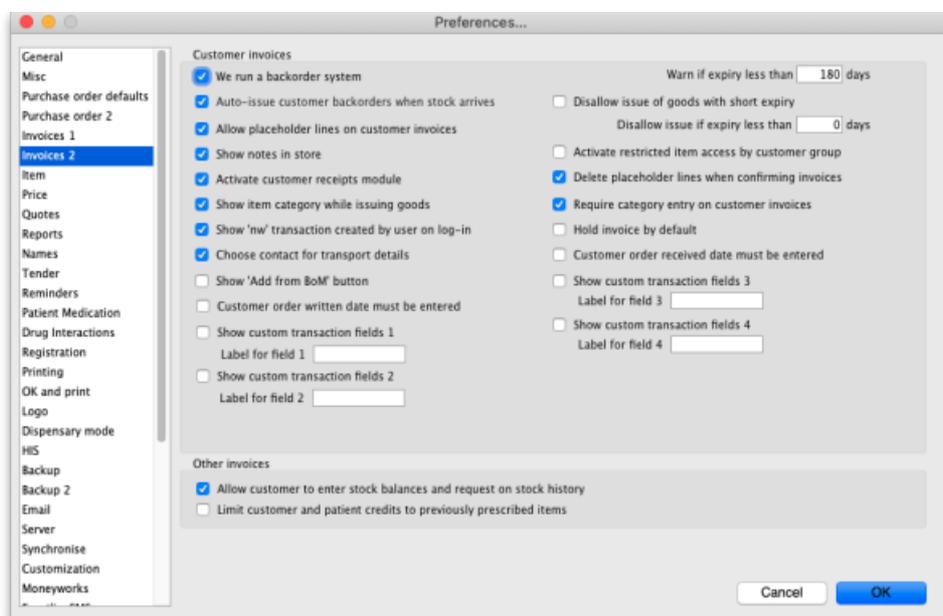
Hold invoices by default

If checked all newly created invoices will be on hold

Allow tracking of received stock by donor

If checked, this option allows the user to track donated stock from source (supplier Purchase Order) to store (available for distribution in mSupply).

Invoices 2 tab



Customer invoices

These options apply to customer invoices only.

We run a backorder system

Check this item if you want to record backorders for customers for supply at a later date (For suppliers, backorders are recorded in the ordering system as partially supplied orders).

Note that if you use a backorder system it will affect the way "placeholder" lines are handled.

A *placeholder* line is a line entered on a customer invoice which does not have any stock associated with it. Placeholder lines can have an item name, a quantity, and a pack size, but the batch number is set to "none".

When you confirm an invoice, if you are using a backorder system, placeholder lines will be transferred to make backorders. If you are not using a backorder system, placeholder lines will be deleted if the option below is turned on.

Auto-issue customer backorders when stock arrives

Check this item if you want stock to be automatically issued to a customer with a backorder when it becomes available.

Show transport details

If this box is checked, then a transport details button will be shown on customer invoices, allowing editing of transport details (arrival dates, etc) and box numbers.

Allow placeholder lines on customer invoices

If you leave this box unchecked, all lines on an invoice will have to be actual stock. If you run a backorder system you must check this box.

Show notes in store mode

If this box is checked, the window for issuing stock will be enlarged to show the area to enter abbreviations and customer directions or notes under

store mode. These notes print on invoices after each invoice line.

Activate customer receipts module

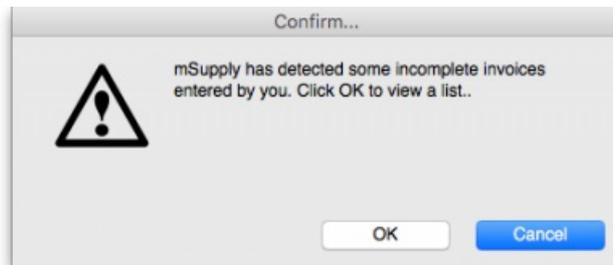
Check this box if you want *mSupply* to record the outstanding amount to be paid on each customer invoice. If this system is not activated, customer invoices will display a zero amount outstanding. Please note that if the **Receive payments from prescription window** preference is turned on (see [General preferences, Dispensary mode tab](#) and you want to turn this preference off, you will be asked if it is OK to turn off the **Receive payments from prescription window** preference too - that preference requires that the customer receipts module is turned on.

Show item category while issuing goods

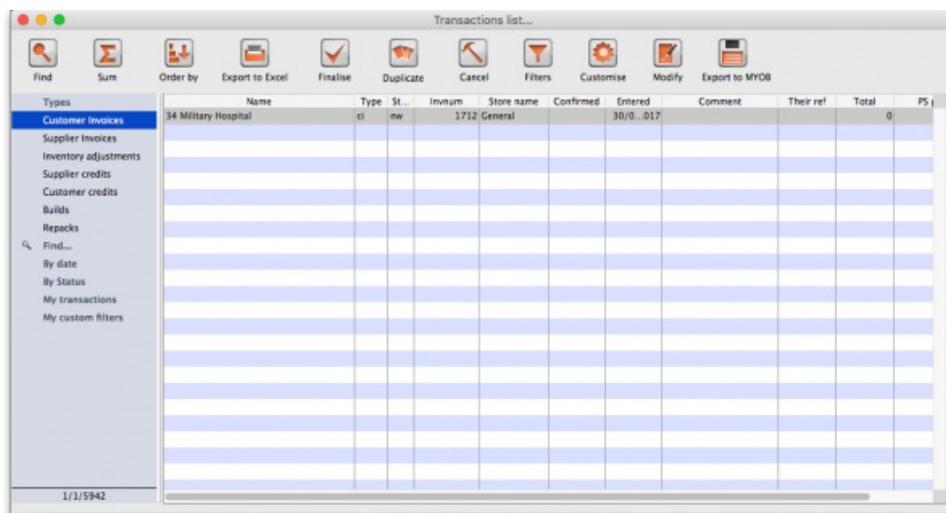
If you are making use of the item category facility, checking this box will allow you to see the category of the item you are issuing as it is being issued.

Show 'nw' transaction created by user on log-in

If you check this box then, after a user has logged in, if there are any customer invoices created by this user that are still at 'nw' (new) status then they will be shown a message:



Clicking on the **OK** button will take the user to a list of their nw status invoices and they can double-click on any of them to edit as usual:



Handy for helping invoices to not get forgotten!

Choose contact for transport details

Checking this box allows you to choose a contact from your list of contacts when entering transport details.

Show 'Add from BOM' button

Checking this box allows you to create an invoice using a Bill of Materials. The function inserts placeholder lines from BOM into the invoice - see here for details.

Show custom transaction fields

There are 4 customer transaction fields available for customised entries; their use is optional, and should you wish to use them, they have to be activated here, where the *Show custom transaction fields* checkboxes should be checked. You will note that they are grouped in pairs, 1 & 2 and 3 & 4, and this is also the window which allows you to define names for the fields; for example, you might wish to identify the person preparing the invoice and so give field 1 the name "Prepared by"; similarly the person authorising the invoice could be entered in field 2, which would be named "Authorised by".

Warn if expiry is less than XX days

Entering a number in this box causes *mSupply* to alert the user when any batch selected for issue is due to expire before this number of days has passed. An alert will be displayed when manually selecting stock for issue on a customer invoice or automatically selecting it with the **Issue stock for all placeholder lines** function, **Backorder** button, **History** button and Prescription repeats functionality.

Disallow issue of goods with short expiry

If this option is checked, *mSupply* will not allow issue (on customer invoices and prescriptions) of goods with an expiry date less than the number of days specified here. Goods with no expiry date will not be affected. Note that once this preference is checked, there is no way for the user to override it; the rule is enforced until the preference is turned off.

Enter zero in the field to disallow entry of goods that have expired.

The restriction is applied to manually selecting stock for issue on a customer invoice or prescription or automatically selecting it with the **Issue stock for all placeholder lines** function, **Backorder** button, **History** button and Prescription repeats functionality.

Note that inventory adjustments and supplier credits can still be issued to remove goods from stock or return goods to a supplier.

Activate restricted item access by customer group

When this check box is checked, any item that is assigned to a department may only be supplied to customers who are members of groups linked to that item's department.

See the section in the Item Menu chapter on the Manage item access... for more information on how to set up item departments, customer groups, and how to link groups to departments.

Warning: Checking this item may mean that some items can not be issued. Make sure you have set up the item access system properly before proceeding.

Delete placeholder lines when confirming invoices

When checked, placeholder lines are deleted when the invoice is confirmed.

Require category entry on customer invoices

If this option is checked, when entering customer invoices the user will be required to select one of the available transaction categories. Transaction categories are set up using the Special > Show transaction categories menu item. If no transaction categories for customer invoices have been set up, this option will have no effect.

Hold invoice by default

Invoices will be put on 'hold' if this box is checked.

Customer order written date must be entered

If checked, the **Order written date** field on a customer invoice (on the *Transport details* tab) must be filled in - if it isn't the user will be shown an alert message and asked to fill it in.

Customer order received date must be entered

If checked, the **Order received date** field on a customer invoice (on the *Transport details* tab) must be filled in - if it isn't the user will be shown an alert message and asked to fill it in.

Other invoices

Allow customer to enter stock balances and request on stock history

Checking this box allows a customer to enter the quantity of stock they have and mSupply will file it as part of their stock history and calculate how much needs to be sent to them to replenish their stock.

Limit patient and customer credits to previously prescribed items

Users can only issue [patient credits](#) or [customer credits](#) for items previously dispensed/issued to the patient/customer. When this box is checked, users must select items to credit from the **History** button and cannot manually add new items using the **New Lines** button.

Invoice printing preferences

Please see [16.04. Printing preferences](#)

Previous: [16.02. Purchase order preferences](#) | | Next: [16.04. Printing preferences](#)

Last modified: 2022/02/03 10:05 by Gary Willetts



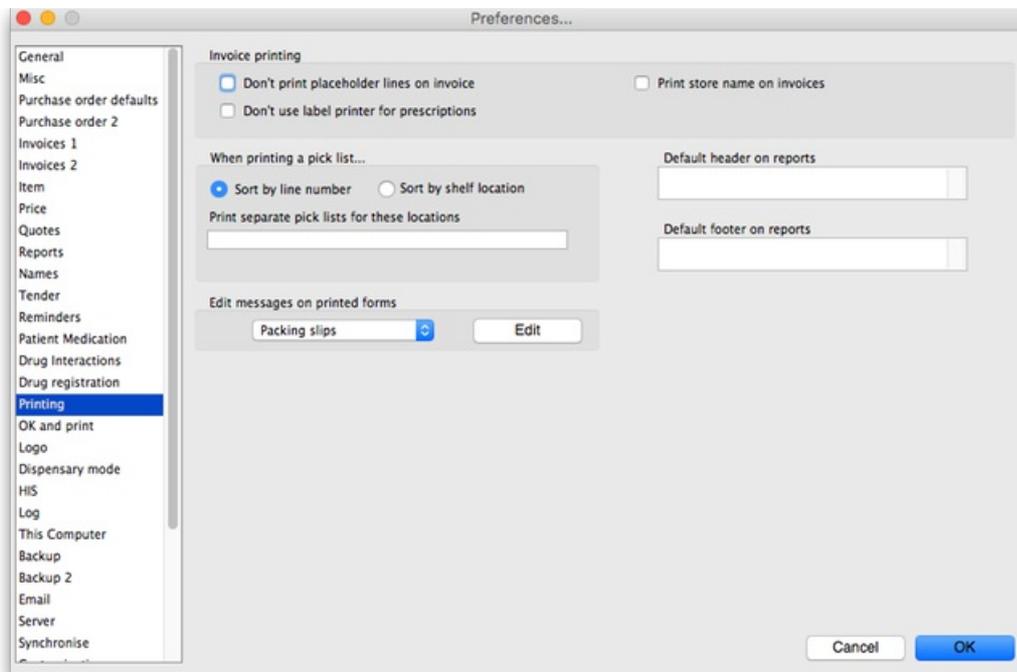
16.04. Printing preferences

⚠ Important

- The preferences described here (accessed through **File > Preferences...**) apply to all stores on an mSupply server.
- In a **synced system** there will be multiple 'sync satellites' and these settings can be different on each sync satellite.
- There are some settings that are 'per store' - refer to [Store preferences](#), and store preferences can be different for each store on an mSupply server.

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- [When printing a pick list...](#)
- [Edit messages on printed forms](#)
- [Other](#)
- [OK and print](#)
- [When printing a pick list...](#)
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- [Other](#)
- [OK and print](#)



Preferences related to the printing of invoices appear in this window, allowing users to customise the printing of customer invoices.

Don't print placeholder lines on invoice

Check this option if you don't want placeholder lines to appear on your printed invoices.

Don't use label printer for prescriptions

Check this option if you want to use a normal printer (not a label printer) to print prescriptions.

When printing a pick list...

Sort by

This refers to how the items on the list are ordered. You can choose to sort by

- **line number:** the order in which they were entered
- **shelf location:** which will enable a "logical" order for picking goods from the shelves

You can also set a priority for shelf locations, and this will override the default alphabetical ordering i.e. locations with a priority of 1 will come first (in alphabetical order), then those with a priority of 2 etc., with priority 0 locations at the end. See [Locations and location types](#) for more details.

Print separate pick lists for these locations

By default mSupply will print a single pick list for all locations. If, for instance, you need separate pick lists printed for cool store items (whose locations in your store start with "CS"), and for Dangerous drugs (whose locations in your store all start with "DD"), you would enter "CS,DD" (no quotes, each location separated by a comma) in this field. If a pick list being printed contains CS items, they will be printed separately, and the same for items with a "DD" location.

Edit messages on printed forms

If you would like to print a particular message on one or multiple printed forms you can do that here. Choose the appropriate form from the drop-down list (menu), and then click the *Edit* button to edit the message that will appear on the bottom of every form of that type. For example, you may use the special invoice for issuing narcotics, and have the following message:

* I have received the above Narcotics.
* Signed:.....
* Print name:.....
* Position:.....
* Date:.....

A message on a pick list might be as follows:

* Packed by:.....
* Date/time:.....
* Checked by:.....

When you have written the message, click *OK* and you can either add another message to another form (choose another one from the drop down list) or move on to another preference.

Other

Print customer statement balance on invoices

If this item is checked and you are using the mSupply cash receipts system, the outstanding customer balance will be printed at the bottom of each invoice.

Default header/footer on reports

There are two spaces here. In one you can enter the header that you would like to appear on reports by default. The text will appear on the top left header for most reports. A common use of this space is to include your organisation name.

In the other you can enter the default footer. Text you enter here will appear on the bottom centre space of each page of reports. You might use this space to include a confidentiality clause on your reports.

OK and print

Check the boxes to turn the print check box on by default

<input checked="" type="checkbox"/> New prescriptions	<input type="checkbox"/> Editing prescriptions
<input type="checkbox"/> New customer invoices	<input type="checkbox"/> Editing customer invoices
<input type="checkbox"/> New supplier invoices	<input type="checkbox"/> Editing supplier invoices
<input type="checkbox"/> Inventory adjustments	
<input type="checkbox"/> Repacks	

Checking these boxes means that the printing checkbox will be checked by default when the corresponding window is opened.

Note that you can still manually turned the option on or off in a window- these settings just affect the default value.

Previous: [16.03. Invoice preferences](#) | Next: [16.05. Mobile Dashboard set up \(before v4.0\)](#)

Last modified: 2021/10/08 09:25 by Gary Willetts





16.05. Mobile Dashboard set up (before v4.0)

Alert

August 2020: The instructions on this page are for configuring mSupply's legacy web dashboard and mSupply Mobile dashboards. mSupply's legacy web dashboard has been superseded by the mSupply Grafana web dashboard.

Alert

The following instructions are for setting up dashboards for mSupply versions prior to v4.0. For mSupply v4.0 and later please refer to the Dashboard set up (after v4.0) chapter of this user guide.

Important

Before you set the dashboard up you must:

- know what ports are already in use on the server
- have an appropriate SSL Certificate set up.
- make sure your webserver is currently running.

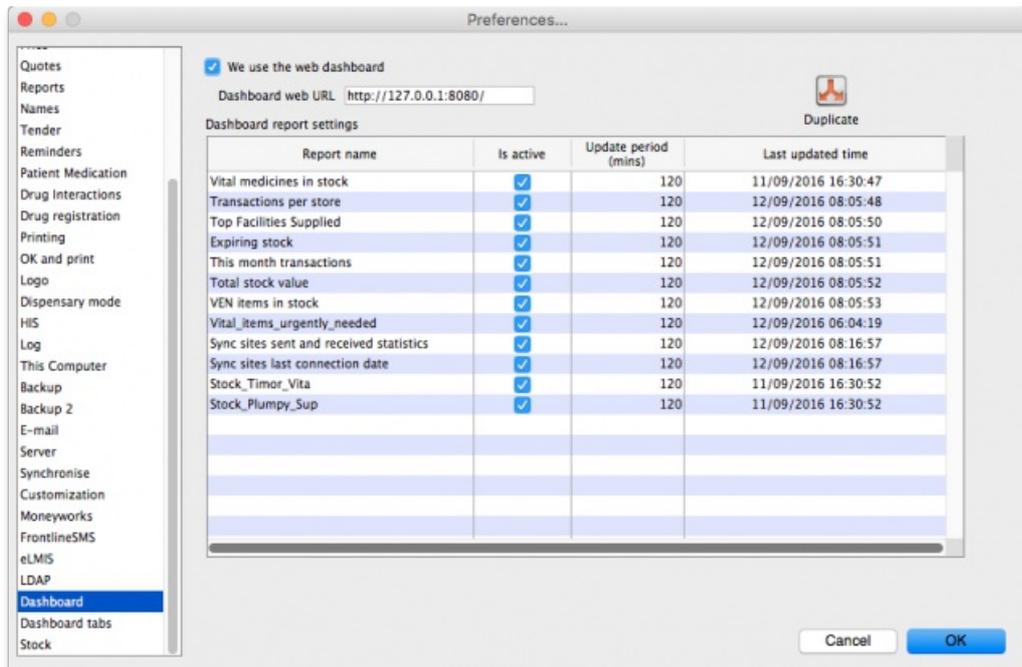
Sustainable Solutions can help with these.

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- Editing dashboard reports
- What the dashboards show and what can be edited
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To setup the dashboard (refer figure below):

1. Open **File > Preferences > Dashboard**
2. Check the "We use the web dashboard" checkbox.
3. In the **Dashboard web URL** field enter the base URL to reach the dashboard, e.g. `http://yoursystem.msupply.org:2048/`. Don't forget the trailing slash (/) otherwise it won't work! If you are running from localhost, use your IP address, e.g. `http://127.0.0.1:8080/` rather than `http://localhost/`.
4. The URL users type in to the address bar of their browser to access the dashboard will be this base URL with **dashboard** on the end, e.g. `https://yoursystem.msupply.org:2048/dashboard/`
5. Tick the reports in the **Is active** column to select them for display on your dashboard.
6. You can choose how often these reports are updated by clicking in the **Update Period (mins)** column and entering a number of minutes.

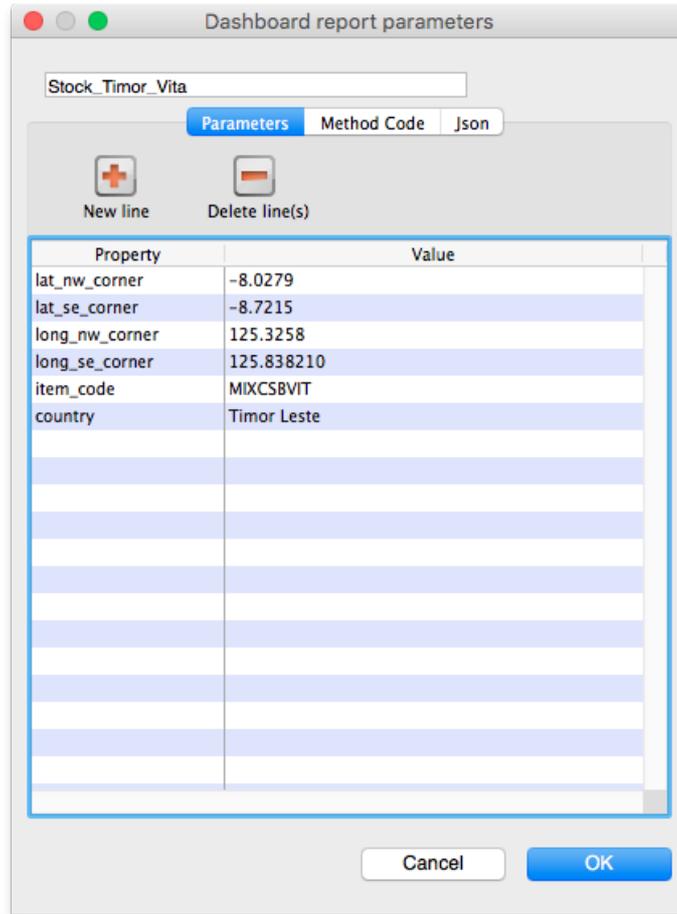


7. Setup which reports appear on which tabs - refer [Dashboard tabs](#).

8. Setup which dashboard reports each user can access - refer [The dashboard](#).

Editing dashboard reports

Double-click a report in the list shown above and the following window will open:



If there are any properties shown in the list, these can be edited to change what is displayed.

To edit a property or value, click once to select the row, and then click again in the appropriate cell to edit it.

To add or delete a row use the **New line** and **Delete line(s)** buttons at the top of the window.

In the example shown in the screenshot above (a map report), the coordinates of two of the map corners and the item code of the item whose stocks will be shown on the map have been entered. Note that if you add extra properties to the default reports they'll be ignored.

See the section below for details of the various dashboard reports available and the settings that can be edited.

What the dashboards show and what can be edited

There are several built-in dashboard reports that everyone can use. Here's what they show and what properties can be edited to change what they show:

Report name	Property	Value
VEN items in stock	Shows stock on hand of each items that belongs to the VEN (Vital, Essential, Necessary) category. <i>Method: dashboard_rep_item_ve</i>	
	store_code	store code if empty then default store is chosen
	ven_category	V,E,N or E,N or V ..etc will filter the VEN items. If blank all visible items for the store are chosen
Total stock value:	A single figure in your default currency, showing the total value of the stock you have in the store you are viewing the dashboard for	
	None	None
This month's transactions:	Shows a bar chart of the number of purchase orders, goods receipts, supplier and customer invoices created this month. <i>Method: dashboard_rep_transactions</i>	
	None	None
Expiring stock:	Shows the cumulative and monthly number of all items expiring within the year, split into columns by month of expiry. <i>Method: dashboard_rep_expiring</i>	
	None	None
Top facilities supplied:	The 10 customers in your store to which you have sent the greatest value of stock in the past 90 days. Shows the value of stock	

Report name	Property	Value
	None	None
Transactions per store: Shows a table of all transactions per store within the past 7 and 30 days. <i>Method: dashboard_rep_month_transacs</i>		
	store_tags	A comma-separated list of tags - or omit this parameter if you want to show stock for all stores.
Vital items in stock: Shows a bar graph of the percentage of medicines of the chosen category in stock at each facility. <i>Method: dashboard_store_stock</i>		
	ven_category	v or e or n if you want to include items that are Vital or Essential or Necessary
	user_field_4	TRUE if you want to include items with this field checked
	user_field_7	TRUE if you want to include items with this field checked Note that the labels for fields 4 and 7 may be different, as they are set up in the mSupply preferences (misc t
	critical_stock	TRUE if you want to include items with this field checked, false for all items
	store_tags	entering healthcentre will only include stores with the "healthcentre" tag
Map stock on hand Shows a map of the area specified, with an "X" if the facility is out of stock of the item, or a dot representing the amount of stock		
	lat_nw_corner	the latitude of the North-West corner of the map
	long_nw_corner	the longitude of the North-East corner of the map
	lat_se_corner	the latitude of the South-East corner of the map
	long_se_corner	the longitude of the North-East corner of the map
	item_code	the item code of the item to display
	country	compulsory parameter
	store_tags	A comma-separated list of tags - or omit this parameter if you want to show stock for all stores
Sync sites last connection date: Shows the last connection date and current mSupply version of each sync site. <i>Method: dashboard_report_last_sync</i>		
	None	None
Sync sites sent and received statistics: Shows number of records sent and received by each sync site within the last day. <i>Method: dashboard_report_s</i>		
	None	None
Stock for category_1 stores by item list: Shows... <i>Method: -</i>		
	None	None
Trends in critical stock: Shows the historical stock on hand using parameters to filter store and/or items. Will show the current percentage, and perce		
	store_id	the ID of the store you're interested in, or no value for all stores
	critical_stock	TRUE if you want to include items with this field checked, false for all items
	Output: use the type "time_series_chart"	
Reports Monthly Transactions Shows how many transactions of each type the chose store has processed this month <i>Method: dashboard_rep_monti</i>		
	store_name	the name of the store which you are interested in, or no value if you want all stores
Items Issued This Month: Shows items issued by the facility within the last 30 days. <i>Method: dashboard_itemRow_storeCol_usage</i>		
	store_tag	include stores with this tag
	master_list	include items on this master list
	period	30 (currently only 30 days is supported)
Stock each item in each store: Shows a table of items in rows and stores in columns, with the stock on hand for that item in that store in each cell. <i>Met</i>		
	store_code	store code attached to the store. multiple stores can be specified by adding more parameters that begin with
	item_code	items whose code matches this code (append "@" for a "starts with" search)
	master_list	selected master list of items. Category1_description must be specified if using a master_list
	Category1_description	Items with this category1
Unfinalised Stock Transfers: Table of unfinalised stock transfers (between mSupply stores) for each facility. <i>Method: dashboardReportUnfinalisedStoc</i>		
	store_tags	(optional) A comma-separated list of tags - or omit this parameter if you want to show transfers for all stores.
	days_older_than	(optional) show only transactions that are older than this value (days).

If you can't make a dashboard report that does what you want then please speak to us, it's usually a fairly simple matter for us to create one for you.

Alert

August 2020: The remaining instructions on this page are for configuring mSupply's legacy web dashboard. This may still



- The tabs themselves occupy their own space on the left of the window- they aren't considered when laying out the dashboard
- The first row has two reports- each report takes up half the row. So for the first report:
 - Row 1, Col 1, width 6 (“12” means it takes up the full width of the cell it is in- “4” would mean it would take up 1/3 of the width)
- For the report at the top right:
 - Row 1, Col 2, width 6
- For the map
 - Row 2, Col 1, width 12
- The next two reports are on the same row, but are divided into 5/12 and 7/12 of the width of the window, so we put them in the same cell but change the width settings:
 - Row 3, Col 1, width 5
 - Row 3, Col 1, width 7

To add a report to a dashboard tab

Click **New Line** to add a new report to the tab. Then edit the values in each column

- **Row:** The row it will be in
- **Column:** The column within the row- set to “1” if you don't have multiple reports on this row.
- **Report title:** The title that will show in the Orange heading bar for the report. Note that the same report can display different information depending on the parameters you set for that report- hence the need for the ability to customise report names
- **Type:** You'll need to know the appropriate type for the report you're displaying. The options are
 - bar_chart
 - table
 - pie_chart
 - time_series
 - map
 - line_chart
- **Width:** The fraction of the cell width in “twelfths” that this report will take up (“6” will make it take up half the cell width)
- **Report:** Choose the report name from the drop-down list of available reports

Add a dashboard tab to a user's dashboard

This is the final step in setting up dashboards: once the tabs have been setup you have to choose which users will see which tabs. You do this in individual users' settings. See [managing users](#) for instructions on how to do this.

Info

Some of these dashboard reports can be used for mSupply Mobile. Users do *not* need to be set up to have access to mSupply Mobile dashboards. The mSupply Mobile store will see the dashboard reports provided that on the mSupply central server:

- The **mobile: Uses dashboard module** store preference is turned on for the store
- The report has been configured for display on mSupply Mobile stores



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16.06. Entering a new logo

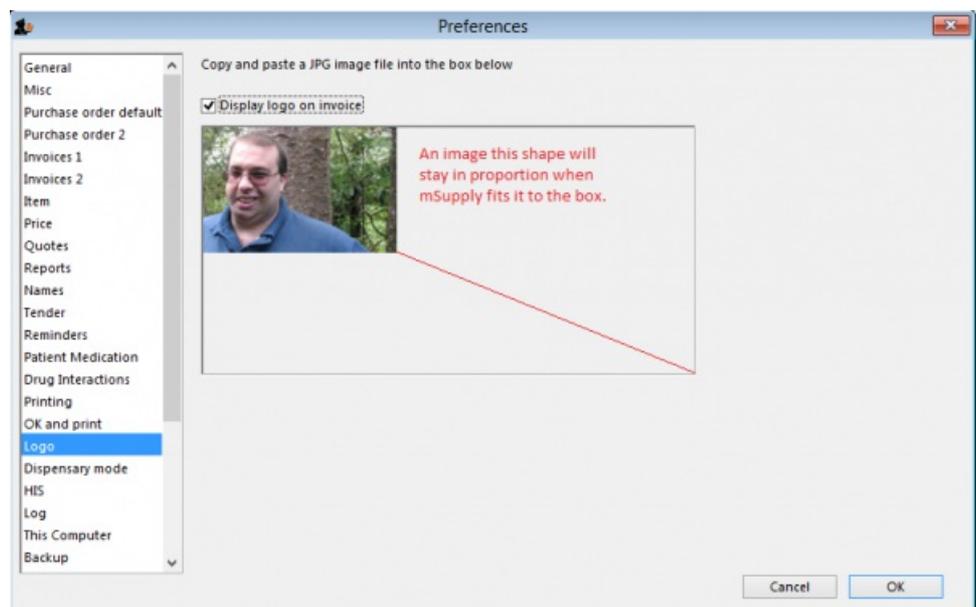
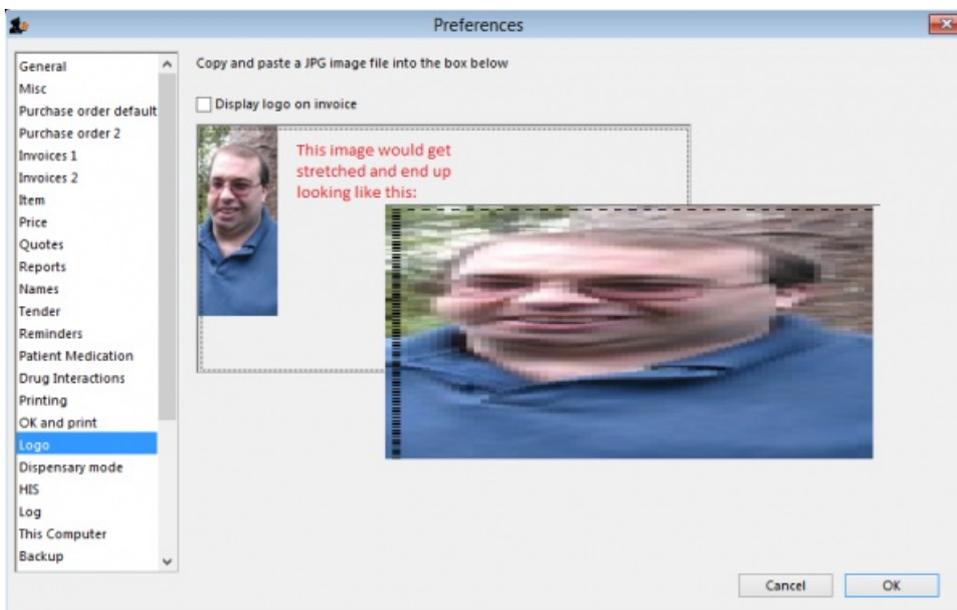
⚠ Important

- The preferences described here (accessed through **File > Preferences...**) apply to all stores on an mSupply server.
- In a synced system there will be multiple 'sync satellites' and these settings can be different on each sync satellite.
- There are some settings that are 'per store' - refer to [Store preferences](#), and store preferences can be different for each store on an mSupply server.

Select **File>Preferences**. On the left hand side choose **Logo**.

If you want this logo to be printed on invoices then tick the box.

Copy your image onto your clipboard (control+c) and paste into the area provided (control+v). Be careful to use an image of the aspect ratio 16:10 (16 wide to 10 high) as mSupply will stretch the image to fill the available area.





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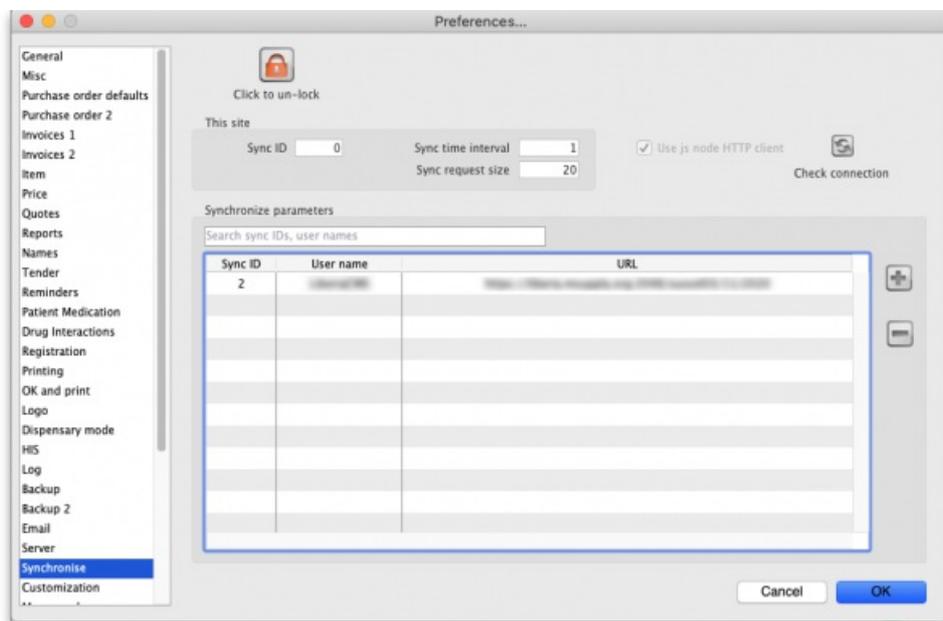


16.07. Synchronisation preferences

⚠ Important

- Synchronisation preferences are only relevant for a synced system.
- These preferences can be safely ignored if you have a stand-alone mSupply installation, or a single server.
- These settings will normally only be changed by Sustainable Solutions. They are not intended for general use by mSupply users.

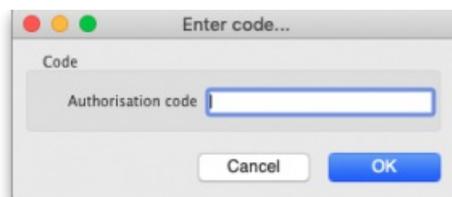
To view the synchronisation settings choose *File > Preferences* from the menus and click on the *Synchronise* tab on the left hand side. This is the window you will see:



When you first arrive at this window, all fields will normally be disabled. If this is a datafile for a correctly configured sync site then all the settings and fields except the **Sync time interval** field and the **Test connection** button will be disabled and cannot be edited.

Unlocking the settings for editing

Click on the **Click to un-lock** button and this window will open:



Enter your unlocking code in the **Authorisation code** field and click on the **OK** button. If the code you enter is valid, the various fields and buttons will be unlocked for editing and using, otherwise you will be told that the code is invalid and everything will remain read-only.

The preferences

- **This site:** these fields contain the settings for the sync site this datafile belongs to
 - **Sync ID:** An integer that is greater than 0, the unique ID of this sync site. This is the ID the site is identified with to all other sync sites in the system.
 - **Sync time interval:** the number of minutes between attempts to synchronise with the primary server. Setting this to 0 pauses sync. Editable without clicking on the **Click to unlock** button but only if sync is enabled on this site (i.e. if **Sync ID** is greater than 0).

- **Sync request size:** the number of requests to lump together when communicating with the primary server. If the internet connection is stable it is more efficient to have a larger number here. If the connection is less stable then it is better to have a smaller number.
- **Use js node HTTP client checkbox:** checking this causes mSupply to use a Node.js HTTP client instead of its built-in webserver to communicate with the primary server. This is advantageous in some situations. This option will be enabled if synchronisation is being used on this site. It is the one setting that can be changed without entering the authorisation code mentioned above.
- **Check connection button:** click on this to check the connection to the primary server. The button is available even if the settings have not been unlocked and will send a test request to the primary server (but only if sync is enabled on this site i.e. if **Sync ID** is greater than 0). The result of the request will be displayed in a message and will tell you whether this site can reach the primary server.

Synchronise parameters section

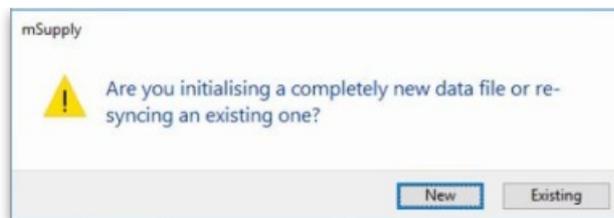
This list contains the names of all the sites to synchronise with. If this is the primary server all the satellite servers will be identified in this table. If this is a satellite server then the primary server only will be identified in here.

Sometimes there can be hundreds of sites in this list. To find the one you're interested in, you can click on the column headers to order the list by them (click again to reverse the sort order - same as with most columns throughout mSupply) or enter a site sync ID or user name in the field just above the list to reduce the list to those with an ID or user name starting with what you have entered.

Editing an existing row

Double-click on a row to edit its details. This window will open:

- **Sync ID:** The ID of the site in the synchronisation system. You choose this; it MUST be unique to each site to be synchronised. ID 1 is reserved for the primary server (so, if this is the primary server put 1 in here).
- **User name:** Communication between the primary and satellite servers is authenticated. This user name and the **Password** field must match what the primary server is expecting for communication to be successful. So, you can enter any valid username and password in these fields but they must all be the same for the primary and satellite servers.
- **Password:** as above.
- **URL:** On a remote site, this should be the central server's **URL** or IP address, including the port if the default is not used. On the central server, if any sites have this field populated it'll disable sync.
- **Hardware ID:** This is a unique hardware identifier of the remote machine. The primary server has a copy of this information and, if the value here differs from that on the central server, sync will be disabled for this site. If the remote machine hardware has actually changed (e.g. a new computer) then clearing this value on the primary server will allow the new value to be saved and sync will resume.
- **Generate sync records button:** If this is the central server, this button will generate all the sync records to initialise a new data file; if you're on a remote site, it will generate the sync records for stores active on this site (e.g. if you need to refresh the central server copy). After clicking on the button you will see this message:



- **New button:** Clicking this will create sync out records for system and transactional data (users, preferences, customer invoices, supplier invoices etc.).
- **Existing button:** Clicking this will create sync out records for store data only.
- **Retrieve sync records button:** Does a manual pull of sync records waiting for this site on the primary server.

Adding a site

To add a new site to sync with, click on the  button to the right of the list. That will open the same window as editing a row but it will be empty, ready for you to enter the appropriate values.

Deleting a site

To delete a site from the list, simply click on it to select it and click on the  button to the right of the list.

Previous: [16.06. Entering a new logo](#) || Next: [16.08. FrontlineSMS](#)

Last modified: 2022/02/15 15:21 by Gary Willetts

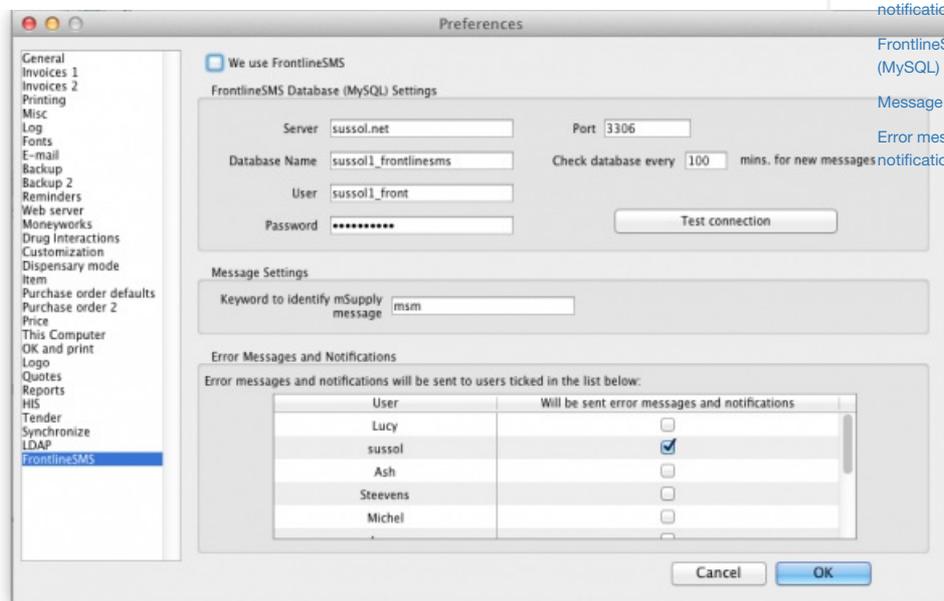


mSupply documentation wiki



16.08. FrontlineSMS

If you use FrontlineSMS for sending information to mSupply via SMS messages (using mobile phones), this is the page where you enter all the settings.



The settings and what they mean are as follows:

We use FrontlineSMS:

Checking this makes mSupply periodically check the FrontlineSMS database for messages that have been sent to mSupply. If this checkbox is left unchecked, mSupply ignores all the settings on this page and will not check the FrontlineSMS database for new messages.

FrontlineSMS database (MySQL) settings

To use FrontlineSMS with mSupply, FrontlineSMS must be configured with a MySQL database. In this section you tell mSupply the details of this database to enable it to connect to it and retrieve new messages.

Server:

The name of the server hosting the FrontlineSMS database. You can enter the server's name e.g. myserver.mydomain or its IP address.

Database name:

The name of the FrontlineSMS database. This is the name it was given when it was created in MySQL.

User:

The username that mSupply will use to log into this database.

Password:

The password that goes with the username above.

Port:

The port that the database is served at on the host. If you leave this blank, mSupply will set it to the default port used by MySQL (3306).

Test Connection Button:

This button will test the connection to the FrontlineSMS database using the settings above. You should click it after you've entered all the settings or when you change any of them. It will tell you whether the settings allowed mSupply to connect to the database.

Important

If a connection cannot be made to the database when clicking the *Test Connection* button, the exact error message returned from MySQL is stored in the log. To view it go to *Special > View log*. This can be very handy when trying to figure out why you can't connect to the FrontlineSMS database.

Check database every //x// mins. for new messages:

This is the time in minutes between checks of the FrontlineSMS database for new messages. The minimum is 2 minutes and if you don't set it, this is the value it will be given.

Message settings

Keyword to identify mSupply message:

This is what mSupply looks for at the very beginning of an SMS message received by FrontlineSMS to identify it as one that it must process. Can be made up of any alphanumeric characters. Keep it short and unique - not something that will appear at the beginning of any SMS messages not intended for mSupply.

Error messages and notifications

Because the process is otherwise silent, mSupply needs to notify users when a new message has been processed or if errors occur in the process (e.g. a message is missing some information). mSupply will email such error messages and notifications to the users ticked in the list in this section. The list contains all users in the system and you must select at least one of them.

Previous: [Synchronisation](#) *Next:* [Reports Basics](#)

Previous: [16.07. Synchronisation preferences](#) || *Next:* [16.09. Barcode scanning preferences](#)

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16.09. Barcode scanning preferences

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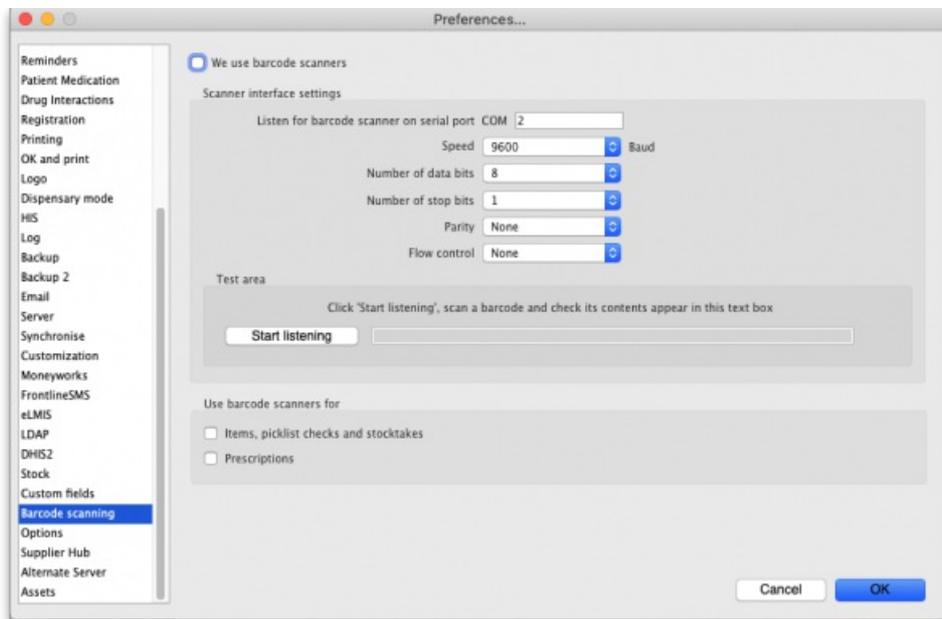
- [Scanner interface settings](#)
- [Test area](#)
- [Use barcode scanners for](#)
- [Scanner interface settings](#)
- [Test area](#)
- [Use barcode scanners for](#)

⚠ Important

- The preferences described here (accessed through **File > Preferences...**) apply to all stores on an mSupply server.
- In a **synced system** there will be multiple 'sync satellites' and these settings can be different on each sync satellite.
- There are some settings that are 'per store' - refer [Store preferences](#), and store preferences can be different for each store on an mSupply server.

If you want to use barcode scanners in mSupply, this is where you set up the preferences for communicating with your barcode scanner.

Note: Only a single barcode scanner can be connected to a computer running mSupply



We use barcode scanners: Check this if you will use barcode scanners with mSupply on this computer. When it is checked, mSupply will automatically try to connect to the scanner when it starts. You will get an error message if the port in the settings is closed (usually caused by the scanner not being connected or turned off). When this is checked, it also modifies the way certain things work in mSupply. For example, when checked, a new Barcode drop down list appears on the new line window of a supplier invoice and stocktakes work differently.

Scanner interface settings

Listen for barcode scanner on serial port drop down list: contains a list of all the serial ports available on the computer. Select the one the barcode scanner is connected to. Note, if the barcode scanner was previously connected to a port but it is now turned off or disconnected and the port is no longer available, the port will appear as "Disconnected port" in the list and will be selected by default.

Speed drop down list: the speed that data is communicated over the serial connection in Baud (900 to 230400).

Number of data bits drop down list: the number of data bits in a packet of information sent over the serial connection (5,6,7 or 8).

Number of stop bits drop down list: the number of stop bits in a packet of information sent over the serial connection (1, 1.5 or 2).

Parity drop down list: the type of parity used in the serial communication (Odd, Even or None).

Flow control drop down list: the type of flow control (None, RTS/CTS or Xon/Xoff).

Test area

Start listening button: When you have made your selections in the Scanner interface settings section, you can click this button to test whether the port settings are correct and mSupply can receive scanned output from the scanner. When you click it, mSupply attempts to open the selected port with the selected settings and listens to the scanner.

If you get an error message, that means the port you selected in the **Listen for barcode scanner on serial port** drop down list couldn't be opened. That will be because the barcode scanner isn't connected or turned on or the scanner driver isn't properly set up.

If you don't get an error message and the scan appears but it's garbled or doesn't match what the barcode contains then one or more of the settings

below the **Listen for barcode scanner on serial port** drop down list are wrong. Refer to your scanner documentation to determine what the correct settings are (or configure you scanner to match the settings you've chosen).

If the port settings are all correct and communication with the scanner is good, the contents of the scan will be displayed correctly in the text box.

To change the settings, click on the **Stop listening button** (the button label toggles between "Start listening" and "Stop listening"), adjust the settings, and click on the button again before trying another scan.

When you are happy the scans are being read by mSupply, your setup of the scanner is complete.

Use barcode scanners for

This section is where you tell mSupply in which areas to use barcoding:

- **Items, picklist checks and stocktakes checkbox:** If this is checked, mSupply will use barcode scanners when receiving goods, stocktaking, picklist checking and when editing items. See the [15.02. Adding barcodes to items](#), [15.03. Barcode scanning and receiving goods](#), [15.05. Barcode scanning and pick list checking](#) and [15.04. Barcode scanning and stocktaking](#) pages for details.
- **Prescriptions checkbox:** If checked, barcode scanners can be used with prescriptions. See the [10.02. Prescription entry](#) page for details.

Previous: [16.08. FrontlineSMS](#) | Next: [16.10. Options \(standard reasons\)](#)

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16.10. Options (standard reasons)

You can create a list of options (or reasons) for the user to select from when they perform certain actions in mSupply (in drop down lists etc.). Options are an alternative to the user typing free text, and can help standardise information being recorded in mSupply, which facilitates reporting.

You can enter options for:

- **Requisition Line Variance:** Reasons for a variation between the suggested quantity and entered quantity in a requisition line.
- **Positive Inventory Adjustment:** Reasons for a positive adjustment between the snapshot quantity and entered quantity in a stocktake line (to help answer the question *why is there more stock than expected?*).
- **Negative Inventory Adjustment:** Reasons for a negative adjustment between the snapshot quantity and entered quantity in a stocktake line (to help answer the question *why is there less stock than expected?*).
- **New Cash Out Transaction:** Reasons for a cash out transaction (taking cash out of the cash register).
- **Open vial wastage:** Reasons for open vial wastage when dispensing vaccines (see [the mSupply mobile user guide](#) for details).

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 - Positive or negative inventory adjustment
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- Creating options
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 - Positive or negative inventory adjustment
 - New cash out transaction
 - Payment type

Creating options

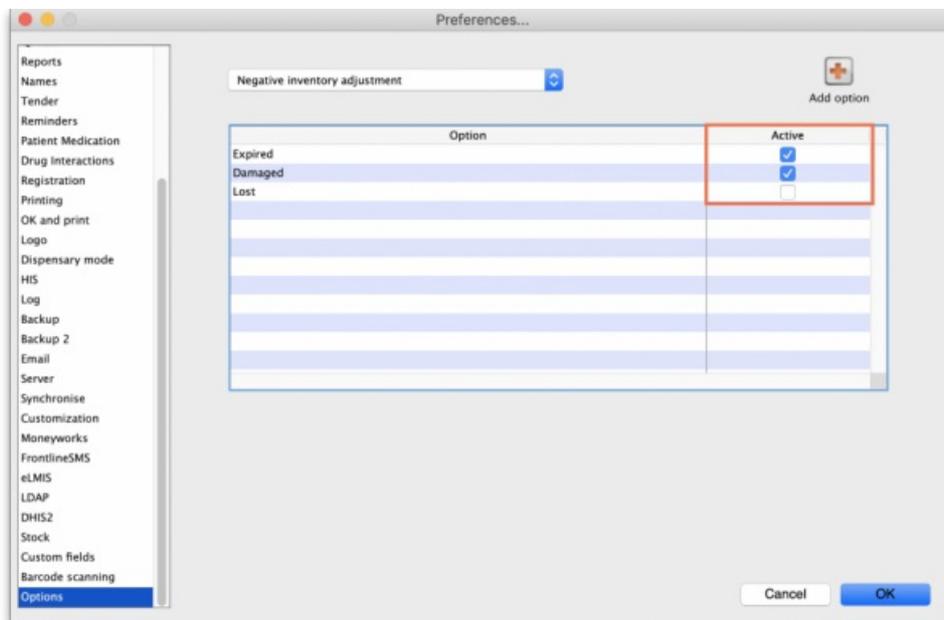
⚠ Important

In a sync system, Options must be added on the **central server** and will then sync to other sites.

1. Go to the **Admin** tab on the Navigator and click the **Preferences** button:



2. Click on the *Options* tab in the list on the left hand side to see this page:



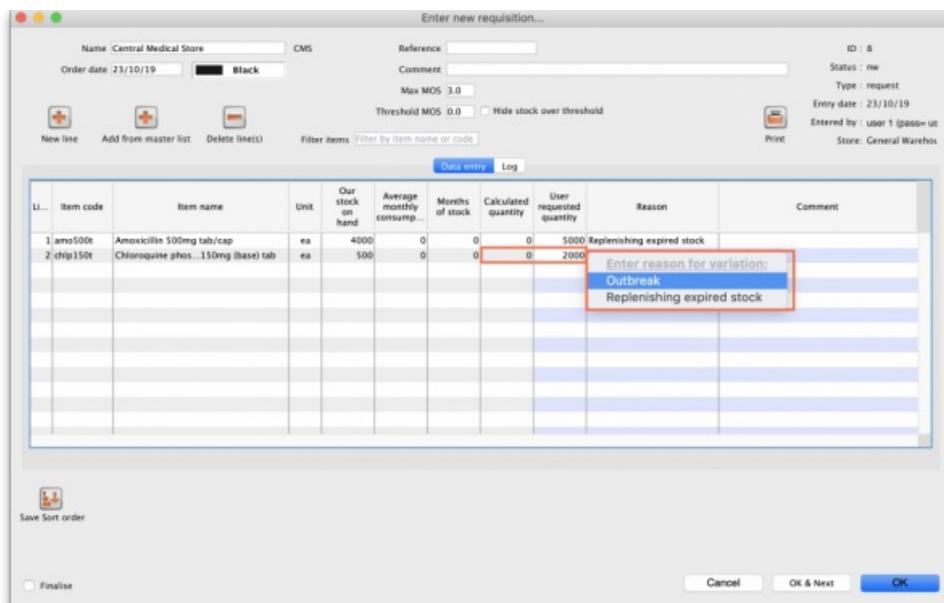
Using options

This section shows how options appear in each transaction type after they are created.

Requisition line variance

This type appears when creating a [Requisition](#).

If there are any active options of this type, when a user enters a **User Requested Quantity** that is different from the **Calculated Quantity**, the list of active *Requisition line variance* options automatically appears in the **Reason** column and one must be selected:

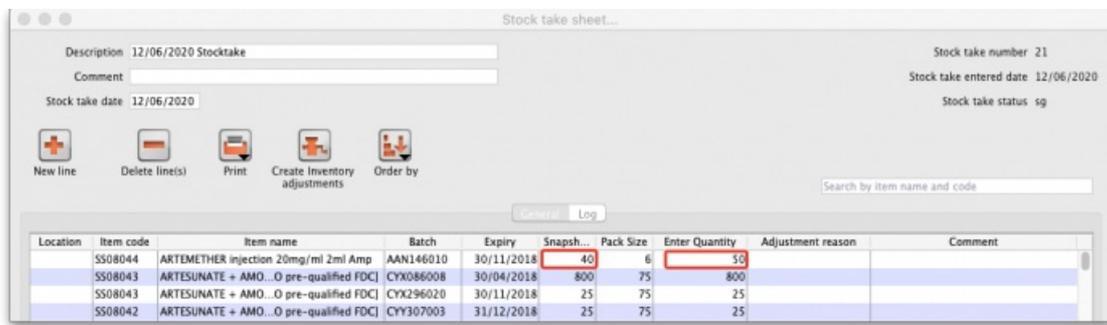


Positive or negative inventory adjustment

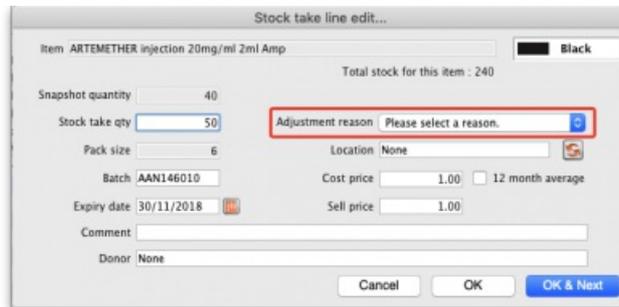
When any active options of these two types are available, they are used in a stocktake (see the [4.17. Stocktakes](#) page) or when manually creating inventory adjustments (see [4.18. Inventory adjustments](#)).

Stocktakes

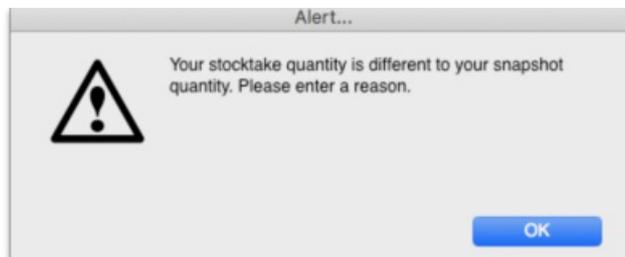
In the main stocktake window, if the **Enter Quantity** value is adjusted to be different from the **Snapshot Quantity** value like this, for example:



then the edit stocktake line edit window is automatically opened and you must select an option from the **Adjustment reason** drop down list:



If you click on the OK button before selecting a reason you'll be prompted to choose one:



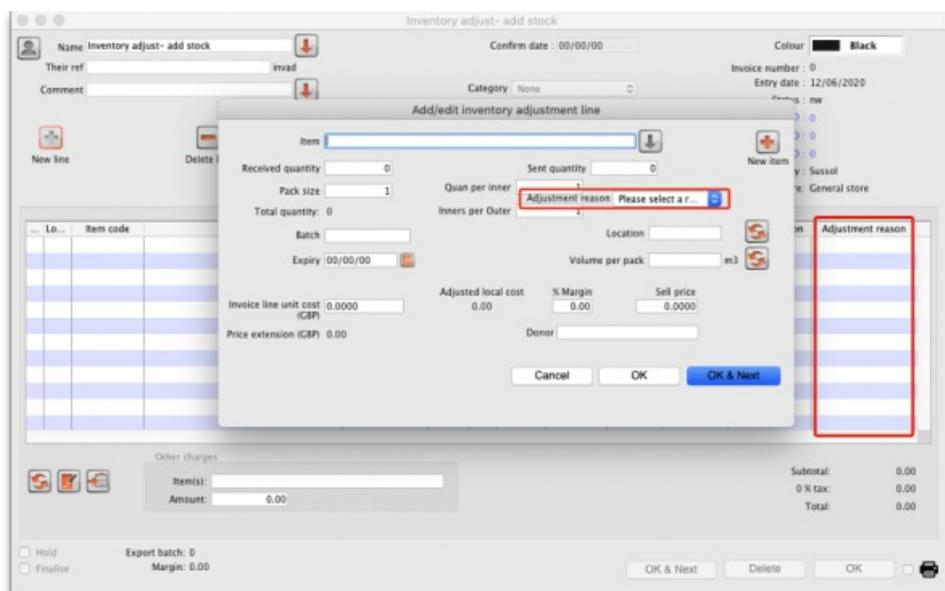
Of course, the same is true if you double-click on a line in the main stocktake window and edit the **Stock take qty** value to be different from the **Snapshot Quantity** in the stock take line edit window; you must select a reason from the **Adjustment reason** drop down list before you can proceed.

If the *Counted quantity* is greater than the **Snapshot quantity** the **Adjustment reason** drop down list is populated with *Positive inventory adjustment* options, if it is smaller then it will be populated with *Negative inventory adjustment* options.

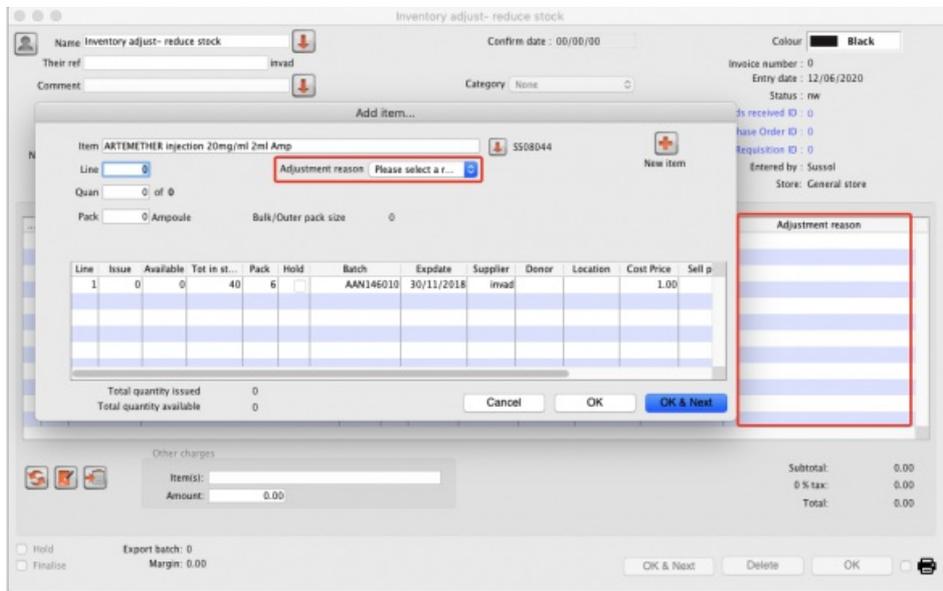
Any reasons entered on a stocktake are carried through to the corresponding inventory adjustment lines that are created when the stocktake is finalised.

Inventory adjustments

If there are any active *Positive inventory adjustment* type options, you must select one of them from the **Adjustment reason** drop down list when adding a line to an Inventory adjustment - add stock transaction and they will appear in the **Adjustment reason** column:

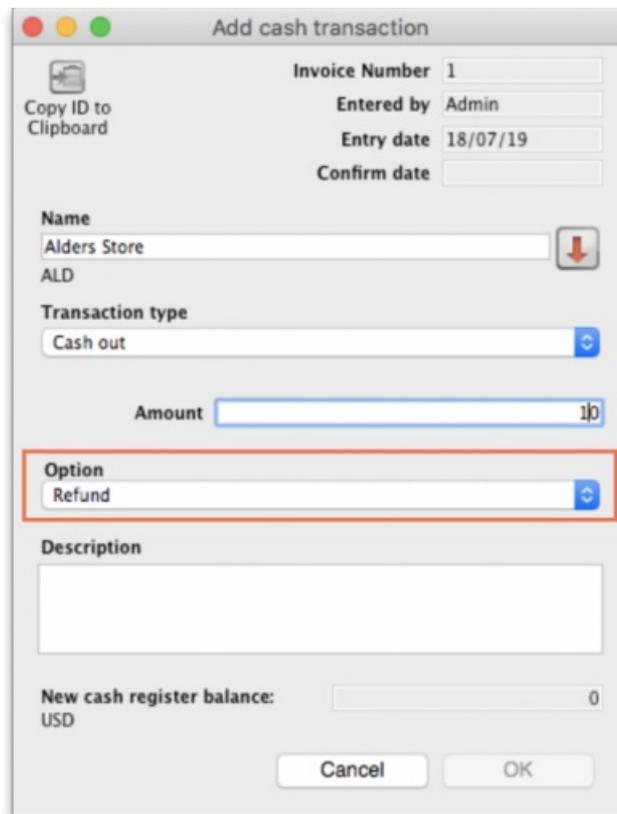


If there are any active *Negative inventory adjustment* type options, you must select one of them from the **Adjustment reason** drop down list when adding a line to an Inventory adjustment - reduce stock transaction:



New cash out transaction

When creating a new cash out transaction (see the [Cash Out](#) section for details), if there are any active *New cash out transaction* type options then you must select a reason from the **Option** dropdown list that is displayed in the window:



Payment type

When entering payments on a prescription (see the [11.03. Prescription payments and credits](#) page for details), if there are any active *Payment type* options then you must select one from the drop down list in the *Payment details* section on the *Payment* tab of the prescription before a payment can be saved:

Prescription Entry

Patient details

Name: Patient, Test Date of birth: 23/11/1974 Female

New Patient Code: Testp01 Address: Store: AKPESSEKRO (CSR-D PUBLIC)

Prescriber: Confirm date: 04/06/2020 Entered: 04/06/2020

Code: Prescription date: 04/06/2020 Invoice: 431

Entered by: Susael

Items: Payment

Other details

This invoice will be automatically finalised if a payment is entered.

Cheque #

Note

To Pay

Invoice total	300.00
Total to pay	300

Patient's credit status

Current balance	100.00	Available credit	100.00
Credit limit	100.00		

Payment details

Amount paid by credit	50.00
Amount paid by patient	250.00
Total payment	250
Amount given	0
Change to give back	

Select the payment type

Finalise Export batch: 0 Status: on Print receipt OK & Next Delete OK

Previous: [16.09. Barcode scanning preferences](#) | | Next: [16.11. Custom fields](#)

Last modified: 2021/10/08 09:25 by Gary Willetts

16.11. Custom fields

You can create custom fields that appear in different areas in mSupply. These allow you to record additional information and customise mSupply for your needs.

You can create custom fields in the following areas:

- Customer invoice
- Supplier invoice
- Store
- Requisition
- Item
- Item category
- Quote line
- Name (of customers, suppliers, prescribers etc.)
- User
- Purchase orders
- Transaction categories
- Item Category Level 1
- Transaction lines

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 - [Customer invoices](#)
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 - [Supplier invoices](#)
 - [Stores](#)



⚠ Important

Only edit custom fields if you are confident with the information in this page and fully understand the content. Otherwise you could cause some things to stop working in your copy of mSupply! This is true for all settings, but please be especially careful with custom fields.

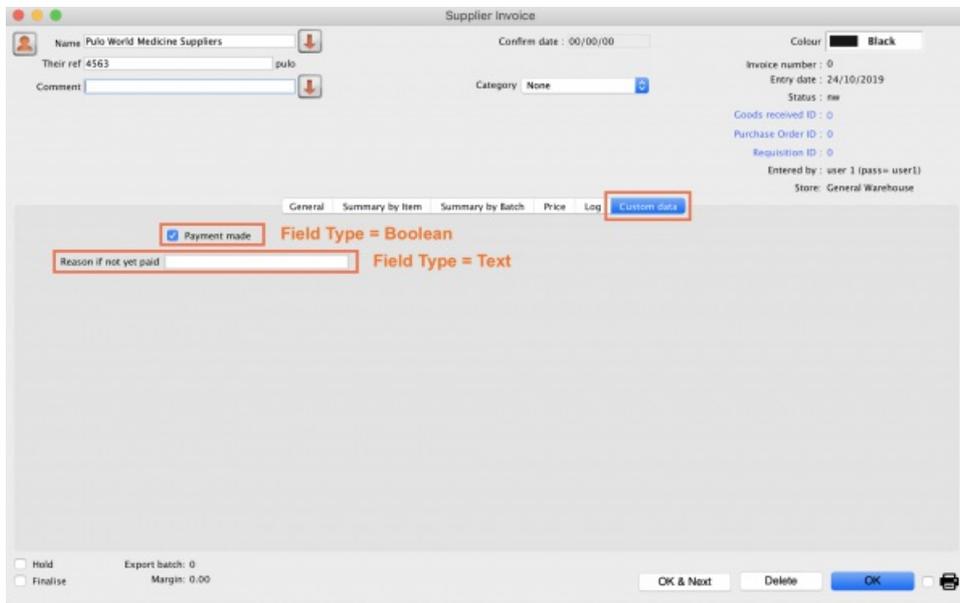
Creating custom fields

1. Navigate to the **Admin** tab and click the **Preferences** button.



2. Select **Custom Fields** from the list on the left.

3. Select the area requiring custom fields from the **Table to set custom data fields for** dropdown list.

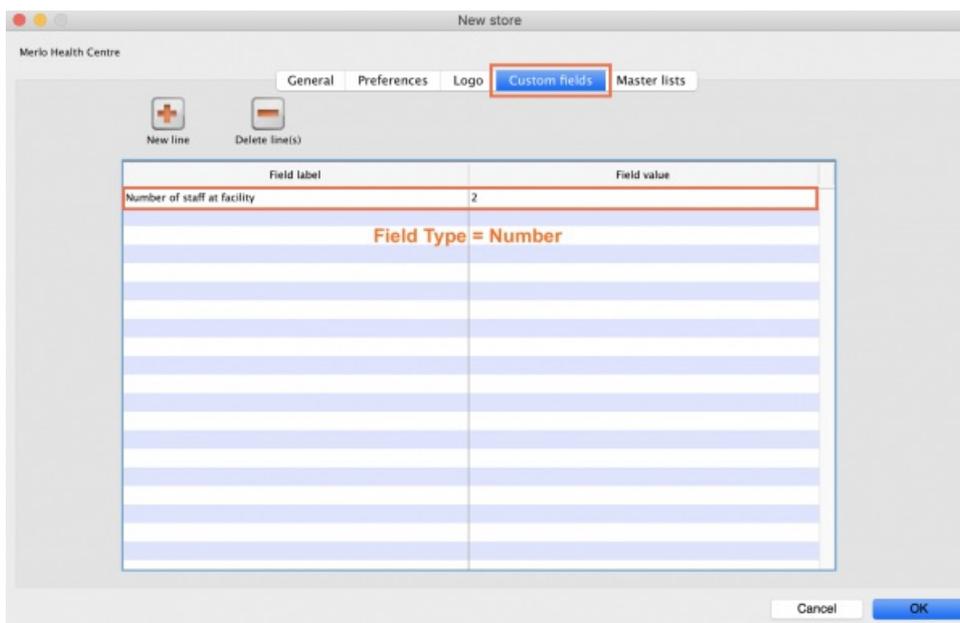


Stores

When creating a store:

Click the **Custom Fields** tab.

In this example, we added one custom field: a **Number** field type.



Previous: 16.10. Options (standard reasons) || Next: 17. Data Import and Export

Last modified: 2021/10/08 09:25 by Gary Willetts



User Guide



17. Data Import and Export

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- 17.02. Importing stock
- 17.03. Importing names
- 17.04. Importing prescribers
- 17.05. Importing abbreviations
- 17.06. Importing customer budgets
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- 17.17. Exporting invoices to Moneyworks
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17.01. Importing items

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- [Stores tab](#)
- [Master lists tab](#)
- [Import file format](#)
- [Import new item codes](#)



You can import a tab-delimited text file of items by choosing **File > Import > Import items...**

⚠ Important

- This command only imports (creates) items. You will need to do this when you are configuring mSupply for the first time, or when you are wanting to create a number of new items to your system.
- **This process does not introduce stock.**
- If you would like to import stock, see the [17.02. Importing stock page](#).

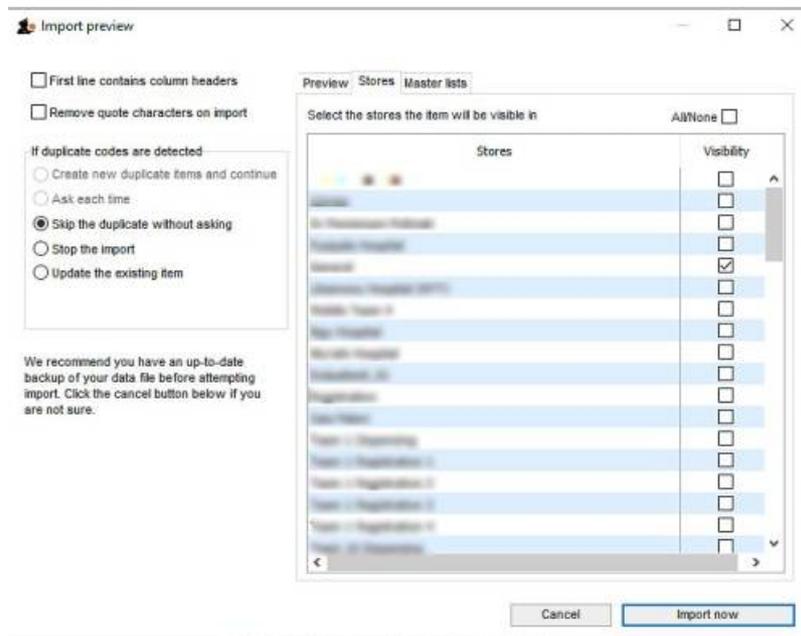
During import you can specify a number of things including:

- What happens with duplicates
- Which [master lists](#) the new items will be added to.
- Which stores the new items will be visible in (if [master lists](#) aren't controlling visibility)

After selecting the menu item you are shown a message asking you to select the file to be imported on the next window:



After clicking OK, a window opens allowing you to select the file to import. After selecting it (by double clicking on the file in the window or clicking on it and clicking on the *Open* button) this window is displayed:



First line contains column headers: If you have used the first line of your import file for column headers, check this box. Then mSupply will ignore the first row in the file, and start importing items from the second row.

Remove quote characters on import: If this is checked then double quote characters (") are removed from item names as they are imported. This is useful if you have exported the import file from spreadsheet software and it has placed double quote characters around the text.

⚠ Important

If you have used double quote characters in item names (e.g. as a symbol for inches) then they will also be removed if this option is checked.

Handling duplicate items: During the import process, mSupply compares the item code in the import file (1st column - see below) against the codes of items already in its database to determine whether an entry is a duplicate item or not. If a duplicate item is found in the import file mSupply will handle it according to your radio button selection in the *If duplicate codes are selected* section:

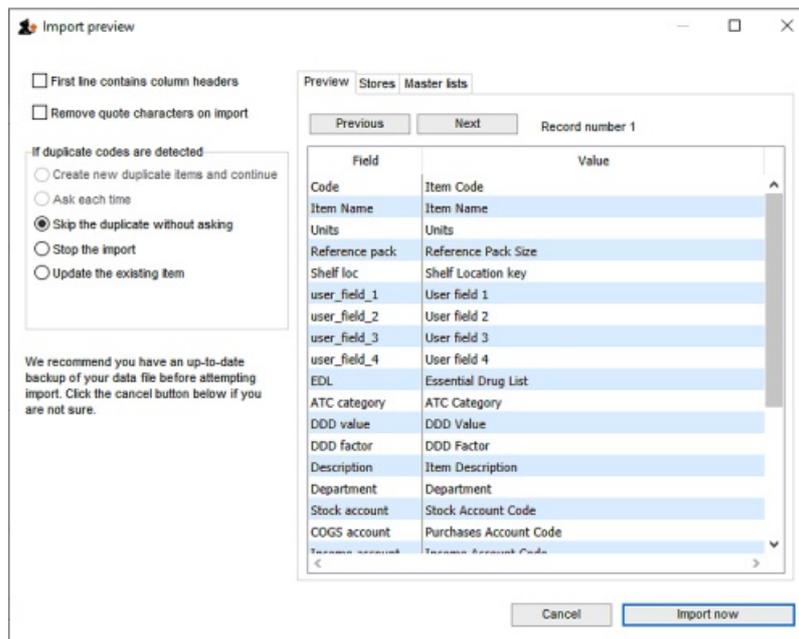
- **Create new duplicate items and continue** and **Ask each time** options are disabled for Item Import.

⚠ Important

As of v5 (or earlier) it should not be possible to create an item with the same code as another item. Hence, item with duplicate item code will be ignored.

- **Skip the duplicate without asking:** the duplicate is ignored and not imported.
- **Stop the import:** if a duplicate is detected mSupply will stop and cancel the whole import i.e. the database will be exactly that same as it was before you started the import.
- **Update the existing item:** the item with the same code already in mSupply will be updated with all the details of the item in the import file.

Preview tab



This tab enables you to see a preview of what will be imported into mSupply and helps you check that mSupply is reading what you expect from the import file.

The left hand column of the table (“Field”) shows you all the fields mSupply is expecting to see (in that order, first at the top, last at the bottom of the table). The right hand column (“Value”) shows you the value that mSupply has read from the file for that field. Use the *Next* and *Previous* buttons to move between the records in the import file.

Stores tab

⚠ Important

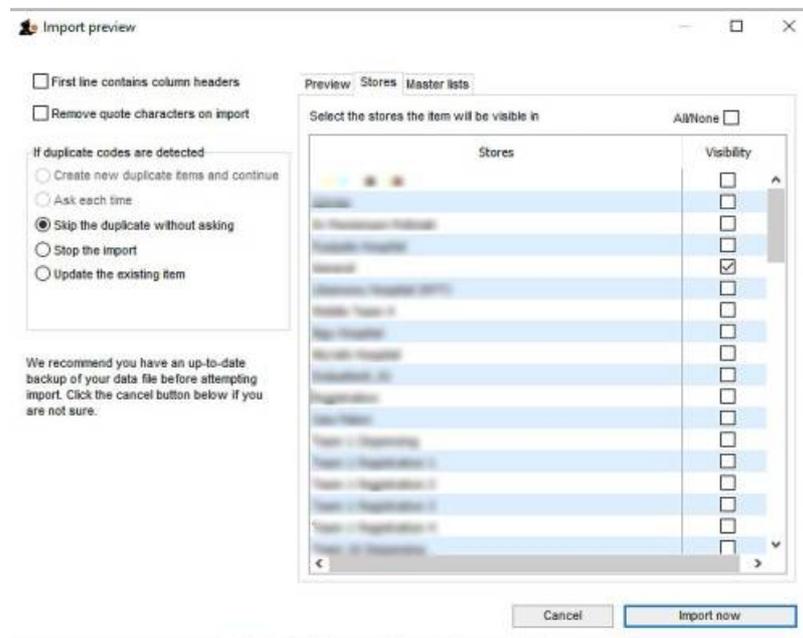
If the preference *Automatically update item visibility in all stores to match master lists used by that store* (see [Preferences > Item](#)) is checked, then item visibility is controlled by [master lists](#) and you do not have the option of selecting stores in which the item is visible. The table on this tab will be replaced with this message telling you to use the [Master lists](#) tab instead:

Preview Stores Master lists

Item visibility in stores is controlled by master lists, not by setting visibility in stores directly. Please go to the master list tab to set which master lists this item belongs to.

 **Tip**

Item visibility in each store will be turned **on** in accordance with the master lists you have selected, but visibility *won't be* turned off in stores in which the item is already visible but not associated with the selected master lists. This prevents inadvertently removing existing items from stores when your intention is to import items to specific master lists.



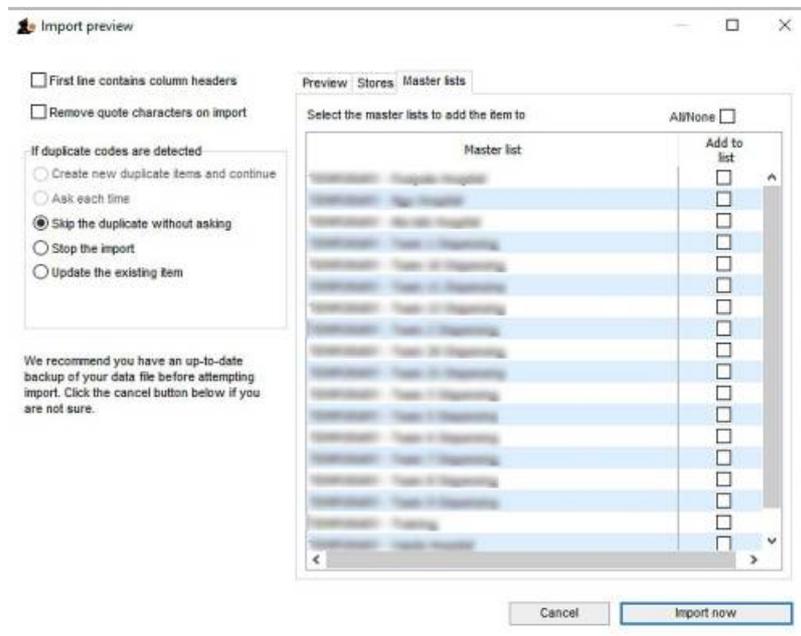
- This is the tab you use to specify which stores the items you import will be visible in.
- The store you are logged into is ticked by default. Simply check the “Visibility” column checkbox for the stores you wish all imported items to be visible in.

 **Important**

Only imported item visibility is affected during the import. If a duplicate item is found in the import file then:

- If you choose to ignore duplicates, then the visibility of the item already in mSupply is not affected by the import process.
- If you chose to update duplicates, then the visibility of the item already in mSupply will be updated to match what you have set on this tab.

Master lists tab



This is the tab you use to determine which master lists the items in the import file will be added to as they are imported. Simply check the “Add to list” column checkbox for the master lists you wish all the items in the import file to be added to.

Any master lists that have the “Automatically add new items to this master list” option checked will have their “Add to list” checkbox checked by default on this tab and you will not be able to uncheck them.

Note that only imported items will be added to the master lists selected. This means that items already in mSupply which match duplicates in the import file that you choose to ignore will not be added to the selected master lists. Similarly, items already in mSupply which are updated because they match duplicates in the import file and the “Update the existing item” option was chosen are added to the selected master lists. And don't worry, if an item is already on a msster list it won't be added again.

Import file format

Field order for the text file:

Column number	Column letter	Field	Description
1	A	item code	18 alphanumeric characters (must be a unique value)
2	B	item name	80 alphanumeric characters
3	C	units	3 alphanumeric characters recommended (ea, ml or mg). Entries in the units list will be ignored if you import a unit that does not already exist in the data file. 60 characters supported
4	D	reference pack size	integer
The above fields are mandatory, while the following fields are optional and may or may not be included as per your requirements			
5	E	Default shelf location code	60 alphanumeric characters. The code of the shelf location that stock of this item is held in
6	F	user field 1	30 alphanumeric characters
7	G	user field 2	30 alphanumeric characters
8	H	user field 3	30 alphanumeric characters
9	I	user field 4	"true" or "false"
10	J	edl	"true" or "false"
11	K	ATC category	30 alphanumeric characters
12	L	ddd value	8 alphanumeric characters- the ddd and its units
13	M	ddd factor	number greater than zero (default=1)
14	N	item description	The long description for the item. Do not include carriage returns (new lines made with the return or enter key) in your text file.
15	O	item department	The name of the department that the item belongs to. If the department does not exist, mSupply will create it.
16	P	account code for stock	The account code used for stock purchases . Note that these accounts will be created if they don't exist.
17	Q	account code for cost of goods sold	
18	R	income account code	
19	S	Default sell price	
20	T	Category	Category 1. This category is hierarchical and has 3 levels. You can enter different categories for different items. We strongly recommend you use the WHO EDL categories for this field
21	U	Category 2	60 alphanumeric characters
22	V	Category 3	60 alphanumeric characters
23	W	VEN category	The WHO VEN category of the item. One character only, must be V, E or N, w
23	X	Weight	
24	Y	Critical stock	"true" or "false"
25	Z	Normal stock	"true" or "false"
26	AA	User field 5	number
27	AB	User field 6	30 alphanumeric characters
28	AC	User field 7	"true" or "false"

All these are in this handy template: [mSupply Item Import template](#)

The chances are that you already have a set of codes that you use internally. In this case open up Excel or a similar spreadsheet program, fill in the item description in the order shown above. For a quick solution, you only need to fill in the first four columns, the rest can be ignored.

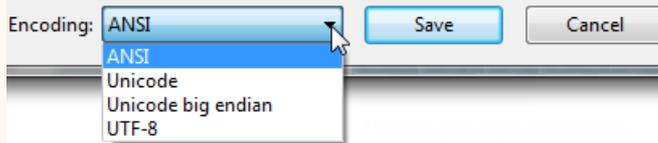
The third column representing "Units", can be left blank, however, it is better to fill this in. The fourth column "reference pack size" can be set to "1" for all rows unless you know what pack size you want to use as the "standard" (Don't worry about this. The reference pack is used for comparing quotations. You can receive and issue any pack size you like).

	A	B	C	D
1	Item code	item name	units	Reference page
2	ace250t	Acetazolamic	ea	1
3	ace100t	Acetylsalicylic	ea	1
4	ace300t	Acetylsalicylic	ea	1
5	aci200t	Acidovir 200r	ea	1
6	aci250t	Acidovir sodii	ea	1
7	alb400t	Albendazole	ea	1
8	alb25i	Albumin, hur	ea	1
9	abl5i	Albumin, hur	ea	1
10	alci10	Alcuronium cl	ea	1
11	all100t	Allopurinol 1	ea	1
12	alu13s	Aluminium di	ea	1

Save a spreadsheet file as shown above as a **tab-delimited text file**, and then import it as described at the top of this page.

⚠ Important

If the file you are importing has non-English characters (for example, accents), it is important to make sure the file is saved with a UTF-8 charset. You can check this by opening the file in Notepad (for Windows). When you save the file, you can choose the Charset used, as shown in image below.



📘 Info

If there are non-printable characters before or after the item name and code they will be removed. Any non-printable characters in the name or code will be replaced with an underscore (_).

Import new item codes

If you need to change the item codes for a selection of items in bulk, custom code has been developed for this purpose. It is a technically challenging process that is easy to get wrong. Please contact Sustainable Solutions on support@mSupply.org.nz to discuss this. Include a link to this heading

• [Import new item codes](#) 😊

The relevant details are:

- Method: `importCsvToUpdateItemCode`
- [mSupply Github issue 9130](#)

Previous: [17. Data Import and Export](#) || Next: [17.02. Importing stock](#)

Last modified: 2022/03/29 08:07 by Gary Willetts



mSupply documentation wiki



17.02. Importing stock

⚠ Important

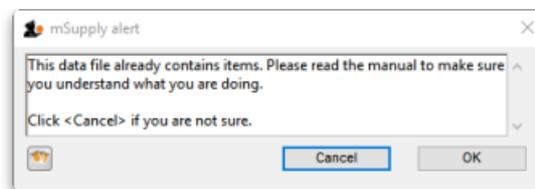
We strongly recommend:

- * You take a backup of your datafile before attempting any imports.
- * You test any import on a copy of your data before you do it on the real data.

Don't say you haven't been warned 😊

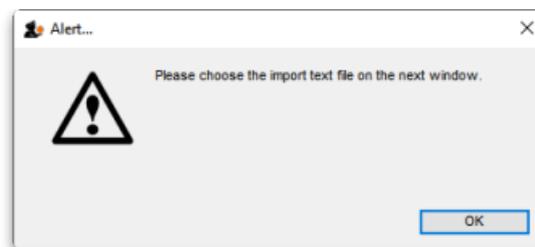
The Import stock function allows you to import stock into a store after the items have been created (manually or by using the item import function).

Choose *File > Import > Import stock* from the menus. You will be shown a warning:



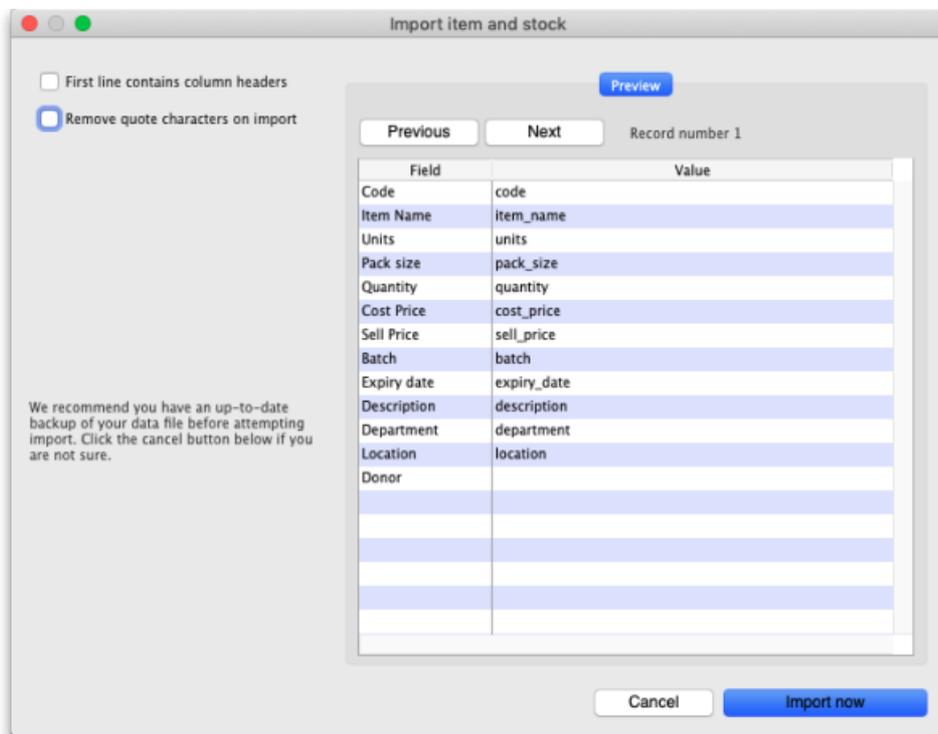
This is telling you to take care! The stock you are importing will be imported on top of the stock you already have in the store you are currently logged into. If you are not sure what you are doing, stop and make sure!

After clicking the **OK** button you will be told the next step is to select the import file:



Click the **OK** button on this window and an operating system window will open for you to select the import file. Find the file and double-click on it or click on it and click the **Open** button.

This window will open:



- First line contains column headers checkbox:** Check this by clicking on it if the first line of your file contains the column headers. If this checkbox is checked, mSupply will ignore the first row of the import file and only import from the second row onwards.
- Remove quote characters on import checkbox:** Check this if you want mSupply to remove quote (") characters from the various fields as it does the import. This is often needed if your import file has come from Excel or another spreadsheet application. You can check if there are unwanted quote characters in the fields using the preview **Next** and **Previous** buttons (see below).
- Next and Previous buttons:** Use these to move through the rows in the import file. mSupply will show you the information is is going to import from each field in the import file. You will be shown a warning if you try to view lines before the start or after the end of the file.

If you spot any problems, click on the **Cancel** button, fix them and try again. If all is well, click on the Import button and mSupply will carry out the import. A progress bar will show you how far through the whole process mSupply is. When it gets to the end you will be shown a message telling you how many lines were imported successfully and how many were skipped (because the item could not be identified - because the item code was missing or did not match an item in your datafile).

Import file format

The import file must be a tab delimited text file. The first row can contain the column titles but all other rows in the file should contain data to be imported. These are the fields you should have (and the order they must be in) in each row of the file:

Column	Field	Description
1 (A)	Item code	Mandatory , Text, up to 18 characters. mSupply uses this to recognise which item this row of stock belongs to. If this code
2 (B)	Item name	Optional , ignored during the import. Text, up to 80 characters. The name of the item, here for reference so you can easily
3 (C)	Units	Optional , ignored during the import. Text up to 60 characters, for your reference only. The unit the item is to be measured
4 (D)	Pack size	Mandatory , Integer. The number of units in a single pack for this stock line.
5 (E)	Quantity	Mandatory , Integer. The number of packs (containing the number of units in column 4) in this stock line. Equal to the total
6 (F)	Cost price	Optional , Real number. The price you pay for one pack.
7 (G)	Sell price	Optional , Real number. The price the customers of this store pay for one pack. Set this to the same as the cost price or le
8 (H)	Batch	Optional , Text, Up to 20 characters. The batch of this stock line.
9 (I)	Expiry	Optional , Text, in short format (dd/mm/yy or mm/dd/yy, depending on the format set in your computer's operating system)
10 (J)	Description	Optional . Text, Up to 32,000 characters. The full description of the item. Be careful not to have any carriage return charac
11 (K)	Item Department	Optional , Text, up to 30 characters. If you import a department name that doesn't exist, the department will be created.
12 (L)	Shelf Location	Optional , Text, Up to 60 characters. The code for the shelf location of this stock line.
13 (M)	Donor	Optional , Text, Up to 60 characters. The name of the donor of this stock line. If the donor doesn't exist, it will be created.

Here is a blank spreadsheet you can use with the right columns: [msupply_stock_import.xlsx](#)

Note: the first row of data in red is an example row - delete it before you import it!

You can create the import file in various ways:

1. Manually using the blank template above.
2. Manually using any text editor.
3. Export the current stock from a store in this or another mSupply datafile (and modify it if necessary) and import that.

If you use a spreadsheet application like Excel remember to export the file in Tab delimited text format before trying to import it into mSupply.

You can import as many batches of an item as you wish, there is no limit. And it doesn't matter whether batches of the same item are next to each other in the import file.

Previous: [17.01. Importing items](#) || Next: [17.03. Importing names](#)

Last modified: 2022/02/08 14:46 by Gary Willetts



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17.03. Importing names

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- [Introduction](#)
- [Setting up the import file](#)
- [Importing the file](#)
- [Importing patients](#)



In mSupply, *Names* are customers, suppliers, manufacturers, patients, donors and benchmark suppliers.

Introduction

Tip

- Importing a large number of names can really bog down the server. How much depends on the server hardware, but a realistic expectation is an hour per 10,000 names.
- We recommend that you do it when other users are not trying to do anything with mSupply!

The **File > Import > Import customers & suppliers...** menu item allows you to import all name types into an mSupply data file. You can import any name type in any store.

Important

- If you are in a **multi store system**, do the names need to be visible in all stores? If not, consider setting the *Names created in other stores not visible in this store* or *Patients created in other stores not visible in this store* preferences in other stores. See the [Store preferences](#) section for details.
- If the relevant preference is turned on, all new names will be visible in the store you are logged into **only**. If it is turned off, then all new names will be visible in **all** stores.

Setting up the import file

A Tab-delimited file (see notes below) must be set up to import the data. The required field order is:

Column	Field
A	Code. Mandatory
B	Name. Mandatory
C	Type - see below for more details. Mandatory
D	Address 1
E	Address 2
F	Country
G	Email
H	Phone
I	Category 1. This category is hierarchical and has 3 levels. You can enter different levels separated by :: (for example "State1::District2::Area1
J	Customer group. If the group name does not exist, it will be created by mSupply on the fly.
K	Last name. This column is the difference between a customer and a patient: A customer will have a blank last name, a patient must have a n
L	First name (applies only to people)
M	Date of birth (use 4-digit years)
N	Gender (enter "F" or "True" for females. All other values taken as male)
O	Custom 1
P	Custom 2
Q	Custom 3
R	Category 2
S	Category 3
T	Address 3
U	Address 4
V	Address 5
W	Postcode (Zip code)
X	On hold ("T" or "Y" for true, anything else, including blank, for false)
Y	ID. The ID of the name record in the mSupply database. Optional and ignored unless updating a name. If you're updating a name then it is m

Column C describes the type of the name being imported. That is, whether it is a customer, supplier, manufacturer, donor or patient. A name could be any one of these or several of them. To indicate which of these the name is, simply include the letter shown in the table below in the type field (letter order is not important):

Value	Meaning
C	Customer or Patient. To be recognised as a patient, the line in the import file must have a non-blank last name
P	Patient
S	Supplier
M	Manufacturer
D	Donor
B	Benchmark supplier (for use in tenders)
(blank)	Both a customer and a supplier

So, for example, a name which is a donor and supplier would have **DS** or **SD** in the type field.

You might find this template useful: [name_import_template.xlsx](#) or this export settings file: [names_export_order.4si.zip](#)

The first 3 fields (**Code**, **Name** and **Type**) are mandatory for each name imported. If a row in the import file does not have values for these 3 fields then it will be skipped and ignored during the import process.

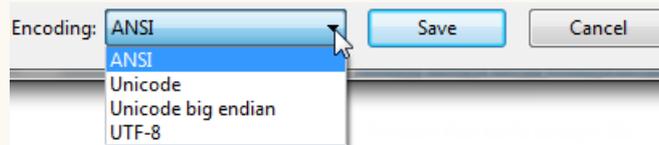
Info

- The customer or supplier category1, 2 and 3 fields will be created if they don't already exist. If the name is a customer and a supplier, a customer category will be created.
- You must always include every column in every import file. For all names except patients, the first 3 columns are mandatory. You can leave the other columns blank and mSupply will only import the information you have provided. See below for more on importing patients.

- When you import the file you can choose whether or not to:
 - Ignore the first line. You will want to if you have used the first row for column headings
 - Strip out line feeds and quote characters. You will want to do if you've used Excel to save the text file.
- If there are non-printable characters before or after the name, code, last name or first name they will be removed. Any non-printable characters in the name, code, last name or first name will be replaced with an underscore (_) - but note that spaces in the code will not be affected.

⚠ Important

- Save the template as tab-delimited text (rows end with a carriage return, line feed and columns are separated with a tab character) before importing into mSupply.
- MS Excel tends to add extra characters (line feeds and quotes), but mSupply will gracefully remove these without complaining providing you select that option -see info box above.
- Avoid having the Code field containing a space character as this can cause problems during import
- If the file you are importing has non-English characters (for example, accents), it is important to make sure the file is saved with a UTF-8 charset. You can check this by opening the file in Notepad (for Windows). When you save the file, you can choose the Charset used, as shown in image below.



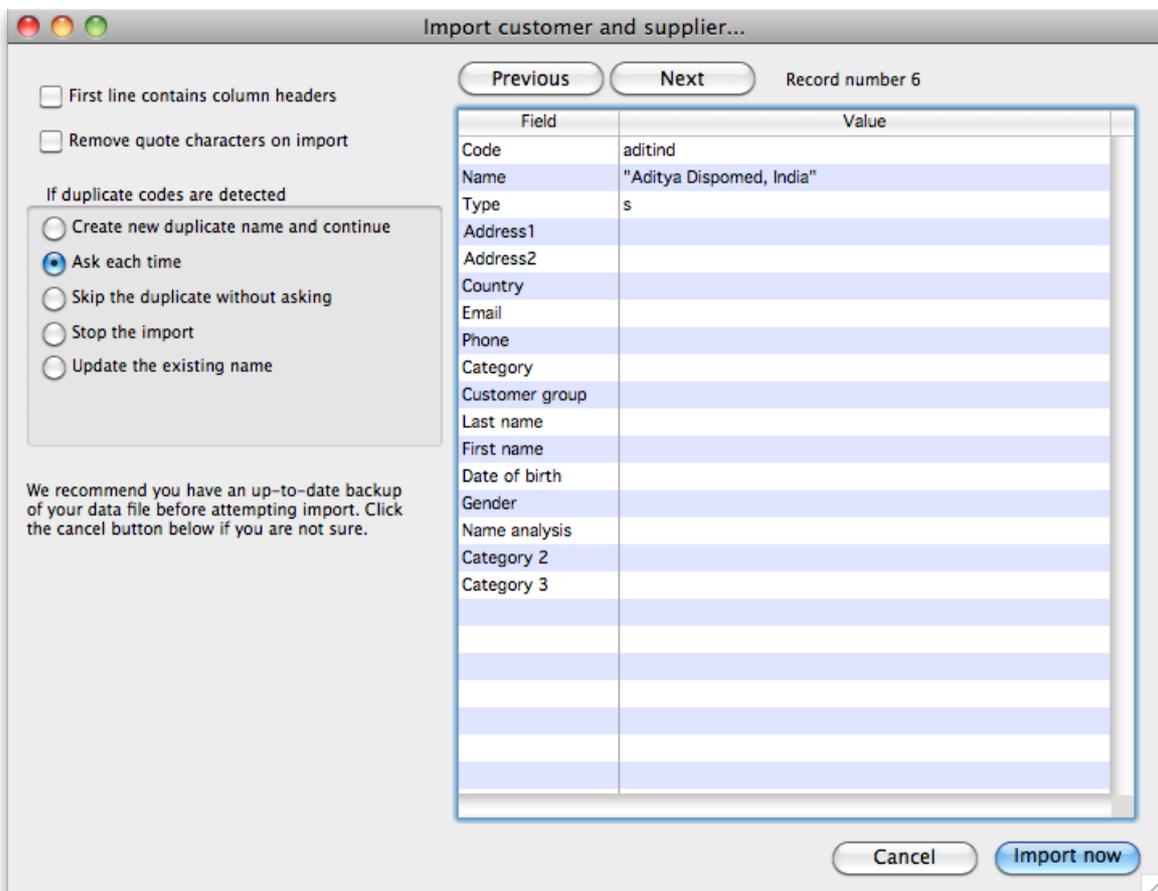
⚠ Important

If you import patients into a store which is not a dispensary, they will be imported but they will be **invisible** everywhere. You must make them **visible** in the appropriate dispensary stores before they can be used.

Importing the file

When you choose **File > Import > Import customers & suppliers...** you'll be shown an open/save window where you choose the file to import.

Once you've done that, you'll be shown this window:



If the first line of your import file contains column headers then check the **First line contains headers** checkbox. This tells mSupply to ignore the first line and start importing from the second line.

Check the **Remove quote characters on import** checkbox if some of the fields in the import file have had quote marks added to them. This can often happen if you have created the import file by exporting it from Excel or some other spreadsheet application.

Now, in the *If duplicate codes are selected* section, select what you want to happen if a name code is found in the import file which is already used by a name in mSupply.

You can use the **Previous** and **Next** buttons to go through the import file one line at a time to see what mSupply can see in each field and therefore what it will try to import. Can be useful for checking whether extra quote characters have been added to any fields or if the first line of the text file contains column header information only.

Importing patients

If you are importing patient names, leave column B (the full name) blank and make entries in the Last name (col K) and First name (col L) columns. Below is an example of a spreadsheet for importing patients, customers and suppliers which demonstrates how to fill in the fields with respect to each import type.

⚠ Important

Column K is what defines the difference between a customer and a patient: A customer will have a blank last name, a patient **must** have a non-blank last name. A customer can have a blank first name.

For Suppliers and Customers, columns A to H should be completed. §

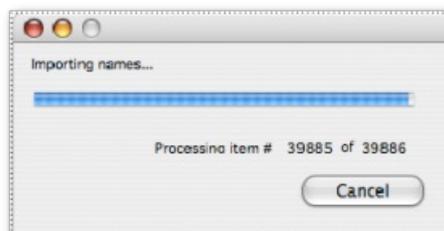
If 'Type' column is left blank, this represents both customer & supplier. §

1	A	B	C	D	E	F	G	H
2	Code	Name	Type	Adline1	Adline2	Country	E-mail	Tel
2	sup07	Globapharm	S	118 Princes Street	Edinburgh	UK	globapharm@mail.com	+44131-
3	hos312	Forth Park Hospital	C	52 Laurel Grove	Berwick	UK	forpk@hosp.org	+441458-
4	m115		C	18 Parkway	Carlisle	UK		
5	r202		C	117 Shore Road	Duns	UK		
6								

H	I	J	K	L	M	N	O
Telno.	Category	Group	Last name	First name	DOB	M/F	Anal
om	+44131-4476022						
	+44145833901						
			Fraser	Bruce	11/04/62	M	
			Henderson	Anne	07/12/77	F	

To import Patients, column B [Names] needs to be left blank but columns K, L, M & N must be completed §

If you have a lot of patients there will be a short delay once you have chosen the import file while mSupply counts how many records there are to import, then a progress window will be shown displaying the rate of progress:



Previous: [17.02. Importing stock](#) | Next: [17.04. Importing prescribers](#)

Last modified: 2022/02/10 12:46 by Gary Willetts



17.04. Importing prescribers

Info

Applicable in Dispensary mode only

From the *File* menu, choose *Import Prescribers*, and the *Import alert* window is displayed.



You may import a list of prescribers who have the authority to prescribe medicines.

Your list should be in the format of a 6-column spreadsheet, saved as a tab delimited file. The columns should be in the following order:

Column 1	Unique code for each prescriber
Column 2	Last name
Column 3	First name
Column 4	Initials - these will appear on patient labels
Column 5	Registration code
Column 6	Category

Your tab delimited spreadsheet file would appear something like this:

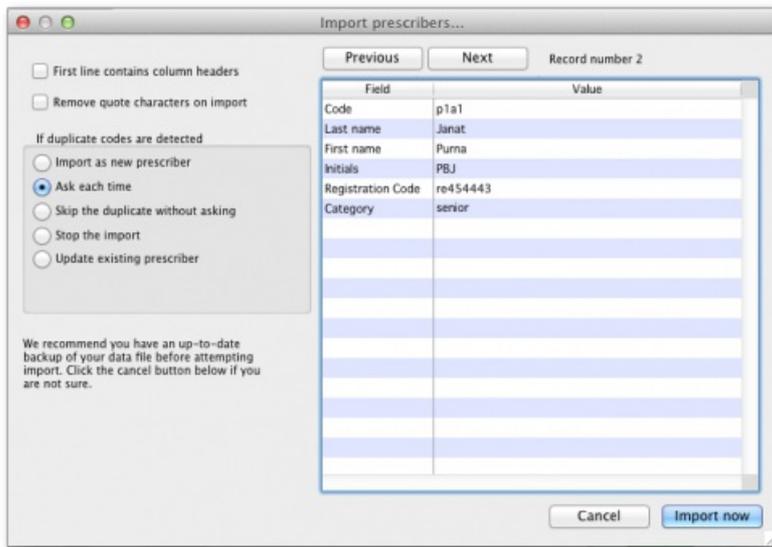
	A	B	C	D	E	F
1	Code	Last name	First name	Initials	Registration	Category
2	ph4	Andrews	James	JA	122097	Phys
3	pd2	Shrestha	Binod	BS	N/A	Paed
4	der1	Fenton	Hilary	HJF	116953	Derm
5	ort2	Hill	John	JKH	Aus 609-2257	Ortho
6	og5	Robb	Martha	MAR	148364	Obs

Important

If the file you are importing has non-English characters (for example, accents), it is important to make sure the file is saved with a UTF-8 charset. You can check this by opening the file in Notepad (for Windows). When you save the file, you can choose the Charset used, as shown in the image below.



Choose import options from the preview window and click **OK** to begin import.



Info

If there are non-printable characters before or after the first name, last name or code they will be removed. Any non-printable characters in the first name, last name or code will be replaced with an underscore (_).

Previous: [17.03. Importing names](#) || Next: [17.05. Importing abbreviations](#)

Last modified: 2021/10/08 09:30 by Gary Willetts



17.05. Importing abbreviations

Importing abbreviations is a great way of quickly entering a large number of abbreviations for use in [dispensary mode](#) (see the [Abbreviations](#) section for details).

To create the import file, create a spreadsheet with two columns like this:

	A	B
1	Abbrev	Expanded text
2	od	once daily
3	bd	twice daily
4	tid	three times daily
5	tds	three times daily
6	qid	four times daily
7	qds	four times daily
8	ac	before food
9	pc	after food

Enter the short abbreviation you will type in the *Abbreviation* column. Enter the text this will be expanded to in the *Expanded text* column. Make a new row for each abbreviation.

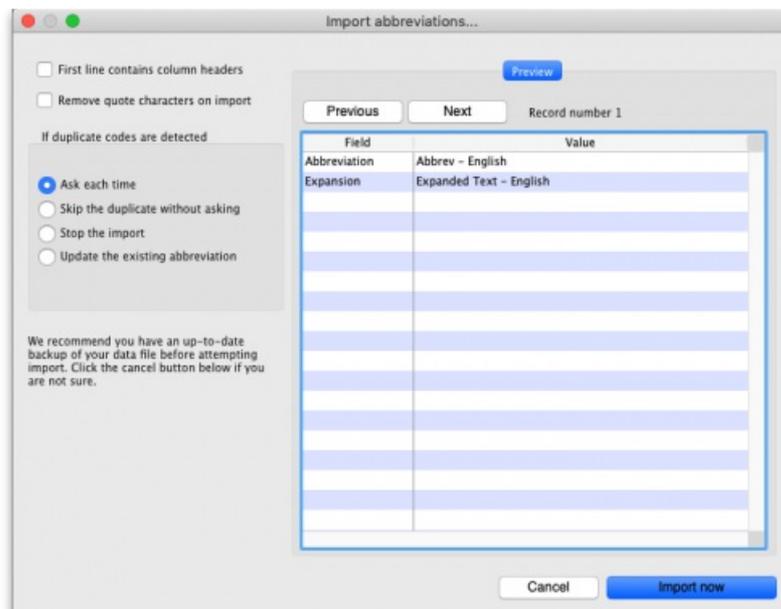
⚠ Important

Note: your abbreviations cannot contain the underscore (_), period (.) or comma (,) characters.

If there are any non-printable characters or spaces in the abbreviations they will be removed on import.

When the spreadsheet is complete, export it as a tab delimited text file.

Close the spreadsheet application then choose **File > Import > Import abbreviations...** from the menus in mSupply. Select the file you just created in the window that opens (navigate to it and either double-click it or single-click on it and click on the **Open** button). The following import options window will be displayed:



If the first row in your spreadsheet contained the column headers and not an abbreviation, check the **First line contains column headers** checkbox to tell mSupply to ignore it.

If the spreadsheet software has added quotes around any of the fields during the export to a text delimited file then check the **Remove quote characters on import** checkbox (you can use the **Previous** and **Next** buttons in the preview panel to see if quote characters have been added).

Select one of the options in the *If duplicate codes are detected* section to tell mSupply what it should do if an abbreviation already in mSupply or previously in the spreadsheet is detected.

When you're ready, click on the **Import now** button to carry out the import.





17.07. Importing locations

Locations are the labelled places in your warehouse where you store stock. Locations can be created individually (see [here](#)) or can be created automatically when you import stock (see [here](#)). The functionality to import locations described here will save you a lot of time if you need to put a lot of locations into mSupply separately from importing stock.

As with the other import features of mSupply, this import uses a tab delimited text file (easily produced by exporting a spreadsheet from Excel or other spreadsheet programme). The columns that must be present in the file and their contents are as follows:

Important

All columns must be present in the import file but only the first 2 (Location code and Store code or name) are mandatory. If either of these fields do not have values entered then the location will be ignored.

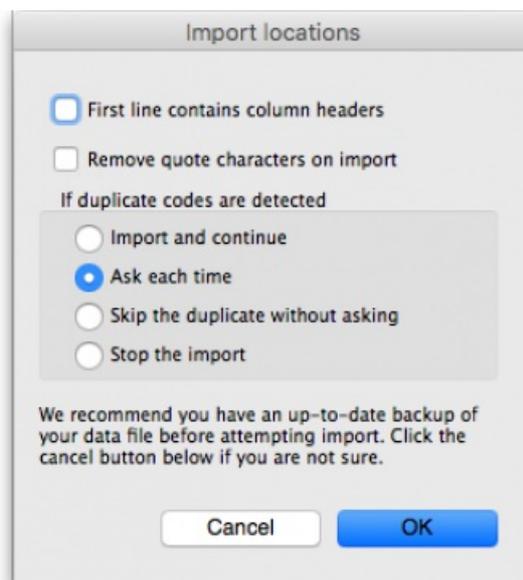
Alert

The import must take place when the user is logged in to the store on the site where the store is Active

Column number	Column letter	Field	Description
1	A	Location code	The code of the location. This is used to identify and select the location through
2	B	Store code or name	The code or name of the store the location is to be created in. You can see the
3	C	Location description	For your reference only, a longer description of the location e.g. "Aisle A, shelf
4	D	Volume	The total storage volume of the location in m ³ (cubic metres).
5	E	Priority	A whole number from 0 upwards. This is used when printing a picking slip. Set
6	F	Is summary location	Whether the location is a summary location that cannot hold stock. y , yes ,
7	G	Location type	The name of the location type for this location (must be an exact match and the
8	H	Parent location code or description	The code or description of the location which is a parent to this one. If the pare

An empty Excel spreadsheet containing these columns for you to use as a template is here: [location_import_template.xlsx](#)

When you have created the import text file go to **File > Import > Import locations** and select your text file. You will be shown the following window:



Now choose the import settings to match your file:

- **First line contains column headers:** check this if the first row in your text file contains the column descriptions. If checked, mSupply will ignore the first line of the file.
- **Remove quote characters on import:** check this if fields in your file is surrounded by quote (" or ') characters. If checked, mSupply will attempt

to remove them from each field.

And select how duplicates are to be handled (a duplicate is a row which matches another line in the file or a budget already in mSupply):

- **Import and continue:** The duplicate record is created and import continues normally
- **Ask each time:** You will be asked what you want to do with a duplicate each time one is detected; ignore it, create it or stop the import
- **Skip the duplicate without asking:** The duplicate record is ignored completely
- **Stop the import:** mSupply will stop importing from the file if it detects a duplicate. Any locations already imported will be kept but no further lines in the file will be processed.

When you're ready to carry out the import, click on the *OK* button. mSupply will carry out the import and tell you how many locations were imported, how many already in mSupply were modified and if there were any errors. You can see more details by viewing the log (see [The log](#)).

Info

If there are non-printable characters before or after the location description or code they will be removed. Any non-printable characters in the description or code will be replaced with an underscore (`_`).

Previous: [17.06. Importing customer budgets](#) | | Next: [17.08. Importing supplier invoices](#)

Last modified: 2022/03/17 03:30 by Mark Glover





17.08. Importing supplier invoices

From the *Supplier* menu, the *Import invoice* command allows you to import an invoice generated by one of your suppliers who also uses mSupply. You will be presented with an open/save window where you should locate the invoice file to be imported.

Important

- The invoice must have been generated by the “[export invoice](#)” command in another copy of mSupply.
- The item codes in your copy of mSupply must have your supplier codes entered (see below). If mSupply attempts to import a code that it does not know, the import process will stop.
- Once an invoice has been imported, you are still free to edit it. You should check the invoice against a paper copy when it arrives.
- After import the file is edited so that if you attempt to import an invoice again you will not be able to. This prevents accidental double-importing of the same invoice.

Entering supplier codes

If you are importing invoices from a supplier, you must perform the following steps:

1. enter a quotation for each item you receive from the supplier. This is done from the quotes tab of the item details window, or from the quotes tab of the supplier details window.
2. enter the supplier code for the item in the supplier code field of the quotation. There is no need to enter other details for the quotation if you do not want to.

Previous: [17.07. Importing locations](#) | | Next: [17.09. Importing assets](#)

Last modified: 2021/10/08 09:31 by Gary Willetts





17.09. Importing assets

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[Import spreadsheet format](#)[Doing the import](#)

Assets are imported directly from Excel spreadsheets so there is no need to export data from the spreadsheet to a tab delimited text file first (as you need to do for other imports).

Import spreadsheet format

The first row of the spreadsheet is for the column headers and is **not** imported.

The first 34 columns (up to, and including column AH, "Notes") represent standard asset fields in mSupply and the column headers for these are completely ignored in the import. Any columns after that are for asset properties and their headers are important; those headers must be in this format:

Property name (Property type)

where **Property name** is the description the property will be given and **Property type** is one of "Text", "Date" or "Drop down list".

For example, a column header of **Project name (Drop down list)** will represent a drop down list property with the description **Project name**.

During the import process, if any properties or entities (like asset locations) do not exist, they will be created. If any options for drop down list properties or standard asset drop down lists (categories) are found not to exist, they will also be created.

The import spreadsheet must contain these columns in this order (*Description* and *Current status* are mandatory, the others are all optional):

Column number	Column letter	Field	Description
1	A	Code	255 alphanumeric characters. A code that the asset can be recognised by
2	B	Description	Mandatory. 255 alphanumeric characters. The name the asset will have and be recognised by
3	C	Make	255 alphanumeric characters
4	D	Model	255 alphanumeric characters
5	E	Serial number	255 alphanumeric characters
6	F	Supplier name	255 alphanumeric characters. Name of the company/person who supplied the asset
7	G	Purchase order number	255 alphanumeric characters
8	H	Purchase order date	Valid date in current operating system format. The date the purchase order to buy
9	I	Acquisition date	Valid date in current operating system format
10	J	Next maintenance due date	Valid date in current operating system format. The date the next maintenance is due
11	K	Disposal date	Valid date in current operating system format. The date the asset will be or was disposed of
12	L	Last verification date	Valid date in current operating system format
13	M	Location code	20 alphanumeric characters. The code the location name will have. Will be matched to location name
14	N	Location name	255 alphanumeric characters.
15	O	Asset user name	255 alphanumeric characters. The name of the asset user in the format "last name, first name"
16	P	Asset user phone number	255 alphanumeric characters
17	Q	Asset user email	255 alphanumeric characters
18	R	Custodian location	255 alphanumeric characters. Where the custodian of the asset (the main person responsible for the asset) is located
19	S	Custodian name	255 alphanumeric characters. The name of the custodian
20	T	Custodian phone number	255 alphanumeric characters
21	U	Custodian email	255 alphanumeric characters
22	V	Current status	Mandatory. 255 alphanumeric characters. Will be created if it doesn't exist
23	W	Proposed status	255 alphanumeric characters. The proposed next status of the asset. Will be created if it doesn't exist. 1. If the current status of an asset is designated to be a final status, any proposed status will be ignored. 2. If an imported asset has a current status which has some possible proposed statuses, the proposed status will be used. So, be careful with the proposed statuses in the import file: you could make a mess!
24	X	Type	255 alphanumeric characters. Will be created if it doesn't exist
25	Y	Condition	255 alphanumeric characters. Will be created if it doesn't exist
26	Z	Purchase price	Number, currency. The cost of the asset when it was purchased
27	AA	Purchase costs	Number, currency. Any costs that are not to be added to the purchase price to arrive at the purchase price
28	AB	In service date	Valid date in current operating system format. The date the asset starts to depreciate
29	AC	Useful lifespan (months)	Number, integer. The number of months the asset can be used for
30	AD	Disposal value	Number, currency. The value of the asset at the end of its useful life
31	AE	Insurer name	255 alphanumeric characters
32	AF	Insurance policy number	255 alphanumeric characters
33	AG	Insurance renewal date	Valid date in current operating system format. The date the insurance should be renewed
34	AH	Notes	Lots of alphanumeric characters! Any other information that needs to be stored against the asset
35 onwards	AI onwards	User-defined property columns	You can add user-defined property columns in any order from column AI onwards.

Here is an example spreadsheet you can use (contains no property columns, only the standard mSupply columns):

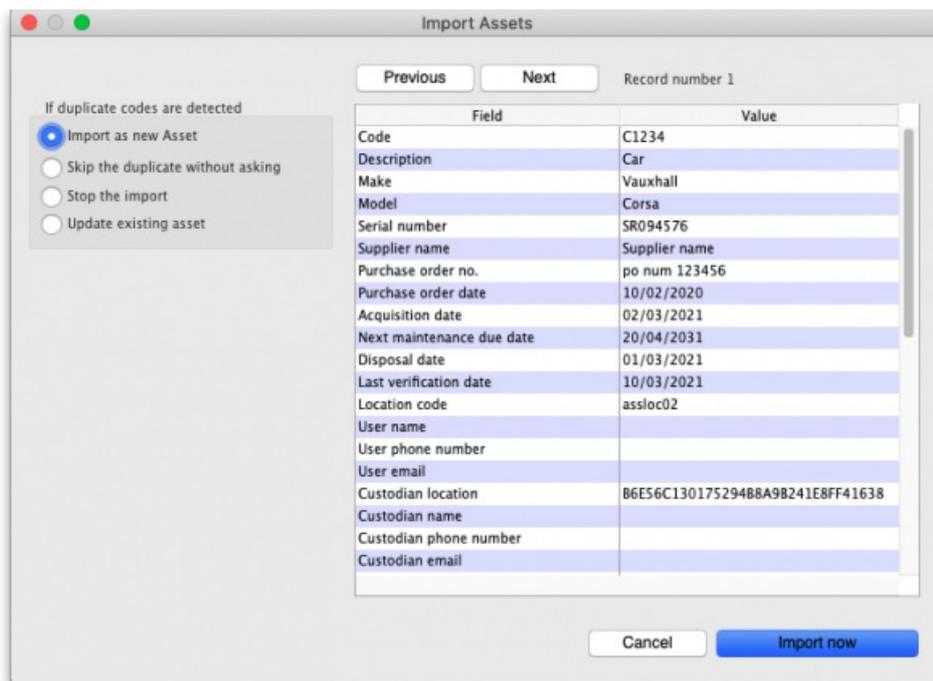
[asset_import_blank_template.xlsx](#)

⚠ Important

When entering dates in the spreadsheet, make sure they are counted as text in their cells. Sometimes Excel will autoconvert dates to *date* or *numerical* format and then they will import into mSupply as blank dates. You can make sure that dates will import correctly by using the row preview functionality (see below) - if the dates look correct here then they will import correctly.

Doing the import

Go to the *File > Import > Import assets* menu and you will be asked to select the import file from a file window. After you have selected the file (if it is valid) you will be shown this window:



mSupply uses the **code** field to determine whether the asset being imported is a duplicate; an asset with the same code as one already in the database is determined to be a duplicate. Any assets with no code are ignored during duplicate checking i.e. an asset with no code can *never* be a duplicate and will always be imported as a new asset. In the *If duplicate codes are detected* section you tell mSupply what to do if it encounters a duplicate asset during the import:

- **Import as new asset:** this option will import the duplicate as a new asset
- **Skip the duplicate without asking:** the duplicate will not be imported and that row of the spreadsheet will be ignored
- **Stop the import:** as soon as a duplicate is encountered, the import will stop and all assets imported so far will be removed so that nothing is imported.
- **Update the existing asset:** the asset that already exists with the code in the database will be updated with the information contained in the spreadsheet row. A new asset will not be created. BE CAREFUL WITH THIS OPTION: if a cell is blank in the spreadsheet then the corresponding value is removed from the asset (if it had a value set for it), not left as it is.

The *Field* column of the table shows you all the columns that mSupply has detected in your import file, the *Value* column shows the values it has found in the cells for that row of the spreadsheet. You can move through the rows of the spreadsheet using the **Previous** and **Next** buttons. If you try to go beyond the first or last row of the spreadsheet mSupply will let you know.

You can carry out the import by clicking on the **Import now** button or cancel it by clicking on the **Cancel** button.

When the import has finished you will be shown a message telling you how many assets were imported and how many rows of the spreadsheet were skipped, ignored or failed.

Info

All the assets created by the import will have the text “Created by import on xx/xx/xxxx” (where xx/xx/xxxx is the date of the import) appended to the end of their *Notes* field.

Previous: [17.08. Importing supplier invoices](#) | | Next: [17.10. Importing regions](#)

Last modified: 2022/01/19 15:27 by Gary Willetts



17.10. Importing regions

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- [Import spreadsheet format](#)
- [Doing the import](#)

Regions are geographic boundaries, currently used in mSupply to help in displaying data on maps. At the moment they are only used in certain customisations but more use of them will follow as development progresses.

Import spreadsheet format

The first row of the spreadsheet is for the column headers and is **not** imported.

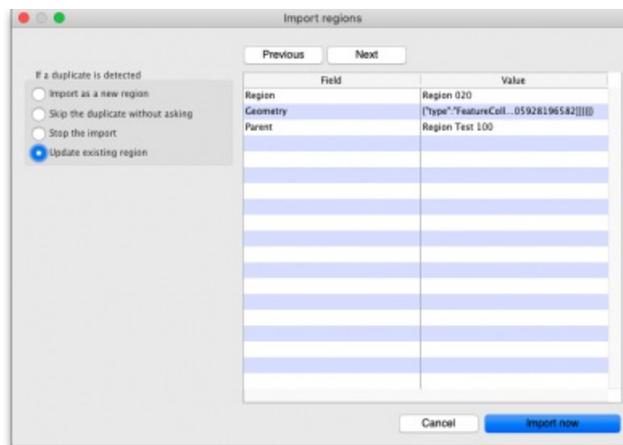
There must be 3 columns in the spreadsheet in the order shown in the following table:

Column number	Column letter	Field	Description
1	A	Region name	Mandatory. 255 alphanumeric characters. The name of the region
2	B	Geometry	Optional. Lots of alphanumeric characters. The JSON geometry definition of the region. If it is entered
3	C	Parent	Optional. 255 alphanumeric characters. The name of this region's parent region.

Here is an example spreadsheet you can use: [region_import_blank_template.xlsx](#)

Doing the import

Choose *File > Import > Import regions* from the menus and you will be asked to select the import file from a file window. After you have selected the file (if it is valid) you will be shown this window:



mSupply uses the **Region** field to determine whether the region being imported is a duplicate; a region with the name as one already in the database is determined to be a duplicate. In the *If a duplicate is detected* section you tell mSupply what to do if it encounters a duplicate region during the import:

- **Import as a new region:** this option will import the duplicate as a new region
- **Skip the duplicate without asking:** the duplicate will not be imported and that row of the spreadsheet will be ignored
- **Stop the import:** as soon as a duplicate is encountered, the import will stop and all regions imported so far will be removed so that nothing is imported.
- **Update existing region:** the region that already exists with the name in the database will be updated with the information contained in the spreadsheet row. A new region will not be created.

The *Value* column shows the values mSupply has found in the cells for that row of the spreadsheet. You can move through the rows of the spreadsheet using the **Previous** and **Next** buttons. If you try to go beyond the first or last row of the spreadsheet mSupply will let you know.

You can carry out the import by clicking on the **Import now** button or cancel it by clicking on the **Cancel** button.

During the import:

- if the row has no region name it will be skipped
- if the row has an empty Geometry field, it will be imported with no geometry
- if the row has content in the Geometry field that does not match the geoJSON FeatureCollection schema it will be skipped
- if the parent region does not exist or is empty the region will be imported with no parent

When the import has finished you will be shown a message telling you how many assets were imported and how many rows of the spreadsheet were skipped.

Previous: [17.09. Importing assets](#) || Next: [17.11. Importing requisitions](#)

Last modified: 2021/10/08 09:31 by Gary Willetts



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17.11. Importing requisitions

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[Import spreadsheet format](#)[Doing the import](#)

This is a way to import standard customer requisitions (response). Requisitions created by this import are not connected to any internal order. You cannot import internal orders (request requisitions), customer stock history requisitions or imprest requisitions.

Import spreadsheet format

The first row of the spreadsheet is for the column headers and is **not** imported.

There **must be 6 columns** in the spreadsheet, in the order detailed in the table below. They must all be present but some of the columns (the optional ones) are for your reference only and can be empty (the whole column is ignored during the import so it doesn't matter whether some or all the cells of the column are empty):

Column number	Column letter	Field	Description
1	A	Customer code	Mandatory. 20 alphanumeric characters. The code of the customer the requisition is for.
2	B	Customer name	Optional. The name of the customer the requisition is for.
3	C	Item code	Mandatory. 18 alphanumeric characters. The code of the item that the customer is requesting.
4	D	Item name	Optional. 255 alphanumeric characters. The name of the item that the customer is requesting.
5	E	Customer current stock on hand	Optional. Integer. The number of units of the item (not packs) the customer currently has in stock.
6	F	Quantity requested	Mandatory. Integer. The number of units (not packs) of the item that the customer is requesting.

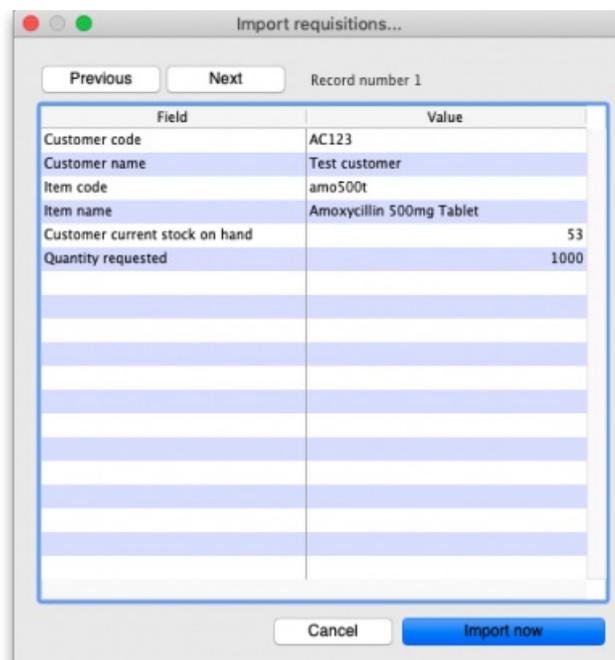
Rows belonging to the same requisition must all be grouped together in the spreadsheet; mSupply will interpret a change in customer code to mean that this row is for a new requisition.

Here is an example spreadsheet you can use (contains no property columns, only the standard mSupply columns):

[requisition_import_blank_template.xlsx](#)

Doing the import

Choose *File > Import > Import requisitions* from the menus and you will be asked to select the import file from a file window. After you have selected the file (if it is valid) you will be shown this window:



The *Value* column shows the values mSupply has found in the cells for that row of the spreadsheet. You can move through the rows of the spreadsheet

using the **Previous** and **Next** buttons. If you try to go beyond the first or last row of the spreadsheet mSupply will let you know.

You can carry out the import by clicking on the **Import now** button or cancel it by clicking on the **Cancel** button.

When the import has finished you will be shown a message telling you how many requisitions were imported. If there is an error (a customer code or item code doesn't exist or a mandatory column value is not present) you will be told what the error is and the import will be cancelled (nothing will be imported). In this case, correct the error in the spreadsheet and try the import again.

Previous: [17.10. Importing regions](#) | | Next: [17.12. Exporting items, exporting items and stock](#)

Last modified: 2021/10/08 09:32 by Gary Willetts



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17.12. Exporting items, exporting items and stock

Exporting items

Choosing *Export items* from the *File* menu allows you to export all of the stock items in your data file to a text file; see the [7.01. Importing items](#) page where the format of the text file is described under 'Field order for the text file'. This allows you to import them to another data file. When you select this option you will see this dialog box:



Click continue to carry on. The standard file dialog window for your operating system will appear, allowing you to select a file name and location to save the text file.

Exporting items and stock

This option, like the previous one, allows you to export all of the stock items in your data file together with the stock on hand; all details are exported, including:

- Pack size
- No. of packs
- Cost price (per pack)
- Sell price
- Batch number
- Expiry date
- Description (detailed)
- Department
- Location

The output is a text file, in a format recognisable by mSupply so that you can later import it to another data file.

Previous: [17.11. Importing requisitions](#) | | Next: [17.13. Exporting locations](#)

Last modified: 2021/10/15 14:58 by Gary Willetts



17.13. Exporting locations

This function allows you to export all of the locations **in the current store** to a text file that can be imported into mSupply. This is very useful if, for example, you want to create the same set of locations in another store or datafile.

Choose **File > Export > Locations** from the menus. You will be asked to choose the folder on the computer where you want the text file to be saved, then it will be created and saved there.

If there are no locations in the current store, you will be told there is nothing to export and the process will be cancelled.

The format of the file created can be used with the Location import feature and is described on that page ([17.07. Importing locations](#)).



Previous: [17.12. Exporting items, exporting items and stock](#) | | Next: [17.14. Exporting names](#)

Last modified: 2021/10/08 09:32 by Gary Willetts





17.14. Exporting names

Choosing *Export names* from the *File* menu exports all the names (suppliers, patients, manufacturers, donors and customers etc.) in your data file in exactly the same way as for [exporting items](#).

The field order of the exported file and the contents of the various fields are exactly the same as for importing names so please see the [17.03. Importing names](#) page for details.



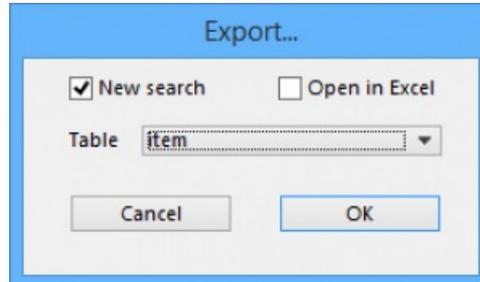
Previous: [17.13. Exporting locations](#) | Next: [17.15. Exporting records](#)

Last modified: 2022/02/10 12:48 by Gary Willetts



17.15. Exporting records

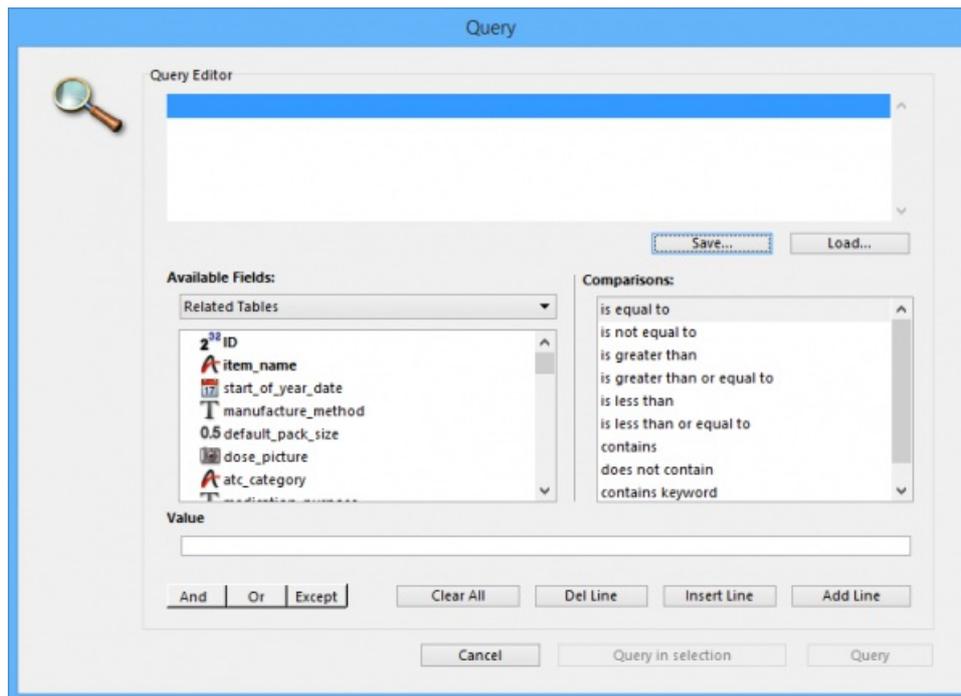
Choosing *Export* on the *File* menu will display the export window, allowing you to export records from mSupply to a file.



You can search for a set of records by checking the *New search* check box, which displays the Query editor for you to specify your search criteria, or else use the currently selected records.

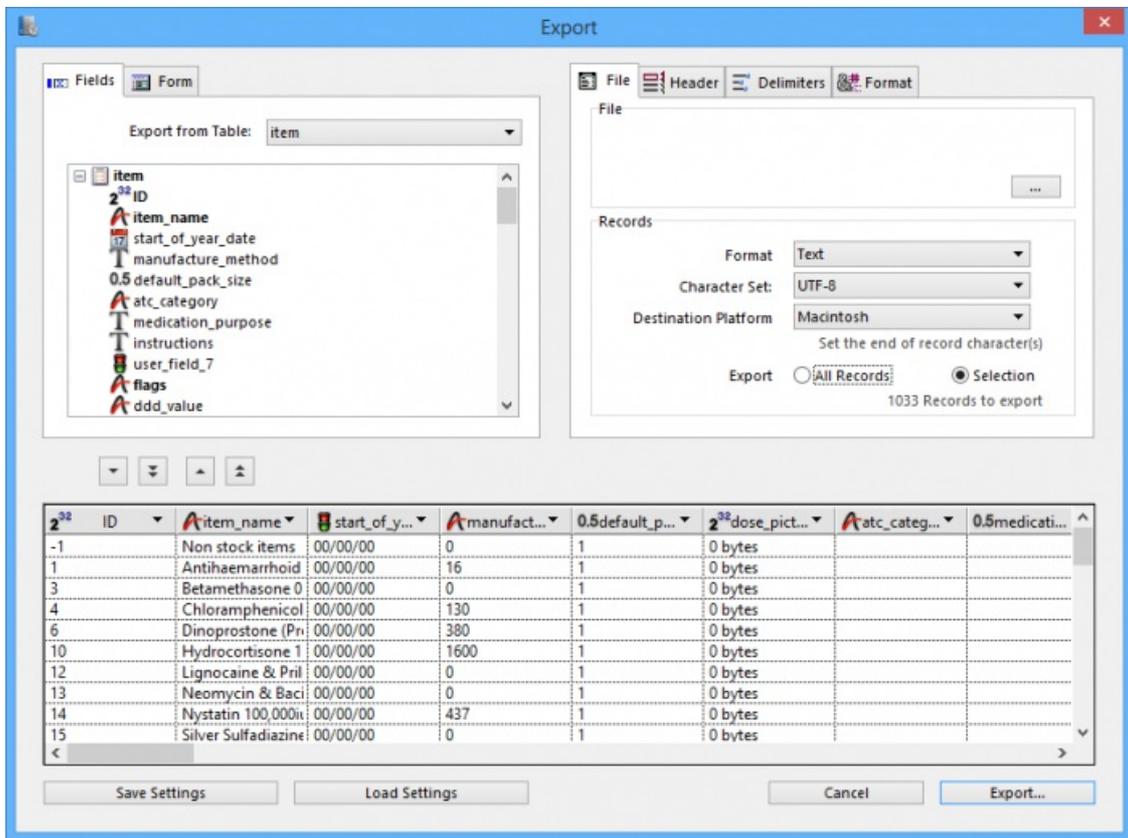
If you tick the *Open in Excel* button mSupply will export any output to your spreadsheet application and will allow you to edit the Headings etc within your spreadsheet. Otherwise mSupply will open a basic editor that will allow you to shape the look of the document.

After you click *OK* the Query Editor will open allowing you to filter the data you would like to export. Clicking on a field on the left will add it to the filter criteria shown at the top. You then can add from the list of Comparisons and enter your own value in the text field below. To add another line of criteria click the *Insert Line* button. Likewise to remove a line highlight the line and click the *Del Line* button.



Once you have chosen your filtering criteria and if you did not click **Open in Excel** the the Export Editor will open. This is where you can choose what fields to export.

You can add a field by highlighting it in the Fields box and clicking on the down arrow below it or you can remove a field by highlighting it in the preview window at the bottom of the page and clicking the up arrow. If you want to add or remove all fields click the double arrows.



If you want the fields to be ordered ready for item import, unzip the attached .4si file.

 [Items_export_order.4si.zip](#)

Previous: [17.14. Exporting names](#) | | Next: [17.16. Exporting invoices](#)

Last modified: 2021/10/08 09:32 by Gary Willetts



17.16. Exporting invoices

From the *Customer* menu the *Export invoices* command exports any customer invoice to a file. The file created is in a special format that can be imported into another copy of *mSupply* using the *Supplier>Import invoice...* menu command. Do not use this command for sending invoices to customers for them to view or print - use a PDF file for that purpose.

When using this command you will be asked to enter an invoice number. The default choice is the last invoice created. The invoice will be exported to the export folder you have set in the Preferences, and will be labeled with the invoice number.

Before you can export, you must set your "own code" in the Preferences. This is the supplier code that your customers will use to identify you when importing the invoice.

Once the invoice is exported, you will be told where to find the file on your hard disk.



Previous: [17.15. Exporting records](#) || Next: [17.17. Exporting invoices to Moneyworks](#)

Last modified: 2021/10/08 09:32 by Gary Willetts





17.17. Exporting invoices to Moneyworks



If you are using Moneyworks accounting software, you can export invoices directly to Moneyworks.

If you have turned this option on in the Preferences, rather than exporting a text file to disk, mSupply will attempt to connect to Moneyworks, and directly send the invoice data to Moneyworks, where a debtor invoice is created for each invoice in mSupply. You can then use Moneyworks superb statement production (with full control over the form design) along with it's open item handling of debtor and creditor payments to take over the handling of payments and receipts. Contact info@sussol.net if you would like more information.

Finalising. Note that if "export invoices when finalising" is turned on in the Preferences, invoices that have been finalised but not yet given an export batch will also be included in the list. If any such invoices exist you will be alerted to the fact. A text file called "supplier_invoice_expt.txt" will be created at the location you have specified in the Preferences.

Note: if you are using mSupply in Client/Server mode, exports will be sent to the "export" folder located in the same folder as the 4D client application.

Previous: [17.16. Exporting invoices](#) || Next: [17.18. Exporting to MYOB](#)

Last modified: 2021/10/08 09:32 by Gary Willetts



17.18. Exporting to MYOB

 Function added: mSupply version 3.05

If you use MYOB for your accounting then you may well want to export invoices from mSupply into MYOB. If that's the case then this is the page that will tell you how to do it.

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- [Setting up MYOB/mSupply](#)
- [Exporting from mSupply](#)
- [Importing to MYOB](#)
- [Understanding the MYOBPLOG.txt file](#)
- [Notes](#)



Setting up MYOB/mSupply

- set up mSupply to use the same account codes as MYOB (See [Item units and item accounts](#)). If necessary, the accounts associated with any item can be edited via the *Misc tab* after selecting an item (See [Item basics](#))
- set up MYOB to use the same suppliers and customers as mSupply (See [Names: Using, adding and editing](#) - the suppliers and customers in mSupply need to be added to the Card List in MYOB, where the *Charge to* field in mSupply corresponds to the *Card ID* field in MYOB.

Exporting from mSupply

This can be done from two places:

- from *Files>Export invoices for MYOB*
 - You can choose a range of dates, either from the drop-down list (e.g. last year) or by typing the date values directly
 - You can choose either supplier or customer invoices
 - If the *show all item lines* box is checked, then you will get a line for each item line in the transaction, otherwise you will just get a line for each different account code used in the transaction
 - If transaction categories have been setup, you can also select only transactions from a single category, or where the category name matches
 - Clicking *OK* will prompt you to create a tab-delimited text file in the folder of your choice.
- from the transaction list: See [Viewing invoices](#)
 - Select the transactions you wish to export, and click the *Export to MYOB* button. This will create a text file in the same way as before.

Importing to MYOB

- Select *File>Import Data>Purchases>Service Purchases* for supplier invoices (or *File>Import Data>Sales>Service Sales* for customer invoices)
- In the *Import File* window, make sure that the settings are *Tab-delimited*, *Data Record*, *Reject Them*, and *Card ID* respectively
- Select *Continue* and browse to your exported file
- Double-click on the text file, and select the *Match All* button, and then *Import*
- MYOB will then attempt to import the records. If it reports that no records have been skipped, then all is well, otherwise you need to view the **MYOBPLOG.txt** file (which will be in the same folder as the **MYO** accounts file that you are logged into).

Understanding the MYOBPLOG.txt file

- MYOB inserts an error (negative number) or warning code (positive number) at the start of each line, and adds an explanation of the codes at the bottom of the file
- You can most likely ignore warning messages
- The most likely errors will be because the supplier/customer code doesn't exist in MYOB, or there is a duplicate invoice number (i.e. the record has already been imported)
 - If the error is because of a missing supplier/customer, then you can see the mSupply code at the end of each record line
 - Search for that name code in mSupply and create the corresponding Card record in MYOB
 - Then you can try to re-import the same file (and this time, it will reject all of the records that it managed to import first-time around).

Notes

- mSupply will only export finalised customer or supplier invoices, and it will ignore stock transfers and inventory adjustments → sometimes it may not export as many records as you might think.
- mSupply doesn't export the customer/supplier name, otherwise MYOB will reject the invoice even if the customer/supplier code matches.
- mSupply will attempt to export as much reference information as possible into the Journal Memo field in MYOB - this will include the Tender

reference, Purchase order reference, and the Invoice reference.

- mSupply will include the quantity of each invoice line inside brackets, appended to the item name e.g. 'Amoxicillin (200)'
 - MYOB doesn't have a field for unit price, but you can work out the unit price by dividing the total price by the quantity.
- MYOB expects every line to have a unique invoice number → the item line number has been appended to the invoice number when exporting i.e. each line will have an invoice number like 812-1, 812-2 etc.
 - The invoice number shown in MYOB will reflect the total number of lines in the invoice
 - The same applies to purchase order numbers
 - If a blank purchase order number is exported from mSupply, then MYOB assigns the next one in it's internal sequence.
- MYOB will not allow you to import invoices with dates outside of the current financial year → make sure that you export everything you need to from mSupply before the new year starts.
- The export format that mSupply uses is based on the current version of MYOB (version 12). If MYOB is upgraded, there is a good chance that the format will change → importing to MYOB will no longer work until mSupply is updated to output the new format.

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17.19. Exporting assets

This function allows you to export all of the assets **in the current store** to an Excel spreadsheet file (.xlsx type) that can be imported into mSupply.

Choose **File > Export > Assets** from the menus. You will be asked to choose the folder on the computer where you want the spreadsheet to be saved, then it will be created and saved there. The spreadsheet will have columns for all the standard mSupply asset fields followed by columns for all the active asset properties.

If there are no assets in the current store, you will be told there is nothing to export and the process will be cancelled.

The format of the spreadsheet created can be used with the asset import feature and is described on that page ([17.09. Importing assets](#)).

Previous: [17.18. Exporting to MYOB](#) || Next: [17.20. Exporting to the dashboard](#)



Last modified: 2021/10/08 09:33 by Gary Willetts





17.20. Exporting to the dashboard

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- [Postgres server section](#)
- [Export settings section](#)



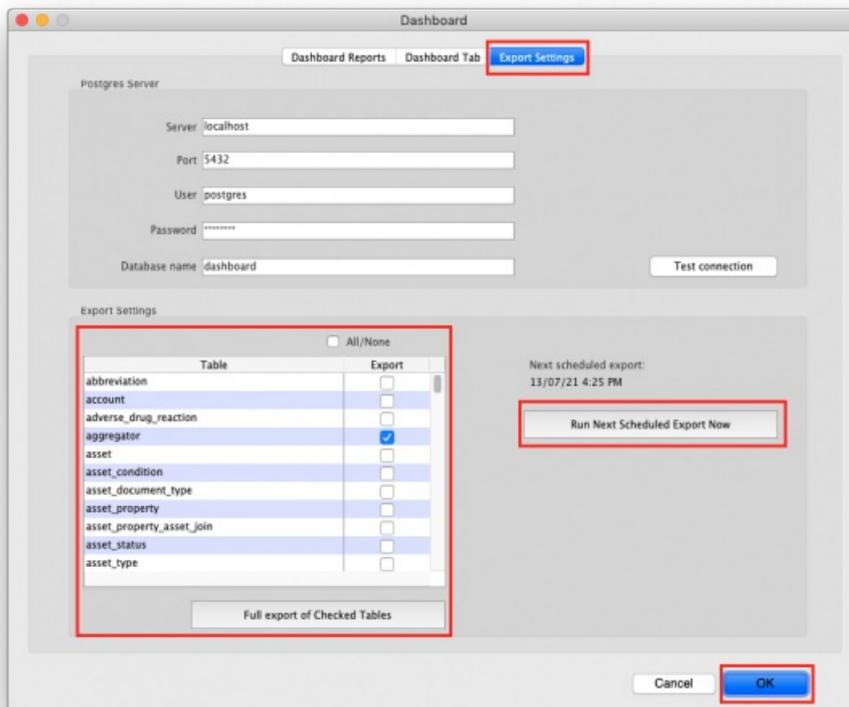
f Function fixed: mSupply version 5.03.00

This information is for sending data from your mSupply database to the mSupply dashboard database. The dashboard has a separate Postgres database so that its use does not slow down or interfere with your use of mSupply.

To access Dashboard export settings (administrators only), click on the *Admin* tab of the Navigator and click on the **Dashboard** icon:



Click on the **Export Settings** tab and you will see this window:



Postgres server section

In here you enter the details of the dashboard database server:

- **Server:** the URL or IP address of the dashboard database server
- **Port:** the port on the server that the database is listening for connections
- **User:** The user name that mSupply will use to access the Postgres database
- **Password:** The password mSupply will use to access the Postgres database
- **Database Name:** The name of the database that mSupply is to access

To make sure the details are correct and your copy of mSupply has access to the dashboard database, click on the **Test connection** button. A message will tell you whether the connection is successful or not.

Once the dashboard is enabled and the correct Postgres settings entered, there will be an automatic (scheduled) export every 24 hours. The next scheduled export is shown in the *Next scheduled export* field.

Export settings section

This section enables you to manually export data to the dashboard apart from the scheduled dashboard export.

The time and date of the next scheduled export to the dashboard database are shown in the **Next scheduled export** field. By default, all table data is exported incrementally — that is, only records that are new or have been changed since the last export are exported, which saves a substantial amount of time in the export process.

The **Run Next Scheduled Export Now** button gives you a way of exporting the data immediately, without waiting for the next scheduled export. Useful if you want the dashboard to be updated immediately.

The **Full export of Checked Tables** button gives you a way of re-exporting the specific table data from scratch immediately. The table contains a list of all the database tables in mSupply that can be exported to the dashboard. Simply check the checkbox in the Export column to set that table to be exported to the dashboard when you click on The **Full export of Checked Tables** button. The **All/None** checkbox is a quick way of toggling between all tables selected and non-tables selected.

When you click on either of them you must enter your authorisation code before the export will be carried out.

Click on the **OK** button to save your changes and the **Cancel** button to cancel any changes you have made.

Previous: [17.19. Exporting assets](#) | | Next: [18. Tenders](#)

Last modified: 2021/10/08 09:33 by Gary Willetts





User Guide



18. Tenders

- [18.01. Introduction to tender management](#)
- [18.02. Standard tender conditions](#)
- [18.03. Adding suppliers to a tender and inviting responses](#)
- [18.04. Adding supplier responses to a tender](#)
- [18.05. Tender reference documents](#)
- [18.06. Benchmark prices for tenders](#)
- [18.07. Analysing supplier responses and creating purchase orders](#)
- [18.08. Supplier instructions for using tender submission web interface](#)
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Previous topic: [17. Data Import and Export](#) | | Next topic: [19. Remote User Web Interface](#)

Last modified: 2021/10/08 09:13 by Gary Willetts



Updated: Version 3.1

18.01. Introduction to tender management

Introduction

In order to achieve the best value for available funds, it is common practice to seek out the best prices for the medicines that will be required, usually for the forthcoming year, by publishing a tender. Normally, the full tender process creates a lot of work which can be very time consuming and error prone. The mSupply tender module is designed to make the process as simple as possible, to minimise the work involved and to reduce the chance of errors.

As usual in a tender process, forward planning is necessary, as the process must be started several months before the goods will be on site and available for use.

The work flow for using the tender module is:

1. Prepare list of items and quantities. See [Creating a new tender](#). When all items have been added to the tender, it should be set to *confirmed* status.
2. Distribute list to suppliers. See [Adding suppliers to a tender](#)
3. Create benchmark prices. See [Using Benchmark prices](#)
4. Evaluate received quotations. See [Receiving Quotations from suppliers](#)
5. Select preferred suppliers. See [Accepting tenders](#). After selecting the preferred suppliers for all items, the tender should be set to *finalised* status.
6. Create Purchase Orders. See [Supplier responses & Creating Purchase Orders](#)

From your usage history, mSupply can prepare a list of items and anticipated quantities. This list is distributed to suppliers, who are invited to submit, after a reasonable period of time, their quotations, inclusive of all additional charges., e.g. freight.

The list may be uploaded to the web, and interested suppliers invited to submit their quotations online; conventional methods of submitting quotations are also available. We recommend the online method, as it reduces paper consumption, and is less labour intensive.

Once all the quotations have been received, mSupply will assist in processing them, comparing quotations, performing necessary currency conversions where appropriate, applying freight charges etc. mSupply will mark the lowest item price blue. If two lines are the same price and are the lowest price both will be coloured blue.

The user then has all the relevant information enabling informed choices to be made in selecting which supplier for which item.

Finally mSupply will create Purchase Orders for the successful bidding suppliers. While mSupply can perform all these tasks from stored usage data, it will allow users to change supplier and/or quantities, should special circumstances prevail in particular situations.

Preferences: There are preferences that can be set for the tender process, see [tender preferences](#).

Info

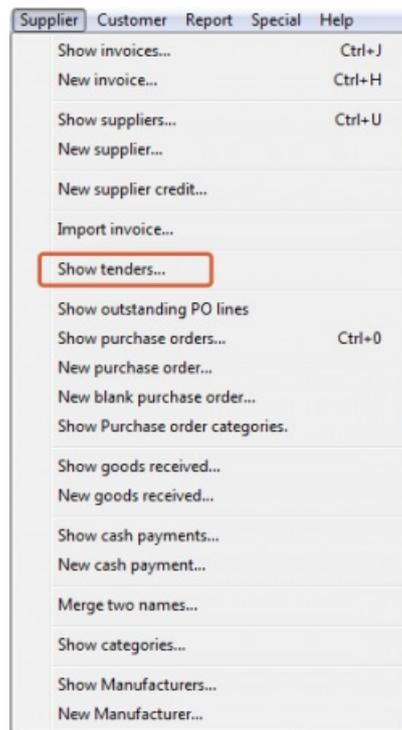
Note that for multi-user installations, Tender management activation requires payment of a fee. Please see the [website](#) here or contact Sustainable Solutions for more information.

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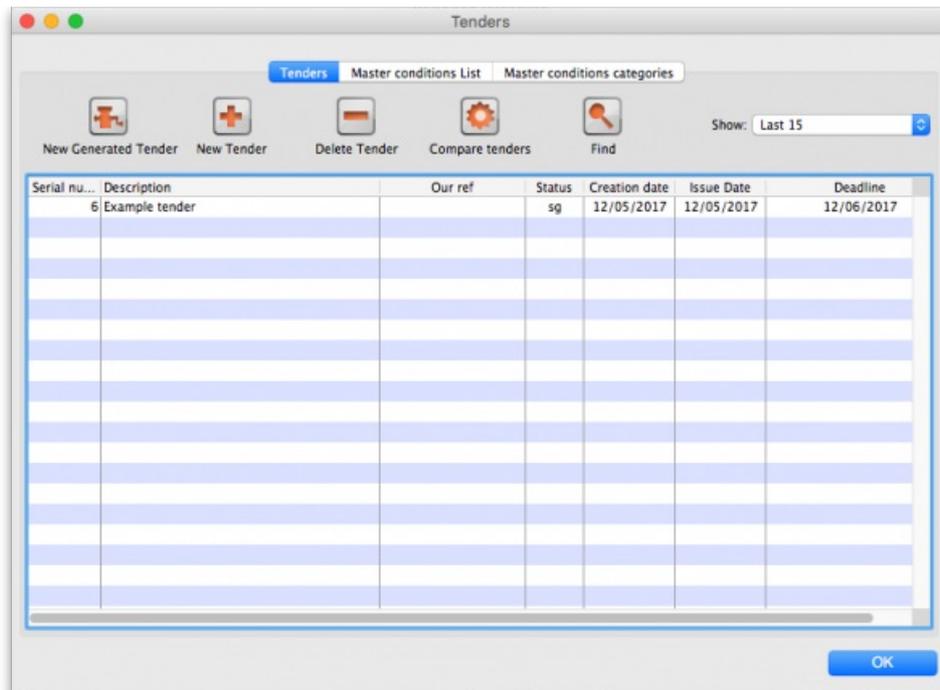
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Getting started

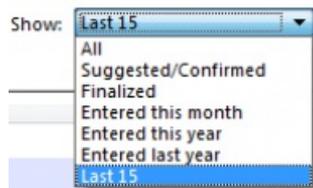
Select *Show tenders...* from the supplier menu or from the Navigator's Suppliers tab.



A window is shown with a list of current tenders (if any) and some options:



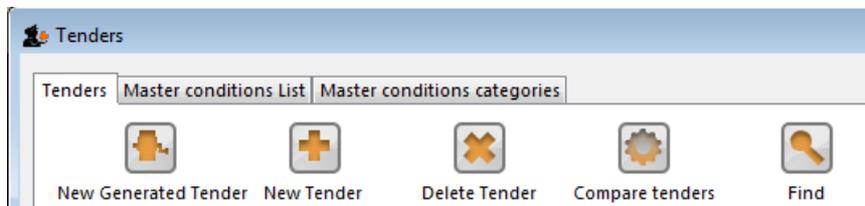
The *Show* drop down list is a filter which allows the list of tenders displayed to be changed:



Creating a new tender

Two options are available :

- *New Generated Tender* Once you have been running mSupply for a year, and providing that year is fairly typical of your overall usage, the *New Generated Tender* is recommended; this option will suggest quantities based on actual usage, having regard to seasonal fluctuations, thus eliminating any guesswork. Note, however, that quantities are suggested only, and may be amended as required.
- *New Tender* - allows you to create the tender manually and is a more labour intensive process.



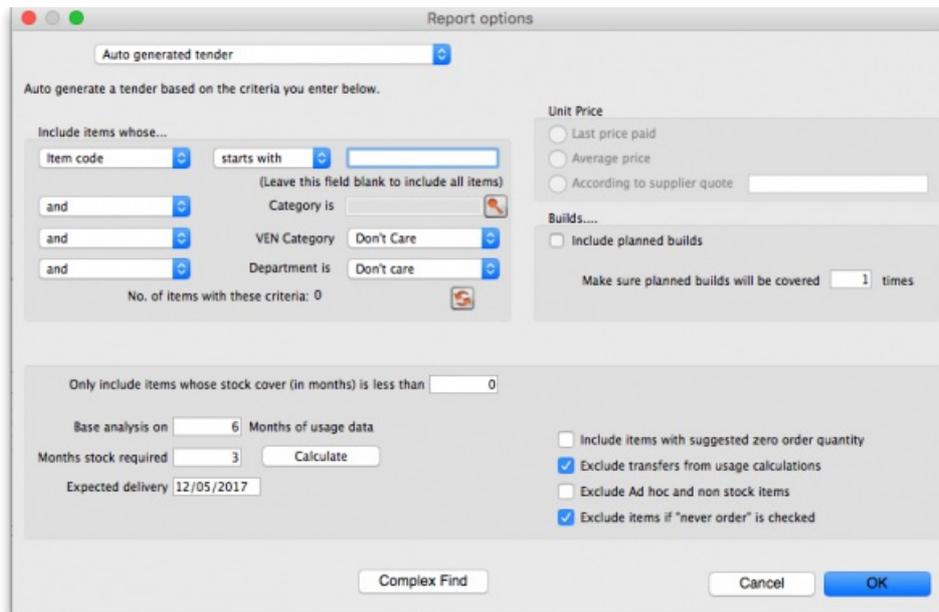
Note that the creation (or deletion!) of a new tender will be [logged](#) by mSupply.

Also note that all tenders belong to the store they are created in and will not be accessible in other stores (but [supervisor mode](#) users can view tenders in all stores). This also means that you can only access items visible in the store the tender is created in, whether you manually create or auto-generate your tender.

New generated tender (auto-generation)

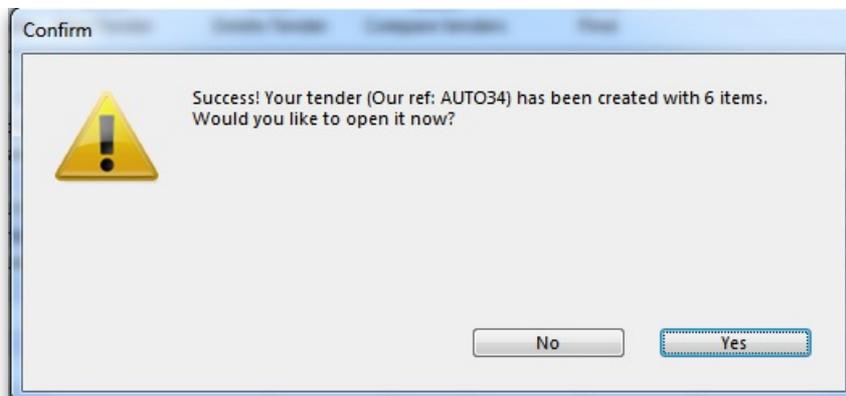
To have mSupply automatically create a suggested tender based upon your projected demand, click on the New Generated Tender button, and confirm your intention by clicking Yes on the *Confirm* window.

This window will appear. You may recognise it from the Item usage report, suggested order report and the [Managing Purchase Orders, creating a Purchase Order](#) - it uses much of the same functionality:



You can tailor your search by item in the usual way. Clicking the refresh button (double arrows near the centre) shows an estimate of how many items will be processed. Further refinements can be added. It is recommended to use the *Calculate* button to refine the *Months of stock required* figure by entering *Lead time*, *Ordering Cycle* and *Buffer stock* values directly.

Processing all this data may take some minutes if you have a lot of stock items recorded in your system, so mSupply will ask you if you've got the time to do it. If you do, click 'Yes'. A progress indicator will show you how much work is left to be done. When mSupply has finished processing everything, it will let you know:



Auto-generated tenders may be rather large, so you may wish to process several tenders with more specific criteria rather than one huge one at once.

You can choose to look at your tender immediately, or return to it later. If you click 'Yes', you'll see something like this:

Edit Tender...

Description: Tender 2 (28/08/2017 16:47:19 Months stock required 12)

Creation Date: 28/08/17 Issue Date: 28/08/17 Response By Date/Time: 28/09/17 00:00 GMT Status: sg Locked

Serial Number: 2 Our ref: AUTO2

Comments: Auto generated tender created on 28/08/2017 at 16:47:19 by Sussol with 144 items.

Items and Compare Prices

Incoterm: None

Search items:

Show: All

Li...	Code	Item name	# of Packs	Pack Size	Total quan...	Currency	Original	Original...	PO local	Unit	Preferred Supplier	Item C
1	S1555370	Albendazole, 400mg, tabs, chewable	3829	100	382900		0.00	0.00	0.00	Pack	No bids	
2	S1505050	Amox. 500mg + Clav. acid, 125mg, tabs	2282	15	34230		0.00	0.00	0.00	Pack	No bids	
3	S1505051	Amox.125mg & Cl...0ml, bottle (Curam)	42272	1	42272		0.00	0.00	0.00	Bottle	No bids	
4	S1505043	Amoxicillin, 250mg, tabs, dispersible	36578	100	3657800		0.00	0.00	0.00	Pack	No bids	
5	2020006	Amoxicillin, 500 mg, caps	28527	21	599067		0.00	0.00	0.00	Packs	No bids	
6	S1505046	Amoxicillin, powde.../5ml, 100ml, bottle	238462	1	238462		0.00	0.00	0.00	Bottle	No bids	
7	S0305000	Apron, Protection,...(0.15mm thickness)	18895	1	18895		0.00	0.00	0.00	Pack	No bids	
8	S0305020	Apron, protection, plastic, disp.	40	100	4000		0.00	0.00	0.00	Pack	No bids	
9	S1580005	Ascorbic acid, 250mg, tabs (Vitamin C)	2252	1000	2252000		0.00	0.00	0.00		No bids	
10	2010159	Atracurium,10mg/ml, 5ml ampoule	176	5	880		0.00	0.00	0.00	Each	No bids	
11	S1514010	Atropine Sulfate inj 1mg/ml 1ml amp	791	10	7910		0.00	0.00	0.00	box	No bids	
12	UNICE...M 15	Bag, Biohazard, Plastic, 36 x 36, Pcs	5122	20	102440		0.00	0.00	0.00	Each	No bids	
13	S0330500	Bag, urine collection, 2000ml	3443	10	34430		0.00	0.00	0.00	Each	No bids	
14	200458	Bags, Autoclave, yellow	193	200	38600		0.00	0.00	0.00	Units	No bids	
15	S501098	Bandage, light sup...cm x 4.5m (Premier)	56	1	56		0.00	0.00	0.00		No bids	
16	S1519500	Benzyl benzoate 2...lotion /BOT-1000ml	224	1	224		0.00	0.00	0.00	Each	No bids	
17	S1520011	Benzylpenicillin So...m for Injection 3.0g	24	50	1200		0.00	0.00	0.00	Each	No bids	

Total for Tender quantities 0.00
Total for Purchase Order 0.00

Save Sort order

Points to note here:

- Several default values have been entered for the **Description** (made up of the tender number, date and time of creation and number of months stock required), **Issue** (the current date) and **Response by** (one month from the current date) dates and **Our ref** (*AUTO* followed by the tender's number) fields at the top that you're going to want to change.
- There are no units chosen for any of the tender items.

A pack size of 1 is usually assumed because mSupply looks for the default pack size and default unit for each item as it creates the tender (these values are set when editing Items - see [Item Basics](#)). If it does not find a default unit, it leaves units blank, but enters a 'Check units!' warning into the comments. The same goes for pack size - although if you don't tell it otherwise, mSupply assumes a default pack size of 1. Tender auto-generation will therefore be most useful if these default values are set for items. (A default pack size of 1000 shows here as this was loaded at the time of item creation).

New tender (manually entered)

To create a new tender manually, having opened the *Tenders* window by clicking on *Show tenders* on the menu, click the *New Tender* button.

This window opens:

Here you can fill in basic information about the tender.

- *Description*: Enter a description that will help you to recognize this tender and distinguish it from others. For example: **RFQ 18-013**. It is helpful if this Description matches any register of tenders / quotes that is already being maintained by your organisation.
- *Creation date*: The date the tender was created. This defaults to today's date.
- *Issue date*: The date the tender is/was sent to suppliers. This also defaults to today's date, but can be changed.
- *Response by date*: The date by which suppliers must respond to the tender. The default is set to one month from the creation date, but can be changed.
- *Status*: Tenders can have a status of sg/cn/fn (suggested, confirmed or finalised), which signifies its passage through the overall tender process. To change the status of the tender, simply select the new status from the drop down list and click on the **OK** button to save all changes. You will be asked to confirm a change because it has a significant impact on the editability of the tender. These are what the statuses mean:
 - Suggested status - tender is still being built. Everything is editable.
 - Confirmed status - list of items & quantities is complete and can no longer be edited. Suppliers invited to provide quotations may be added, and, once received, their responses may be added. Decisions may then be taken regarding which quotation is preferred for each tender item.
 - Finalised status - no further editing may be performed, and the tender can now be used as a basis for purchasing
- *Locked checkbox*: Check this box to ensure the tender is not accidentally deleted.
- *Our ref*: This field may be used to enter a short reference code to appear in tender-related correspondence.
- *Comment*: The comment field is for your internal use. It is not printed on any tender documents.

Tabs on the tender details window

Details of the tender are managed through the tabs on the Tender Details window:

Edit Tender...

Description: Tender 1 (7/02/2017 18:10:56 Months stock required 30)

Creation Date: 07/02/17 Issue Date: 07/02/17 Response By Date/Time: 07/03/17 00:00 GMT Status: S9 Locked

Serial Number: 1 Our ref: AUTO1

Comments: Auto generated tender created on 7/02/2017 at 18:10:56 by sussol with 166 items.

Items and Compare Prices Notes Choose Suppliers and Enter responses Standard conditions Purchase order Reference documents Tender preferences Synchronize Log

New line Delete line Print internal report Search items Show: All

Lin...	Code	Item name	# of Packs	Pack Size	Total quantity	Currency	Original	Original ...	PO local	Unit	Preferred Supplier	Item Ci
1	100900	Adrenaline Injection, 1:1000, 1ml	3402	1	3402		0.00	0.00	0.00	Amp	No bids	
2	101000	Albendazole Tablets, 200mg	40848	100	4084800		0.00	0.00	0.00	Tab	No bids	
3	101100	Albendazole Tablets, 400mg	94	100	9400		0.00	0.00	0.00	Tab	No bids	
4	101400	Aluminium Hydroxide Gel Compound Ta...	32551	100	3255100		0.00	0.00	0.00	Tab	No bids	
5	102100	Aminophylline Elixer, 25mg/5ml, 100ml	1197	1	1197		0.00	0.00	0.00	Bot	No bids	
6	102200	Aminophylline, I.V. Injection, 250mg/ml, ...	9334	1	9334		0.00	0.00	0.00	Amp	No bids	
7	101700	Amiodarone Tablets, 200mg	399	100	39900		0.00	0.00	0.00	Tab	No bids	
8	103100	Amoxicillin Capsules, 500mg	43051	100	4305100		0.00	0.00	0.00	Cap	No bids	
9	103300	Amoxicillin Injection, 500mg	19742	1	19742		0.00	0.00	0.00	Vial	No bids	
10	103500	Amoxicillin Tablets, 250mg	76	100	7600		0.00	0.00	0.00	Tab	No bids	
11	104400	Antiseptic Ointment, 25g (0.5% Cetrimid...	48699	1	48699		0.00	0.00	0.00	Tube	No bids	
12	501200	Applicator, Wooden, with Cotton Tip, 15...	5297	1	5297		0.00	0.00	0.00	Pkt	No bids	
13	170001	Artemether 20 mg+Lumefantrine 120mg...	88318	1	88318		0.00	0.00	0.00	Pkt	No bids	
14	170002	Artemether 20 mg+Lumefantrine 120mg...	73239	1	73239		0.00	0.00	0.00	Pkt	No bids	
15	170003	Artemether 20 mg+Lumefantrine 120mg...	185731	1	185731		0.00	0.00	0.00	Pkt	No bids	
16	170000	Artemether 20 mg+Lumefantrine 120mg...	95259	1	95259		0.00	0.00	0.00	Pkt	No bids	
17	104700	Artemether Injection, 40mg/ml in 1ml	97429	1	97429		0.00	0.00	0.00	Amp	No bids	

Save Sort order Total for Tender quantities 0.00 Total for Purchase Order 0.00 Cancel OK

Items and compare prices tab

- This tab displays by default when you open a tender for editing. It displays the items currently included in the tender, and by selecting 'All', 'Filled' or 'Unfilled' from the drop-down list above and to the right of the list, you can select which items are displayed.
 - New line* button: click this to add a new item line to the tender. The addition of the new line will be **logged** by mSupply.
 - Delete line* button: select an item line from the list and click this button to remove it from the tender.
 - Print internal report* button: click this to select one of several reports to print out or export to a spreadsheet. There are several to choose from and will give you the information you need to help evaluate or analyse a tender:
 - Preferred suppliers only
 - Winning tender lines
 - All supplier responses
 - Supplier quotes with adjusted price
 - Supplier quotes for each item
 - Tender lines with predicted cost
 - Tender lines where the lowest price was not chosen.
 - Incoterm* drop down list: Allows you to select an **incoterm** to apply to the tender
 - Search items* text box: as you type in this text box, only items whose names start with what has been typed will be displayed in the table. You can use the "@" character as a wildcard to represent anything. For example, typing "@o!" will display only items with names which end in "o!". This box is helpful for quickly finding a specific item. Overrides any selection made in the *Show* drop down list (see below).
 - Show* drop down list: is another way to change what items are displayed in the table. Selecting one of these options will override anything typed in the *Search items* text box:
 - All* - display all items without filtering
 - Filled* - display only those items for which a bid has been accepted
 - No bids* - display only those items for which no suppliers have made a bid
 - Lowest cost not chosen* - display only those items where the lowest offered cost price was not chosen as the preferred bid

Note that changes to tender lines will be **logged** by mSupply.

Notes tab

- This tab shows a field where you can add notes about your tender. This will not print on the documentation sent to suppliers.
- To start a new line (as with any text box), press Shift+Enter (although any long lines will wrap). See below for an example:

Choose suppliers and enter responses tab

- The use of this tab is used to manage sending of the tender to suppliers, and entering their responses - see [Receiving Quotations from suppliers](#)

Standard conditions tab

- The use of this tab is described here: [Standard conditions](#)

Purchase order tab

- The use of this tab is described here: [Creating Purchase Orders](#)

Reference documents tab

- The use of this tab is described here: [Reference Documents](#)

Tender preferences tab

- The use of this tab is described here: [Setting up purchase order preferences](#)

Synchronise tab

- This tab will only appear if you are using the remote tender module have set up your remote tender preferences. The process and use of this tab is described in [Uploading and Downloading Web Tenders](#).

Log tab

- This tab shows recent events relating to this particular tender. It will show, for example, changes in prices or other significant events. You cannot edit the details on this tab. If an event fails to be logged for any reason while the tender is being processed, you will be given an appropriate warning message.

Adding items to a tender

To add an item to a tender, click the *New line* button on the *Items and Compare Prices* tab. You will be shown a window like this, which opens at the *Set tender item criteria* tab:

1. Type as much of the item name or code as you know, then press the *Tab* key. If only one item matches your entry, it will be filled in. If multiple items match, you will be shown the standard item choice list to choose the item you want. Any details completed in the *Full description* under the *General* tab of the selected item are displayed (Description). Should you wish to identify a line (or lines) for any reason, clicking on the *Colour* button presents you with a selection of colours available for the type on that line.
2. Fill in the number of packs you wish to purchase, and the pack size. The total quantity of individual units will be calculated. The *Round quantities* button will round the number of packs to the nearest reasonable number of whole packs (most useful for auto generated tenders when the number of packs can sometimes be set to a decimal number).
3. Choose the units you wish to use.
4. You may optionally enter a price per pack figure in the *Estimated price* field.
5. Entries in the *Comment* field are for your internal use, and won't be printed on the tender documents you present to suppliers.
6. In the *Conditions* field, enter any conditions which are *specific to this item* of the tender, but NOT applicable to the tender as a whole. These conditions will be printed on the tender letter with the item details.
7. Click on *OK & next* to add the next item to the tender, and when you are finished, click on *OK*.
8. The addition of a new line will be [logged](#) by mSupply.

Info

It is perfectly possible to add the same item more than once to a tender. Each entry will be treated separately. This allows for the same item to be added, for example, in different pack sizes.

The second tab *Compare supplier responses*, is for use after suppliers have responded to the tender - refer [Receiving quotations from suppliers - Comparing quotations from different suppliers](#).

Deleting tender items

Click the line you wish to delete so that it is highlighted, then click the *Delete line* button. If a supplier has already quoted on a tender item, you will be warned before deletion. The deletion of any tender lines will be [logged](#) by mSupply.

Editing tender items

From the *Items and compare prices* tab, double-click the tender line you wish to edit. The 'Edit tender item' window will open, allowing you to edit the details in the same way as entering a new tender item, above. Note: you cannot edit or delete lines on finalised tenders.

The *Search item* field allows you rapid access to any item in the tender - just enter the name (or first few letters of the name) of an item in the tender, and it will be displayed.

Here's how the *Edit tender* window looks when the item Ranitidine 25mg/mL injection has been selected; the automatically generated tender has calculated that 1023 ampoules are required; here you can edit the quantity to conform with, say a pack size of 10, so you would adjust the pack size to 10, and the quantity to 102 or 103.

The screenshot shows the 'Edit Tender Item...' dialog box. The 'Item Name' field contains 'Ranitidine 25mg/mL amp' and the 'Description' field contains 'Raninj'. The 'Original Generated quantity' is 1023. The 'Set tender item criteria' tab is selected, showing 'No. of packs' as 1023, 'Units' as 'each', 'Multiplied by pack size' as 1, and 'Estimated price' as 0. The 'Comment' field contains 'Automatically generated as part of a tender'. The 'Conditions' field is empty. At the bottom, there is a 'Round Quantities' checkbox and 'OK & Next', 'Cancel', and 'OK' buttons.

Note that any changes to a tender line are [logged](#) by mSupply.

Previous: [18. Tenders](#) || Next: [18.02. Standard tender conditions](#)

Last modified: 2021/10/08 09:38 by Gary Willetts

18.02. Standard tender conditions

mSupply allows you to set up a list of standard tender conditions called master conditions. These are all the conditions you will apply to tenders from year to year. Each time you create a tender you can copy the master conditions you want to your tender as required - these form the standard conditions list for that one tender. These instructions cover managing master conditions and applying them to individual tenders as standard conditions.

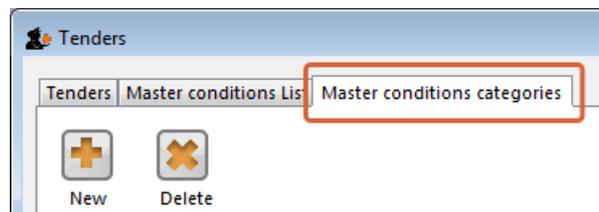
When you print your tender invitation letter, you can choose to have the list of standard conditions print (not all the master conditions!), followed by the list of items for which you are requesting prices.

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- [Setting up conditions and their categories](#)
- [Editing and deleting conditions](#)
- [Copying master conditions to a tender](#)
- [Printing the standard conditions with the invitation letter](#)

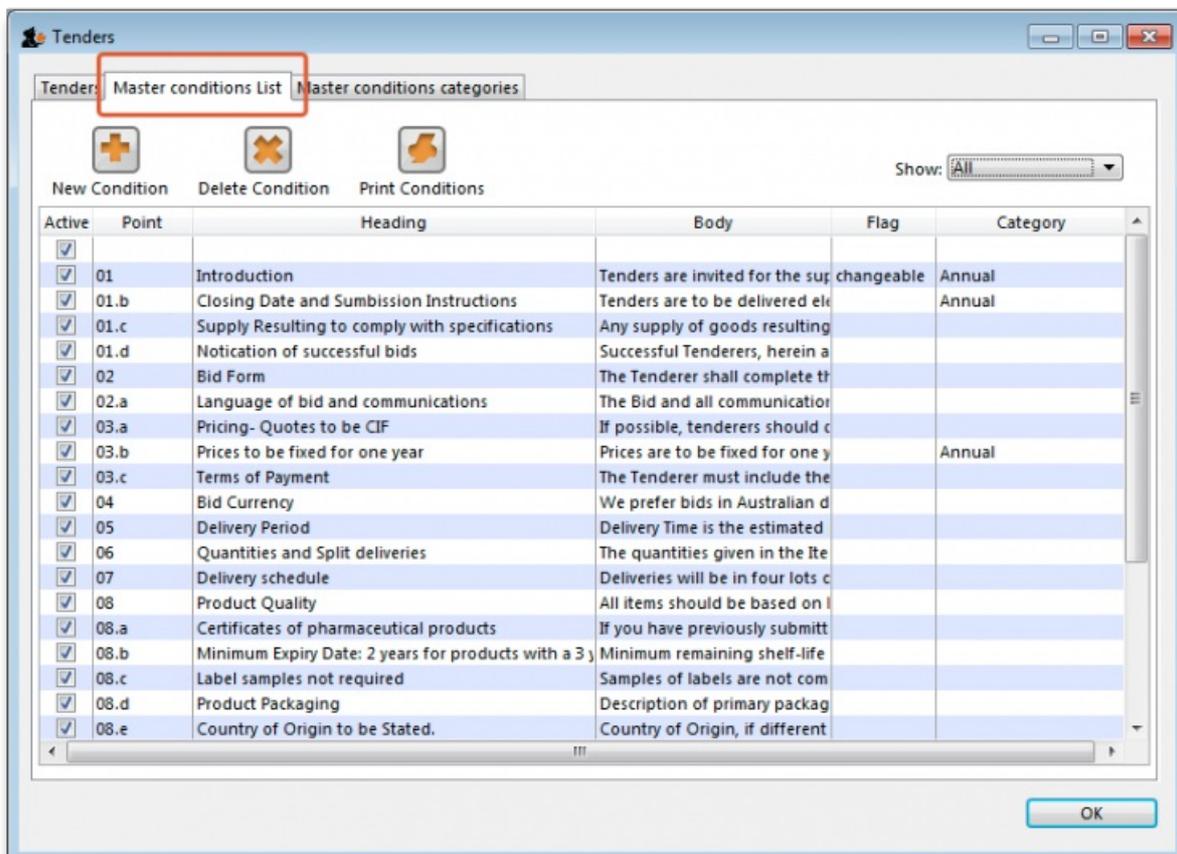
Setting up conditions and their categories

Choose *Suppliers > Show tenders*, and open the *Master Conditions categories* tab



Here you may define categories for your master conditions. Examples shown above are *Annual*, *Supplementary* and *Emergency*. Subsequently you can restrict the display to a single category by selecting that category from the *Show* drop down list.

Choose *Suppliers > Show tenders*, and open the *Master Conditions List* tab:



You can print a master condition selected in the list by clicking on the *Print conditions* button. To add a new master condition, click on the *New Condition* button. This window opens:

Point: The conditions will sort by their point entry when printed. We suggest you label your points 1.1, 1.2, 1.3, 2.1, 2.2 etc.

Note that if you have more than 9 points in one of the levels, you should add a leading zero so that they sort properly (01.1, 01.2, etc)

Heading: Enter the Heading.

Body: The body can be as long as you like for each entry.

Category: If you have defined categories, they will be displayed in the drop down list, and you may select the appropriate one.

Flag: Say you have some entries that need changing after copying to an individual tender (e.g. a closing date). You can enter a value in the flag field to identify such entries.

Print heading and body: Use this drop-down list to choose what will print. Normally you'll want to print both heading and body, but near the top of a tender form you may want several headings together.

Click **OK & Next** to add further conditions.

Editing and deleting conditions

Double-click an entry to edit it.

To delete a condition click on it to highlight it, then click the *Delete condition* button.

Copying master conditions to a tender

When you enter a new tender, go to the *Standard conditions* tab.

Click the *Copy from master* button to copy conditions from the master list

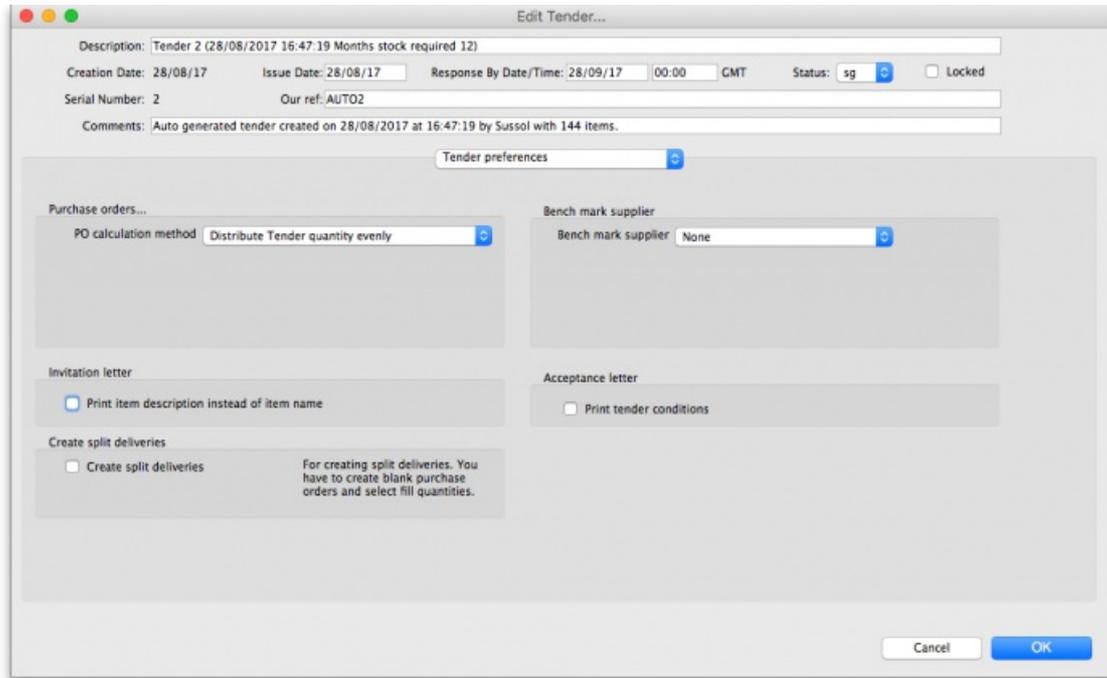
Once you have copied conditions, you can add, edit and delete them in the normal way.

Tip

when deleting rows you can highlight multiple rows by holding down the control key (command key on Mac) as you click rows, or press control + A to highlight all rows.

Printing the standard conditions with the invitation letter

To have the standard conditions printed at the end of the suppliers' tender invitation letters, go to the tender's *Tender Preferences* tab:



The screenshot shows the 'Edit Tender...' dialog box with the following details:

- Description: Tender 2 (28/08/2017 16:47:19 Months stock required 12)
- Creation Date: 28/08/17
- Issue Date: 28/08/17
- Response By Date/Time: 28/09/17 00:00 CMT
- Status: sg
- Locked:
- Serial Number: 2
- Our ref: AUTO2
- Comments: Auto generated tender created on 28/08/2017 at 16:47:19 by Sussol with 144 items.

The 'Tender preferences' tab is active, showing the following settings:

- Purchase orders...
 - PO calculation method: Distribute Tender quantity evenly
- Bench mark supplier
 - Bench mark supplier: None
- Invitation letter
 - Print item description instead of item name
- Acceptance letter
 - Print tender conditions
- Create split deliveries
 - Create split deliveries
 - For creating split deliveries. You have to create blank purchase orders and select fill quantities.

Buttons: Cancel, OK

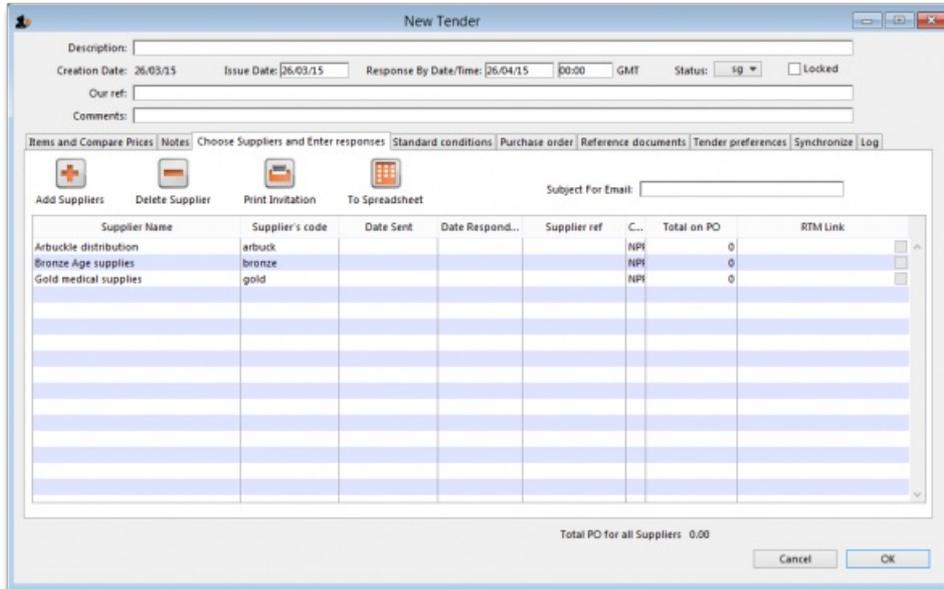
In the *Acceptance letter* section, check the **Print tender conditions** checkbox. That's it, all done!

Previous: [18.01. Introduction to tender management](#) | | Next: [18.03. Adding suppliers to a tender and inviting responses](#)

Last modified: 2021/10/08 09:39 by Gary Willetts

18.03. Adding suppliers to a tender and inviting responses

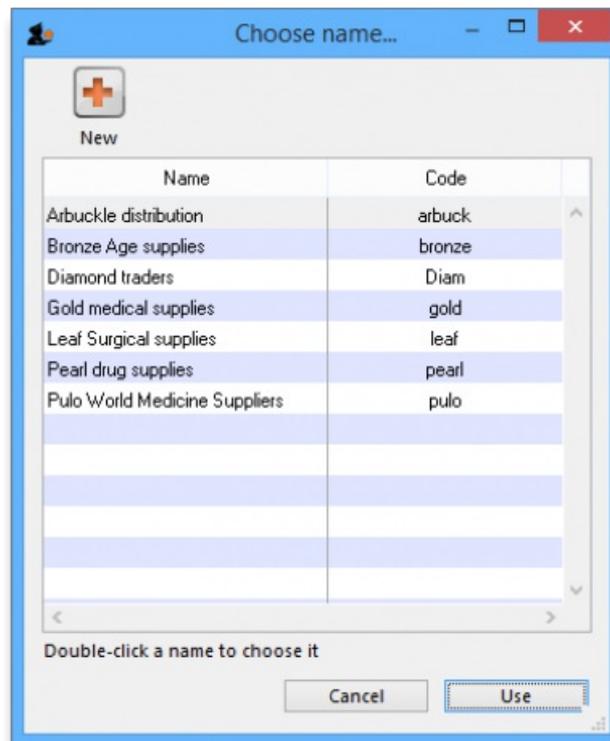
To add suppliers to the tender, click the *Choose suppliers and enter responses* tab to open this window, where the suppliers to whom your tender will be sent may be added, or subsequently deleted:



Note: The *RTM Link* column in the table shows whether the selected supplier has been linked with the Remote Tender Module (checked if it has)

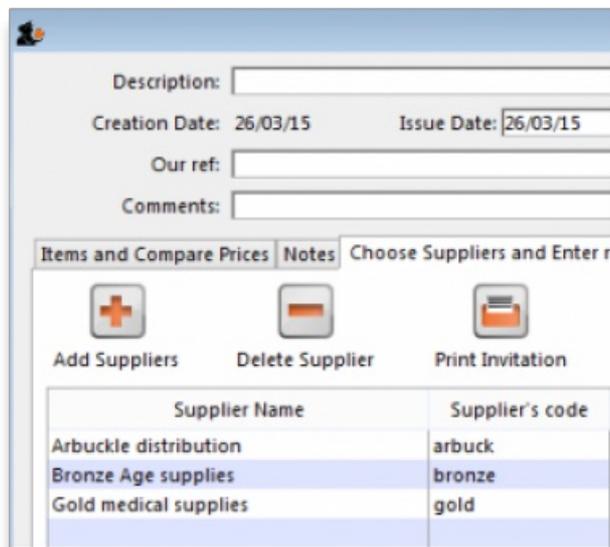
To add suppliers to the list, click the *Add Suppliers* button.

A list of all suppliers is shown:



You can add multiple suppliers by holding down the control key (command key on Mac) and clicking on those suppliers you wish to add. Once you have selected a supplier or suppliers, click the *Use* button to add them to the list. To create a new supplier, click the *New* button.

Once suppliers are added, they will appear in the list:



Double clicking a supplier will open a window for adding and editing quotations - see below.

If there are any suppliers listed that do not have a tick in the RTM Link column and you intend to [publish the tender to the web](#), you will need to contact mSupply Support: - support@msupply.org.nz

Deleting a supplier

Highlight the supplier you wish to remove from the tender, then click the *Delete supplier* button. This will remove the supplier from the tender - it will *not* delete the supplier from mSupply. Note: you cannot remove a supplier from a finalised tender, or if the supplier has quoted on one or more tender items. If you want to remove a supplier for which quotations have been entered, delete the quotations first, then you can delete the supplier.

Inviting quotations from suppliers

Print Invitation letter

Clicking this button prints an "Invitation to tender" letter ready for dispatch to the highlighted supplier; the letter includes all the items, quantities, etc. as specified in the tender. The default date for a response is one month after the date of the letter, but this can be amended to a date of your choosing.

If the default format of the Invitation letter does not meet your requirements, please let us know and we will customise the print format to meet your individual requirements.

Email Selected button

Clicking this button produces email documents for each of the highlighted suppliers. A PDF document (the same as the printed document) is produced, attached to an email and stored in the email queue. This option will work only if you have entered email addresses for the chosen suppliers.

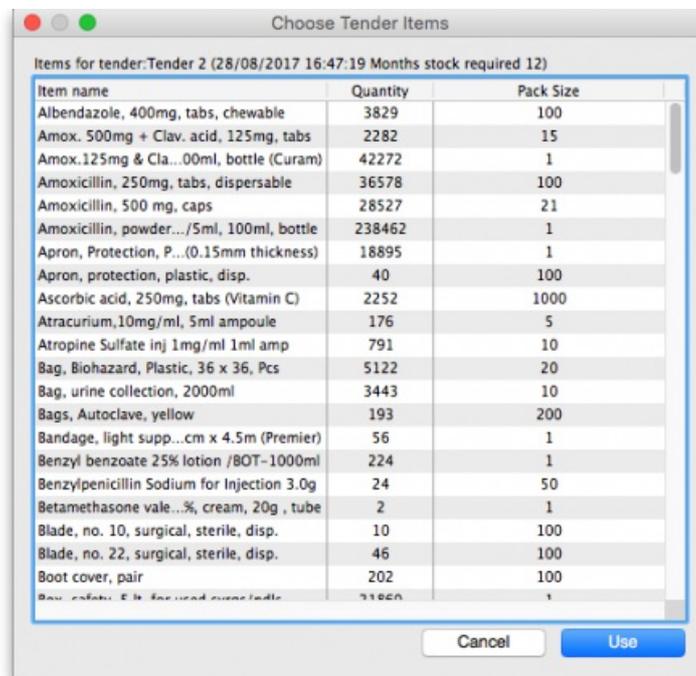
Whichever method you choose, you will be given the option for the **Date sent** field to be filled automatically with today's date.

To Spreadsheet

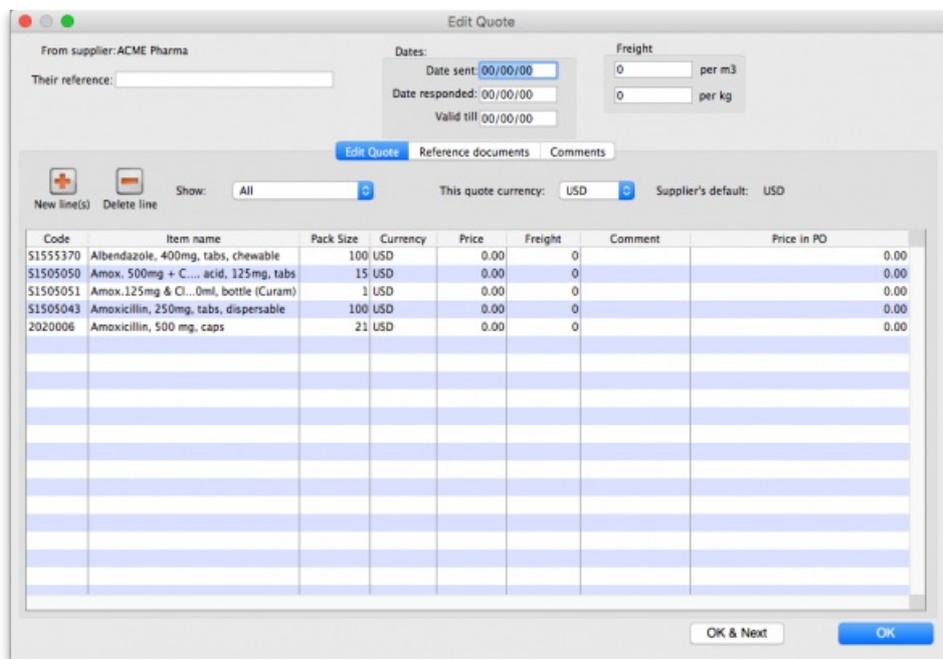
Clicking this button opens your spreadsheet application, with all the items and quantities required on the tender document already entered in appropriate rows and columns. This may be saved and sent to the supplier along with the tender letter. Appropriate columns are already in place for suppliers to enter their responses.

Previous: [18.02. Standard tender conditions](#) | | Next: [18.04. Adding supplier responses to a tender](#)

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Select from the list all the items you want to enter quotes for. You can use the usual Control+click (Cmd+click on Mac) to add/remove an item to your selection, Shift+click to add/remove a range of items from your selection or Control+A (Cmd+A on Mac) to select all items. Now click on the **Use** button and all the items you have selected are added to the quotation with zero cost. In this example we chose to add the first 5 items in the tender:



To add the same item twice to a quotation from a supplier, click the **Add lines(s)** button and choose the item a second time. You will be shown a warning that the item is already on the quotation, and be asked if you want to add it again. You might need to do this if the supplier has supplied two prices for the same item based on differences in packaging or other specifications. Note that if you entered an item twice in a single tender to account for such differences, it will appear twice in the list and you won't need to carry out two selections.

In the event that the currency of the quote from the supplier is not the same for each line, mSupply allows each line's currency to be edited, and the appropriate one selected.

Entering prices for each quotation line

When you have added all the items you want to the quotation, it's time to add the prices and other details of the supplier's quotation. To do this, double-click on the first quote line to open the *Edit Tender Response Item* window:

You will note that this form is very similar to the form for ad-hoc quotes; the related tender is shown at the top, and the item and supplier fields are filled in automatically. Enter the price and other details the supplier has provided - enter as much as you can because you'll use this information when comparing quotes from different suppliers.

Manufacturer: Type the first few characters of the manufacturer's name and press the Tab key on the keyboard to see a list of matching manufacturers. Select the one you want.

Price: Very important, the price you enter is the price for **ONE PACK** of the packsize shown in the **Pack** field.

Valid until: The date this quote will expire.

Pack: The pack size (number of single items in one pack) this quote is for.

Currency: The currency the **Price** is in.

Rate: The rate used to convert the **Currency** of this quote line to the currency you are using in your datafile.

Rate to use: You can use a different rate to convert the **Currency** of this quote line to the currency you are using in your datafile if you like - just enter it here.

Disqualified: Check this if the quote line is disqualified for any reason (excluded manufacturer, for example).

Preferred: Check this if this is the quote you want to accept as the best - see later sections on comparing quotes from different suppliers for more on this.

Cost Local/Pack: The quoted cost per pack in your local datafile currency when converted from the quote line currency using the rate entered in the **Rate to use** field.

Comment: Enter anything you need to remember or need others to know when comparing this quote with those from other suppliers.

Price breaks: You can also add price break information that the supplier has provided you in the **Price break** section. A price break is a reduction in price when you order over a certain quantity. The **Price Break quantity** is the number of items at which the reduction occurs and **Discount** is the percentage reduction that will apply to the price entered in the **Price** field once the **Price break quantity** is reached.

Freight: If you are calculating freight based on volumes or weight, or using a freight factor, enter that information in this section.

Supplier: Enter any extra details about the supplier in this section.

When you have finished entering details for the quote for this item, click on the **OK & Next** button to move to the next item or **OK** to save the current quotation line, close the window and go back to the *Edit Quote* window.

When you have finished adding all suppliers' quotes to the tender we recommend that you set the tender's status to confirmed (on the *Edit tender* window at the top).

⚠ Important

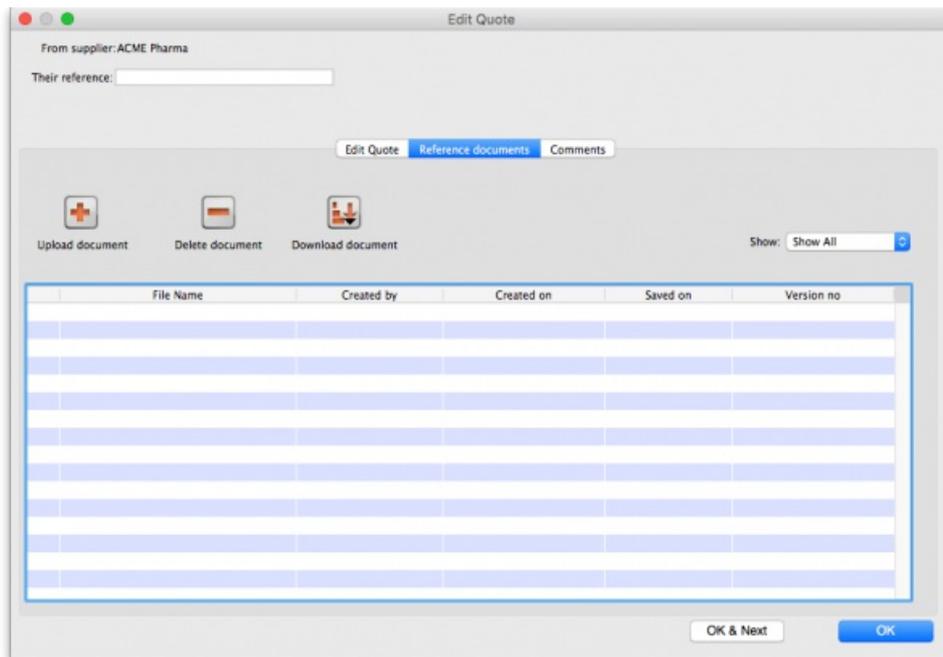
If you're finding that entering all the supplier's quotes is too much work then there's help for you! The remote tender module is what you need, where the suppliers all enter their own quotations and, when the tender closing date has passed you can simply download them to mSupply. See [Uploading and downloading web tenders](#) for details and give Sustainable Solutions a call if you're interested.

Deleting an item from a supplier's quotation

If you wish to delete an item from the quotation, click on the line to highlight it, then click the **Delete line** button. Note that this action deletes the selected item from the quotation only, not from the tender!

Reference documents tab

This is used for saving documents which refer to the Supplier's quote, not the whole tender - use the Reference documents tab on the *Edit tender* window to do that (see [Reference documents](#) for more details). You might want to use this to save a scanned version of a paper copy of the supplier's quotation, for example.



Upload document button: Click on this to store a document with the quote. You will be shown a window allowing you to browse to the required document. Double-click on the document or click on it and click the **Open** button to add it to the quote (called "uploading" it). Once it has been successfully uploaded it will appear in the list of documents below the buttons.

Delete document button: Click on a document in the list to select it and click on this button to delete the file and remove it from the quote. You will be asked to confirm the deletion.

Download document button: This will allow you to save one of the files in the list to your computer (called "downloading" it) so that you can view or edit it. Click on the file you want to view or edit to select it in the list then click on the **Download document** button. You will be shown two options: click on *Download* to just save the file on your computer or *Download and open* to save the file on your computer and open it for viewing or editing. A window will open for you to select the location to save the file on your computer. Browse to the folder you want to save it in then either double-click on the folder or click on it to select it then click on the **Open** button. The file will be saved in the location you chose. If you selected the *Download and open* option the file will also be opened for you to view or edit.

If you want any edits you make to the document to be saved to the quote, when you have finished editing, you must upload the edited version to the quote using the **Upload document** button. Don't forget or your edits will only exist on your computer, not on the quote! It is not necessary to change the document's name so that you don't overwrite the original, as mSupply will recognise that changes have been made, and will save it as a new version (and keep the old version too). The file's version number will appear in the *Version no* column. The **Show** drop down list above that column allows all versions to be displayed, or only the latest one.

Comments tab

This is used for adding comments from you or the supplier, things that need to be remembered or considered later.

The screenshot shows a web application window titled "Edit Quote". At the top, it says "From supplier: ACME Pharma". Below that is a text input field labeled "Their reference:". A navigation bar contains three tabs: "Edit Quote", "Reference documents", and "Comments", with "Comments" being the active tab. The main area has two text input fields: "My Comment" and "Supplier comment". At the bottom right, there are two buttons: "OK & Next" and "OK".

Simply type the comments you want to save in the appropriate box. When you click the **OK** or **OK & Next** button the comments (and all other changes to the tender) will be saved.

To view comments saved on the quote, simply view this tab.

Previous: [18.03. Adding suppliers to a tender and inviting responses](#) || Next: [18.05. Tender reference documents](#)

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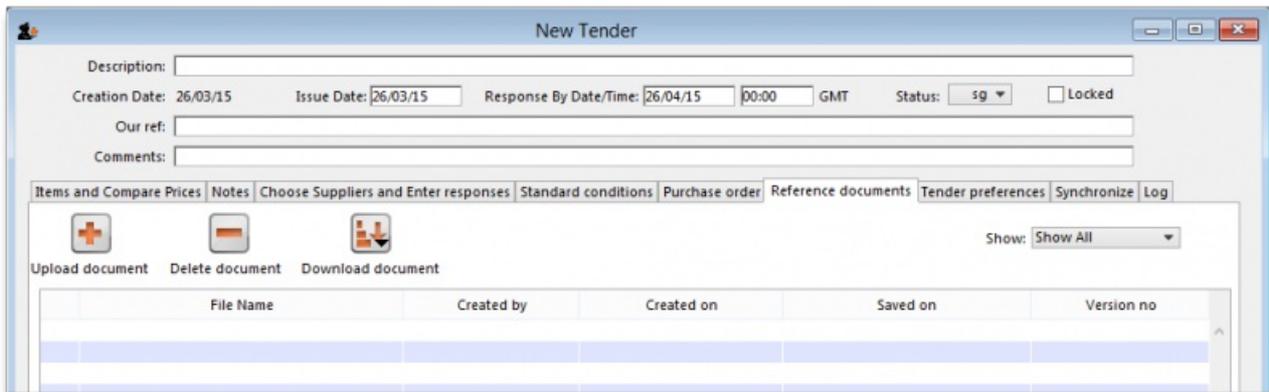
mSupply documentation wiki



18.05. Tender reference documents

While managing a tender, several documents may be consulted - for example, the quotations received from bidding suppliers, quality assurance documents, or pre-qualification documents. These documents, provided they are in electronic form (or have been scanned into electronic form if they were supplied as paper copies), may be uploaded and conveniently stored so that they may be readily consulted.

To access this functionality, open a tender by choosing **Supplier > Show Tenders...** from the menus and double-click on the tender you want (or create a new one) to add reference documents to. Finally, click on the **Reference documents** tab:



Upload document button: Click on this to store a document in the tender. You will be shown a window allowing you to browse to the required document. Double-click on the document or click on it and click the **Open** button to add it to the tender (called "uploading" it). Once it has been successfully uploaded it will appear in the list of documents below the buttons.

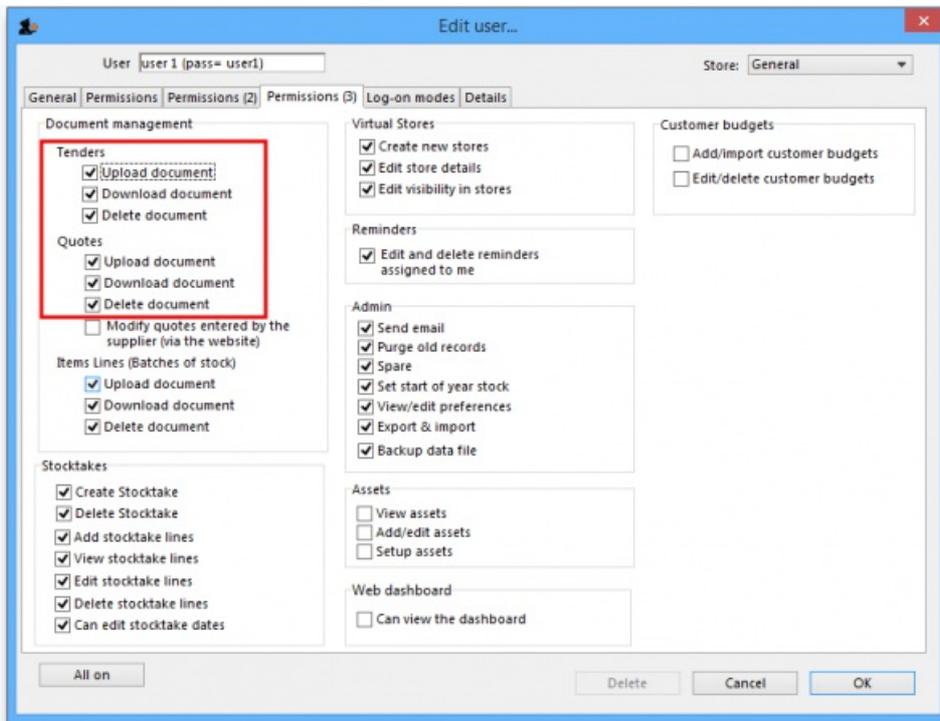
Delete document button: Click on a document in the list to select it and click on this button to delete the file and remove it from the tender. You will be asked to confirm the deletion.

Download document button: This will allow you to save one of the files in the list to your computer (called "downloading" it) so that you can view or edit it. Click on the file you want to view or edit to select it in the list then click on the **Download document** button. You will be shown two options: click on *Download* to just save the file on your computer or *Download and open* to save the file on your computer and open it for viewing or editing. A window will open for you to select the location to save the file on your computer. Browse to the folder you want to save it in then either double-click on the folder or click on it to select it then click on the **Open** button. The file will be saved in the location you chose. If you selected the *Download and open* option the file will also be opened for you to view or edit.

If you want any edits you make to the document to be saved to the tender, when you have finished editing, you must upload the edited version to the tender using the **Upload document** button. Don't forget or your edits will only exist on your computer, not on the tender! It is not necessary to change the document's name so that you don't overwrite the original, as mSupply will recognise that changes have been made, and will save it as a new version (and keep the old version too). The file's version number will appear in the *Version no* column. The **Show** drop down list above that column allows all versions to be displayed, or only the latest one.

Info

The ability of users to upload and download documents to and from tenders is covered by permissions. To set these permissions choose the **File > Edit users...** menu item, double-click on the desired user, and set their permissions on the *Permissions(3)* tab:



See [Managing users](#) if you need more detail.

Previous: [18.04. Adding supplier responses to a tender](#) | Next: [18.06. Benchmark prices for tenders](#)

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18.06. Benchmark prices for tenders

A benchmark price can be considered to be a standard price to which other prices can be compared once you are at the stage of evaluating quotations. mSupply provides the ability to set up benchmark prices to help you make such a comparison. This section describes how to set them up and how to use them.

Tip

The International Medical Products Price Guide, published and maintained by MSH, is available on their website (<http://mshpriceguide.org/en/home/>) and is a good source of information on medical products from a range of international distributors.

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- [Setting up](#)
- [Entering benchmark prices](#)
- [Setting up](#)
- [Entering benchmark prices](#)

Setting up

You need to create a dummy supplier, that is to say a 'virtual' supplier, whose only purpose is to store benchmark prices.

From the menu, or the Navigator, choose **Supplier > New supplier**

The screenshot shows the 'New supplier' form with the following fields and options:

- Name:** Code, Charge to, Name (all highlighted with red boxes)
- Master ID:** 0
- Master name:** (empty)
- Category:** Customer, Supplier (checked), Manufacturer, Benchmark (checked, highlighted with red box)
- Status:** Hold, Preferred
- Price Category:** A

mSupply® requires that the Code, Charge to and Name fields are completed, so you should choose appropriate entries. In the Category section, the checkbox *Supplier* should already be checked, and you must check the *Benchmark* checkbox.

You may set up more than one benchmark 'Supplier'

Entering benchmark prices

Once you have the required benchmark prices, they should be entered into mSupply, and here's how to do it:

Open the *Edit supplier window* for the Benchmark supplier and click on the *Quotes* tab

The screenshot shows the 'Edit Customer/Supplier' form with the 'Quotes' tab selected. The form has a table with columns 'Item' and 'Date'. There are buttons for 'New Quote' and 'Delete Quote'.

Click on the *New Quote* button to enter the benchmark figure for each item - in our example we're entering the details for Albendazole 400mg tablets:

Points to note:

- If the figure you have is for a single tablet, we suggest you multiply it by 100 and change the pack size to 100 to avoid working with very small figures.
- Make sure that the currency used for the entry is correct, remembering that it might be different from your default currency.
- Make sure that your pack size matches the pack size of the benchmark figure.

Once a number of entries have been made, the window may appear like this:

Item	Date	Cu...	Rate	Price	Pac...	Freight	Strip	Cost	Adj Cost	Preferred	Valid Until	Manufact...
Amoxicillin 250mg cap	26/08/2010	USD	1.3890	2.00	100	1.00	<input type="checkbox"/>	2.77	0.0277	<input type="checkbox"/>	31/10/201	
Ciprofloxacin 250mg tab	26/08/2010	USD	1.3890	2.50	100	1.00	<input type="checkbox"/>	3.47	0.0347	<input type="checkbox"/>	31/10/201	
Ferrous Sulphate 200mg tab	26/08/2010	USD	1.3890	0.20	100	1.00	<input type="checkbox"/>	0.27	0.0027	<input type="checkbox"/>	31/10/201	
Gentamicin 80mg/2ml amp	26/08/2010	USD	1.3890	0.10	1	1.00	<input type="checkbox"/>	0.13	0.1389	<input type="checkbox"/>	31/10/201	
Ibuprofen 200mg tab	26/08/2010	USD	1.3890	0.55	100	1.00	<input type="checkbox"/>	0.76	0.0076	<input type="checkbox"/>	31/10/201	
Metronidazole 200mg tab	26/08/2010	USD	1.3890	0.50	100	1.00	<input type="checkbox"/>	0.69	0.0069	<input type="checkbox"/>	31/10/201	
Prednisolone 5mg tab	26/08/2010	USD	1.3890	0.60	100	1.00	<input type="checkbox"/>	0.83	0.0083	<input type="checkbox"/>	31/10/201	
Salbutamol 100mcg/puff aerosol	26/08/2010	USD	1.3890	1.80	1	1.00	<input type="checkbox"/>	2.50	2.5002	<input type="checkbox"/>	31/10/201	

You will note the difference for each item in the Price column and the Cost column; the explanation is that the default currency in this example is AUD (Australian dollars), while the benchmark figures are in US dollars; the Cost (and Adjusted cost) columns show the figures converted by mSupply to their AUD equivalents.

Using the benchmark figures when evaluating submitted quotations from suppliers is discussed [here](#)

Previous: [18.05. Tender reference documents](#) | Next: [18.07. Analysing supplier responses and creating purchase orders](#)

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18.07. Analysing supplier responses and creating purchase orders

Review

At this stage you should already have performed the following:

1. Created a new tender
2. Quantified how much you need to order and added these lines and quantities to the tender
3. Decided which suppliers should be invited to tender, and added them to the tender
4. Sent out the tender and invitation to take part to the suppliers you selected
5. Entered responses to your tender (quotations) from suppliers

Having performed these steps, your tender should be set to confirmed status and you are ready to compare the prices quoted, and decide upon a preferred supplier for each item.

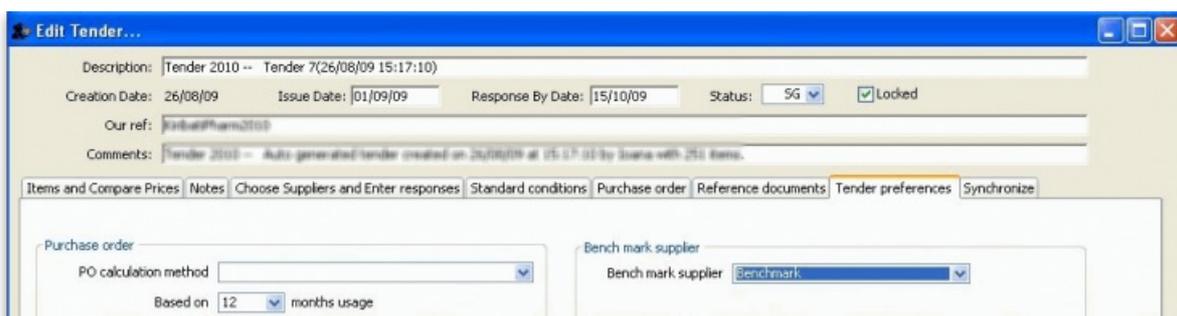
Benchmark supplier

Before analysing the various responses to your tender, you may wish to set one of the suppliers to be a benchmark (or maybe you had specifically added a dummy benchmark supplier to the tender and added benchmark prices in their quote). If you do this, mSupply will indicate how much higher or lower than the benchmark supplier's quote, all the other suppliers' quotes are. It can be a handy indicator to help the analysis process.

To set a benchmark supplier, open the tender (choose **Supplier > Show Tenders...** from the menus and double-click on the tender in the list) and on the *Tender preferences* tab, in the *Benchmark supplier* section select the desired benchmark supplier in the Benchmark supplier drop down list:

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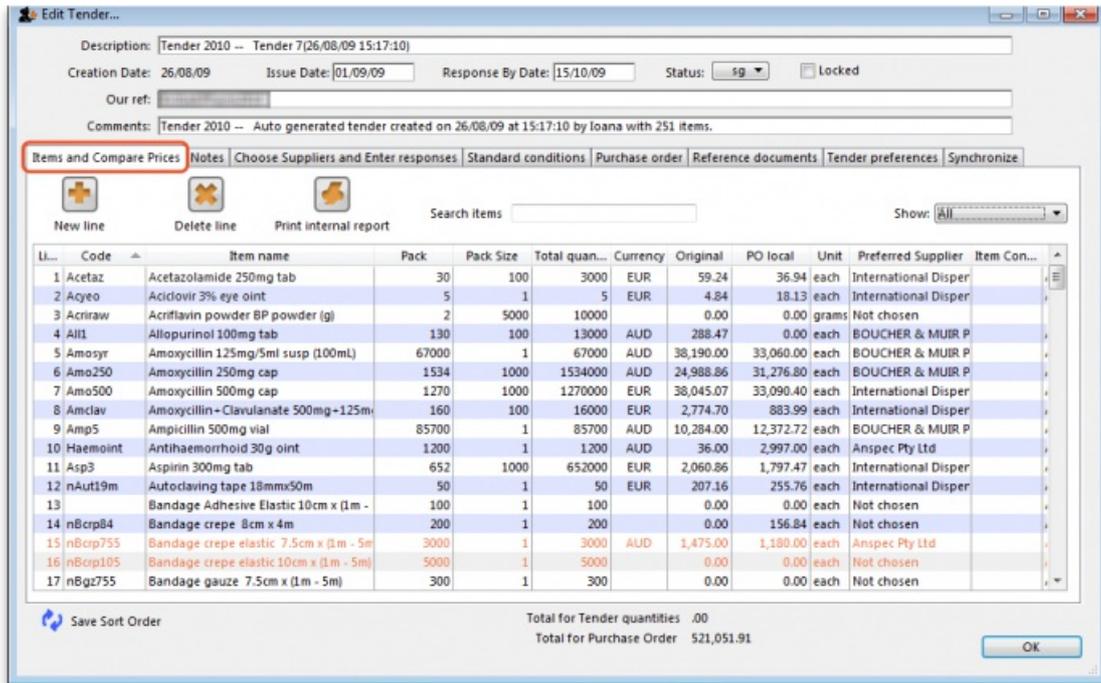
- Review
 - Benchmark supplier
 - Analysing the responses
- Back to the Items and compare prices tab
- Back to the Choose suppliers and enter responses tab
- Reports
- Setting up purchase order (PO) preferences
 - Creating purchase orders with split deliveries
 - Creating purchase orders without split deliveries (single delivery)
 - Viewing tender purchase orders
 - Editing purchase order quantities
 - Converting to a "normal" purchase order
 - Finalising a tender
- Review
 - Benchmark supplier
 - Analysing the responses
- Back to the Items and compare prices tab
- Back to the Choose suppliers and enter responses tab
- Reports
- Setting up purchase order (PO) preferences
 - Creating purchase orders with split deliveries
 - Creating purchase orders without split deliveries (single delivery)
 - Viewing tender purchase orders
 - Editing purchase order quantities
 - Converting to a "normal" purchase order
 - Finalising a tender



For more details on using benchmark price see [Using benchmark prices](#).

Analysing the responses

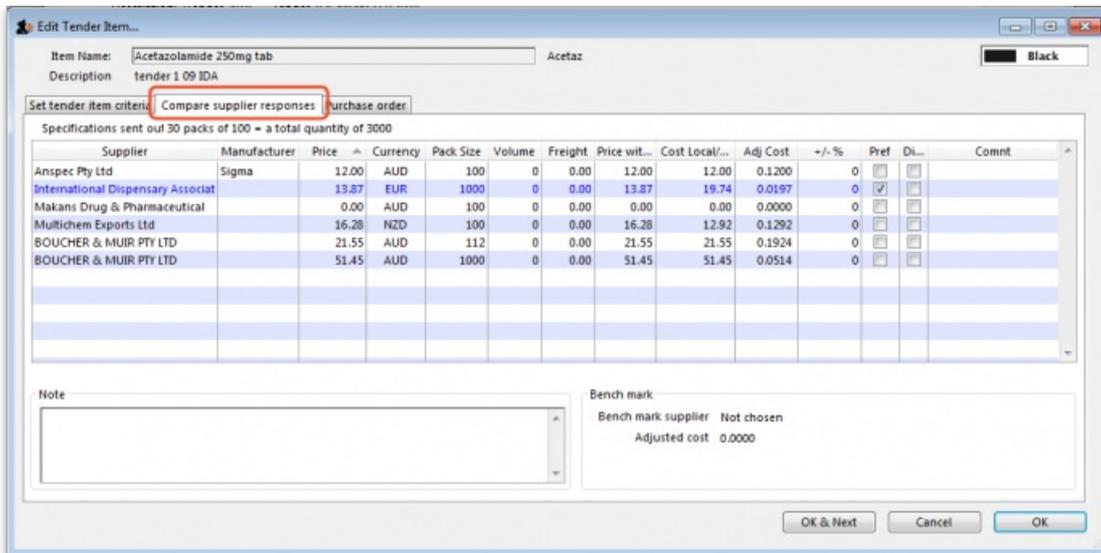
Once you have the tender open (choose **Supplier > Show Tenders...** from the menus and double-click on the tender in the list), select the **Items and compare prices** tab:



Info

Note that mSupply will remember any changes you make to the widths of the columns on this tab. This can be very useful if you want to minimise columns you are not interested in to make room for other, more important columns over several sessions to select the winning bids.

Then double-click the first item in the list, which in our example is Acetazolamide 250mg tablets, to bring up the *Edit tender item window*, which opens at the *Compare supplier responses* tab:



In our example, 5 suppliers have been invited to tender, and 4 have submitted tenders, one supplier having submitted prices for two different pack sizes. One supplier has not submitted a quotation, so all the entries for that supplier are zero.

The important column is the *Adj Cost* column, this allows you to compare prices which have been evened out to cater for differences in pack sizes, currencies and freight costs. mSupply makes it easy to identify the lowest price quoted because it appears in blue type. Clicking the *Adj Cost* column header will sort the entries so that the cheapest one appears at the top of the list.

If a benchmark supplier had been selected then the +/-% column would display what percentage above or below the benchmark supplier's quote that particular quote was. A negative value indicates that the quote is below the benchmark quote, a positive value that it is above. e.g. a figure of -2.78% would mean that the quote was 2.78% less than the benchmark quote.

If you want to highlight any particular line for any reason, you can change its colour by clicking on it in the list to select it then selecting the desired colour from the **colour** drop down list (currently showing "Black" in the screenshot) in the top right hand corner.

Note that if you want historical data of all previous stored quotes for an item, including those from previous tenders, this is available by choosing **Items**

> **Show items...** from the menus, locating the item, then viewing the *Quotes* tab.

Before marking the supplier of the cheapest item as the preferred supplier, there are other factors to be considered, including:

1. Has the supplier met all the tender conditions?
2. Is the proposed delivery schedule acceptable?
3. Is the product being supplied by a reputable manufacturer?

The **Disqualified** column allows you to disqualify the quotation from a particular supplier if required by checking the box in the relevant row.

Tip

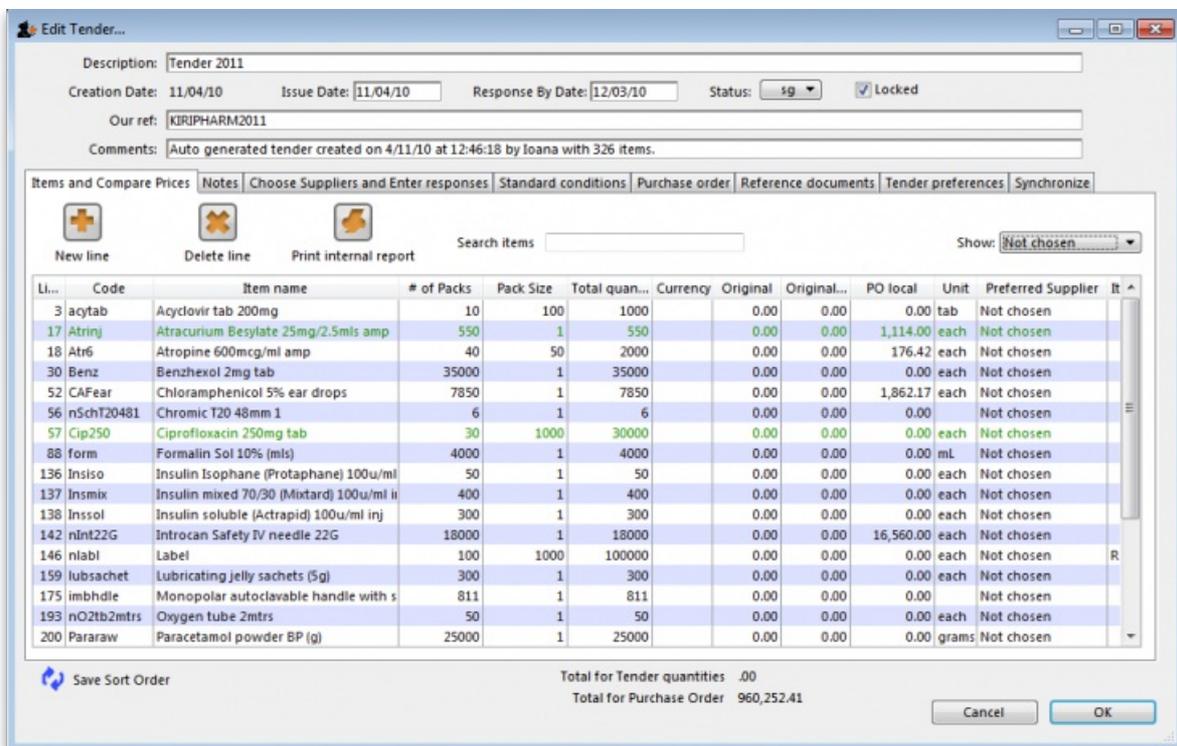
If you want to see more information about a particular quote line, double-click its row to open the *Edit quote line* window to view all the details of the quotation (and edit it too - useful if you discover a data entry error, for example). You may want to fill out the *Quote Comment* to record any decisions you made e.g. reason for disqualification.

When you have decided on a supplier for an item, check the box in the **Preferred** column in the row for that supplier. Proceed to the next item by clicking the **OK & next** button and repeat the process. When you have finished, click the **OK** button to return to the *Edit Tender* window.

It is, of course, not necessary to complete the selection of preferred suppliers at one session on the computer; it can be done in stages. Actually, you don't have to select preferred suppliers for all items before you complete the tender; you may want to wait for more favourable market conditions before purchasing some items, for example.

Please also note that all changes to tender lines are **logged** by mSupply.

Here is an example of a tender that has been partially processed, looking at the *Items and Compare prices* tab:



LI...	Code	Item name	# of Packs	Pack Size	Total quan...	Currency	Original	Original...	PO local	Unit	Preferred Supplier
3	acytab	Acyclovir tab 200mg	10	100	1000		0.00	0.00	0.00	tab	Not chosen
17	Atrinj	Atracurium Besylate 25mg/2.5mls amp	550	1	550		0.00	0.00	1,114.00	each	Not chosen
18	Atr6	Atropine 600mcg/ml amp	40	50	2000		0.00	0.00	176.42	each	Not chosen
30	Benz	Benzhexol 2mg tab	35000	1	35000		0.00	0.00	0.00	each	Not chosen
52	CAFear	Chloramphenicol 5% ear drops	7850	1	7850		0.00	0.00	1,862.17	each	Not chosen
56	nSchT20481	Chromic T20 48mm 1	6	1	6		0.00	0.00	0.00		Not chosen
57	Cip250	Ciprofloxacin 250mg tab	30	1000	30000		0.00	0.00	0.00	each	Not chosen
88	form	Formalin Sol 10% (mls)	4000	1	4000		0.00	0.00	0.00	ml	Not chosen
136	Insiso	Insulin Isophane (Protaphane) 100u/ml	50	1	50		0.00	0.00	0.00	each	Not chosen
137	Insmix	Insulin mixed 70/30 (Mixtard) 100u/ml i	400	1	400		0.00	0.00	0.00	each	Not chosen
138	Inssol	Insulin soluble (Actrapid) 100u/ml inj	300	1	300		0.00	0.00	0.00	each	Not chosen
142	nInt22G	Introcane Safety IV needle 22G	18000	1	18000		0.00	0.00	16,560.00	each	Not chosen
146	nlabl	Label	100	1000	100000		0.00	0.00	0.00	each	Not chosen
159	lubsachet	Lubricating jelly sachets (5g)	300	1	300		0.00	0.00	0.00	each	Not chosen
175	imbhdie	Monopolar autoclavable handle with s	811	1	811		0.00	0.00	0.00		Not chosen
193	nO2tb2mtrs	Oxygen tube 2mtrs	50	1	50		0.00	0.00	0.00	each	Not chosen
200	Pararaw	Paracetamol powder BP (g)	25000	1	25000		0.00	0.00	0.00	grams	Not chosen

Two of the lines have been changed to a green colour and the **Show** drop down list just above the list of items has been changed to "Not chosen" so that it displays all the items for which a preferred supplier needs to be chosen - helpful for seeing what still has to be done!

If the **Show** drop down list is changed back to "All", all items will be displayed in the list, with the name of the Preferred supplier column for each line shown in the *Preferred Supplier* column.

Back to the Items and compare prices tab

Once you have finished editing, click **OK** (or **Cancel** if you want to close the window without saving changes to the current tender line).

The column **Preferred Supplier** will now display either the name of the supplier you have chosen or **Not chosen** where you have not yet processed the item.

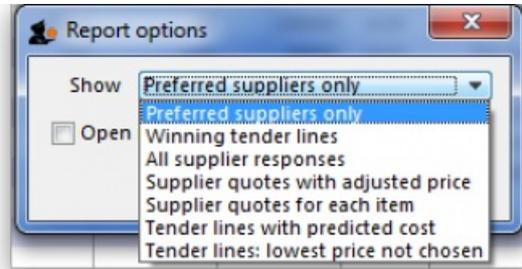
The **Original** column will display the cost of that line if you purchase the tender quantity of that item from the preferred supplier in the currency quoted (The **Original Local** column displays the cost in the local (default or home) currency you are using in mSupply). Note that you might end up editing the quantity on the purchase order to a different value, and then the **PO local** column will have a different value.

Back to the Choose suppliers and enter responses tab

Just before you create purchase orders for the winning suppliers you might like to see the value that each supplier has won. To do this, click on the *Choose Suppliers and Enter responses* tab and the total value that each supplier has won (i.e. the total value of all the lines where they were selected as the preferred supplier) will be shown in the *Tender value* column. The total amount that each supplier bid will be displayed in the *Total bid* column.

Reports

You might need to provide reports to a tender board, or for internal records. The tender module has several reports built in, accessed by clicking on the **Print internal report** button on the *Items and compare prices* tab of the tender details window. Clicking on the button displays this window with a drop down list of reports to choose from:



Winning tender lines: Shows all the items in the tender which have been allocated a preferred supplier and the costs of those lines. This is an example:

Tendered item	Num of Packs	Packsize Name	Quoted packsize	Supplier currency	Quoted price	Total fc	Total local currency
ALLOPURINOL 100MG TAB	40	100 Multichem Export NZ	100	NZD	2.89	115.8	9321.9
AMIODARONE 50mg/1ml INJ	2	5 Multichem Export NZ	5	NZD	41.55	83.1	6689.55
FRUSEMIDE 40mg TABLET	80	1000 Multichem Export NZ	1000	NZD	18.68	1494.4	120299.2
GLYCERYL TRINITRATE 5mg PATCH	15	20 Multichem Export NZ	20	NZD	20.11	301.65	24282.83
SCALPEL BLADE 20	20	100 Multichem Export NZ	100	USD	5.00	100	10114
SCALPEL BLADE 22	12	100 Multichem Export NZ	100	AUD	5.00	60	5502
TUBE ENDOTRACHEAL 3.5mm	60	1 Multichem Export NZ	1	USD	1.63	97.8	9891.49
TUBE ENDOTRACHEAL 4.0mm	60	1 Multichem Export NZ	1	USD	1.63	97.8	9891.49
TUBE ENDOTRACHEAL 7.0mm	100	1 Multichem Export NZ	1	USD	1.63	163	16485.82
TUBE ENDOTRACHEAL 7.5mm	200	1 Multichem Export NZ	1	USD	1.63	326	32971.64
X-RAYS GAUZE ROLL	7000	1 Multichem Export NZ	1	USD	0.57	3990	403548.6
						Total Local	648998.52

Supplier quotes for each item: Shows quotes from all suppliers for all items, grouped by item. Handy for a summary of all received quotes.

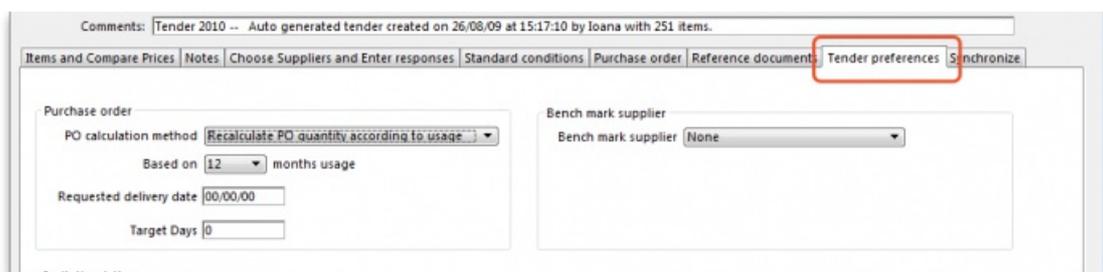
Tender lines with predicted cost: Can be used to give an approximate cost of the tender before choosing preferred suppliers for all items has been completed. Where items have not been allocated a preferred supplier, mSupply will use previous purchase costs as an estimate of what the cost will be in this tender.

Tender lines: lowest price not chosen: Shows all tender lines which have been chosen as the winning bid when their price was not the lowest. Summary detail shows how much more you will pay than choosing the cheapest lines.

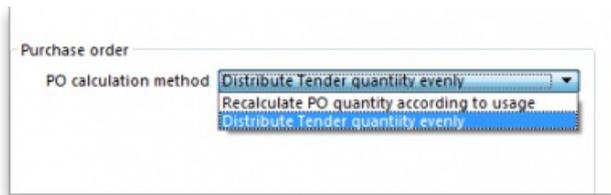
Setting up purchase order (PO) preferences

Once the choice of preferred supplier has been made for all the items you want to purchase in the tender, the next stage is to generate the Purchase Orders.

Click on the **Tender Preferences** tab on the **Edit Tender** window:



mSupply offers two options for creating Purchase Orders:



1. *Recalculate PO quantity according to usage* should be chosen if you wish mSupply to take into account the usage during the period since the tender was generated; this may be significant depending on the length of that period of time.
2. *Distribute Tender quantity evenly* should be chosen if you wish to make no changes to the quantities calculated at the time the tender was generated.

For our example, we are choosing *Distribute Tender Quantity evenly* because we are content with the quantities which mSupply has calculated and we do not want to make any adjustments. In this case, the **Based on** field should be ignored.

Split deliveries

If you want to receive split deliveries, then mSupply will create multiple purchase orders for you, each with a different requested delivery date.

Important

mSupply will behave differently when creating Purchase Orders depending on whether this option is checked or not.

Note that the creation of purchase orders from tenders will be [logged](#) by mSupply.

Creating purchase orders with split deliveries

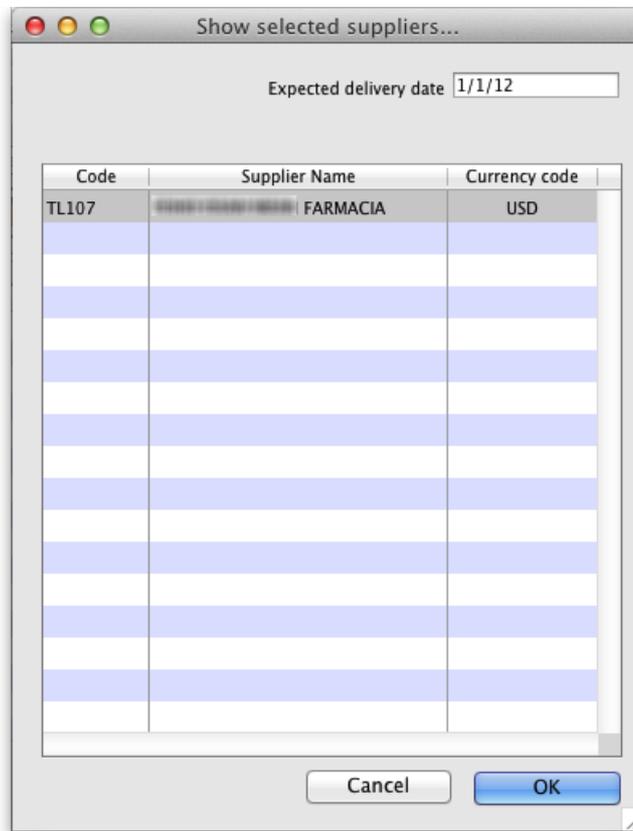
1. Go to the **Purchase Orders** tab
2. If you have checked the "Split deliveries" checkbox in the preferences for this tender, the first button on the toolbar will be **Create blank POs**.



You will need to confirm that this is what you want to do by clicking the **Yes** button on the confirmation window which appears:



You are then shown a list of suppliers:



Click on the supplier(s) you want to add, and enter the requested delivery date, then click **OK**.

You will need to add each supplier twice if there are to be 2 deliveries, or 3 times for 3 deliveries (etc) Make sure you get the delivery date right for each one.

You can double-click an already entered line to change the delivery date.

Use the **Delete PO** button to remove a purchase order (highlight to one(s) to delete before clicking the button).

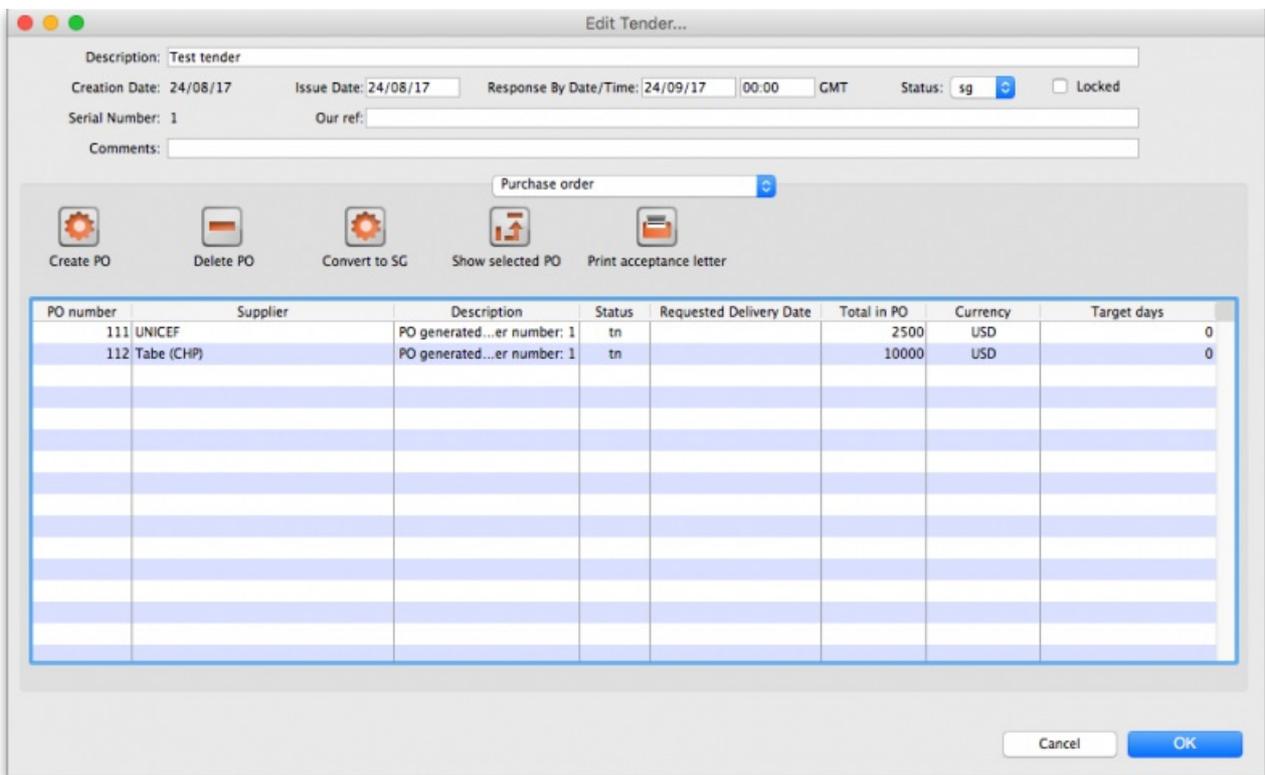
Creating purchase orders without split deliveries (single delivery)

If you aren't creating split deliveries, the first button will be labelled **Create PO**

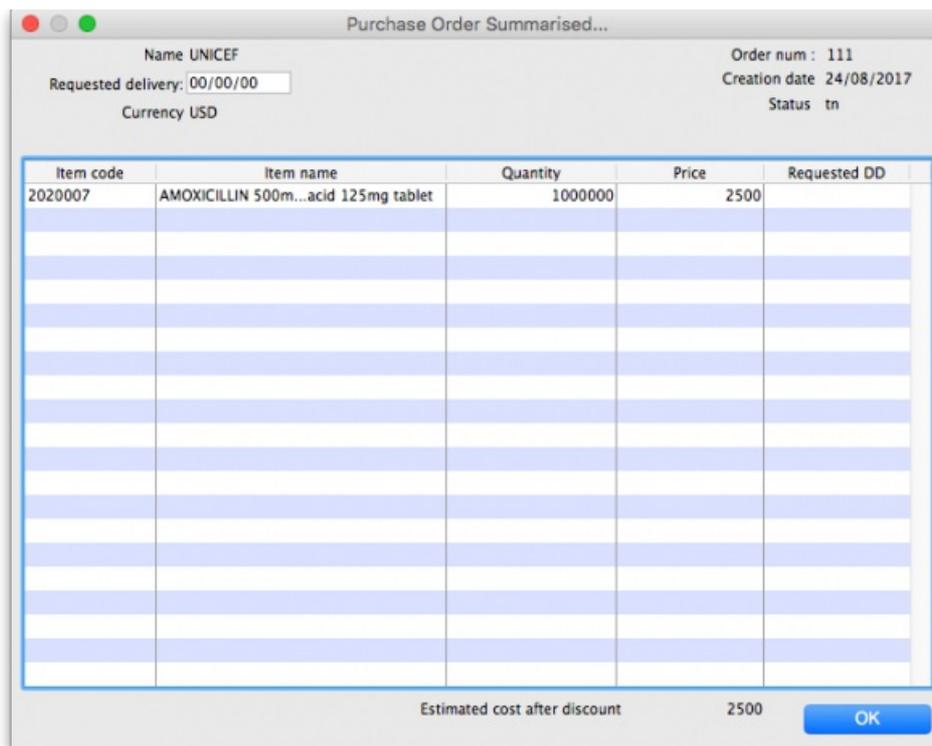
1. Click this button, and the needed Purchase orders will be created.
2. Double-click a row to see the order.
3. Return to the "Suppliers" tab if you want to see the value of the purchase orders in total.

Viewing tender purchase orders

When you have created purchase orders in a tender you can view them at any time by clicking on the **Purchase order** tab which will look like this:



To see the details of the items on any of the purchase orders in the list, simply double-click on the purchase order's line in the table and you will be shown the details in a window which looks like this:



Editing purchase order quantities

Once you have created Purchase orders you might want to edit some quantities (for example, you might want the first of two purchase orders for a supplier to have 60% of the total order, and the second purchase order only 40%)

1. Go to the "items and compare prices" tab
2. Double-click a line to edit
3. Go to the **Purchase Order** tab.
4. You will see your purchase orders for that item.
5. To edit the first row, click once on the quantity, wait 2 seconds and click again.
6. You can now change the quantity.
7. Use the tab key to advance to edit the quantity of the second row, etc.

Converting to a "normal" purchase order

While a purchase order is being created and edited inside the tender module, it has the status of "tn" and isn't visible in the same way that purchase orders created outside the tender module are. Purchase orders that are visible in the main mSupply system have a status of "sg" (or "cn" or "fn"). Once you are satisfied with your purchase order in the tender module do this:

1. Go to the purchase orders tab
2. Click on a purchase order to convert (only one at a time at the moment, sorry)
3. Click **Convert to SG**
4. Confirm the warning window, and the purchase order will now:
 - a. no longer be editable in the tender module
 - b. be available using **Suppliers > Show Purchase orders** from the mSupply menu or navigator.
5. Repeat the process with other purchase orders that are ready to send to a supplier.

You can now view the purchase order, confirm it, and send to a supplier - see [Purchasing: Ordering from Suppliers: Viewing a purchase order](#).

Finalising a tender

This should be done when all processing of the tender is complete and the purchase orders have been created and sent to the suppliers. The tender will not be editable after this so PLEASE make sure you are sure that all processing is complete!

Important

When you finalise a tender you will be warned if there are no Purchase orders associated with it because you won't be able to create them later!

Previous: [18.06. Benchmark prices for tenders](#) | Next: [18.08. Supplier instructions for using tender submission web interface](#)

Last modified: 2021/10/08 09:39 by Gary Willetts

18.08. Supplier instructions for using tender submission web interface

Introduction

This user guide explains how to use the web site at <https://tenders.msupply.org.nz> that is used by mSupply users to publish tenders. It is only relevant if you are a supplier who has been invited to tender by a user of this system. If you have been invited to tender and have questions that are not answered in this document, you may request support by emailing tender_support@msupply.org.nz.

Important

- **Save the login credentials.** The login credential for the website does not change. Once received, it is the responsibility of the supplier to securely save or note down the login credential for future tender participation.
- **Don't wait until the last minute.** Many suppliers have left the entry of tender till the last moment, not followed instructions correctly, and bombarded Sustainable Solutions with support requests during the last 24 hours of the tender closing. **Please** do not do this.
 - Please carry out a dummy run of entering lines and saving. You can change your entries later before finalising the tender. This will allow you learn how the system works without the pressure of a submission deadline.
 - If you choose to populate the tender with an uploaded file, that too should be tried out in advance and not left till the last moment. The instructions need to be followed carefully. - Refer [Uploading prices](#).

How it works - a summary

1. The Client prepares tender documents and distributes them by email to suppliers.
2. Each Supplier receives details, including a username and password, for accessing the secure website where the tender is to be found.
3. The password provided is valid only for the first time the website is accessed, so the supplier's first action will be to change it.
4. During the period between receiving the tender document and the tender's deadline, the supplier decides on the bids to be submitted, and enters the details on line. This may be done over multiple sessions.
5. Before the deadline, the supplier finalises the bid; this action is not reversible and prevents any further changes being made. The status is changed from "SG" (suggested) to "FN" (finalised).
6. Once the deadline has passed, the client will access all quotations which have been finalised, evaluate them, and notify successful suppliers.

How it benefits suppliers

- Accuracy: you can be confident that the information entered by you will be accurately transferred. Manual systems are prone to transcription errors in the price, pack size, currency, etc.
- Speed: while the tender process may be slightly slower for the supplier, the time between tender closing and bid evaluation is dropped from weeks to one or two days. This means tender closing dates can be moved closer to the date on which suppliers are notified of winning bids, benefiting all involved.

Costs

- There is no charge to suppliers to use the system. Development and maintenance costs are covered by software support contracts with mSupply users.
- Due to a steady stream of requests for help for issues that are covered in this guide, or issues that are not a system issue (e.g. password reset requests and requests for help with uploading bids where the

instructions for formatting the file to be uploaded have not been followed), we will charge for support requests if it relates to such issues.

Security

- We take the security of this module seriously.
- Only https (secure) website access is allowed: observe the closed padlock icon in the corner of your browser. This means that no-one can read the interactions between you and the tender server.
- Automatic disconnection: should there be no activity after a short time, you are required to confirm that you are still working on the website. In the absence of such confirmation you are disconnected and the login screen reappears.
- One-time password: the password provided for the first time you access the website is valid only for that first occasion. You must change it to a password of your own choosing for continued access to the website.
- The server running the Tender Management System is managed by Sustainable Solutions and is accessible by us alone. We know this system will only be successful if we maintain the highest standards of ethical, impartial behaviour and keep your data secure and accessible only to authorised parties.
- Restricted access by IP address: if you wish to limit access to your online account to users within your office, let us know an IP address or subnet that you will use and we will put this restriction in place until you instruct us to remove it.
- We track the IP address of all log on attempts. Repeated attempts from the same IP address will be blocked.
- We have coded the software carefully to ensure that supplier information entered is only available to that supplier and to the customer (obviously once the customer downloads the submitted bids, we can not control the information flows outside of our system).
- All emails sent by the tender module are sent by SSL (Secure Socket Layer) for added security.

First logon

Log on to <https://tenders.msupply.org.nz> and this is the window which appears when you log on



You should enter your supplier code and password, both of which were sent to you by email.

You will immediately be shown the window for changing your password:

In the Old Password field you should enter the password sent to you by email. You must then enter a password of your own in the New Password field, re-entering it in the Confirm Password field; when you have done this, and clicked on OK, the standard log on window appears again, and you should enter your user name and the password which you have just created. You will now be logged on to the system, and these are the details you will use for logging on in future..

Note that the web site uses a large Javascript library, so will take a few moments to load the first time you use it. In return you get a fast and easy-to-use interface.

If you have chosen to do so in the preferences, each time you log in, you will be sent an email saying that you logged in to the web interface - this means if someone else was to log in to your account, you would know about it.

Staying logged on

If no user activity is detected for a few minutes, as a precautionary measure to restrict unauthorised access, a window appears. You need to click **Keep Working**, otherwise you will be logged out.

Once you have logged on, you will be shown a list of tenders for which you have been invited to submit quotations.

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Customer	Closing Date	Description	Tender Status	Quote Status	Message from Client
Namaste Medical St...	Tue, 21 Dec 10 18:15:00 GMT	tender for practice only	sg	SG	
Namaste Medical St...	Tue, 11 Oct 11 18:15:00 GMT	practice tender	sg	SG	
Namaste Medical St...	Tue, 11 Oct 11 18:15:00 GMT	practice tender_110912	sg	SG	
Namaste Medical St...	Thu, 17 Nov 2011 18:15:00 G...	Local Test - Paul	sg	SG	

The example shows that 4 tender documents from client Namaste Medical Stores, have been uploaded and await the supplier's attention.

My Information button

Clicking the **My Information** button displays this window:

User Information
X

General Information
Show my quotes Log

Supplier Information

Master Code:

Name:

Default Currency: ▼

Inactivity Time: ▼ min

Send e-mail notification on successful log-in

User Info

User Name:

Current Password:

New Password:

Confirm Password:

Address

Address 1:

Address 2:

Country: ▼

Contact Address

Email:

Phone:

Mobile:

WebSite:

This is where the supplier's details held on the server are entered and stored, and this is also where they can be edited. Those details include name, address, contact details, and the default currency for this supplier.

Default currency The default currency is that currency in which the you normally supply quotations - in the example shown, it is Singapore dollars, and this will normally remain unchanged for a particular supplier; suppliers located in another country are likely to use their own country's currency as their default one.. In the case where a supplier submits a quotation with one or more lines quoted in another currency - e.g. Euros or US dollars - the particular currency used is entered on the appropriate line of the quotation Note that changing your default currency will affect new quotations, and won't have any affect on existing quotations.

Inactivity time This is the length of time in minutes after which you will be logged out if there is no activity. 10 minutes is the default but you can choose from between 1 and 60 minutes.

Email me manufacturer list As the name suggests, this will email an Excel file with the complete list of manufacturer names and their corresponding codes to the email address specified. If you want to take advantage of the new facility to upload a quotation as an Excel file, you will need to use the manufacturer codes specified in this list.

currency beginning with that letter. The list is in alphabetical order so it should make it easier to find.

Show button: displays the whole of the customer's comment if they've entered one. May contain useful information for you.

Edit button: Displays a window to enable you to enter or edit a longer tender comment for the customer (the one who invited you to tender). Any information you want to convey to the customer about your quotes can be put in here. Note: you also have the opportunity to enter comments on individual quote lines. See Entering prices section below.

Duplicate button: Duplicates a selected quote line. Will put the new quote line at the top of the quote. Helpful if you want to enter a quote for the same item but with slightly different details. If you need to do this for many items, use the Upload button mentioned below.

Show totals button: Shows the total value of your quote for each currency you've included in your quote.

Reset lines button: Removes any changes you have made to the selected quote lines.

Email me this quote button: Sends you a copy of your quote as it currently stands. It will be sent to you as Excel file attachment to an email.

Email me a quote template button: Sends you a copy of the tender with all items included with no price or other information added. This is the perfect thing to use as a base for your quote if you are going to create it in a spreadsheet and upload it using the upload button (see below).

Browse button: Allows you to select an Excel file to upload as your quote.

Upload button: Uploads the selected Excel file as your quote (see the Uploading prices section below).

Entering prices

To enter the details for a line, double click on the line.

Details should be entered in each of the columns:

Item code, name and quantity These are fixed by the tender and cannot be changed.

Pack size The pack size requested by the customer is already on the form; if needed, it can be changed.

Price per pack The unit price of the pack you are offering to supply in the chosen currency.

⚠ Important

Cost Including Freight (CIB): The quoted price should include international freight charges.

Expiry date and delivery time When completing these fields, it is suggested that a series of abbreviations be used:

- min = minimum
- max = maximum
- w = week
- m = month
- y = year
- So for example, if you want to indicate a delivery time of 3 months, enter "3m"

⚠ Important

Delivery times should be specified from when you receive the purchase order, so must also include the time for order compilation by the supplier

The tender document is likely to specify minimum expiry dates, but it is important that there should be no misunderstandings. Delivery time is understood to mean the estimated period of time between the consignment leaving the supplier's premises and delivery to the customer.

Currency: The relevant currency should be selected from the drop down list - it doesn't have to be the same as the default currency. If you're struggling to find the right currency from the list, type the first one or 2 letters of the currency you want - should make it easier to find.

Manufacturer: The name of the manufacturer should be chosen from the drop-down list. Typing the first few characters of the manufacturer's name will show a list of matching manufacturers. Click to select one.

Manufacturers are not linked to suppliers in our system, so multiple suppliers who source goods from the one manufacturer do not cause a problem.

⚠ Important

Problems saving entered data ? : Simply entering price and saving is not sufficient. The website will not save the row of data. The Manufacturer column must also be filled with a valid manufacture. If you choose to not to specify a manufacture then simply choose : "Not Specified" as the options.

Adding new manufacturers into the tender module

Due to the desire of mSupply users to collate manufacturer data, you cannot enter manufacturer names yourself. If you want to have a manufacturer added to the list, please email to tender_support@msupply.org.nz and we will add the name(s) within 24 hours.

Please submit Manufacturers in the following manner:

The country where the manufacturer is based must be specified. The address column is optional.

If you have more than 5 manufacturers to add then it may be worth creating and a spreadsheet with the column headings described below, then sending to us as an attachment:

Manufacturer	Country	Address (optional)
John Western Pharmaceutical	US	32 Obama Road, Virginia
Jürgen Klinsmann Group	Germany	Göppingen, West Germany
Universal Supplies	Great Britain	

If you do not want to or cannot specify the manufacturer, choose the entry 'Not specified' from the list. You may wish to add a comment to that quote line to explain your entry. **Alternatively you can specify the manufacturer in the comment column if the manufacturer is not in the list provided and if you have run out of time for the manufacturer list to be updated.**

Country of Origin: Some tenders require you to specify country of origin instead of manufacturer. Common countries are specified in the Manufacturer list, so you can just choose a country rather than a specific manufacturer if you wish.

Comment: Use this column for entering any comment or note you may wish.

Once you have made all the entries for a row, click **Save** to update the tender document with the details you have entered. It is quite possible that you will not have all the necessary information to complete a tender document at a single session; this is not a problem - just close the document at the stage you have reached and later, once you have the further information you require, reopen the document and continue with the process.

Submitting multiple quotations for the one item If you wish to do this, then select the line you wish to submit a second (or third) price for and click the 'Duplicate' button in the toolbar. Fill in the details of the second quotation.

Tender conditions Some tenders may have more restrictive conditions than the web site allows for. For example, a tender may specify only one currency, or that multiple quotations for the same item are not allowed. Currently the web site will NOT reflect such conditions, and it is your job to read the tender conditions and respond accordingly.

Uploading prices

This facility allows you to upload an *.xlsx file containing a header line and one or more item lines for your quotation. The template for the *.xlsx spreadsheet is provided with your invitation to tender.

ⓘ Info

As of August 2019, spreadsheets are now provided and to be uploaded in *.xlsx format.
You can use Microsoft Office or the Free Libre Office.

Preparing the quotation file

You can download a suitable template for your quotation file by clicking the 'Email me a quote template' button on the top-right of the tender items window. This file will have the first four columns pre-filled for your convenience and is the best way to start if you intend to upload your quotes.

The file should be in *.xlsx format, having the following 10 columns:

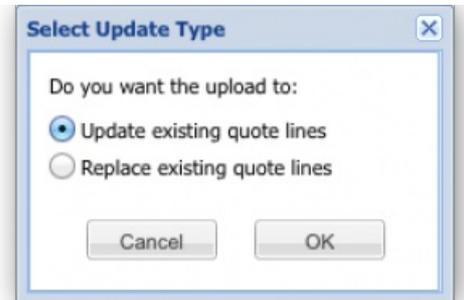
- Item code
- Item name
- Quantity
- Pack size
- Currency (in 3 letters international code format: e.g. AUD USD EUR)
- Price per pack
- Expiry date
- Delivery time
- Manufacturer code (as per the manufacturer code list you can download from the "My info" button when logged in)
- Comments

Please note:

1. The Item Name and Quantity columns are only included for the sake of human readability, and will be ignored
2. This table uses the manufacturers **code** rather than the manufacturers name (the code is shorter so less likely to make mistakes)
3. You can download a manufacturer list of names and codes from the 'My information' page (see the 'My Information button' section above)

Uploading the quotation file

First of all, you need to select the file that you wish to upload by using the Browse button on the far right of the tender items window. The selected filename will then be visible in the text field to its left. Then click on the Upload button and you will be presented with the following window:



Update existing quote lines: Select this if you want the contents of the file to update quote lines already in the tender. Note that information will only be updated for items in the tender where the current price for the line is 0. If a line in the tender has a non-zero price any line in the file with details for that item will be ignored. So, if you want item lines to be updated by the contents of the file reset their prices to 0 before you carry out the upload. Note also that if there is more than one matching zero-price tender item line with the same item code, then it will select the first match it comes to i.e. the system will cope with multiple quote lines for the same item. Therefore, if you want to upload multiple lines for an item, you need to duplicate that line in the tender first (using the *Duplicate* button on the toolbar) before uploading the file.

Replace existing quote lines: Select this if you want the contents of the file to replace everything already in the tender. All your existing lines will be deleted from the tender and the contents of the upload file will be entered into the tender. Note that if there are multiple lines in your upload file with the same item code this method will put them all into the tender. This is helpful if you keep your Excel file as a master copy and use it to update your quotes. And also means that you can easily input multiple quotes for the same item (with different pack sizes or manufacturers, for instance - but mSupply won't check so the multiple lines could be identical if you wish).

Click on the *Cancel* button to cancel the upload or the *OK* button to continue.

Having clicked on the *OK* button you will, after a short while, get a confirmation that the upload was successful and the list of displayed tender items will be updated to reflect the data that has just been uploaded.

Please note the following points regarding the file upload process:

- Only Excel files (extension of '.xlsx') smaller than 1Mb are accepted.
- Currently, the only web browsers which fully support file upload are Firefox and Chrome. The next versions of Safari and Opera are also planned to include support for this new HTML5 feature.
- A successful upload message does NOT imply that the contents of the file are valid, simply that it has been processed. An email will be sent to your email address, with two attachments:
 - A text file which contains the output generated from the upload process i.e. the number of records which were successfully processed, and any error messages generated during the upload process.
 - An Excel file in the same format as produced by the 'Email me this quote' button, which will include the updated tender items - you should check that this reflects the changes you are expecting.
- Any blank lines in the uploaded file will be ignored.
- Any lines which do not contain the expected number of columns, or with data in the wrong format will generate an error message and will not be imported.
- Any lines with an invalid item code or an invalid currency code will generate an error message and will not be imported. We use the standard 3-character currency codes - see [here](#) for a complete list.
- Any lines with an invalid manufacturer code will still be imported but will be given a manufacturer of 'Not specified'.

Note also that it is possible to perform as many file uploads as you like.

Finalising a tender

Alert

- Firstly, be warned: Finalising means exactly that. It can not be undone.
- Only when you are satisfied that you have completed the details on all the lines for which you are quoting should you finalise your tender entry.

Email it to yourself first

We strongly recommend you use the button in the tender window to email yourself the tender, and then check that the entries in the online tender module match your intended entries.

To email a quotation to yourself, open the tender you wish to email, and then click the "Email it to me" button at the top-right of the window.

What finalising does

Clicking on *Finalise* does two things:

1. It locks the tender document, changing its status to FN (finalised) and you can make no further changes to it.
2. It makes the finalised tender submission accessible to the customer once the tender has closed. Only finalised quotations will be accepted by the customer.

Finalising the tender submission, therefore, must be performed before the closing date as specified by the customer.

How to finalise

1. You need to be viewing the list of tenders, **not** the particular tender you have just entered.
 - a. If you are not logged in: Log in and you will be shown the list
 - b. If you are editing your tender, close it to return to the list of tenders.
2. Check the checkbox in the left-hand column next to the tender you have completed
3. Click on the Finalise button.
4. You're done

Closing date and time

Note that closing date and time is specified as GMT (Greenwich Mean Time). This is **NOT** likely to be the same as your local time. Please take this into account when planning for when you will finalise your prices.

Results notification

The client will notify successful suppliers directly by submission of a purchase order. The web site will not show you any information about you or any other supplier's success or otherwise

Obtaining support

Please email tender_support@msupply.org.nz if you have any problems. We are based in Nepal, but provide support 18 hours per day Monday to Friday while there are open tenders in the system.

Note that you should only communicate with us regarding technical matters. For all matters relating to tender conditions, pricing, etc., communicate directly with the client who published the tender.

The future

- We hope you appreciate both the concept and the hard work we've put into making this system work for both clients and suppliers.
- The system is used by several mSupply users, and is being taken up by more each year.
- We have lots of our own ideas on how to improve the system, and we'd love to hear your criticisms, compliments or ideas as well. Use the email address above.

Warranty

There is none. Our software is provided "as is". We take the responsibility to act fairly and carefully very seriously. We are replacing manual systems that are prone to gross errors, so even when our system experiences the odd (very rare) issue, it remains a vast improvement on what has gone before.

Infrequently asked questions

- **Q:** What if your server failed just before a tender closed.
 - **A:** Our advice is: This isn't an auction. There is no need to submit at the last minute. However, if there was more than a few minutes of downtime in the last 24 hours of a tender, we would ask the customer's permission to extend the closing date. Also, our server has been running for several months. Should the tender module prove popular we will transfer it to a data centre.
- **Q:** Can we phone you for support.

- o **A:** Yes. But, if your question relates to issues that are explained in this document, we reserve the right to charge you for our time. (This includes the resetting of passwords which we have supplied in the past).
 - Nepal: +977 1 5548021
 - New Zealand: +64 22 519 0499

Thanks

Thanks to the staff of Republic of Kiribati's Ministry of Health & Medical Services Pharmacy Department who pioneered the use of this feature! 😊

Previous: [18.07. Analysing supplier responses and creating purchase orders](#) | | Next: [18.09. Using web tenders](#)

Last modified: 2022/01/16 22:55 by Mark Glover



mSupply documentation wiki



18.09. Using web tenders

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- [Setup](#)
- [The process](#)
- [Setup](#)
- [The process](#)

A web tender is one that is uploaded to our remote tender server and is made accessible to suppliers to enter their responses. This greatly reduces the load on you to input all the responses from all suppliers and means there will be far less data entry errors.

Setup

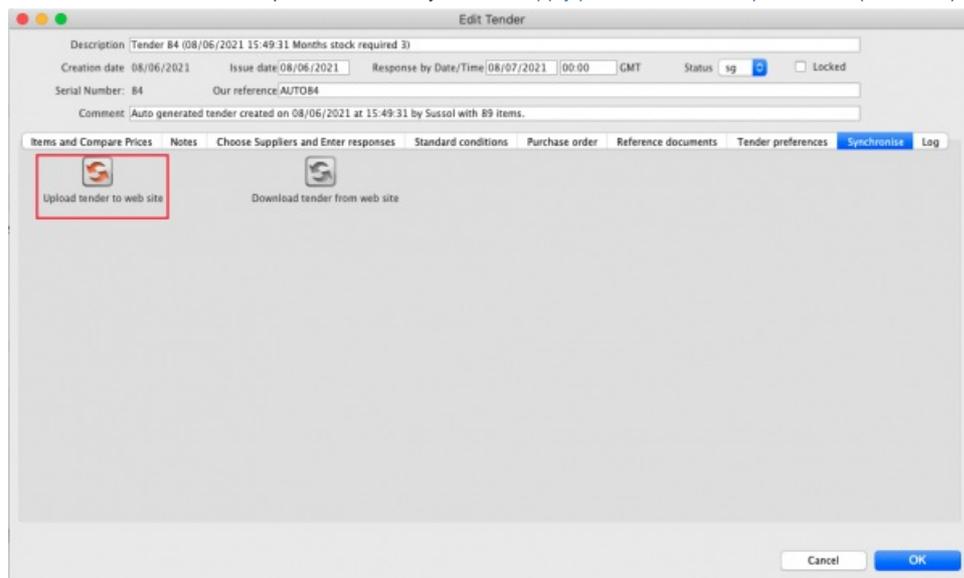
To use web tenders, there are several setup steps that only need to be done once:

1. Contact Sustainable Solutions to arrange a user account. We'll send you your account details.
2. In **File > Preferences...**, on the Tender tab, enter the account details Sustainable Solutions sent you. See [General preferences](#), [Tenders section](#) for details.
3. Link each of your suppliers with the Supplier's master record on the tender web site. For further information see [Adding and editing names](#), [Master ID and Master name fields](#).
4. Tell Sustainable Solutions about any of your suppliers that are not in the tender web site list. We will then add them, and you can link the remaining suppliers.

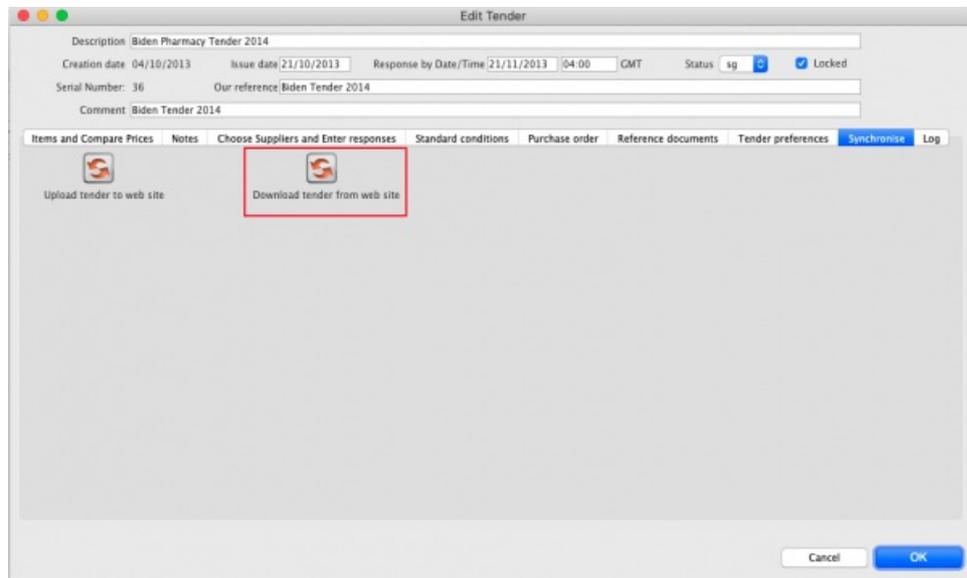
The process

The following steps describe the whole remote tender process:

1. Carry out the setup steps given above.
2. In mSupply, create a new tender.
3. Set up tender name, reference number, opening and closing date.
4. Add items to the tender. Make sure you add a quantity and pack size for each item.
5. [Add suppliers to the tender](#).
6. Go to the *Synchronise* tab on the tender details window and click on the **Upload tender to web site** button to upload the tender to the tender server. You will be given an error message if the upload is not successful. If you get stuck, contact Sustainable Solutions for further assistance. For a tender to upload successfully:
 - o Each supplier must be linked. You will be warned if they aren't.
 - o Your internet connection must be working.
 - o You must have entered the user name and password correctly in the [mSupply preferences Tender preferences](#) (see above).



7. Inform suppliers by sending physical or electronic tender documents (both can come from mSupply) and send them a link to the [Supplier instructions for using the tender submission web interface](#)
8. The suppliers enter their bids into their part of the remote tender server web site.
9. After the tender has closed, download the tender by going to the *Synchronise* tab on the tender details window and clicking on the **Download tender from web site** button. You will be given an error message if the download is not successful. If you get stuck, contact Sustainable Solutions for further assistance. For a tender to download successfully:
 - o Your internet connection must be working.
 - o The tender closing date must have passed.



10. Compare prices and print appropriate reports for the tender committee or others.
11. Award each item to a supplier.
12. Create purchase orders.
13. Send the purchase orders to the suppliers.
14. Sit back, relax and give yourself a pat on the back. Nice going.

Alert

Uploading the tender is final...

mSupply records when a tender has been uploaded, and will no longer allow the editing or deletion of tender lines on that tender. So make sure your tender is correct and complete before you upload it!

Previous: [18.08. Supplier instructions for using tender submission web interface](#) | Next: [19. Remote User Web Interface](#)

Last modified: 2022/02/25 05:21 by Ujwal Khattry



mSupply documentation wiki



18.10. Supplier instructions for submitting tender responses via Excel

Introduction to the tender response template

As a supplier, you may be invited to participate in a tender managed using mSupply. The client may send you a tender response template Excel document in xlsx format, which you are expected to complete and submit for evaluation. This allows the client to import bid responses from multiple suppliers, and easily compare them within the mSupply Tender Module.

Info

You must use Microsoft Excel 2016 or newer to view and edit the tender template.

The tender template will look like this. You can also download a reference template from here:

[supplier_tender_reference_template.xlsx](#)

The **yellow** section contains the item that you may bid for. **Do not modify any contents of the yellow section.**

The **blue** section is where you can enter the price for the items you wish to bid on.

Internal Line ID	Line #	Item Code#	Item Name	Requested Number of packs	Requested Pack size	Requested Total Qty	Units	Offered Pack size	Offered price per pack (DAT Delivered at Terminal)	Currency
21A7C06A8017A44BE58										
A5223108B91	1	ace-250	Acetazolamide 250mg tab	100	10	1000	ea			
FC4E5BC940C04453FE1C	2	ab-25	Aburim, human intercalable sol. 25%.	200	10	2000	ea			
E0EB203608EDA4EB85C	3	buc-25	Bucivacaine hydrochloride 0.25% int.	250	5	1250	ea			

The Excel template contains three worksheets. **Do not modify the name of the worksheets.**

- **TenderItems:** Main worksheet containing the tender items, as shown above.
- **ManufacturerList:** Contains the manufacturers that populate the [manufacturer dropdown list](#) in the main worksheet. If a new manufacturer is required, add it directly in the TenderItems worksheet.
- **CurrencyList:** Contains the available currencies that populate the [currency dropdown list](#) in the main worksheet. If a new currency is required, add it directly in the TenderItems worksheet.

Alert

The currency and the manufacturer column should appear as a [dropdown list](#). If this doesn't work, please make sure you are using Microsoft Excel and that the version supports xlsx file format.

Table of Contents

- [Introduction to the tender response template](#)
- [Completing the tender response template](#)
- [Fields](#)
- [Currency](#)
- [Manufacturer](#)
- [Tender response rules](#)
- [Tender submission](#)
- [Introduction to the tender response template](#)
- [Completing the tender response template](#)
- [Fields](#)
- [Currency](#)
- [Manufacturer](#)
- [Tender response rules](#)
- [Tender submission](#)

⚠ Important

Do not change the cell format. If the cell is set to text or number, then it must be left as it is. Changing the cell to a different format will cause issues later with information potentially being lost.

💡 Tip

The Excel file has the header row frozen, allowing you to scroll down the list and enter data while still being able to view the corresponding header.

Completing the tender response template

Fields

More detailed information regarding the tender template fields is described below.

Serial number	Column	Field	Description
1	1(D)	Organization name	Pre-filled. Displays the mSupply store's organization, cannot be changed.
2	2(D)	Supplier code	Pre-filled. Cannot be changed.
3	3(D)	Supplier Name	Pre-filled. Cannot be changed.
4	4(D)	Supplier ID	Pre-filled. Cannot be changed.
5	5(D)	Tender ID	Pre-filled. Cannot be changed.
6	10(A)	Internal Line ID	Pre-filled. Cannot be changed.
7	10(B)	Line #	Pre-filled. Cannot be changed.
8	10(C)	Item Code#	Pre-filled. Fixed by the tender, cannot be changed.
9	10(D)	Item Name	Pre-filled. Fixed by the tender, cannot be changed.
10	10(E)	Requested Number of Packs	Pre-filled. Cannot be changed. 30 alphanumeric characters.
11	10(F)	Requested Pack size	Pre-filled. Cannot be changed.
12	10(G)	Requested Total Qty	Pre-filled. Cannot be changed.
13	10(H)	Units	Pre-filled. The unit the quantity is measured in e.g. tablet, mL, g, bottle, vial, ampoule
14	10(I)	Offered Pack Size	Mandatory. Number greater than zero (default = 1). The pack size (number of units in one pack) you are offering.
15	10(J)	Offered Price per Pack [DAT - Deliver at Terminal]	Mandatory. The price you are offering for each pack.
16	10(K)	Currency	Mandatory. The currency of the quoted price. Choose the required currency from the dropdown list. If the currency does not exist, enter the new currency here manually.
17	10(L)	Expiry Date	Mandatory. Expiry date of the quoted product, which can be a specific date or an expiry from
18	10(M)	Delivery Time	Mandatory. Estimated time between the goods leaving the supplier's premises and delivery t
19	10(N)	Supplier Item Code	Optional. Your supplier item code, if any.
20	10(O)	Manufacture Name	Optional. Choose the required manufacturer from the dropdown list. If the currency does not exist, enter the new manufacturer here manually.
21	10(P)	Comments	Optional. Enter any comments that should be considered in the evaluation process (e.g. bran

Currency

This specifies the currency for your quote, which is set for each item. Select an available currency from the dropdown list.



On your next tender with the same client, the newly added manufacturer should already be present on the spreadsheet.

Tender response rules

If you choose not to bid for an item: Leave the blue section for that row blank. Do not delete lines.

Prefilled by mSupply Tender module					Mandatory fields: To be completed by supplier				Non mandatory		
Item Name	Requested Number of packs	Requested Pack size	Requested Total Qty	Units	Offered Pack size	Offered price per pack [DAT Delivered at Terminal]	Currency	Expiry Date	Delivery time	Supplier item code	Manufacturer
Acetazolamide 250mg tab	100	10	1000	ea	7	3 USD		20 May, 2022	3 month	TS1234	new manufac
Albumin, human injectable sol, 25%	200	10	2000	ea							
Bupivacaine hydrochloride 0.25% inj	250	5	1250	ea	5	4 USD		05-06-2022	15 days	BBSR	Asis Pacific

If you wish to make multiple bids for the same item Copy and paste the entire row. Ensure all the fields in the yellow area remain unedited. Enter your bids in the blue section.

Prefilled by mSupply Tender module										Ma
Internal Line ID	Line #	Item Code#	Item Name	Requested Number of packs	Requested Pack size	Requested Total Qty	Units	Offered Pack size	Offered price per pack [DAT Delivered at Terminal]	Cur
21A7C06A60137A44BE58										
A52233103B31	1	ace250t	Acetazolamide 250mg tab	100	10	1000	ea			
FC6E5BC1848054459FE1C	2	alb25i	Albumin, human injectable sol, 25%	200	10	2000	ea			
E0BB203609EDDA44EB85C	5	bup25i	Bupivacaine hydrochloride 0.25% inj	250	5	1250	ea			
E0BB203609EDDA44EB85C	4	bup25i	Bupivacaine hydrochloride 0.25% inj	250	5	1250	ea			
E0BB203609EDDA44EB85C	3	bup25i	Bupivacaine hydrochloride 0.25% inj	250	5	1250	ea			

If you wish to rearrange the items: Rows do not need to be in any particular order. You can rearrange the spreadsheet as required. Ensure all the fields in the yellow area remain unedited.

Prefilled by		
Line #	Item Code#	Item Name
1	ace250t	Acetazolamide 250mg tab
2	alb25i	Albumin, human injectable sol, 25%
5	bup25i	Bupivacaine hydrochloride 0.25% inj
4	bup25i	Bupivacaine hydrochloride 0.25% inj
3	bup25i	Bupivacaine hydrochloride 0.25% inj

Tender submission

After entering your bids, save the Excel spreadsheet (xlsx file) and email it to the client as guided.

Last modified: 2022/03/15 04:35 by Emily Porrello



User Guide



19. Remote User Web Interface

- [19.01. Introduction to web interfaces](#)
- [19.02. mSupply web server](#)
- [19.03. mSupply customer web interface: setting up customers](#)
- [19.04. mSupply customer web interface: guide for customers](#)
- [19.05. Web Dashboard](#)
- [19.06. Mobile Dashboard set up \(after v4.0\)](#)
- [19.07. Online catalogue](#)
- [19.08. Stock web app](#)
- [19.09. mSupply REST APIs](#)
- [19.10. mSupply sync API](#)
- [19.11. UNFPA LMA reports app](#)

Previous topic: [18. Tenders](#) || Next topic: [20. Cold Chain Equipment](#)

Last modified: 2021/10/08 09:13 by Gary Willetts





19.01. Introduction to web interfaces



mSupply data can be accessed through simplified web interfaces for a number of purposes. These web interfaces are simpler than the standard mSupply desktop interface described throughout most of this documentation. These web interfaces allow users to communicate over the internet with a store on your mSupply server. They are very flexible, being able to run on a wide variety of devices:

- desktop / laptop
- tablet (recommended for most applications)
- smartphone (practicality depends on screen size and resolution!)

and operating systems:

- iOS
- Android
- Windows
- MacOS
- Linux
- any other operating system

In fact, anything which can run a browser and can get an internet connection can use an mSupply web interface. It means that you can now use the power of mSupply to manage stock at remote sites which don't have access to local IT infrastructure, except, of course, access to the internet!

We are continually developing the web interface services. For details on various components see:

1. [The mSupply Web Server](#)
2. [The Web Stocktake module](#)
3. Customer Interfaces
 - a. [Mobile Customer Interface](#)
 - b. The 'Last Mile' Interface (under development)
4. Supplier Interface
 - a. [Uploading and Downloading Web Tenders](#)
 - b. [Supplier instructions for using the tender submission web interface](#)
5. [mSupply Mobile API](#)

Info

To stop many large, simultaneous requests overloading the server, most calls to it from the web interfaces will return a maximum of 256 records. Pagination is provided in the interfaces to allow the retrieval of records above this.

Previous: [19. Remote User Web Interface](#) | | Next: [19.02. mSupply web server](#)

Last modified: 2022/02/11 14:30 by Gary Willetts



19.02. mSupply web server

Table of Contents ▾

- [About the mSupply web server](#)
- [Turning on the web server](#)
- [Setting up mSupply desktop users for mSupply Mobile \(browser\)](#)

About the mSupply web server

When mSupply's web server is running, it allows you to access mSupply data from any networked computer that has a web browser.

Security warning: We have had thousands of uses of our mSupply web server on the public internet since 2005. To date we have not had a security problem reported. However, we recommend you use SSL and a proper SSL certificate if your mSupply web server is publicly accessible. mSupply fully supports SSL. Contact us for certificate installation instructions.

The advantages of accessing mSupply in this way are:

- It's easy. Most people are familiar with using a web browser.
- It's low maintenance. You do not need to install any client software.
- It's cost effective. Once you have purchased a web server licence an unlimited number of people can connect.
- It's secure. The web server supports access using SSL, the standard for securing internet connections, stopping any malicious snooping of passwords or data.
- It allows customer access to information. The web interface built into mSupply can easily be customised to allow clients, supplier or other interested parties to have restricted access to the mSupply information you wish to show them. We are also able to include order submission by customers, making it easy for them to place small orders, and have real time information on stock availability.
- You can access mSupply from anywhere on the internet. Once we supply you with a password protected version of the web interface, you can access mSupply data from any internet connected computer.
- It's fast over low bandwidth connections. The mSupply web server allows you to provide access to mSupply from locations with only dial-up access.

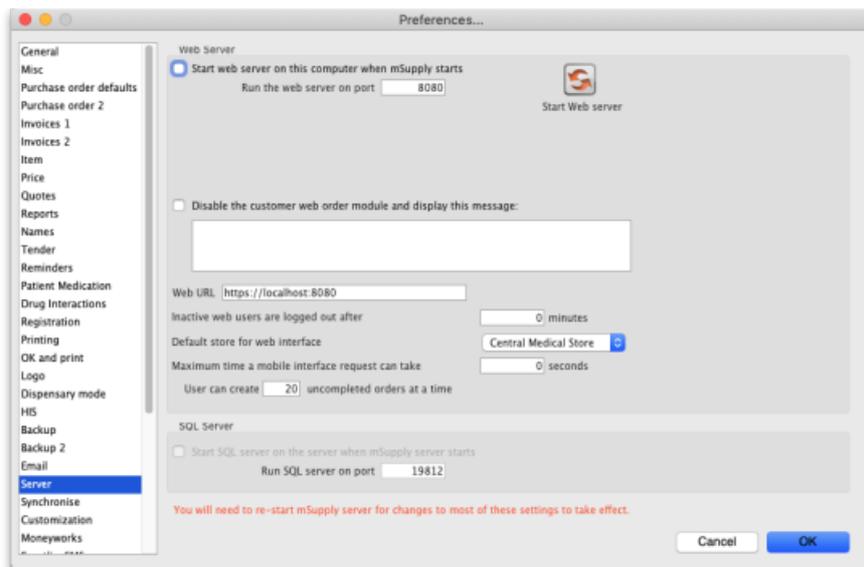
mSupply web server functionality is being continually expanded according to client requirements. We welcome suggestions for more features.

Turning on the web server

The mSupply web server feature is not included in the regular mSupply licence; in order to use this function, an additional license is required. On application to Sustainable Solutions this can easily and swiftly be arranged.

For practice purposes, an evaluation version is available on our server - should you wish to access this, please contact us for instructions.

Choose File > Preferences, then click on "Web server" in the list.



You can choose to start the web server or have it start automatically when mSupply starts (see [General preferences](#) for more details on these preferences).

Technical note: By default mSupply is set to use port 8080. This is because the default port number for http access (80) on unix systems running mSupply can only be used by applications that have root privileges, and we don't want you to have to run mSupply as root! If this is a problem, we can supply you with an application that redirects traffic on port 80 to port 8080.

19.03. mSupply customer web interface: setting up customers

What is it?

The mSupply Customer Web Interface allows the staff of Customers in your mSupply system to order stock from a [store](#) in your mSupply system. It runs on a browser on any device: tablet, smartphone, net-book, desktop computer etc.

Info

While the Customer Interface will run on smaller devices like smartphones, it is generally impractical to use with screens smaller than 5 inches across the diagonal.

Features and limitations

The Customer Interface is designed to be used by staff of Customers in your mSupply system i.e. people working in places you supply. They could be people outside of your organisation.

The Customer Interface's features are:

- **Show Orders:** Display a list of the user's orders that are waiting to be processed by the supplying store. These orders can be opened to display further info.
- **Create Orders:** Orders for stock from the supplying store can be created, deleted and edited.
- **Search Items:** Search a list of Items available in the supplying store.

Obviously, this interface is for ordering stock only so there is no place for batch number or expiry date to be displayed or selected in the Customer Interface. However, mSupply does keep a record of the batch and expiry date of all stock issued to the Customer from the supplying store.

Turn on the customer web interface

To do this you simply need to turn on the mSupply web server. You can find details of how to do this on the [mSupply Web Server](#) page.

Setup each customer

There are 2 simple setup steps you need to carry out for each customer.

1. Set the supplying store for each customer

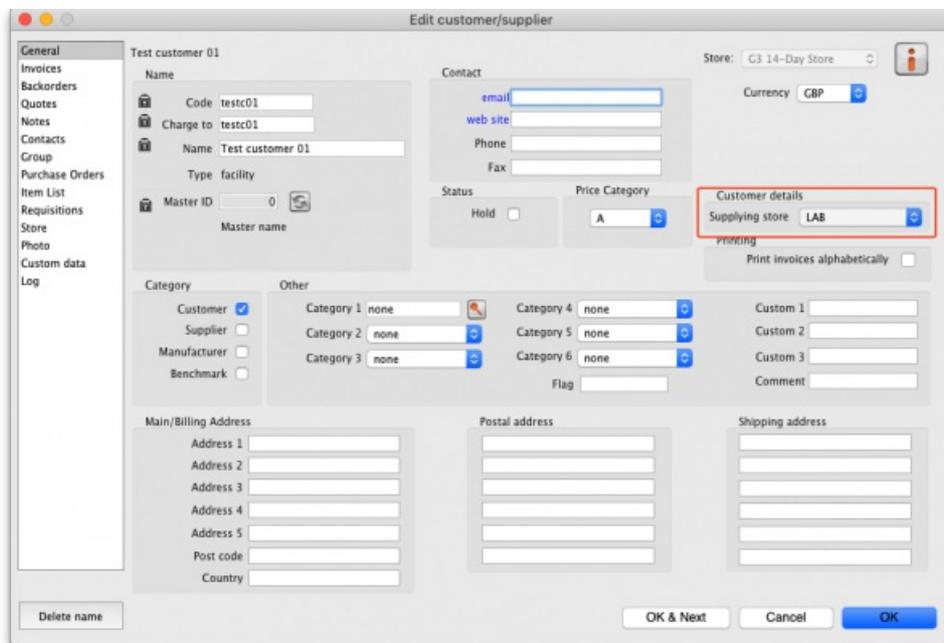
Go to the customer's detail page (Select *Customer* > *Show customers...* from the menus, click on the **Find** button, find the customer in the list and double-click on them):



Table of Contents ▾

- [What is it?](#)
- [Features and limitations](#)
- [Turn on the customer web interface](#)
- [Setup each customer](#)
 - [1. Set the supplying store for each customer](#)
 - [2. Add logins for each customer](#)
- [Connecting to the customer web interface](#)
- [What is it?](#)
- [Features and limitations](#)
- [Turn on the customer web interface](#)
- [Setup each customer](#)
 - [1. Set the supplying store for each customer](#)
 - [2. Add logins for each customer](#)
- [Connecting to the customer web interface](#)

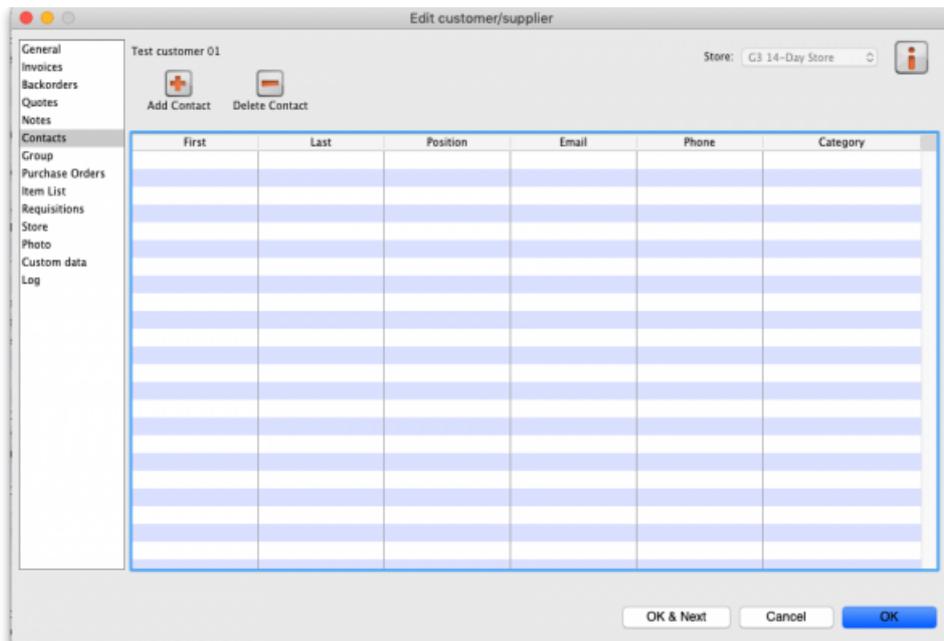




In the *Customer details* section, select the customer's supplying store from the drop down list. This is the store the customer's orders will be sent to and therefore the store that will send them goods in response to the orders.

2. Add logins for each customer

The logins for each customer are setup as contacts of the customer in mSupply. To set them up, go to the customer's detail page and go to the *Contacts* tab (Select *Customer* > *Show customers...* from the menus, click on the **Find** button, find the customer in the list and double-click on them. Finally, click on *Contacts* in the tab list on the left hand side.). This window is displayed:



To add a new login (contact), click on the **Add contact** button to open this window:

Enter the contact's name last and first names in the *Last* and *First* fields

In the *Web login* section check the *Can login to the web interface* checkbox then enter the contact's username and password in the *Username* and *Password* fields - these are the details they will login with.

Click the **OK** button to save the details. You can add as many contacts for a customer as you like, and they will all be able to login to the customer interface and create orders for that customer.

You can edit a contact's details by double-clicking them in the customer's list of contacts shown in the screenshot above.

To stop a contact from accessing the customer interface you can either delete them or you can uncheck the *Can login to the web interface* checkbox on their details page.

Repeat these 2 steps for all the customers who need to login to the interface.

Connecting to the customer web interface

Once the mSupply web server is running, your customers can access it by opening an internet browser on any device and navigating to <URL:PORT/customer/> where [URL](#) is the internet address of your mSupply server and [PORT](#) is the figure you entered into the *Run the webserver on port* field in the preferences mentioned in the section above

With [URL](#) re-directing, you can create a web link like : <https://demo.msupply.org/customer/>

Info

The hyperlink above links to a demonstration site. Send us an email at info@msupply.org.nz if you would like a temporary username and password to try it out.

Once it has been setup correctly, get your customers to bookmark the customer interface web page to save them typing it in every time.

Your customer can then use the following guide to login and order stock on-line. [Guide to the web access to order stock](#)

Previous: [19.02. mSupply web server](#) | Next: [19.04. mSupply customer web interface: guide for customers](#)

Last modified: 2021/10/08 09:42 by Gary Willetts



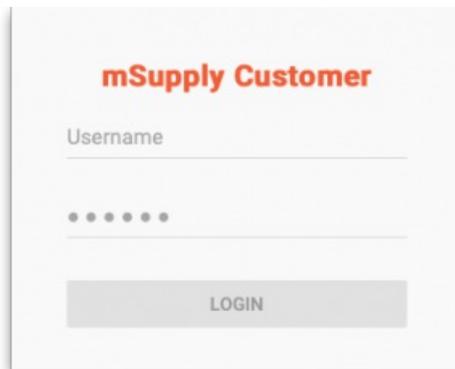
19.04. mSupply customer web interface: guide for customers

The first section of this page covers the use of the interface itself by the customer. There is a small [Back at the supplying store...](#) section at the end which describes what happens in mSupply in response to the orders sent by the customer.

Logging in

You will be given a website address for the customer interface. e.g. : <http://example.com:8080/customer/>. Go to that address using an internet browser running on a smartphone, laptop, tablet or desktop computer etc.

When it has loaded (the time this takes will depend on the speed of your internet connection), you will be shown the login page:

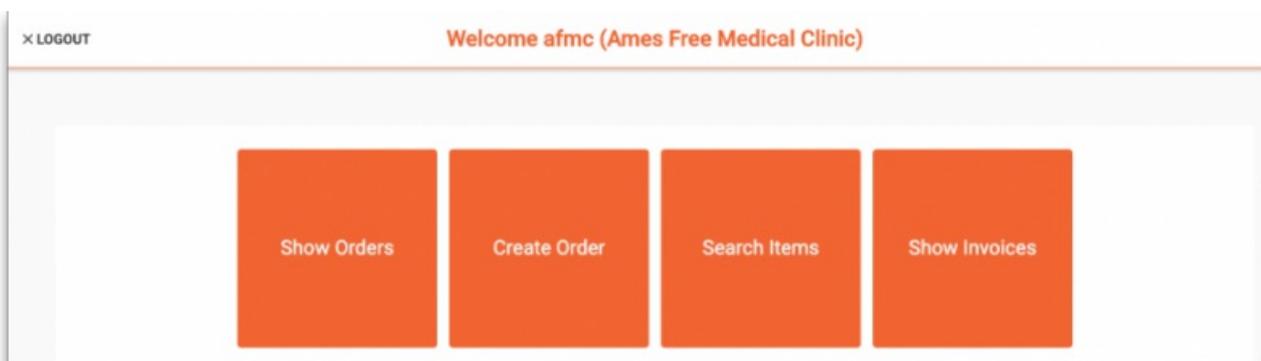


The login form is titled "mSupply Customer" in orange. It features a "Username" label above a text input field. Below the input field is a password field represented by five dots. At the bottom of the form is a grey "LOGIN" button.

Enter your username and password and click **Login**

The navigator

You are now shown the mSupply customer navigator screen:



Here we are logged in as user "afms" who works for the customer "Ames Free Medical Clinic".

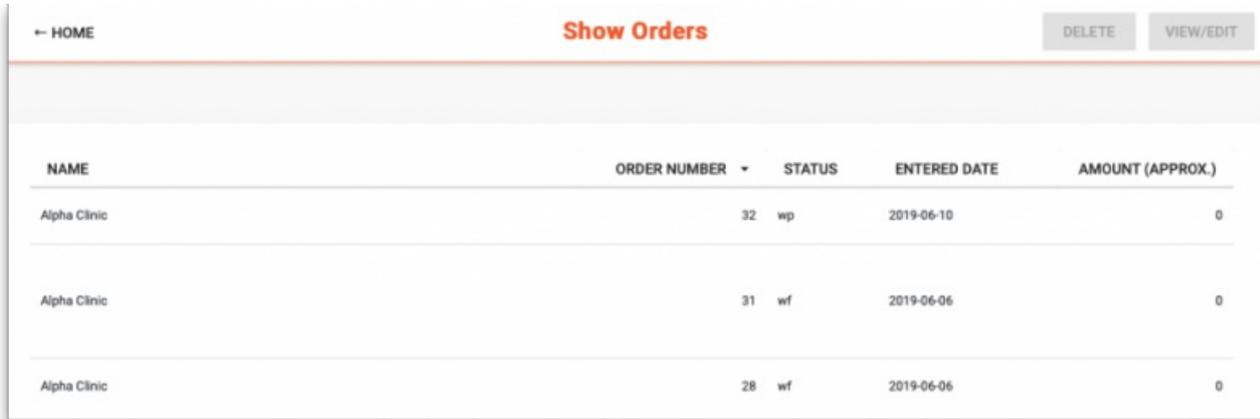
The "Ames Free Medical Clinic" is set to use the store "General Warehouse" as their supplying store.

Click on:

- [Show Orders](#) to view a list of orders that have been created but not yet completed.
- [Create Order](#) to create a new order for stock from the supplying store.
- [Search Items](#) to search a list of Items available in the supplying store.
- [Show Invoices](#) to search for and view a list of invoices from the supplying store.

Show orders

Select **Show Orders** to display a list of orders that have been created.



NAME	ORDER NUMBER	STATUS	ENTERED DATE	AMOUNT (APPROX.)
Alpha Clinic	32	wp	2019-06-10	0
Alpha Clinic	31	wf	2019-06-06	0
Alpha Clinic	28	wf	2019-06-06	0

To view or edit an existing order, click on the order in the table to highlight it, then click on the **View/Edit** button (top right)

To delete an existing order, click on the order in the table to highlight it, then click on the **Delete** button (top right)

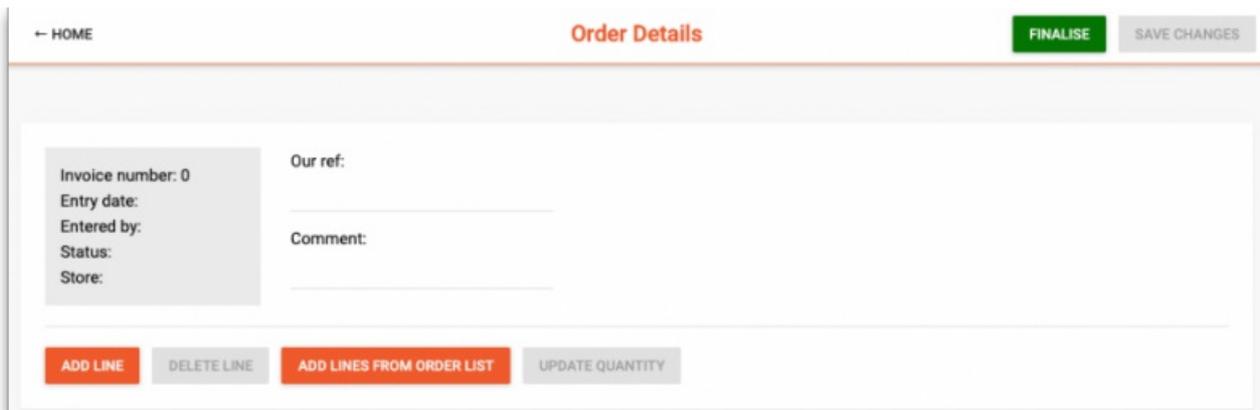
Status **wp** indicates web interface orders that have been created and are still in progress (not yet finalised). These can be edited/deleted.

Status **wf** indicates web interface orders that have been finalised by the customer. These can be viewed, but not edited or deleted.

Click on **HOME** (top left) to return to the main options screen.

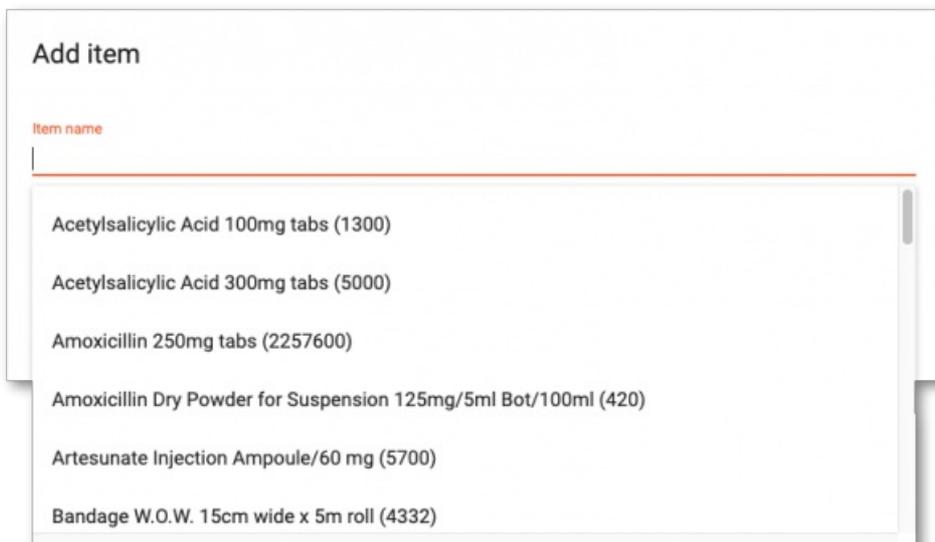
Create orders

Click on **Create Order** to display the screen for entering an order:



To add an item to the order, click the **Add line** button.

In the pop-up window clicking the **Item name** field will open a drop down list to select from



Add item

Item name

- Acetylsalicylic Acid 100mg tabs (1300)
- Acetylsalicylic Acid 300mg tabs (5000)
- Amoxicillin 250mg tabs (2257600)
- Amoxicillin Dry Powder for Suspension 125mg/5ml Bot/100ml (420)
- Artesunate Injection Ampoule/60 mg (5700)
- Bandage W.O.W. 15cm wide x 5m roll (4332)

Enter the quantity and click **Add to order** to proceed

Add item

Item name
Acetylsalicylic Acid 100mg tabs (1300)

Quantity

CANCEL ADD TO ORDER

Repeat this to add further items to your order.

← HOME
Order Details

FINALISE
SAVE CHANGES

Invoice number: 0
 Entry date:
 Entered by:
 Status:
 Store:

Our ref: _____
 Comment: _____

ADD LINE
DELETE LINE
ADD LINES FROM ORDER LIST
UPDATE QUANTITY

ITEM CODE	ITEM NAME	PACK SIZE	UNIT PRICE	PRICE EXTENSION	QUANTITY
030063	Acetylsalicylic Acid 100mg tabs	100	0	0	500

Information can be entered in the fields **Our ref** and **Comment**, but these are optional.

If you wish to continue working on the order later, click the **Save changes** button.

When you have completed the order, click on the **Finalise** button. This will submit the order to the supplying store in mSupply and no further changes will be possible. It will now be visible under the *Show Orders* option **until the supplying store processes it**. It is also visible and available for processing in mSupply at the supplying store.

Info

A note for the mSupply user processing the order in the warehouse:

- The customer's order will appear in mSupply Desktop as a **Customer Invoice** with status of **wf** (web finalised). This means that while the customer can no longer edit the order, the supplying store's desktop user can.
- The customer invoice displays the customer's order with placeholder lines by default. This gives the mSupply Desktop user control to choose the stock for the customer's order. To apply stock to the placeholder lines, refer to Redistribute placeholder lines.
- When stock has been applied to the various lines, the invoice is processed in the normal way (refer Issuing goods to a customer (customer invoices)) to create the picking list and dispatch note as required before the goods are dispatched to the customer.

Using an order list

If you have been assigned an Order List of the items you are allowed to order, this can be used when you are creating an order. Clicking the **Add lines from Order list** button will display the items on the list(s) defined for the customer logged in.

Info

For setting up a default order list, see [Names: Using, adding and editing](#)

The list will be displayed with the items in the same order as was specified when setting up the list in mSupply.

[\(Back up to The navigator\)](#)

Search items

Click **Search Items** to make a search of items available in the supplying store. It will display this screen:

The screenshot shows the 'Search for items' interface. At the top left is a 'HOME' link. The title 'Search for items' is centered, and 'ITEM DETAILS' is on the top right. Below the title are three search filters: 'Find Items where' with a dropdown menu, 'Starts with' with a dropdown menu, and 'Search' with a text input field. To the right of the 'Search' field is a 'Select Category' dropdown menu with 'Any' selected. A red 'SEARCH' button is centered below the search fields.

Choose your search options using the selectors and enter something to search for in the textbox (or leave it empty to list all the items). Click on **Search** and the search will be made. When the search is complete the list of items matching your search criteria will be displayed:

The screenshot shows the search results for 'amox'. The search filters are the same as in the previous screenshot, but the 'Search' field now contains 'amox'. The 'SEARCH' button is still present. Below the search filters is a table with the following data:

CODE	ITEM NAME	STOCK ON HAND
228264011	Amoxicillin 250MG (Amoxil)	0
172741470	Amoxicillin 500MG (Amoxil)	180
172741142	Amoxicillin 875MG (Amoxil)	0
00143988901	Amoxicillin 250mg/5ml (100ml) suspension	0

Click the row of a specific item and click on **Item details** to see the details:

The screenshot shows the search results page with an item details modal open for the item with code 172741470. The modal displays the following information:

Item code: 172741470
Item name: Amoxicillin 500MG (Amoxil)
Total stock on hand: 180
Category:
Department: Antibiotics
Description:

PACK SIZE	AVAILABLE	BATCH	EXPIRY	SELL PRICE
1	78		0000-00-00	5.88
1	102		0000-00-00	5.88

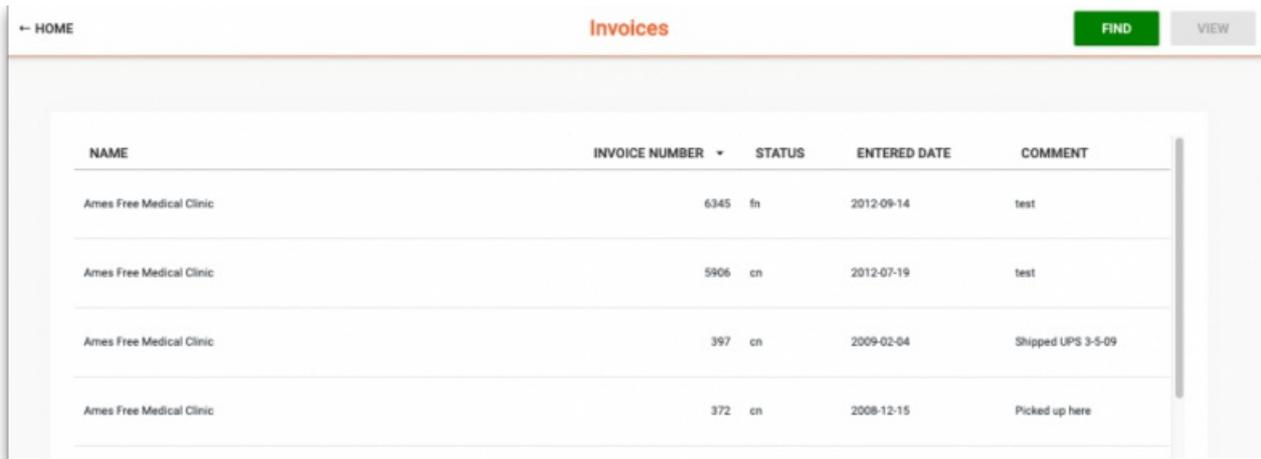
A 'CLOSE' button is located at the bottom right of the modal.

⚠ Important

Note: The *Stock on Hand* figure is the **supplying store's** stock on hand, not the **Customer's** stock on Hand.

Show invoices

Select **Show Invoices** to display a list of invoices that have been created in the supplying store for you:



NAME	INVOICE NUMBER	STATUS	ENTERED DATE	COMMENT
Ames Free Medical Clinic	6345	fn	2012-09-14	test
Ames Free Medical Clinic	5906	cn	2012-07-19	test
Ames Free Medical Clinic	397	cn	2009-02-04	Shipped UPS 3-5-09
Ames Free Medical Clinic	372	cn	2008-12-15	Picked up here

Columns

Name

The Name of the customer. If this isn't the customer's name, then there is a problem - contact support@msupply.org.nz

Invoice Number

The Invoice Number as recorded in the supplying store

Status

The Status indicates at what stage each invoice is in processing:

- **sg** (suggested): The supplier has started to process it, but is not finished.
- **cn** (confirmed): The supplier has completed processing the order but has likely not yet dispatched it.
- **fn** (finalized): The supplier has likely dispatched the order and the stock should be on its way to you.

Info

Depending on the configuration of mSupply, it is possible to dispatch an order without actually finalizing it. So you may find yourself receiving an order that hasn't actually been finalized.

Entered Date

Date that the invoice was first entered in the supplying store.

Comment

Comment added by the supplying store

Find invoices

To find a particular invoice:

1. Click on the **FIND** button at the top right
2. Fill in the details in the search options provided
3. Click on the **SEARCH** button

← HOME Invoices FIND VIEW

NAME	INVOICE NUMBER	STATUS	ENTERED DATE	COMMENT
Ames Free Medical Clinic	6345	fn	2012-09-14	test
Ames Free Medical Clinic	5906	cn	2012-07-19	test
Ames Free Medical Clinic	397	cn	2009-02-04	Shipped UPS 3-5-09
Ames Free Medical Clinic				Picked up here
Ames Free Medical Clinic				Web Order
Ames Free Medical Clinic				Web Order

Search for invoices

Search for invoices where the

Invoice Number Equals Search

CANCEL SEARCH

View invoice details

To view details of an invoice:

1. Click the row of a specific invoice
2. Click on the **VIEW** button at the top right

← HOME Invoices FIND VIEW

NAME	INVOICE NUMBER	STATUS	ENTERED DATE	COMMENT
Ames Free Medical Clinic	6345	fn	2012-09-14	test
Ames Free Medical Clinic	5906	cn	2012-07-19	test
Ames Free Medical Clinic				Shipped UPS 3-5-09
Ames Free Medical Clinic				Picked up here
Ames Free Medical Clinic				Web Order
Ames Free Medical Clinic				Web Order
Ames Free Medical Clinic				This is not a bill amount due

Invoice number: 6345
 Entry date: 2012-09-14
 Entered by: Christian
 Status: fn
 Store: General
 Name: Ames Free Medical Clinic
 Their ref:
 Comment: test
 Confirm date: 2012-09-14

ITEM CODE	ITEM NAME	QUANTITY
71015523	Lipitor 10MG (Atorvastatin)	30

CLOSE

[\(Back up to The navigator\)](#)

Previous: [19.03. mSupply customer web interface: setting up customers](#) | Next: [19.05. Web Dashboard](#)

Last modified: 2021/10/08 09:42 by Gary Willetts



19.05. Web Dashboard

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- [Legacy Web Dashboard](#)
- [Using the dashboard](#)
- [Legacy Web Dashboard](#)
- [Using the dashboard](#)



Alert

August 2020: The instructions on this page are for configuring mSupply's legacy web dashboard. This may still work, but is no longer supported as it has been superseded by the [mSupply Grafana web dashboard](#). The instructions are left here for historic reference only.

Legacy Web Dashboard

Once the dashboards have been set up (refer [Dashboard set up \(before v4.0\)](#) or [Dashboard set up \(after v4.0\)](#)), it can be used to monitor and access reports from anywhere using an internet browser (such as Chrome, Safari or Firefox).

The address for the dashboard is the public IP address of the server (or its web address if one has been assigned) on the port setup in the web server preferences (see the [server preferences](#) section for details) with `/dashboard` added. For example, if port 3000 is specified in the server preferences and the server is at web address `example.com`, users would browse to <https://example.com:3000/dashboard> using their internet browser.

This means users can access dashboard reports using their computer at home or even their tablet or cell phone!

Using the dashboard

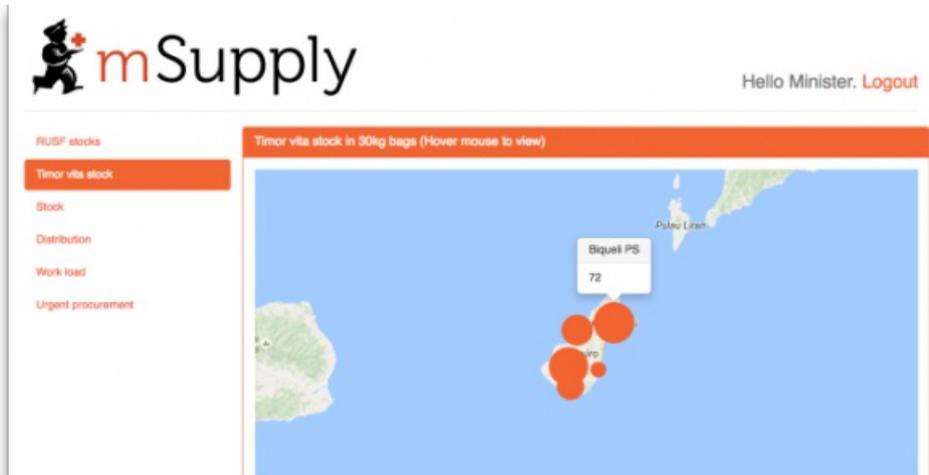
Login

You'll need to be given the right [URL](#) ("web site") to go to in your browser. Type it into the address bar of the browser you want to use (on the device of your choice) and click on the Go button or tap the *Enter* key. You will be shown the login page:



Enter your normal mSupply login username and password and click on the *Log in* button.

You will be taken to your dashboard which will show the first "page" or tab set up for you by default. You can click on other tabs at the left of the screen (if they have been set up for you) to see other reports:

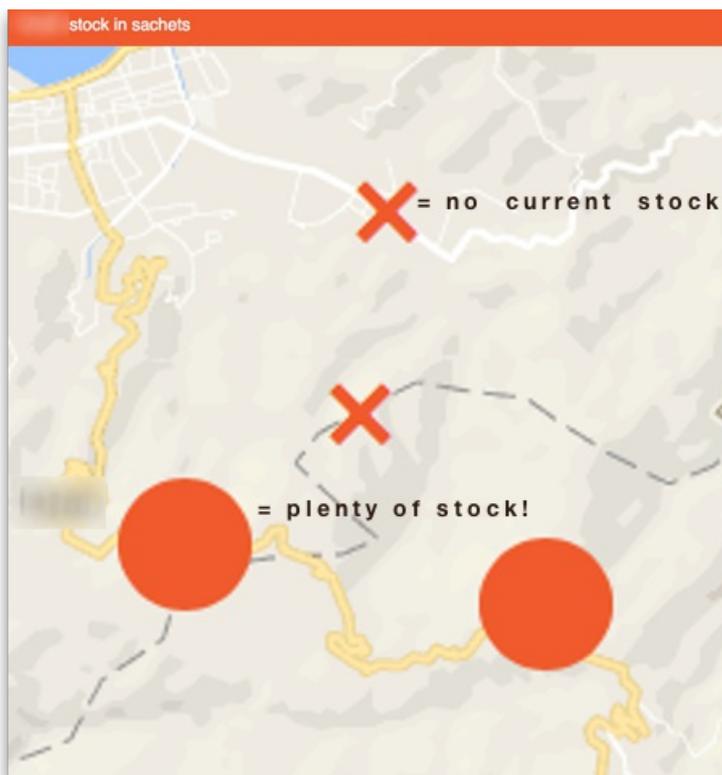


The dashboard works just as well on a tablet or your phone, but the different “pages” will be at the top of your screen, not on the left.

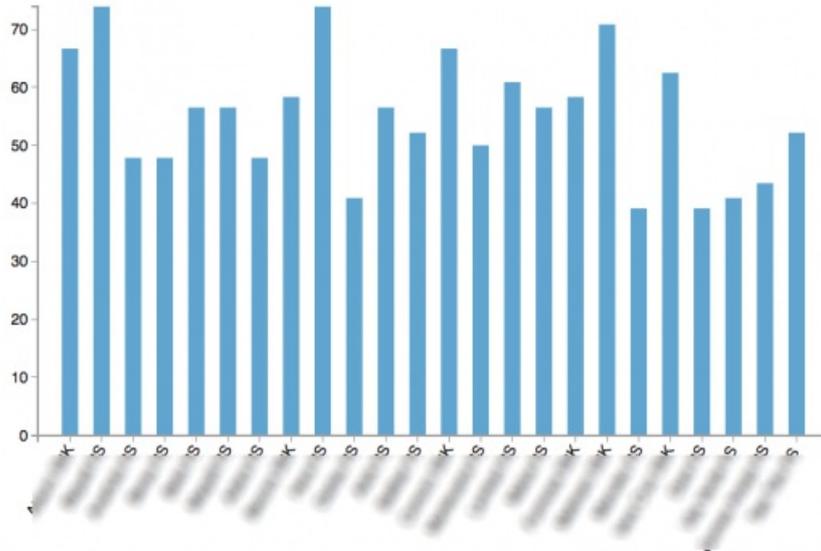
There are several very useful reports on the dashboard, helping you to keep up to date with current stock levels and much, much more. And, if one of the standard reports doesn't give you what you want then it's fairly simple to create a new one from scratch or by duplicating and editing an existing one (see [Setting up dashboards](#)). Below are just a few examples of the kinds of reports the dashboard can show for you:

Nutritional supplements and medicines at : 01/09/2015

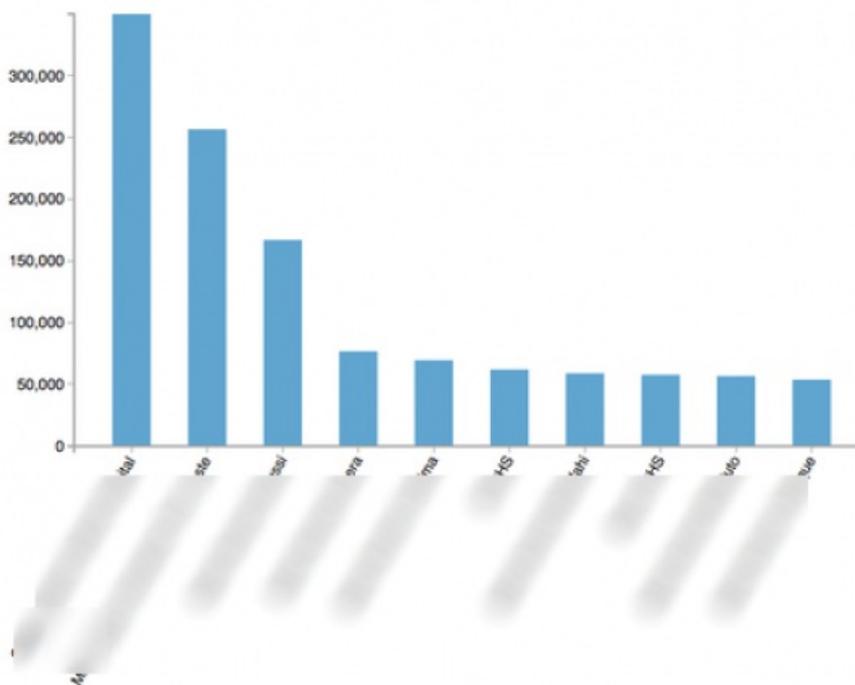
Item	Stock
Albendazole scored 400mg tabs	352661
Ferrous Sulphate 200mg (60mg Iron) tabs	5000
Micronutrient powder for children 6-59 month	676350
Oral Rehydration Salts Powder for 250ml Sachet/27.9gm	59280
Oral Rehydration Solution Reso Mal 42g sachet for 1 litre/ CAR-100	33
Therapeutic Milk F100 Sachet/114gm	4050
Therapeutic Milk F75 Sachet/102.5gm	960
Therapeutic Spread Plumpy Nut (RUTF) 500kCal Sachet/92gm	70657
Therapeutic Spread Plumpy Sup (RUSF) 500kCal Sachet/92gm	0
Timor Vita Nutritional Supplement (MIXCSBVIT) (1 kg)	0
Vitamin A Retinol Palmitate 200,000 I.U. caps	366600
Vitamin A Retinol Palmitate 50,000 I.U. caps	2177
Zinc Sulphate Dispersable 20mg tabs	388700



Tracer medicines in stock (%)



Top facilities supplied in last 90 days (USD)



Total stock value at 01/10/2020 (\$)

8,773,335 USD

Previous: [19.04. mSupply customer web interface: guide for customers](#) | Next: [19.06. Mobile Dashboard set up \(after v4.0\)](#)



19.06. Mobile Dashboard set up (after v4.0)

Alert

August 2020:

- The instructions on this page are for configuring both:
 - mSupply's legacy web dashboard. This is now superseded by the mSupply Grafana web dashboard
 - mSupply Mobile dashboards. The instruction on this page are still the only way to configure them for mSupply versions 4.0 and later

Alert

The following instruction are for setting up dashboards for mSupply versions 4.0 and later. For mSupply versions earlier than v4.0, the dashboard setup is accessed and configured via the mSupply Preferences menu, refer to [Dashboard set up \(prior to mSupply v4.0\)](#).

Important

Before you set the dashboard up you must:

- know what ports are already in use on the server
- have an appropriate [SSL Certificate](#) set up.
- make sure your [webserver](#) is currently running.

Sustainable Solutions can help with these.

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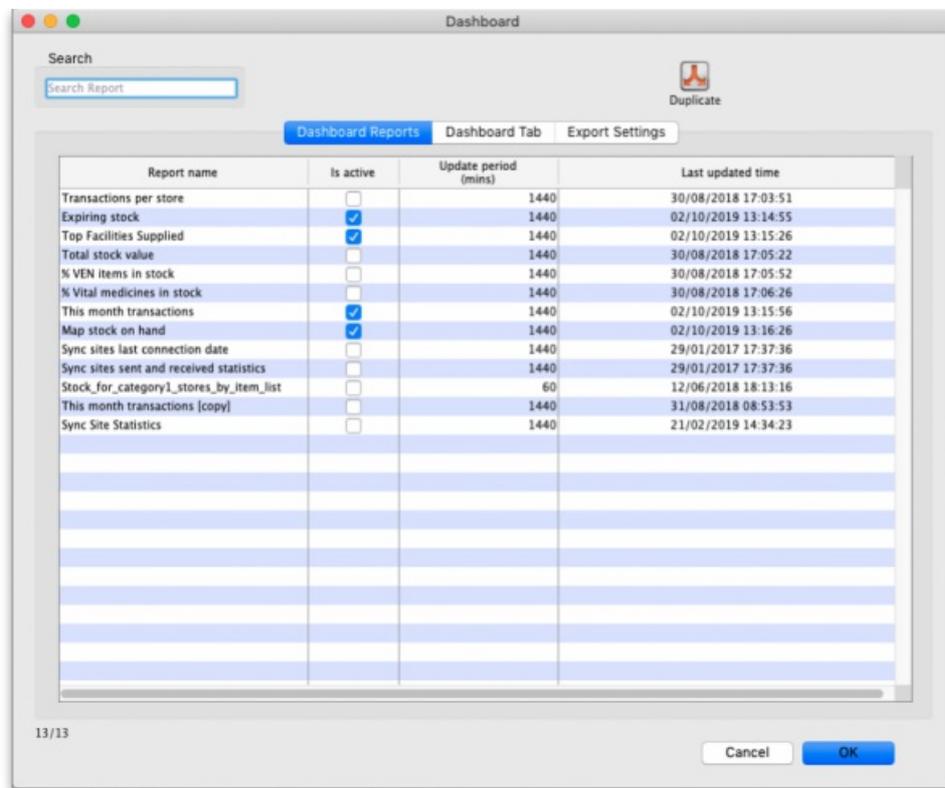
- [Configure the dashboards](#)
- [Available dashboard reports](#)
- [Editing dashboard reports](#)
- [Exporting mSupply data to the dashboard](#)
- [Dashboard tabs](#)
 - [Understanding rows and columns](#)
 - [Adding a report to a dashboard tab](#)
 - [Configure users to have access to dashboards](#)
- [Configure the dashboards](#)
- [Available dashboard reports](#)
- [Editing dashboard reports](#)
- [Exporting mSupply data to the dashboard](#)
- [Dashboard tabs](#)
 - [Understanding rows and columns](#)
 - [Adding a report to a dashboard tab](#)
 - [Configure users to have access to dashboards](#)

Configure the dashboards

1. On the **Admin** tab of the Navigator click on the **Dashboard** button:



2. This will show you a list of the available dashboard reports:



3. Tick the box in the **Is active** column for each report that you want generated. Note that if one or more reports are selected, the scheduled process for generating and refreshing the dashboard reports is automatically started, there is no separate setting for turning it on and off. Similarly, if no reports are selected the dashboard report generating process will be turned off automatically.
4. Set the number of minutes in the **Update Period (mins)** column to set how often each of these reports is generated. **1440** is one full day.

The *Dashboard Tab* tab is for setting up Dashboard tabs (see the [Dashboard tabs](#) section below) and the *Export settings* tab is for telling mSupply when and how to update the data behind the dashboard (see the [Exporting mSupply data to the dashboard](#) tab section below).

Available dashboard reports

There are several built-in dashboard reports that everyone can use. The table below documents what they show and what properties can be edited:

Tip

If you would like help with adding one of these reports to your list, contact Sustainable Solutions on support@msupply.org.nz

Report	Method
Expiring items for Store Shows a list of items, for a given store, which will expire within a specified number of months v4.01	<i>dashboardReportExpiring</i>

Report	Method
Expiring Stock Shows a graph of total value of stock expiring grouped by the number of months in which the stock will expire.	<i>dashboard_rep_expiring</i>

Report
Items issued this month Shows a list of items, per store, which were issued in the last 30 days. Uses store tag and master list to select items to be displayed.

Report
Map stock on hand Shows a map of the area specified, with an "X" if the facility is out of stock of the item, or a dot representing the amount of stock of the item.

Report	Method
Monthly transactions Shows a bar chart of the number of purchase orders, goods receipts, supplier and customer invoices created this month.	<i>dashb</i>

Report
Stock_for_category1_stores_by_item_list Shows a table of items in rows and stores in columns, with the stock on hand for that item in that store in each cell.

Report	Method	Format
Store Transaction Count Shows a count of each store's transactions for the past 7 and 30 days.	<i>dashboard_rep_count_store_trans</i>	Line or Bar chart

Report	Method	Format	Parameters
Sync sites last connection date	<i>dashboard_report_last_sync_date</i>	Table	None

Report	Method	Format	Parameters
Sync sites sent and received statistics	<i>dashboard_report_sync_stat</i>	Table	None

Report	Method	Format	Parameters
Sync sites statistics Shows a range of statistics related to synchronisation v4.02+	<i>dashboardSyncSiteStatistics</i>	table	<ul style="list-style-type: none"> storeTag syncDayThreshold unfinalisedSIThreshold stocktakeDayThreshold requisitionDayThreshold lookBackPeriod lookBackPeriodCI daysWithCIThreshold

Report	Method
This month's transactions Shows a bar chart of the number of purchase orders, goods receipts, supplier and customer invoices created this month.	

Report
Top facilities supplied The 10 customers in your store to which you have sent the greatest value of stock. Shows the value of stock for each customer.

Report
Total stock value A single figure in your default currency, showing the total value of the stock you have in the store you are viewing the dashboard for.

Report	Method	Format	
Transactions per store Shows a table of the transactions per stores within 30 days	<i>dashboard_rep_month_transacs</i>	Table	store_code Specify :

Report	Method	Format	Parameters	
Trends in critical stock	<i>dashboard_rep_in_stock_trends</i>	Time series chart	store_id	the ID of the store you're interested in, or no value for all
			critical_stock	TRUE if you want to include items with this field checked

Report
Unfinalised Stock transfers Shows unfinalised stock transfers within the specified time period for each facility which matches the "store_tags" param

Report	Method	Form
VEN items in stock Shows stock on hand of each items that belongs to the VEN (Vital, Essential, Necessary) category	<i>dashboard_rep_item_ven</i>	Line

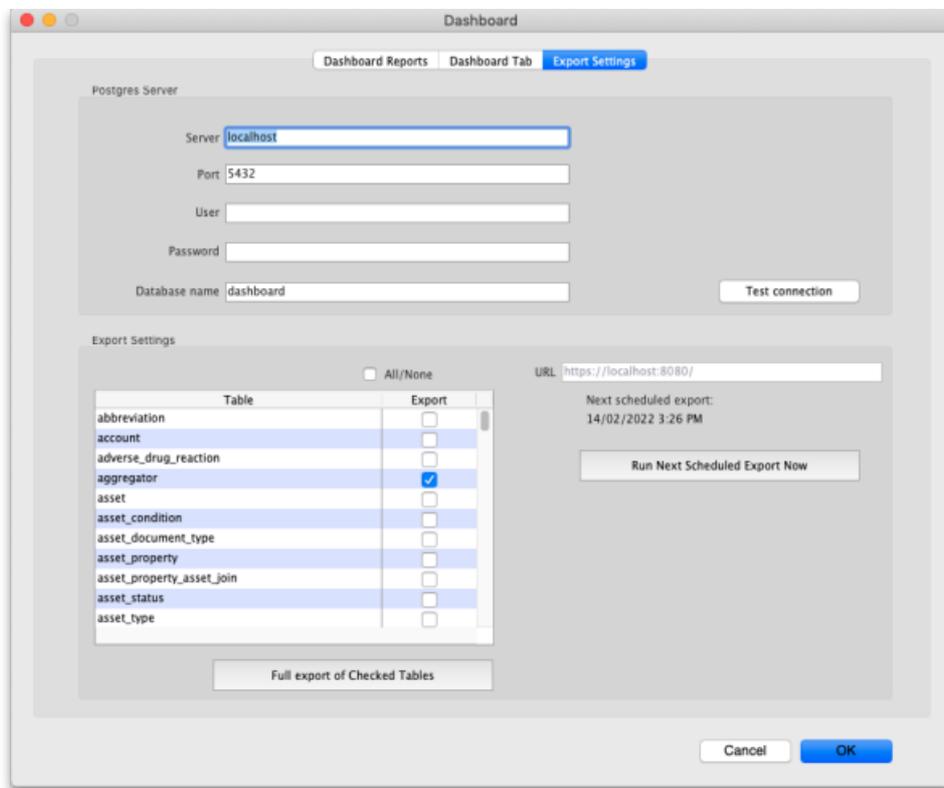
Report	Method
Vital items in stock Shows a bar graph of the percentage of medicines of the chosen category in stock at each facility	<i>dashboard_store_stock_percent</i>

Report	Method
Item Stock on Hand and Months Cover Shows a table of item VEN status, Stock on Hand, Monthly Consumption, and Months Cover	<i>dashboard_rep_</i>

If you can't make a dashboard report that does what you want then please speak to us, it's usually a fairly simple matter for us to create one for you.

Editing dashboard reports

Double-click a report in the list shown above and the following window will open:



Postgres server section

Enter the details of the dashboard's Postgres server in here:

- **Server:** the URL of the server the database resides on
- **Port:** the port the database is being served on
- **User:** the username mSupply will use to login to the dashboard's database
- **Password:** the password ms will use of login to the dashboard's database
- **Database name:** the name the dashboard's database has been given in Postgres

Test connection button: when you have entered all the details in this section, click on this button to test the connection to the dashboard's database. mSupply will tell you whether the connection is successful or not.

Export settings section

In the table select the tables in the mSupply database that you want to export to the dashboard. Care needs to be taken here; you need to choose all the tables that will provide the information you need in the dashboard but not those you do not need as this may impact on the speed of the export, and therefore how quickly your dashboard can be updated.

Use the **All/None** checkbox to quickly check or uncheck all the tables in the list.

The URL field shows you the URL that mSupply is exporting the data to.

Full export of Checked Tables button: Clicking this will force mSupply to empty the dashboard database and export all the data from the selected tables to the dashboard database.

Run Next Scheduled Export Now button: Clicking this will make mSupply immediately export to the dashboard database all the data that has changed in its database since the last export to the dashboard.

When these settings have been saved, mSupply will use them to automatically export the selected data to the dashboard according to the schedule that has been set.

Alert

August 2020: The remaining instructions on this page are for configuring mSupply's legacy web dashboard. This may still work, but is no longer supported as it has been superseded by the [mSupply Grafana web dashboard](#). The instructions are left here for historic reference only.

Dashboard tabs

You set up Dashboard tabs which will display on your dashboard. Dashboard tabs are "containers" for one or more dashboard reports. To edit them click on the *Dashboard Tabs* tab of the window which is displayed when you click on the *Dashboard* icon on the *Admin* tab of the Navigator:

Configure users to have access to dashboards

Once the tabs have been setup you have to choose which users will see which tabs. You do this in individual users' settings. For instructions on how to do this, see:

- [Managing users > General tab > Users can:](#)(Use the Dashboard permission)
- [Managing users > Dashboard tab](#)

Previous: [19.05. Web Dashboard](#) | | Next: [19.07. Online catalogue](#)

Last modified: 2022/02/16 15:45 by Gary Willetts



mSupply documentation wiki





19.07. Online catalogue

The online catalogue is a searchable list of items you stock, driven by data in mSupply. The information can easily be updated and items added to or removed from the catalogue. By enabling the online catalogue you can, for example, replace the expensive printing of hard copy catalogues.

Setup

1. Tell mSupply which columns to display in the catalogue

This is done in the mSupply preferences. Choose *File > Preferences...* from the menus and go to the *Web catalogue* tab. For the details of the settings and what they do, see the [16.01. General preferences > Web catalogue tab](#) page for details.

2. Tell mSupply which store to run the catalogue from

Choose *File > Preferences...* from the menus, and on the *Web server* tab select the store in the *Default store for web interface* drop down list. If the mSupply web server isn't already running you'll also need to click on the **Start web server** button. More information about these options can be found on the [16.01. General preferences](#) page.

3. Tell mSupply which items are to be included in the catalogue

The items that will appear on the web catalogue are all those that have their 'On Price List' flag set in the Default store for web interface.

To set an item's 'On Price List' flag, you will need to do this from the *Item > Misc* tab - refer to [4.01.03. Items - Misc\(ellaneous\) tab](#) page.

You need to set these values for all the items you want to appear in the catalogue. As with many repetitive tasks in mSupply, the **OK & Next** and **OK & Previous** buttons at the bottom of the item details window are your friends here. If you are going to need to work with hundreds, or even thousands of items, then the [Update On Price List in bulk](#) feature is your even greater friend.

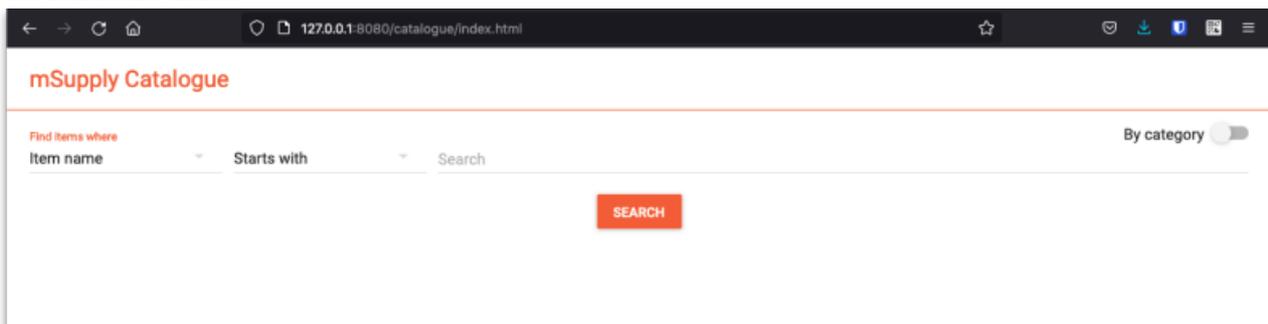
Operation

Once the mSupply web server is running, users access the catalogue using a web browser (Firefox, Chrome etc.). The address to visit is

```
https://example.com/catalogue/
```

where *example.com* is the domain of your web server.

This is what the user will see:



The catalogue can be searched by either item name (or other property that you have set to be searchable) or the categories that items belong to.

Searching by item name/property

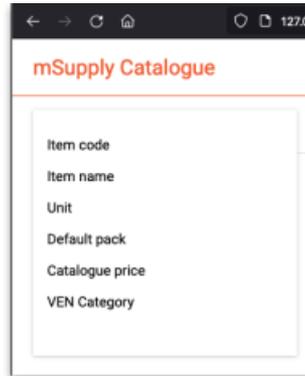


Searching by item name is the default search when the online catalogue first loads in the browser, shown in the screenshot above.

To search by item name, type something in the *Search* field, select the appropriate comparator in the drop down list (set to *Starts with* by default, as shown in the screenshot above) and click on the **Search** button.

If you leave the *Search* field empty, all items in the catalogue will be returned by the search.

If you have set other item properties to be searchable in the [1. Tell mSupply which columns to display in the catalogue](#) setup step (above) then you can click on the *Item name* drop down list and select another searchable property, as shown here:



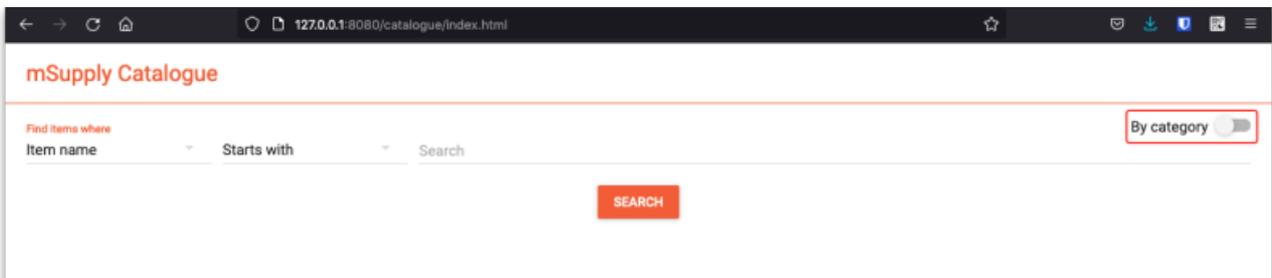
As you do that, the options in the search comparator drop down list (Showing *Starts with* in the **Operation** section screenshot above) will change to match the type of property you have chosen.

Searching by category

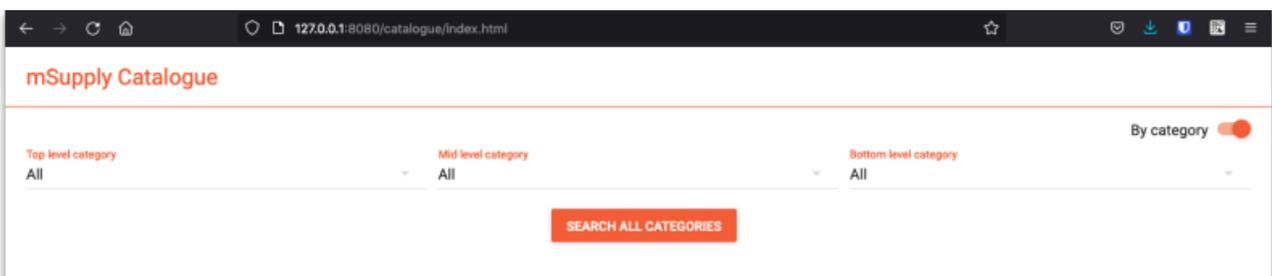
The category used to search for items in the catalogue is item category 1. This category is hierarchical and has 3 levels. For more details about this category, including setting it up and assigning it to items, see [here](#). Note that in the catalogue, *Top level* corresponds to level 1 of category 1, *Mid level* to level 2 and *Bottom level* to level 3.

We say that Mid level categories are children of the Top level categories and Bottom level categories are children of Mid level categories.

To search by category, click on the **By category** slider in the top right hand corner:

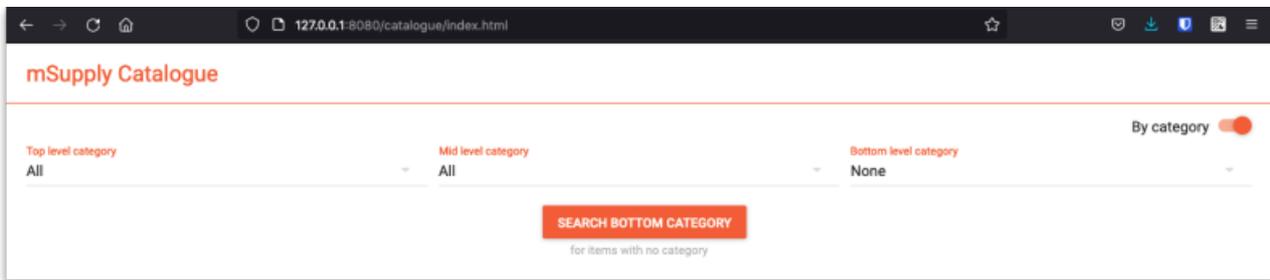


The window will change to show the category search options:



By default the search filters are set to search for all items that have a category. If you click on the **Search all Categories** button, all items that have a category will be returned (and if no items have a category set then no items will be returned!)

If you want to find all items that have no category set you can change the **Bottom level category** drop down list to *None* (this is the only category filter that has a *None* option). The **Search all categories** button will change to **Search bottom category** with a *for items with no category* subtitle to make it clear what will happen:



If you change the drop down list of one of the category levels away from *All*, the child level drop down list will change to contain only categories that are children of the one you selected. Using this, you can refine your category search as much or as little as you wish.

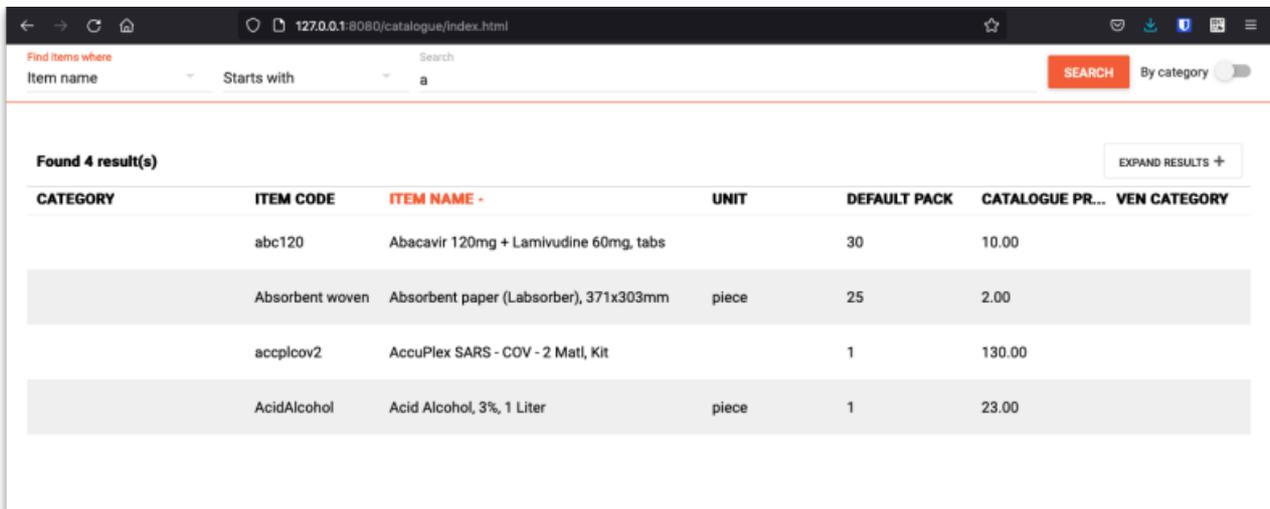
So, if you select a category in the *Top level category* drop down list and click on the **Search top level category** button (the **Search all categories** that is automatically renamed) then all the items that have a category that is a child of that top level category will be returned.

Before you click on the **Search top category** button, if you look at the options in the **Mid level category** drop down list, you will notice that it now contains only categories that are children of the selected top level category. If you select one of those, the **Search top category** button will become **Search mid category** and, if you click on it, all items that have a category that is a child of the selected mid level category will be returned.

Similarly, if, before clicking on the **Search mid category** button, you selected one of the *Bottom level* categories then the **Search mid category** button will become **Search bottom category** and, if you click on it, all items that have the selected bottom level category will be returned.

The results

Whatever search filter you choose, the search results are shown after you click on the **Search button** like this:



Note that the filter is still available at the top of the window so that you can change the search if you wish. If you click on the **Expand results** button is removed to give the results as much screen space as possible. Click the button again and the search filter will be displayed again.

The columns shown in the search results table are those you selected in the [1. Tell mSupply which columns to display in the catalogue](#) setup step above. They are also displayed with the display names you sent for them.

Previous: [19.06. Mobile Dashboard set up \(after v4.0\)](#) | Next: [19.08. Stock web app](#)

Last modified: 2021/12/16 05:27 by Mark Glover

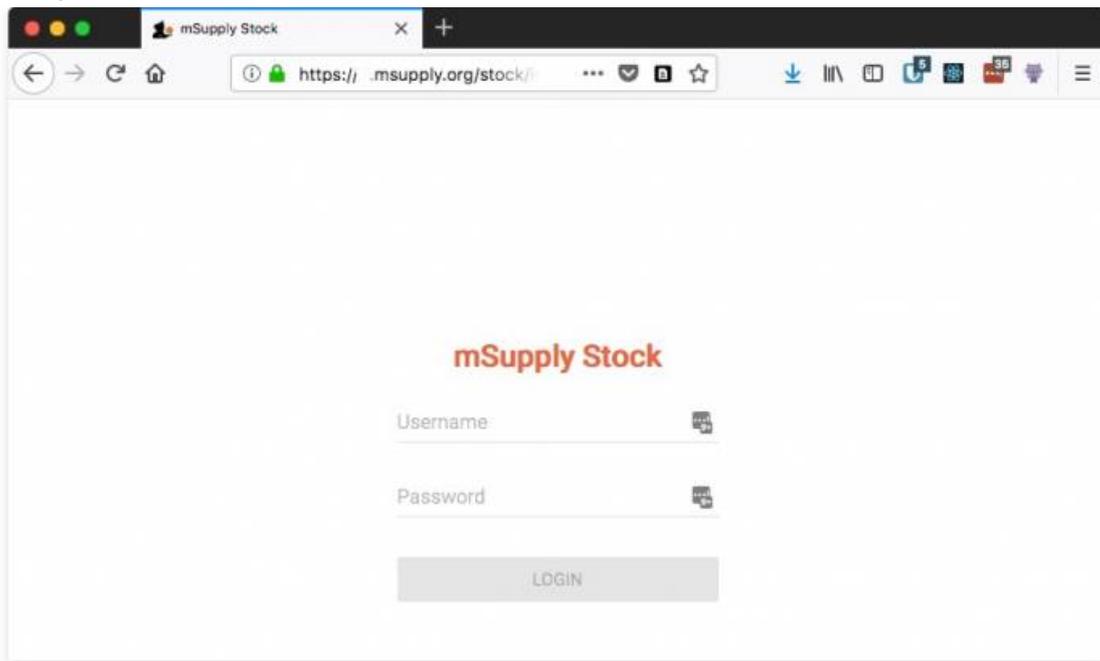
19.08. Stock web app

You can use the Stock web app to look up the stock on hand of items, including batch and expiry information, from anywhere you have access to the internet. Very handy if you are away from the computer you normally use to access mSupply, or travelling overseas and still need to check the stock information in your store.

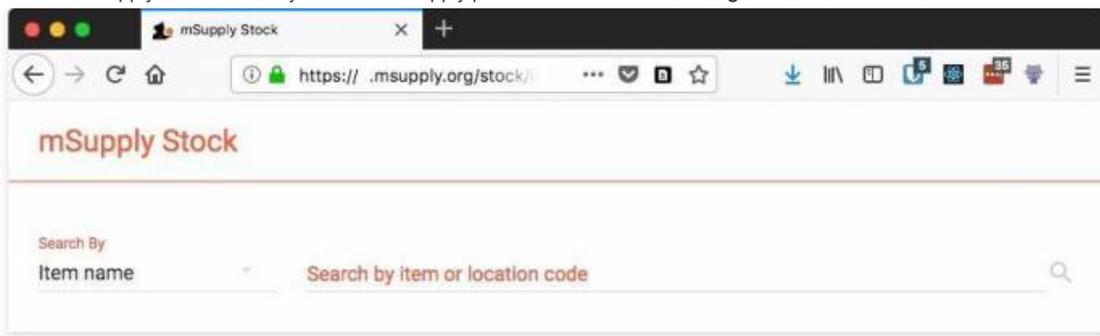
Users will be able to see the stock information for their [default store](#) only (Note: in a sync system, it is the **primary server** information that is shown).

To access the Stock web app, point your browser to <https://yourserver.msupply.org:2048/stock> where *yourserver.msupply.org* is the domain name and *2048* is the port for your mSupply web server (these details will be supplied to you by Sustainable Solutions if you are using this functionality). If you are going to use the App a lot, it would be a good idea to set its location as a bookmark or favourite in your browser.

This is the screen you will see:



Type in your normal mSupply username and your normal mSupply password and click on the **Login** button to move to the search screen:



You can either search by item name or stock location code - select "Location code" instead of "Item name" in the screenshot above to search by location code. mSupply will search for stock belonging to items with names or in locations with codes that **begin with** what you type in the "Search by item or location code" field shown in the screenshot. When you have entered the text to search for, click on the magnifying glass icon to make the search. The results are displayed below the search filter, as shown in this screenshot:

The screenshot shows the mSupply Stock application interface. The search bar is set to 'Search By Item name' and the search term is 'amox'. The results show 20 items for 'amox'.

ITEM NAME	BATCH	EXPIRY	LOCATION	TOTAL STOCK
Amoxicillin 500mg tabs	1711-29-115	30-11-2019	05-7-2	10000
Amoxicillin 500mg tabs	1711-27-115	30-11-2019	05-7-2	8600
Amoxicillin 500mg tabs	1711-29-115	30-11-2019	11-1-1	2640

And this is an example of a search by stock location code:

The screenshot shows the mSupply Stock application interface. The search bar is set to 'Search By Location code' and the search term is '11-2-2'. The results show 4 items for location code '11-2-2'.

ITEM NAME	BATCH	EXPIRY	LOCATION
Pipette Lycopcyte 0.5 to 11 ml			11-2-2
Haematec pump tube set 4382, 43344 Set/3			11-2-2
Pipette Erythrocyte 0.5 to 101 ml			11-2-2
Acetone Alcohol Decolouriser 500gm	0	31-12-2025	11-2-2

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19.09. mSupply REST APIs

What is it?

This document describes an application programming interface for communicating with mSupply.

Basics

- Communication is over HTTP protocol
- All data is submitted and returned as JSON
- HTTPS supported- you should use it. If you want to restrict to only HTTPS, then block the HTTP port mSupply is using on your router.

Authentication

- All requests must have standard HTTP basic authentication headers
- You **must** use SSL to secure your communications unless you want to tell the world your password.

GET - Getting data from mSupply

For all calls

- The basic syntax

```
http://server_ip_address/type/resource/id_of_resource
e.g. http://example.com/mobile/name/524
will retrieve the complete record for name whose ID=524
```

- or

```
http://server_ip_address/resource?field=blah,field2=blah2&sortby=+foo,-bar
e.g. http://example.com/mobile/name?name=foo&customer=true&sortby=+name
will retrieve all names whose name starts with "foo" and who are customers, sorted by name in ascending order (a to z)
```

Note that a "/" is also allowed before the "?" in the URL e.g. `http://example.com/mobile/name/?name=foo&customer=true&sortby=+name`

- Method: GET
- Note that all price data will be returned rounded to 2 decimal places.

Paging

- If you want a range of items, pass an HTTP header named "range" with a "from" and "to" value separated with a hyphen. See the following example to find out the right format for the "range" header.
 - e.g. to return the first 15 items:

```
range bytes=1-15
```

- The server will reply with a header containing the item range and the total number of items found:

```
items 1-15/568
```

Query notes

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- For string searches you can use “@” as a wildcard, as in the example above
 - ?name=@foo@ will return all names containing “foo”
 - ?name=foo@bah will return all names starting with “foo” and ending with “bah”
- Allowed query operators are:
 - =
 - # (not equal to)
 - >=
 - <=
 - <
 - >
- A query operator must be followed by a query value
- All resources returned are first filtered by the server to only return valid results for the store the user is logged in to.
 - Transactions: only transactions created in that store
 - Items: only items visible in that store
 - Customers (names): only names visible in that store
 - More on stores · [here](#)
 - There is a full list of field names · [here](#) but note that as of Wednesday 31 October 2012 they haven't been updated for mSupply v3.2

Available resources

mobile/Items

Resource name	item
Fields you can query	any
Returns by default JSON array containing:	id code item_name stock_on_hand_tot
When a single item ID is requested	department category category2 stock_on_hand stock_available An array with a key of “lines” containing pack_size, available_quantity, batch, expiry_date, sell_price

mobile/Transactions

Resource name	transaction
Fields you can query	any
Returns a JSON array containing:	id name (i.e. the name of the c entry_date confirm_date status (a two letter code der comment (the user-entered
If you only request a single ID (e.g example.com/mobile/transaction/558)	A JSON object containing e
Special case one: Getting An ID to use when submitting a new transaction; submit example.com/mobile/transaction/new_id Returns:	JSON object containing: ne

mobile/Names

Resource name	name (a name can be a customer, a supplier, a manufacturer or a donor or a combination of these)
Fields you can query	any
Returns by default JSON array containing	id code name bill_address1

mobile/Invoice

Resource name:	invoice
Fields you can query	<p>none. Just call the ID number like this</p> <pre>http://example.com/mobile/invoice/578</pre>
Returns by default JSON array containing	<p>id name_id name_name (The actual name of the customer or supplier) total their_ref type entry_date confirm_date comment entered_by (username not ID) store (name not ID) hold lines: contains an array containing the lines on the invoice. Each array row contains: item_id item_name quantity (no. of individual items i.e. pack size x quantity in a pack) stock: contains an array of all stock lines used on the invoice, and also any other stock lines for items on the inv</p>
Example	<pre>{ "id" : 587, "name_id" : 79, "invoice_num" : 256, "status" : "fn", "total" : 824.5, "their_ref" : "GIZ05", "type" : "ci", "entry_date" : "2012-09-30", "confirm_date" : "2012-10-30", "name_name" : "ZIGO HOSPITAL", "lines" : [{ "id" : 6396, "item_key" : 973, "item_line_key" : 960, "item_name" : "CLOXACILLIN TABS 250MG BOT/1000", "quantity" : 5, "pack_size" : 1000, "sell_price" : 161.61, "price_extension" : 808.05 }, { "id" : 6397, "item_key" : 120, "item_line_key" : 14, "item_name" : "ATENOLOL TABLETS 50MG BOT/100", "quantity" : 5, "pack_size" : 100, "sell_price" : 3.29, "price_extension" : 16.45 }], "stock" : [{ "id" : 22126, "quantity" : 162, "batch" : "AD 1002", "expiry_date" : "2014-09-30", "pack_size" : 1000, "sell_price" : 147.09 }, { "id" : 22307, "quantity" : 12, "batch" : "3026844", "expiry_date" : "2014-03-30", "pack_size" : 1000, "sell_price" : 139.3 }] }</pre>

mobile/Stock

Resource name	stock
Fields you can query	any in the items table or for a
Typically, having located an item to add to an invoice you will want to locate the total stock available for that item	<pre>http://example.com/ m.ID 123</pre> <pre>http://example.com/ or transaction.ID 1</pre>
Returned: an array of match records containing the item ID and the total stock quantity like this	<pre>[{ "id" : 5265, "quantity" : 30, }, { "id" : 5275, "quantity" : 100, }, { "id" : 5274, "quantity" : 50, }]</pre>

Stocktakes

Resource name	stocktake
Fields you can query	any
Fields returned from a query	ID description stocktake created date status
You can filter on type of stocktake by querying the status e.g.	<pre>http://example.com/mobile/stocktake?stat</pre>
Requesting a particular stocktake returns the following fields for the stocktake itself	description stocktake created date stocktake entered date status comment An array whose key is "lines" containing an these fields for e item code item name quantity (the pack size is assumed to be one) snapshot quantity
Example	the following request would return the information for the st <pre>http://example.com/mobile/stocktake/123</pre>
Special Case: Creating a stocktake	First you need to get a stocktake id that you can use by req <pre>http://127.0.0.1:8081/stocktake/new_id</pre>

Info

A note on creating stocktakes: the recommended process is:

1. Get a new stocktake id
2. Get items- this will also return the current stock on hand.
3. Display this, along with a column for the user to enter current stock on hand
4. When ready to save, post the data (below). Wasn't so hard!

Categories

Use this resource to return lists of different types of categories in mSupply.

Resource name	categories
Fields you can query	any
Fields returned from a query	id - the category's unique id description - the category's description type - the category's type parent_id - the category's parent id
You can filter on type of category by querying the type (which can take the values "item", "purchase_order", "transaction" and "name")	The following query would return all categories of type "item": http://example.com/categories?type=item

catalogue/Catalogue Items

Resource name	catalogueitem
First URI segment	catalogue
Fields you can query	any
Fields returned from a query for each item	id - the item's unique id code item_code - the item's code item_name - the item's descriptive name indic_price - the catalogue price of the item description - the lowest level category (category 1, level 3) that the item belongs to units - the units the item is provided in e.g. Amp (ampule) Tab (tablet), report_quantity - the pack size of the item in the catalogue, e.g. the following query would return all items with a pack size of 4: http://example.com/catalogue/catalogueItem?report_quantity=4

* You can filter on the category that items belong to by querying the category number and level. There are 3 categories (1-3) but please note that category 1 is hierarchical; it has 3 levels - level 1 is the parent, level 2 categories are children of level 1s and level 3 categories are children of level 2s. So, altogether you can query category1level1id, category1level2id, category1level3id, category2id and category3id. Note that all queries by category will return items that belong to that category and those which belong to all its child categories e.g. this query will return all items assigned to the level 2 category 1 which has an id of 4 **and all items belonging to category 1 level 3 categories that are children of it**

Example	http://example.com/catalogue/catalogueItem?category1level2id=4
----------------	---

Customer Stock History Items

Resource name	customerstockhistory
Fields you can query	any
Fields returned from a multiple query	id, date_entered
Fields returned from a single id	id, date_entered, stock_take_date, lines (array) The lines object array contains: id (the id of the line, [name_s_h_line]id) item_id (the id of the item, [name_s_h_line]item_id) item_name (the name of the item - [item]item_name using [name_s_h_line]item_id) item_code ([item]code using [name_s_h_line]item_id) store_stock (the amount of stock (number of items not packs) the supplying store has of this item) stock_on_hand (the stock on hand entered by the user, [name_s_h_line]stock_on_hand) usage (this store's daily usage of this item. Calculated as (stock on hand last stocktake + stock received last stocktake - stock on hand this stocktake) / (date_entered - last stocktake date)) comment (the line's comment - [name_s_h_line]comment)

Version

Resource name	version
Fields you can query	none
Returned	the current mSupply mobile version
Example:	http://example.com/mobile/version

mobile/masterlist

Resource name	masterlist
Fields you can query	name_id, type (the type of list to return)
Returned	JSON containing the items for the associated masterlist belonging to the name of the specified type
Example	<code>http://example.com/mobile/masterlist/name_id="123"&type=weborder</code>

Settings

Resource name	settings
Fields you can query	none. Precisely.
Returned	A JSON object with three entities: timeout, name_id, name- This is the id and name of the customer or supplier or store
Example	<code>http://example.com/mobile/settings</code>

mobile/Purchase orders

Resource name	po
Fields you can query	id
Returned	JSON containing the Purchase Order details for the ID you queried
Example	<code>http://example.com/mobile/po/id="123"</code>

Reports

Resource name	report
Query	type with one of three options: type=currentstock or type=expiringstock or type=orderedvsreceived
Query parameters	type=currentstock: none type=expiringstock&nummonths=xx where nummonths is the number of months in advance of the current date to compare expiry type=orderedvsreceived&from=yyyymmdd&to=yyyymmdd where the from and to dates in yymmdd format are entered.
Returned	JSON containing the "Successfully sent" or any errors encounters
Example	<code>http://example.com/mobile/report/type=currentstock</code>

Patients

Resource name	patient
Query parameters	<p>first_name: first name of patient</p> <p>last_name: last name of patient</p> <p>dob: patient date of birth (DD:MM:YY)</p> <p>policy_number: patient insurance policy number</p>
Returned	<p>JSON array of patient objects matching query parameters:</p> <pre>[{ "ID":, "name", "phone", "customer", "bill_address1", "supplier", "email", "code", "last", "first", "date_of_birth", "type", "manufacturer", "bill_address3", "bill_address4", "bill_postal_zip_code", "supplying_store_id", "nameNotes": ["note1","note2", ...], "nameInsuranceJoin": [{ "ID", "insuranceProviderID", "nameID", "isActive", "policyNumberFamily", "policyNumberPerson", "type", "discountRate", "expiryDate", "policyNumberFull", "enteredByID" }, ...], }, ...]</pre>
Example	<pre>http://example.com/api/v4/patient?first_name=j@&last_name=doe&dob=01/01/1960</pre>

Prescribers

Resource name	prescriber
Query parameters	first_name: first name of prescriber last_name: last name of prescriber code: prescriber code
Returned	JSON array of prescriber objects matching query parameters: <pre>[{ "ID", "code", "first_name", "last_name", "initials", "registration_code", "category", "address1", "address2", "phone", "mobile", "email", "female", "active", "store_ID" }, ...]</pre>
Example	

The Stock Endpoint

This [API](#) is used by the mSupply stock web app.

POST/PUT - Sending data to mSupply

- Must include authentication header
- Data in HTTP body as JSON
- Two types of POST/PUT: **New** and **Update**
- For **New** records:
 - Must use POST method without 'If-Match: *' header.
 - Append the id of the record to be created to the resource: e.g. POST <http://example.com/mobile/transaction/134>
- For **Updates** to an existing record:
 - Must use either POST method with 'If-Match: *' header or PUT method (headers ignored). e.g. PUT <http://example.com/mobile/transaction/134>
 -

Transactions

- Resource name: transaction
- Create a transaction
 - Submit a JSON object containing:
 - new_transaction_id (you must have already requested this from the server - see above)
 - comment
 - name_id
 - lines (contains a JSON array:
 - item_id
 - quantity
 - directions (new in v3.84)
 - Payload.

```
{
  "id": 34592,
  "comment": "test 1",
  "name_id": 3,
  "lines": [
    {
      "item_id": 19697,
      "quantity": 10,
      "directions": "1t tid uf"
    },
    {
      "item_id": 22845,
      "quantity": 5,
      "directions": "Take 5 tablets at 9 a.m. tomorrow"
    }
  ]
}
```

- successful completion returns a JSON object with "invoice_num" and a number
- Assumed data: The following data is assumed and can not be submitted (will be ignored if you try)
 - The transaction type: it's a customer invoice ("ci")
 - The store ID: it's the store you're logged in to.
 - The user: it's the user who is logged in.

- The entry_date: it's today.
 - The confirm_date: it's today.
 - The status: will always be "cn" (confirmed).
- Updating a transaction:
 - for supplier invoice we are editing only hold status for now. So json payload would be:

```
{"id":1002,"hold": "true"}
```

- for customer invoice we can also update line quantity

```
{"id": 34592,"comment":"test 2",
  "lines":[
    {"transline_id": 19697,"quantity":20},
    {"transline_id": 22845,"quantity":10}
  ]
}
```

- Delete transaction lines:

```
{"id": 34592,"comment":"test 2","lines":[<all_lines>]}
```

Stocktakes

Resource name	stocktake
Method	POST
Submit a JSON object containing	id (you must have already requested this from the server - see above)
Finalising a stocktake	body: include an item "status" with value "fn"
Assumed fields	stock_take_created_date created_by_id finalised_by_id store_id

example 1	Submit a stocktake and finalise http://example.com/mobile/stocktake/123
	<pre>{ "status": "fn", id:123, stock_take_date:2013-02-08, description:8/2/2013 Stocktake, Comment "lines": [{ "id": 123,"item_id":234,"item_line_id":345,"item_name":"test_item1";"snapshot_qty":100, "ck_take_qty":310}, { "id": 222,"item_id":232,"item_line_id":212,"item_name":"test_item2";"snapshot_qty":100, "ck_take_qty":300}] }</pre>
	if the previous status was "sg", the mSupply server will now create the appropriate inventory adjustments, as well as changing the status c
example 2	Submit a stocktake with status "sg" http://example.com/mobile/stocktake/123
	<pre>{ "new_stocktake_id": 34592,"description":"stocktake test", "status":"sg", "lines": [{ "item_id": 19697,"stock_take_qty":100}, { "item_id": 22845,"stock_take_qty":80}] }</pre>
example 3	Finalise an existing stocktake http://example.com/mobile/stocktake/123
	<pre>{ "status":"fn" }</pre>

Customer Stock History

Resource name	customerstockhistory
Method	POST
Submit a JSON object containing an array with 3 fields	id requested_quantity user_comment

DELETE - Delete Records

Available resources

Stocktake

- Deleting a stocktake
 - e.g. - <http://127.0.0.1:8081/stocktake/123>
 - Method: DELETE
 - Returns a JSON object containing a Description field with the value "stock take id xxx is deleted." where xxx is the id of the stocktake deleted.

Invoice

- <add here>

Item

- <add here>

Errors

- Errors are returned as a JSON object with one item "error" whose text content is the error message
- e.g.

```
{"error": "we can't take you seriously while you insist on wearing that cardy"}
```

- Here is a list of error messages you might see. Most are self-explanatory:
 - "No search parameter specified"
 - "No query parameter specified"
 - "Invalid resource specified"
 - "Invalid sort field specified"
 - "Invalid range header specified"
 - "No transaction with that ID found"
 - "Invalid transaction ID specified" (Different to above, in that you specified a non-numeric or negative ID)
 - "Yikes! Multiple transactions with same ID found" (you'll never see this error, or we'll be eating hats).

Previous: [19.08. Stock web app](#) | Next: [19.10. mSupply sync API](#)

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19.10. mSupply sync API

What is it?

There are multiple ways to configure an mSupply installation. Where the internet is good, or you are using a local area network, you can have real-time communication with an mSupply server. Where internet access is poor or non-existent, we have mSupply sync. You can have a local application that saves all the changes the user makes to a local database - this can be a mobile app, a single user application on a PC or a tablet, or a client-server application on a local [LAN](#).

The machine on which the data is stored, which we call a *satellite*, then periodically communicates with a central mSupply server, which we call the *primary* - this may be in a central location in the country, or it may be a cloud-based server. The REST [API](#) described here is used to send and receive data from the primary server to keep both satellite and primary sites up to date with data additions, modifications and deletions. See [29.01](#). [Introduction to synchronisation](#) for more details on how sync works.

Basics

You might want to read about our [mSupply Mobile API](#), as the basics are the same. That is:

1. The SYNC [API](#) is a subset of the mSupply REST [API](#).
2. All calls to the sync [API](#) use a pseudo-resource of "sync".
3. The second [URI](#) segment is the [API](#) version. Allowable values:

Value	Release Date
v1	25 Jan 2016
v2	01 Mar 2017

Our [Android mobile app](#) uses v2 exclusively to communicate with the primary mSupply server, whereas mSupply itself uses v1 for synchronisation between different instances of mSupply. For example, you call "<https://example.com/sync/v1/somethinghere>".

Server requirements

You will need to be querying an mSupply standalone or server that:

1. Has a fixed IP address.
2. Ideally has a domain name and a valid SSL certificate - we rely on SSL for stopping your communications and password(s) being acquired. You should use it.
3. Is reachable from the machine you are using these APIs on.

Authentication

We use basic HTTP authentication:

1. v1 of the [API](#) only supported a simple `username:password`, with each satellite sharing the same credentials for a single special sync user on the primary server.
2. v2 expects the password part to be SHA256 encoded i.e. `sitename:SHA256_encoded_password`, and each satellite can have its own individual site name and password credentials on the primary server.
3. v1 now also supports SHA256-encoded passwords and individual satellite site credentials.

Available calls (v1)

Note that each site has a unique integer ID, and that the ID for the primary server (running a web server) is always set to 1.

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- What is it?
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HTTP GET

```
https://example.com/sync/v1/queued_records/count?from_site=4&to_site=1
```

will retrieve the number of sync records in the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1.

```
https://example.com/sync/v1/queued_records/?from_site=4&to_site=1&limit=10
```

will retrieve the first 10 sync records in the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1. If *limit* is missing, it will only retrieve a single record from the head of the queue.

```
https://example.com/sync/v1/queued_records/?from_site=4&to_site=1&sync_id=GSHJDJKSKS
```

will retrieve a single sync record from the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1, where the sync record ID=GSHJDJKSKS (UUID).

```
https://example.com/sync/v1/initial_dump/?from_site=4&to_site=1&type=full
```

will request the sync site with ID=1 to regenerate all sync records for the sync satellite site with ID=4 (the requesting site). This is used to (re)initialise a new satellite. If *type* is missing, or has any other value, then only the subset of sync records necessary for a mobile store will be generated.

HTTP POST

```
https://example.com/sync/v1/acknowledged_records/?from_site=4&to_site=1
```

will inform the server that the sync records whose IDs (UUID) are specified (as JSON) in the HTTP BODY have been consumed from the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1.

```
https://example.com/sync/v1/queued_records/?from_site=4&to_site=1
```

will apply the sync record data specified (as JSON) in the HTTP BODY from the sync satellite site with ID=4 (the requesting site) to the sync site with ID=1. Multiple sync records can be sent in one packet.

Format of a record

- The format is JSON.
- If there is more than one record returned or to be sent, each record is an element of a JSON array.
- v1 uses internal field numbers and table numbers.
- Text ID fields are always UUIDs.
- Blobs, pictures etc. are BASE64 encoded.
- Example for v1:

```
[
  {
    "SyncID": "asdlkfj",
    "TableNumber": 3,
    "RecordID": "dkfaadj",
    "KeyFieldID": 5,
    "SyncType": "U",
    "StoreID": "knvslkj",
    "fields": [9, 11, 3],
    "values": ["sadflkj", "Trinity", "12"]
  }
]
```

Available calls (v2)

The v1 [API](#) calls above behave in exactly the same way for v2, except that the format of any sync records transferred is different. The extra v2-specific [API](#) calls below are used to retrieve the necessary parameters for our mobile app, which is designed to host a single store.

HTTP GET

```
https://example.com/sync/v2/queued_records/count?from_site=4&to_site=1
```

will retrieve the number of sync records in the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1.

```
https://example.com/sync/v2/queued_records/?from_site=4&to_site=1&limit=10
```

will retrieve the first 10 sync records in the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1. If *limit* is missing, it will only retrieve a single record from the head of the queue.

```
https://example.com/sync/v2/queued_records/?from_site=4&to_site=1&sync_id=GSHJDJKSKS
```

will retrieve a single sync record from the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1, where the sync record ID=GSHJDJKSKS (UUID).

```
https://example.com/sync/v2/initial_dump/?from_site=4&to_site=1&type=full
```

will request the sync site with ID=1 to regenerate all sync records for the sync satellite site with ID=4 (the requesting site). This is used to (re)initialise a new satellite. If *type* is missing, or has any other value, then only the subset of sync records necessary for a mobile store will be generated.

```
https://example.com/sync/v2/site/?site_name=Satellite4
```

will retrieve the site ID (integer) and the corresponding store ID (UUID) and store-name ID (UUID) for the sync satellite site with name=Satellite4 on the primary sync site. Used by mobile during login to lookup the store for the site.

```
https://example.com/sync/v2/user/?store=CVCBNXNSHSH
```

will retrieve the user ID (UUID) for the sync satellite site having store ID=CVCBNXNSHSH (UUID, returned by the above REST call) on the primary sync site. Used by mobile during login to lookup the user for the store.

HTTP POST

```
https://example.com/sync/v2/acknowledged_records/?from_site=4&to_site=1
```

will inform the server that the sync records whose IDs (UUID) are specified (as JSON) in the HTTP BODY have been consumed from the outgoing queue for the sync satellite site with ID=4 (the requesting site) on the sync site with ID=1.

```
https://example.com/sync/v2/queued_records/?from_site=4&to_site=1
```

will apply the sync record data specified (as JSON) in the HTTP BODY from the sync satellite site with ID=4 (the requesting site) to the sync site with ID=1. Multiple sync records can be sent in one packet.

Format of a record

- The format is JSON.
- If there is more than one record returned or to be sent, each record is an element of a JSON array.
- v2 uses field names and table names as [described in the Field descriptions chapter](#).
- Text ID fields are always UUIDs.
- Blobs, pictures etc. are BASE64 encoded.
- Example for v2:

```
[
  {
    "SyncID": "kjhkljg",
    "RecordType": "trans_line",
    "RecordID": "dsfhjd",
    "SyncType": "I",
    "StoreID": "klsvnsl",
    "Data": {"item_name": "hello", "quantity": "9555", "cost_price": "65.5"}
  }
]
```

Available calls (v4)

HTTP POST

```
https://example.com/sync/v4/name_store_join
```

will tell the server to create a name_store_join record for the store and name records defined in the body. Used to make a patient visible when their first prescription has been processed in a store.

Body

```
{
  "name_ID": "xxx",
  "store_ID": "xxx"
}
```

Response

If all is well, 200 OK and the payload:

```
{
  "name_ID": "6F0EA445B35F479AA1020BD2D24B9755",
  "store_ID": "8D967C2618BE4D78B3A6FAD6C1C8FF25",
  "inactive": false,
  "ID": "C6C0A32C1E9841FF93735144F0114290",
}
```

A 400 will be returned if either of the payload elements are missing or the IDs are not present.

A 401 will be returned if authentication fails.

HTTP GET

```
https://example.com/sync/v4/patient_history?id=[name id]
```

Requests patient dispensing history for the specified name record

Response

If all is well, 200 OK and the payload:

```
[
  {
    "confirm_date": "2019-02-22",
    "store": {
      "name": "Hogwarts Dispensary"
    },
    "transLines": [
      {
        "quantity": 5,
        "item_name": "Amoxicillin 250mg tabs",
        "ID": "4C8C08880A20490A9F2B9EC6EC9700A1",
        "itemLine": {
          "item": {
            "code": "030453",
            "doses": 0,
            "is_vaccine": false
          }
        }
      }
    ]
  },
  {
    "confirm_date": "2021-05-07",
    "store": {
      "name": "Hogwarts Dispensary"
    },
    "transLines": [
      {
        "quantity": 0.166666666666667,
        "item_name": "Pfizer/BioNTech COVID-19 vaccine",
        "ID": "a53a3350aec411eba43c6dc4a1371348",
        "itemLine": {
          "item": {
            "code": "C19PB",
            "doses": 6,
            "is_vaccine": true
          }
        },
        "medicineAdministrator": {
          "first_name": "Melaia",
          "last_name": "Baleinausori"
        }
      }
    ]
  }
]
```

An empty array will be returned if the ID does not match a name record or there is no history to return.

A 401 will be returned if authentication fails.

Available calls (v5)

HTTP GET

central_records

```
https://example.com/sync/v5/central_records?cursor=0&limit=1000
```

Requests sync change log records for the sync site matching the authentication sent in the header.

Attributes

- **cursor**: the record number to return from. e.g. `cursor=10` means start returning from the 10th record onwards.
- **limit**: the maximum number of records that can be returned. If omitted, the `limit` is set to 1000. If a `limit` value above 1000 is used, the `limit` is set to 1000.

queue

```
https://example.com/sync/v5/queue?limit=[number of records]
```

Requests sync records that require processing for the sync site which matches the authentication passed in the header.

Attributes

- **limit**: the maximum number of records that can be returned. If omitted, the `limit` is set to 1000. If a `limit` value above 1000 is used, the `limit` is set to 1000.

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Last modified: 2022/02/17 10:42 by Gary Willetts



mSupply documentation wiki





19.11. UNFPA LMA reports app

What is it?

Some of our [UNFPA](#) users are periodically required to produce [Last Mile Assurance \(LMA\)](#) reports. These can be time consuming and difficult to produce manually so we've created an app for that!

This app runs on the central server of your mSupply installation and will create a selection of UNFPA formatted LMA reports as spreadsheet files for you; all you have to do is make some selections to define what transactions and stock should be included in the reports.

Setup

Store tags

For the purposes of the LMA reports, mSupply needs to know which of the stores in your datafile are the 'Central store' and which are 'Decentralised stores'. You do this by adding appropriate [store tags](#) to the stores:

- 'Central store' must be given the `UNFPA_Central` store tag
- 'Decentralised stores' must be given the `UNFPA_decentralised` store tag

For details of how to add tags to stores, please see the [Store tags](#) page.

Using the app

To get to the app, the webserver must be running in mSupply (see the [Server tab](#) page for details on that).

In your browser, enter the [URL](#) of your server followed by the port the app is running on (if you don't know what this is, ask Sustainable Solutions). It should be something like this:

```
https://example.com:4000
```

The login window will load which looks like this:



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Sign in to UNFPA LMS reports application

Please log in using your mSupply account credentials

Username

Password

Sign in

To login enter your mSupply username and password in the **Username** and **Password** fields and click on the **Sign in** button. After successfully logging in, the report options window will be displayed:





UNFPA reports

Report to create

Select a report type ▼

Include transactions in this date range in the report

From	To
February 17, 2022	February 17, 2022

Items to include in report

Select master-list ▼

Include stock from these donors in the report

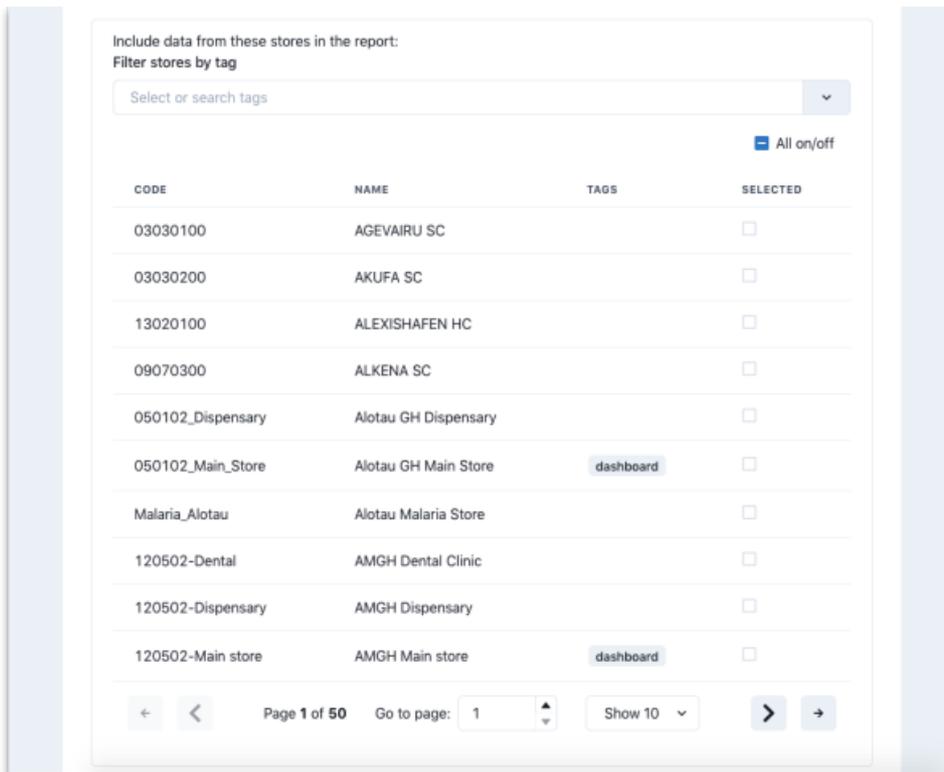
None (all stock) X ▼

Create Report

On this window, make your selections to define what will go in your report:

- **Report to create drop down list:** Select one of the following options:
 - Quarterly review report
 - LMA IP SC Fact Sheet report
 - Stock on date
 - Ledger
- **Include transactions in this date range in the report fields** click on the **From** and **To** dates to select the dates from calendars. Only transactions with a confirmed date that falls between the **From** and **To** dates will be included in the report.
- **Items to include in report drop down list:** Contains a list of all the master lists in your datafile. Select one to include only items from that master list in the report.
- **Include stock from these donors in the report drop down list:** You can choose one or more donors - if you do then only stock that came from them will be included in the report. You can also choose *None* (the default option), in which case a donor filter will not be applied.

If you select any report in the **Report to create** drop down list *EXCEPT* the **Quarterly review report**, an additional store filter is added to the bottom of the options:



The table shows a list of all the stores in your datafile.

- To make it more manageable you can choose to display only stores with particular tags by selecting them in the **Filter stores by tag** drop down list.
- If there are many stores, you can use the paging controls at the bottom of the window to move through the different pages and choose how many stores to display on each page.

Click on the **SELECTED** column checkbox to select a store to include in the report. You can click on the **All on/off** checkbox to toggle the **SELECTED** checkbox on and off for all stores on all pages at once. Only transactions and stock from the stores that have a check in the **SELECTED** checkbox will be included in the report.

When you are happy with your selections, click on the **Create Report** button to create the report. mSupply will tell you the report is being generated and will ask you where to save it or which application to open it with when it is finished. The files generated are .xlsx format spreadsheets.

Tip

Some of the reports do a huge amount of work and calculation so can take a long time to run, especially if you have chosen a lot of stores, a lot of items or a long period to be included in the report. So make yourself a good cup of coffee and go do something else for a while. Better that the computer does all the hard work instead of you, right? 😊

Example report outputs

Quarterly review report

Country	Papua New Guinea												
Store	RH Central Store												
Date From	Fri Jan 01 2021 00:00:00 GMT+1000 (Papua New Guinea Time)												
Date To	Fri Dec 31 2021 23:59:59 GMT+1000 (Papua New Guinea Time)												
Commodity Planning Quarterly Review 2021													
Commodity	Commodity Type	Commodity sub-type	Product ID	Unit of Measure	Stock on Hand (SoH) - Inventory Balance	Stock Count Date	Average Monthly Consumption (AMC)	Source of Inventory Data	Supply Chain Level for Inventory	Months Of Stock (MOS) Calculation	Pipeline Orders / Orders in-transit (UNFPA Supplies programme)	Pipe	Order (und
XIV Hormones, Other Endocrine Medicines and Contraceptives	Contraceptives	Ethinylestradiol 30mcg + Levonorgestrel 150mcg Tab.	11410020	Pkt	0	Fri Dec 31 2021	19,672.61	mSupply	Central level only	0	0		

LMA IP SC Fact Sheet report

Supply Chain Fact Sheet - Stock Outs Level Summary

Stockout levels					
Please provide information and details on key products stockouts at CW and SDP level					
Key products	Current Year Stockout Ratio (%)		Previous Year Stockout Ratio (%)		Comments
	Central Level	SDP Level	Central Level	SDP Level	
Amoxicillin Capsules, 500mg	0	0	19.51	0	
Azithromycin Tab., 500mg	0	0	24.49	0	
Bag, Urine Collecting, with Tap and Valve, 2l	0	0	28.33	0	
Benzyl Penicillin, Int., 1 million IU, 600mg	0	0	21.1	0	
Chloramphenicol Capsules, 250mg	0	0	21.64	0	
Chloramphenicol Sodium Succinate Inj., 1g	0	0	34.93	0	
Ciprofloxacin Tab., 250mg	0	0	23.73	0	
Doxycycline Tab., 100mg	0	0	26.9	0	
Dressing, Combined, 9cm x 10cm	0	0	37.26	0	
Fluoroquinolone Capsules, 500mg	0	0	18.98	0	
Fluoroquinolone Capsules, 250mg	0	0	19.62	0	
Fluoroquinolone Inj., 500mg	0	0	58.19	0	
Gauze, Absorbent, 100cm x 6m	0	14.87	36.6	0	
Gentamicin Injection, 80mg in 2ml	0	0	35.23	0	
Gentamicin Paediatric Inj., 20mg in 2ml	0	0	58.63	0	
Glove, Examination, Latex, Non-Sterile, Large, Pa	0	0	34.08	0	
Glove, Examination, Latex, Non-Sterile, Medium	0	0	33.04	0	
Glove, Post Mortem, Size 7	0	0	66.82	0	
Glucose 2.5% in Half Strength Dextrose Soln., 50	0	0	22.47	0	
Hydrocortisone Sodium Succinate Inj., 100mg + d	0	0	48.92	0	
Metronidazole I.V. Inj., 500mg/100ml	0	0	30.68	0	
Paracetamol Suppository, 125mg, Pack/20	0	11.25	11.15	0	
Paracetamol Suppository, 250mg, Pack/20	0	20	41.32	0	
Paracetamol Tab., 500mg	0	0	23.12	0	
Plaster, Adhesive, 2.5cm x 5m	0	0	18.52	0	
Plaster, Adhesive, Int., 7.5cm x 3m	0	0	29.7	0	
Sodium Chloride Inj., 0.9%, 1l	0	0	22.75	0	
Trimethoprim 80mg + Sulfamethoxazole 400mg	0	18.75	23.62	0	
Trimethoprim 80mg + Sulfamethoxazole 400mg	0	21.67	34.41	0	
Average	0	0	0	0	

Stock on date report

Store	Item Code	UNFPA Item Code	Item Name	Supplier	Batch	Expiry date	Donor	Pack size	Number of packs	Price per pack (Local)	Price per pack (USD)	Total pieces	Total value (USD)
	103100		Amoxicillin Capsules, 500mg		141010	10/30/2017		100	4,972	7.65	\$2.18	497,200	\$10,838.96
	103100		Amoxicillin Capsules, 500mg		170354	03/30/2020		100	230	8.46	\$2.41	23,000	\$554.30
	103100		Amoxicillin Capsules, 500mg		1707006	07/31/2020		100	360	8.46	\$2.41	36,000	\$867.60
	103100		Amoxicillin Capsules, 500mg		1707013	07/30/2020		100	2,019	15.00	\$4.28	201,900	\$8,641.32
	103100		Amoxicillin Capsules, 500mg		2007519	07/30/2020		100	150	3.00	\$0.86	0	\$0.00
	103100		Amoxicillin Capsules, 500mg		2008516	08/30/2023		100	250	6.00	\$1.71	20,000	\$342.00
	103100		Amoxicillin Capsules, 500mg		2008527	08/30/2023		100	800	1.00	\$0.29	0	\$0.00
	103100		Amoxicillin Capsules, 500mg		2008534	08/30/2023		100	650	2.00	\$0.57	0	\$0.00
	103100		Amoxicillin Capsules, 500mg		5797197	10/30/2020		100	2,300	17.84	\$5.09	230,000	\$11,707.00
	103100		Amoxicillin Capsules, 500mg		5797199	10/30/2020		100	5,500	17.84	\$5.09	550,000	\$27,995.00
	103100		Amoxicillin Capsules, 500mg		5797201	10/30/2020		100	900	17.84	\$5.09	90,000	\$4,581.00
	103100		Amoxicillin Capsules, 500mg		SE016C01	02/28/2023		100	1,490	0.00	\$0.00	0	\$0.00
	10530110		Azithromycin Tab., 500mg		190916	09/30/2022		100	730	1.00	\$0.29	0	\$0.00
	10530110		Azithromycin Tab., 500mg		ADFH0144	07/30/2019		3	2,160	1.14	\$0.33	6,480	\$712.80
	10530110		Azithromycin Tab., 500mg		ADFH0148	08/30/2022		3	9,477	0.03	\$0.01	28,431	\$94.77
	10530110		Azithromycin Tab., 500mg		E01038	04/30/2020		3	25	0.00	\$0.00	0	\$0.00
	10530110		Azithromycin Tab., 500mg		G704743	07/30/2019		3	20,198	1.14	\$0.33	60,594	\$6,665.34
	10530110		Azithromycin Tablets, 500mg		E01038	09/30/2022		3	20	2.00	\$0.57	30	\$5.70
	20400080		Bag, Urine Collecting, with Tap and Valve, 2l		22100601	01/30/2026		1	175	0.00	\$0.00	0	\$0.00
	20400080		Bag, Urine Collecting, with Tap and Valve, 2l		41179010	05/30/2021		1	2,800	3.95	\$1.13	2,800	\$3,164.00
	20400080		Bag, Urine Collecting, with tap and valve, 2l		12014212	01/30/2026		1	5	0.00	\$0.00	5	\$0.00
	10530130		Benzyl Penicillin, Inj., 1 million IU, 600mg		200808	08/30/2023		1	6,250	0.00	\$0.00	0	\$0.00
	110400		Chloramphenicol Capsules, 250mg		191238	12/30/2022		100	100	6.00	\$1.71	0	\$0.00
	110400		Chloramphenicol Capsules, 250mg		2002011	02/28/2023		100	6,876	2.00	\$0.57	551,600	\$3,144.12
	110400		Chloramphenicol Capsules, 250mg		C-99001	01/30/2021		100	1,181	24.55	\$7.00	118,100	\$8,267.00
	110400		Chloramphenicol Capsules, 250mg		KXK008	10/30/2022		100	20	5.00	\$1.43	0	\$0.00
	10530210		Chloramphenicol Sodium Succinate Inj., 1g		170372	03/30/2020		1	29,600	0.78	\$0.22	29,600	\$6,512.00
	10530210		Chloramphenicol Sodium Succinate Inj., 1g		170372	03/30/2020		1	14	0.78	\$0.22	14	\$3.08
	10530210		Chloramphenicol Sodium Succinate Inj., 1g		170372	03/30/2020		1	20,000	0.78	\$0.22	20,000	\$4,400.00
	10530210		Chloramphenicol Sodium Succinate Inj., 1g		170372	06/30/2020		1	6,900	0.78	\$0.22	6,900	\$1,518.00
	10530210		Chloramphenicol Sodium Succinate Inj., 1g		171223	12/30/2023		1	10,000	3.00	\$0.86	10,000	\$8,600.00
	10530210		Chloramphenicol Sodium Succinate Inj., 1g		20CG08	04/30/2023		1	100	1.00	\$0.29	0	\$0.00
	10530210		Chloramphenicol Sodium Succinate Inj., 1g		K85118	12/30/2020		1	17,000	6.95	\$1.98	17,000	\$33,660.00

Ledger report

Date	Trans. No.	Transaction Type	Transaction Sub-type	To / From	Donor	Batch	Expiry date	Pack size	Number of packs	Price per pack (Local)	Price per pack (USD)	Total pieces	Total value (USD)	Running total pieces	Running total value (USD)	From / To Code	Geographic region covered by the recipient
2021-01-01		Opening Balance							-50	8	\$2.18	-500	-\$109.08	-5000	-\$109.08		
2021-03-01		Closing balance				141010	10/30/2017	100	50	7.65	\$2.18	5000	\$109.08	0	\$0.00		
2021-01-01		Opening Balance							-50	0	\$0.00	-5000	\$0.00	-5000	\$0.00		
2021-03-01		Closing balance						100	50	0.00	\$0.00	5000	\$0.00	0	\$0.00		
2021-01-01		Opening Balance							-1	2	\$0.69	-1	-\$0.69	-1	-\$0.69		
2021-03-01		Closing balance				70D2006	03/30/2019	1	1	2.43	\$0.69	1	\$0.69	0	\$0.00		

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User Guide



20. Cold Chain Equipment

- [20.01. Setting up to use Vaccine Module](#)
- [20.02. Cold Chain App Notifications](#)

Previous topic: [19. Remote User Web Interface](#) || Next topic: [21. Assets](#)

Last modified: 2021/10/08 09:13 by Gary Willetts



20.01. Setting up to use Vaccine Module

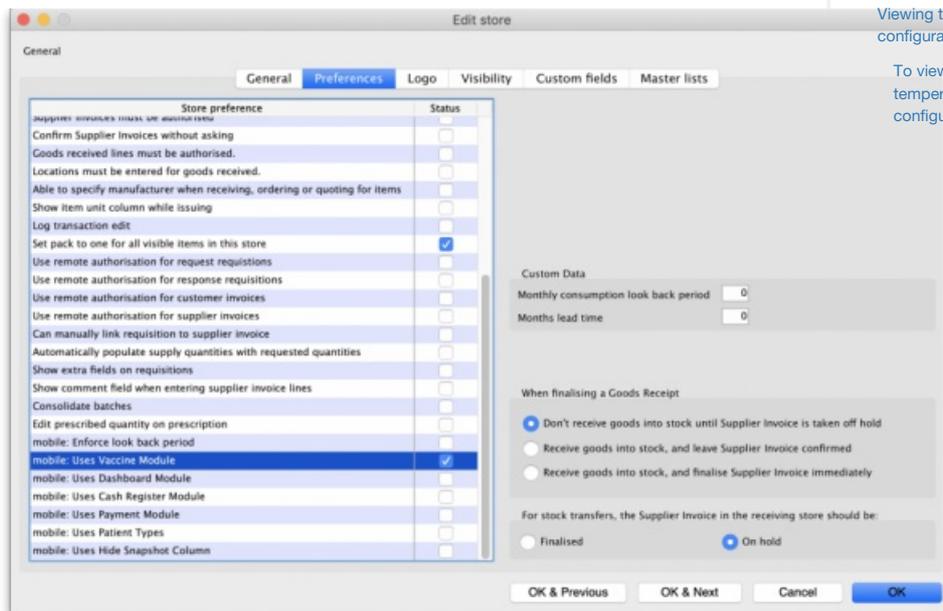
There are a few configuration steps needed in mSupply desktop for setting up the Vaccine module to be used in mSupply mobile. This page is all about those steps.

To set up the vaccine module correctly, you need to:

- Enable the vaccine module for the mobile store,
- Set up vaccine vial monitor (VVM) statuses,
- Set up sensors, and
- Set up temperature breach configurations

Enable the vaccine module for the mobile store

First of all, in mSupply desktop login to the store you want to turn on the vaccine module for. Then, from the menus, choose *Special > Show Stores*, double-click on the store you are logged into and then click on the *Preferences* tab. This is the window you will see:



Check the **mobile: Uses Vaccine module** checkbox in the *Store preference* list and click on the **OK** button to save the new setting.

Set up vaccine vial monitor (VVM) statuses

First of all, you need to have permission in the system to edit vaccine vial monitoring statuses.

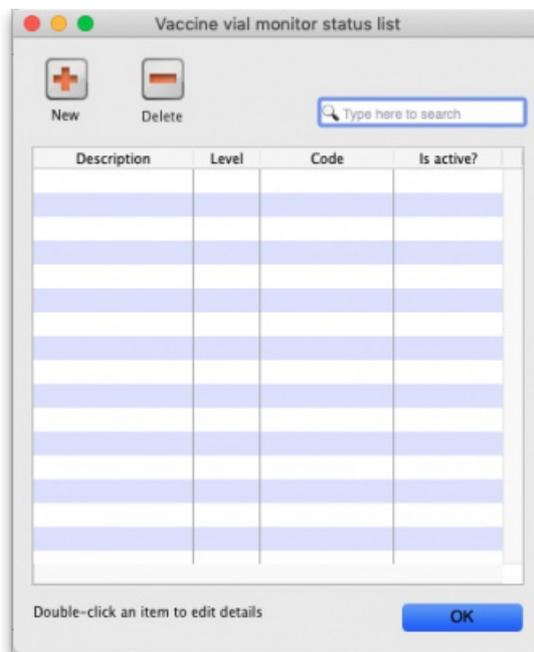
See the [23.15. Managing users](#) page for details on how to set user permissions. You need to turn on the *View and edit vaccine vial monitor status* permission on the *Permissions (3)* tab.

You can access the vaccine vial monitor (VVM) status configuration window by choosing *Item > Vaccines > Show vaccine vial monitor status...* from the menus. This will open the VVM status window:

Table of Contents

- [Enable the vaccine module for the mobile store](#)
- [Set up vaccine vial monitor \(VVM\) statuses](#)
 - [Adding a VVM status](#)
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- [Viewing sensor details](#)
- [Viewing temperature breach configurations](#)
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- [Enable the vaccine module for the mobile store](#)
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The window will show you a list of all the current vaccine vial monitor statuses that have been setup. To edit one, simply double-click on it in the list. This will open the same window as when adding a new status (see below) but populated with the status's current settings, ready for you to edit them.

Adding a VVM status

Click the **New** button. This window opens:



- **Description:** the name of the status and how it will be referred to throughout mSupply.
- **Code:** a short code used to refer to the status.
- **Level:** the numerical level the status belongs to.
- **Is active?:** checked by default. If this is checked then the status will be available for selecting in mSupply mobile.

Click on the **OK** button to save your changes or the **Cancel** button to cancel them.

Deleting a VVM status

You can only delete a status that you have just created. Once this list of VVM statuses has been closed, you cannot delete the status any more. If there is one that you wish to delete but can't then edit it and uncheck its **Is active** checkbox (as described above). That will effectively delete it because it will no longer be selectable in any mSupply mobile functionality (but it will mean the status is still available for historical records).

If the status you want to delete is newly created:

1. Select the status you want to delete by clicking on it in the list
2. Click on the **Delete** button
3. The window below will appear asking you to confirm the deletion. Click **Yes** to confirm.



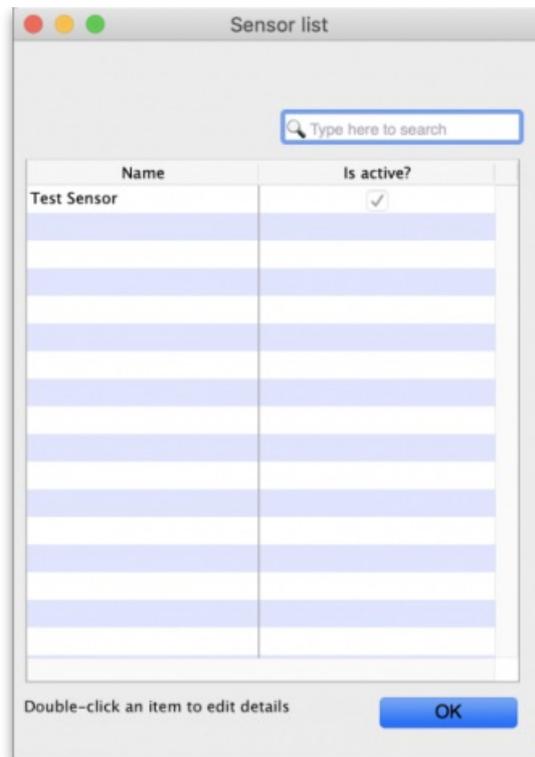
Viewing sensor details

Temperature sensors are used by mSupply mobile to monitor the temperature over time at a given location. This section describes the options available within mSupply to view/interact with temperature sensors.

First of all, you need to have permission in the system to view sensor details. See the [23.15. Managing users](#) page for details on how to set user permissions. You need to turn on the *View sensor details* permission on the *Permissions (3)* tab.

To see the current sensors go to *Item > Vaccines > Sensors...*

This window will appear:



The window will show you a list of all the current sensors that have been set up. If there are many in the list, you can type something in the search bar and only those containing what you types will show in the list. To view the details of one, simply double-click on it in the list. This will open a window populated with the sensor's current settings.

You cannot add a sensor or edit any of the sensor details. This can only be done in mSupply mobile (see the [Cold Chain \(for Vaccines and other Cold chain items\) - mobile](#) page for details).

Viewing temperature breach configurations

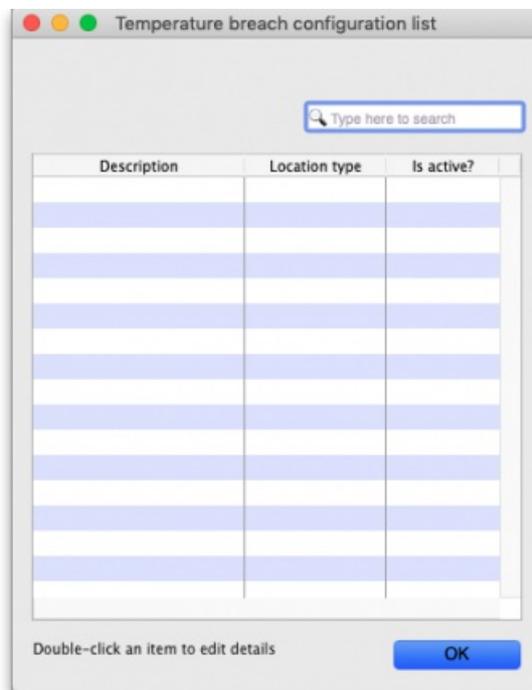
Temperature breaches occur when the temperature detected by a temperature sensor exceeds a certain value for a certain amount of time. This section describes how temperature breaches are defined in mSupply.

First of all, you need to have permission in the system to configure temperature breaches.

See the [23.15. Managing users](#) page for details on how to set user permissions. You need to turn on the *View temperature breach configuration* permission on the *Permissions (3)* tab.

To see the current temperature breaches go to *Item > Vaccines > Show temperature breach configuration...*

This window will appear:

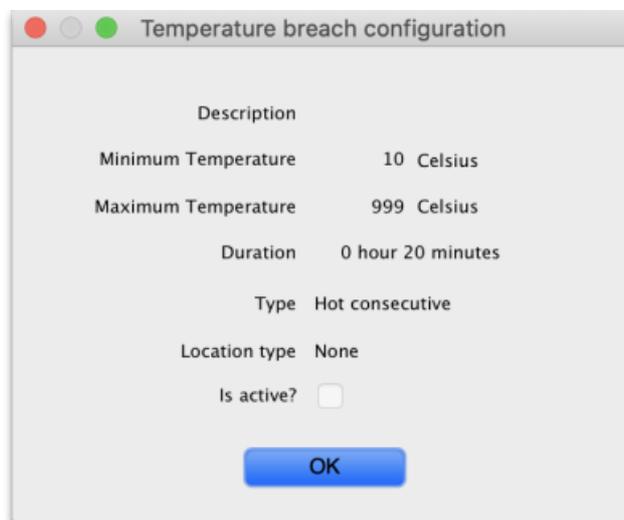


The window will show you a list of all the current temperature breach configurations that have been set up. If there are many in the list, you can type something in the search bar and only those containing what you types will show in the list. To view the details of one, simply double-click on it in the list. This will open a window (see below) populated with the breach's current settings.

You cannot add, edit or delete a temperature breach configuration, this can only be done in mSupply mobile (see the [Cold Chain \(for Vaccines and other Cold chain items\) - mobile](#) page for details).

To view the details of a temperature breach configuration

When you double-click a temperature breach configuration, this window will open, pre-populated with the configuration's details:



- **Description:** The name given to the configuration. It will be referred to by this throughout mSupply.
- **Minimum temperature:** If the temperature drops below this, it will contribute towards a breach
- **Maximum temperature:** If the temperature rises above this, it will contribute towards a breach
- **Duration hours and minutes:** The length of time the temperature must be below the minimum or above the maximum temperatures for a cumulative breach to occur.
- **Type:** The breach configuration type, see [Cold Chain \(for Vaccines and other Cold chain items\) - mobile](#) for details on the breach types available.
- **Location type:** The location type this breach belongs to. See the [4.06. Stock locations and location types](#) page for details on location types.
- **Is active?:** If checked then this breach configuration will be used in cold chain monitoring. If unchecked, it won't.

Click on the **OK** button to close the window.



20.02. Cold Chain App Notifications

⚠ Important

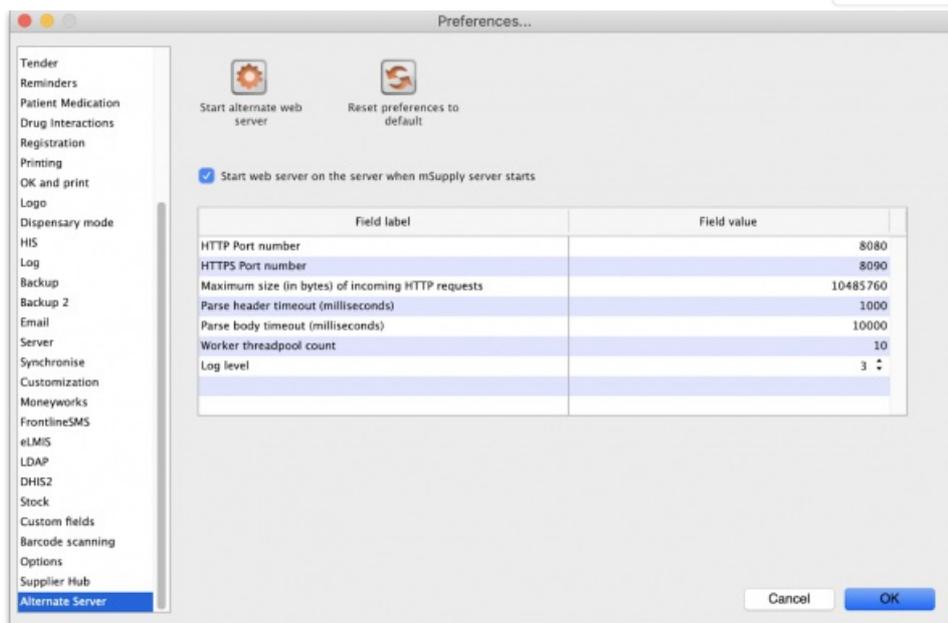
This functionality is only available in v5.01 and above.

If you have the [mSupply ColdChain app](#), you can set up mSupply desktop to show notifications from the app, so you can keep an eye on your cold stores while sitting at your desk. mSupply will show a temperature log for each sensor, alert you to any hot or cold breaches, and allow you to change the stock location a sensor is monitoring.

Setting up

1. Turn on the Alternate Server

mSupply uses the Alternate Server to receive data from the ColdChain app. To turn this on, go to *File > Preferences* and click on the *Alternate Server* tab:



Server parameter	Description
Log level	0: No logging, 1: Log only 500 responses, 2: Log all responses, 3: Log all responses and requests.

These server parameters must be set up before turning on the alternate server (contact mSupply Support if you need help setting this up!) Once the server is turned on, the parameters cannot be edited.

If you would like this server to start up every time mSupply is started, turn on the preference “Start web server on this computer when mSupply starts”.

The default *HTTP Port number* is 8081 and must be different from the port number used by the mSupply server set on the *Server* tab (see the [16.01. General preferences](#) page for details). If you inadvertently try to set both servers to the same port, mSupply will warn you and prevent you from saving your settings.

2. Set up store user credentials

To match an mSupply desktop store to the ColdChain app on a tablet, you need to set up the store's credentials in the store settings. See the [25.08. Virtual stores](#) page for details on doing that.

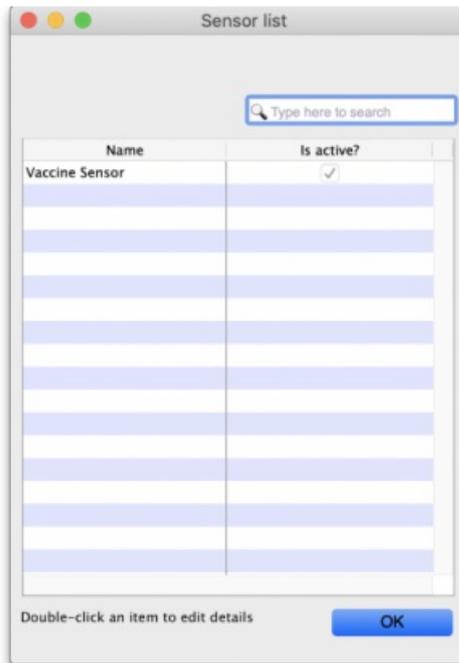
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- Setting up
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Viewing sensors and assigning locations

To see all sensors used in the system, choose *Items > Vaccines > Sensors* from the menus. This window will open, showing you a list of each sensor and whether it is active:



Double click the sensor name to view the sensor's details. This window will open:



Info

If the sensor belongs to the store you are logged in to, you can change the active state of the sensor and assign a new location to it. If the sensor is located in a different store, all the details will be read-only.

- **Is active? checkbox:** If checked the sensor's readings are recorded and usable in the system. If unchecked, the sensor is ignored and notifications will not be shown for it (unacknowledged, acknowledged, current or historical).
- **View location button:** When clicked, will open a window containing the details of the location the sensor is assigned to.
- **Set location button:** When clicked, will open a new window showing you all the locations in your store that do not have a sensor allocated to them already. Select one by double-clicking on it. This is not reversible so be careful!
 - When a location has been assigned the button's label will change to *Unassign location*. Clicking it then will remove the location from the sensor.

Viewing sensor temperature logs

Choose *Item > Vaccines > Temperature logs...* from the menus and a window showing you the temperature logs for all locations assigned to sensors in the system will open:

Date	Time	Temperature	Temperature breach
4/01/20	19:35:00	-5	
4/01/20	19:30:00	-2	
4/01/20	19:25:00	3	
4/01/20	19:20:00	-3	
4/01/20	19:15:00	-2	
4/01/20	19:10:00	2	
4/01/20	19:05:00	23	Hot Consecutive
4/01/20	19:00:00	35	Hot Consecutive
4/01/20	18:55:00	8	Hot Consecutive
4/01/20	18:50:00	35	Hot Consecutive
4/01/20	18:45:00	16	Hot Consecutive
4/01/20	18:40:00	16	Hot Consecutive
4/01/20	18:35:00	27	Hot Consecutive
4/01/20	18:30:00	20	Hot Consecutive
4/01/20	18:25:00	20	Hot Consecutive
4/01/20	18:20:00	23	Hot Consecutive
4/01/20	18:15:00	21	Hot Consecutive
4/01/20	18:10:00	-3	
4/01/20	18:05:00	-4	
4/01/20	18:00:00	2	

The **Temperature breach** column will contain a description of the breach (e.g. *Hot Consecutive* or *Cold consecutive*) if the log represents a breach, otherwise the column will be empty. So an empty column is good news!

Use the filters in the top right to filter the logs by date.

Use the **Location** field in the top left to filter by location. Type the first few character's of the location's code and press the **Tab** key on the keyboard to select the location to view logs for from the list of all locations that have a sensor assigned and have a code starting with what you typed. Double-click a location to select it and the logs for the sensor attached to that location only will be displayed in the list.

Viewing breach notifications

Once the ColdChain app is set up with mSupply desktop as above, you will start receiving notifications about any **unacknowledged** temperature breaches:

Unacknowledged breaches

Sunday, 05 Jan 2020

- General location, General Sensor One**
 - 05/01/2020, 02:40
 - Duration: an hour
 - Highest temperature: 37°C

Saturday, 04 Jan 2020

- General location, General Sensor One**
 - 04/01/2020, 02:20
 - Duration: 32 minutes
 - Highest temperature: 37°C
- General location, General Sensor One**
 - 04/01/2020, 08:50
 - Duration: 38 minutes
 - Highest temperature: 37°C
- General location, General Sensor One**
 - 04/01/2020, 18:15
 - Duration: 40 minutes
 - Highest temperature: 35°C

Friday, 03 Jan 2020

- General location, General Sensor One**
 - 03/01/2020, 13:20
 - Duration: 6 minutes
 - Highest temperature: 36°C

Thursday, 02 Jan 2020

This window will open automatically on startup or when mSupply receives data from the tablet, and show up to the right of your mSupply Desktop app.

You can remove a single notification by clicking on its close button or you can close the entire window. This does not change any notification's state to acknowledged - you can only acknowledge notifications (breaches) in the ColdChain app itself.

The notification window will show the sensor's location and name, the date, time, and duration of the breach, and whether it was a cold or hot consecutive breach by displaying the "Lowest" or "Highest" temperature respectively.

Previous: [20.01. Setting up to use Vaccine Module](#) | | Next: [21. Assets](#)

Last modified: 2021/12/17 06:36 by Mark Glover



mSupply documentation wiki





User Guide



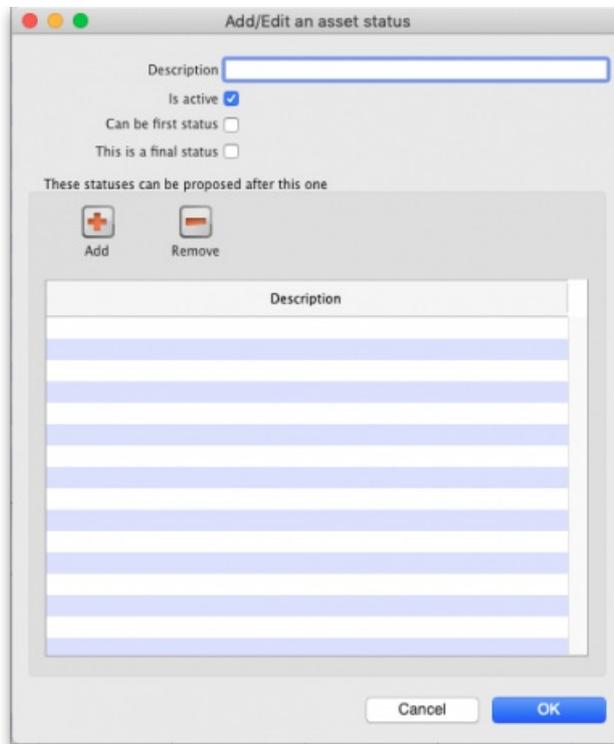
21. Assets

- [21.01. Assets setup](#)
- [21.02. Asset management](#)

Previous topic: [20. Cold Chain Equipment](#) | Next topic: [22. mSupply Mobile \(Android\)](#)

Last modified: 2021/10/08 09:14 by Gary Willetts





- **Description:** The name of the status and how you will see it referred to throughout mSupply. This is a mandatory field and mSupply will tell you if you do not fill it in.
- **Is active:** Will be checked by default for a new status. If this is checked, it means the status is available for selecting. If it is not checked the status will not appear anywhere for selection, it will only appear in existing assets where it has already been chosen. Statuses you no longer wish to use are not deleted, they are made inactive by unchecking this checkbox.
- **Can be first status:** If this is checked it means that this status can be selected when first creating an asset.
- **This is a final status:** If this is checked it means that this status is final and an asset cannot be changed to another status once it has been assigned this one.
- **These statuses can be proposed after this one:** In this section you set the statuses that can be selected as proposed statuses when this status is the current one. This is how you construct status “paths” that assets can take. If you enter no statuses in this table then there is no restriction and all statuses will be proposable when this status is the current one. To add a status to this list, click on the **Add** button. This will add a drop down list to the table which will contain all the available, active statuses you can select. To remove a status from the list, select it in the table and click on the **Remove** button.

Click on the **Cancel** button to close this window without saving any of the changes you have made to this status or click on the **OK** button to save any changes. Clicking on either will take you back to the list of statuses, which will have been updated to reflect any changes you made.

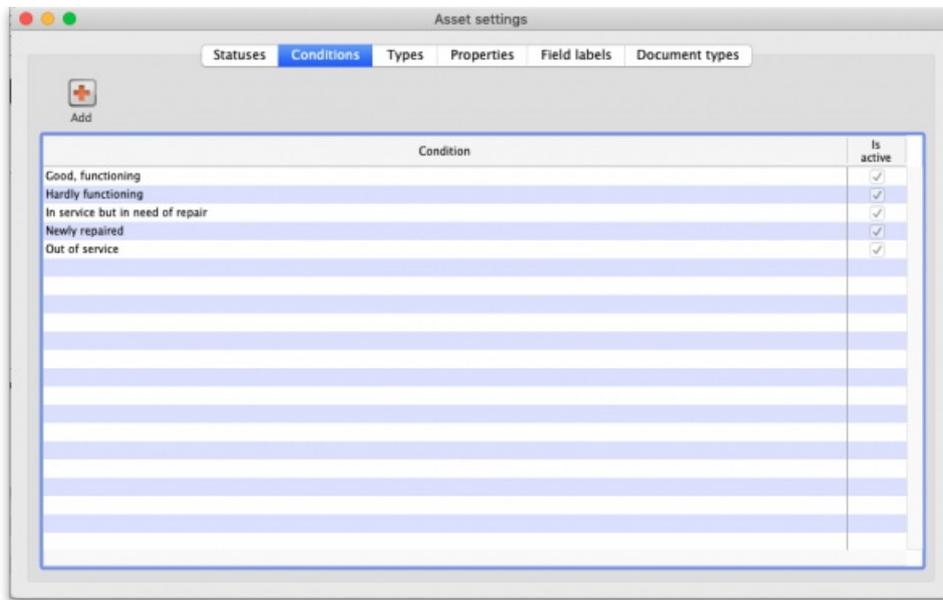
If you want to edit a status, simply double-click it in the list. This will open the same window as above populated with the status's current values and you can edit them as you require.

Note: The *Possible proposed statuses* column in the list of statuses will show:

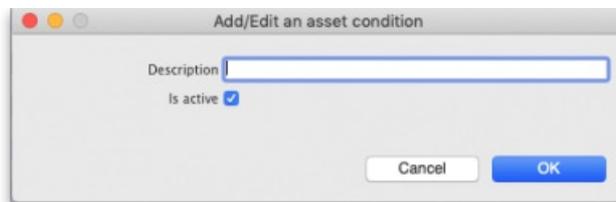
- “All” if no proposable statuses were selected in the status's **These statuses can be proposed after this one** list
- “None” if the asset is a last status (i.e. **This is a final status** is checked)
- A list of proposable statuses if any were entered in the status's **These statuses can be proposed after this one** list

Conditions

Clicking on the *Conditions* tab will show the list of conditions:



To add a Condition, click on the **Add** button. This window will open:

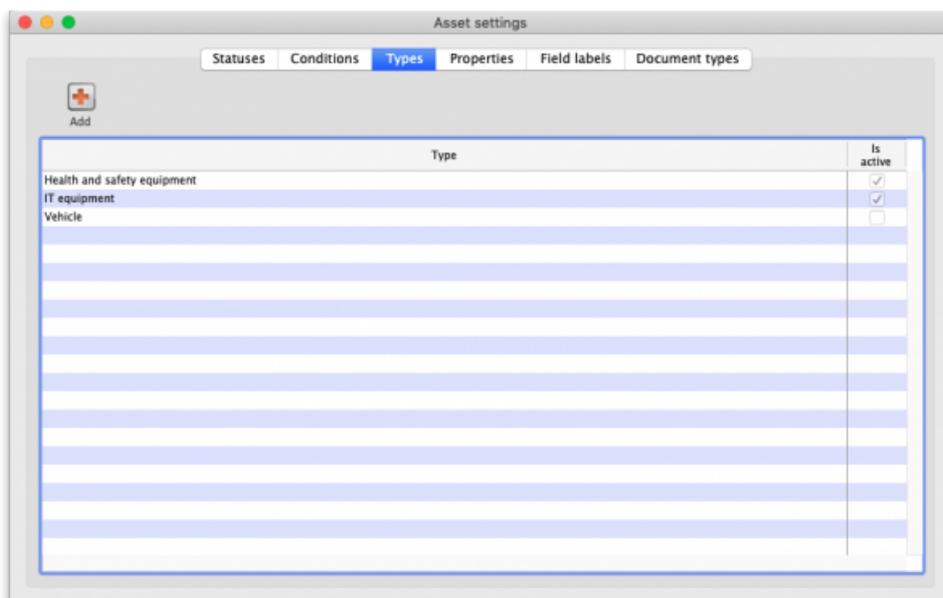


- **Description:** The name of the condition and how you will see it referred to throughout mSupply. This is a mandatory field and mSupply will tell you if you do not fill it in.
- **Is active:** Will be checked by default for a new condition. If this is checked, it means the condition is available for selecting. If it is not checked the condition will not appear anywhere for selection, it will only appear in existing assets where it has already been chosen. Conditions you no longer wish to use are not deleted, they are made inactive by unchecking this checkbox.

Click on the **Cancel** button to close this window without saving any of the changes you have made to this condition or click on the **OK** button to save any changes. Clicking on either will take you back to the list of conditions, which will have been updated to reflect any changes you made.

Types

Clicking on the *Types* tab will show the list of types:



To add a type, click on the **Add** button. This window will open:

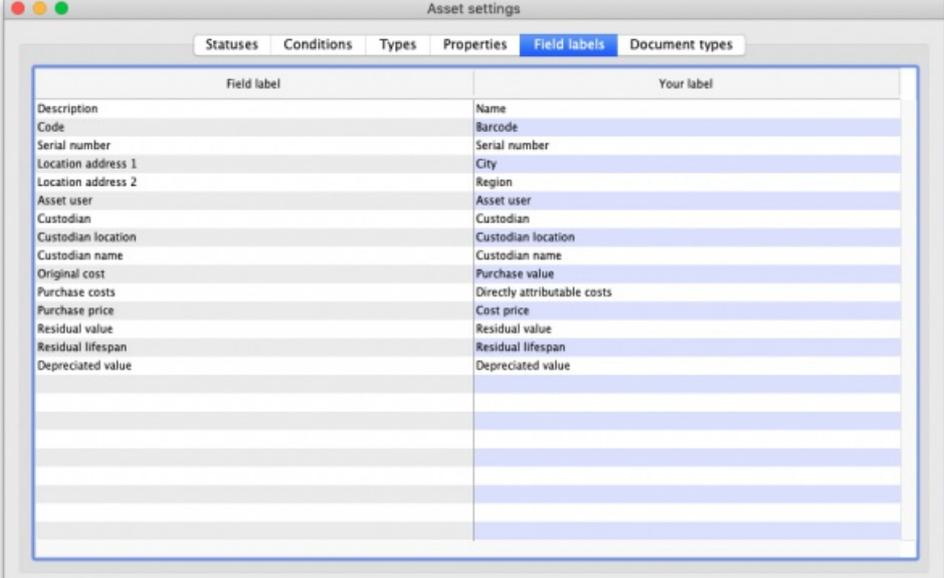
for example, but otherwise not used in mSupply at the moment.

- **Is active:** Will be checked by default for a new property. If this is checked, it means the property is available for selecting. If it is not checked the property will not appear anywhere for selection, it will only appear in existing assets where it has already been chosen. Properties you no longer wish to use are not deleted, they are made inactive by unchecking this checkbox.
- **Is read only:** If this is checked, this property is read only and none of its settings will be editable. It is used to protect properties that are used in custom functionality and you cannot manually change this setting; it can only be changed by Sustainable Solutions.
- **Manage drop down list options:** This section is only enabled if the **Type** is set to *Drop down list* and is used to add and remove options that will appear in the drop down list. Click on the **Add item** button to add an option to the drop down list; this will add a default named option to the list which you can edit by clicking on it and changing to the desired name. To delete one or more items from the drop down list, select them in the list and click on the **Delete item(s)** button.

Click on the **Cancel** button to close this window without saving any of the changes you have made to this property or click on the **OK** button to save any changes. Clicking on either will take you back to the list of properties, which will have been updated to reflect any changes you made.

Field labels

We know not everyone calls things the same name so we've added functionality for users to select their own labels for some of the asset fields. The *Field labels* tab is where you can define what these fields are called:



Field label	Your label
Description	Name
Code	Barcode
Serial number	Serial number
Location address 1	City
Location address 2	Region
Asset user	Asset user
Custodian	Custodian
Custodian location	Custodian location
Custodian name	Custodian name
Original cost	Purchase value
Purchase costs	Directly attributable costs
Purchase price	Cost price
Residual value	Residual value
Residual lifespan	Residual lifespan
Depreciated value	Depreciated value

The *Field label* column on the left contains the default label applied to the field. The *Your label* column on the right contains what label will be used by mSupply for this field.

To edit the label, simply click on it in the right hand column and change it to what you want it to be called. As soon as you leave the field (by pressing the *Tab* key on the keyboard for instance), the change is saved.

Document types

You can upload documents to assets. Each one you upload must have a particular document type and this tab is where you manage those types:

21.02. Asset management

Assets are the equipment and items used to support a health supply chain, like vehicles, fridges, and freezers.

In contrast, **stock or inventory** are the medicinal products and consumables that move through the health supply chains to be used by health workers or dispensed to patients. **Stock or inventory** include items like Amoxicillin 500mg capsules and surgical masks. Don't manage those using the asset functionality!

Different information is important when recording assets including:

- when the asset was purchased as well as when it was sold or thrown away
- current location and maintenance schedule
- current value and depreciation

mSupply allows you to manage the assets you have throughout your supply chain.

⚠ Important

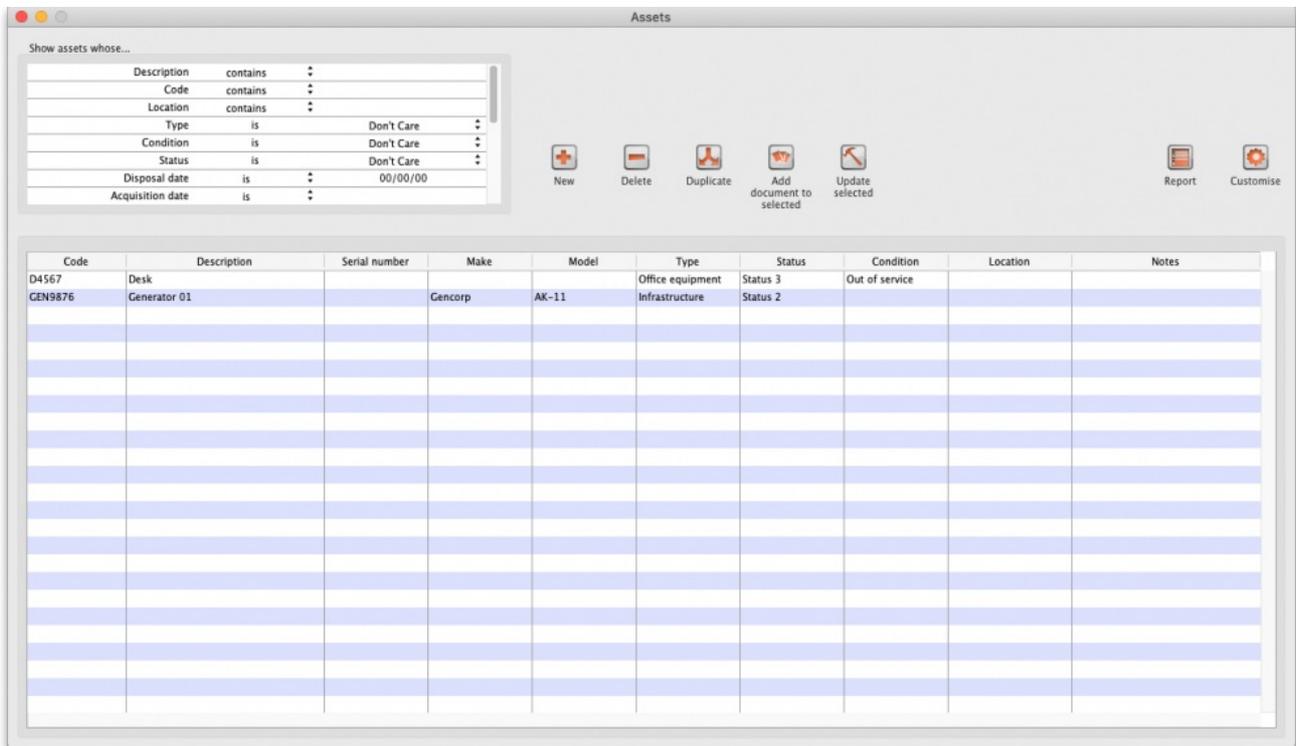
Before using this functionality, there is some setup you should carry out first. See the [21.01. Assets setup](#) page for details.

Viewing assets

To see a list of the current assets in your system, choose *Special > Show assets* from the menus or the Assets icon on the Navigator:

The screenshot shows the mSupply navigator interface. The top navigation bar includes icons for Customer, Suppliers, Item, Reports, Special (highlighted), and Admin. Below this, there are several menu categories: Currencies, Reminders, Contacts, Abbreviations, Warnings, Prescribers, Merge prescribers, Diagnoses, Misc labels, Cash Register, Stores, and Transaction categories. The 'Assets' icon, which is a motorcycle, is highlighted with a red box. A 'Table of Contents' sidebar is visible on the right, listing various asset management tasks such as 'Viewing assets', 'Filters', 'Deleting an asset', 'Duplicating an asset', 'Uploading documents to assets', 'Updating several assets at once', 'Reporting', 'Customising the asset table', 'Editing assets', 'Details tab', 'Documents tab', 'Log tab', 'Adding an asset', 'Connecting assets with stock via stock location (e.g cold chain equipment)', 'Assets in a synchronisation system', 'Assets in the Dashboard', and 'Viewing assets'.

That will open this window:



Filters

The filters are in the *Show assets whose...* section in the top left corner and they determine which assets appear in the table. There are many filters so you can scroll the filter area to see them all.

- Each filter has 3 columns: the label, the comparator and the search value.
 - The comparator is either a drop down list for you to select or fixed at “is”
 - The search value is either a drop down list for you to select the value or an empty text field for you to enter the value to be matched against.
- Any filter that has nothing in the right hand column (the search value) is ignored, just like other filters throughout mSupply.
- The filters are all ANDed together. This means that only assets that match **all** the filters applied will appear in the table e.g.
- By default the only filter applied is “Disposal date is nothing” so all the assets that have no disposal date (i.e. are active) will be displayed.
- When you close the asset list window, the filters you have set are saved for you so that when you open the window again, exactly the same filters will be applied.
- The first filters (down to *Renewal date*) are fixed and represent some of the standard fields you can enter for assets. The filters after that are for the current active properties (set in asset settings - see [20.01. Assets setup](#) page for details).

Notes about date filtering

- In a date filter, any invalid dates you enter in the right hand column will automatically be turned into an empty date (usually **00/00/00** but will depend on your current operating system date settings).
- If you do an *is* empty date search, that will include assets that **do not** have any value set for that date.
- If you do an *is not* search on an empty date, that will include all assets that **do** have that particular date set (to any value).

A note about property filters

The filters after the *Renewal date* filter are for your currently active asset properties.

If you use an *is not* filter for a particular property value, any assets **that do not have a value set** for that property will **not** be included in the assets displayed.

For example, let's say you have a property called Colour. Asset1 has a colour value of Blue, Asset2 has a colour of Red and Asset3 has no colour value set. If you set the colour filter to *Colour is not Red*, only Asset1 will be shown. Asset2 is not included because its colour is Red and Asset3 is not included because it has no value set for colour.

Deleting an asset

To delete an asset, simply select it in the table (by clicking on it) and click on the **Delete** button. You will be asked to confirm the deletion before it is carried out.

Duplicating an asset

To duplicate an asset, simply select it in the table (by clicking on it) and click on the **Duplicate** button. You will be asked to confirm the duplication before it is carried out.

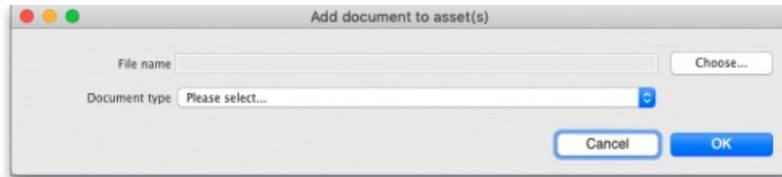
A duplicate asset will have exactly the same values for all fields and properties as the one you selected to duplicate (including its attached documents) except the Description and Notes fields:

- The Description field of the duplicate asset will have “(Copy)” appended to it.
- The Notes of the duplicate will have the same notes but with “Created by duplication of asset '*description*'.” appended to it.

Uploading documents to assets

This function is for uploading the same document to one or more assets at the same time.

Simply select the assets you wish to add the document to in the list (by clicking on them and using Shift+click and Ctrl+click to select the ones you want) then click on the **Add document to Selected** button. This window will open:



- **Choose button:** Click on this to choose the file to upload to the asset. A window showing the files available on your computer will open and you can navigate to the file to select it by double-clicking on it. When you do that, the name and path of the file will be displayed in the **File name** field.
- **Document type:** Select one of the active document types.

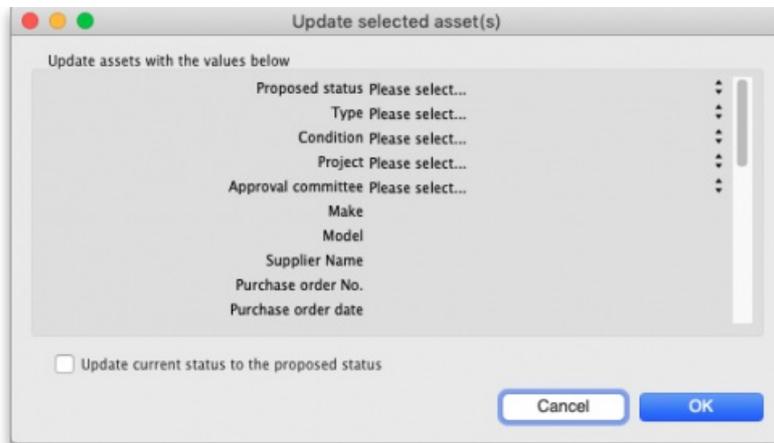
Both these fields are compulsory. You can click on the Cancel button to cancel the upload or the OK button to action it.

After the upload has been carried out you will be shown a message telling you how many assets the document was successfully uploaded to.

Updating several assets at once

The **Update selected** button allows you to update values of one or more assets at the same time. Before clicking on the button, select the assets you want to update in the table by clicking on them and using Shift+click and Ctrl+click to select the ones you want.

After clicking on the button, this window opens:



The window contains many of the standard fields for assets and all the currently active properties. You can select values in the drop down lists (which are set to *Please select...* when the window first opens) and enter values in the text fields of the right hand column for as many fields as you wish to update (the list of fields is long so you will need to scroll it to see them all).

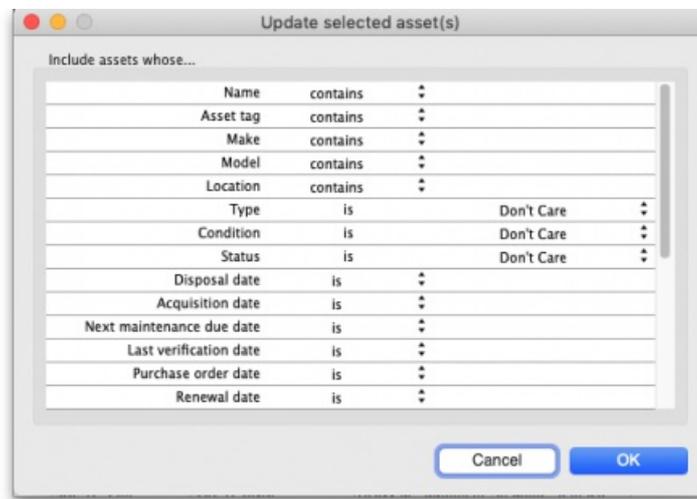
All the assets you selected will be given the same values you select and enter in the right hand column so be careful!

If you want to update each of the selected asset's current status to be their proposed status then check the **Update current status to the proposed status** button.

When you are ready, click on the **OK** button to carry out the updates. When the update has been carried out, you will be told how many of the selected assets were successfully updated. Any errors will be logged and you can see these logs by going to Admin > View log (see [25.19. The system log](#) for details).

Reporting

To run an asset report, click on the **Report** button. This window will open, allowing you to choose which assets will appear in the report:



The *Include assets whose...* section contains exactly the same filters as the assets list window. The settings of these filters will only affect the assets that are included in the report, they will not affect the selection of assets shown in the asset list window. The settings of these filters are also not saved when the window is closed.

When you have set the filters as desired, click on the **OK** button to run the report (or the **Cancel** button to close the window without doing anything).

A spinner will show you that mSupply is filtering the assets - please be patient, this could take a little time if there are many assets in the report as mSupply retrieves them and builds the report information. When this is complete, the report will open automatically in your spreadsheet application. Where you have entered no information, text columns will be blank, date columns will display *00/00/00* (or similar, depending on your operating system date settings) and number columns will display *0*.

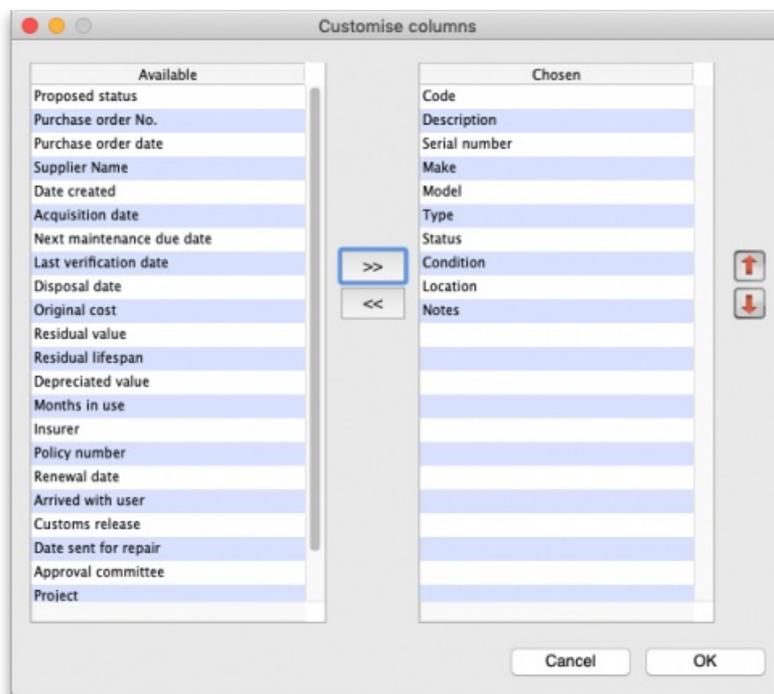
There is only a single report, which contains all the information about each asset. The first 37 columns (up to, and including, column AJ) are standard information. The columns after that are for the asset properties you have defined in the settings - one column for each **active** property.

When the report has opened in your spreadsheet application you can format it as you wish and print it from there.

Customising the asset table

The **Customise** button enables you to choose which columns will appear in the assets table **for you**. Other users are not affected by the choices you make.

When you click on the button this window opens:



The *Chosen* column shows the columns that are currently shown in the assets table. The *Available* column contains all the columns that you can add to the table (these include a column for each currently active asset property).

- To add a column to the table, click on it in the *Available* column to select it and click on the **>>** button to move it into the *Chosen* column.
- To remove a column from the table, click on it in the *Chosen* column and click on the **<<** button to move it into the *Available* column.

You can also change the order the columns appear in the table. To do this, click on a column name in the *Chosen* column and click on the up arrow or down arrow button to move it up or down in the list. The higher up the list it is, the further to the left the column will appear in the table.

Click on the **OK** button to save the changes you have made or the **Cancel** button to close the window without saving any changes. The table will update immediately to match any changes you have saved.

Editing assets

To edit an asset, simply double-click on it in the list. When you do that, the asset detail window will open, allowing you to edit the asset's details. The window looks like this:

The screenshot shows the 'Add/edit asset' window with the following sections:

- Description:** Desk (text field), Code: D4567 (text field), Make (text field), Model (text field), Serial number (text field).
- Supplier:** Supplier Name (text field), Purchase order No.: 1234 (text field), Purchase order date: 00/00/00 (calendar icon).
- Dates:** Acquisition date: 03/08/2021 (calendar icon), Next maintenance due date: 00/00/00 (calendar icon), Last verification date: 00/00/00 (calendar icon), Disposal date: 00/00/00 (calendar icon).
- Location:** Name (text field), Category 1 (text field), Location address 1 (text field), Location address 2 (text field).
- Asset user:** Name (text field), Phone (text field), Email (text field).
- Custodian:** Custodian location (text field), Custodian (text field), Phone (text field), Email (text field).
- Status:** Current status: Status 01 (text field), Proposed status: Please select... (dropdown), Change to proposed (checkbox).
- Categories:** Type Please select..., Condition Please select..., Project Please select..., Approval committee Please select... (dropdowns).
- Other details:** Fuel type (text field), Colour brown (text field).
- Depreciation:** Original cost: 0 (text field), Purchase costs: 0 (text field), In service date: 00/00/00 (calendar icon), Purchase price: 0 (text field), Useful lifespan: 0 years (0 months) (text fields), Disposal value: 0 (text field), Residual value: 0 (text field), Residual lifespan: 0 months (text field), Depreciated value: 0 (text field).
- Insurance:** Insurer (text field), Policy number (text field), Renewal date: 00/00/00 (calendar icon).
- Notes:** (text area).

Buttons at the bottom: OK & Next, Cancel, OK.

- **OK** button: saves any changes you have made to the asset and closes this window.
- **OK & Next** button: saves any changes you have made to the asset and displays the information for the next asset in the list. The same tab will be displayed.
- **Cancel** button: closes the window without saving anything (Note: any documents uploaded to the asset will have already been saved so clicking the **Cancel** button will not remove them).

Note: if you do not have the *Add/Edit assets* permission (see [23.15. Managing users](#) for details) then the **OK** and **OK & Next** buttons do not save anything.

Details tab

Note that several of the fields on this window have user-definable labels (see the [20.01. Assets setup](#) page for details on how to set them). The screenshot above uses the default labels and we will use them in the discussion below, but this will explain why you may see some different labels for some of the fields in your copy of mSupply.

The first few fields are plain text fields and allow you to enter the asset's description, code, make, model and serial number.

Supplier section

Here you can enter the details of the supplier who supplied you with the asset.

In the *Purchase order date* field you can enter the date manually or click on the calendar icon and select a date from there. If you click on the calendar icon and then change your mind, clicking anywhere outside the calendar that appears will close the calendar and put an empty date in the *Purchase order date* field.

The date fields and their calendar icons all work the same way on this page.

Dates section

The dates here can be entered manually or by using the corresponding calendar icon.

The first 4 dates are standard dates used by mSupply. If you have any active date type properties they will appear after these 4 in alphabetical order.

Location section

In this section you enter the details of where the asset is.

Name: Here you select the location name. It can be any customer, supplier, donor etc. that is in mSupply. You type the first few characters of the name then press the Tab key to select from a list of matching names (if only one name matches, it is selected for you) as normal.

If the location is not already a customer, supplier or donor etc. in mSupply then you can add it by clicking on the  button next to the *Name* field. This will open a new name window for you to enter the details; when you click the **OK** button on that window, the name will be created (as a customer) and entered in the location *Name* field on this window.

When a location name is selected, if you want to view the details of the name you can click on the  button next to it; this will open the name details window where you can view and edit (if you have permission) the location's details.

- **Category 1:** A read only field that displays the Category 1 set for the location name.
- **Address 1:** A read only field that displays the Main/Billing address 1 field of the location name.
- **Address 2:** A read only field that displays the Main/Billing address 2 field of the location name.

Asset user/User contact: The asset user is usually the person who uses the asset the most or who you would contact if you needed information about it. But you can use this field (and the Custodian fields) to record the contact information you need. The asset user field values are read only and come from contacts of the location name. See [5.01. Names: using, adding and editing](#) for details on how to add contacts to a name. To tell mSupply the contact is an asset user set the contact's *Category* field to "Asset user".

- **Asset user Name:** Select one of the location name's contacts that has a category of *Asset user*. The entries in the list are made up of the contact's *First name* followed by their *Last name* fields.
- **Phone:** The contact's *Phone* field value.
- **email:** The contact's *Email* field value.

Custodian: The asset custodian would typically be someone in authority who is responsible for the asset or someone who is temporarily looking after it. These fields are all text fields and you can enter the details as required.

Status section

The statuses that an asset can have are defined in the settings (see [20.02. Assets setup](#) for details).

The current status of the asset is displayed in the read-only *Current status* field.

The status that is being proposed next for the asset is displayed in the *Proposed status* drop down list. You can select one from the list or leave it at *Please select...* if no next is to be proposed. The drop down list will contain all the active statuses that were set in the *Current status's These statuses can be proposed after this one* list (or all active statuses if that field was left empty). However, if the *Current status* has the *This is a final status* checkbox checked then the *Proposed status* drop down list will be disabled because no further statuses can be proposed from a final status.

Change to proposed button: If you have the *Change asset status* permission (See the [23.15. Managing users page](#) for details) then this button will be enabled. Clicking on this button will update the *Current status* to the *Proposed status*.

You cannot undo this action so be sure you want to do it before you click on the button! You can of course, change the proposed status and click on the button again to change to a different proposed status but you cannot go back to the status you were at before if it is not a proposable status from the current one.

Categories section

This section contains a set of drop down lists for you to select various values for the asset. The first two, *Type* and *Condition* are standard mSupply categories that will always be present. After those will appear all the active *Drop down list* type properties in alphabetical order.

Click on the drop down lists and select appropriate values as required.

Other details

If you have any *Text* type active properties set then they will appear in this section in alphabetical order. Otherwise, this section will be empty.

The names of the properties will appear in a left hand column and a right hand column will contain text fields containing the asset's current values for the properties if any have been set. Click into the text fields and edit the values as required.

Depreciation

Depreciation is an accounting method used to represent how much of an asset's value has been used up. mSupply uses straight line depreciation in its calculations and only includes whole months used.

The *Original cost*, *In service date* and *Useful lifespan* fields must be filled in before the calculations can be made. Once they have been filled in the calculated values will appear in the read-only *Residual value*, *Residual lifespan* and *Depreciated value* fields.

- **Purchase price:** The actual price of the asset, as quoted by the supplier.
- **Purchase costs:** Any costs associated with the purchase that can be included in the total sum to be depreciated (e.g. tax).
- **Original cost:** The total, original cost of the asset before it starts to depreciate. It is the sum of the *Purchase price* and *Purchase costs* fields and, if you fill in either of those two fields, mSupply will calculate the sum and enter the value in the *Original cost* field for you. You can override that calculation by entering a value manually into this field if you wish; doing so will not change the values in the *Purchase price* or *Purchase costs* fields. Note: leaving the *Purchase price* or *Purchase costs* fields blank will not affect your depreciation calculations, they are there only for your records and benefit. But beware, if you enter a value in either of them it will overwrite the value in the *Original cost* field.
- **In service date:** The date the asset went into service and depreciation starts from.
- **Useful lifespan:** The length of time the asset can be used for. You can enter a value in either the *Months* or *Years* fields and mSupply will calculate and fill in the other one.
- **Disposal value:** The value of the asset when it reaches the end of its useful lifespan e.g. the price you do or can sell it for. Not needed to run the depreciation calculations but will obviously affect the *Residual* and *Depreciated* values.
- **Residual value:** Calculated, read-only field. The current value of the asset (actually the value at the end of the last complete month since the *in service date*).
- **Residual lifespan:** Calculated, read-only field. The amount of the useful lifespan that is left in months (rounded down to the nearest complete month).

- **Depreciated amount:** Calculated, read-only field. The amount of the Original cost that has been lost due to depreciation ($=\text{Original cost} - \text{Residual value}$).

Insurance

Enter the name of the Insurer, the policy number and the policy renewal date in these fields.

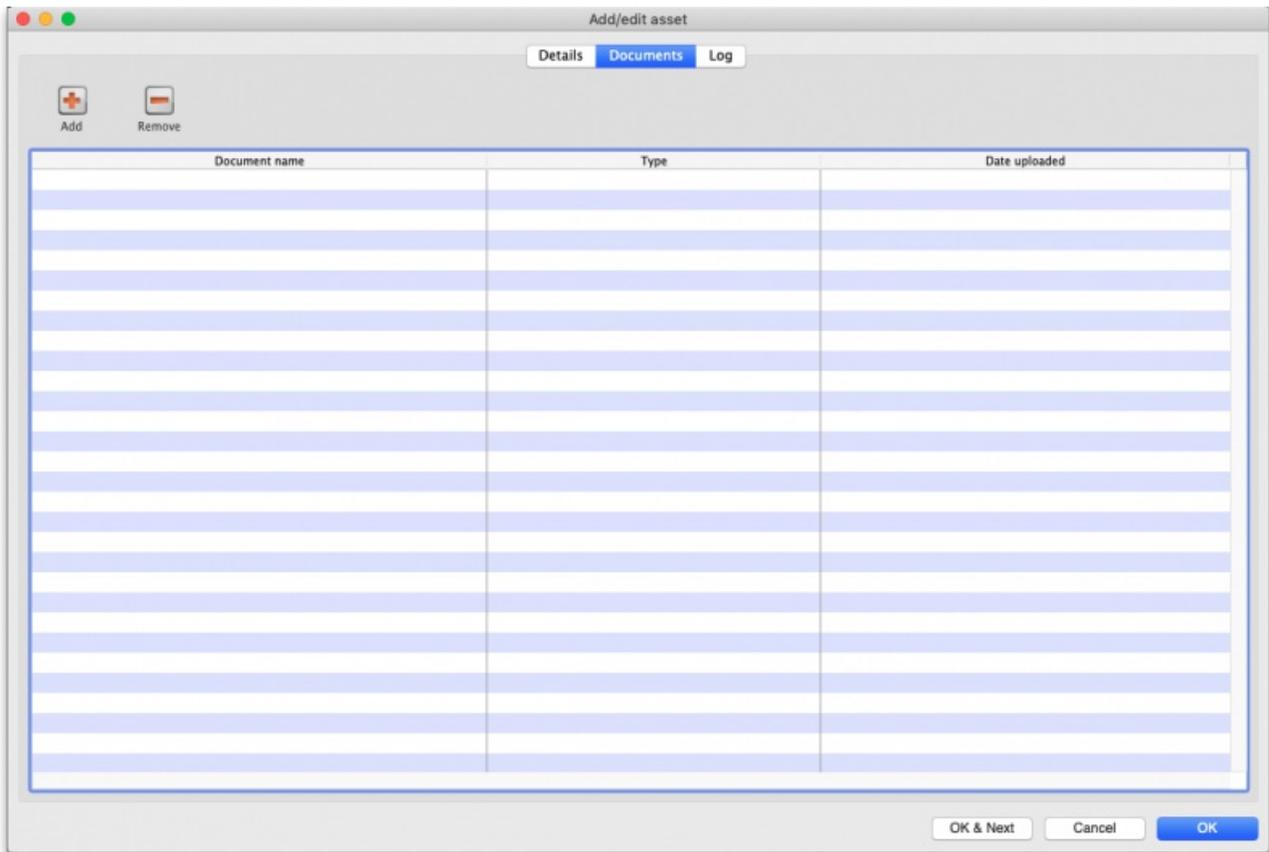
There is functionality to send reminder emails when an asset's insurance renewal date is a set number of weeks away. Please see the settings in the Assets tab on the [15.01. General preferences](#) page for details about that.

Notes

This is an almost unlimited free-text field where you can enter any additional information you need to record.

Documents tab

The Documents tab is where you can view and manage the files that have been uploaded to this particular asset. It looks like this:



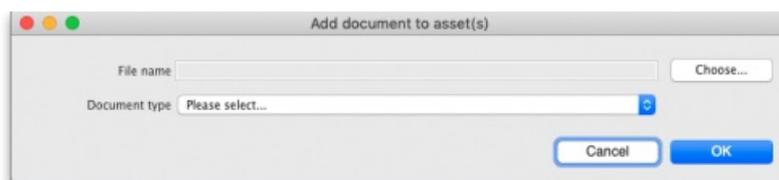
In the table you can see the documents that have already been uploaded to this asset, their document types and the date they were uploaded.

Viewing an already uploaded file

To see the contents of any file, simply double-click on it in the list. If there is an application on your computer to open the file, it will be opened and the contents displayed for you using that application. If there is no application, you will be given the option to download and save the file on your computer.

Uploading another file to the asset

To do this, simply click on the **Add** button. This window will open:



- **Choose button:** Click on this to choose the file to upload to the asset. A window showing the files available on your computer will open and you can navigate to the file to select it by double-clicking on it. When you do that, the name and path of the file will be displayed in the **File name** field.
- **Document type:** Select one of the active document types.

Both these fields are compulsory. You can click on the Cancel button to cancel the upload or the OK button to action it.

After the upload has been carried out you will be shown a message telling if the upload was successful. If successful the document will appear in the list of attached documents.

Removing a document from the asset

To remove a document from the asset, select it in the list and click on the **Remove** button. You will be asked to confirm the deletion before it is carried out and it is removed from the list.

Log tab

Date	Time	User	Type	Event
25/03/2021	12:29:20	sussol	Asset created	Asset Desk created

The log tab shows you all the logs that have been generated for this particular asset. If you need to see more detail on the log entry then find it in the complete log by going to *Special > View log* (see the [25.19. The system log](#) page for more details).

Adding an asset

To add an asset, click on the **New** button. That will open the same window as when editing an asset but it will be empty:

The *Current status* field is now a drop down list, containing all the active statuses that have the *Can be first status* checkbox checked.

The *Proposed status* field is disabled; you cannot set a proposed status for a new asset.

When you have filled in all the appropriate information, you can click on the OK button to create the new asset or the Cancel button to close the window without saving.

The *Description* and *Current status* fields are mandatory for a new asset and mSupply will tell you if you do not fill them in.

Connecting assets with stock via stock location (e.g cold chain equipment)

Sometimes it is helpful to make a connection between an asset and the stock of medicines or medical consumables that they contain or affect. You might want to do this for cold chain equipment, for example - so that you can link temperature variations or breaches to the need for maintenance or repair.

You make this connection by telling mSupply what asset a particular stock location is part of.

The details on how to do this are found on the [4.06. Stock locations and location types](#) page.

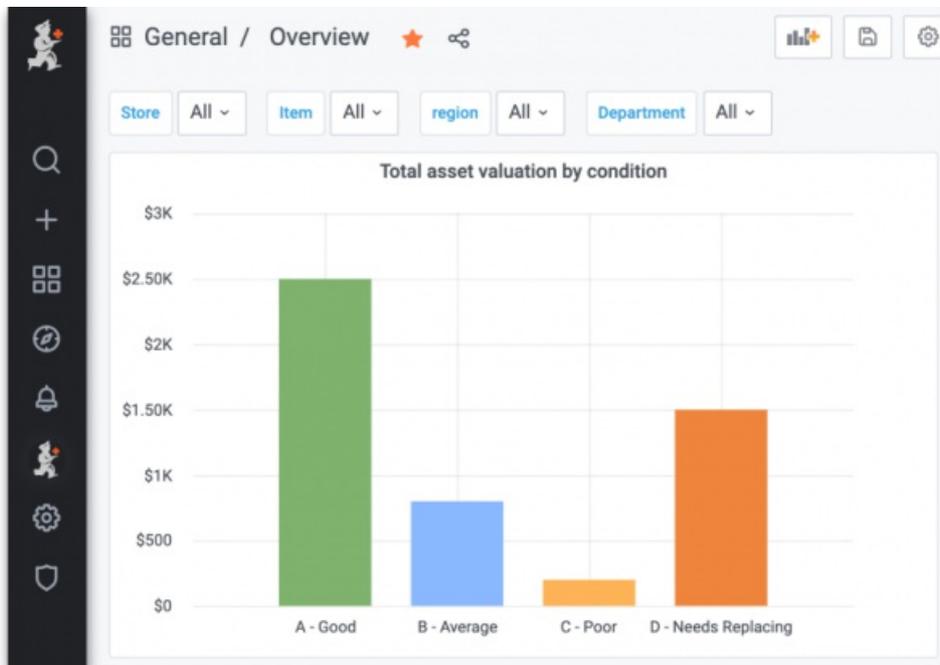
Assets in a synchronisation system

Asset settings are system data and so they are settable on the primary server only. Any asset settings created or edited here are synchronised to all other sites.

Assets themselves are store based data so they can only be created and edited in the active copy of a store. Assets will synchronise from here to the central server and any collector copies of the store only.

Assets in the Dashboard

Asset data can easily be included in the mSupply Dashboard, as in this simple example here:



See the <https://docs.msupply.foundation/en:dashboard> pages for details on the mSupply dashboard.

Previous: [21.01. Assets setup](#) | Next: [22. mSupply Mobile \(Android\)](#)

Last modified: 2022/02/10 11:16 by Gary Willetts



mSupply documentation wiki





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22. mSupply Mobile (Android)

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Last modified: 2021/10/08 09:14 by Gary Willetts





22.01. mSupply Mobile user guide

Tip

The [mSupply Mobile user guide](#) has now been moved to our open source project website - [mSupply.foundation](#)

Previous: [22. mSupply Mobile \(Android\)](#) | | Next: [22.02. mSupply Mobile technical instructions for setup](#)



Last modified: 2021/10/08 11:00 by Gary Willetts





22.02. mSupply Mobile technical instructions for setup



The mSupply Mobile information has now been moved to the open source project website here: <https://docs.msupply.foundation>

Previous: [22.01. mSupply Mobile user guide](#) | Next: [22.03. mSupply configuration for mobile](#)

Last modified: 2021/10/08 11:04 by Gary Willetts





22.03. mSupply configuration for mobile

Some configuration is required in mSupply to enable mobile usage. See the [mSupply mobile user guide](#) for details.

Previous: [22.02. mSupply Mobile technical instructions for setup](#) | Next: [23. Integration with other systems](#)



Last modified: 2021/10/08 11:04 by Gary Willetts





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- [23.02. FrontlineSMS integration](#)
- [23.03. mSupply eLMIS interface](#)
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23.01. DHIS2 integration

DHIS2 is an open source data warehouse that can be used to store, aggregate and display health data. mSupply can push data periodically to a DHIS2 instance. Before this can happen, the data to be sent and any calculations that need to be made will need to be configured.

Requisites

DHIS2 stores data values that have 3 dimensions:

DHIS2 Dimension	Description	mSupply typical mapping
organisation unit	Can be a facility, or a region	The customer/store in mSupply
data element	The type of data that is stored	Usually a combination of an item code and the type- for instance "SOH_368c74bf" for the stock on hand of Amoxicillin 250mg Cap
Period	The historical time period associated with the data	Same in mSupply

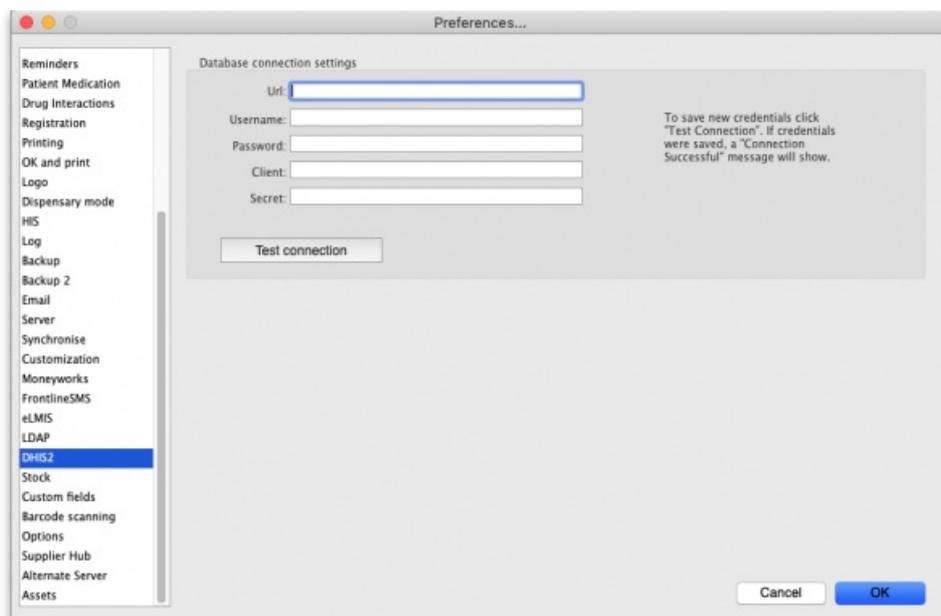
With these DHIS2 has the power to show different types of data for different places of interest on various graphs. It can also aggregate those values in hierarchical groups.

Common types of data

1. Stock on hand
2. Stock expiring
3. Value of stock on hand
4. Critical items availability

mSupply connection to DHIS2

Before you can send mSupply data to a DHIS2 instance, you need to tell mSupply where the data has to go. To do that, go to *File > Preferences* and click on DHIS2 tab to get to this window:



- **Url:** The URL of the DHIS2 database including the port if any.
- **Username:** The username mSupply will use to access the DHIS2 database
- **Password:** The password mSupply will use to access the DHIS2 database

- **Client:** The client name mSupply must use to access the database.
- **Secret:** The secret that is used for mSupply to access the DHIS2 database. No need to enter this if none was provided.

Info

If this page already has settings entered and they have been used to successfully connect to the DHIS2 database then a “Last successful connection: *date & time*” message will show next to the **Test connection** button.

After entering the values you should click on the **Test connection** button to save the credentials and check that mSupply can now access the DHIS2 database. If the connection is successful you will see a green “Connection successful” message next to the button.

If the connection is not successful you will see a red “Authentication failed” message next to the button. Check your settings, edit them as necessary and try again. The connection problem may not be the credentials, it could be something else like the settings for firewalls between mSupply and the DHIS2 database.

Once configured, a scheduler will run and regularly send data from mSupply to DHIS2. In order for this to work, you first need to have a DHIS2 instance that has links with mSupply for each organisation unit and data element.

Contact our team to help you to create the specific data elements on DHIS2 accordingly with the data that you want to be sent. We will configure it for your specific situation.

This has been done already for Laos and countries that are part of the [Tupaia](#) project including Kiribati, Tonga, Solomon Islands, Cook Islands and Vanuatu with some more to come!

Previous: [23. Integration with other systems](#) | | Next: [23.02. FrontlineSMS integration](#)

Last modified: 2021/10/08 11:06 by Gary Willetts



23.02. FrontlineSMS integration

mSupply has the ability to integrate with your FrontlineSMS installation. This allows you to send your current stock levels to mSupply using an SMS (text) message from any mobile phone. This is particularly useful if, for example, you are a mobile or remote health post or dispensary which doesn't have internet access and only needs to send in information about a few items at a time.

To get mSupply talking to your FrontlineSMS installation, follow these simple steps:

1. Tell mSupply the details of your FrontlineSMS database

You do this on the FrontlineSMS tab of the mSupply preferences page (*File > Preferences*). See [here](#) for a detailed description of how and what to set.

2. Set the SMS code and pack size of the items you want to receive information about

Because SMS messages need to be kept short (they are only allowed a limited number of characters), instead of writing the full name of an item in an SMS message you simply write a short code which represents it. It is impossible for mSupply to know the pack size of the items being counted in the remote store so you also need to enter a pack size to be used for calculating item quantities from the pack quantities supplied in an SMS. You set both the SMS code and SMS pack size for an item in the Misc tab of the item's Item details window (via the *Items > Show items* menu). For detailed instructions see the 'The Misc(ellaneous) tab' part of 'The Item Details Window' section on the items basics page [here](#).

3. Add SMS senders as contacts to customers

mSupply needs to know which of your customers an SMS message has been sent from. To give it this information you simply add each mobile phone number that will be sending messages to mSupply to the appropriate customer as a contact. To do this use *Special > contacts* (see [here](#) for details) or *Customers > show customers*, select the customer, go to their contacts tab, click on the *Add contact* icon and enter the contact's details.

Important

Please note: whichever way you do it, the phone number must be entered **exactly** as it is recorded in FrontlineSMS (it will probably include the international dialling code e.g. +977 but this will vary with phone service providers). You can find out how FrontlineSMS stores a sender's number by sending a dummy text message and viewing its details in FrontlineSMS.

4. Make sure that emailing is turned on in mSupply

mSupply will inform the people selected in the preferences (see step 1 above) by email when a message has been received and is successfully processed or has an error. But mSupply can't send the emails if you haven't configured it to. To set up emailing, go to *File > Preferences* and click on the Email tab. See the E-mail section of the general preferences page [here](#) for details of the various settings.

OK, that's the setup complete and you're ready to...

5. Send an SMS message to mSupply

The text message you send to mSupply must be in the correct format. Any mistakes and the message will be rejected and will have to be resent. The correct format is this:

keyword item_code item_value item_code item_value...

keyword: This is the keyword you set in the Frontline preferences (step 1 above) that enables the software to recognise a message as intended for mSupply. If this keyword does not exactly match what is set in the FrontlineSMS preferences mSupply will ignore the message.

item_code: An SMS code identifying an item in mSupply. You set these in step 2 above.

item_value: The number of the item represented by item_code that you have in stock. Obviously, the number must not be negative!

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1. Tell mSupply the details of your FrontlineSMS database
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 6. View and complete the stock history record
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You can have as many item_code and item_value pairs as a single text message will allow. But they must **always** be paired. If mSupply finds an item_code not matched with an item_value it will reject the message and it will need to be resent.

Every single element (the keyword, an item_code or an item_value) of the message must be separated by a space.

To make all this clear, let's have some examples:

- A valid text message: msm am 1000 lp20 2000 cf 1 (msm is the keyword; am, lp20 and cf are item SMS codes; 1000, 2000, 1 are amounts of the corresponding items in stock and each element is separated by a space)
- An invalid text message: msm am 1000 lp202000 cf 1 (msm is the keyword; am, lp20 and cf are item SMS codes; 1000, 2000, 1 are amounts of the corresponding items in stock but the space between lp20 and 2000 has been missed out. mSupply will interpret lp202000 is an item SMS code which doesn't have a paired value and reject the message)
- A valid text message: s 201 1000 102 3000 lf 200 (s is the keyword; 201, 102, 1f are item SMS codes; 1000, 3000, 200 are amounts of the corresponding items in stock and each element is separated by a space)
- An invalid text message: msm am 1000 lp20 -2000 cf 1 (everything's OK except the -2000. A stock value can't be negative so mSupply will reject the message)

Tip

It is OK to enter multiple spaces where there should only be one or to add leading and trailing spaces to the message. Because mSupply is clever software it will know what you meant and ignore the extra spaces.

When an SMS message has been received by mSupply an email will be sent to the recipients selected in the FrontlineSMS preferences (set in step 1 above). It will tell them that it has been successfully processed or that there was an error (and will give details of the error). In the case of a successful message mSupply will also create a reminder (see [here](#) for information about reminders) for the recipients selected in the FrontlineSMS preferences. In the case of an error, the e-mail recipient should contact the sender to correct the mistake and resend their message.

6. View and complete the stock history record

When mSupply has successfully processed an SMS message it produces a Customer stock history record of the appropriate type (imprest or stock history) for the appropriate customer. See [Customer stock history records](#) for more information on these. The stock history record will have a status of 'suggested' and must be viewed and completed by someone in mSupply before it is turned into a customer invoice.

The point of creating reminders for people on successful receipt of an SMS message is that the customer stock histories don't get forgotten!

7. If anything goes wrong

Any errors which occur during the processing of SMS messages are sent by e-mail to the people selected in the FrontlineSMS preferences so that appropriate action can be taken. The error messages detail the problem to make troubleshooting easier. The most likely problems with SMS messages are:

- Sender phone number not added as a contact to a customer in mSupply or not added exactly as it appears in the FrontlineSMS database.
- Keyword forgotten or wrongly typed. In this case the message will appear to have disappeared into thin air! mSupply will ignore it because it is the keyword that identifies it as an mSupply message.
- Space missing between message elements. You will receive an error message about item codes and item values not being paired in this case.

Please note that all SMS and FrontlineSMS database error messages are also written to the log: to view them go to *Special > View log* (if you want to display only SMS errors select the 'SMS error' item in the right hand drop down list in the log display window). This can be very helpful for working out if anything's gone wrong, especially if emailing is not working (because you've forgotten to set it up - in step 1 above - or your internet connection is broken or slow).

Previous: [23.01. DHIS2 integration](#) || Next: [23.03. mSupply eLMIS interface](#)

Last modified: 2021/10/08 11:06 by Gary Willetts



23.03. mSupply eLMIS interface

eLMIS stands for **E**lectronic **L**ogistics **M**anagement and **I**nformation **S**ystem and is a version of OpenLMIS developed under the USAID Deliver project. mSupply has an interface for receiving orders from eLMIS and sending shipment details back to it.

Because eLMIS does not have an [API](#), the mSupply interface uses files stored in a commonly accessible location to share information.

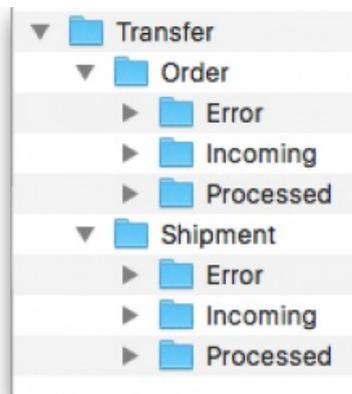
Setup

Before the interface can be used it has to be setup correctly. These are the setup steps you need to follow:

1. Create folders in a commonly accessible location

A computer file storage location must be created somewhere that is accessible by both the mSupply and eLMIS servers to directly write files. If a common location does not exist because the mSupply and eLMIS servers are on separate non-linked networks you can create a separate location on each of the mSupply and eLMIS servers and link them using a file synchronisation utility such as Dropbox.

When you have the centrally accessible location sorted out, create a main folder then some sub-folders according to the following:



In this picture we have called the main folder *Transfer*. You can name yours anything you like but the other folders must have exactly the same names as shown.

2. Enter the setup information into mSupply

Go to the mSupply Special > Preferences window and select the eLMIS tab. Please see the [16.01. General preferences > elmis_tab](#) section in this user guide for information on these settings.

3. Setup the customer budgets in mSupply

The interface assigns the incoming orders (turned into customer invoices in mSupply - see below) to the correct annual budget period for customers. The budget year is assumed to start on 1st July. So, create a budget period starting on the 1st July in the current budget year and assign that budget period to all the customers you will be importing orders for via this interface. See the [8.08. Customer budgets](#) page for details on doing that.

4. Setup eLMIS

1. Set eLMIS to export its order files to the *main folder/Order/Incoming* folder when orders are created.
2. Set eLMIS to look for incoming shipment files in the *main folder/Shipment/Incoming* folder on a regular basis.

Please consult your eLMIS documentation for information on these steps.

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What the interface does

When it's running the interface does 2 things:

1. Processes new orders from eLMIS

Each time the interval set in the settings elapses, mSupply checks the *main folder/Order/Incoming* folder for new order files from eLMIS. If it finds one it reads the file and turns it into a customer invoice. The customer invoice will have these features:

- its status will be "sg" (suggested)
- its *Their ref* field will have the value "eLMIS:XXXX." where XXXX is the eLMIS order number
- it will have a placeholder line for every item in the order file

The *Their ref* field makes a customer invoice created by the interface easy to spot. Feel free to add anything to the *Their ref* field **after** what the interface has put in there but not before. mSupply uses it to generate the shipment file for this order later on.

See the Order file format section below to see the format the order file must have.

If the order is successfully converted into a customer invoice the eLMIS order file is moved from *main folder/Order/Incoming* to *main folder/Order/Processed*.

If there is a problem and the order file is not converted into a customer invoice then the order file is moved to *main folder/Order/Error*. In addition, an error file is created and is also placed in *main folder/Order/Error*. The error file has the name "XXXX-YYYY-MM-DD-HH-MM.err.csv" where XXXX is the order file's filename without its extension. See the Error file format section below for the format of the error file. An error email with the error file attached will also be sent to the error email address set in the [mSupply preferences](#).

2. Creates eLMIS shipment files for confirmed customer invoices

When a customer invoice that was created by this eLMIS interface (mSupply recognises them by the contents of the "Their ref" field) is confirmed then mSupply will create a shipment file for it. The shipment file will have the filename "SHPXXXX.csv" (where XXXX is the invoice number of the customer invoice) and will be saved to the *main folder/Shipment/Incoming* folder.

See the Shipment file format section below for the format of this file.

If there are any problems creating the shipment file, mSupply will display a message describing the problem. Please note that you will **not** be able to confirm the customer invoice until all the problems preventing the creation of the shipment file are corrected.

Using the interface

Well, the good news is that day-to-day you don't have to do anything. The interface will continue running quietly in the background processing order files and creating shipment files as the customer invoices are confirmed.

Periodically you should check the error email address set in the [eLMIS preferences](#) for messages about errors. Remember the order files that have caused errors can be found on the *main folder/Order/Error* folder. Note that mSupply does not put anything in the *main folder/Shipment/Error* folder - eLMIS only uses that folder when processing the shipment files.

The only other time you will hear anything from the interface is if mSupply detects an item on a customer invoice that wasn't in the original eLMIS order. This will happen if one of the item placeholder lines was replaced with a different item (e.g. because of low stock or a preferred item is to be used). In this case, mSupply will show a window and ask you to tell it which item on the original order you replaced with the item in question. Once you have selected the item that has been replaced mSupply will continue creating the shipment file.

eLMIS order file format

This a text file in csv format, each element of data is enclosed in " characters. The first line of the file will contain headers only (ignored by mSupply), subsequent lines contain data in the following order:

1. Warehouse code. This is the code the store in mSupply that this order (customer invoice) belongs to.
2. eLMIS order ID. Stored in the *Their ref* field of the customer invoice.
3. Item code. The code of the item being ordered.
4. Product name. The name of the item, as stored in eLMIS. For reference only, not used by mSupply.
5. Customer ID. The code of the customer this order is from.
6. Quantity. The number of packs (default pack size) of this item ordered.
7. First day of reporting Period. The date of the first day of the reporting period (budget period in mSupply) to which this customer invoice is to belong in the format YYYY-MM-DD.
8. Line number. The number of this line in the order.
9. Order date. Date the order was placed.
10. Price. The unit price of the item. Optional, might not be sent from eLMIS, not used by mSupply.

Shipment file format

This is a text file in csv format with the name "SHPinvoice number.csv" where *invoice number* is the customer invoice's number in mSupply (e.g. "SHP1234.csv"). The first line will always be "Order No, Product Code, Batch, Quantity Shipped, Cost, Packed Date, Shipped Date, Facility Code, Quantity Ordered, Substituted Product Code, Substituted Product Name, Substituted Product Quantity" (i.e. the column headers only), subsequent lines contain data in the same column order, each element enclosed in " characters.

Error file format

A text file with the name "*filename without extension*-YYYY-MM-DD-HH-MM.err.csv" where *filename without extension* is the filename of the order file which the error file is generated for and YYYY-MM-DD-HH-MM is the current date and time in 24 hour format (e.g. ORD12345-2015-05-30-14-35.err.csv).

The file contains 3 lines:

1. *file name without extension: Error description* where *file name without extension* is the eLMIS order file name without its extension and *Error description* is a description of the error that has been found e.g. "ORD10002: Facility code not found"
2. Line number: *XX* where *XX* is the number of the line in the order file which has the error. e.g. "Line number: 3"
3. Hint: *Hint to fix it* where *Hint to fix it* is a hint on how to fix the error e.g. "Hint: Make sure facility code is available in eLMIS, enter the facility code into the file"

Previous: [23.02. FrontlineSMS integration](#) | Next: [23.04. Moneyworks integration](#)

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23.04. Moneyworks integration

For information regarding exporting data to the accounting software *Moneyworks* please refer to the [17.17. Exporting invoices to Moneyworks](#) section.

Previous: [23.03. mSupply eLMIS interface](#) | Next: [23.05. MYOB](#)



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23.05. MYOB

For information regarding exporting data to the accounting software *MYOB* please refer to the [17.18. Exporting to MYOB](#) section.

Previous: [23.04. Moneyworks integration](#) || Next: [24. Data Tables and Fields](#)



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User Guide



24. Data Tables and Fields

The following tables list the main data tables in mSupply (there are some others, but we're not telling you about those!). This information will help you if you are building your own reports.

Note that if a field is indexed, finding information (querying) using that field will be very quick.

- [24.01. Main tables](#)
- [24.02. Other tables](#)
- [24.03. Foreign keys](#)
- [24.04. Internal tables](#)

Summary of table names	Main Tables	Other Tables	Foreign Keys	Internal Tables
	<ul style="list-style-type: none"> Aggregator table Drug_register Item item_line Name Preferences (Prefs) Purchase Orders Purchase Order Lines Quotes Requisition Stock_take Tenders Transaction lines Transactions 	<ul style="list-style-type: none"> Abbreviation Account code authoriser Backorders Bill of Materials Master Contact Currencies Custom Stock fields Drug Interactions Item category Item department Item directions Item Note Item Warning link Label Location & Location Movement Log Name category tables Prescribers Regimen Reminders Store Temperature & VVM Users Warnings 	<p><i>Table listing all foreign keys</i></p>	<ul style="list-style-type: none"> item_store_join name_store_join name_group numbers number_re-use permissions prefs reports ship_method sync_out transaction_category transaction_notes units insuranceProvider nameInsuranceJoin

Previous topic: [23. Integration with other systems](#) || Next topic: [25. Technical Administration](#)



[\[\[tables_fields:foreign_keys \]\]](#)



24.03. Foreign keys



ID Field	Foreign Keys	One-to-Many	Many-to-One
[abbreviation]ID			
[account]ID	[item]account_income_ID	-	-
[account]ID	[item]account_purchases_ID	-	-
[account]ID	[item]account_stock_ID	-	-
[account]ID	[period_amount]account_code_ID	-	-
[Admitted_from]ID			
[asset]ID	[log]source_record_ID [HIS_ENCOUNTER]ADMITTED_FROM_ID		
[asset_condition]ID	[asset]condition_id		
[asset_location]ID	[asset]location_id		
[asset_status]ID	[asset]status_id		
[asset_type]ID	[asset]type_id		
[backorder]ID	[trans_line]source_backorder_id		
[bill_of_material]ID			
[bom_master]ID	[bill_of_material]BOM_master_id		
[box]ID	[box_line]box_ID	-	-
[box_line]ID			
[budget_period]ID	[transact]budget_period_ID [Goods_received]budget_ID [purchase_order]budget_period_ID [name_budget]budget_period_ID [period_amount]budget_period_ID		
[clinician]ID	[transact]prescriber_ID [HIS_ENCOUNTER_DISEASE]DIAGNOSED_BY		
[contact]ID	[contact_group_membership]contact_id [transact]contact_id		
[contact_group]ID	[contact_group_membership]contact_group_id		
[contact_group_membership]ID			
[currency]ID	[purchase_order]currency_ID [quote_line]currency_ID [transact]currency_ID [name]currency_ID [quote]currency_ID		
[custom_data]ID			
[custom_data_category]ID	[custom_data]category_id		
[dashboard_report]ID			
[DOC_REFERENCE]ID			
[Drug_interaction]ID			
[Drug_interaction_group]ID	[Drug_interaction]affected_group_ID [Drug_interaction]affecting_group_ID [item]interaction_group_ID		
[Drug_register]ID	[Drug_interaction]source_ID		
[drug_register_category1]ID	[Drug_register]category1_ID		
[drug_register_category2]ID	[Drug_register]category2_ID		

Primary ID	Foreign Keys	One-to-Many	Many-to-One
[Goods_received]ID	[Goods_received_line]goods_received_ID [transact]goods_received_ID		
[Goods_received_line]ID	[trans_line]goods_received_lines_ID		
[HIS_BED]ID	[HIS_ENCOUNTER_LOCATION]BED_ID		
[HIS_BIRTH]ID			
[HIS_DISCHARGE_TO]ID	[HIS_ENCOUNTER]DISCHARGE_ID		
[HIS_DISEASE]ID	[HIS_ENCOUNTER_DISEASE]DISEASE_ID		
[HIS_ENCOUNTER]ID	[HIS_ENCOUNTER_LOCATION]ENCOUNTER_ID [transact]encounter_id [HIS_PROCEDURE]ENCOUNTER_ID [HIS_BIRTH]encounter_id [HIS_ENCOUNTER_DISEASE]ENCOUNTER_ID [log]source_record_ID		
[HIS_ENCOUNTER_DISEASE]ID			
[HIS_ENCOUNTER_LOCATION]ID	[HIS_PROCEDURE]ENCOUNTER_LOCATION_ID		
[HIS_PROCEDURE]ID			
[HIS_WARD]ID	[HIS_BED]WARD_ID		
[ID_changes]ID			
[item]ID	[backorder]item_ID [item_store_join]item_ID [trans_line]item_ID [Goods_received_line]item_ID [item_line]item_ID [purchase_order_line]item_ID [item_direction]item_ID [item_warning_link]item_ID [quote_line]item_ID [log]source_record_ID [name_s_h_line]item_ID [item_note]item_ID [item_AMC_projection]item_id [list_name_join]item_ID [list_master_line]item_ID [asset_type]item_id [bom_master]ingredient_item_ID [Drug_register]Item_ID [item]cross_ref_item_ID [patient_medication]item_ID [tender_line]item_ID [bill_of_material]item_ID [HIS_PROCEDURE]ITEM_ID [Stock_take_lines]item_ID [bom_master]item_ID		
[item_AMC_projection]ID			
[item_category]ID	[item]category_ID		
[item_category_level1]ID	[item_category_level2]parent_ID		
[item_category_level2]ID	[item_category]parent_ID		
[item_category2]ID	[item]category2_ID		
[item_category3]ID	[item]category3_ID		
[item_department]ID	[permission]item_dept_ID [item]department_ID		
[item_direction]ID			
[item_line]ID	[trans_line]item_line_ID [Stock_take_lines]item_line_ID [DOC_REFERENCE]LINKED_RECORD_ID [Item_line_note]IL_ID		
[item_line_note]ID			
[item_note]ID			
[item_store_join]ID			

Item Warning Link ID Field	Foreign Keys	One-to-Many	Many-to-One
[label]ID			
[list_group]ID	[list_name_join]favourite_group_ID		
[list_master]ID	[list_master_line]item_master_ID [list_group]master_group_ID		
[list_master_line]ID			
[list_name_join]ID			
[Location]ID	[item_line]location_ID [item_store_join]default_location_ID [Goods_received_line]location_ID [trans_line]location_ID [Location_coordinate]Location_Id [purchase_order_line]location_ID [Stock_take_lines]location_id [item_store_join]location_bulk_ID [Location]parent_id		
[Location_coordinate]ID			
[Location_type]ID	[Location]type_ID [item_store_join]restricted_location_type_id		
[log]ID			
[name]ID	[name_budget]name_ID		
	[name]NEXT_OF_KIN_ID		
	[name_stock_history]name_ID		
	[transact]name_ID		
	[purchase_order]name_ID [item_line]name_ID [list_group]name_ID [quote_line]name_ID [name_note]name_ID [contact]name_ID [backorder]name_ID_customer [repeat_table]name_ID [backorder]name_ID_supplier [Drug_register]Supplier_ID [Drug_register]Manufacturer_ID [HIS_BIRTH]child_id [HIS_BIRTH]mother_id [HIS_ENCOUNTER]PATIENT_ID [list_name_join]name_ID [log]source_record_ID [patient_medication]name_ID [regimen_record]name_id [name_store_join]name_ID [Goods_received]donor_id [Goods_received_line]manufacturer_ID [item_line]manufacturer_ID [item_line]donor_id [asset]name_id [item_store_join]non_stock_name_ID [purchase_order_line]non_stock_name_ID [purchase_order_line]manufacturer_ID [name]mother_id [purchase_order]donor_id [quote_line]manufacturer_ID [quote]names_ID [store]name_ID [tender]BenchMarkSupplier_ID [trans_line]donor_id [trans_line]manufacturer_ID [transact]donor_default_id [item]non_stock_name_ID		
[name_budget]ID			
[name_category1]ID	[name]category1_ID		
[name_category1_level1]ID	[name_category1_level2]parent_ID		
[name_category1_level2]ID	[name_category1]parent_ID		

ID Field	Foreign Keys	One-to-Many	Many-to-One
[name_category2]ID	[name]category2_ID		
[name_category3]ID	[name]category3_ID		
[name_category4]ID	[name]category4_ID		
[name_category5]ID	[name]category5_ID		
[name_category6]ID	[name]category6_ID		
[name_group]ID	[name]group_ID [permission]name_group_ID		
[name_note]ID			
[name_s_h_line]ID			
[name_stock_history]ID	[name_s_h_line]name_s_h_ID [name_stock_history]previous_csh_id		
[name_store_join]ID			
[number]ID			
[number_reuse]ID			
[Occupation]ID	[name]occupation_ID		
[patient_event]ID	[name_note]patient_event_ID		
[patient_medication]ID			
[period_amount]ID			
[permission]ID			
[pref]ID			
[pref_blob]ID			
[purchase_order]ID	[transact]original_PO_ID [purchase_order_line]purchase_order_ID [Goods_received]purchase_order_ID		
[purchase_order_category]ID	[purchase_order]category_ID		
[purchase_order_line]ID	[trans_line]order_lines_ID [Goods_received_line]order_line_ID [backorder]order_line_ID		
[quote]ID	[quote_line]quote_ID [purchase_order]quote_ID [DOC_REFERENCE]LINKED_RECORD_ID		
[quote_line]ID	[purchase_order_line]quote_line_ID		
[regimen]ID	[regimen_line]regimen_id		
[regimen_line]ID			
[regimen_record]ID	[regimen_line]regimen_record_id		
[Religion]ID	[name]religion_ID		
[reminder]ID			
[repeat_table]ID	[trans_line]repeat_ID		
[report]ID			
[Reports_By_User]ID			
[ship_method]ID	[transact]ship_method_ID [HIS_ENCOUNTER]TRANSPORT_METHOD_ID		
[sms_msg_processed]ID			
[Stock_take]ID	[Stock_take_lines]stock_take_ID [log]source_record_ID		
[Stock_take_lines]ID			
[store]ID	[transact]store_ID [item_store_join]store_ID [name_store_join]store_ID [item_line]store_ID [user_store]store_ID [backorder]store_ID [Goods_received]store_ID		

ID Field	Foreign Keys	One-to-Many	Many-to-One
	[tender]store_ID [item_AMC_projection]store_id [Location]store_ID [log]store_ID [name_note]store_ID [name_stock_history]store_ID [name]supplying_store_id [pref_blob]store_id [purchase_order_line]store_ID [purchase_order]store_ID [regimen_record]store_id [Stock_take]store_ID		
[sync_out]ID	[log]source_record_ID		
[tender]ID	[tender_line]tender_ID [tender_condition]tender_ID [DOC_REFERENCE]LINKED_RECORD_ID [log]source_record_ID [quote]tender_ID		
[tender_condition]ID			
[Tender_condition_category]ID	[tender_condition]Condition_cat_id		
[tender_line]ID	[quote_line]tender_line_ID		
[trans_line]ID	[box_line]trans_line_ID [patient_medication]trans_line_ID [trans_line]supp_trans_line_ID_ns		
[trans_note]ID			
[transact]ID	[box]transactionID [bill_of_material]transaction_ID [trans_line]transaction_ID [log]source_record_ID [trans_note]transact_ID [Stock_take]invad_additions_ID [Stock_take]invad_reductions_ID [HIS_PROCEDURE]INVOICE_ID [backorder]customer_transaction_ID_ordere [backorder]customer_transaction_ID [name_stock_history]nsh_custInv_ID [transact]cust_transaction_id		
[transaction_category]ID	[transact]category_ID		
[unit]ID	[item]unit_ID [bill_of_material]unit_ID [bom_master]units_ID [tender_line]unit_ID		
[user]ID	[user]group_ID [name_stock_history]user_ID [user_store]user_ID [transact]user_ID [store]responsible_user_ID [regimen_record]created_by [reminder]created_by_user_ID [reminder]user_ID [DOC_REFERENCE]USER_ID_FIRST_SAVED [DOC_REFERENCE]USER_ID_LAST_MODIFIED [Drug_register]created_by [Goods_received]user_id_modified [Goods_received]user_id_created [report]user_created_ID [purchase_order]created_by [purchase_order]last_edited_by [report]permission_ID [list_master]created_by_user_ID [item_note]created_by_user_ID [item_note]modified_by_user_ID [name_note]created_by_user_ID [name_note]modified_by_user_ID [patient_medication]user_created_ID [patient_medication]user_modified_ID [Stock_take]created_by_ID [Stock_take]finalised_by_ID [tender_condition]created_by_user_id [custom_data]created_by_user_ID		

ID Field	Foreign Keys	One-to-Many	Many-to-One
	[custom_data_category]entered_by_ID [item_line_note]entered_by_ID [log]user_ID [pref_blob]user_ID [Reports_By_User]user_ID [tender]created_by_user_ID [transact]responsible_officer_ID		
[user_store]ID			
[warning]ID	[item_warning_link]warning_ID		

Previous: [24.02. Other tables](#) || Next: [24.04. Internal tables](#)

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24.04. Internal tables

These are tables that are used internally that you most likely shouldn't be interested in

Internal tables

- [insuranceProvider](#)
- [item_store_join](#)
- [nameInsuranceJoin](#)
- [name_store_join](#)
- [name_group](#)
- [numbers](#)
- [number_re-use](#)
- [permissions](#)
- [prefs](#)
- [reports](#)
- [ship_method](#)
- [sync_out](#)
- [transaction_category](#)
- [transaction_notes](#)
- [units](#)

Insurance provider

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- [Internal tables](#)
- [Insurance provider](#)
- [Item store join](#)
- [Name insurance join](#)
- [Name store join](#)
- [Name group](#)
- [Name note](#)
- [Numbers](#)
- [Number re-use](#)
- [Permissions](#)
- [Preferences](#)
- [Reports](#)
- [Ship method](#)
- [Sync out](#)
- [Transaction category](#)
- [Transaction notes](#)
- [Units](#)
- [Internal tables](#)
- [Insurance provider](#)
- [Item store join](#)
- [Name insurance join](#)
- [Name store join](#)
- [Name group](#)
- [Name note](#)
- [Numbers](#)
- [Number re-use](#)
- [Permissions](#)
- [Preferences](#)
- [Reports](#)
- [Ship method](#)
- [Sync out](#)
- [Transaction category](#)
- [Transaction notes](#)
- [Units](#)



Field name	Description	Typ
ID		Alph
providerName	The insurance provider name.	Text
comment		Text
prescriptionValidityDays	The number of days that can expire from when a prescription is created and when it is paid for.	Long
isActive	If false, no policies associated with this insurance provider can be used to pay for any new or outstanding prescriptions.	Boolean

Item store join

Contains item related values that differ across stores. Most notably, defines whether an item is visible in a particular store.

Field name	Description	Type	Length	Ind
Note that records are created for each item- there should always be one record for each item in each store				
id		Text		
store_ID		Text		
item_ID		Text		
inactive	true means item is not visible in this store. False means it is visible	bool		

Name insurance join

Field name	Description	Type	Length	Ind
ID		Alpha		
insuranceProviderID		Alpha		
nameID		Alpha		
isActive	If false, insurance policy cannot be used to pay for any outstanding or new prescriptions.			
policyNumberFamily		Alpha		
policyNumberPerson		Alpha		
discountRate	The percent of the prescription cost that is payable by this policy.	Real		
expiryDate	The date after which this policy will be inactive.	Date		
policyNumberFull	The full policy number (family policy number + personal policy number)	Alpha		
enteredByID	The ID of the user who created this policy	Alpha		

Name store join

Contains name (customer, supplier, manufacturer etc.) related values that differ across stores. Most notably, defines whether a name is visible in a particular store.

Field name	Description	Type	Length	Ind
Note that records are only created as needed- that is a missing record implies the name is invisible for that store				
id		Text		
store_ID		Text		
name_ID		Text		
inactive	true means name is not visible in this store. False means it is visible	bool		

Name group

Field name	Description	Type	Length	Ind
id		Text		
name		Alpha	40	

Name note

Field name	Description	Type	Length	Ind
note_type		Alpha	3	
entry_date		Date		
note		Text		
name_key		Alpha	8	
id		Text		

Numbers

Stores serial numbers such as invoice numbers

Field name	Description	Type	Length	Ind
name		Text		
value		Long		

Number re-use

Stores serial numbers such as invoice numbers

Field name	Description	Type	Length	Ind
name	Stores deleted serial numbers for reuse- not relevant to users	Text		
number_to_use		Long		

Permissions

Field name	Description	Type	Length	Ind
item_dept_id		Text		
name_group_id	Stores which name groups have permission to be supplied which item departments	Text		

Preferences

The data for each preference is in binary format. You're not interested.

Field name	Description	Type	Length	Ind
item	Internally used: storing preferences of text type(Now deprecated in favour of pref blob)	Alpha	20	
value		Alpha	60	

Reports

Field name	Description	Type	Length	Ind
report_name		Alpha	80	
report_blob		BLOB		
owner_ID		Text		
id		Text		
last_updated		Date		

Ship method

Field name	Description	Type	Length	Ind
id		Text		
method		Alpha	80	

Sync out

Field name	Description
id	
type	I=insert, U=update, D=delete, M=merge, T=transfer
record_id	ID of the record to be synced
to_from_id	sync site ID to send the record
store_id	if store-specific data, the store ID for the record. For example a remote sync site might have multiple stores. If this sync_out record can be blank
record_data	(deprecated)
table_num	Internal table number of the record
sequence	Integer for correct sync ordering
table_id_num	Internal field number for the ID field of the record's table
merge_ID_to_keep	ID of record being kept in merge
merge_ID_to_delete	ID of record being deleted in merge

Transaction category

Field name	Description	Type	Length	Ind
id		Text		
category		Alpha	80	
type	"ci" for customer invoices "pl" for prescriptions "cc" for customer credits "si" for supplier invoices "sc" for supplier credits "sr" for repacks "bu" for builds "in" for inventory adjustments	Alpha	3	

Transaction notes

Field name	Description	Type	Length	Ind
id		Text		
note		Text		

Units

Field name	Description	Type	Length	Ind
id		Text		
units		Alpha	60	
comment		Text		

Previous: [24.03. Foreign keys](#) | | Next: [25. Technical Administration](#)

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User Guide



25. Technical Administration

- [25.01. mSupply client / server installation part 1](#)
- [25.02. mSupply client / server installation part 2](#)
- [25.03. mSupply client / server installation part 3](#)
- [25.04. Schedules and periods](#)
- [25.05. Web browser access via TSPlus](#)
- [25.06. Backup](#)
- [25.07. Automatic updates](#)
- [25.08. Changing users and passwords](#)
- [25.09. Diagnostics](#)
- [25.10. Finalising transactions](#)
- [25.11. Managing data files](#)
- [25.12. mSupply dispensary installation](#)
- [25.13. mSupply server administration](#)
- [25.14. mSupply deployment](#)
- [25.15. Managing users](#)
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- [25.17. License management](#)
- [25.18. Label printer hardware setup](#)
- [25.19. The system log](#)
- [25.20. Server troubleshooting](#)
- [25.21. Help menu](#)
- [25.22. Field descriptions](#)

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25.01. mSupply client / server installation part 1

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Info

- mSupply Server can be installed on a range of Windows [OS](#) hardware platforms. Installations of the mSupply Server and client software on these different platforms will not be identical.
- This page includes instructions for installing the mSupply Server and client software on a typical Windows 10 Pro platform. This will include many hardware configuration issues as these have been known to be important for mSupply Server operation and troubleshooting.

Recommended hardware

4D is the database underlying mSupply software. 4D has [recommendations for hardware](#).

Important

Based on decades of experience with mSupply in demanding field environments, the single biggest cause of problems around mSupply usage is power failures. Even if the system was working perfectly during the initial install, UPS batteries fail, and then the ICT equipment is no longer protected from power failure. Losing access to mSupply during power cuts is bad enough. But the real danger is ungraceful shutdown of the mSupply server resulting in corruption of the mSupply data file as well as other software and hardware. It is often possible to fully restore a corrupted mSupply database, but not always. In a synced system it can be almost impossible to fix all discrepancies between servers caused by such a data corruption. The key to a reliable mSupply ICT installation is mSupply servers that are resilient to power cuts. The solution: Laptop computers.

- Laptop batteries have a much longer life than typical UPS batteries
- Laptops are inherently better at shutting down gracefully when the laptop batteries have drained

In certain environments, it may be important to make sure that the laptop server is secured with a locking cable.

The following table lists our current minimum recommended hardware for a locally installed mSupply server. mSupply satellite servers in a synced system do not require the same level of data redundancy (RAID array, etc.) as the central server.

Recommended hardware

Installation pre-checks

UPS (Interruptible power supply)

ICT capacity

Initial server hardware setup

Miscellaneous server tweaks

Remove Windows / OEM bloatware

Hibernation / sleep

Turn off Cortana

Automatic updates

Turn on Windows Update Delivery Optimization

Turn off DEP (Data Execution Protection)

Turn off UAC (User Account Control)

Set correct regional settings including keyboard, copy to 'New user accounts'

Disable system protection

Remote connectivity efficiency - best performance

Remote connectivity efficiency - remove background picture

Improve Windows Explorer file visibility

Recommended hardware

Installation pre-checks

UPS (Interruptible power supply)

ICT capacity

Initial server hardware setup

Miscellaneous server tweaks

Remove Windows / OEM bloatware

Hibernation / sleep

Turn off Cortana

Automatic updates

Turn on Windows Update Delivery Optimization

Turn off DEP (Data Execution Protection)

Turn off UAC (User Account Control)

Set correct regional settings including keyboard, copy to 'New user accounts'

Disable system protection

Remote connectivity efficiency - best performance

Remote connectivity efficiency - remove background picture

Improve Windows Explorer file visibility

Item	Recommendation
OS	64-bit Windows 2012 / 2016 /2019 or Win 10 with latest service packs
Processor	For server Quad core minimum is recommended. Consider adding more core for 15 users or more
Memory	ECC memory Minimum 8Gb +1Gb per user over 8 users
Hard disks	4 total: 3 Hard drives to run RAID 1 (or 5) Array + Hot Spare. 1 separate Hard disk for primary back up
Network card	Gigabit
RAID controller	RAID 1: Onboard RAID controller is fine
Power supply	Dual hot-swap power supply is best, single power supply acceptable with good power quality

Indicative pricing before local taxes: USD3,000 to USD5,000.

For a Terminal server, the general specification changes in that

- More RAM is needed.
- Hard disks are less important, as no data is stored on the server (unless you are using the same server for both hosting the mSupply server and hosting the terminal sessions).
- An additional Gigabit Ethernet port could be useful

Pricing should be similar.

Alert

If you are running a server that is not in a datacentre with proper power protection: Beware of [Solid State Drives \(SSDs\)](#) without Power Loss Protection!

At least one country using mSupply on servers in health facilities with SSDs installed has had the bitter experience of the SSDs failing after ungraceful shutdowns due to failing UPSes.

The vast majority of ICT documentation on the internet is written from and for locations enjoying relatively stable power supplies. When the above-mentioned experience happened, there was precious little information available for facilities suffering from the sort of chronic power supply issues which the majority of mSupply users experience. Now there is more literature - refer here : [Surviving SSD sudden power loss](#)

Installation pre-checks

UPS (Interruptible power supply)

- Unless you have extremely reliable power we strongly suggest you install a UPS with external batteries that will provide several hours run time, e.g.:
 - [Eaton EDX1000HXL](#) or
 - [SOLTEC AHA-103HL](#)
- The UPS must be able to communicate with the server (usually with a USB cable) to initiate a graceful shutdown in advance of UPS shutdown.
- For the UPS to protect the server from power surges / spikes, the UPS needs to be connected to a power socket that is properly [earthed](#).

More details on configuration of the UPS is contained below.

ICT capacity

Do you have sufficient in-house ICT capacity to do the rest of the server installation yourself?

- This server hardware belongs to you (or maybe not... see tip below).
- Sustainable Solutions is a software development company and our core business is *not* hardware

However, we know that if the server is not installed and configured correctly, the mSupply software and your medical supplies data is vulnerable. Therefore, in most instances, we end up playing a significant role in installing and configuring the mSupply Server.

Tip

Over recent years, with the development of reliable and relatively low-cost cloud based server solutions, more and more mSupply client / server installations have used a cloud based server. In many cases, Sustainable Solutions has provided this cloud based server as a separate service, thus relieving you of any responsibility for installation, configuration and management of the mSupply Server hardware.

Initial server hardware setup

Set up the physical hardware including

- RAID 1 volume with Spare (3 disks total)

- Separate backups volume
- OS install with correct region, and keyboard
- Administrator account called Sussol (mSupply server will operate from this account).

Miscellaneous server tweaks

There are a number of miscellaneous server tweaks that we recommend:

Remove Windows / OEM bloatware

- Remove all icons pinned to the Start bar except **File Explorer**
 - Remove / uninstall all tiles on the Windows start area
-

Hibernation / sleep

- The pc can go to sleep after a few hours so change the power settings to never sleep etc. Even after setting the sleep setting to never you still must go into the advanced settings and change the hibernate setting to never: [How to turn off Hibernation on Windows 10](#)
-

Turn off Cortana

Cortana is unhelpful on mSupply servers. It is worth disabling - refer: <https://www.windowcentral.com/how-turn-cortana-and-stop-personal-data-gathering-windows-10>

Automatic updates

- Update Windows when configuring the computer on a good internet connection.
 - This will take a long time, so start it when you have something else to do! Don't panic when the update manager reports 0% Complete for a loooooong time!
 - Set 'Windows Update' to **auto download, don't install** - refer: <https://www.windowcentral.com/how-stop-updates-installing-automatically-windows-10>
-

Turn on Windows Update Delivery Optimization

While it is good to control when Windows updates take place, it is often beneficial to use [Windows Update Delivery Optimization](#) to minimise bandwidth for Windows Updates. It is recommended to turn on Windows Update Delivery Optimization for the server.

Turn off DEP (Data Execution Protection)

[Data Execution Protection](#) (DEP) can interfere with 4D - refer: [4D Knowledgebase: Tech Tip: Windows Server 2008 also uses DEP](#), so, we may need to adjust it - refer: <https://www.online-tech-tips.com/windows-xp/disable-turn-off-dep-windows/>

- Initially, try things with the default setting (**Turn on DEP for for essential Windows programs and services only**)
 - Then, if 4D / mSupply has issues, try Turning off DEP for all programs and services:
 - Open **Command prompt (as administrator)**
 - Run the following: **bcdedit.exe /set {current} nx AlwaysOff**
-

Turn off UAC (User Account Control)

[User Account Control](#) (UAC) can interfere with 4D - refer: [4D Knowledgebase: Tech Tip: Windows UAC and the "Program Files" directory](#), so, we need to turn it off - refer: <https://social.technet.microsoft.com/wiki/contents/articles/13953.windows-server-2012-deactivating-uac.aspx>

- You have the option to turn off UAC via registry by changing the DWORD **EnableLUA** from **1** to **0** in **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\policies\system**
 - You **may** get a notification that a reboot is required. **Reboot anyway.**
 - After the reboot, UAC is disabled.
-

Set correct regional settings including keyboard, copy to 'New user accounts'

Tip

Microsoft keeps changing how these settings are accessed. You'll likely need to hunt around to find them 😞

Be sure to set the correct regional settings particularly if this is a cloud server which may be physically located in a different region to the country

where the server will be used...

- Go to **Settings** → **Time & Language** → **Region & Language** → **Language**
- Click on Change date, time, or number formats
- A Region window will open, set your preferences on Formats and Location tabs.

Tip

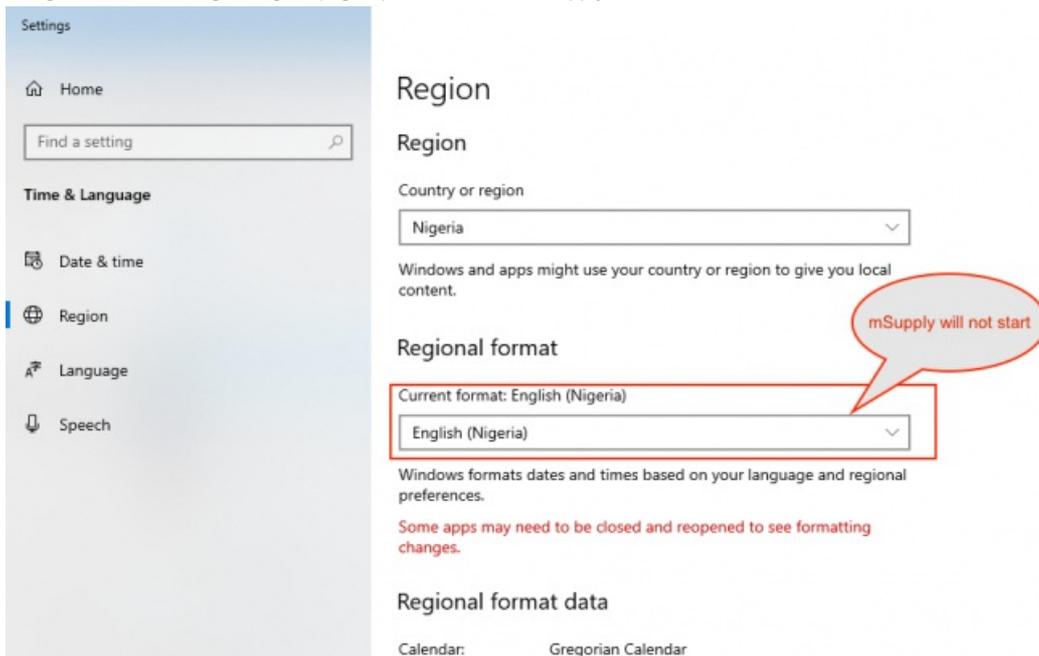
Even if you chose the correct keyboard (normally US) during setup, another keyboard (like the UK keyboard) can sometimes still be the default keyboard. Check this by trying to type the @ character... To fix this, you will need to:

- Add the correct language (e.g. **English (Australia)**). This will auto select **US keyboard**
- Move it up to the default position and delete the other language option(s).

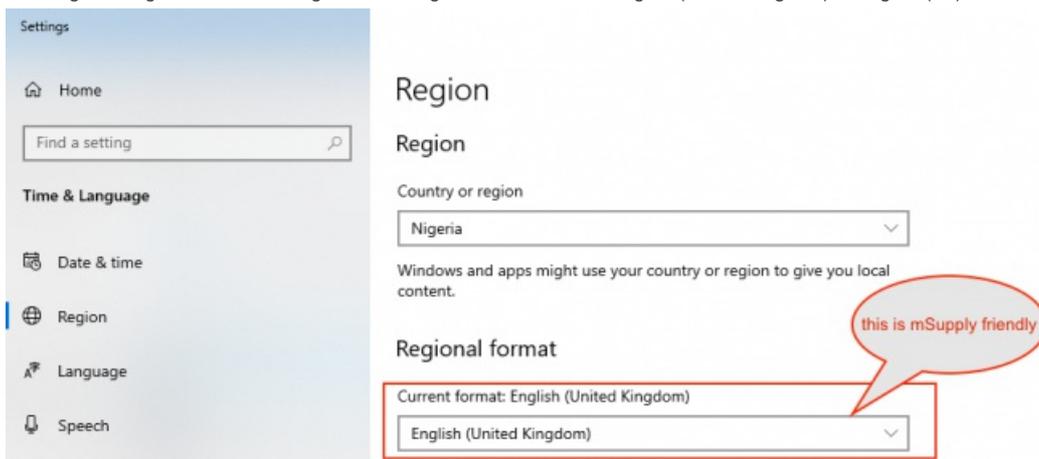
Region / Language

After installation, if mSupply fails to start, then it's quite possible that the Language setting needs to be changed. Not all Windows OS languages are supported by the 4D database that mSupply is built on. Unfortunately, 4D does not maintain a list of unsupported languages.

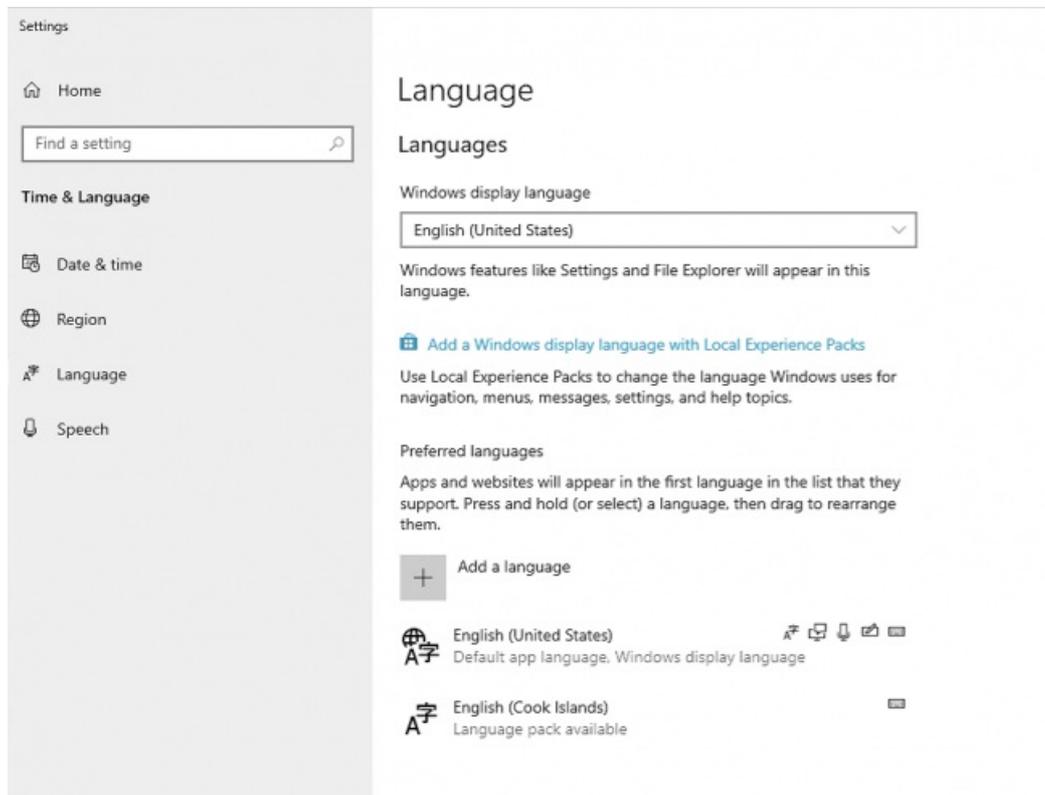
For example with regional format setting of English (Nigeria) it is known that mSupply will not start.



The solution is to change the regional format setting to something more common like English (United Kingdom) or English (US):



For language tab, Drag and drop "English (United States)" at the top of the preferred list:



Known unsupported languages include:

- English (Nigeria) (2019-08-28)
- English (Papua New Guinea) (Win10 1903)
- English (Cook Islands) (2020/10/1)

Tip

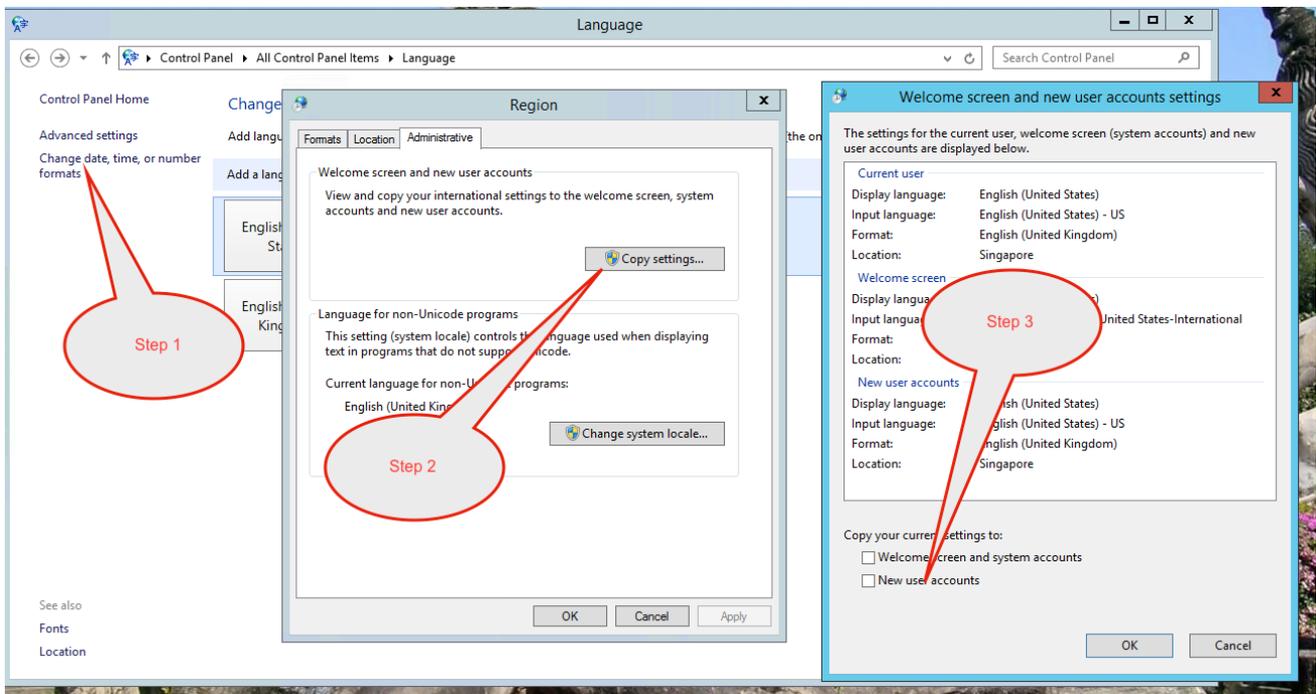
If you discover other unsupported languages, please let us know, and we'll update this list!

Date format

- In the *regional settings* in Control Panel, we recommend that the short date format is set to display only 2 digits for the year (YY, not YYYY).mSupply lists are set up to allow only enough space for 4 digits with most font sizes, but occasionally 4 digit years may be truncated. Having the wrong setting here will only affect display, not the actual data. It does *not* matter if you use DD/MM/YY or MM/DD/YY or YY/MM/DD
- If the display of lists in mSupply overlaps the separator lines, turn off *large font* in the *display* control panel.

Copy to New user accounts

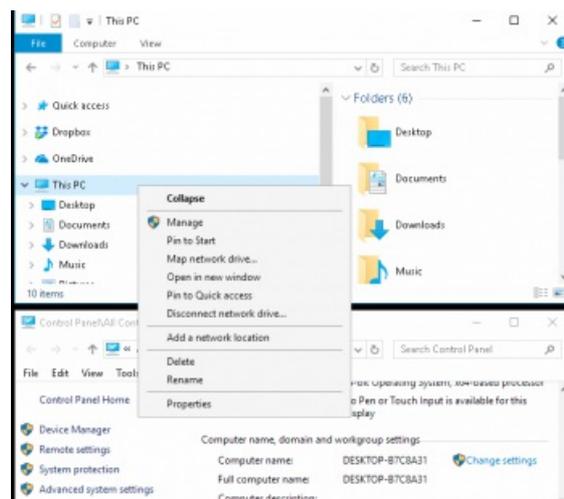
- Click Change date, time or number formats
- Click Administrative tab.
- Click on Copy settings button. On the next window:
- Check Welcome screen and new user accounts settings will open.
- Check New user accounts check box.
- Click OK button on same window
- Click Apply button and then OK button on Region window.



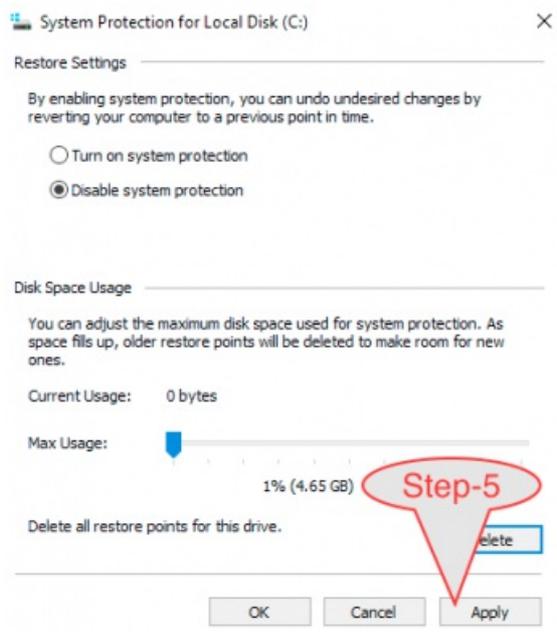
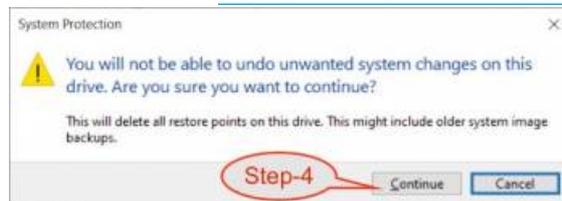
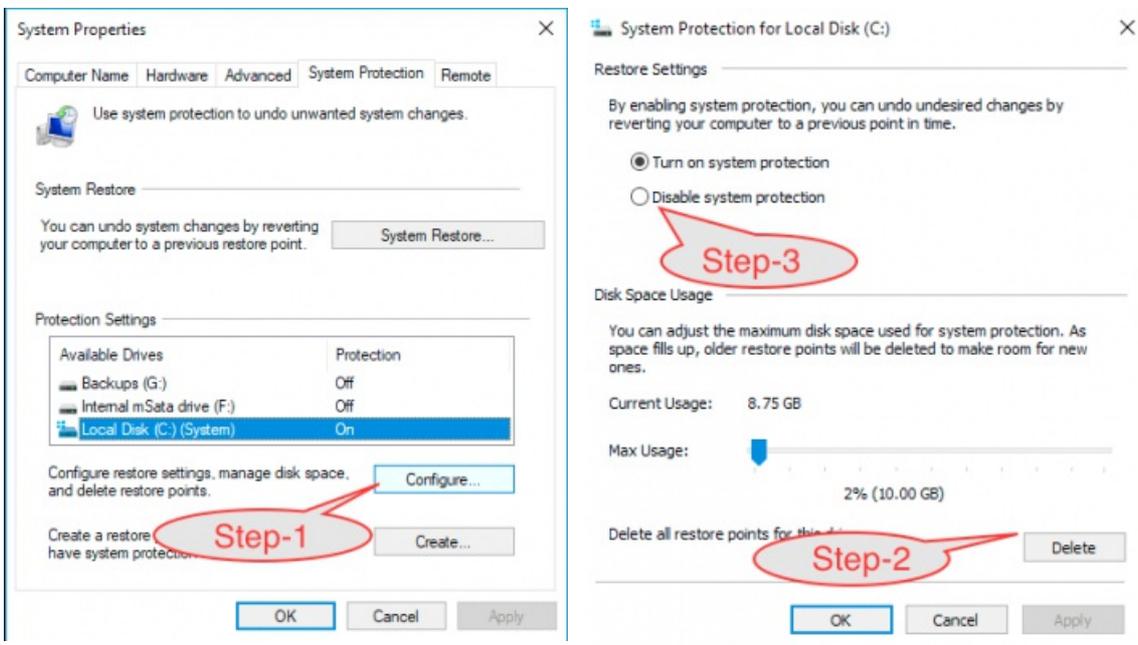
Disable system protection

There have been instances where mSupply has crashed and the Windows OS executes a system restore to a state prior to the mSupply installation / upgrade. To avoid this, disable System Protection:

Go to **File Explorer** → Right click on **This PC** → Click on **Properties**



Go to the **System Protection** tab > Click **Configure** > Click **Delete** > Click **Continue** to Delete > Select **Disable System Protection** > Click **Apply** to save the changes



Remote connectivity efficiency - best performance

Remote access speed gain by disabling visual effects.

- Go to **System** → **Advanced System settings** → **Performance** and choose **Adjust for best performance**.

Remote connectivity efficiency - remove background picture

Remote access speed gain by [removing the background picture on the Windows 10 sign-in screen](#)

- Go to **Settings** (keyboard shortcut: Windows + I) > **Personalization** > **Lock screen**.
- Scroll down and turn **off** the option, **Show Windows background picture on the sign-in screen**

Improve Windows Explorer file visibility

To carry out some of the server configuration tasks, file visibility in the Windows OS needs to be improved from the default.

Follow these instructions to [View hidden files and folders in Windows 10](#)

While doing this, make the following changes:

- Always show menus
- Display the full path in the title bar
- Show hidden files, folders and drives
- **Don't** hide empty drives
- **Don't** hide extensions for known file types
- **Don't** hide protected operating system files (Recommended)
- Use check boxes to select items

⚠ Important

These steps need to be followed by the steps in [20.02 mSupply client/server installation part 2](#) and [20.03 mSupply client/server installation part 3](#)

Previous: [25. Technical Administration](#) | | Next: [25.02. mSupply client / server installation part 2](#)

Last modified: 2022/01/17 00:45 by Mark Glover



mSupply documentation wiki



25.02. mSupply client / server installation part 2

⚠ Important

These steps need to be carried out after completing the steps described in: [25.01. mSupply client / server installation part 1](#)

Install associated server application software

Install Dropbox

Sustainable Solutions recommends using [Dropbox](#) to assist with transferring installation files to the server, and as a means of moving mSupply secondary backups off site.

- Contact Sustainable Solutions to organise a DropBox account for the server and for instructions on setting it up on the server.

💡 Tip

Do this step first so that you can use the Dropbox folder to transfer software and files to the server.

Install remote support software

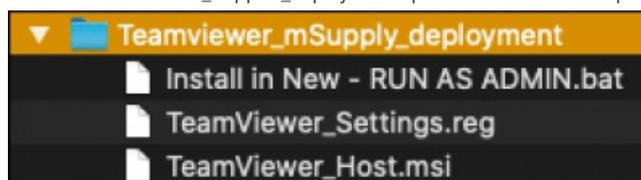
Installing the TeamViewer Host customised for mSupply

1. **Uninstall** - if TeamViewer is already installed on the machine you will need to uninstall it.
2. **Change the Computer Name** to something meaningful **before** installing TeamViewer. Use a name that reflects the site and / or user would be useful. e.g. [Auckland - Grafton Pharmacy](#) - this is what the machine will show up as on our international directory.

⚠ Important

The TeamViewer Host module appears to only use the first **15** characters of the name. If you are connecting several computers, make sure that the first 15 characters are unique for each computer.

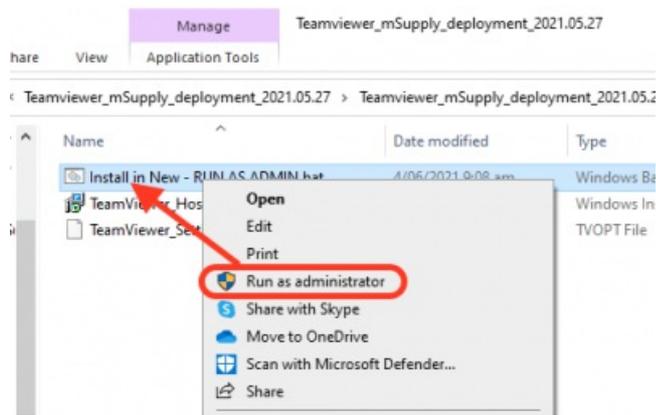
- To change the computer name in Windows go to: **Control Panel > System and Security > System > Advanced system settings > Computer Name > Change...**
 - *Note that the Computer description is NOT the Computer Name*
3. **Download** and save the zip file at the following link
https://www.msupply.org.nz/files/Teamviewer/Teamviewer_mSupply_deployment_2021.05.27.zip
 4. **Extract** the files from the Teamviewer_Support_deployment.zip file onto the host computer



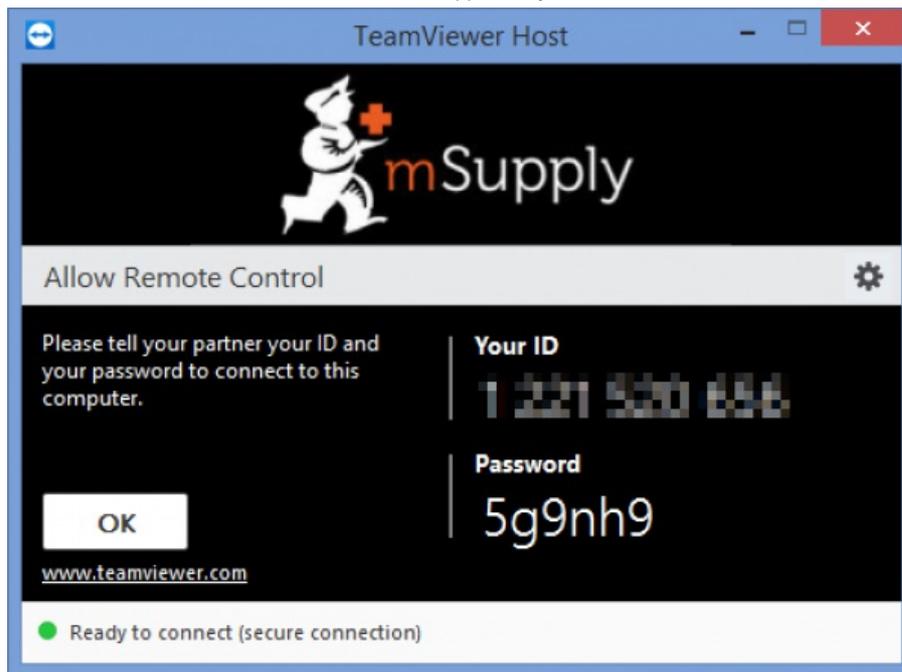
5. **Open** the folder you saved the three files to
6. **Run as administrator** - **right click** on the file [Install in New - RUN AS ADMIN.bat](#) and select **Run as administrator**. You must choose to "Run as administrator" for this to work properly, even if you are already logged on to the computer as an administrator.

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- [Install Dropbox](#)
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- [Install anti-virus software](#)
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- [Install LibreOffice or Microsoft Excel](#)
- [Install TurnedOnTimesView](#)
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- [Create Shared folder](#)
- [Configure Interactive Services Detection \(ISDS\)](#)



The Teamviewer Customised Host window should appear on your screen:



Tip

If the above window does not appear, the full installation has not completed. It definitely helps to run the batch (Install in New - RUN AS ADMIN.bat) file with a reasonable internet connection. If the internet connection is not good enough, then some or all of the actions in the batch file will not complete. If that happens, please re-run the batch file (as Admin) when the internet connection is better.

- 7. Notify Sussol** When you see this TeamViewer Host window, send us a message or email (on support@msupply.org.nz) and give us the computer name that you gave the machine in step 4 above. Otherwise, the TeamViewer ID should also work (a screenshot is fine). We will then be able to confirm for you that the remote access is operational and ready for us to provide you remote support.

8. Recommendation Browser :

Tip

It is recommended to use Google Chrome as browser if you use teamviewer on web. It supports "WebClient" connection more than other browser

Previous: [28.01. How to re-set the mSupply client](#) || Next: [28.03. Why is my stock balance report showing negative?](#)

Install UPS hardware and software

If it's not already done, install the UPS hardware and software, refer to the [UPS requirements here](#).

Install anti-virus software

Anti-virus can be a hotly contended issue. This web page is pretty convincing: [What's the Best Antivirus for Windows 10? \(Is Windows Defender Good Enough?\)](#)

Conclusion:

- If the OS is Win8 or later, Windows Defender is probably good enough for *anti-virus*, and better than much of the competition.
- Once configured, the server should not be vulnerable to exploit programs as these are usually downloaded and triggered by human activity! However, to be safe, it is recommended to install an Anti-exploit program such as [Malwarebytes](#). The website suggests that Malwarebytes is not free, but as at the time of writing this (May 2018), Malwarebytes successfully reverts to a free version after the 14 days trial. The main 'cost' of the free version is means that it has to be manually executed rather than running automatically in the background.

Install another web browser

If you're not a fan of [Microsoft Internet Explorer](#), ([12 reasons not to use Internet Explorer, eve](#)) then install another browser. Good options include:

- [Google Chrome](#)
- [Mozilla Firefox](#)

Pin the browser to the taskbar

Install LibreOffice or Microsoft Excel

mSupply can produce reports in [Microsoft Excel](#) format. Client machines will need to have software to open these reports. Occasionally there will be need to run and open these reports while logged in to the Server. If you do not have Microsoft Excel installed on the server, a good option is:

- [LibreOffice](#)

It's a good idea to stick this in to the Dropbox

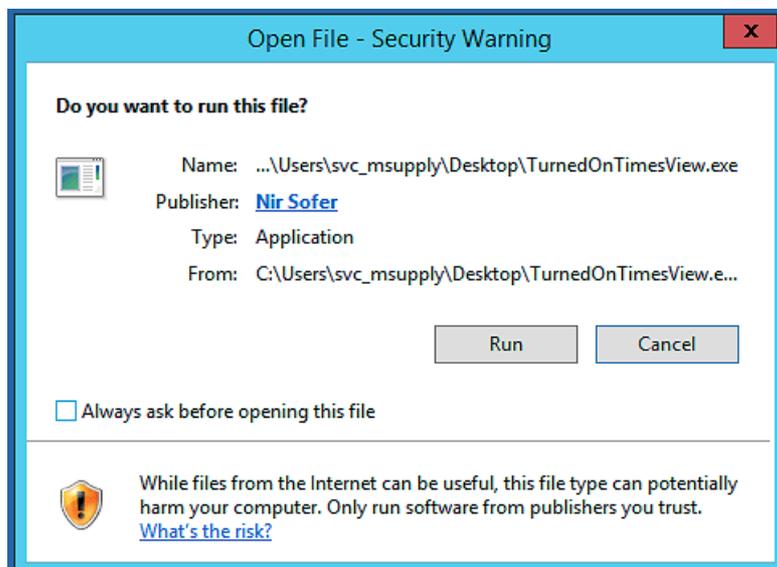
Install TurnedOnTimesView

As part of troubleshooting, it is valuable to be able to analyse when the server has shut down ungracefully.

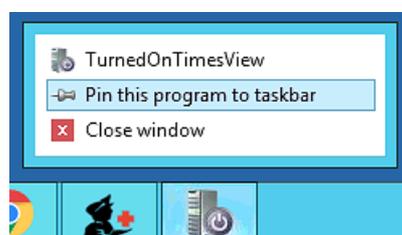
- [TurnedOnTimesView](#) is a simple tool that analyses the event log of Windows operating system, and detects the time ranges that your computer was turned on and whether the last shutdown was graceful or not.
- Installation instructions are on the [TurnedOnTimesView](#) website, but is very straightforward:
 - Download this zip file [ZIP](#) [TurnedOnTimesView.zip](#) from the mSupply website
 - https://docs.msupply.org.nz/_media/admin/turnedontimesview.zip
 - Unzip the Zip file
 - Copy the TurnedOnTimesView.exe file to the Desktop
 - Double click to icon on the Windows desktop to open



- If you get a security warning pop-up untick "Always ask before opening this file" and click Run



- Right click on the icon on the Windows Taskbar & select to Pin to Taskbar.



Startup Time	Shutdown Time	Duration	Shutdown Reason
25/03/2020 2:23:27 PM		62 Days + 22:26:09	

Install Logoff and Lock utilities

It is too easy for support workers accessing the server remotely to accidentally shutdown the server. Therefore, two Windows shortcuts have been created to allow support workers to easily logoff or lock their windows session without having to go through the usual Windows procedure:

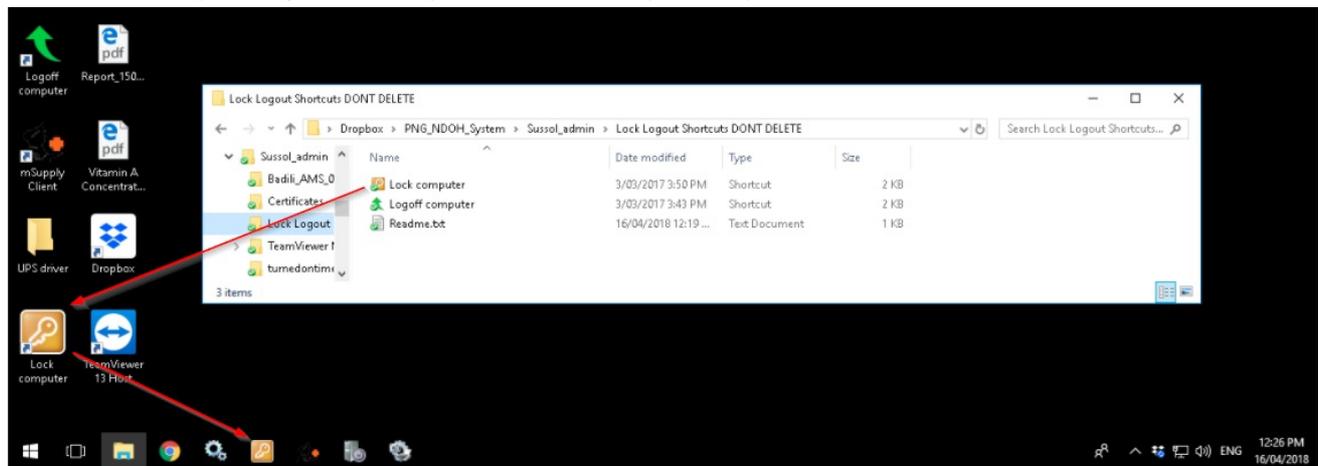
- Lock computer
- Logoff computer

Tip Lock / Logout utilities

It's a good idea to stick this in to the following folder in Dropbox:

- **Lock Logout Shortcuts**

The Yellow **Lock computer** utility needs to be copied to the Admin desktop and then pinned to the task bar.



The Green **Logoff computer** utility needs to be copied to the `C:\Users\Public\Desktop` folder. This will place the shortcut on the desktop of each normal user. Users of each normal user account will need to pin this shortcut from the desktop to the taskbar. **Don't pin it to the taskbar of the Admin user account.** We try to keep the Admin account open (but locked) so as to keep Dropbox working.

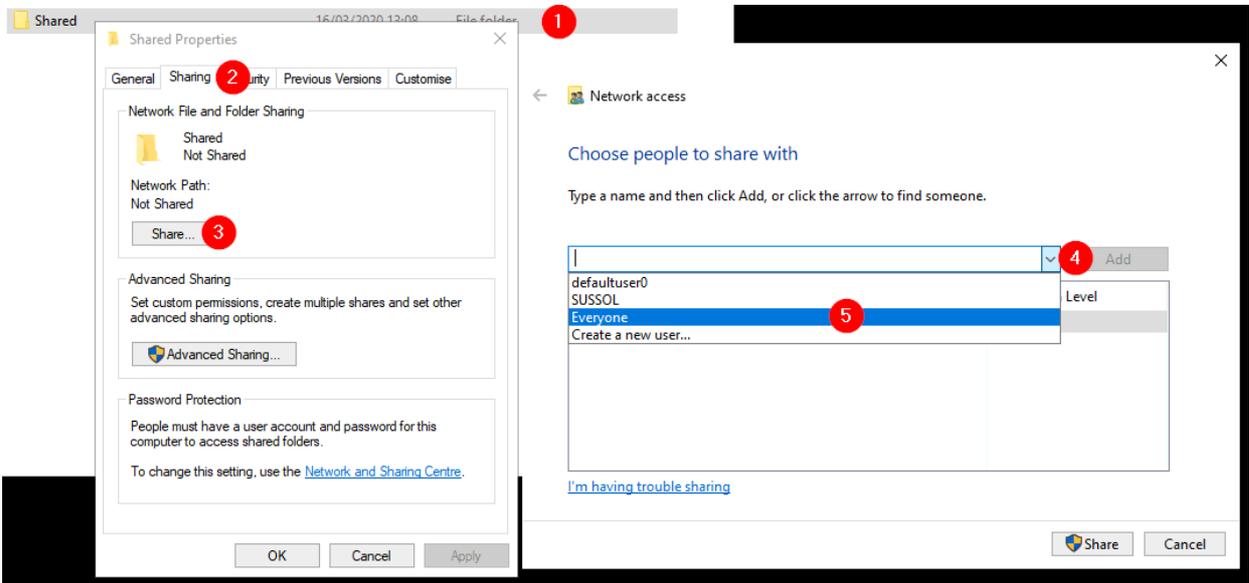
Tip

The `C:\Users\Public\Desktop` folder is normally a hidden folder. You will likely need to [make it visible](#).

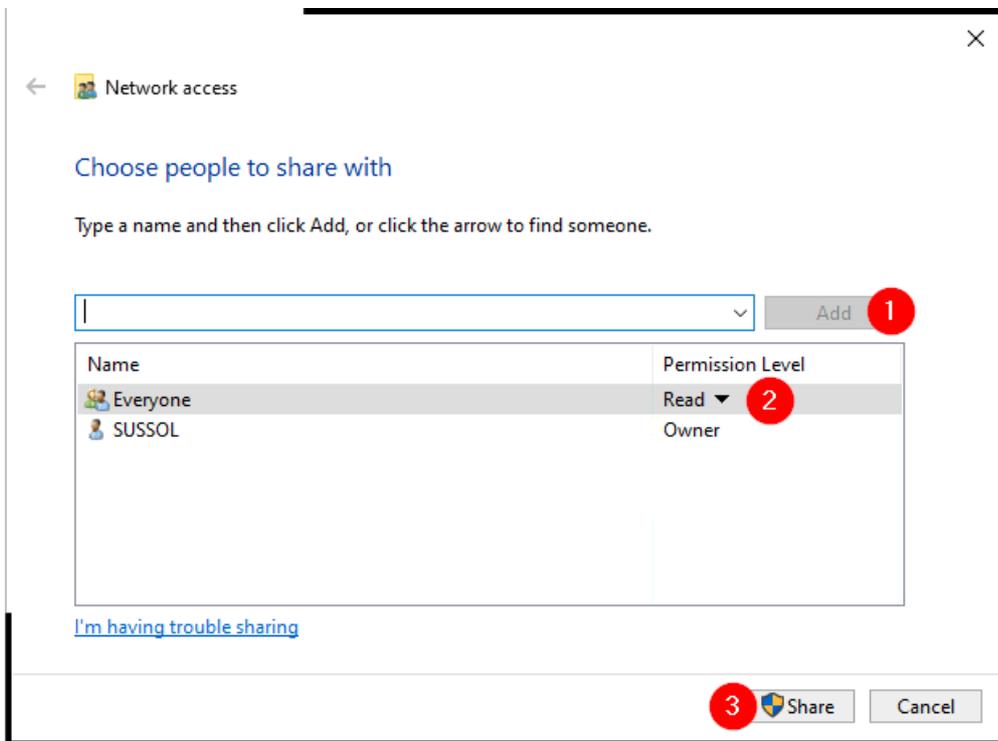
Create Shared folder

To aid in installation of mSupply software on client machines, it is very convenient to have a shared folder on the Server with read-only access from 'Everyone'. Ideally, set this up on the root level of the Backups volume. Otherwise, the root level of the system drive will do. After creating a folder called **Shared** at the root level of the drive:

1. Right-click on the folder > **Properties**
2. Navigate to the **Sharing** tab
3. Click on **Share...**
4. Click on the drop-down box...
5. Click on **Everyone**



6. Click on **Add**
7. Ensure that the Permission Level is **Read**
8. Click **Share**



Configure Interactive Services Detection (ISDS)

Alert

2021: RIP ISDS

- Interactive Services Detection Service (ISDS) was a means by which admin users could interact with the mSupply Service to investigate issues.
- Microsoft has done its best with successive version to Windows to [remove ISDS](#), such that even [FiredaemonZero](#) can no longer restore it.
- This section is now only applicable for older versions of Windows, and is kept here for historic reference - that we might remember the valiant deeds of those who have gone before us in the war to wrest control of our applications from the [OS](#) 😊

Tip

• [How-to Geek](#) has a helpful article on [Understanding and Managing Windows Services](#) which appears to be updated frequently with changes in Windows [OS](#).

Info

From [What is Interactive Services Detection and Why is it Blinking at Me?](#)

Services and system processes run in session 0. Prior to Vista, the console (first logged on user's desktop) ran in session 0 as well. Vista introduced session 0 isolation to protect services from elevation of privilege exploits from the console desktop. Now, the first user's desktop runs in session 1.

Interactive Services Detection (the blinking button on the taskbar) is a mitigation for legacy applications that detects if a service is trying to interact with the desktop. This is handled by the Interactive Services Detection (UIODetect) service.

Interactive services since Windows 10 V1803 and Server 2019

Microsoft has [removed the Interactive Services Detection Service on Windows 10 Version 1803 and Server 2019](#)

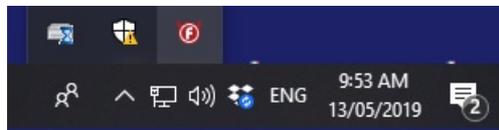
We recommend [FireDaemon Zero \(Session 0 Viewer\)](#) as an alternative means of interacting with the mSupply Service. Refer to this [deployment matrix](#).

Installing FireDaemon Zero

The utilities are here: [ZIP](#) [Firedaemon](#)

Procedure:

1. Make sure the OS is fully updated.
2. Install the latest version of [Firedaemon Zero 2.5](#) (in the Firedaemon utilities, above)
3. Install Firedaemon Zeroinput to restore Keyboard/Mouse control. Right click on the [FDUI0Input.inf](#) (in the Firedaemon utilities, above) and select Install.
4. **RESTART THE MACHINE** The [FDUI0Input.inf](#) driver will not take effect until the machine is restarted.
5. Double click on the red **Firedaemon Zero** icon on the task bar to go to Session 0 (Interactive services):



- In Session 0 Double-click the **Firedaemon Zero** icon to get back. Or it will automatically go back in 30 seconds of *inactivity*'.
- If mouse and keyboard are working on Session 0, you can turn off Firedaemon Zero 'Quirk' pref to exit session zero after 30 seconds:
 - Right-click on the red icon and click on Options.
 - Click on **Quirk** just uncheck the option.
 - Click **Done**.

Alert

If you turn off Firedaemon Zero 'Quirk' pref to exit session zero after 30 seconds **before** installing Keyboard/Mouse driver, plan for a physical trip to site to fix it! 😊

Important

These steps need to be followed by the steps in [25.03. mSupply client / server installation part 3](#)

Previous: [25.01. mSupply client / server installation part 1](#) || Next: [25.03. mSupply client / server installation part 3](#)

Last modified: 2022/01/16 22:48 by Mark Glover

25.03. mSupply client / server installation part 3

⚠ Important

These steps need to be carried out after completing the steps described in:

- [20.01 mSupply client/server installation part 1](#)
- [20.02 mSupply client/server installation part 2](#)

Installing mSupply Server software

If you are upgrading from a previous version...

If you are upgrading from a previous version of mSupply, first perform a data backup:

- With mSupply server open as an application click on **File> Backup....** This will generate a backup file of your current data with file extension .4bk.
- Copy this file to *at least one* safe place, e.g. USB drive, a cloud service such as Dropbox.
- Continue only when the .4bk file has completed transfer to the remote location.

🚨 Alert

Moving from pre v3.50?

There was a major upgrade of mSupply's internal structure in v3.50. If you are upgrading from a pre v3.50 installation of mSupply, Sustainable Solutions will need to convert your data so that it can be read by mSupply versions after v3.50. This conversion process is provided free of charge.

Obtain and run the mSupply Server installer

📘 Info

The client/server version of mSupply has two installers:

- One installer, with the word **Server** in the title, is used to install the **mSupply Server** software on a single server computer.
- The other installer, with the word **Client** in the title, is used to install the **mSupply Client** software on as many computers as you wish *including on the server computer*. You will be limited in how many clients can *connect* at any one time by the server licence you have purchased.

⚠ Important

You must be logged on as Administrator to install mSupply Server with the correct permissions. Please consult your IT support staff if you require assistance to achieve this.

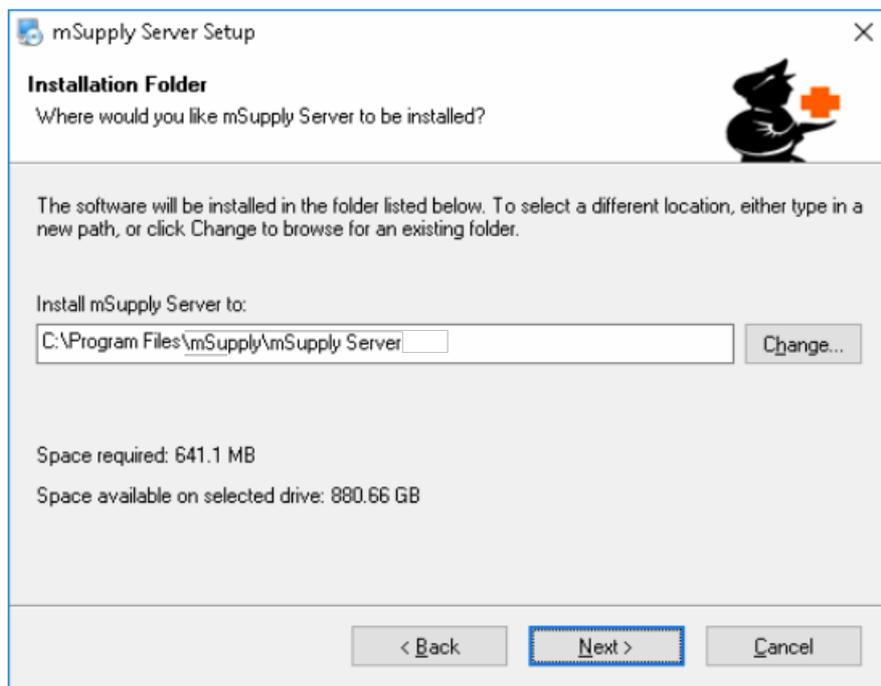
Once you have obtained the mSupply Server installer file, double click it to install. Here is what the mSupply server installation window should look like:



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 - Configure label printer
 - Upgrading to a newer version of mSupply
 - Graceful shutdown in the event of a power failure
 - Accessing a cloud hosted server
 - Windows client
 - Macintosh client





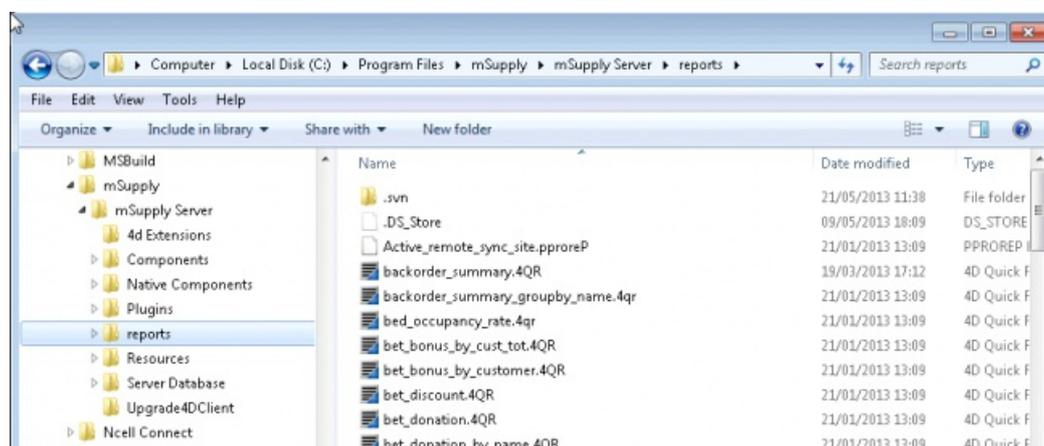
- You may be asked by the operating system whether 'you want to allow this app to make changes to your device?'. Click **Yes**
- At the mSupply Server Setup Welcome screen, click **Next**
- To proceed with the installation, you will need to click on the 'I agree to the terms of this license agreement' radio button and click **Next**
- Unless you have good reason to do otherwise, *don't* change the installation folder, and click **Next**
- Unless you have good reason to do otherwise, *don't* change the Shortcut folder, and click **Next**
- At the **Ready to Install** window, click **Next**
- After some time (minutes!) you will be shown the **Installation Successful** window. Click **Finish**

What is installed where:

We strongly recommend you do not change the default installation directories, which are as follows:

- mSupply Server: **C:\Program files\mSupply\mSupply Server**
- mSupply Client (see [Installing mSupply Client](#) below): **C:\mSupply Client**

mSupply Server installer also installs the following files and folders:



Starting the Server for the first time

Alert

There is no point in carrying out the following steps unless:

- You are ready to create a new mSupply data file, or you have one to load.

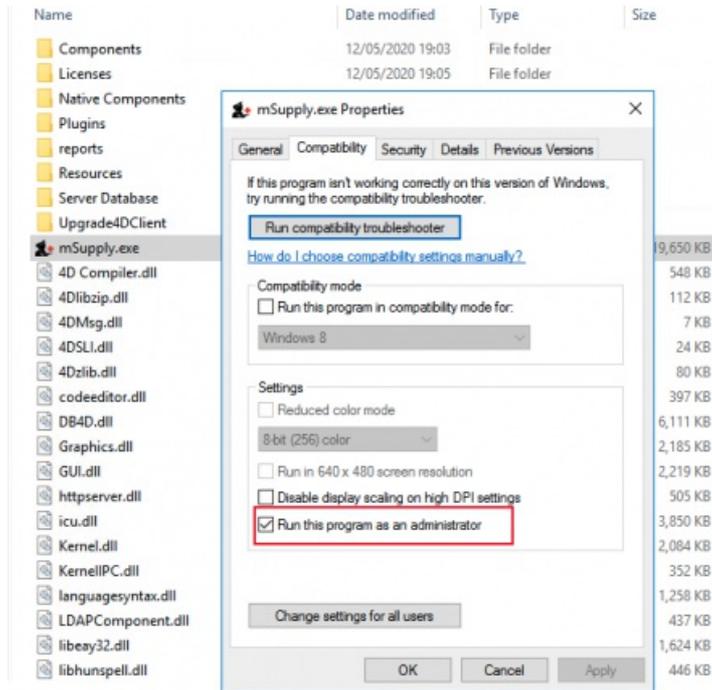
Run mSupply Server

Important

We need to run mSupply Server as an application until all configuration is completed. Don't run as a Service now as some configuration functionality is not enabled when run as Service.

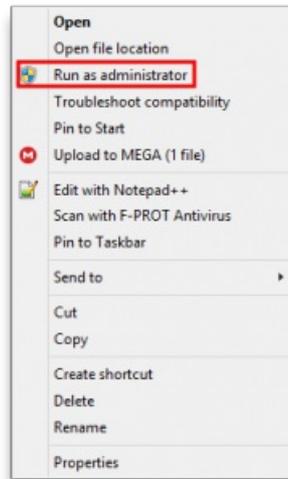
Sometime it has been useful to allow the *mSupply.exe* to run as Administrator by default. This gives the application the right to modify data in folders that may have been unknowingly restricted by operating system.

View the *mSupply.exe* file inside the mSupply installation folder. View properties then Compatibility tab and set the file to always *Run this program as an administrator*. View the image below for better guidance.

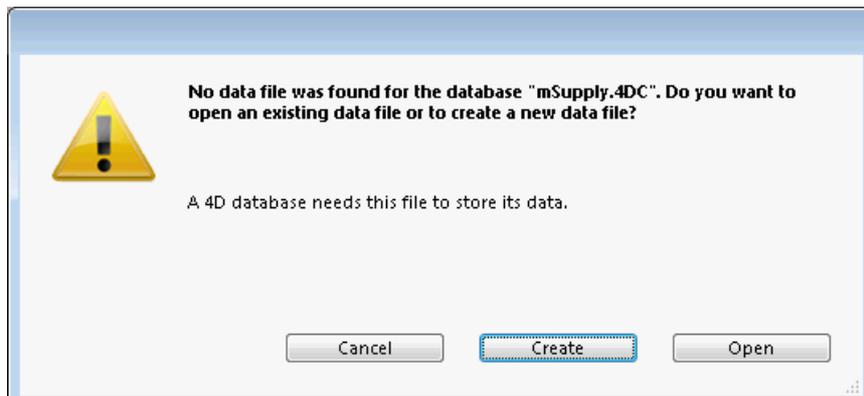


We need to run the mSupply Server software as Administrator.

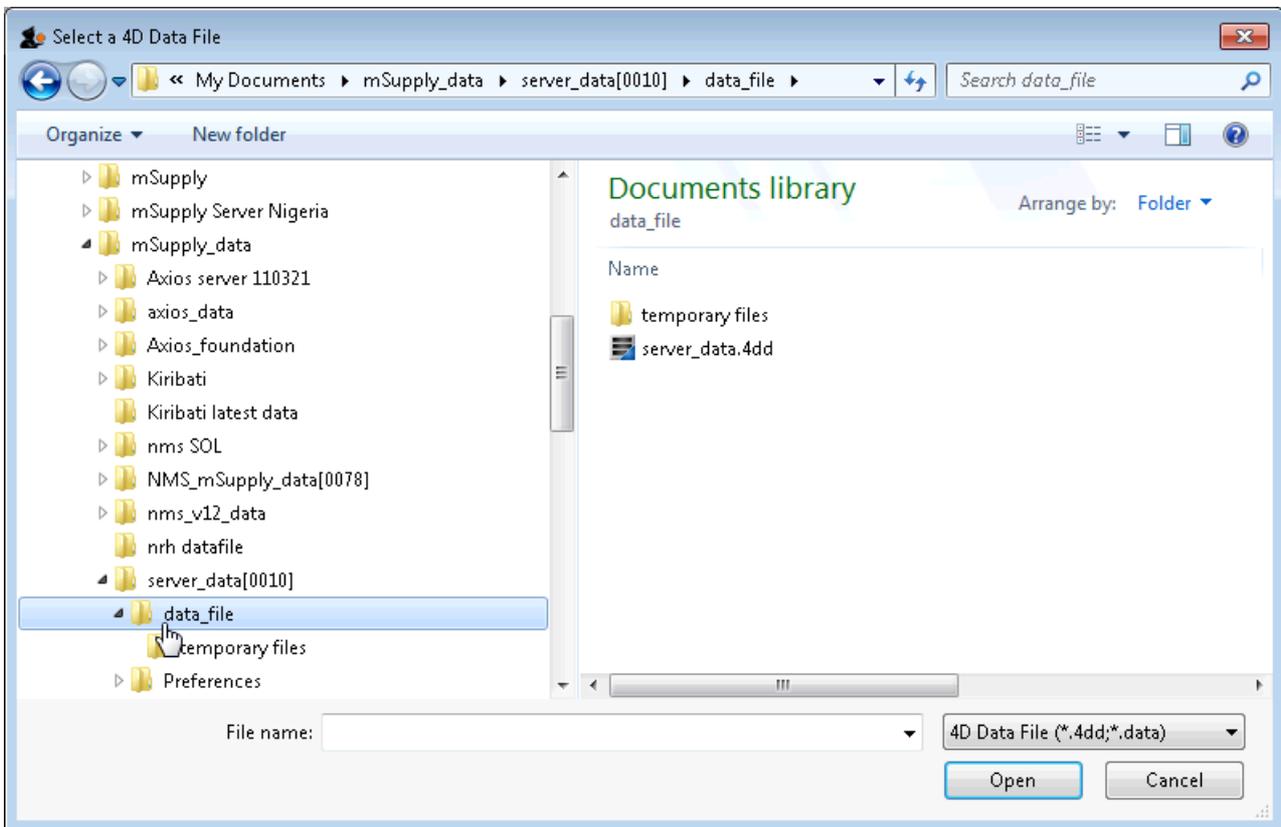
Find the mSupply Server executable (`C:\Program files\mSupply\mSupply Server\mSupply.exe`), right-click on it and select **Run as administrator**



You will then be presented with the following dialogue box:



Click **Create** to create a new data file or **Open** to choose an existing data file. The below image shows an existing data file.



⚠ Important

Since Windows version 1803 and following, there can be issues with permissions to access folders located in individual user folders such as under **My Documents** . Therefore, it is now highly recommended to save your data file in the folder:
C:\ServerName_mSupply_data replacing **ServerName** with the mSupply server (site) name, eg.
C:\Hagen_AMS_mSupply_data .

You may get a question from the Windows Firewall requesting permission for mSupply to communicate through the Firewall.



Allow mSupply to communicate on both private and public networks.

If the above steps have succeeded, you should see the **4D Server Administration** window:



Configure backups

- **Edit > Settings > User settings for Data file**

- **Scheduler:** Set **Automatic Backup:** to **Every day**, at **20:00** or later, as long as it is a time when work is likely to be finished. It will have to be set earlier, say **16:00** if the server is switched off of an evening.

- **Configuration:**

- **Content:**

- **tick** Data File
 - **untick** Structure File
 - **untick** User Structure File
 - Delete all 'Attachments' **except** the **.4DIndx** file.
 - Add the journal (**journal**) files to the backup. The Journal file cannot be selected until you have configured it under **Log Management** below, and run the backup once, which you can do once the backup settings have been configured. Once these have been configured, the backup contents should look something like this:

Scheduler Configuration Backup & Restore

Content

Data

Structure

User Structure (only for binary database)

Attachments:

- ./mSupply\4DIndx
- "journal" in volume "D:"

Delete Add folder... Add file...

- If this server uses the **Dashboard**, then add the dashboard configuration files (normally **C:\Program Files\mSupply Dashboard\data\grafana.db** and **C:\Program Files\mSupply Dashboard\conf\custom.ini**) to the backup - see here (noting that the journal file hasn't been added yet!):

Content

Data File
 Structure File
 User Structure File

Attachments:

"grafana.db" in volume "C:"
"custom.ini" in volume "C:"
./[redacted]_data.4DIndx

Delete Add folder... Add file...

- **Backup File Destination Folder**
 - If on physical hardware, this should be a separate physical disk (e.g. `D:\mSupply_backups`).
 - If on a virtual machine, it is meaningless to have a separate physical disk, and it should be `C:\Users\Administrator\Documents\mSupply_backups`.
- **Log Management:** Set `.journal` to the same parent folder as the backups.
 - If on physical hardware, this should be a separate physical disk (e.g. `D:\mSupply_journal`).
 - If on a virtual machine, it is meaningless to have a separate physical disk, and it should be `C:\Users\Administrator\Documents\mSupply_journal`.

 **Tip**

If a location of the log file is already specified, and you want to change it, you need to untick the "Use Log" tick-box and then when you re-tick it you will be prompted for a new location.

- **Backup & Restore**
 - **General settings**
 - Keep only last `15` backup files.
 - Backup only if the data file has been modified
 - Delete oldest backup file `after backup`
 - If backup fails: `select` Retry after `30` Seconds
 - Cancel the operation after `5` attempts.
 - **Archive**
 - Segment Size (Mb): `None`
 - Compression Rate: `Compact`
 - Interlacing Rate: `None`
 - Redundancy Rate: `None`
- **Automatic Restore**
 - Restore last backup if database is damaged
 - Integrate last log if database is incomplete
- Click **OK**

You may see the following dialogue box:

Warning



The log file will be activated after the next backup of the data file. Do you want to start the backup automatically?

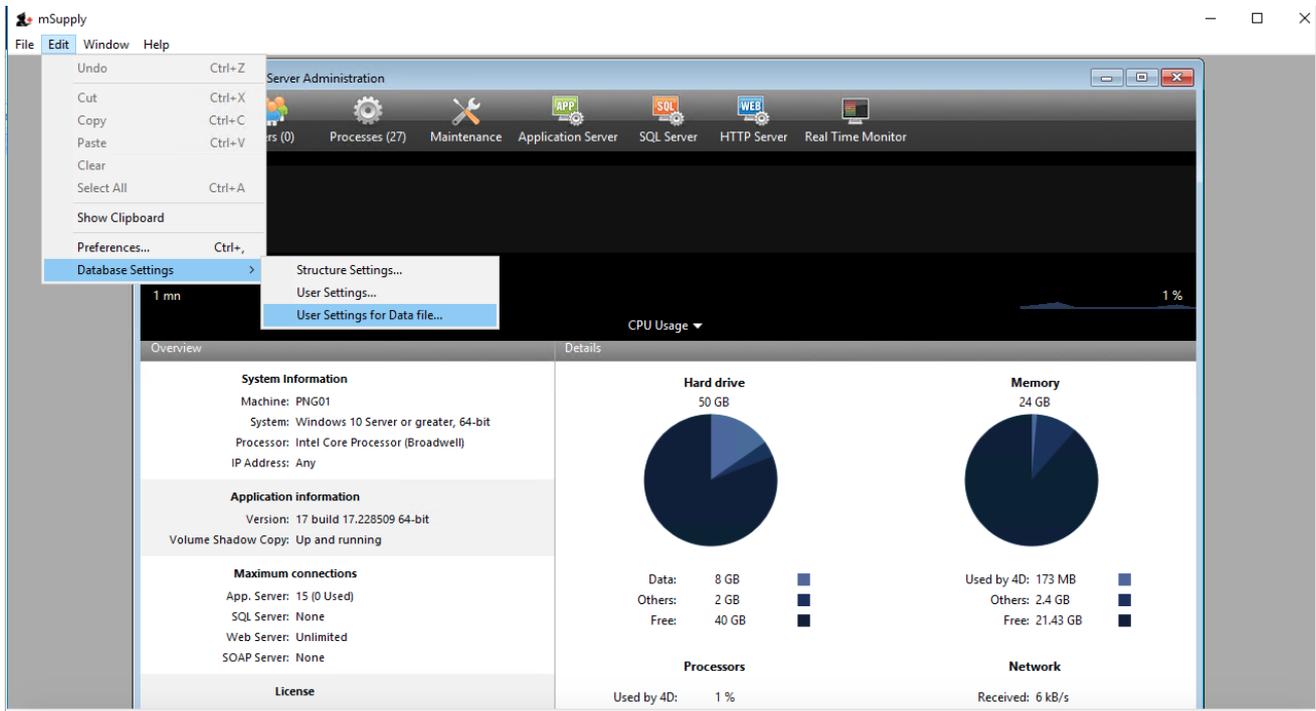
Cancel

OK

- Click **OK** to create the first backup.

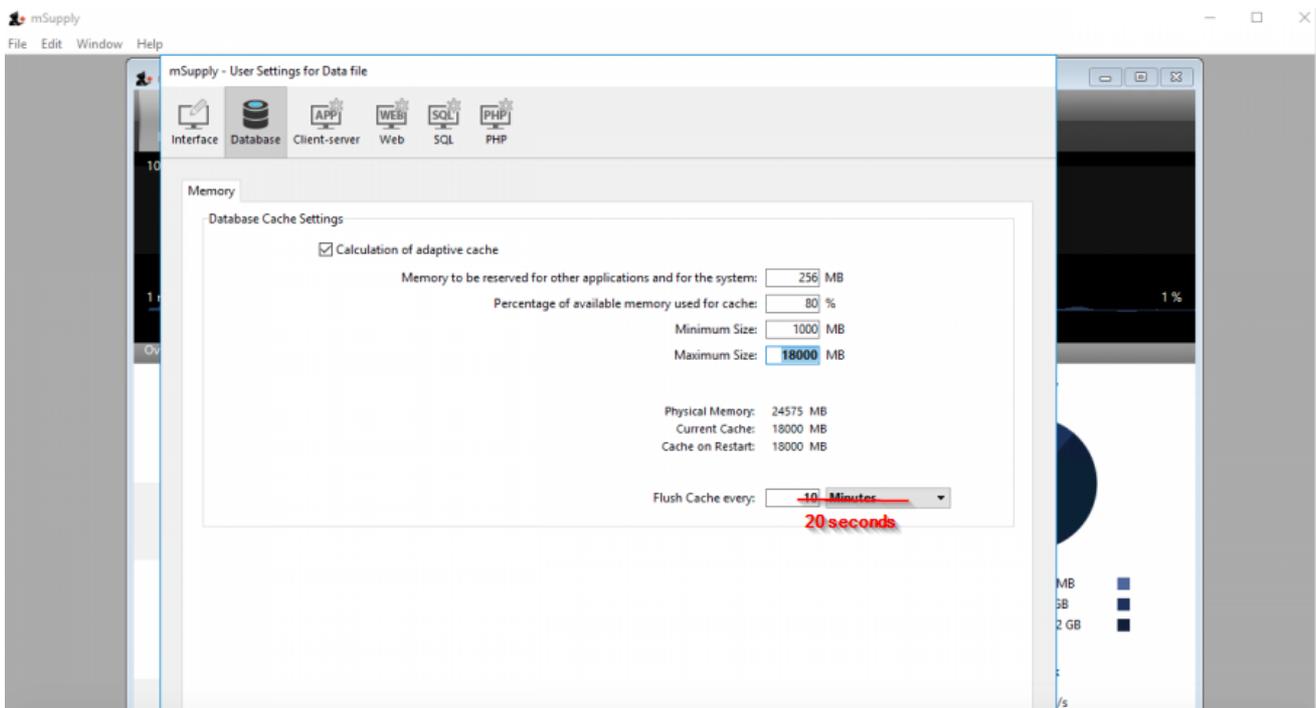
Configure cache

Edit > Database Settings > User settings for Data file



Select **Database** and then set up the cache memory.

- **Tick** Calculation of adaptive cache
- Memory to be reserved for other applications and for the system: = **512 MB** (default?)
- Percentage of the available memory used for cache = **100 %**. According to the [4D v16.5 Database/Memory page](#), 'Percentage of the available memory used for the cache = 100% since there is only one 4D Server application.' If other applications running on the server need additional RAM, it should be added to the figure above.
- Minimum size = **1,000 MB** (default?)
- Maximum size = can be set to any number, including greater than available RAM. If this number is greater than the available RAM, 4D will adapt the size of the cache according to the actual available RAM.
- Flush Data Buffers every: **10 Minutes**



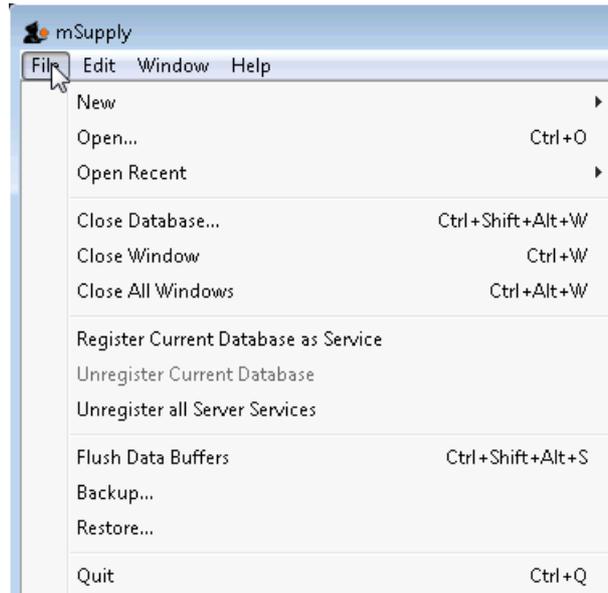
- Click **OK**
- Exit **4D Server Administration** window.
- Check that the **settings.4DSettings** file has been created in the **<DataFolder>/Preferences** folder

Setting the server software to run as a service

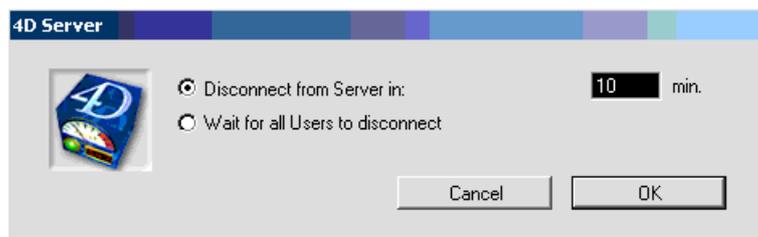
The server should now be set to start automatically when the machine is turned on. This can be accomplished by setting the server to run as a service. Choose **File > Register Current Database as Service**

⚠ Important

If the **Register Current Database as Service** option is greyed out, you are probably not running the mSupply Server as Administrator. You need to quit the server and run **as Administrator**.



Once you have registered the Current Database as Service, Quit the 4D by clicking the close box on the top right (or choose *File* > *Quit* from the menus). You will then be shown a disconnect window something like this:



Type **0** into the box, and click **OK**. The server will quit.

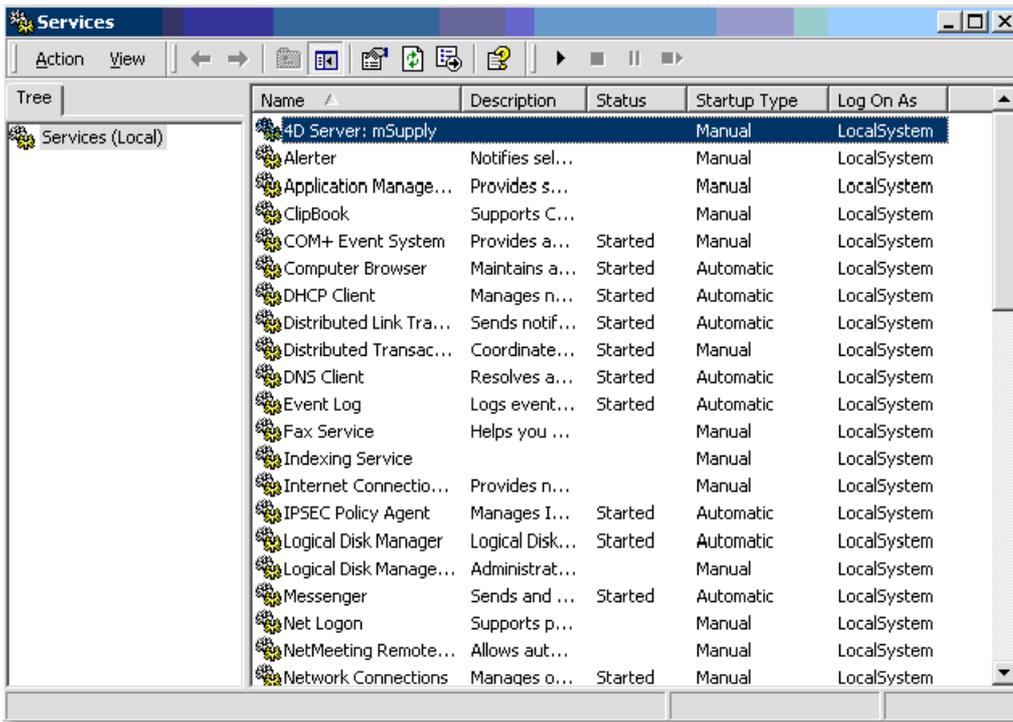
Pin Services to the taskbar

It is important to be able to quickly observe the status of the 4D / mSupply Service. Therefore, we pin **Services** to the taskbar:

- Click Windows icon
- Type **Services**
- Right-click the **Services Desktop App**
- Select **Pin to taskbar**

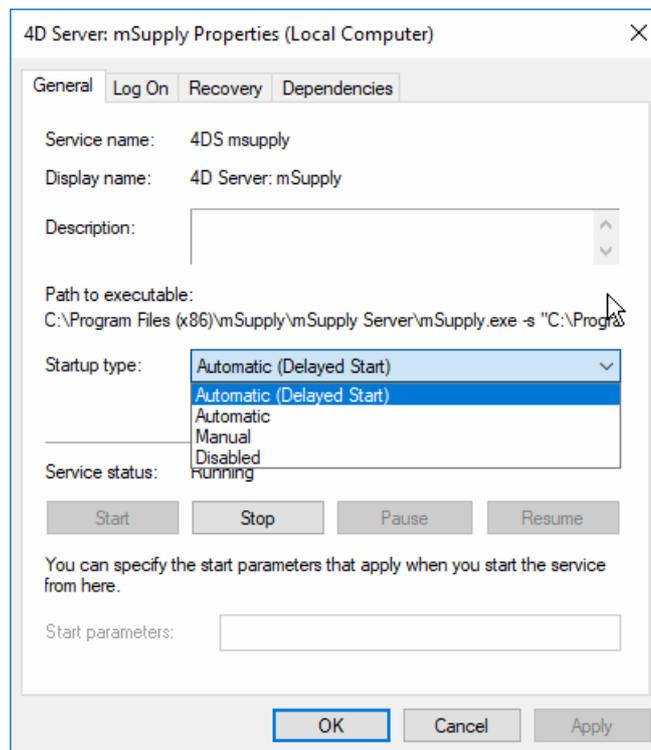
Configure mSupply Service settings

Click on **Services** in the task bar. You will be shown a window like this.



Double-click on **4DServer: mSupply** - fortunately it is usually the first item in the list!

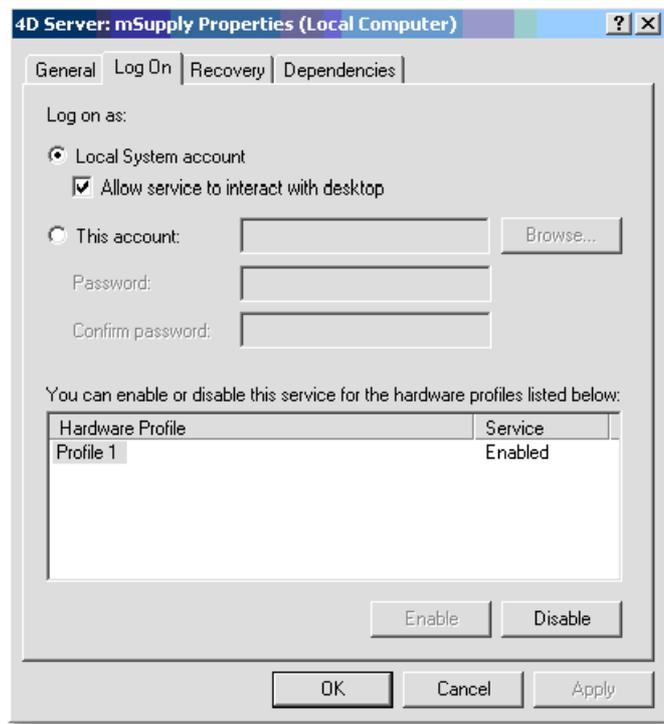
You will be shown the **4DServer: mSupply service properties** window. Change the *Startup type* in the drop-down list to *automatic (Delayed start)*.



⚠ Important

Historically, on the **Log On** tab, the service has needed to be configured to **Log on as Local System account** immediately below. However, since mSupply 3.85+ on Windows Server 2012+ and Windows 10 1803+ the service has had to be configured to **Log on as Administrator account**, further below.

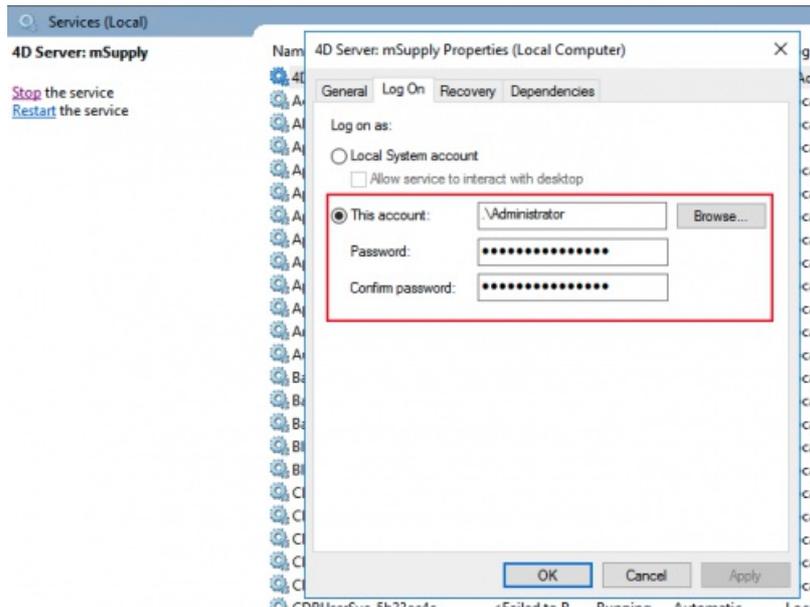
Log on as Local System account



- Make sure “Log on as” is set to “ local system account” (or **LSA** for short)
- Make sure “Allow service to interact with desktop” is checked.
- Click **OK** to return to the list of services.
- Close the Services window

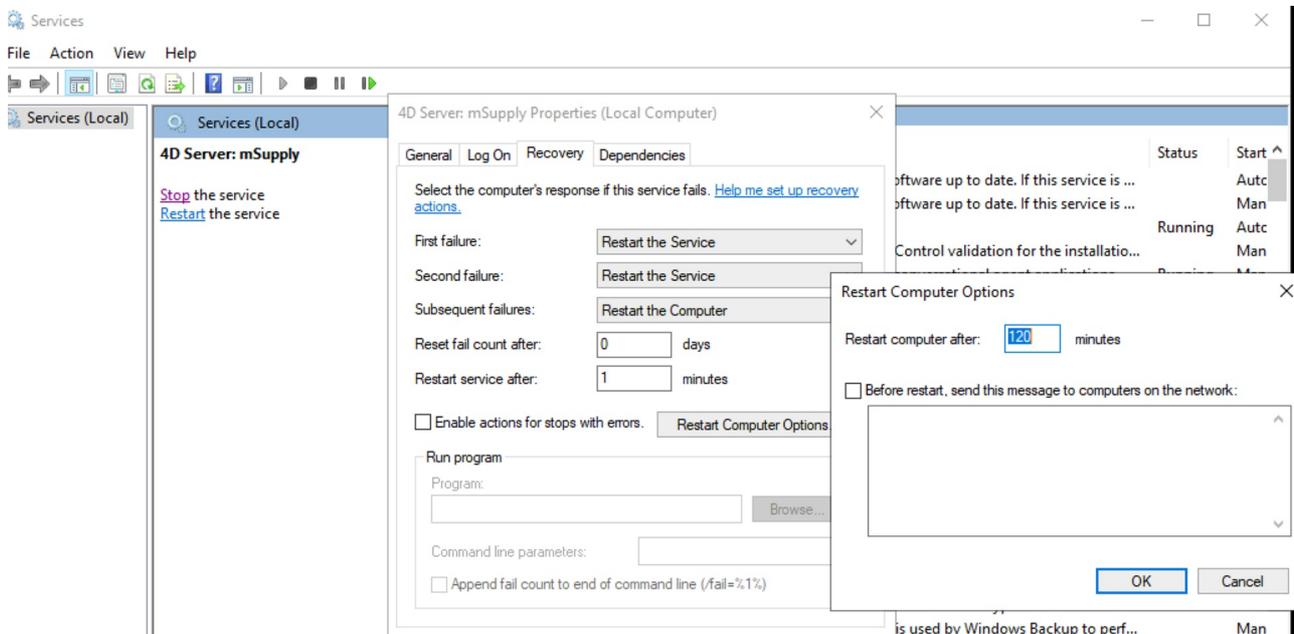
Log on as administrator account

With mSupply 3.85+ on Windows Server 2012+ and Windows 10 1803+ the service has had to be assigned to “Log On” to an administrator account for mSupply service to start:



Configure the computer to restart if the mSupply service does not start

- Sometimes, for some reason, including, for example, after certain Windows OS updates, the mSupply Service will not automatically start, even though you have configured it to.
- To guard against this, it may be worth configuring the computer to restart if the mSupply service has not started after a LONG delay, say 120 minutes. This is done on the **Recovery** tab:



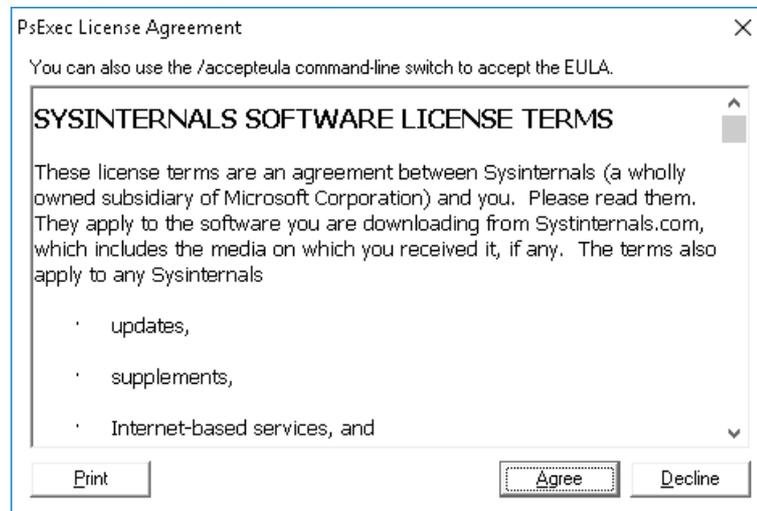
Help the mSupply Server Service find the data file

⚠ Important

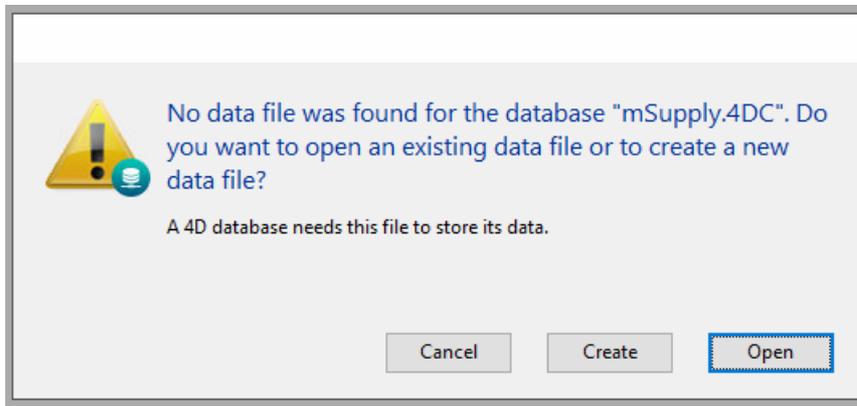
If you have configured the mSupply service to Log on as an administrator account, the following settings are likely not required.

Depending on the Windows version, the Local System Account may not have permissions to access the mSupply data file if it is not in the default location (in the Admin user's **Documents** folder). To fix this, the following steps are required:

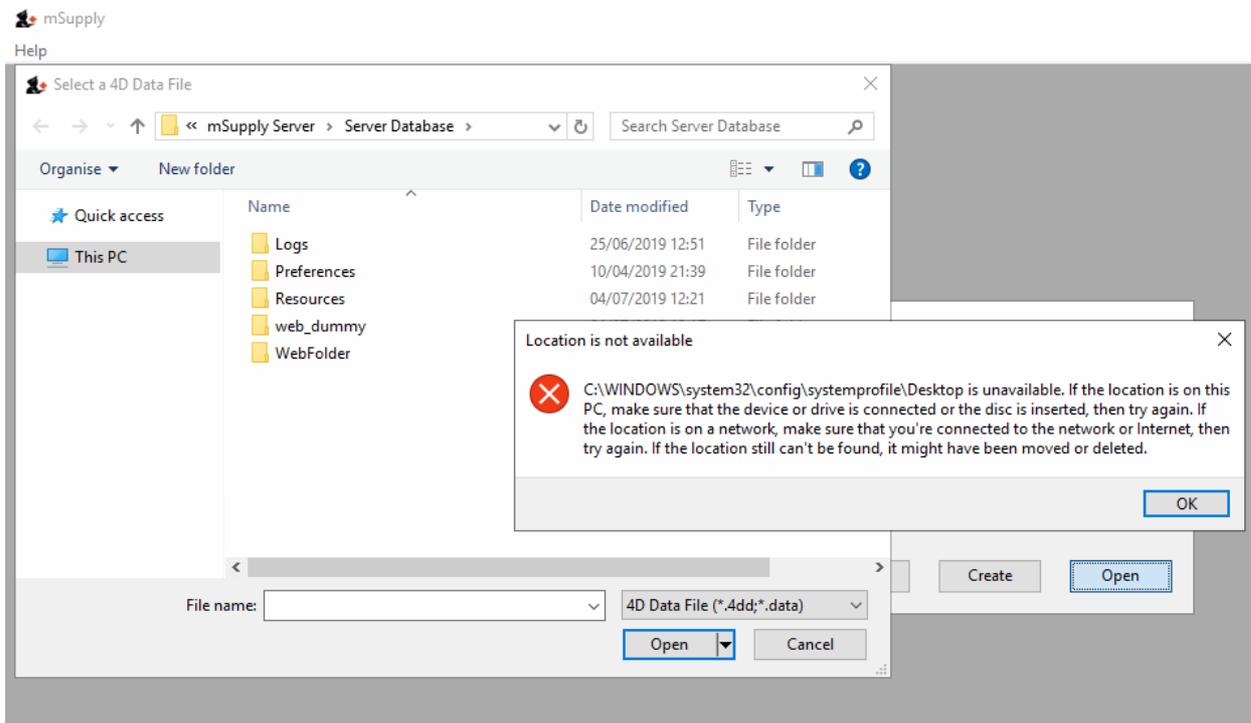
1. Download [PSTools](#) to the server
2. Extract to `C:\PSTools`
3. Run the **Command Prompt As Administrator**
4. At the prompt, type `cd C:\PSTools` <Enter>
5. Type `psexec -i -s cmd.exe` <Enter>
6. The PsExec License Agreement dialog box may open. Click **Agree**



7. A new **Command Prompt** window should open. In this new window, type `whoami` <Enter> You should see the following: `nt authority\system` If you don't, something has gone wrong and you need to close all **Command Prompt** windows and start again.
8. Type `cd c:\Program Files\mSupply\mSupply Server` <Enter>
9. Type `mSupply.exe` <Enter> The mSupply Server will open, prompting for the data file location:



10. Click **OK**. The **Select a 4D Data File** window will come up, immediately followed by the **Location is not available** error message:



11. Click **OK** on the error message window, and then select the correct datafile. The **mSupply.4DC - 4D Server Administration** window should open.
12. <Ctrl>-Q to exit mSupply Server. Enter 0 for the time delay.
13. Close both **Command Prompt** windows

From now on the 4D server *should* start automatically when the machine is turned on. There is no need to log-on to the machine.

Manually starting the mSupply Server Service

- To manually start the mSupply Server Service, double-click the “Services” shortcut you made on the desktop, highlight the 4D server service, and click the triangular “start” button (looks like a “Play” button on a media player)

⚠ Important

If clicking the Start Service button results in the **Error 1: Incorrect Function**, a registry edit (regedit) is necessary. Please only do this if you are confident and familiar with editing the registry. mSupply Support can help with this. Edit registry value:

```
Hive: HKEY_LOCAL_MACHINE
Path: SYSTEM\CurrentControlSet\Control\Windows
DWORD: NoInteractiveServices
```

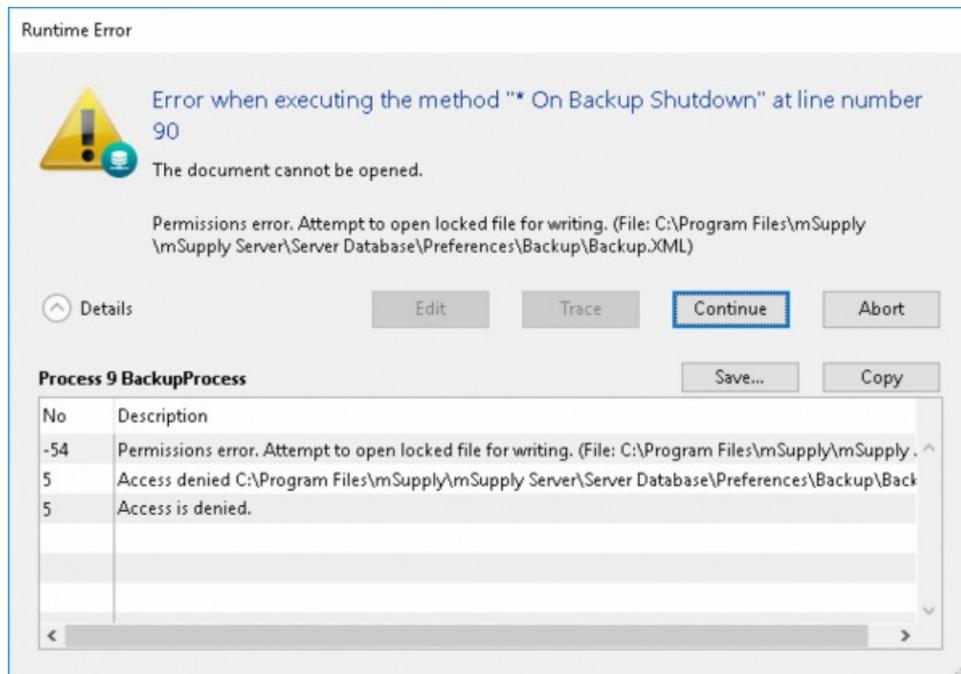
Change value 1 to 0

Once finished editing the registry, close regedit and return to the list of services and start the ISD service. It should now start!

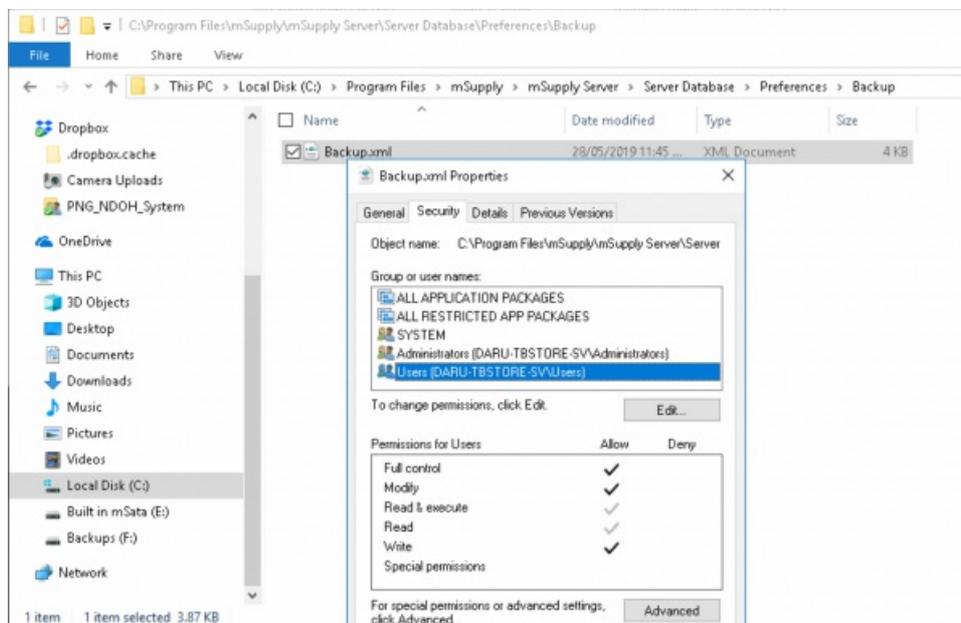
Since 4D v17

Since v17 of 4D (the database engine underlying mSupply), when running mSupply as a Service, logging on as the Local System Account (**LSA**, as described below), mSupply **MAY** no longer have sufficient permissions to access the folder: `C:\Program Files\mSupply\mSupply Server\Server Database\Preferences\Backup`

If this is the case, it will result in the following error (which can only be seen in Session0):



If this happens, it needs to be fixed. The Solution is to edit permission of **Users** to allow Full control/Modify/Write to the Backup.XML file as shown here:

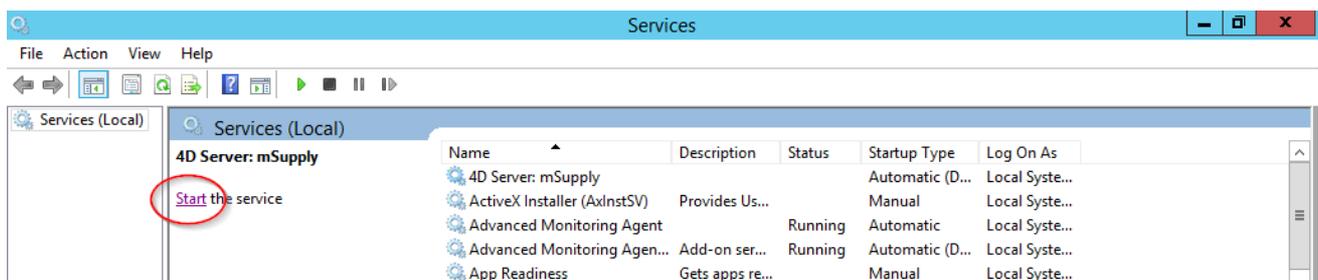


Manually stopping the mSupply Server Service

- To manually stop the mSupply Server Service, first make sure clients are not connected, then double-click the “Services” shortcut you made on the desktop, highlight the 4D Server service, and click the square “stop” button (looks like a “Stop” button on a media player)

Manually starting the Service

Despite being configured so, the mSupply Service sometimes will not start when the server hardware starts. The service can be started through the Services:



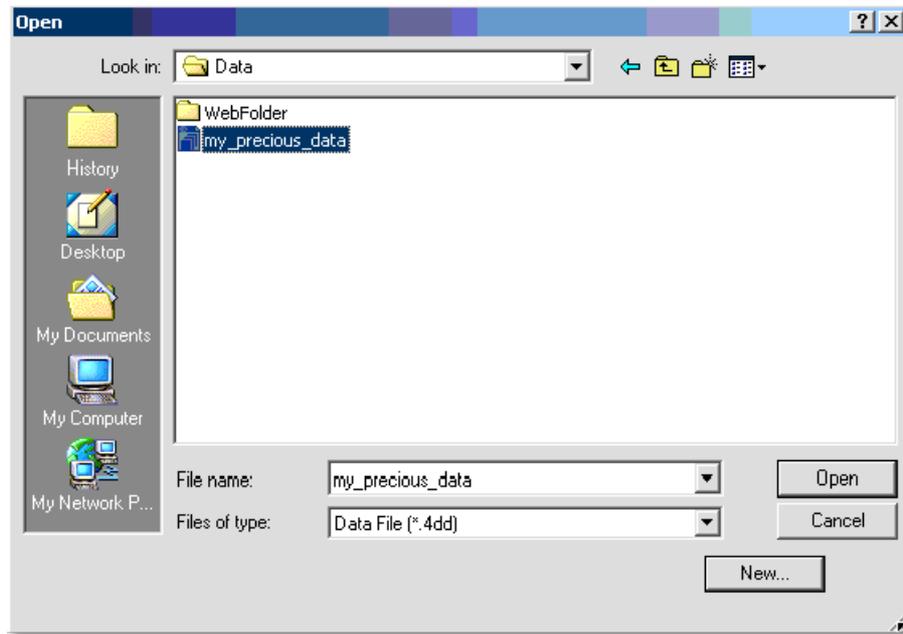
Creating a new data file or choosing a different data file

From this point there should be no need to revisit any of the above procedures to operate mSupply. However, if you are testing, or starting a data file for a second organisation, you may wish either to change the data file mSupply is using or to create a new file.

The mSupply program (the files named “mSupply.4DC” and “mSupply.RSR”) store the path to the last data file used, and the next time mSupply is started, the previous data file that was open is opened again unless there is user intervention or the “old” data file has been moved to a new location.

To intervene, hold down the “alt” key as the 4D server starts up.

You will be shown the standard open/save window:



To create a new data file, click the “New” button.

To select an existing data file, navigate to the file’s location then click the “Open” button.

Installing mSupply Client

Needed: mSupply Client software of the same version (or relatively recent) as the mSupply Server.

Alert

- The mSupply server should run as a service on the server computer - see above. If any user needs to use mSupply on the server (not recommended, but possible, and sometimes necessary) then they should **not** be running the mSupply *Server* software. They should run the mSupply *Client* software, which should be made available to all user accounts.

OS date settings

Generally, mSupply will interact correctly with the local OS in terms of date format. However, as OS versions continue to evolve and handle dates differently, sometimes this does not work. We have found that very occasionally, if the OS date format is set to DD-MMM-YY (e.g. 20 APR 2020) then mSupply will not always handle the date well. It is recommended to set the system date to DD-MM-YY.

Obtain and run mSupply Client installer

Important

You must be logged on as Administrator to install mSupply Client with the correct permissions. Please consult your IT support staff if you require assistance to achieve this.

- Once you have obtained the mSupply Client installer file, double click it to install.

The mSupply client will be installed in the folder `C:\mSupply\mSupply client` on your computer.

mSupply client installer also installs the following files and folders:

- A shortcut on the Desktop called `mSupply client`.
- A folder called “4D\Network” in the Windows folder on the startup volume, which contains network component files that need to be present for 4D to communicate over a TCP (and other types of) network(s).

Info

- No reports are installed on 4D client. Each time 4D client connects to the Server, reports that have been added or modified on the server are automatically copied to the client.
- Installers have been set up to overwrite existing files, so reinstalling the software will restore any potentially corrupted files to their original state. The installer will not overwrite your data files, unless you have been unwise enough to name

your data file “example data” and put it in the “example data” folder 😊.

For convenience, pin the **mSupply client** desktop shortcut to the taskbar.

Tip

If any other Windows users will use this computer to access mSupply, it is worth copying the **mSupply client** desktop shortcut to the **C:\Users\Public\Desktop** folder. This will place the shortcut on the desktop of each user. Each user will need to pin this shortcut from their desktop to the taskbar.

The **C:\Users\Public\Desktop** folder is normally a hidden folder. You will likely need to [make it visible](#).

Additionally, if this computer is primarily used for running mSupply, then it is worth copying the **mSupply client** desktop shortcut to the Startup folder. The actual folder name changes with Windows version 😊 so here are instructions: [How to Add Programs, Files, and Folders to System Startup in Windows](#).

Starting the mSupply Client

Once the installation is completed, double-click the “start mSupply Client” shortcut on your desktop. A window something like this should appear:



The window lists available mSupply servers on your network (there should be only one!) Click on the server you wish to connect to.

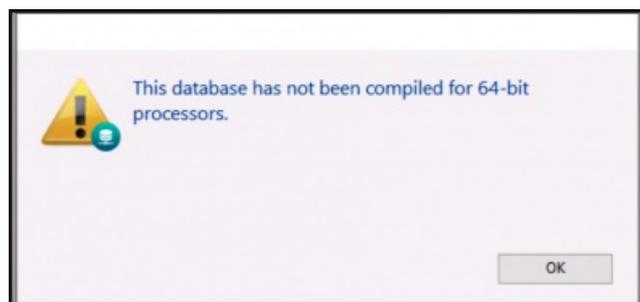
Tip

- Once you have connected successfully, the mSupply Client 'remembers' which Server you last connected to and stores this in the **Recent** tab. Whenever you run the mSupply Client, it will automatically connect to that server.
- If, mSupply Client cannot connect to the mSupply Server, this window will pop up showing the **Recent** tab. You can try choosing the server there.
- If, for some reason, network settings have been changed and you cannot connect from the **Recent** tab, remember to look at the **TCP/IP** tab as well.

Clicking the “OK” button will take you to the mSupply password entry window. For new data files, the password is **user1** for the first user in the list. Click on the first user, then enter the password and click **OK**

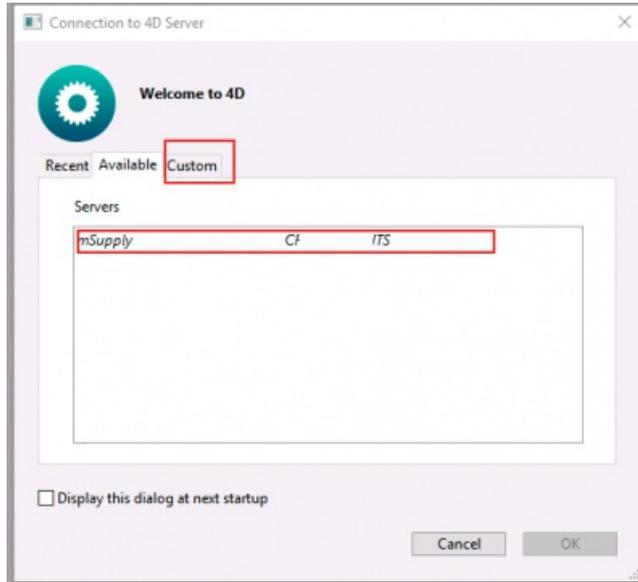
Forcing mSupply Client to re-sync files from the server

Occasionally the mSupply client may fail to connect with the server for un-known reasons. Errors such as the “This database has not been compiled for 64-bit processors” has been encountered and can be fixed in the following manner. Please read on.

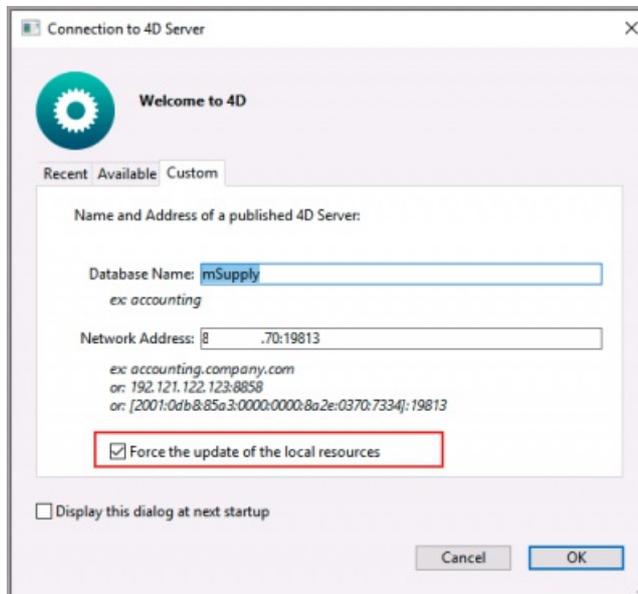


Sometimes simply forcing the mSupply client to retrieve all setup files from the server may just fix things.

To do this Double click on the mSupply Client icon and hold the "Alt" (option on MAC) key. You should see such a window open.



On the above window select the server and click the custom tab.



On the above window check the *Force update of local resources* checkbox and click the **OK** button.

This will force the mSupply client to get the resources from the server and past issue may now be resolved.

Close mSupply and restart normally without the "Alt" key and mSupply client should be able to connect to the server without errors.

mSupply Client software cannot see the mSupply Server?

Alert

Server is not visible?

- To make it easy for you to connect, mSupply Server publishes details about available servers on a specific port. It is quite possible that products such as "Zone Alarm" and "Norton Personal Firewall" will block access to this port and stop discovery of the servers. Contact your system administrator if the list of available servers is blank.
- Of course, it may be possible that the mSupply Server service is not running. Check Services to establish that.
- Lastly, the Windows firewall may be blocking the Server publishing its presence - see below.

Configuring Windows firewall on server

The Windows firewall may need to be adjusted to allow the Client to receive Server identification.

From the 4D tech email list:

- When you launch 4D client, it broadcasts a udp message on the subnet, requesting all 4D servers to identify themselves.
- The UDP message is sent from a random port to a destination port = 19813

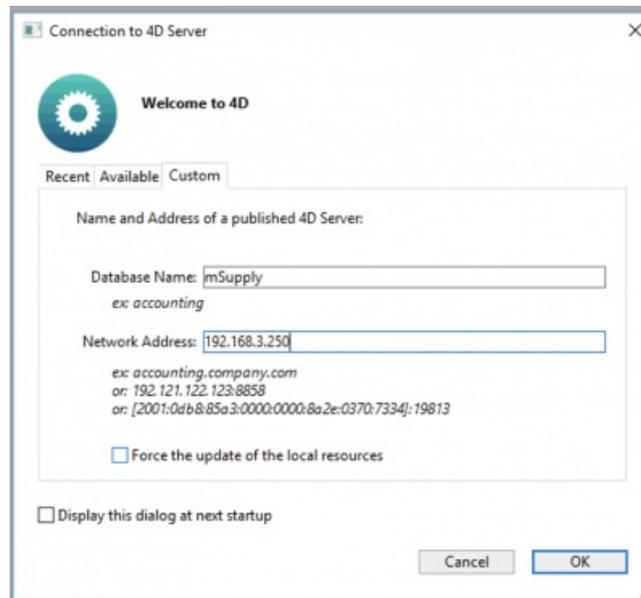
(default)

- When responding, each 4D server replies with a UDP unicast message from its address to the client's address with source port = 19813 and destination port = whatever port the client had used to broadcast.
- So in order to let the client receive the answer back from the server, one has to punch a hole in the firewall for all UDP packets with a source port of 19813.

The firewall on the Client machines could also block access to the server machine. Testing with the firewalls on the server / client machines temporarily turned off in various combinations will help to establish whether firewalls are blocking communications.

Manually configuring the mSupply client

Due to firewall or if you connect to mSupply server via a router, then you may need to enter in the IP address on the mSupply Client custom setting window.



The data base name is always : **mSupply**

If mSupply server is serving via the default port (19813) then simply enter in the IP address. Otherwise, see more details on the [Custom Tab](#).

Info

As part of the installation, a batch file with the name **Reset client temp folder** is installed on the desktop. This is for use if the client begins to behave incorrectly in the future, as described on the 28.01. How to re-set the mSupply client page. It is not for use during installation so you can safely ignore it until it is needed in the future. It is safe to move the batch file to somewhere other than the desktop if needed.

mSupply Server configuration

Register mSupply

The procedure is described earlier in "Preferences" chapter of the mSupply manual. See [The Register button](#)

You will either have to phone or email the information to Sustainable Solutions to obtain a registration code.

Tip

The registration code is keyed to your Organisation name and the MAC address of the server. Changing either of these will require a new code, which we shall willingly provide. So, **take care when setting the Organisation Name!**

Configure mSupply preferences

Once registered, you may want to systematically go through the mSupply Preferences and choose appropriate settings, and particularly setting up the **Secondary backups!** Start here: [Preferences > General](#)

Turn off web dashboard

If the web dashboard has been set up on the Primary Server, then the dashboard preferences will be copied to the Satellite site datafile. In most cases, the web dashboard is not being used on the Satellite site and it is an unnecessary interaction with the scheduler, so may as well be turned off:

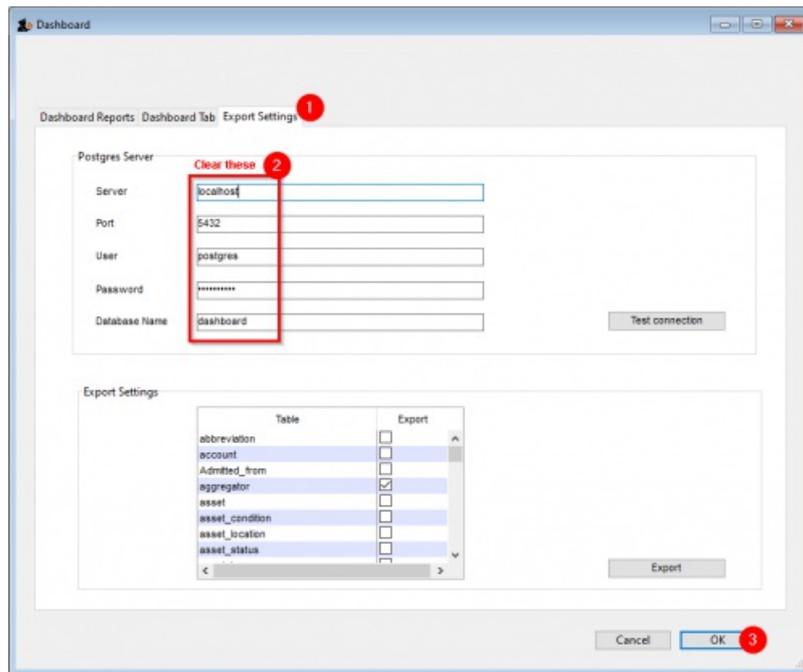
Before v4.04:

1. **File > Preferences... > Dashboard**
2. Untick the 'We use the web dashboard'

3. Click **OK**

After v4.04, the dashboard is managed through the Admin page of the navigator:

1. **Admin > Dashboard > Export Settings**
2. Clear the Postgres Server entries
3. Click **OK**



Turn off servers

The Primary Server runs one or more 'Servers'. The preferences controlling these will be copied to the Satellite site datafile. In most cases, these servers are not being used on the Satellite site and it is an unnecessary interaction with the scheduler, so may as well be turned off:

- **File > Preferences... > Server**
 - Turn off any 'Servers'

Configure secondary backups

You should have already configured the primary backup. We recommend setting up a secondary backup which will send a backup off-site using a service such as Dropbox. The frequency of this depends largely on what bandwidth your site can afford. Each backup can easily get to GB sizes...:

- **File > Preferences... > Backup 2**
 - Configure secondary backups

Turn on Synchronisation

When you are finally ready to turn on synchronisation:

- **File > Preferences... > Synchronise > Click to un-lock**, enter code to edit.
 - Set the Sync time interval to **1**
 - Click **OK**

⚠ Important

Your installation of mSupply may have customisations made specifically for your work scenario. Please contact our support staff on support@msupply.org.nz to manage these customisations.

Configure label printer

If you are dispensing, you will need to [set up label printer preferences](#)

Upgrading to a newer version of mSupply

⚠ Important

User Access Control, a feature of Windows 7, requires that the undernoted steps are followed when you are upgrading mSupply

1. In Windows 7 click **Start Menu > Control Panel > User Accounts**
2. Click 'Change User Account Control Settings'
3. In the window that appears move the slider to the bottom and hit OK
4. You will be requested to restart the computer - do so(!)
5. If you copied the files already (which wont work as the pseudo copy occurs) these copied files should now automatically work

Graceful shutdown in the event of a power failure

Your mSupply server should be attached to a UPS. The UPS should be fitted with a control cable (serial, USB or network cable) that allows control software to detect a low power situation and shut down the server.

In the UPS control software set the shutdown to start at least two minutes before the power will fail.

Set it to run a batch file at that point. The file should contain the single line "net stop Service name" where the service name is the name displayed in the properties when you double-click the service name in the services window. In the example below the service name is "4DS mSupply.4DC" (not to be confused with the display name)

Service name:	4DS mSupply.4DC
Display name:	4D Server: mSupply
Description:	

You may wish to test your typing skills by opening a command prompt:

```
C:\WINNT\System32\cmd.exe
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-1999 Microsoft Corp.

C:\>net stop "4DS mSupply.4DC"
The 4D Server: mSupply service is stopping...
The 4D Server: mSupply service was stopped successfully.

C:\>
```

Accessing a cloud hosted server

Access to a cloud hosted mSupply server is through the [Windows Remote Desktop Protocol](#).

Windows client

If the mSupply client software is running on a PC, there are a range of applications that can be used for accessing the cloud hosted mSupply server including Microsoft's own [Remote Desktop Connection software](#) that comes included with Microsoft Windows. There are third party implementations that provide additional security and controls. One that we are currently (2016) finding effective is [TS-Plus](#).

Macintosh client

Access to the the Microsoft Remote Desktop App is available on the Apple Store: <https://itunes.apple.com/en/app/microsoft-remote-desktop/id715768417?mt=12>

- The Display Name is the name that will appear on your computer. We suggest you make it: [mSupply Remote Access](#)
- The Computer Name is the name of the domain name of the mSupply server computer that you are connecting to.

Previous: [25.02. mSupply client / server installation part 2](#) | Next: [25.04. Schedules and periods](#)

Last modified: 2022/02/11 06:05 by Mark Glover

25.04. Schedules and periods

Schedules and periods

Schedules are regular timeframes (e.g. monthly, fortnightly) that may be used for cyclical operations, such as program orders (special types of requisitions). There is no limit to the number of schedules.

Periods are specific timeframes which exist *within* schedules. Periods have a distinct start and end date. They must be sequential and must not have any overlapping dates or gaps between periods.

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- Schedules and periods
- Permission to add/edit schedules and periods
- Adding schedules and periods
- Using Schedules in Programs
- Schedules and periods
- Permission to add/edit schedules and periods
- Adding schedules and periods
- Using Schedules in Programs

Permission to add/edit schedules and periods

⚠ Important

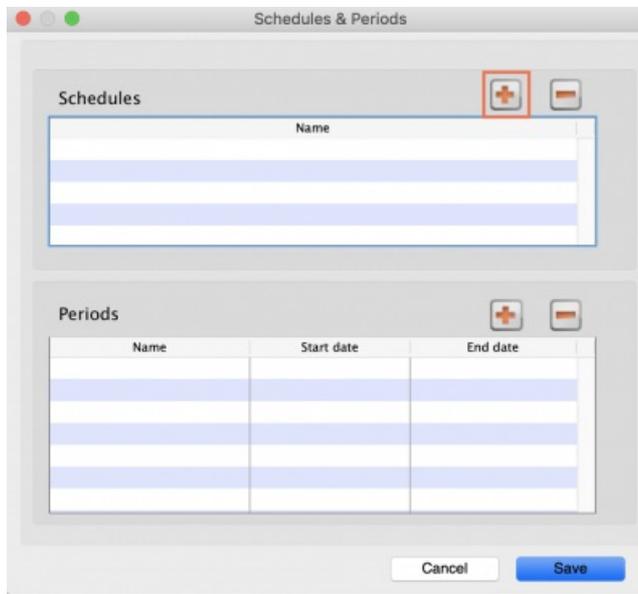
In a [sync system](#), schedules and periods must be added on the **central server** and will then sync to other sites. Permission must be switched on for a user to add/edit schedules and periods.

1. Go to **Admin > Edit Users** > double click the user to be edited > **Permissions**.
2. In the Admin section, check the **Edit periods and period schedules** box.
3. Click **OK**.

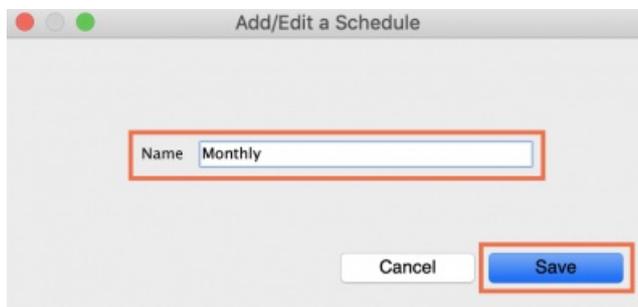
The screenshot shows the 'Edit user' interface for a user named 'Admin' at the 'General Warehouse' store. The 'Permissions' tab is active, showing a grid of checkboxes for various system functions. The checkbox for 'Edit periods and period schedules' under the 'Admin' section is checked and highlighted with a red border. Other sections include 'Ordering', 'Items', 'Goods receiving', 'Special', and 'Tenders...'. At the bottom, there are buttons for 'All on', 'Copy', 'Paste', 'Delete', 'Cancel', and 'OK'.

Adding schedules and periods

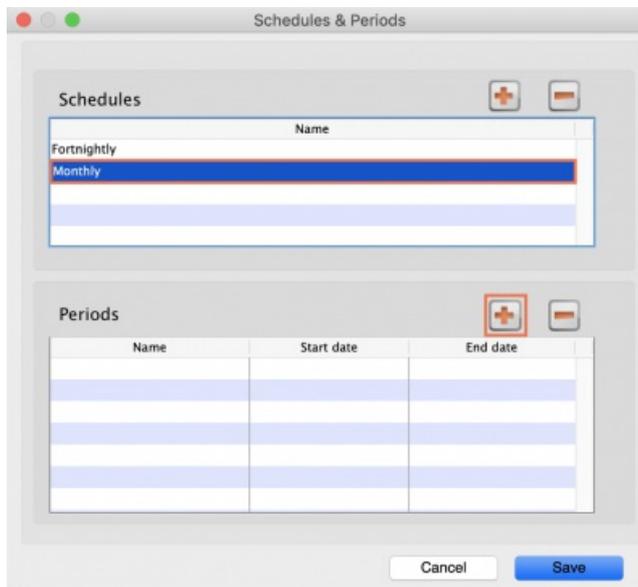
1. In the menu bar, click **Special** then **Periods...**
2. To create a new schedule, click the plus icon next to **Schedules**.



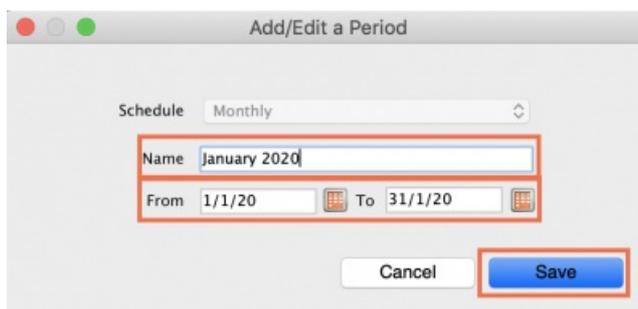
3. Name the schedule and click **Save**.



4. To add periods within a schedule, highlight the schedule and click the plus icon next to **Periods**.



5. Name the period, enter its start and end dates, then click **Save**. You can type dates in the boxes or click the icon to select dates from the calendar.



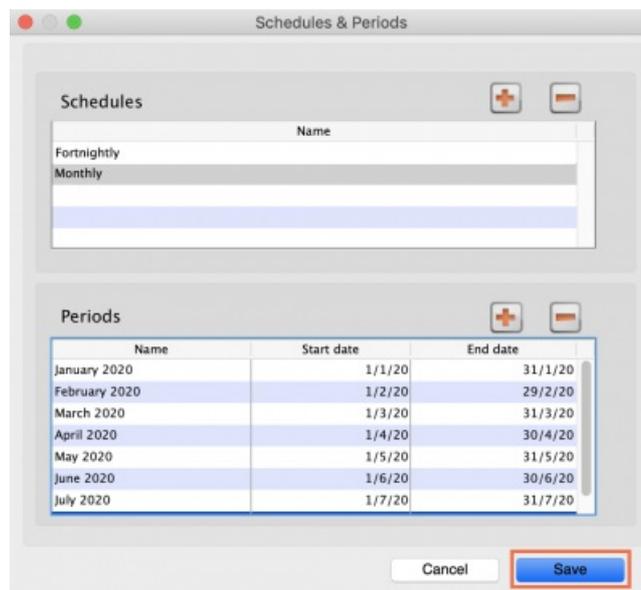
6. Keep adding all the periods within the schedule. If necessary, you can edit a period by double clicking on it.

7. When you are finished, click **Save**.

⚠ Important

Once a schedule has been saved, it **CANNOT** be edited.

Check closely before clicking the final **Save** button!



Using Schedules in Programs

The most common use of schedules is for setting up programs for supplying different facilities on different schedules. You can read more about using programs [here](#)

Previous: [25.03. mSupply client / server installation part 3](#) | Next: [25.05. Web browser access via TSPlus](#)

Last modified: 2021/10/08 11:12 by Gary Willetts

25.05. Web browser access via TSPlus

Accessing mSupply

If **TSPlus** has been set up on your mSupply Server, then client sessions can connect to it using a web browser.

Open a web browser, then:

1. Enter the name or IP address of the server in the URL / search bar. It **should** start with **https**:.... but in exceptional circumstances, may start with **http**:
2. Remember to append the IP address the correct port number if you have been given one. You may not need to enter it, and it might not be 2048 in your instance.



Login by:

1. Type in the TSPlus Web credentials Username (normally the same as the Windows account Username)
2. Type in the TSPlus Web credentials Password (normally the same as the Windows account Password)
3. Click **Log on**



Once the browser has successfully connected to the server and logged you in, mSupply and a small selection of applications should be available on a floating panel on the left side of the browser window.



Tip

There are two tips to give you more space:

- Make sure your web browser window is full screen (F11). Toggle out of full screen mode by pressing F11 again.
- Maximise the mSupply window once it opens.

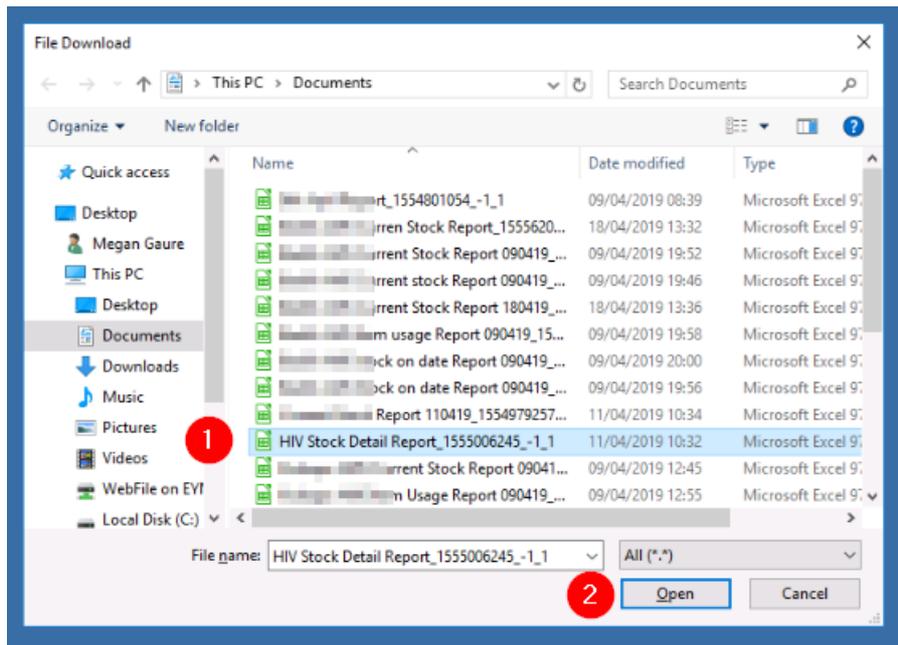
Transferring files from the server to the local machine

You will often want to transfer files, and particularly reports, to your local machine. By default, your mSupply session on the server will save files to your Windows account's **Documents** folder. To transfer files from there to your local machine's **Downloads** folder:

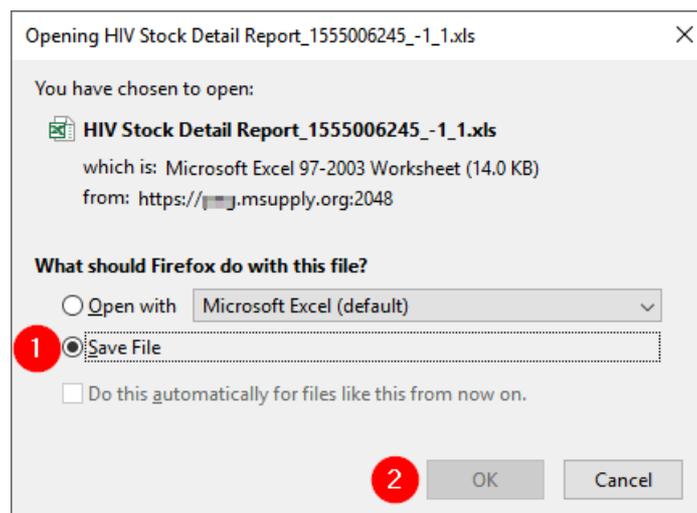
1. Click on the small 'down arrow' symbol at the top centre of the web page
2. Click on the 'file download' symbol on the panel that then appears



1. Select the file to download
2. Click **Open**

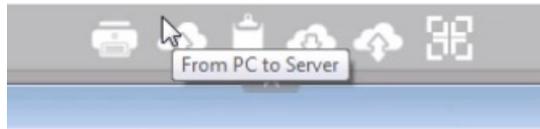


1. If it isn't already selected, select the **Save File** radio button
2. Click **OK**

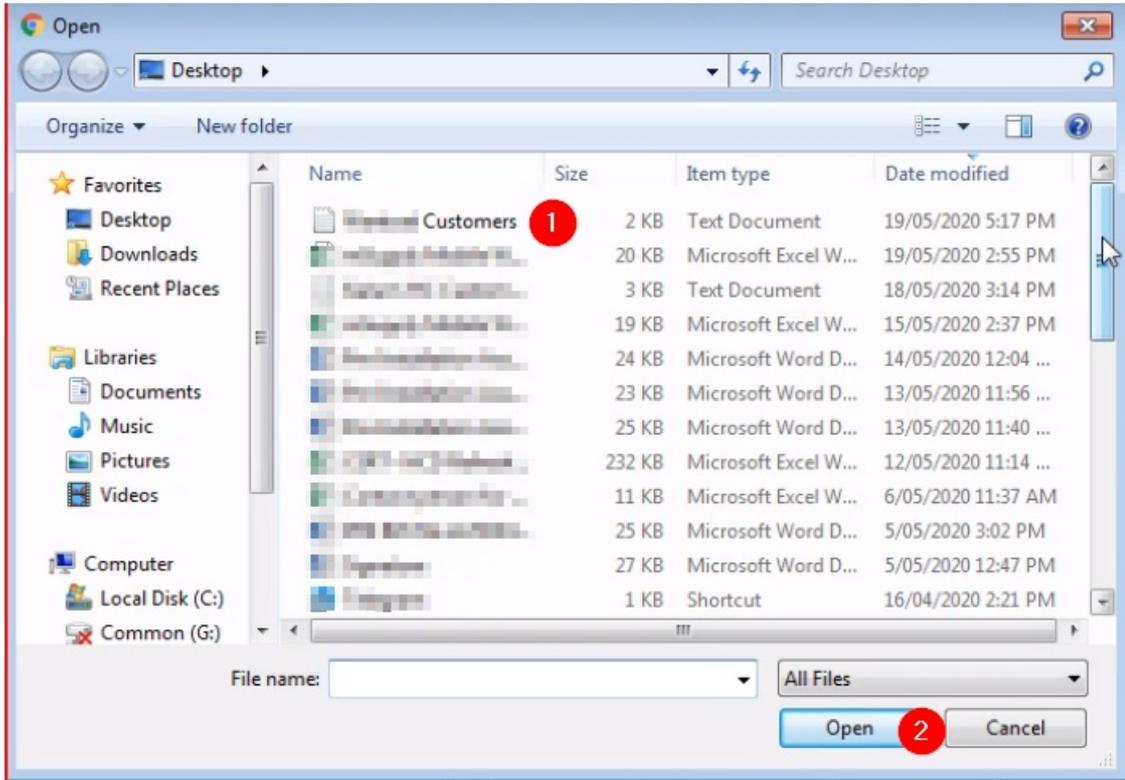


Transferring files from the local machine to the server

After clicking on the TSPlus File upload icon

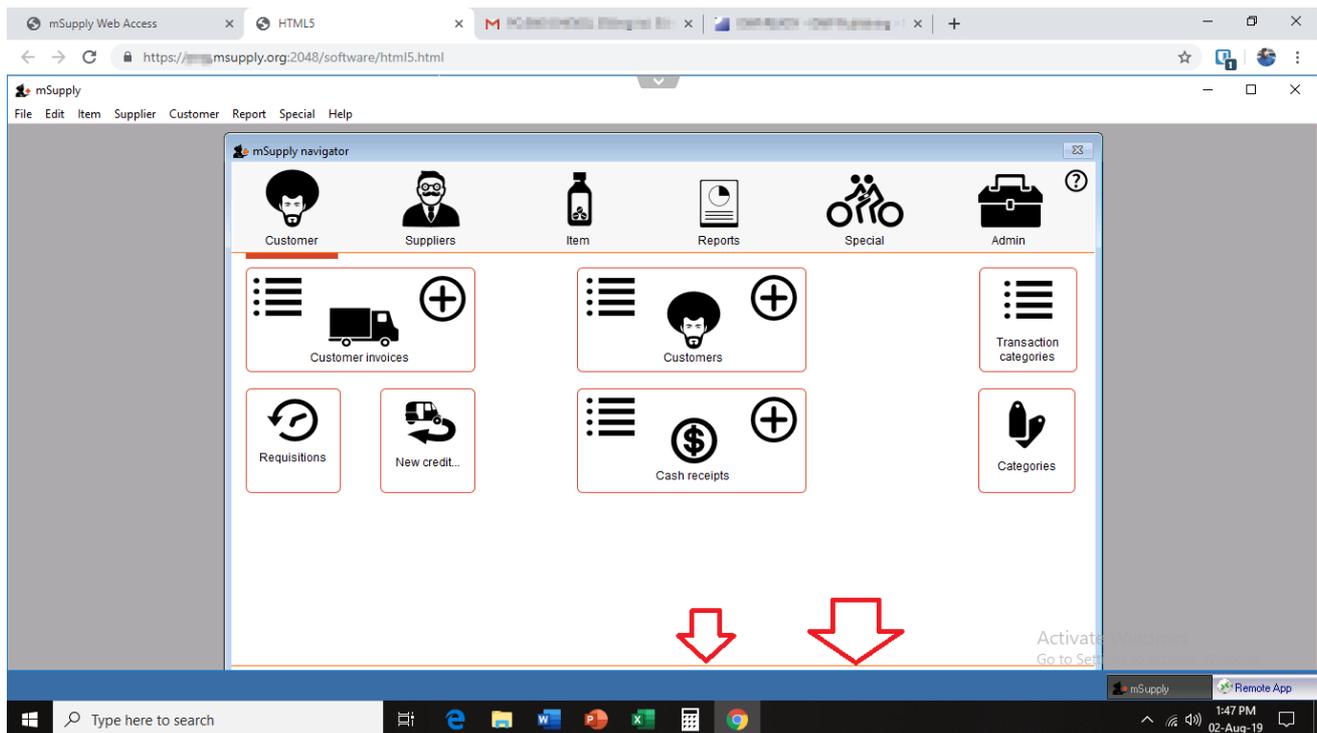


1. Select the file to upload
2. Click Open. This should transfer the file to your Desktop on the Server



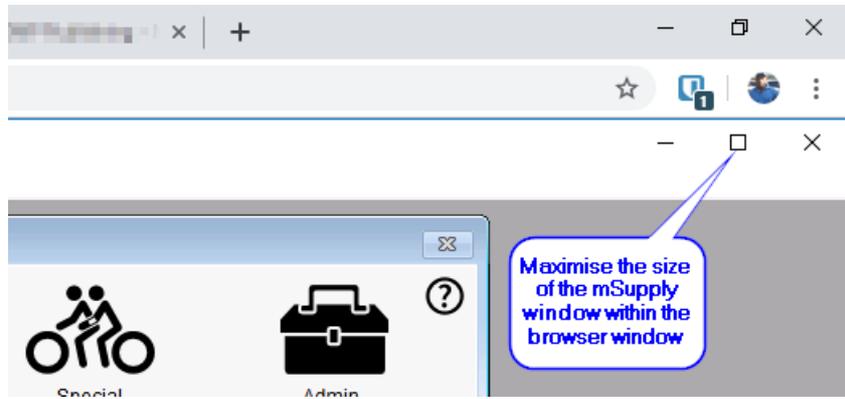
Increasing screen area

Sometimes, depending on a number of factors, but particularly the screen resolution of your local PC, you will find that the screen area is too cramped to use mSupply properly - see here:



This can be improved by

- Maximising the size of the mSupply window within the browser window



- Making the browser session 'Full screen':



You can reverse this by repeating this process.

[Previous: 25.04. Schedules and periods](#) | | [Next: 25.06. Backup](#)

Last modified: 2021/10/08 11:12 by Gary Willetts

25.06. Backup

If your data is important, then data backups need to happen, because things can go wrong (power failures, disk failures, ransomware, etc.)

- You can perform a backup manually and/or automatically. Automatic backups should be scheduled to run frequently (every day), manual backups should be done before updates or other potentially risky changes.
- It is not necessary to quit the database before performing a backup.

Alert

While a backup is running, all user activity will **be paused** until the backup is complete. They won't even be able to log out of mSupply. So:

- Make sure you only run a manual backup when users are not using mSupply.
- Make sure you configure your automatic backups to run at a time when the system is not busy e.g. lunch time, the end of work or, if your system will stay up 24/7, the middle of the night.

- The Backup function works in both single user and client / server (multi-user) environments. The main differences are that in client / server (multi-user) environments:
 - The configuration of the Primary backup is done on the Server computer.
 - The backup can be configured to include other files, such as the Index and log files, which is very handy when providing support.
 - The backup takes place **on the server**. A progress window will appear on the client to show how the backup is proceeding.
 - Restoration from a backup must be run from the server computer.

Running a backup manually

Choose **File > Backup...** to run a manual backup of your data. The backup will be carried out according to the configuration of the [Preferences > Backup tab](#).

Backup: best practice

We recommend you set up your mSupply backups in the following manner

Disk configuration

If your machine has the capability (e.g. it is a server with multiple storage volumes), then there is additional data security in configuring a [RAID array](#).

Use RAID 1

- [RAID 1](#) is two disks mirrored, so data is written to each disk
 - Advantages
 - if one disk fails you continue work from the other disk
 - if the RAID controller fails, you can directly connect one disk and continue work.

There are other forms of RAID, but their advantages are outweighed by their disadvantages, considering that even a large mSupply database will be of the order of 10 [GB](#) in size.

Use a hot spare

This is a spare disk that the RAID controller will use if a disk in the RAID set fails.

Add another single disk to receive backup data

This disk is not part of the RAID

This is still possible if your machine only has one disk drive and you can not configure a RAID array. This could be a volume attached to a USB port (e.g. a thumb drive) or a location on the network, *provided that it is always available*

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- Backup: best practice
- Disk configuration
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 - Use a hot spare
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- Configure Primary backups
- Configure a secondary backup
- Configure off-site backup
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Configure Primary backups

We recommend that you configure the Primary backup as recommended in our user's guide section on the [Preferences > Backup tab](#).

Configure a secondary backup

- Configure a secondary backup to a destination on the same machine, or elsewhere on the network that will be synced off-site (e.g. Dropbox, OneDrive, Google Drive, etc.) - refer [Preferences > Backup 2 tab](#).

Configure off-site backup

Use Spideroak™ or Dropbox™ to backup your secondary location to their internet servers.

If needed configure an off-site computer to also synchronise with the backup service provider so you have an off-site copy as well as the “cloud” copy.

Mirrored servers

We have the technology to provide mirrored servers when very high availability is required. Contact us if interested. A charge will apply for implementation

Use a standard place to store backups

We suggest that you store:

- mSupply data in `C:/mSupply_data/`
- Backups in `C:/mSupply_backups/`
- Log file in `C:/mSupply_data/`

Backup for mSupply single user sites

If you have a synchronisation system with mSupply it's very important that the sync satellite sites have operating backups. By design, mSupply sync satellite sites can operate indefinitely without syncing to the Central server. There are numerous cases of Sync satellite sites operating for months without syncing, though this is not recommended! In such cases, a failure on the sync satellite site could result in months of lost data unless backups are operating on the such sync satellite sites. These sites are normally even more vulnerable to failure than 'Central' servers

Restoring your data

⚠ Important

For data security purposes, the *New data file*, *Restore* and *Open new datafile* functions are disabled if you are on a satellite site in a synchronising system.

An mSupply database can be created from a backup:

1. Log in to mSupply with an old data file or by creating a new data file and click menu **File > Restore...**
2. Locate your backup file in the **Open** dialog that appears. Your backup file has file extension `.4BK`, eg. `CMS.4BK`. Hit **OK**.
3. Clicking on the small red down arrow next to the data file name will show the current destination location to where the data file will be restored. You are being prompted for a folder where the data file will be restored to. Change the destination location of the data file by clicking on the ... button. Once you are happy with the destination location, hit the **Restore** button.
4. After the file is restored, the file location is then displayed using your computer's default file manager. You can close this window.
5. Now go back into mSupply and click menu **File > Open data file...**
6. Locate the newly restored data file in the **Open** dialog that appears. Your data file has file extension `.4dd`, eg. `CMS.4dd`.
7. Select the data file and hit the **OK** button.
8. You may be prompted for a log file. Click on the **Create** button. Select the suggested location, which is the same as your new data file location, and click on the **Save** button.
9. You will be advised that **The log file will be activated after the next backup of the data file. Do you want to start the backup automatically?** If you click **OK** here, then a backup will be created *now*. This can take many minutes if it is a large data file. It is not necessary to create the backup at this stage, but the log file will not be created until you create the first backup.
10. After clicking **OK** or **Cancel**, the data file will open. This will take time (hours) if it is a large data file and the index file is not included with the backup (hours).
11. You will then be asked to **Please create and specify the location of of your log file in the next window.** You may find that the parent location of the default location is where the log file is already created. You can overwrite it.
12. mSupply should open your restored data file and you should be presented with the log in screen to the new data file.

In client/server usage this command will have no effect.

Be very careful about restoring. We suggest you consult Sustainable Solutions before attempting a restore, particularly in a synced system.

Previous: [25.05. Web browser access via TSPlus](#) | | Next: [25.07. Automatic updates](#)

Last modified: 2022/01/17 23:10 by Mark Glover



mSupply documentation wiki



25.07. Automatic updates

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- [mSupply single user](#)

Occasionally we release updates for mSupply. At the moment the mSupply server, if you're using it, must be manually updated. But the mSupply client and mSupply single user can both be automatically updated.

mSupply client

To automatically update your mSupply client, simply start it running. If it needs an update (because the server has been updated, for example) it will automatically update itself. You will see messages with progress bars describing what's happening. The update process should take less than 5 minutes, depending on the speed of your connection to the mSupply server and the speed of your computer. When the process is complete you'll see the usual mSupply login screen.

The only thing that can go wrong with this update process is if the connection to the server is broken or the client does not have the necessary permissions to create new files in the directory or folder it is installed. Symptoms of these failures vary from a failure message to the update process beginning then stopping without displaying the mSupply login window.

mSupply single user

mSupply single user is often used in a distributed sync setup where the various copies of mSupply are spread far and wide throughout a country. So the ability to remotely update them can be very useful!

Simply choose **Special > Check for updates...** or click on the *Check for updates* icon on the Special tab of the navigator:



mSupply will then check whether there is an update available for your version. If there is, you will be shown the new version and asked whether you want to continue with the update. If you do, mSupply will download it and install it automatically. When the process is finished, you will be asked to restart mSupply for the changes to take effect.

Previous: [25.06. Backup](#) | Next: [25.08. Changing users and passwords](#)



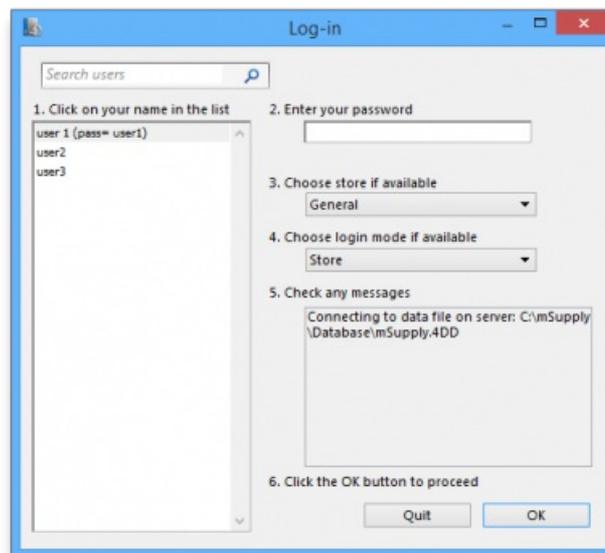
25.08. Changing users and passwords

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Switching stores
Change password or language
To change your password
To change your language
Edit other users

Changing the current user

From the menus choose **File > Change User...** (Keyboard shortcut **Ctrl+1**)

This logs out the current user and re-opens the login window so that the new user can login, without having to close and reopen mSupply:



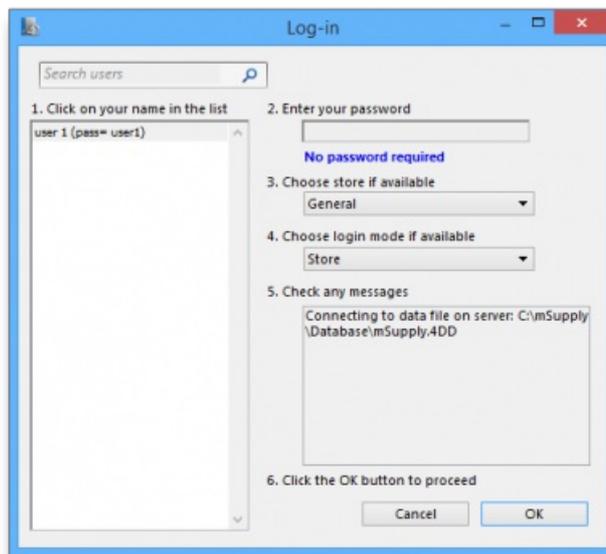
If more than one user is sharing your computer, choose this item before you leave the computer so that the next user will have to log in with their user name & password before gaining access.

If you find yourself on this page accidentally and if you do not have sufficient permissions to change to another store or user then you will have to close and restart mSupply by clicking Quit or the red X at the top right of the screen and launching the program again.

Switching stores

From the menus choose **File > Switch...** (Shortcut **Ctrl+2**)

This menu item lets a user (whose permissions allow) switch stores without the need to re-enter their password. Note that this screen does not allow a change of user; clicking on the **Cancel** button reverts to the current store, so caution in using this feature should be exercised, and this screen should not be displayed when the computer is left unattended (the user is **not** logged out).



Change password or language

From the menus choose *File > Change Password or language...*

This allows you to change your password or the language of the interface and will show you this window:



To change your password

1. In **Enter old password** enter your current password.
2. In **Enter new password** enter your new password. Make it long enough (at least 6 characters) and not easily guessed by people who know you.
3. In **Enter new password again** enter your new password again to make sure you have typed it correctly.

⚠ Important

- Passwords are case sensitive; make sure you don't have *Caps Lock* on.
- If you forget your password you must ask another user who has permission to Edit users to change your password for you - see [Changing the current user for details](#).

To change your language

You can also change the language used in the mSupply interface on this screen - simply choose the language you wish mSupply to use for you from the **Language** drop down list.

You do **not** need to change your password at the same time!

If you change your language, mSupply will prompt you to switch stores (see above - you can switch to the same store you are currently logged in to) to see the change of language.

Edit other users

See the [25.15. Managing users](#) page for details on this.

Previous: [25.07. Automatic updates](#) | | Next: [25.09. Diagnostics](#)

Last modified: 2021/10/08 11:12 by Gary Willetts



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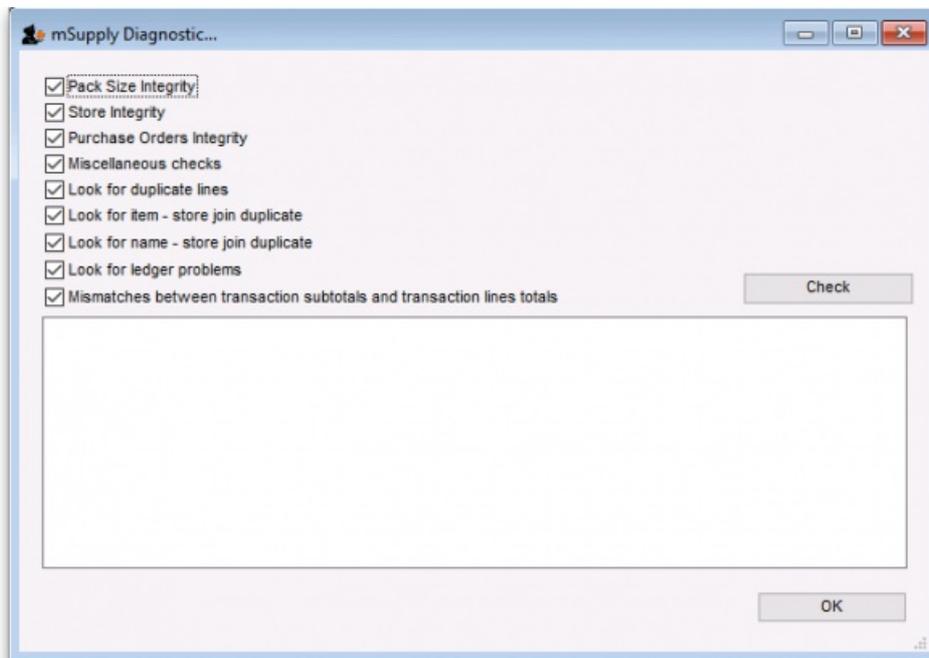
25.09. Diagnostics

This feature is primarily intended for use by our technical staff when there is reason to believe that there may be some errors in the database; it is unlikely to be of practical use to users of mSupply. However, feel free to run some checks if you're bored or need help to get to sleep 😊. This is a brief description of the functionality only - we don't want to be too good at helping you sleep after all...

⚠ Important

The diagnostics will only run on the records for the store that you are logged in to when you run them.

Choose **Special > Diagnostics...** from the menus and this window will open:



Check all the tests you want to run (all are checked by default - might take a long time to run if your datafile is big):

Pack size integrity: Each item's pack size is examined by batch number to confirm that stock in balances with stock out.

Store integrity: Each customer invoice is examined to confirm that each transaction has been applied to the appropriate store.

Purchase Order integrity: A check is performed to confirm that Purchase Order quantities and Goods Received quantities tally.

Miscellaneous checks: Includes a check that any repacked items have not resulted in negative amounts being recorded.

Look for ledger problems: This report presents you with a list of items whose ledger balances (total in minus total out) does not equal the difference between the opening stock and the actual stock on hand. It is also useful for finding unauthorised adjustment of stock values.

Note: you can check for ledger problems in individual stock lines of an item on the *Stock* tab of an item's details window. See the [4.01.05. Items - Stock tab](#) page for details.

Click on the **Check** button when you're ready, mSupply will start the tests and report the results in the blank area below it. When you've finished, close the window by clicking on the **OK** button.

Previous: [25.08. Changing users and passwords](#) | | Next: [25.10. Finalising transactions](#)



25.10. Finalising transactions

There are three methods of finalising invoices:

1. The method described here.
2. By highlighting transactions in the transaction list and clicking **Finalise**
3. By checking the **Finalise** checkbox when viewing a particular invoice and clicking **OK** to close the window.

Tip

Finalising is controlled by user permissions. If you are not able to finalise invoices, you likely don't have the user permission to perform the operation. There is more information on permissions [here](#)

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- [Finalise supplier invoices](#)
- [Finalise inventory adjustments](#)
- [Finalise builds](#)
- [Export a batch again](#)
- [Finalise customer invoices](#)
- [Finalise supplier invoices](#)
- [Finalise inventory adjustments](#)
- [Finalise builds](#)
- [Export a batch again](#)

Finalise customer invoices

All invoices that have status “cn” (i.e. confirmed invoices) may be finalised.

If you have the export option turned on in the Preferences, finalised invoices will also be exported to allow import into an accounting program. They can also just be “exported” to a printed list.

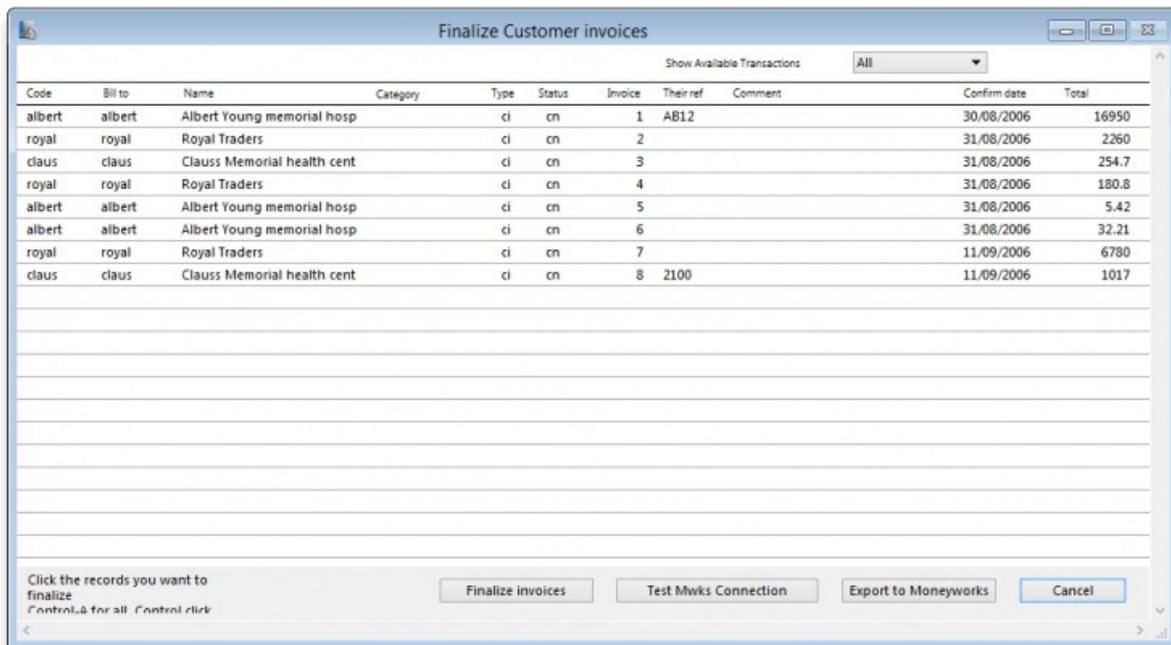
Once an export is done, invoices can no longer be edited. (They have status “fn” for finalised).

Each time a group of invoices is exported, they are all assigned a common “batch” number. You can use this batch number to export an invoice again, should your export file become lost or damaged.

On choosing **File > finalise customer invoices** you will be shown a window displaying all the customer invoices that have not been finalised.

Note that if “export invoices when finalising” is turned on in the Preferences, invoices that have been finalised but not yet given an export batch will also be included in the list. If any such invoices exist you will be alerted to the fact.

The first screen advises you of the folder to which your file will be saved. The next screen displays a list of invoices not yet finalised.



Follow these steps:

- Hold down the control key (Windows) or command key (Mac) while clicking on the lines you wish to finalise. The lines you have selected will be highlighted.
- To reverse a choice click on the line again.
- If you want to choose all the transactions displayed, type control “a” (Windows)/ command “a” (Mac)
- Once you are satisfied with the records you've selected, click the **OK** button. (In fact, don't just be satisfied, be extra sure- you can't reverse a finalisation. It really is final).
- The transactions will be marked as “finalised” (status “fn”), and they may no longer be edited.

You will be given the opportunity to print the list of finalised invoices.

If you have specified the option in the Preferences, a text file called “cust_invoice_expt.txt” will be created on the disk (& in the folder) you have specified in the Preferences, otherwise they will be created in the “Documents/exports” folder under the Application folder.

Each time you finalise a group of invoices, they are given an export batch. This is a unique number that allows you to recall those invoices.

Finalise supplier invoices

As for the *finalise customer invoices....* section above, but for supplier invoices

The export file created is called “supp_invoice_expt.txt”

Finalise inventory adjustments

You need to finalise inventory adjustments so that they can be purged from mSupply at a later date. Also, you will not be able to set the start of year stock at the beginning of the next financial year until all inventory adjustments have been finalised.

On choosing *item | finalise inventory adjustments ...* you will be shown a window displaying all the inventory adjustments that have not been finalised. Follow these steps:

- Hold down the control key (Windows) or command key (Macs) while clicking on the lines you wish to finalise. The lines you have selected will be highlighted.
- To reverse a choice click on the line again.
- If you want to choose all the transactions displayed, type control “a” (Windows)/ command “a” (Macs)
- Once you are happy with the records you've selected, click the OK button. (In fact, don't just be happy, be extra sure - you can't reverse a finalisation. It really is final).

The transactions will be marked as “finalised” (status “fn”), and they will no longer be able to be edited.

For exporting invoices to Moneyworks please refer to [chapter 11.Exporting invoices to Moneyworks](#)

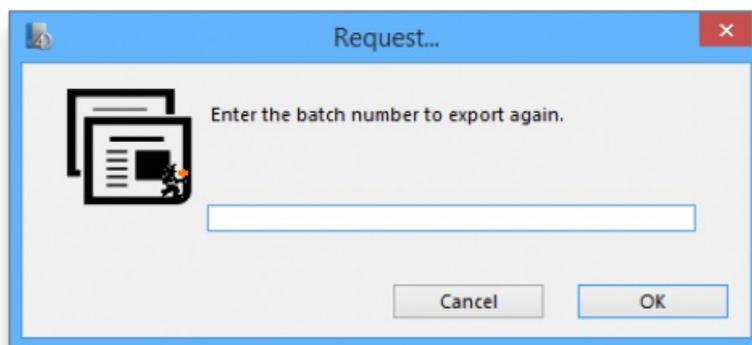
Finalise builds

You need to finalise builds so that they can be purged from mSupply at a later date, or to disallow any further editing of particular builds. Also, you will not be able to set the start of year stock at the beginning of the next financial year until all builds are finalised.

See the sections above for the details of how to finalise transactions. The process is just the same for builds.

Export a batch again

Choosing this item presents you with a window where you can choose a batch number to export again:



Invoice batch numbers are shown on the right hand side of invoice lists.

Previous: [25.09. Diagnostics](#) | | Next: [25.11. Managing data files](#)





25.11. Managing data files

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- [File > New data file...](#)
- [File > Open data file...](#)
- [File > New data file...](#)
- [File > Open data file...](#)



File > New data file...

This command will present you with a standard open/save window where you can choose the name and location of a new data file: If you click the OK button, mSupply will close the data file currently in use (saving any changes made automatically), and then open the new data file. The new data file will contain no items, names or transactions. You can either enter these manually or use the import commands (see later in this chapter) to import items, names and stock.

File > Open data file...

This command will present you with a standard open/save window where you can select an existing data file to open. If you click the OK button after successfully selecting a valid mSupply data file, mSupply will close the data file currently in use (saving any changes made automatically), and then open the new data file. Note that if you regularly use more than one data file, use the "About mSupply..." Command from the help menu (mSupply menu on Macintosh), where the data file currently in use is displayed. **Warning::** Do not try to open the same data file from 2 or more single user copies of mSupply at the same time. You will corrupt your data. If you require multi-user access, buy a multi-user licence!

Previous: [25.10. Finalising transactions](#) | | Next: [25.12. mSupply dispensary installation](#)

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25.12. mSupply dispensary installation

mSupply provides a fully featured Pharmacy Dispensary module. The following steps describe how to configure mSupply for Dispensary use. This document specifically applies to Pharmacy Dispensary staff.

Users

- Set up users to log in in dispensary mode

Permissions

Misc

- Show direction entry: checked
- Item codes must be unique: checked
- Service items: can be set to “allowed” if recording non-stock charges- like a dispensing fee.
- Show direction entry: checked

Invoices 2

- Allow placeholder lines: checked

Handling stock on hand

You may want to consider setting stock to a very large number for each item. This will mean that stock is effectively ignored. Experience tells us it is very (very) hard to accurately track stock in a busy dispensary, and most likely unnecessary if you are tracking issues to the dispensary from another virtual store.

Per store preferences

Preferences in the dispensing store

Go to Special > Stores > Double-click the dispensary store and set these preferences (and maybe others)

- Patients created in this store not visible in other stores: checked
- Names created in this store not visible in other stores: checked (may vary depending on situation)
- Your training will have to take into account the setting for stock transfers that you choose here.

Pack to one

As dispensing is invariably in multiples of single tablets etc, you will want incoming stock converted to packs of one. You can do this on a per-item basis, but the better way is to go to Special > Stores > Double-click the store you're logged in to, and you'll see a **visibility** tab. On that tab click “Set pack to one for all visible items in this store”

Important

If your dispensary store is 'Active' (refer [Remote synchronisation, Store sync types](#)) on a Sync Satellite server, then you will not see the Visibility tab when logged in to the store on that Sync Satellite server. These settings need to be done while logged in to the Sync Primary server.

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Abbreviations

Choosing a set of abbreviations should be a collaborative activity with staff. Note you can import abbreviations

If more than one language is used, you might want to make the same abbreviation with a suffix for the less common language. eg

Abbreviation	Expansion	Comment
tid	dinko tin palta	In your common local language (in this case Nepali)
tide	three times a day	add a suffix "e" to the same abbreviation when using for the English expansion

Latin abbreviations are universal

Abbreviation	Expansion
od	once a day
bd (or bid)	twice a day
tid	three times a day
qid	four times a day
hs	at bedtime
nocte	at night
pr	in the rectum
po	orally (by mouth)
pv	into the vagina
qqh	every four hours
q6h	every six hours

It is important to be consistent with choosing abbreviations so people can remember them. e.g.

Abbreviation	Expansion
1t	Take one tablet
2t	Take two tablets
3t	Take three tablets
ht	Take half a tablet
1c	Take one capsule
2c	Take two capsules
wtf	with tasty food

Users should be trained that you can mix abbreviations and normal text- wherever an abbreviation is encountered it will be expanded. It is important not to make an abbreviation that is a normal word in the language, else the expansion will happen when the word is typed.

Item abbreviation shortcuts

This is important. See [here](#) The aim should be that every common item has all common directions saved as a shortcut. Pay attention to having the most common shortcut at the top of the list.

Patients

In a dispensary, your customers are the patients. Their details need to be recorded. This can be done prior to implementing dispensing through importing of patients - refer [Patients](#). In many cases, you will find that there is no accessible database of patient names and that you will need to enter patients 'on-the-fly'. A *New Patient* button is on the *Prescription entry* window for this purpose. This will slow down the dispensing process, but over time, as more and more prescriptions are for 'existing' patients (e.g. for inpatients and chronic patients), this will become less of an issue.

Patient Code

Each new patient requires a patient code. This patient code can be applied automatically by ticking *File > Preferences > Dispensary Mode > Auto-*

generate patient code. You also have the option here to prefix the codes with a string of text. This is particularly helpful in a multi-facility installation where patients may be referred from one facility to the next and you would like to know in which facility they first entered into the system.

Prescribers

mSupply allows prescribers to be recorded against each prescription. This can be made a requirement by ticking *File > Preferences > Dispensary Mode > Prescriber must be entered*. Making the recording of the prescriber mandatory will obviously slow down data entry during the dispensing process. In order to record prescribers with prescriptions, prescribers must be entered into the system - refer [Prescribers](#).

Printing

Set printing to be on by default for new entries, and off by default for edits.

Train users on changing printers using *Special > Printing preferences*

It is important that printers have a static IP address. You can do this in two ways:

1. Set a static IP address on the printer. Log on to http://printer_ip_address to do this. It's under network settings. The default IP for Zebra printers is 192.168.254.254
2. Use the DHCP server on your network to set a Static DHCP mapping. This is preferred, as it's much easier to change.

Info

With a Zebra GK 420 you can hold the front button until it flashes once, release it, then it will print out the IP address. [Read all about it](#)

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25.13. mSupply server administration

mSupply server provides a number of administrative features that enable fine-tuning and robust management of the system.

Server monitor

The server monitor tells us our computer hardware specification, database engine version, and license information including maximum connections

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Users

The Users tab shows us connected users with LAN information, IP address, machine name and Windows logon user name

4D User	Machine name	Session name	IP Address	Login date	CPU Time	Activity
mSupply_user	SUSSOL-PC	sussol	192.168.3.220	21/05/2013 12:19	00:00:00	0 %

Processes

The processes window shows system resource consumption for each process. This is a useful screen to analyse slow or otherwise unresponsive systems.

Process name	Session	Type	Num	State	CPU Time	Activity
schedule	-	Stored procedure	4	Delayed	00:00:00	0.00 %
Client Manager	-	Application server	3	Waiting for flag	00:03:04	0.00 %
DB4D Flush	-	DB4D Server	0	Running	00:00:01	0.00 %
DB4D Index builder	-	DB4D Server	0	Running	00:00:00	0.00 %
Internal Timer Process	-	Application server	2	Executing	00:00:03	0.00 %
Task managers	-	SQL Server	0	Running	00:00:01	0.00 %
User Interface	-	Application server	1	Waiting for event	00:00:13	15.03 %
Application process	sussol	4D Client Process	5	Waiting for I/O	00:00:04	0.00 %
MSU_sussol	sussol	4D Client Process	6	Waiting for I/O	00:00:00	0.00 %
navigatorProc	sussol	4D Client Process	7	Waiting for I/O	00:00:00	0.00 %

Maintenance

The maintenance tab is where data info and actions can be retrieved and performed. The window shows when tasks were last performed and provides the settings to perform verification, data compacting and log recording.

Last verifications: Unknown Date
 Verify Records and Indexes View Report
 Verification can help you detect performance problems or problems concerning data and/or index validity.

Last compacting: Unknown Date
 Compact Data... View Report
 Compacting your database reduces the space taken up by the data and optimizes their organization. Compacting should be used when you notice a decrease in performance or when you want to reduce the weight of your data. Compacting requires the server to be restarted. All users will be disconnected.

Uptime: 6 minutes
 Restart server...
 Restarting the server will disconnect all the users.

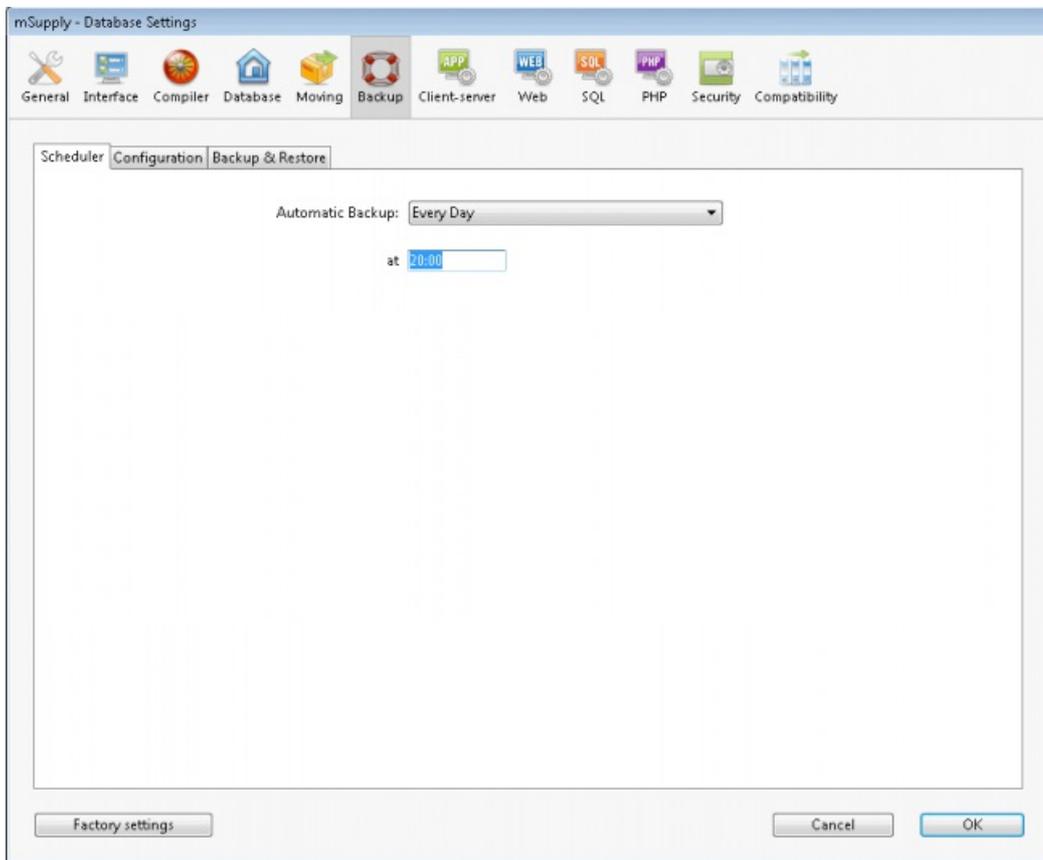
Last backup: 15/05/2013 at 10:37
 Next backup: 00/00/00 at 00:00
 Needed space:
 Available space:
 Start backup Preferences...
 The server will not be restarted but the users will be blocked during the operation.

Request log: 0 second logged.
 Start request log View Report
 The server performance might be altered slightly during the generation of the request log. However, the analysis of this log will later permit the server to be optimized.

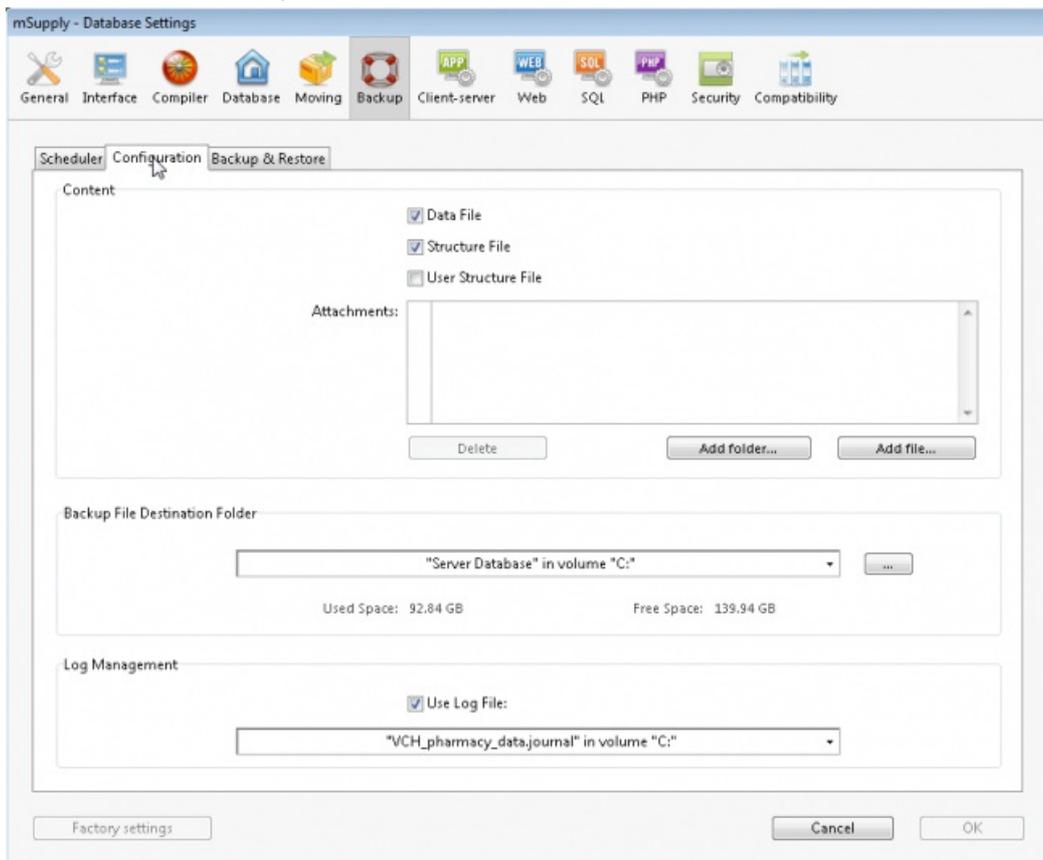
Backup

The Backup tab provides settings to manage the way your data is backed up and where the backup file resides. This is a critically important section to manage properly as your data is a key asset of your system.

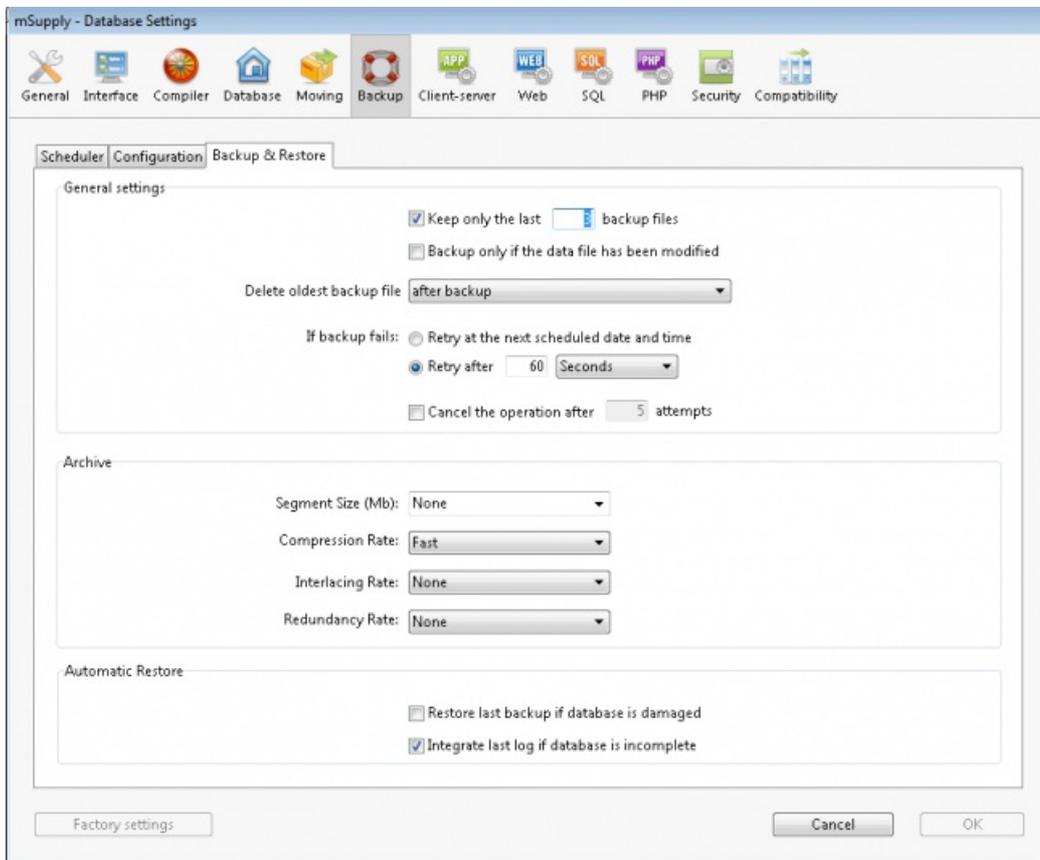
Schedule a backup:



Configure content and destination of the backup:



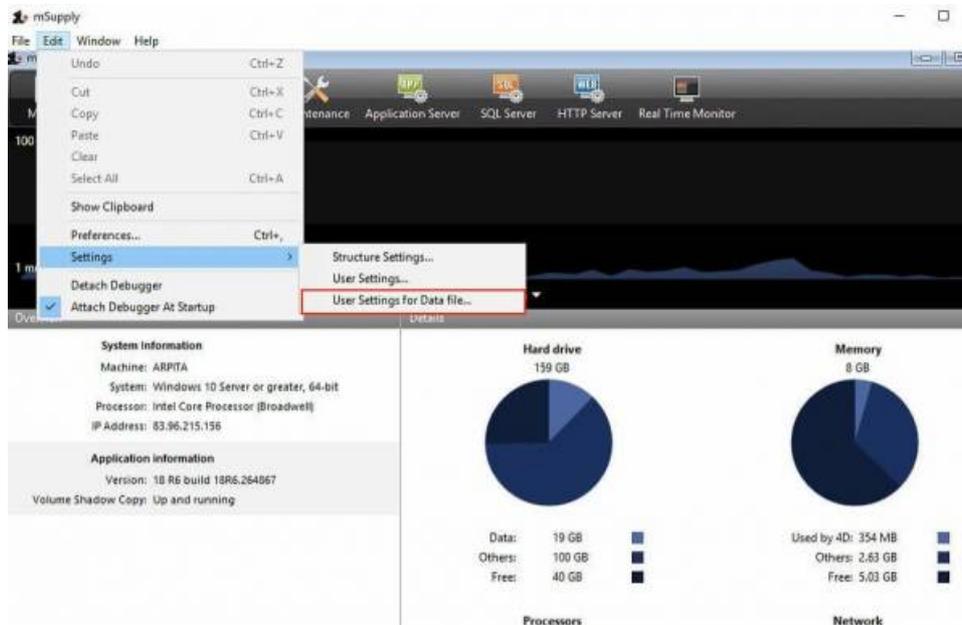
Backup & Restore: Decide how many backups to store in your destination folder. You may also set the system to retry backups if a backup is not possible at the scheduled date and time. Eg. if the system is not running.



Backup and Memory settings - according to the datafile

The database backup settings were initially singular but since mSupply v4.14 we have extra options. On the server Settings menu we have the following options :

- Structure Settings... [This has been widely used]
- User Settings... [This is not frequently used]
- User Settings for Data file... [We are now actively using this options]



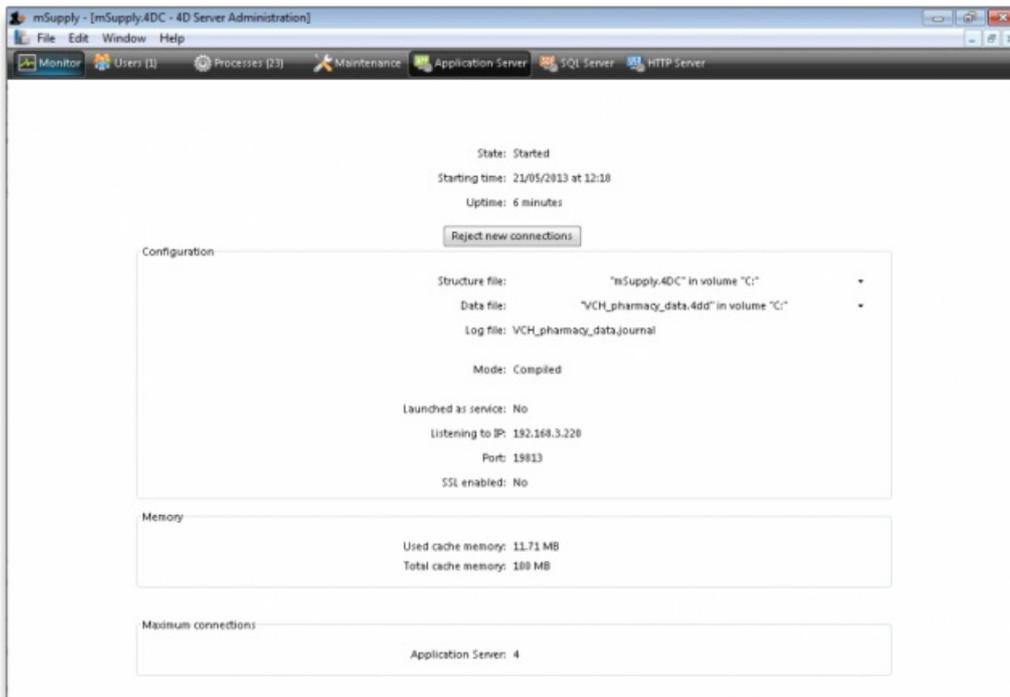
The "User Settings for Data file..." options saves the backup and memory options as a folder and is located next to the data file.

Name	Date modified	Type
Logs	13/09/2021 13:13	File folder
Settings	13/09/2021 13:13	File folder
temporary files	14/09/2021 06:08	File folder
example data original 181210.zip	10/12/2018 08:10	Compressed (zipp...
MobileData.journal	14/09/2021 06:10	4D Journal File
MobileData.Match	14/09/2021 06:10	4D Structure info
MobileData.4DIndx	14/09/2021 06:24	4D Data Indexes
MobileData.4DD	14/09/2021 07:40	4D Data File

Above, note that the Settings folder is next to the mSupply data. This setup allows for the mSupply server to be upgraded with backup and memory settings intact.

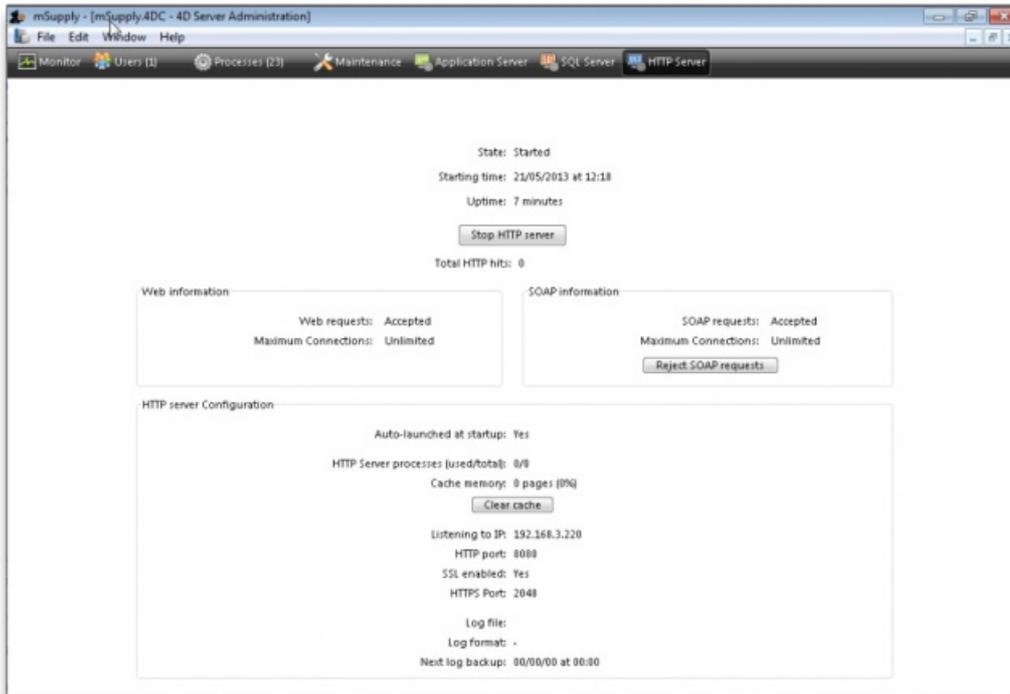
Application server

Application server: The application server provides settings to manage the structure (.4DC file) and data (.4DD) files. It also provides information about LAN and system memory.



Web server

Web server: The Web server tab shows the web server status and running ports. The web server can be started or stopped from this tab.



mSupply file extensions and types

This information is just for reference and to help your understanding.

On both Macintosh and Windows OS - five files.

- A structure file (.4DC suffix)
- A structure resource file (.rsr suffix)
- An executable file (.exe suffix)
- A data file (.4DD suffix)
- A data resource file (.4DR suffix)

File arrangement

It is easiest to keep all relevant files in the same folder, in a reasonably accessible place on your hard drive. (For example, directly on your “C” drive.)

If you make copies, don't leave them in the same folder, or you'll just get confused!

There are several folders to store reports and queries that need to be in the same folder as your structure file. Note that these folders are automatically created when you unzip the program files the first time. They are mentioned here so those of you with an inquisitive streak won't unknowingly do damage!

- A reports folder. This stores reports that are used by the program. Leave this folder alone- store your own reports in the custom reports folder.
- A custom reports folder. Store the reports you create here.
- A custom queries folder. Store the queries (searches) you create here.
- A custom labels folder. Store any label templates you create here.

Note that on Windows or Macintosh the run time application (that is, the database engine- “4Drun.exe” file on windows) can reside anywhere on your hard disk, and does not need to be regularly backed up (although you should have one backup copy somewhere!)

Getting the right data file when you open mSupply

Important! If you open mSupply by double-clicking the “start mSupply” icon on the desktop (Mac users- by double-clicking the structure file), mSupply will try to open the same data file that was last opened. It will open the same file each time if you repeat the same procedure. If you make a copy, and then double-click the copy of the structure file, mSupply may still open using the data file from the original if it can find it.

To choose the data file manually do this:

Mac: hold down the option key as you click the OK button in the password window. You will then be given an open/save box to choose the correct data file.

Windows: Launch the program and then quickly hold down the Alt button until you see a box come up. It will give you an option to Select another data file.

If you are not sure which structure and data file you are currently using, on a pc logged into the correct datafile, choose about mSupply... from the help menu (Windows) or the apple menu (Mac).

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25.14. mSupply deployment

This document gives an overview of the process of installing mSupply at a new location.

Terms

- A **virtual store** will usually map to a physical location- either a separate warehouse or an entity within a warehouse that has it's own items and facilities and transactions
 - All virtual stores share the same item and customer/supplier lists, but if an item is not used in all stores, it can be hidden in stores where it is not used. The same applies for customers/suppliers.
- A **transaction** refers to a record that records stock movements- from a supplier, to a customer/facility, or to adjust stock
- A **name** refers to a customer or supplier.
- A **customer** may be a supply point- not necessarily an entity that pays for supplies.

Cloud or local

Criteria for for a robust **local** installation of mSupply:

Physical locations

- Dry, secure locations with the infrastructure connections as detailed below
- Management of security for human access.

Hardware

- You will need to buy hardware as per specifications on this web site.
- Scalability- as the size of your installation grows you might have to buy new hardware (more speed, RAM, storage)
 - Expect to purchase a main server plus one extra server for every 35 remote desktop users and one web server for every 1000 sync users.
 - This is much easier for a cloud or virtual server - you just assign more RAM, storage or CPUs to the server
- Redundancy
 - if hardware failure will create more downtime than is acceptable (realistically it will create one or two days of downtime), then you need to have a redundant system. That is, you need to:
 - replicate the hardware at a different physical location
 - Have a fast network connection between the two sites.
 - The second site will need the same network connectivity for client access as your main site.
 - Have control of DNS to redirect users to the backup site when the primary site fails.

Electricity supply

- Stable, earthed electricity supply
- UPS systems with enough runtime to cover outages and the ability to communicate with the server so it can gracefully shutdown before batteries are exhausted.
- A generator system with auto-start might be needed.
- All of the above at the redundant site as well.

Network

- Enough ingress and egress network capacity for the software's requirements.
- Ability to expand the capacity as the system grows.
- The same capacity at the redundant site.
- A high capacity network connection between the main and the redundant site for realtime replication of server data so the redundant site is up to date.
- You may also decide that redundant connections are needed to the primary server site.
-

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Local IT expertise

- Sufficient local expertise to distinguish between hardware, software, network and electricity issues.
- The expertise must be available during all hours the system must be available
- Written fail-over plans for failures in the above systems.
- Ability to execute plans on time when there is a failure.
- Knowledge transfer to new staff when existing staff leave.

Structure

It is important to design the overall structure to meet your organisation's needs. This mainly focuses on:

- Deciding how to connect users
 - Direct LAN connection
 - Terminal services
 - Discreet servers with synchronisation. This option is useful when internet access is intermittent.
- setting up [virtual stores](#)
- Setting up preferences
 - [General Preferences](#)
 - [Invoices Preferences](#)
 - [Printing Preferences](#)
 - [Purchase Order Preferences](#)
 - [Synchronisation](#)

Importing data

Most sites will have existing lists of items and names. The user guide has sections on:

- [Importing Items](#)
- [Importing stock](#)
- [Importing Customers, Suppliers, Patients](#)

Users

The permissions system can be set up for individual users, or be based on groups. See [Managing users](#)

Warehouse management

If your warehouse has existing locations you can import them: [Locations and Location types](#) Otherwise you will need to design a location scheme.

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25.15. Managing users

About users and groups

User permissions are per-store, so a user can have different permissions when logged into different stores.

If you have many users that need to have the same permissions (because they carry out the same role, for example), you can create a group and assign the users to the group. Once a group is set up and permissions for the group assigned, any users that are assigned to the group will inherit the group's permissions, rather than having to set permissions for each user individually. When you change a group's permissions, you change the permissions for all users who belong to that group.

Tip

If you want to change a user's permissions and find out that all their permissions are greyed out and uneditable then it means they are a member of a group. To edit their permissions separately from the group, they must first be removed from the group:

- Edit the user, change the **Is a member of** drop down list to **None**, click **OK** (see below for details).
- Open the user again and their permissions will be editable.

Refer to [Using groups](#) below for more details. If the user is to remain part of the group then you must change the group's permissions (see [Editing a group](#) below) but beware, this will change the permissions for all users who belong to the group, not just the user you're interested in.

Important

If you want to disable a user, perhaps because the staff member has left the organisation, then they must be made 'inactive':

- Edit the user, uncheck the **Active** checkbox, click **OK**.

If the **Active** checkbox is greyed out, it is because they are a member of a group. You will need to first remove them from the group before you can make them 'inactive':

- Edit the user, change the **Is a member of** to **None**
- Edit the user, uncheck the **Active** checkbox, click **OK**.

Of course, if the whole group of users needs to be made inactive then you can just uncheck the **Active** checkbox for the group.

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Adding and editing users and groups

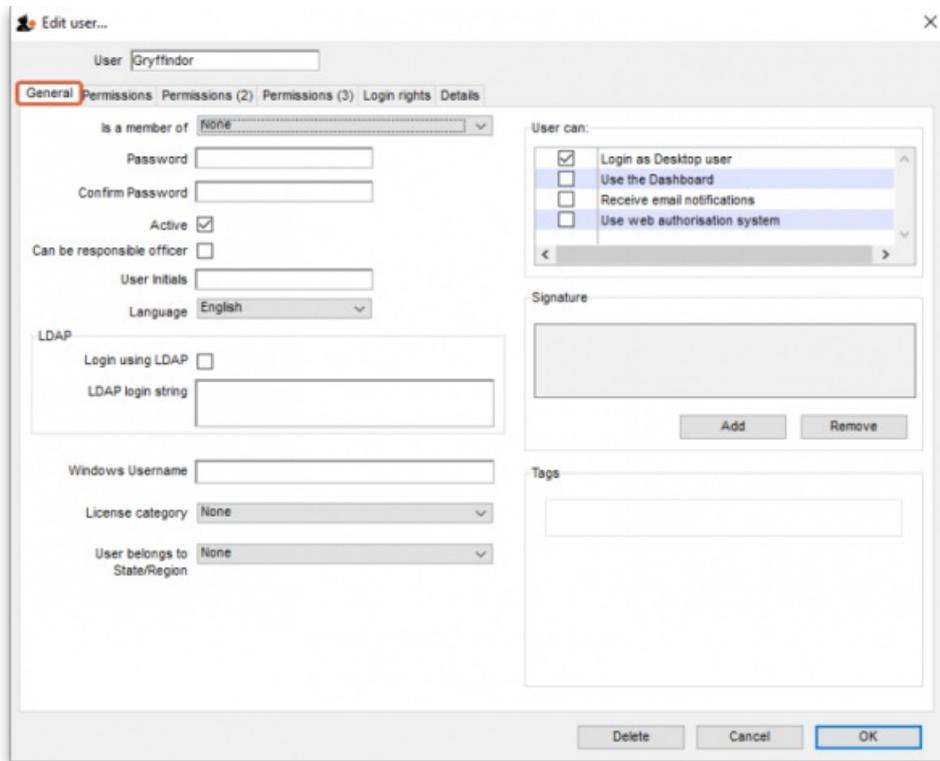
mSupply has a comprehensive system of controlling user access, allowing you to manage in fine detail what each user can do and see in the system. You can manage users individually, in groups or a mixture of both - whichever is most suitable for your situation.

User access is managed by choosing **File > Edit users** from the menus, or by choosing **Admin > Edit users** in the Navigator. When clicking on this option you are presented with a list of current users:

one worksheet for each store showing all the users and groups and what permissions they have in that store.

Double-click a user (or group) to edit their details or delete them. Click the **New User** button to add a new user (or the **New group** button to add a new group). Doing either will open the user details window (described below - for a new user or group all the tabs are empty, for an existing user or group the tabs are filled with their current settings)

User details window



This window has several tabs, all described below.

General tab

Is a member of

Used to select the user group the user belongs to (see below). When the window loads, it displays the group the user currently belongs to. It will show "None" if they are not a member of any group.

Password

This text box will always appear empty when the window is loaded. It must be set for a new user. It can be used here to change the password of an existing user.

Confirm password

If something is entered in the *Password* textbox, then the same text must be entered in this textbox. This step makes sure you set the password to what you think you're setting it to!

Active

If this checkbox is checked, then that user has permission to use the system, and their name will appear in the login window. If this checkbox is unchecked the user will not be allowed to login to the system and their name will not appear in the login window.

Can be responsible officer

If this checkbox is checked, the name of that user will appear for selection in the [Responsible Officer](#) selector on the [Transport Details](#) tab of a [Customer invoice](#).

User initials

User initials should be entered in this field.

Language

Allows you to select which language the user wants to use in mSupply. As of August 2020, supported languages are:

- English
- French
- Lao
- Spanish

- Khmer
- Portuguese (partially complete)

LDAP section

This section can be used to check a user's login credentials against an LDAP (Lightweight Directory Access Protocol) server. If you are going to use LDAP you must fill in the server details in the [General Preferences, LDAP tab](#) first.

- **Login using LDAP:** Check this if you want this user's login details to be checked against your LDAP server. Means that you can have some users logging in normally and some being checked against your LDAP server. Helpful if there's a delay in users being given LDAP credentials for any reason.
- **LDAP login string:** Enter any string which has to be used with the LDAP login. Will be provided by the LDAP administrator if required.

Windows username

The username the user logs into window systems with. Used to provide single-sign-on capability when the user is logging in remotely to an mSupply client running on a Windows server.

License category

Used to select which user license category the user belongs to. This will contain a list of all user categories currently set up in the datafile. See [License management](#) for details.

User belongs to State/Region

Used to select the [name category 1](#) that the user belongs to. Only used in some customised versions of mSupply.

Signature

Use to add or remove an image of a user's scanned signature for displaying on invoices for example

Tags

Use to apply 'tags' to a user. These tags can then be used to control access to various features for users according to the tag.

User Can:

Used to give the following controls to users:

- Login as Desktop user
- Use the Dashboard - this is necessary if you want the user to be able to see dashboards
- Receive email notifications - this is necessary to enable reports to be emailed on a schedule to a user or group of users. Multiple reports for a User will appear on different tabs of an excel workbook. This needs to be configured by Sustainable Solutions, so get in touch if you're interested and we'll set this up for you.
- Use system - if checked the user can login to the remote authorisation web app as an authoriser. See the [26.15. Remote authorisation](#) page for details.

Info

When a user is added to a group, the *User can* settings are set to those of the group i.e. they are inherited from the group. However, the *User can* section is still editable for an individual user - the settings are not controlled by the group after the user has been added to it.

Permissions tabs

These are where you can set access to the many features and functions on a store-by-store basis for each user or group. There are three Permissions tabs and each are shown in the screenshots below:

Edit user

User: Store:

<p>Ordering</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> View purchase orders <input checked="" type="checkbox"/> Delete purchase orders <input checked="" type="checkbox"/> Edit purchase orders <input checked="" type="checkbox"/> Edit purchase order pricing <input checked="" type="checkbox"/> Manage tenders <input checked="" type="checkbox"/> Finalise purchase orders <input checked="" type="checkbox"/> Authorise purchase orders 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Create purchase orders <input checked="" type="checkbox"/> Confirm purchase orders <input checked="" type="checkbox"/> Create & edit backorders <input checked="" type="checkbox"/> Create new quotes <input checked="" type="checkbox"/> Edit & delete quotes <input checked="" type="checkbox"/> Duplicate purchase orders <input checked="" type="checkbox"/> Print purchase orders 	<p>Admin</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Add / edit users <input checked="" type="checkbox"/> Access server administration <input checked="" type="checkbox"/> Edit authorisers <input checked="" type="checkbox"/> Clone database <input checked="" type="checkbox"/> Edit insurance providers <input checked="" type="checkbox"/> Edit periods and period schedules <input checked="" type="checkbox"/> Add/edit sync sites
<p>Items</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Create new items <input checked="" type="checkbox"/> View items <input checked="" type="checkbox"/> Edit items <input checked="" type="checkbox"/> Delete items <input checked="" type="checkbox"/> Duplicate items <input checked="" type="checkbox"/> Create repacks or split stock <input checked="" type="checkbox"/> Edit repacks <input checked="" type="checkbox"/> View pricing information for items <input checked="" type="checkbox"/> Edit item units list <input checked="" type="checkbox"/> Merge two items... <input checked="" type="checkbox"/> Add / edit departments <input checked="" type="checkbox"/> Modify sell and cost prices of existing stock <input checked="" type="checkbox"/> Add / edit master list <input checked="" type="checkbox"/> Create and edit custom stock field value lists 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> View inventory adjustments <input checked="" type="checkbox"/> Enter inventory adjustments <input checked="" type="checkbox"/> Edit Inventory adjustments <input checked="" type="checkbox"/> View cost prices of stock <input checked="" type="checkbox"/> Edit item names, codes and units <input checked="" type="checkbox"/> View DDD information for items <input checked="" type="checkbox"/> Manage item access <input checked="" type="checkbox"/> Manage drug interaction groups <input checked="" type="checkbox"/> Manage locations <input checked="" type="checkbox"/> Make item inactive <input checked="" type="checkbox"/> Edit item default price <input checked="" type="checkbox"/> Consolidate stock <input checked="" type="checkbox"/> View stock <input checked="" type="checkbox"/> Edit stock <input checked="" type="checkbox"/> Modify donor on stock and transaction lines 	<p>Goods receiving</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> View goods received <input checked="" type="checkbox"/> Add/edit goods received <input checked="" type="checkbox"/> Authorise goods received <input checked="" type="checkbox"/> Finalise goods received
<p>Supplier invoices with issued stock</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Update pack size, cost and sell price 	<p>Tenders...</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Create & edit tenders 	<p>Special</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Add / edit currencies <input checked="" type="checkbox"/> Add / edit reminders <input checked="" type="checkbox"/> View and print labels <input checked="" type="checkbox"/> Add / edit misc labels <input checked="" type="checkbox"/> Add / edit abbreviations <input checked="" type="checkbox"/> Add / edit warnings <input checked="" type="checkbox"/> Add / edit prescribers <input checked="" type="checkbox"/> Add / edit transaction categories <input checked="" type="checkbox"/> Add / edit contacts <input checked="" type="checkbox"/> Merge prescribers <input checked="" type="checkbox"/> Add and edit options <input checked="" type="checkbox"/> Add / edit vaccinators

Edit user

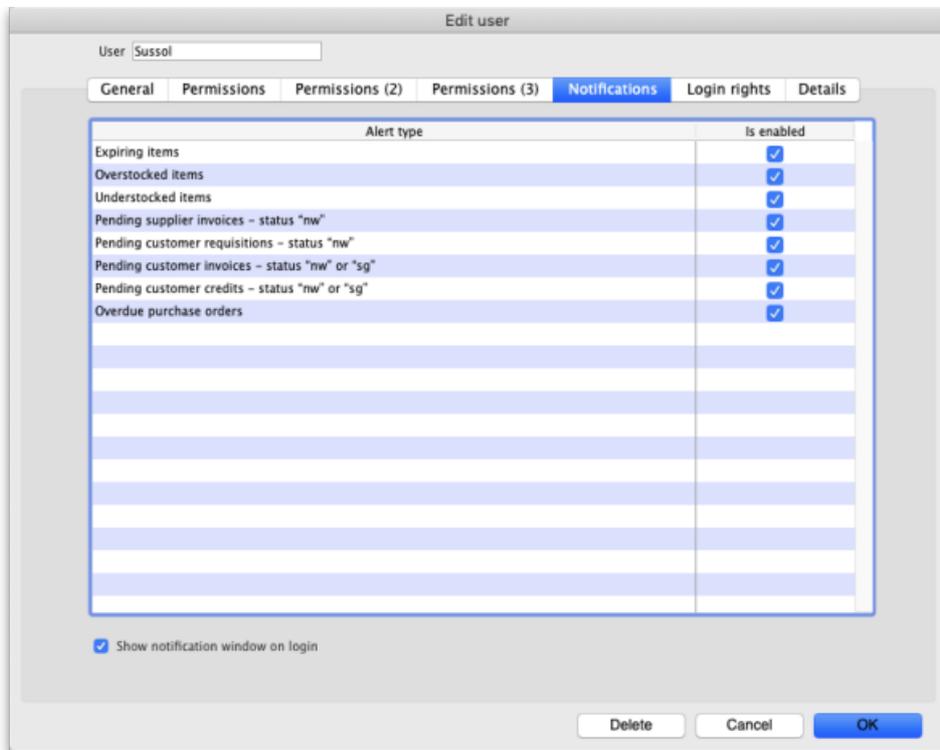
User: Store:

<p>Names</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Create customer, supplier & manufacturer names <input checked="" type="checkbox"/> View customer, supplier & manufacturer names <input checked="" type="checkbox"/> Edit customer, supplier & manufacturer names <input checked="" type="checkbox"/> Delete names <input checked="" type="checkbox"/> Edit name codes <input checked="" type="checkbox"/> Edit name charge code <input checked="" type="checkbox"/> Merge names <input checked="" type="checkbox"/> Edit name categories <input checked="" type="checkbox"/> Create & edit patient events <input checked="" type="checkbox"/> Add patients <input checked="" type="checkbox"/> Edit patient details <input checked="" type="checkbox"/> Add and edit insurance policies <input checked="" type="checkbox"/> Add / edit name groups <input checked="" type="checkbox"/> Update master code 	<p>Invoices</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Create customer invoices <input checked="" type="checkbox"/> View customer invoices <input checked="" type="checkbox"/> Edit customer invoices <input checked="" type="checkbox"/> Create supplier invoices <input checked="" type="checkbox"/> View supplier invoices <input checked="" type="checkbox"/> Edit supplier invoices <input checked="" type="checkbox"/> Edit comments on finalised invoices <input checked="" type="checkbox"/> Import supplier invoices <input checked="" type="checkbox"/> Duplicate supplier & customer invoices <input checked="" type="checkbox"/> Finalise multiple invoices <input checked="" type="checkbox"/> Finalise customer invoices <input checked="" type="checkbox"/> Finalise supplier invoices <input checked="" type="checkbox"/> Finalise repacks <input checked="" type="checkbox"/> Finalise inventory adjustments <input checked="" type="checkbox"/> Cancel finalised invoices <input checked="" type="checkbox"/> Change transportation dates on finalised invoice <input checked="" type="checkbox"/> Edit user fields on finalised invoices <input checked="" type="checkbox"/> Customer stock takes: show internal analysis columns by default <input checked="" type="checkbox"/> Change invoice category on finalised invoice 	<p>Invoices</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Authorise customer invoices <input checked="" type="checkbox"/> Authorise supplier invoices
<p>Web interface</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Edit web passwords <input checked="" type="checkbox"/> Edit and create web messages 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Create cash transactions <input checked="" type="checkbox"/> Return stock from supplier invoices <input checked="" type="checkbox"/> Create supplier credits <input checked="" type="checkbox"/> Overwrite total amount in prescriptions 	<p>Builds and bill of materials</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> View cost prices on builds <input checked="" type="checkbox"/> Finalise builds <input checked="" type="checkbox"/> View bill of materials <input checked="" type="checkbox"/> Edit bill of materials <input checked="" type="checkbox"/> Build items <input checked="" type="checkbox"/> Edit build items
<p>Reports</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Manage reports <input checked="" type="checkbox"/> Revert reports to original <input checked="" type="checkbox"/> View reports 		<p>Cash transactions</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Make cash payments <input checked="" type="checkbox"/> Receive cash <input checked="" type="checkbox"/> Edit payment note field
		<p>Transfers</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Transfer goods between stores <input checked="" type="checkbox"/> Finalise stock transfers
		<p>Printing</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Print duplicate packing slips <input checked="" type="checkbox"/> Print duplicate customer invoices

Permission	Details
Permissions Tab	
Update pack size, cost and sell price	If checked the user is able to edit the pack size, cost and sell price of supplier invoice lines that have
Add/edit users	To prevent you being locked out of your datafile permanently, mSupply will not allow you to turn off t
Add/edit sync sites	If checked the user is able to edit site settings in a synchronisation system. This includes being able t
Permissions (2) Tab	
Change transportation dates on finalised invoice	If checked, the user can edit the Order written date, Order received date, Expected arrival date, A
Edit user fields on finalised invoices	The user fields are the 4 custom transaction fields that can be enabled in the preferences - see Invoic
Change invoice category on finalised invoice	If checked the user can edit the transaction category of invoices (customer, supplier and inventory ac
Transfer goods between stores	If checked the user can create a customer invoice with a store as the customer (i.e create a stock tra
Finalise stock transfers	If checked the user can finalise a customer invoice where the customer is another store (i.e. a stock t
Return stock from supplier invoices	If checked a <i>Return selected lines</i> button will appear for the user on finalised supplier invoices, allowi
Permissions (3) Tab	
Edit stocktake dates	If checked the user can edit the <i>Stock take date</i> field at the top of a stocktake and the confirmed date
Edit store details	If checked the user can edit the store details and preferences , including using the bulk store preferenc
Edit visibility in stores	If checked the user can edit the visibility of names and items in different stores. If it is unchecked the
Add/import customer budgets	If this is checked the user can import or add budgets for a customer, if unchecked they cannot
View temperature breach configurations	If checked, the user can view temperature breach configurations in the vaccine/cold chain module. S
View and edit vaccine vial monitor status	If checked, the user can view and edit the statuses that vaccine vial monitors have. See the 20.01. Se
View sensor details	If checked the user can view temperature sensor details. See the 20.02. Cold Chain App Notifications
Edit sensor location	If checked the user can edit the warehouse location attached to a sensor. See the 20.02. Cold Chain
Edit/delete customer budgets	If this is checked the user can edit or delete budgets for a customer, if unchecked they cannot
Create customer invoices from requisitions	If this is checked the user can create customer invoice from the <i>Create customer invoice</i> button on re
View assets	If this is checked, the user is allowed to search the assets in the system and see their details
Add/edit assets	If this is checked, the user can also change the details of assets
Setup assets	If this is checked a user can manage the setup of assets e.g. add or edit asset statuses, conditions, p
Change asset status	If checked, the user can make an asset's proposed status its current status.

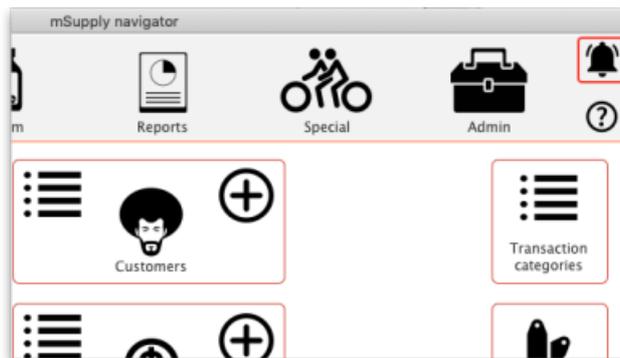
Notifications tab

On this tab, you determine what notifications (alerts) a user will see, and when they will see them:



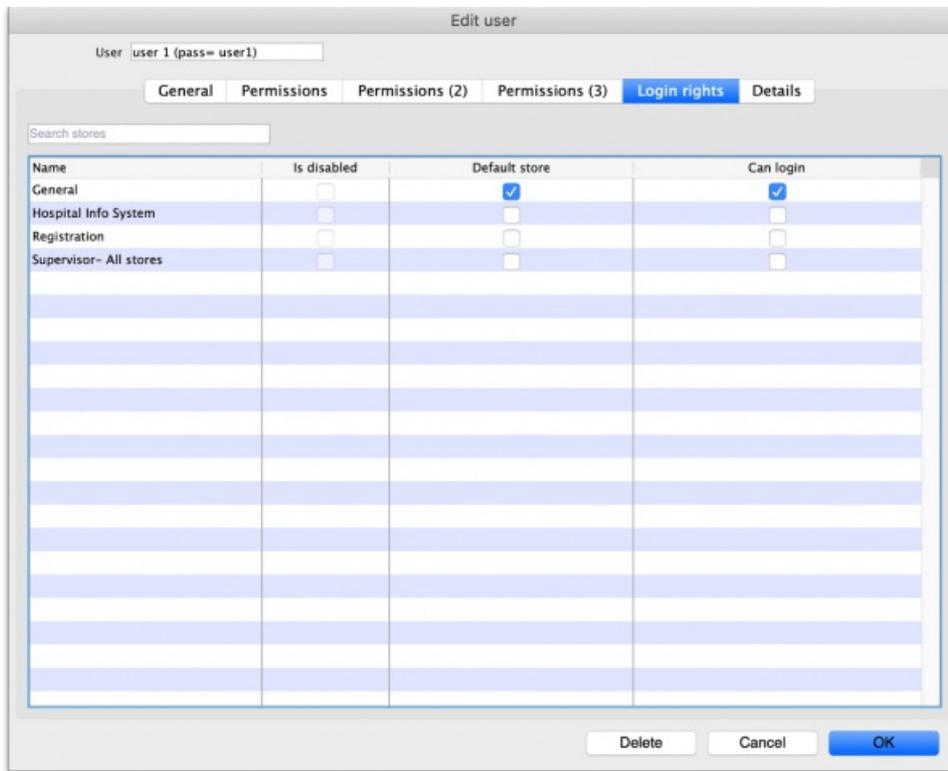
To enable a particular alert type for a user simply check the checkbox in the *Is enabled* column. Any alert type that has its *Is enabled* checkbox unchecked will not be displayed for a user.

Show notifications window on login If this is checked, as soon as a user logs in, the notifications window (displaying all the notifications they have selected in the table above), will be displayed for them. If this is unchecked, the notifications window will only be shown when the user click on the notifications icon on the Navigator:



Login rights tab

On this tab you set which stores the user can login to:



If there are too many stores in the list, you can restrict the display by typing in the *Search stores* text box: only stores with names starting with what you type will be displayed.

The *Is disabled* column indicates whether a store is disabled or not and can't be edited.

You can check one box in the *Default store* column - this will be the store the user is offered by default every time they login or switch stores.

In the *Can login* column you can check the box for each store the user is allowed to login to. All the stores in your mSupply datafile are displayed here in alphabetical order. Please note:

- The “Drug Registration” store is a special store used for the mSupply medicine registration functionality. See [Registration](#) for more details. Checking this box will allow the user to login to the Registration module.
- The “Hospital Info System” is another special store used for mSupply’s built-in Hospital Information system. See [here](#) for more details. Checking this box will allow the user to login to the HIS module.
- “Supervisor - All stores” stores is a special mode to allow users to view information in and run reports over multiple stores. See [here](#) for more information.

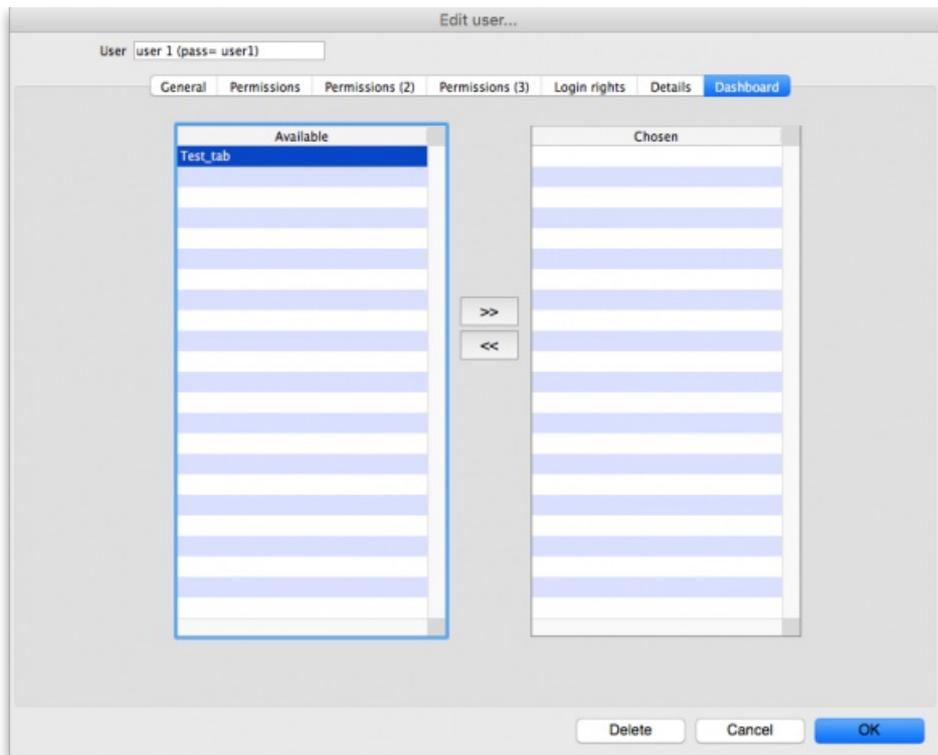
Details tab

Here some personal details including job title, address and email address of the user can be recorded. The job title will appear in the *Job title* column in

the list of users and the email address is used when using email functionality or other special functions in mSupply.

Other than that, these fields are for reference only, providing a handy place to record information about your system users.

Dashboard tab



On this tab you set which dashboard tabs will appear on the dashboard when the user logs into it. Of course, you have to set up the dashboard tabs before you can assign them to a user's dashboard. See [Dashboard](#) for instructions on doing that.

Once the dashboard tabs have been setup, they will appear in the *Available* column of this tab. You can see the "Test_tab" in the screenshot above. Anything in the *Chosen* column will be displayed on the user's dashboard. So, to make a dashboard tab appear on the user's dashboard, select it in the *Available* column and click on the >> icon to move the tab into the *Chosen* column. And to remove a dashboard tab from the user's dashboard, simply select it in the *Chosen* column and click on the << icon to move it back into the *Available* column.

Create a new user

To create a new user do this:

1. Go to *File > Edit users...* and click on the **New user** button
2. Enter the user name
3. Assign a password
4. Enter the password again in the *Confirm password* text box
5. Go to the permissions tabs and set up permissions (3 tabs) **OR** select which group the user is to belong to using the *Is a member of* drop down list on the General tab (you must do one of these because you'll have noticed that when you create a new user they have absolutely no permissions at all!)
6. Go to the Login rights tab and set the stores the user can login to.
7. Click **OK** when you're done.
8. The user should now be able to log in.
9. After the user logs in, they may want to [change their password](#).

Delete a user or group

To delete a user do this:

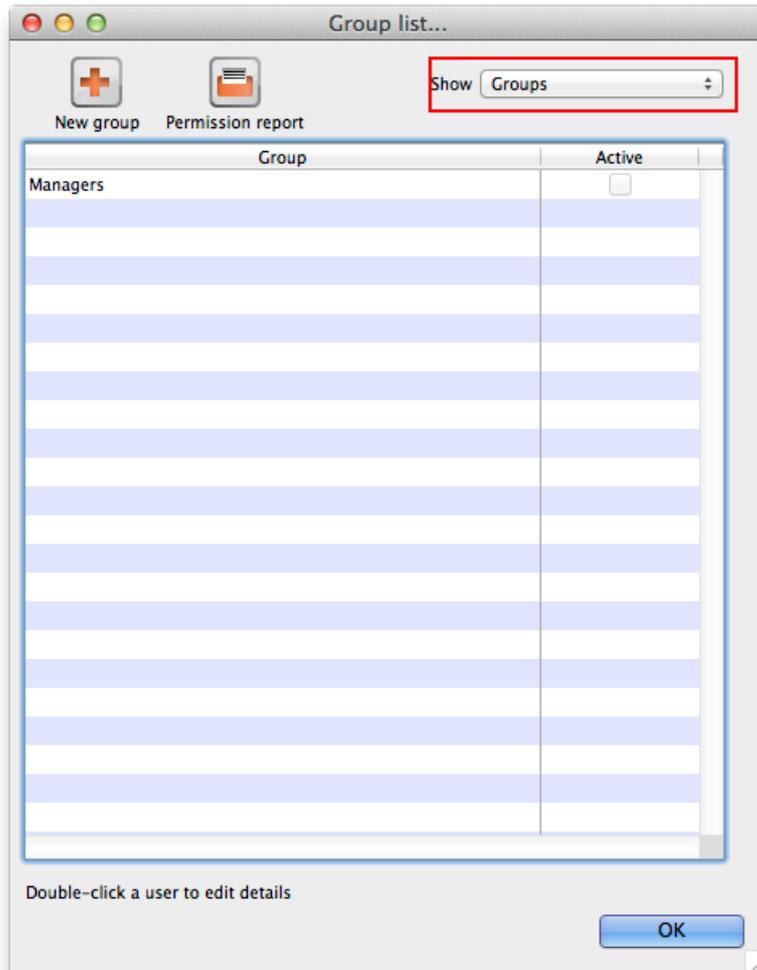
1. Go to *File > Edit users...*
2. Double-click the name of the user or group you want to delete in the list
3. Click on the *Delete* button on the bottom of the edit user window that opens

Note that you won't be able to delete a group that has users belonging to it. If you really want to delete the group, remove all users from the group first by editing their *Is a member of* fields.

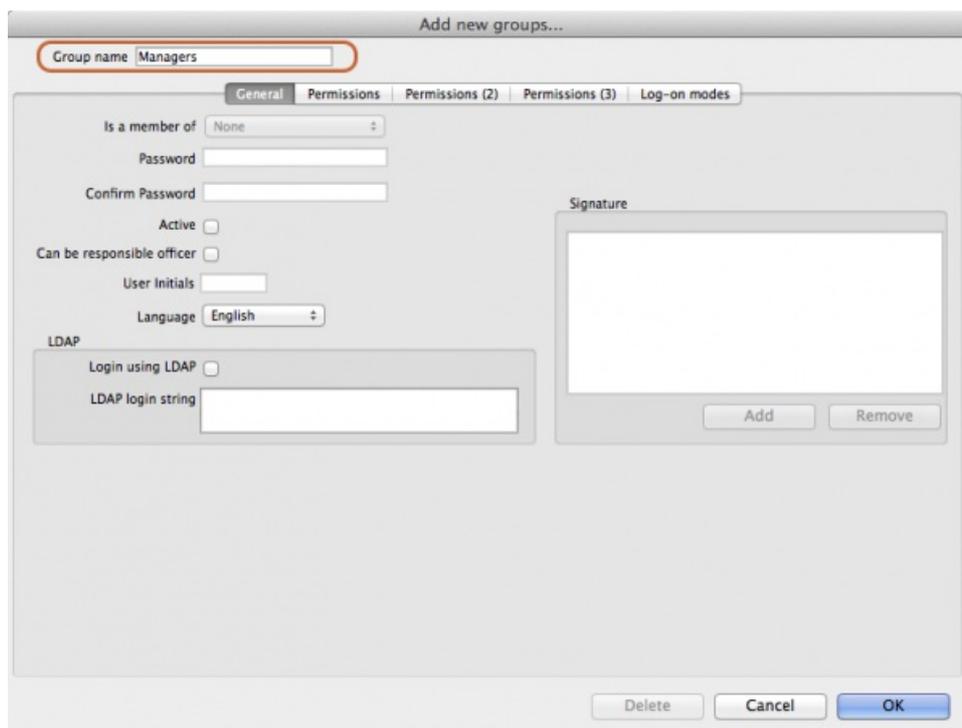
Managing and using groups

Adding a group

Show the list of groups by opening the “Edit user” window and then choosing “Groups” from the “Show” Drop-down menu



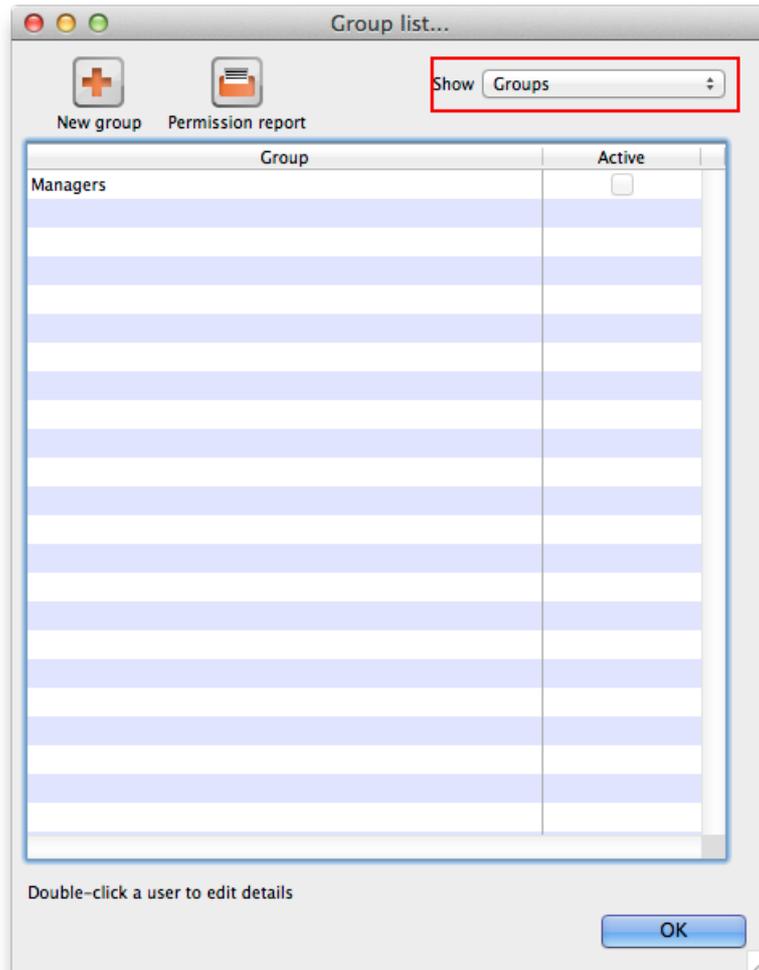
To add a group, click the **Add Group** button. You will be shown a window where you add the group name. You then set permissions for the group in the same way as you set permissions for a user (above):



Note that you will only be able to set checkboxes which can have different settings in different stores. Anything that is not a checkbox and or any checkbox that applies across all stores cannot be set in a group's permissions (another way of saying this is that they cannot be controlled by a group). These items will all be disabled when creating or editing a group and are editable in the individual users' permissions only.

Editing a group

First, show the list of groups by opening the “Edit user” window and then choosing “Groups” from the “Show” Drop-down menu



Then double click on a group in the list. The same window as for adding a group opens but it is populated with the group's current settings. Change these settings as described for a new group above and click on the **OK** button to save them.

Using groups

Groups are a quick way of setting and managing permissions for many people at a time. Users belonging to a group take the permissions of that group: when a user is a member of a group you cannot edit their permissions directly, you must edit the group's permissions. And if you edit the group's permissions, you edit the permissions for every user in the group. To assign a user to a group, do the following:

1. Go to *File > Edit users*
2. Double click on the user you want to edit
3. On the general tab of the window which opens, use the *Is a member of* drop down list to select the group the user is to belong to:

The screenshot shows a 'Edit user...' dialog box with the following fields and options:

- User: user1
- General tab selected
- Is a member of: None (highlighted with a red box)
- Password: [empty]
- Confirm Password: [empty]
- Active:
- Can be responsible officer:
- User Initials: [empty]
- Language: English
- LDAP section:
 - Login using LDAP:
 - LDAP login string: [empty]
- Signature: [empty] with 'Add' and 'Remove' buttons
- Buttons: Delete, Cancel, OK

4. Click on the OK button to save you changes.

User license categories

A menu item on the Special menu of the navigator gives access to a form to view and edit user license categories, including the number of users belonging to them that can be logged in at any one time. A DDL on the user input form allows a user to be assigned to a category and a new permission covers the ability to edit these license categories and membership of them. Finally, a check on the OK button of the login form will check that there are less than the maximum users belonging to the license category the user belongs to already logged in.

Previous: [25.14. mSupply deployment](#) || Next: [25.16. Show connected users](#)

Last modified: 2021/10/24 22:26 by Mark Glover





25.16. Show connected users

Tip

Note: Not applicable when running mSupply in single user mode

To display a list of users currently logged on to mSupply, select *Special > Show connected users* (**Ctrl + Shift + U**). The window below is displayed.

Messaging other users

By highlighting one or more users (use control on Windows/ command on Mac to highlight multiple users), a message typed into the *Message* box will immediately appear on the selected user(s) mSupply window when you click on the **Send** button.

Such messages are not stored on the system.

Previous: [25.15. Managing users](#) | | Next: [25.17. License management](#)

Last modified: 2021/10/08 11:13 by Gary Willetts



25.17. License management

On any mSupply server, you have concurrent user licenses. When a user logs in, they take one of these licenses, when they logout the license is returned. These licenses sit in a single pool, to be used by all users who login to that server.

Sometimes, it can be helpful to split this single pool up into multiple smaller pools. This would be the case when, for example, different organisations use the same server and buy licenses separately for use by their organisations. It is then important that one organisation does not start to use the other's licenses.

To help manage this kind of situation, mSupply has the concept of *user license categories*. Each of these categories has a maximum allowed number of users logged in at the same time. Each time a user logs in, mSupply checks whether they belong to a license category and, if so, whether there is already the maximum number of users for that category logged in. If so, then the user is shown a warning message and not allowed to login, otherwise they are logged in as usual.

Please note that user license categories are still subject to the concurrent user limit (set by the number of licenses you have purchased), they do not override it. So, if you have 10 concurrent user licenses on your server and you have one or more user license categories with a total maximum number of logged in users set at 20, only 10 users will still be able to log in to your server at any one time. This functionality is not a free way to get yourself extra mSupply licenses, rather it's a way of helping you manage access to the licenses you have purchased!

Info

User license categories only apply to an mSupply server so you won't be able to set them on a single user copy of mSupply (including single user satellite copies in a sync system). There's no point since only a single user can log in at a time to these versions of mSupply!

Info

It is also important that you understand that each mSupply server has its **own pool of concurrent user licenses** so, if you have more than one mSupply server in your system, you can set user license categories on **each server**. You cannot set user license categories that affect more than one mSupply server.

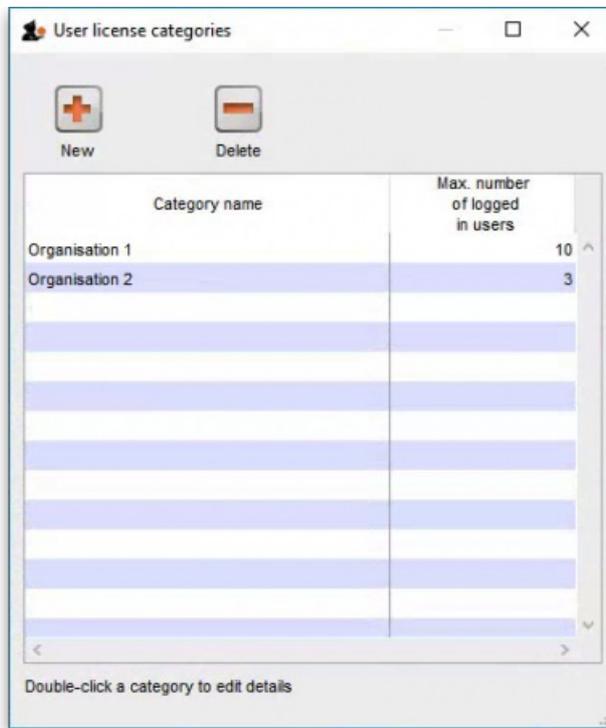
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Viewing existing user license categories

Choose **Special > Show user license categories...** from the menus. The following window will open showing a list of all the user license categories you have setup in your datafile:



Creating a new user license category

To create a new license category, click on the **New** button in the window displayed above and a new window will open:



Enter the details of the new license category:

- **Description:** the name the category will be known as throughout mSupply
- **Maximum number of users logged in:** the maximum number of users that belong to this group that are allowed to login to this mSupply server at the same time

Click on the **OK** button when you're finished and you'll be taken back to the license category list window, which will now include your new license category.

Editing an existing user license category

To edit an existing user license category, view the list of existing ones by choosing the **Special > Show user license categories...** menu.

Now double-click on the license category you want to edit in the list and, in the window that opens, edit the category's description or maximum number of logged in users and click on the **OK** button to save your changes. You will be returned to the list of user license categories which will show the changes you just made.

Important

Changing the maximum number of logged in users of a license category will not affect any users already logged in who belong to the category (even if there are more than that number already logged in) since the check against this number is only made when a user logs in. But it does mean that it will affect any users who login from that point forward. So, if there are more than the maximum number logged in after a change, then no more users belonging to that license category will be able to log in.

Deleting a user license category

To delete a user license category simply view the list of existing ones by choosing the **Special > Show user license categories...** menu, select the license category you want to delete in the list and click on the **Delete** button.

Note: you will only be able to delete a license category if it has no users assigned to it. If you receive a warning to that effect then edit all the users to remove them from the license category first (see below for details), then return here to delete the license category.

Assigning users to license categories

To complete the setup you must assign users to the different user license categories you have created.

You do this by selecting the user license category the user should belong to in the **License category** drop down list on the General tab of the user's details window. See [Managing users](#) for more details on how to set this.

⚠ Important

Any users not assigned to a user license category will always be able to login (as long as there is a concurrent user license available in the server's pool). So be careful when using user license categories - leaving many users not assigned to license categories can undermine what you are trying to achieve.

Normally, you will assign more users to a user license category than the *maximum number of users logged in* setting for the category. Otherwise, the user license category check on login will have no effect!

Previous: [25.16. Show connected users](#) | Next: [25.18. Label printer hardware setup](#)

Last modified: 2021/10/08 11:14 by Gary Willetts



25.18. Label printer hardware setup

We recommend **Zebra GK420t** label printer with a network port. You may use other printers that support the ZPL printing language (or EPL if using mSupply 3.2 or earlier), but we cannot provide much support for these models as we have not used them ourselves.

Setup

1. Load the printer with ribbon and labels
2. Turn on
3. Plug in network cable
4. By default the printer is set to obtain an address by DHCP. Assuming you have a DHCP server on your network: press the button on the front and hold until it flashes once, then release the button. A configuration label will print. Note the IP address. If the printout is the wrong width and unreadable, see "Setting label width" below
 - a. You may also be able to get the IP address from the list of DHCP leases when logged in to your router (e.g. for pFsense: Status > DHCP)
5. There are now 2 options for setting a static address
 - a. (Preferred method): Configure your DHCP server to assign a static address to the printer. Note that after doing this, you may have to turn the printer off and back on to get the new address from the DHCP server.
 - b. Alternative: Assign a static address to the printer.
 - I. The default static address for the printer is 192.168.254.254.
 - II. If you are connecting to that address, you must assign your own computer a 192.168.254.X address so it can connect to the printer. You can then log on to the printer using it's current IP address http://printer_ip_address where **printer_ip_address** is the current printer's ip address (So, out of the box: <http://192.168.254.254>)
 - III. Go to "Print Server Settings", then click "Print Server" and log in
 - user: admin
 - pass: 1234
 - IV. Go to "TCP/IP Configuration" and set an IP address that is not within a range controlled by DHCP (Ping it to ensure it is not already assigned)
 - V. Set the IP Protocol to "Permanent", and submit
 - VI. Reset the printer (you can do this from the web interface)
6. Ping the IP address you have set to ensure the printer has the right address
7. Finally, tell mSupply about the printer: see [10.08. Label printing preferences](#) for instructions on doing that.

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- [Status light descriptions GK420t](#)
- [Zebra TLP 2844](#)

GK420 Flash sequences

This is a feature on the printer itself that you access by holding down the Feed button. Refer here for full documentation:
https://support.zebra.com/cpws/docs/gseries/gseries_button_modes.pdf

Calibrating the printer GK420

For various reasons the printer may need to be re-calibrated. The act of "calibrating" is essentially to allow the printer to work out the size of label that is being used.

There are many levels of Calibration but we will try the basic one.

- Switch on the printer.
- Press and continue pressing the Feed button until the light :
 - flashes once
 - flashes twice »> then let go of the button.
- The printer will print one to four labels while calibrating.

Setting the label width GK420

Note that you **do not** have to do this to get the right width when printing from mSupply.

This is only for printing a configuration status label from the printer before using mSupply:

- Hold down the feed button - the light will flash once, then twice, then three times, then four times, then five times: immediately release the button when it flashes 5 times.
- It will print a succession of boxes starting at the minimum print width and ending in the printer's maximum print width in 4mm increments. Press the Feed button once when the box has reached your desired maximum print width.

Print out the configuration status GK420

You can print out a configuration status label with the IP address and other information once you have the printer detecting the label width correctly.

- Hold down the feed button - the light will flash once: immediately release the button when it flashes once.

Cleaning the printer

Over time, the printer will fail to perform due to collection of dust. We imagine sweat particles will cause friction on the moving parts of the printer and this hinders performance. So in many cases thoroughly cleaning the printer ends up reviving a printer that seems broken. Please follow the steps below to clean :

- Take the printer off the mains... So un-plug the electricity.
- Take out the ribbon and label roll. If you have been printing let the print head cool for a minute. Clean the printer with a small amount of Isopropyl wipes:
 - Wipe the print head
 - Wipe the label roll holder
 - Wipe the track that the paper travels on
 - The last black roller : Turn the roll and wipe.
 - Lastly clean the outside of the printer.
- Leave the printer for 20 minutes.
- Reload the ribbon and label roll.
- Plug in the power cord and turn the printer on.
- Go through the calibration process.
- See if the printer behaves.

See the [**Zebra GK420t Label Printer User Guide**](#) for further information and diagrams.

Status light descriptions GK420t

What is the Status light on my Zebra GK420 printer trying to tell me???!
Info given [here](#) on the Zebra website.

LED status and colour	Printer Status	
Off	Off	<u>Printer not receiving power</u> Check power connections from the wall outlet to the power supply, and from the power supply to the printer.
Solid Green	On	<u>The printer is on and in an idle state</u> No action necessary
Solid Amber	Stopped	<u>A. After you have been printing</u> There is a memory error. Turn the printer power off and on, and then resume printing. <u>B. If this error continues</u> The printhead needs to cool down. Turn the printer power off for five minutes. If this error continues, contact an authorized reseller for assistance. <u>C. Right after you turn on the printer</u> The printer has failed its power on self test (POST), contact an authorized reseller for assistance. <i>When the printer is operating normally after power up the status light will be amber for five minutes.</i>
Flashing Green	Normal Operation	<u>The printer is receiving data</u> As soon as all of the data has been received, the status LED will turn green and the printer will resume printing.
Flashing Red	Stopped	<u>A. The printer has run out of labels</u> <u>B. The printer ribbon has run out</u> <u>C. The printer is open</u>
Double Flashing Green	Paused	<u>The printer is paused</u> Press the Feed button to resume printing.
Flashing Amber	Paused	<u>The printhead is over temperature</u> Printing will stop until the printhead cools to an acceptable printing temperature. When the printer resumes printing, the status LED will turn green.
Alternately Flashing Green and Red	Needs Service	<u>FLASH memory is not programmed</u> Return the printer to an authorized reseller.
Flashing Red, Red and Green	Needs Service	<u>The printhead or motor has had a critical failure</u> Return the printer to an authorized reseller.
Flashing Red, Amber Green	Memory Defragmentation	<u>The printer is running a defragmentation* process</u> Do NOT reset or turn off the power!

NOTE: **Defragmentation** is a normal operation of the GK420t printer. The printer will defragment its memory both after a factory default and when the printer detects that a defragment is required. When the printer is in this condition, allow it to finish defragmenting. If this warning occurs frequently then refer to the printer user guide as some label format changes could resolve this.

Zebra TLP 2844

You may have an old label printer : Zebra TLP 2844

Click to download the user guide for  [Zebra TLP 2844](#)

On page 48 the manual has a guide on how to manually calibrate the printer.

Previous: [25.17. License management](#) || Next: [25.19. The system log](#)

Last modified: 2021/10/08 11:14 by Gary Willetts

25.19. The system log

The log contains records of who did what and when in the system. It's a useful place to look to find out what happened to certain records and when certain things were done. Some events (lots!) are always logged by mSupply but some are optional and are chosen in the *Log* tab of the [General preferences](#) page.

To view the log, choose *View log...* from the *Special* menu. You will be shown all today's log entries when the window loads:

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- [Dates](#)
- [Event types](#)
- [Custom query](#)
- [Dates](#)
- [Event types](#)
- [Custom query](#)



Date	Time	User	Type	Event	Source Table	Record ID	Extra information (JSON)	Store name
15/10/2021	09:48:35	sussol	login	store: General, Current users: Single User	user	A33525A6..A7920F78	{"siteid":"0"}	General
15/10/2021	15:02:39	sussol	mSupply_pref_cancelled	mSupply preferences have not been saved				General
15/10/2021	16:02:33	sussol	mSupply_pref_cancelled	mSupply preferences have not been saved				General

The columns contain this information:

- **Date:** the date when the log entry was made.
- **Time:** the time the log entry was made.
- **User:** the name of the user who did the operation giving rise to the log entry.
- **Type:** the type of log entry. Can be used for filtering or just telling you which part of the system generated the log entry.
- **Event:** a description of the event that occurred.
- **Source table:** the name of the table that contains the affected record (if there is one).
- **Record ID:** if there was one, the ID of the record in the database that was affected by the event.
- **Extra information:** detailed information about what happened in the event in JSON format. Not always provided.
- **Store name:** the name of the store that the event occurred in.

Buttons in the window:

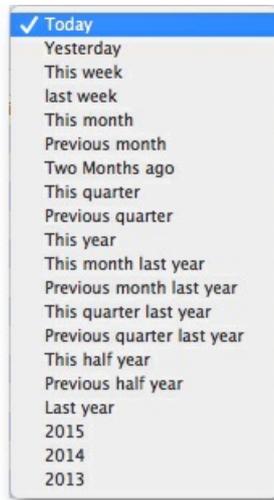
- **Export** Export the log to a tab delimited text file. You can then import this into other applications (such as a spreadsheet application) for editing and printing.
- **Print** Prints the displayed list of log entries on your printer.
- **Order by** Sort the log by something than the default date/time order.
- **Find** Search for particular records in the log.
- **OK** Close the window.

Tip

Double-clicking a log entry will bring up a small window with the full item details. You can not edit this information.

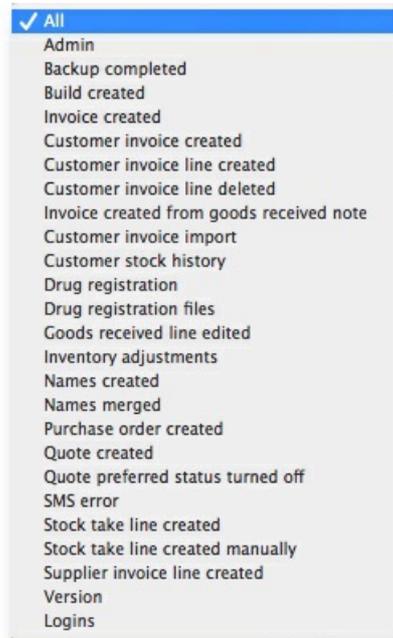
Dates

If you want to see log records that were generated over a different period then manually edit the dates in the **From** and **To** boxes as required or choose one of the many quick-select options in the drop down list to automatically set them (*Today* is selected by default):



Event types

Additionally, you can choose to show only certain types of event which occurred in the period you have selected. To do that, select one of the entries in the final drop down list on the right hand side (*All* is selected by default):



Custom query

If you are looking for log records that are not in the list of common event types described above, you will need to create a custom query. For example, to find a report of all the finalized POs this year:

1. Set the date / time period
2. Click on **Find**
3. Click on the small right arrow to the right of the first field box
4. Select the data type that you are looking for. In this case, we are looking for the `event_type`
5. Type in the particular event type that we are looking for. In this case, we are looking for the `finalized_po`
6. Click on **Query**
7. Once you are happy with the included results, click on **Print** (or **Export** to produce a text file that can be imported to Excel and manipulated)

The screenshot shows the 'log' application interface. At the top, there are icons for 'Export', 'Print', 'Order by', and 'Find'. The 'Find' icon is highlighted with a red circle '2'. Below these icons, there are date range filters: 'From 1/01/2018 To 3/10/2018' and a dropdown menu set to 'This year', highlighted with a red circle '1'. The main data table has columns: Date, Time, User, Type, Event, Source Table, and Record Number. Below the table is a 'Query in [log]' window. In this window, the search criteria are '[log]event_type' is 'finalized_po', highlighted with a red circle '5'. The search list on the left has 'event_type' selected, highlighted with a red circle '4'. The search input field is highlighted with a red circle '3'. The 'Query' button is highlighted with a red circle '6'. The 'OK' button is at the bottom right of the query window.

Date	Time	User	Type	Event	Source Table	Record Number
10/05/2016	15:28:49		finalized_po	Purchase order had been finalized: 811		11 45370FCE0213EA4A9...
6/05/2016	12:15:37		finalized_po	Purchase order had been finalized: 1761		11 419FDE8AC8D8DE47...
6/05/2016	12:19:53		finalized_po	Purchase order had been finalized: 1704		11 80E8B4AA27C52D42...
6/05/2016	13:17:54		finalized_po	Purchase order had been finalized: 1029		11 2F6AE35BE3086E4E...

Previous: [25.18. Label printer hardware setup](#) | Next: [25.20. Server troubleshooting](#)

Last modified: 2021/10/15 15:21 by Gary Willetts

25.20. Server troubleshooting

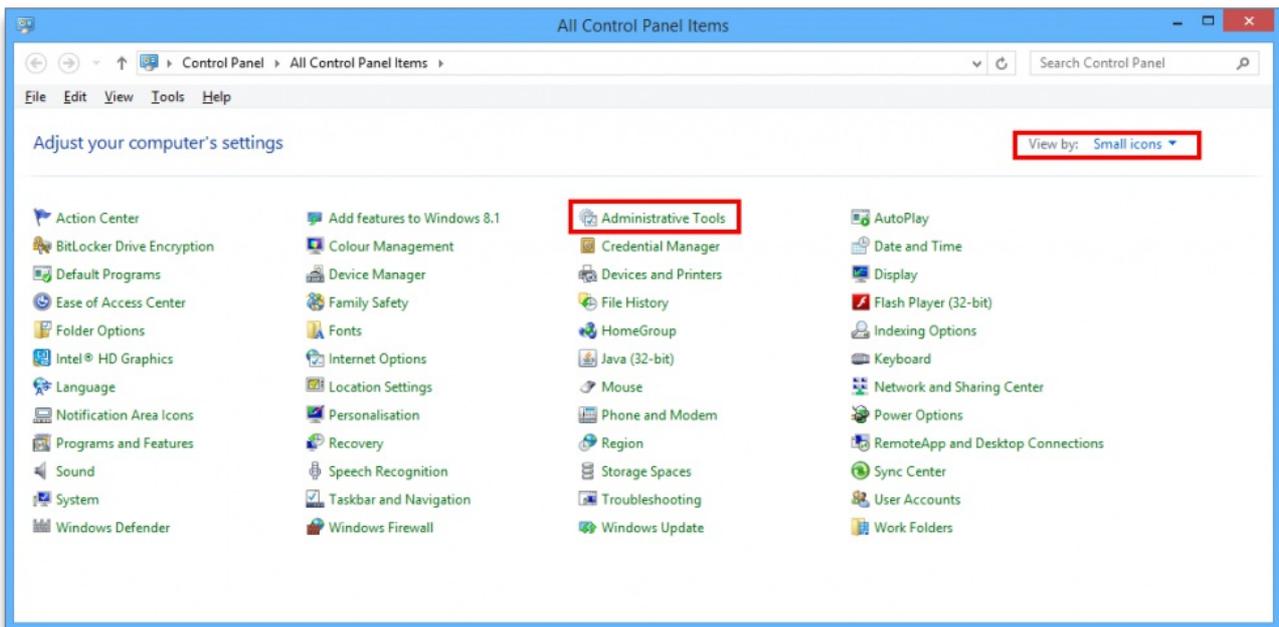
Service not running

If the client is unable to connect to the server, it is quite possible that the mSupply Server Service is not running.

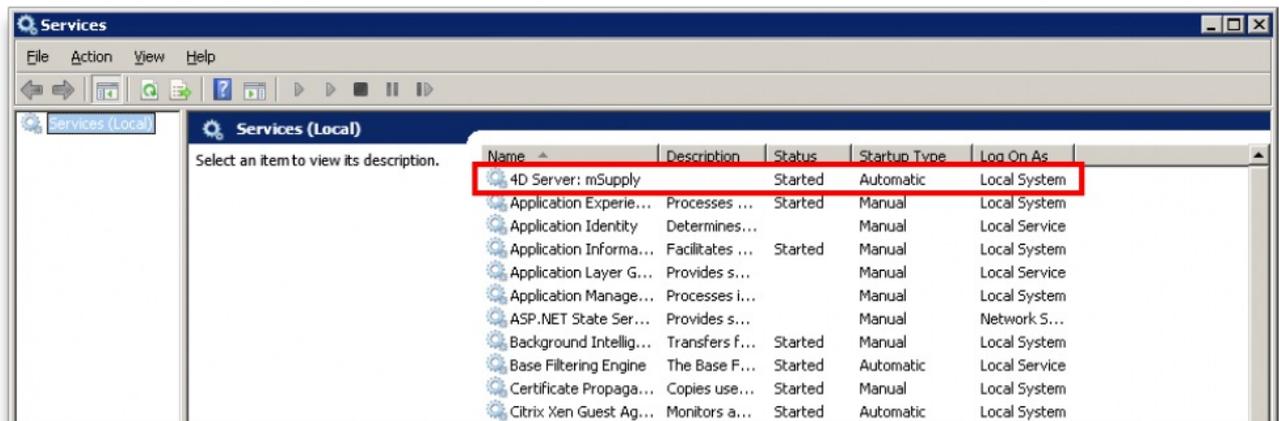
You can check by going into Control Panel>Administrative Tools>Services

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- [Service not running](#)
- [mSupply Client software can not see the mSupply Server?](#)
- [Sync not working](#)
- [Service not running](#)
- [mSupply Client software can not see the mSupply Server?](#)
- [Sync not working](#)



Look for the service named 4D. The status should be “running” or “started” and it should be set to automatic.



If it is not running or started you can click the play button above the list of services while you have 4D highlighted. The status should now read “running” or “Started”. If it doesn't please contact mSupply Support for help. support@msupply.org.nz

mSupply Client software can not see the mSupply Server?

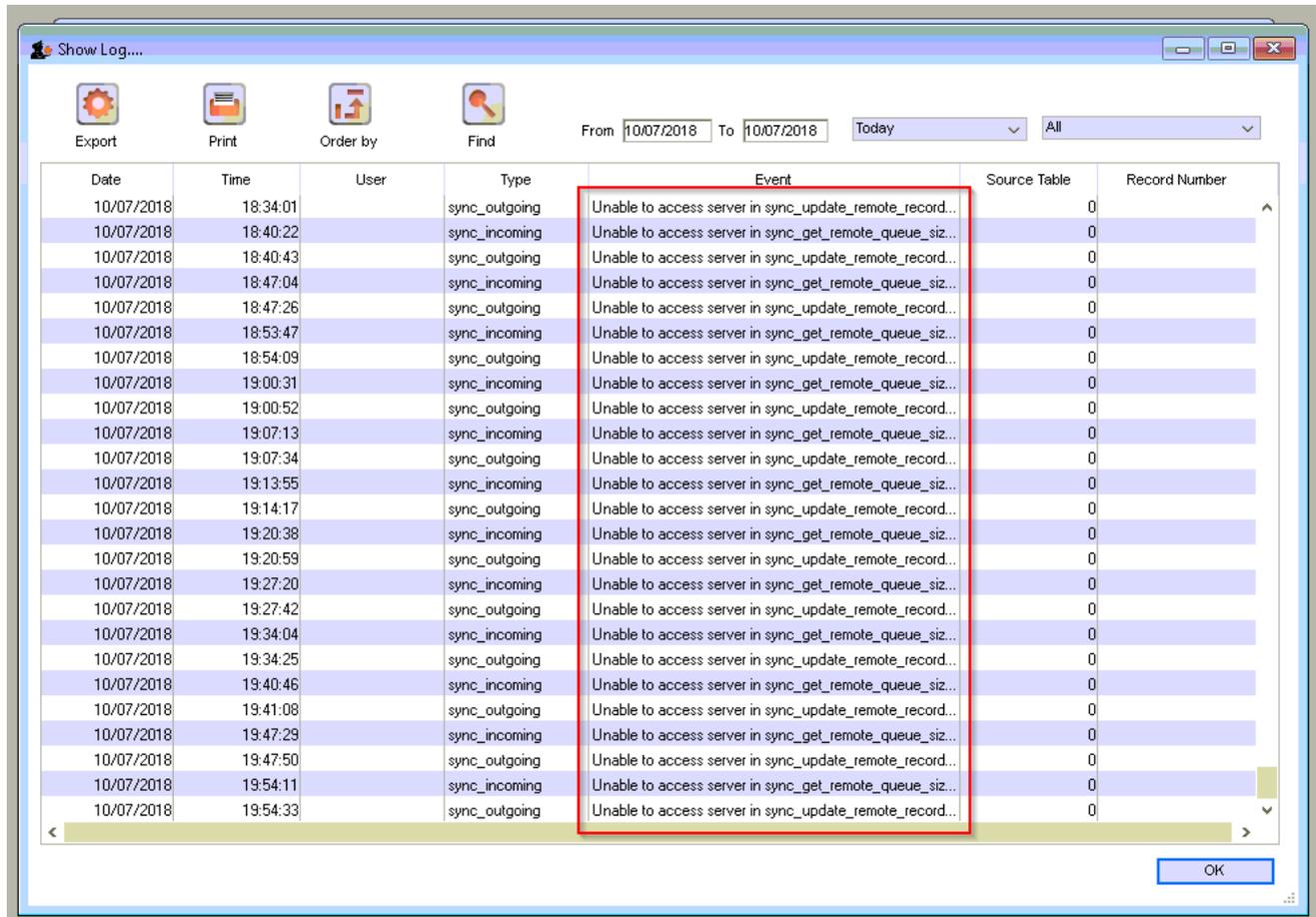
Refer [mSupply Client software can not see the mSupply Server?](#)

Sync not working

If, on a sync satellite client, the number of sync records stays static, or continues to grow over a significant period (hours), then sync between the (Sync Satellite server to the sync Primary server) has stalled.

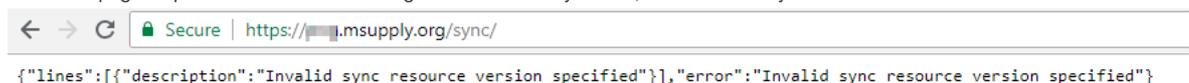


A probable reason for this is that the Sync Satellite server can not connect to the sync Primary server. You can check this by checking the logs (**Special > View log...**):



There are a number of possible reasons for this:

- The Sync Primary server hardware is down. Check that the Sync Primary server hardware is up.
- The Sync Primary service (software) is down. Check that the Sync Primary service (software) on the Sync Primary server hardware is up.
- The IP address of the Sync Primary server hardware is incorrect. The IP address of the Sync Primary server should be a domain name, e.g. orgname.msupply.org. However, this domain name will be mapped to an IP address that *should* be static. If the ip address of the Sync Primary is different to what the domain name server maps it to, then sync will fail. To confirm this:
 - Find the IP address of the Sync Primary server hardware, at the Command Prompt on the Sync Primary server, enter `ipconfig`.
 - Find the IP address that the domain name server thinks is associated with the domain name, at the Command Prompt on the Sync Satellite server, enter `nslookup orgname.msupply.org`. Compare the reported ip addresses.
- Access to the Sync Primary server hardware may be blocked by a firewall or proxy server on the Sync Satellite server network. A simple diagnostic test for this is to open a browser and enter the following in to the address field: `https://myserver.msupply.org/sync/`.
 - If the web page responds with an error message from the Primary Server, then the Primary Server is reachable:



- If the web page responds with a firewall or proxy error message, then the firewall / proxy server needs to be configured to allow access from the Primary secondary server to `https://myserver.msupply.org/sync/`:

Previous: [25.19. The system log](#) || Next: [25.21. Help menu](#)





25.21. Help menu

Help > About mSupply

Choosing this item displays information about your mSupply installation.

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- Authorisation
- Show table records
- Show sync records
- Updating mSupply
- Help > About mSupply
- Authorisation
- Show table records
- Show sync records
- Updating mSupply



About mSupply...
✕

mSupply version

You are using version 4.14

Release date 20/11/2020 t19:05

Build Tag: V4-14-00

Build Structure: mSupplyV4-14-00

Build Time: Fri, 20 Nov 2020 02:26:06 GMT

Path to data file :
C:\Users\Mark\Documents\...

Path to log file :
C:\Users\Mark\Documents\...

Path to structure file :
C:\mSupply\mSupply.exe

Authorisation

Sustainable Solutions retains the rights to this software.
Commercial use or modification of this software only allowed with
authorization of Sustainable Solutions (NZ) Ltd.
email: info@mSupply.org.nz
© Copyright Sustainable Solutions (NZ) Ltd.

Show table records

mSupplyV4-14-00

Show sync records

Records

Site	Records
Marpa	57
London	51
UPL_000	92
Frankfurt	93
London_000	3481
London_001	51
London_002	44
London_003	50
London_004	39
London_005	51
London_006	165
London_007	52
London_008	52
Total	487943

OK

Authorisation

The Authorisation button is provided largely for our support team to assist with resolving any issues. You can safely ignore it.

Show table records

Clicking this button will result in a list of the number of records in each of the data 'tables' in your mSupply system. This is only generally of technical interest. You can safely ignore it.

Alert

On a large mSupply system, it can take some time to generate this list.

Show sync records

Clicking this button will result in a list of the number of outstanding 'sync-out' records, broken down by sync site. These are records of data that have been queued up for the site, but have not yet been sent for any number of reasons (no internet connection, site device is powered down, site credentials are not correct, etc.). This list is not dynamic, in that you will not see the numbers count down as the records are synced out. The numbers are generated each time the button is clicked, and remain static.

Tip

The existence of a significant number of sync out records indicates that the site has not synced with the central server for some time. If the site has been in normal operation during this time, then there will also likely be a significant number of records waiting to be synced back from the site. In these cases, once a sync connection is reestablished, it could take hours for all the sync records to be transferred.

Updating mSupply

For single user versions of mSupply, you can see if you have the latest version by choosing **Special > Check for updates**

Choosing this item from the *Special* menu will connect to the mSupply web site and compare your current mSupply version with the version you are now using.

If an update is available, you will be shown a window where you can click to download the latest version.

Previous: [25.20. Server troubleshooting](#) | | *Next:* [25.22. Field descriptions](#)

Last modified: 2021/10/08 11:19 by Gary Willelts



25.22. Field descriptions

For descriptions of individual mSupply fields please refer to section [24. Data Tables and Fields](#)

Previous: [25.21. Help menu](#) | Next: [26. Other Topics](#)



Last modified: 2021/10/08 11:15 by Gary Willetts





User Guide



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- [26.02. Reminders](#)
- [26.03. Transaction Status & Type Codes](#)
- [26.04. Budgets](#)
- [26.05. Edit menu](#)
- [26.06. Transaction categories](#)
- [26.07. Virtual stores](#)
- [26.08. Bulk Store Preferences Editor](#)
- [26.09. Custom data](#)
- [26.10. Currencies](#)
- [26.11. Using foreign currencies in transactions](#)
- [26.12. Product \(drug\) registration](#)
- [26.13. Using the mSupply remote client](#)
- [26.14. Authorisation](#)
- [26.15. Remote authorisation](#)
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- [26.18. Troubleshooting](#)

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Last modified: 2021/10/08 09:15 by Gary Willetts





26.01. Miscellaneous topics

This page is a collection of miscellaneous topics that may be useful but don't easily sit anywhere else in our online documentation. They are included here so that they can be found when you search this wiki for the relevant key words.

Inactive logout

You can set mSupply to log an inactive client out after a customisable length of time. See the [15.01. General preferences](#) page for details.

End of month tasks

We are presuming that you will finalise and export your invoice data once a month. If you choose a different frequency, you should still follow the same procedure.

Tasks to perform:

- Check your invoices are correct. Once you have finalised an invoice, it can not be edited.
- Finalize and export supplier invoices. See the file menu chapter.
- Finalize and export customer invoices. See the file menu chapter.
- Record the stock on hand value (this is only necessary if your accounting system requires the information). See the special menu chapter.

Hints:

- Each month, take your finalised invoices and file them. We suggest you file invoices in order of their invoice number (a separate file for supplier and customer invoices).
- Keep a file with the summary printout from each month produced when you finalize invoices.

End of year tasks

It is usual to run according to a financial year. mSupply does not require you to delete records or perform special operations for the end of the financial year. If you want to, you can just carry on using mSupply as usual.

However, there are certain procedures that will improve operation, and make an audit of your operation easier.

1. Perform a stocktake.
 - a. Finalize all outstanding invoices. Use the **Finalize Customer invoices...** and **Finalize Supplier invoices...** commands to do this. (Note that any customer invoices with a status of "sg" ("suggested") must be confirmed before they can be finalised or exported.)
 - b. Create stocktake sheets to record differences easily between actual stock and stock according to mSupply. See the stocktake sheets section of the "Report menu" chapter.
 - c. Use inventory adjustment transactions to correct errors. See the Inventory adjustment- add stock and the Inventory adjustment- reduce stock sections of the "Item menu" chapter.
 - d. Finalize inventory adjustments. Use the Finalize inventory adjustments command to do this.
2. Make a backup copy of mSupply as it stands at year-end. It is a good idea to keep this backup in a secure place for long term storage.
3. Print a ledger for each item. Choose "print item ledger" from the "report" menu. You can use your backup copy of mSupply to print this ledger at a later date.
4. Choose "set start of year stock" from the "special" menu. This simply records the date and next transaction number, and records the total opening stock quantity for each item to allow a ledger calculation for the coming year.
5. You are now ready to begin entering transactions for the next year.

Maintenance and repair

If you are using your data file regularly, it is a good idea occasionally to check that no problems have developed. Problems can develop due, for example, to faulty hardware and other reasons outside our control.

For technically competent users or professional IT staff

In the case of a serious hardware failure, the first option should always be to revert to the last known good backup of your data.

If for some reason you must repair a damaged data file, please contact Sustainable Solutions for advice.

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- Security of your data
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- Updating On Price List in bulk



To check your data, download a product called *4D Tools* . (4D Tools and a manual is included on the CD) from <ftp://ftp.4d.com>.

4D Tools can simply check your data file for errors, or repair your file. Please contact Sustainable Solutions if you believe your data file has a problem, before repairing it.

Always use *4D Tools* on a backup copy of your data first.

If *4D Tools* is unable to repair your data, Sustainable Solutions is able to use specialist tools to examine your data, and even export your data and re-import into a new data file. We have not had to do this for a customer yet, but the option is available as a near-last resort.

How do I move a window whose title bar has been hidden?

On Windows:

- Method 1: Press Ctrl and both mouse buttons, and drag the window to the new location.
- Method 2: Press Alt-Ctrl-right mouse button, while dragging the window to the new location.

On Mac OS

- Press Control-Command-mouse button, and drag the window to the new location

Security of your data

If you maintain the mSupply password system carefully, your data is quite secure.

Note, however, that if a person has access to the original copy of mSupply, they will easily be able to open the data file, as the “user 1” password is clearly shown in the password entry screen until it is overwritten the first time you click “OK”. It is your responsibility to keep copies of your mSupply software and data in a safe place.

As of version 1.4, passwords stored in the data file are encrypted with strong (512 bit) RSA encryption, so there is little danger of someone finding your password.

Supervisor mode - all stores

mSupply was initially designed to maintain data relating to a single store in each data file, and for many users, this is how mSupply continues to be used.

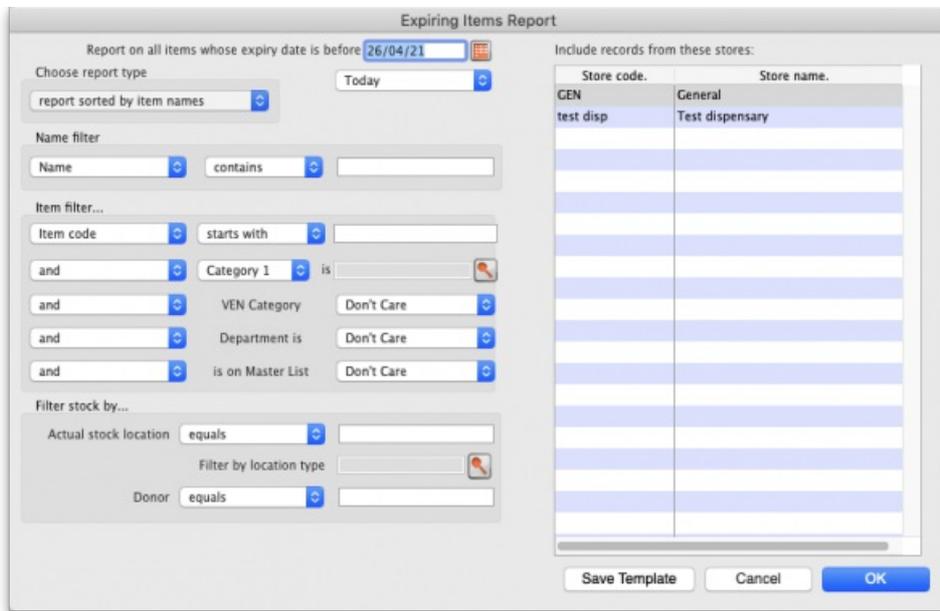
Since version 2 users have been able to operate with multiple stores. Normally you will log into a particular store when starting mSupply, and only see stock and transactions relating to that store. However, users can be given the permission to [login](#) as *Supervisor - All stores*. In this mode, users may now access data relating to more than one store - either selectively or cumulatively.

Important

Any user in 'Supervisor - All stores' mode will have access to all data in **all** stores, not just those that they are allowed to log into. So you should only really give this permission to ... a Supervisor 😊

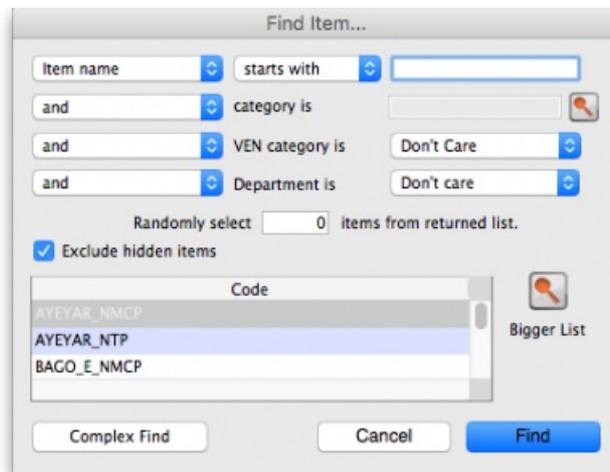
Reporting

In this mode, nearly all of the report filter windows will display an additional panel to allow you to select which stores' data will be included in the report. Here is an example from the expiring items report:



All the currently active stores in your datafile appear in the *Include records form these stores* list. The stores to be included in the report should be selected in the normal way by clicking with the mouse; to select more than one store, hold down *Ctrl* (Windows) or *Cmd* (Mac) while clicking on the desired store(s). *Ctrl/Cmd + A* also works for selecting all stores.

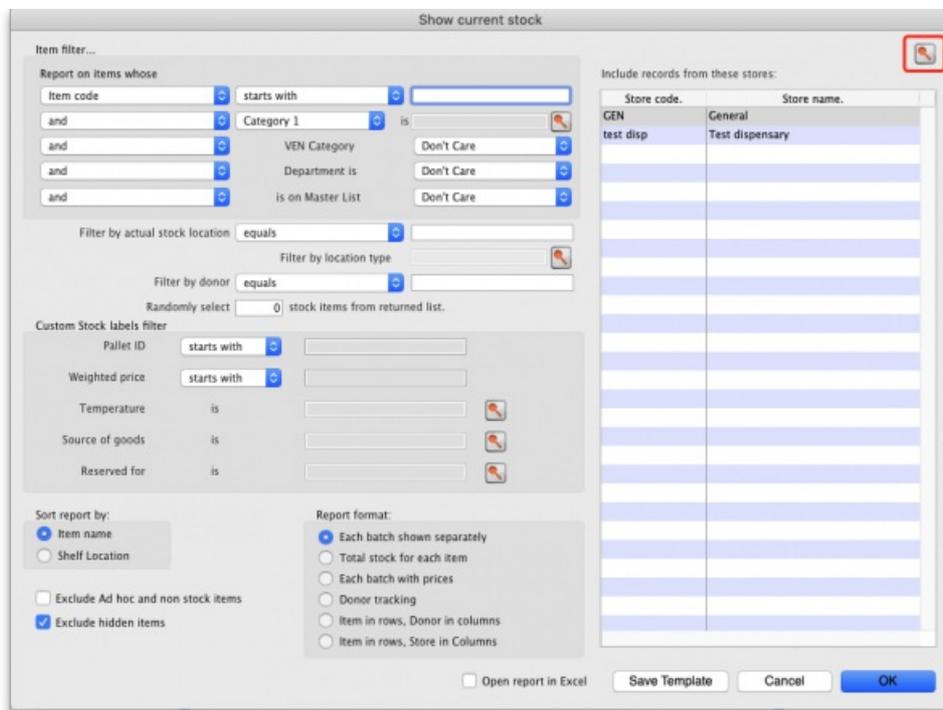
Note also that when you search for items, the filter window has the same store selection:



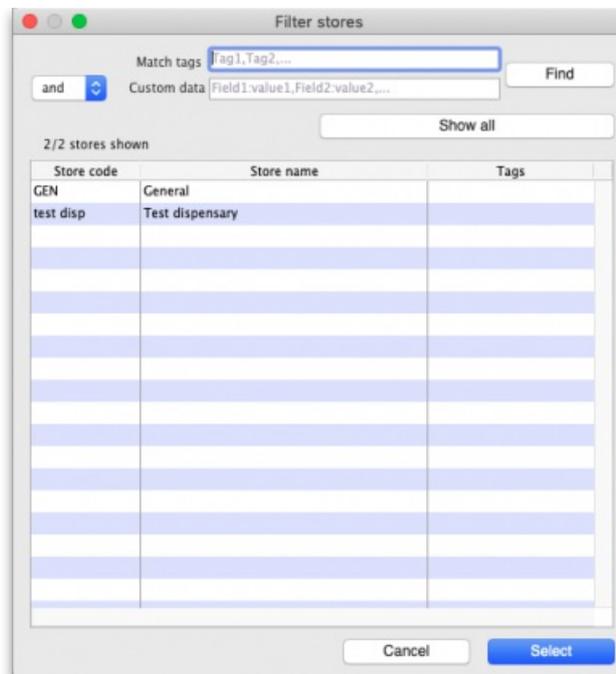
The item search filters will be applied to items visible in the stores selected only. If there are a lot of stores in the datafile you can click on the **Bigger List** button (or **Magnifier** button on some windows) to select the required store(s) in a separate window.

Further filtering of stores

Some mSupply datafiles can contain hundreds of stores. It can become problematic to them select the exact stores to include in a particular report. To help with this, on some reports, there is an additional magnifying glass button near the top of the store list. See this example on the *Current stock* report window:



When you click on the button, this window opens and it allows you to select the stores to include based on store tag and custom data values:



- **Match tags:** enter the tags that a store must have to be included in the selection. You can enter multiple tags separated by commas; if there are multiple tags then a store which has any one of them will be included in the search (the store does not have to have all of them to be included). Tags are ignored if this field is left empty. See the [25.08 Virtual stores](#) page for details on setting store tags.
- **Custom data:** enter the name of the custom data values that a store must have to be included in the search in the format *field name:value* where *field name* is the custom field name and *value* is the value the field must have for the store to be included. You can enter multiple *field name:value* pairs separated by commas; any store that has any of the custom fields with that value will be included in the search (a store does not have to have all of the *field name:value* pairs to be included. If the Custom data field is left blank then custom data values are ignored. See the [25.08 Virtual stores](#) page for details on setting store cusatom data fields.
- **and/or drop down list:** determines whether the Tags filter results and the Custom data field searches are ANDed or ORed together i.e. whether a store must have a matching tag **AND** a matching custom data field to be included or whether it can have either a matching tag **OR** a matching custom data field to be included.
- **Find button:** when you click this, only the stores which match the tag and custom data filters will be shown in the store list.
- **Show all:** removes all filtering and show all stores in the store list.
- **X/Y Stores shown text:** X is the number of stores shown in the list, Y is the total number of stores in the datafile.

When the stores list shows the list of stores you want to include in the report, click on the **Select** button. This will close this filter window and highlight all the stores shown in this list in the stores list on the report filter window.

Click on the **Cancel** button if you want to return to the report filter page without selecting any stores.

Ordering stock

In *Supervisor - All stores* mode you can also create Purchase Orders that will be based on data for all stores, and can specify delivery destinations for different lines within the order. See the [6.05. Multi-store Purchase Orders](#) page for details.

Changing item codes in bulk

If you have need to change item codes in bulk, refer to [Import new item codes](#)

Updating On Price List in bulk

If you have need to change the On Price List for items in bulk, refer to [Update On Price List in bulk](#)

Previous: [26. Other Topics](#) | | Next: [26.02. Reminders](#)

Last modified: 2021/12/16 04:31 by Mark Glover



mSupply documentation wiki



Date: The due date of the task

Assigned to: By default you create reminders for yourself, but you can also create them for other users. If you're the micro-managing type, you could put everyone else's work plans in for each day or week!

Message: The text of the reminder message. Reminders may be shown in any one of eight colours, according to the colour selected when you click on the box in the upper right corner of the *New Reminder* or *Edit Reminder* window

Completed: Check this box if the reminder is completed (but note that it won't usually show in the list once it is checked)

Repeats automatically: Once this box is checked, you will be shown options for the reminder to repeat daily, weekly or monthly.

The screenshot shows a 'New reminder...' dialog box with the following fields and options:

- Message:** A text area containing 'Purchase extra mSupply licenses'.
- Creation date:** 17/4/12
- Created by:** sussol
- Colour:** A dropdown menu currently set to 'Black'.
- Assigned to:** A dropdown menu set to 'Margaret'.
- Repeats automatically:** A checked checkbox.
- Repeat properties:**
 - Start reminder on or after:** 17/4/12
 - every:** 1
 - day(s):** A dropdown menu set to 'day(s)'.
 - Avoid weekends:** An unchecked checkbox.
 - Preview dates:** A button with a magnifying glass icon.
- Completed:** An unchecked checkbox.
- Buttons:** 'Cancel' and 'OK' buttons at the bottom right.

Options for repeating reminders:

- **Start date:** the first date after which the reminder will repeat. For example, if you want an event to repeat every Wednesday, you'd set this date to the first Wednesday you want the reminder to repeat on
- **Every X days/weeks/months:** For example, if you want a reminder to be created every three months to do a stocktake, you'd enter **3** and choose **months**
- **Preview button:** clicking this button shows a window with a list of dates that the reminder will recur on.

Colour: Use the Drop-down list of colours to set a reminder colour. This colour will be used to colour the reminder in the list. For example, you might want to choose Red for all tasks you intend to do today.

Previous: [26.01. Miscellaneous topics](#) | | Next: [26.03. Transaction Status & Type Codes](#)

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26.03. Transaction Status & Type Codes

Transaction type codes

mSupply uses a series of two letter codes to denote the different types of transactions it can handle.

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- [Transaction status codes](#)
 - [Transaction \(and requisition\) status](#)
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- [Transaction type codes](#)
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 - [Transaction \(and requisition\) status](#)
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 - [Builds](#)



Code	Meaning
ci	customer invoice (goods supplied to a customer)
cc	customer credit (goods returned by a customer)
si	supplier invoice (goods received from a supplier)
sc	supplier credit (goods returned by you to a supplier)
sr	repack (A stock line is broken down into smaller pack sizes)
bu	build- an internal transaction where you manufacture (build) items from raw materials in stock.
rc	receipt (cash receipt) from a customer (a customer pays for invoices issued)
ps	payment (cash payment) to a supplier

Info

Inventory adjustments have a type of "si" if stock is being increased and "sc" if stock is being reduced. They have a reserved name whose name[type] field has a value of "invad"

Transaction status codes

Transaction (and requisition) status

mSupply uses a set of two letter codes to keep track of the status of each transaction:

Code	Meaning
nw	new invoice
sg	Suggested
cn	Confirmed
fn	Finalised
wp	The order has been received over the internet (a "web" order), and it is currently being processed
wf	The order has been received over the internet (a "web" order), and it is finalised

Purchase Orders

Code	Meaning
sg	The order has been created, but the "stock on order" value for each item has not yet been updated. If another order for the same item is processed
cn	The "stock on order value" for each item has been updated. Confirmed orders can also be "unconfirmed" if you cancel an order. Items & quantities
fn	The order has been received, Goods Receipts and Supplier Invoices have been created for all stock received. The order is now completed and all stock not delivered is no longer considered "on order". No more stock can be received.

Supplier invoices

Code	Meaning
nw	The "new supplier invoice" menu item has been chosen, but the OK button on the invoice has not yet been pressed, or confirming the invoice has
sg	This status is not used for supplier invoices- invoices of status "nw" become status "cn" when the OK button on the form is pressed
cn	The invoice has been entered, but can still be edited.
fn	The invoice has been finalised , and can no longer be edited.

Customer invoices

Code	Meaning
nw	The "customer new invoice..." menu item has been chosen, but the OK or "confirm" button has not yet been pressed.
sg	The invoice has been created. An order from a customer has been received, and the items put against the invoice are still in your store, but are
cn	The invoice has been confirmed by clicking the "confirm" button, which is done when the stock leaves the store. Lines that couldn't be supplied
fn	The invoice has been finalised, and can no longer be edited. If the Customer invoice is to another store in your system, then finalisation of the C

Builds

Code	Meaning
nw	The build is being entered for the first time.
sg	Suggested - the raw materials are taken out of stock, but the finished product (the item to build) is not yet entered into stock."
cn	Confirmed - the raw materials are taken out of stock and the finished product is entered into stock
fn	Finalised - the build can no longer be edited

Previous: [26.02. Reminders](#) | | Next: [26.04. Budgets](#)

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26.04. Budgets

To show the budgets window, choose **Special > Show budgets**

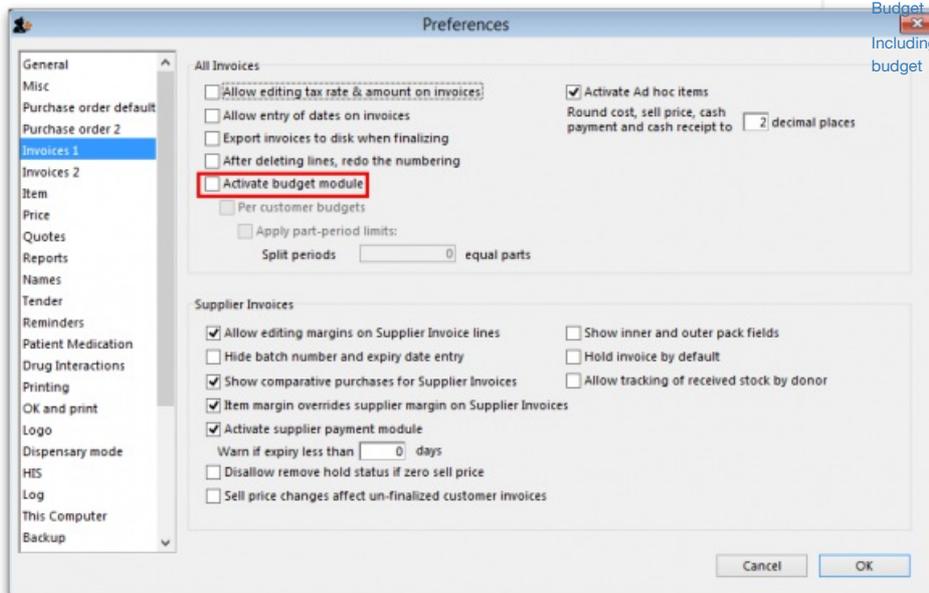
Two kinds of budgets

mSupply supports two different types of budgets.

- The budget module described here allows you to track spending and/or sales of items against your targets, which are entered as budgets. Items are grouped together by their account code.
- The customer budget module allows you assign a budget for each supply point (customer), and both report on how much they have been supplied, and limit supply of that item. Information on the customer budget module is [available here](#).

Activating the budget module

To use this feature, you must check **Activate budget module** on the Invoices 1 tab of the mSupply Preferences window:



But please note, before you do this you must enter a budget period - see the [Adding a budget](#) section below.

Overview

Firstly, you define budget periods which can be any length you choose - months, quarters, years or whatever.

Once budget periods are set up, you must allocate each transaction that issues stock (customer invoice, inventory adjustment - reduce stock or supplier credit) to a budget period (see the [Including transactions in your budget](#) section below for details). The items on that transaction will have been assigned accounts (See [here](#) for how to add item account codes, and you can then view budget reports based on expenditure or sales broken down by the accounts you have assigned to items.

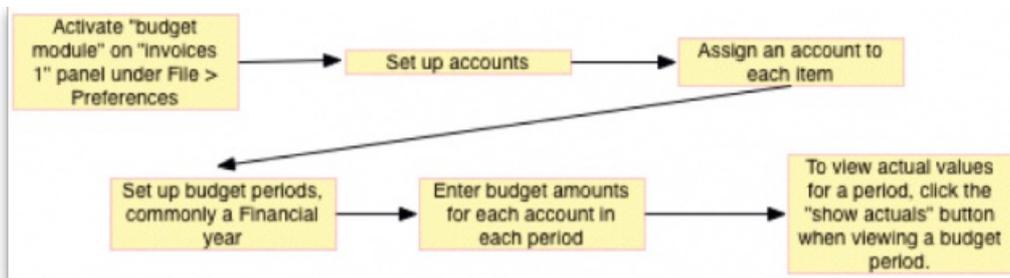
At the end of a budget period, that budget period may be locked so that no further entries may be made.

To use the budget feature, these are the steps to be taken:

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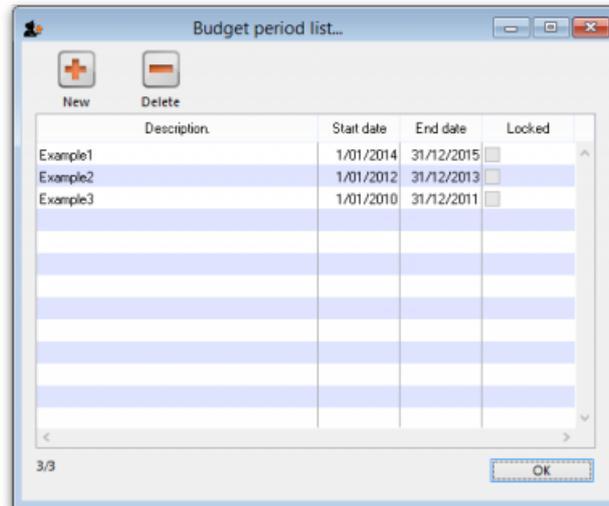
- [Two kinds of budgets](#)
- [Activating the budget module](#)
- [Overview](#)
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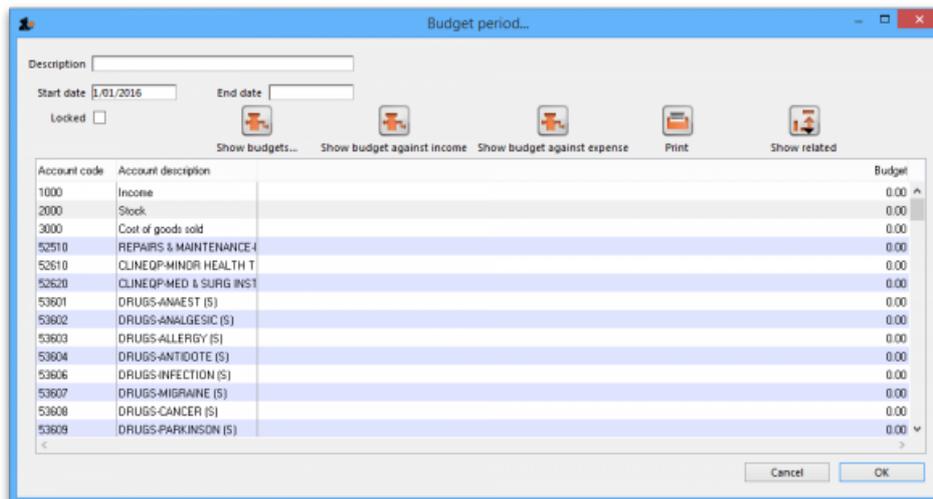
Viewing budget details

Choosing *Special > Show budgets* presents you with the *Budget period list* window as shown (note that the latest entry appears at the top of the list and the oldest entry at the bottom):



Adding a budget

Click on the *New* button in the *Budget period list* window to add a new budget. This window is displayed:



In the *Description* field, enter the name of the budget period - for example FY 2008.

The *Start date* is non enterable; the first time you use this feature, the field is set to 00/00/00, on subsequent occasions the it will show the date one day later than the *End date* entered on the previous occasion.

You should enter the *End date*, the date the budget period ends.

In the *Account Description* column, a list of account names and code(s) will be displayed. To set budget figures for these accounts, select the Account to which the budget applies by clicking on the line. Once selected, click on the figure in the *Budget* column of that line, and enter the budget figure.

Deleting a budget

Select a budget from the list in the budget list window shown above and click on the *Delete* button to delete a budget. You will be asked to confirm the

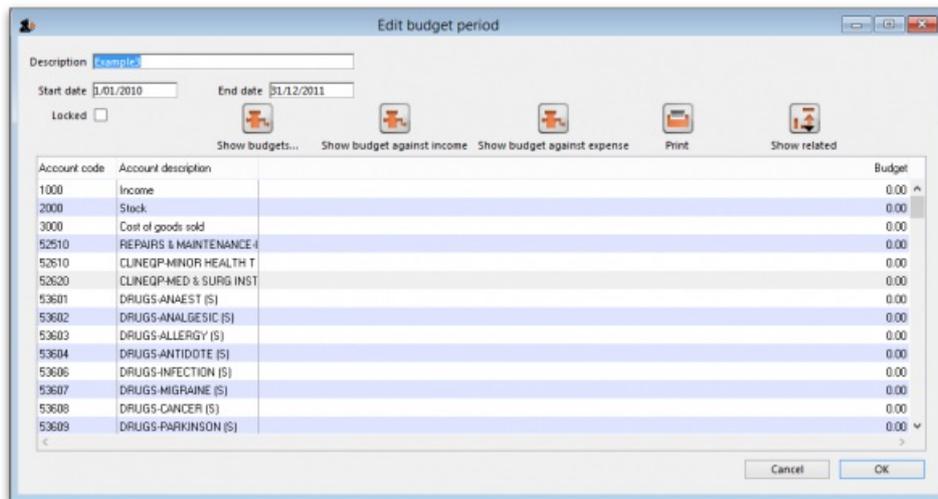
deletion. Note, you can only delete budgets in order, starting from the most recent and you cannot delete a budget that has been used in any transactions (customer invoices) or has accounts with a budget amount of more than zero.

Editing budgets

Should you wish to edit a figure allocated to an account, double click on the appropriate line on the *Budget period list* and this brings up the *Budget edit* window; Click on the *Account description*, *End date* and various budget value fields and change them as required. Note that a budget can only be deleted when all of its accounts are allocated zero budget amount.

Budget reports

To find out information like expenditure against budgeted amount for a particular budget (and a whole lot more!) then you need to open the budget first by double-clicking on it in the *Budget period list* mentioned above. This opens the *Edit Budget period* window:



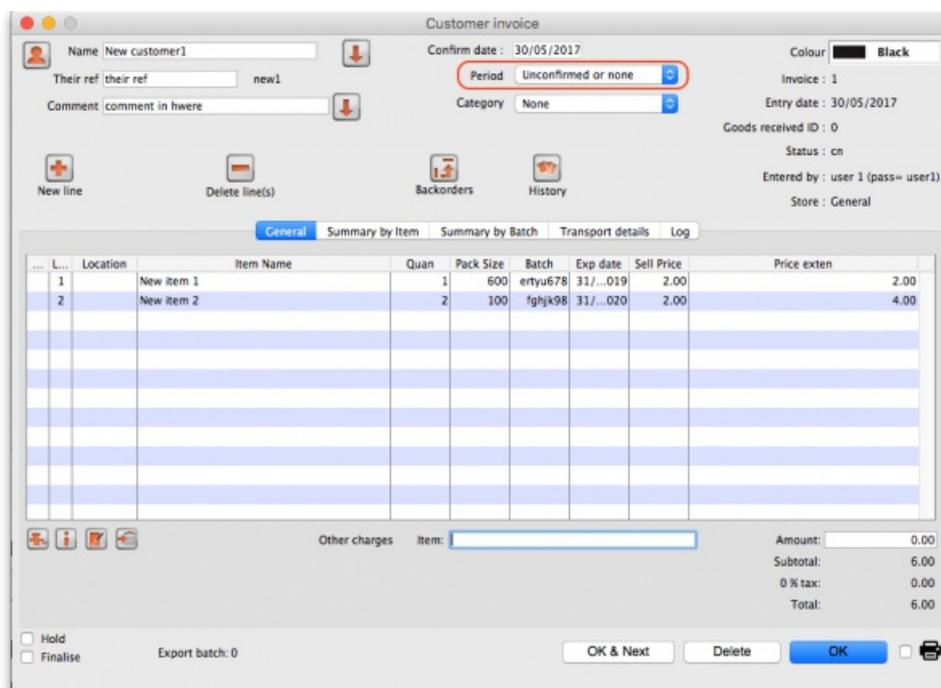
The *Show budget against income* and *Show budget against expense* buttons change the table to display the selected information for each account for that budget period. The *Show budgets* button changes it back to show the budget account information for the period.

The *Print* button prints out the table which is displayed at the time it is clicked.

The *Show related* button will display all the purchase orders, goods received notes, customer invoices, supplier invoices, supplier payments, customer payments or inventory adjustments which are related to the budget period. You simply click the button and choose which you want to see.

Including transactions in your budget

When the budget module is activated, a new *Period* field appears at the top of transactions that issue stock. Here it is on a customer invoice:



It is set to "Unconfirmed or none" by default and you must select a period before the invoice can be saved or closed. If you don't, mSupply will give you

a warning message when you click on the *OK* or *OK & Next* buttons.

Note: you don't have to select a period if you're viewing or editing a customer invoice (or other stock issuing transaction) that was created or confirmed before the first budget period starts.

Once the transaction has been saved with a budget period, when it is confirmed the goods on it will automatically be accounted for in your budget and will affect any budget reports you run.

Previous: [26.03. Transaction Status & Type Codes](#) | | *Next:* [26.05. Edit menu](#)

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26.05. Edit menu

The commands in the Edit Menu can be used when you are entering text, just the same as in a word processor.

Undo: The previous contents can be retrieved if the document has not been saved.

Cut: Deletes the currently selected text and places it on the clipboard

Copy: Copies the currently selected text and places it on the clipboard

Paste: Replaces the selected text (if there is any) with the contents of the clipboard. If there is no selected text, the clipboard contents are inserted at the insertion point (the blinking cursor)

Clear: Clears the text in the particular field.

Important

If the Cut/Copy/Paste items are dimmed out, it is because you are not currently in a text entry field.

Previous: [26.04. Budgets](#) || Next: [26.06. Transaction categories](#)



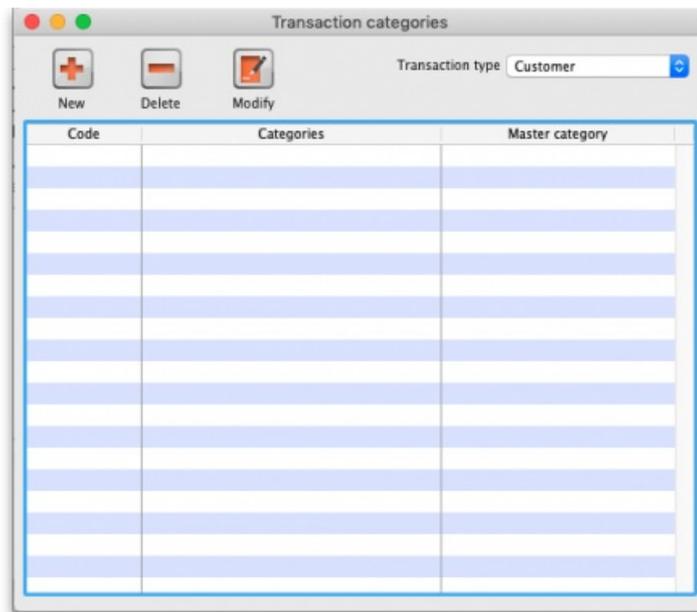
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26.06. Transaction categories

Categorising transactions allows you to group transactions together when reviewing or reporting them. Each type of transaction can have its own list of categories. For example customer invoices might have a category “normal” and “urgent”. Inventory adjustments might have categories “expired”, “damaged”, “stocktake”, “annual stocktake” or “monthly stocktake” etc.

From the *Special* menu, choose *Transaction categories...* to see this window:



First of all, select the transaction type the categories you create will belong to in the *Transaction type* drop down list. Customer (which refers to customer invoices) is selected by default so the table will contain all the previously created customer invoice categories.

Click on “New” button to create a new category and this window appears:



Here you enter the details of the category:

- **Master category:** select the master category that this one will belong to. Master categories are a way of grouping other transaction categories together, even categories of different types, to make reporting easier (see section 11.03. [Transaction reports](#), [Transaction category filter](#) for details of how master transaction categories can be used in reporting). Master transaction categories are fixed in the system and cannot be edited. Those available are:
 - Damaged
 - Expired
 - Found
 - Lost
 - Stocktake
 - Stolen
 - Other
- **Category code:** the code of the transaction category. Not displayed in mSupply but you can filter categories by this so it provides another way to select relevant categories when reporting.
- **Category Description:** the name of the category, visible throughout mSupply. Also filterable when reporting.

Once you have created transaction categories they will be selectable in a drop down list when you create a new invoice or transaction.

Tip

For systems using [Remote Synchronisation](#), Transaction Categories are 'System' data and can only be edited on the Primary Server. Any edits then synchronise to all relevant satellites.

Info

There is a 'server' preference to Require category entry on customer invoices. This would apply to all customer invoices issued for all stores **Active** on the server.

See the [28.08. How to report by invoice category](#) section for details on how to use the transaction categories in reporting.

Previous: [26.05. Edit menu](#) || Next: [26.07. Virtual stores](#)

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26.07. Virtual stores

From the *Special* menu, choose *Show stores*

What is a virtual store?

In mSupply a *virtual store* is a way of segregating particular stock so that some users only see that stock and the transactions associated with it. When a user logs into mSupply, they choose a particular store to login to - this we call the current store. mSupply then operates as if:

1. The stock in that store is the only stock available.
2. Only stock from the current store will be available for issuing,
3. Reports will relate to stock in that store
4. Issues from and receipts to that store only use the stock in that store
5. Only suppliers and customers sets as “visible” for that store will be able to be chosen for receiving and issuing goods
6. Only items set as “visible” in that store will be usable (So for example if you have a store that handles only vaccines you can make vaccines visible in that store (and invisible in all stores that don't handle vaccines)

Many users of mSupply will only have a single store, and so will have no need of this functionality.

The following examples illustrate situations where you might want to run more than one store.

- A hospital pharmacy where you have two dispensing locations: an inpatient pharmacy and an outpatient pharmacy.
- A pharmaceutical warehouse where stock from a particular donor is received, issued and accounted for separately to stock in the rest of the warehouse.
- A hospital pharmacy where the pharmacy store stock is treated separately to the dispensary stock. You would set up mSupply with a store called “Pharmacy store” and a store called “Dispensary”. You would use the function covered in section 8.05. [Transferring goods to another store](#) to move stock from the pharmacy store to the dispensary.
- A pharmaceutical warehouse where you have 2 or more actual warehouses. These may be adjacent or several hundred kilometres apart. (Of course you need network connectivity between sites to run mSupply at each site).
- You're using mSupply mobile- each mobile site will synchronise data with a virtual store on the mSupply server.

Note: In the above examples, when you log on, you would select the appropriate mode - see table:

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Preferences tab

[Notification preferences](#)

[Custom data](#)

[When finalising a goods receipt](#)

[For stock transfers, the supplier invoice in the receiving store should be...](#)

Logo tab

Custom fields tab

[Adding a custom field](#)

[Editing an existing custom field](#)

[Deleting a custom field](#)

Master lists tab and Visibility tab (controlling item visibility)

[Master lists tab](#)

[Visibility tab](#)

Users tab

Synchronisation tab

Deleting a store

[Transition a customer to a virtual store](#)

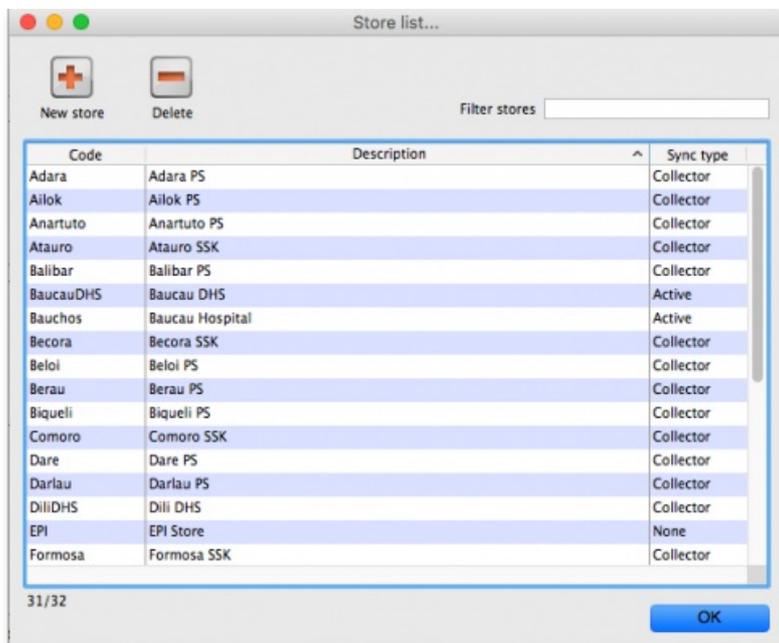
[Create new store and then merge with the existing customer name](#)

[Turn an existing customer into a store](#)

Examples	Stores	Log on mode
Hospital Pharmacy	In-patient Dispensary	Dispensary
	Out-patient Dispensary	Dispensary
Hospital Pharmacy	Pharmacy store	Store
	Dispensary	Dispensary
Warehouse	Adjacent Store	Store
	Remote store	Store

Viewing available stores

From the *Special* drop down menu click *Show stores...* The Stores list window (shown below) appears and displays a list of all the stores which currently exist including their [sync type](#):



Editing a store

Double-click on any store in the list in the View stores window described [above](#) to view or edit its details. You will see the same window as in the [Creating new stores](#) section below but the various fields will be filled in with the store's current settings. You can click into the fields and edit them as desired. Note that in the top left of the window, the name of the store you are editing is always displayed, regardless of which tab you are on, so that you always have a reminder of which store you are editing!

Creating new stores

To create a new store click the **New store** button in the Store list window shown [above](#). This will display the Store details window shown below, which allows you to enter the details of the new store:

General | Preferences | Master lists | Logo | Custom fields | Log

Name:

Store code: store

Organization name:

Address line 1:

Address line 2:

Address line 3:

Address line 4:

Address line 5:

Postal/Zip Code:

Phone:

Tags:

Turn an existing customer into a store

Disable this store

Responsible officer: none

Store credentials

Use store credentials

Username:

Password:

OK & Previous | OK & Next | Cancel | OK

Alert

If you want to create the store for an existing customer, don't follow the rest of the instructions here. Refer to [Transition a customer to a virtual store](#).

Name

The name used to identify the store throughout mSupply. It must be unique and mSupply will tell you if another store has the same name; you will need

to change it before you can save. Any non-printable characters entered before or after the name will be removed. Any entered in the name will be replaced with an underscore (`_`).

Store code

The code used to identify the store. If you have a lot of stores it would be helpful if you decide on a good pattern to use for the codes. The code must be unique too; mSupply will tell you if the code is already in use and you will need to change it before you can save it. Any non-printable characters entered before or after the code will be removed. Any entered in the code (and spaces) will be replaced with an underscore (`_`).

Store type

Set in the drop down list to the right of the *Store code* field. Can be one of:

- Store: a normal store used for managing inventory and issuing to customers
- Dispensary: a store used for managing inventory and dispensing to patients

Organisation name

The name of the organisation running the store. Defaults to the organisation name entered in File > Preferences.

Address details

Enter the address and contact details for the store in here if there are any. These details can be used in reports

Disable this store

Check the *Disable this store* checkbox to stop the store from being used. You might want to use this feature if the store is not ready for use yet or is no longer to be used and can't be deleted. You will be asked to confirm the disabling after clicking on the *OK* button on this window.

Responsible officer

Select the officer responsible for the store in this drop down list. A helpful reminder for others and can be used in reports.

Store credentials

These are used when the store needs to be identified securely over electronic communications. An example of this is when using the cold chain app for monitoring temperature in cold storage and freezers.

To tell mSupply to use the credentials, check the **Use store credentials** checkbox (unchecking it deletes the store's credentials so please be careful before doing so).

This will enable the **Username** and **Password** text fields and you can enter the appropriate details.

- The *Username* will be set to the first three letters of the store's code by default.
- The *Password* must be at least 3 symbols but not more than 30 symbols, and can contain letters and numbers.

If you need to view the password you have entered to check it is correct, click on the  button.

Tags

Tags are used in several ways:

- for determining which programs a store can use.
- for controlling some customisation features.
- for reporting to group stores together.
-

This area shows the tags that the store currently has. To add a tag, simply click into the area and type the tag's name. When you have finished typing the tag's name then press the Tab or Space keys on the keyboard (not Enter or return, that will close the window!). You know when you have done it right because the tag will appear in its own little box with an 'x'. If you want to remove any tag from the store, simply click on that 'x'. In this way you can add or delete as many tags from a store as you like.

When you click on the **OK**, **OK & Next** or **OK & Previous** buttons, any new tags you have created here will be added to the list of name tags in your system. See the [5.05. Name tags](#) page for details.

After having created a new store, the Stores list window will display the new list of all stores and you may double-click an entry to edit that store's details. A number of things that will need to be attended to are:

Alert

To do a number of the following steps, you will need to log in to the new store. To do this, you will need to give yourself access to the new store as shown in section [25.15. Managing users](#). Any other users who need to access the store will also need their permission altered accordingly. After giving yourself permission to log in to the new store, log in to it and carry out these steps.

- Set the [preferences](#) for the store.
- Set the store's [logo](#) so that it can appear in print-outs and reports.
- Set the [visibility](#) of items in the store. All items in the system will be set to invisible in the new store when it is created. You will need to modify visibility of items in order to be able to handle stock of those items.
- Setup Synchronisation if you are going to use a synced system. See [remote_sync](#).
- Setup any [custom store data](#) (used for reporting).
- Set the master lists used by the store (a convenient method for controlling item visibility). See [4.04. Item master lists](#)

Alert

If this newly created store will be 'Active' on a satellite server on a synced mSupply system (refer to [remote_sync](#), then user access to the store will need to be defined on that satellite server.

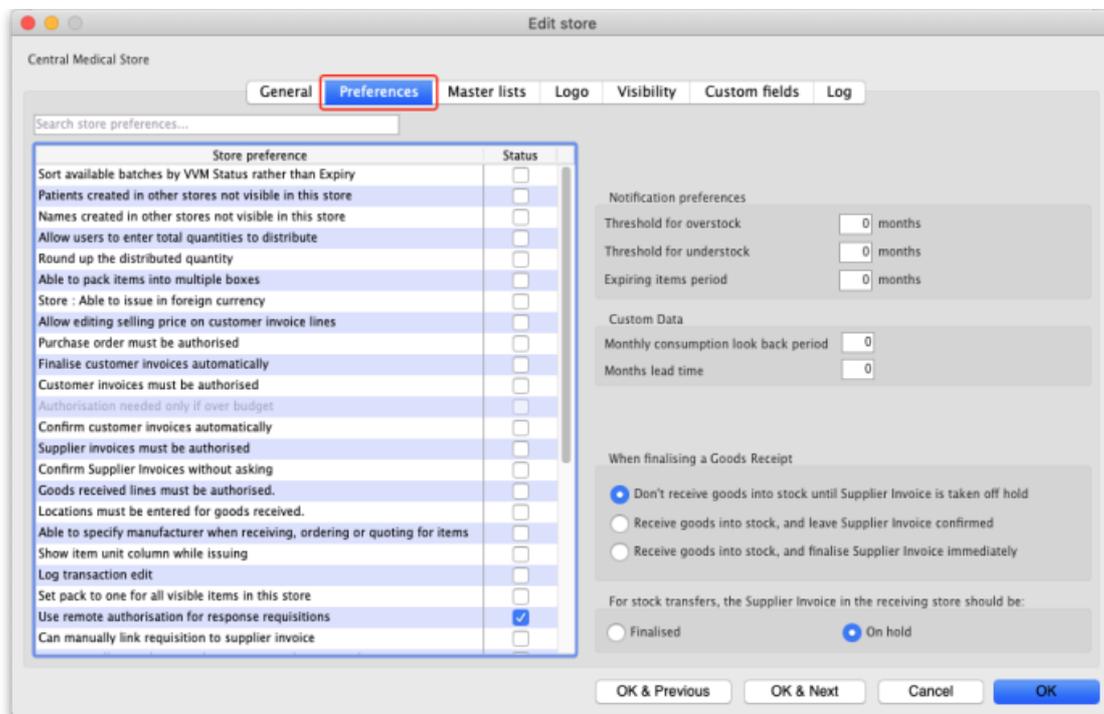
Preferences tab

Important

- The preferences tab is only visible if you are looking at the details of the store you are logged into.
- The preferences described here are set 'per store' and can be different for each store in an mSupply datafile.
- In a **synced system** there will be multiple 'sync satellites' and store preferences will need to be set for each store on each mSupply sync satellite. See [remote_sync](#).
- Other preferences (accessed through **File > Preferences...**) apply to *all* stores in an mSupply datafile.
- If you have to set the same preferences for lots of stores you might like to try the [26.08. Bulk Store Preferences Editor](#). It just might save you some time and your sanity 😊

This tab contains the preferences that can be set for a store. Each store has its own settings for these preferences: this is different for the settings in *File > Preferences* which apply to **all** stores in an mSupply datafile.

This is what the tab looks like:



Store preference	Status
Sort available batches by VVM Status rather than Expiry	<input type="checkbox"/>
Patients created in other stores not visible in this store	<input type="checkbox"/>
Names created in other stores not visible in this store	<input type="checkbox"/>
Allow users to enter total quantities to distribute	<input type="checkbox"/>
Round up the distributed quantity	<input type="checkbox"/>
Able to pack items into multiple boxes	<input type="checkbox"/>
Store : Able to issue in foreign currency	<input type="checkbox"/>
Allow editing selling price on customer invoice lines	<input type="checkbox"/>
Purchase order must be authorised	<input type="checkbox"/>
Finalise customer invoices automatically	<input type="checkbox"/>
Customer invoices must be authorised	<input type="checkbox"/>
Authorisation needed only if over budget	<input type="checkbox"/>
Confirm customer invoices automatically	<input type="checkbox"/>
Supplier invoices must be authorised	<input type="checkbox"/>
Confirm Supplier Invoices without asking	<input type="checkbox"/>
Goods received lines must be authorised.	<input type="checkbox"/>
Locations must be entered for goods received.	<input type="checkbox"/>
Able to specify manufacturer when receiving, ordering or quoting for items	<input type="checkbox"/>
Show item unit column while issuing	<input type="checkbox"/>
Log transaction edit	<input type="checkbox"/>
Set pack to one for all visible items in this store	<input type="checkbox"/>
Use remote authorisation for response requisitions	<input checked="" type="checkbox"/>
Can manually link requisition to supplier invoice	<input type="checkbox"/>

Notification preferences

Threshold for overstock: months

Threshold for understock: months

Expiring items period: months

Custom Data

Monthly consumption look back period:

Months lead time:

When finalising a Goods Receipt

Don't receive goods into stock until Supplier Invoice is taken off hold

Receive goods into stock, and leave Supplier Invoice confirmed

Receive goods into stock, and finalise Supplier Invoice immediately

For stock transfers, the Supplier Invoice in the receiving store should be:

Finalised On hold

OK & Previous OK & Next Cancel OK

The **Search store preferences** search bar at the top is used to find a particular preference. If you type something in here, preferences which *contain the text* you have typed only are displayed, all others are hidden. There are a lot of preferences so this should help if you just can't find the one you want!

This is what each preference does:

Sort available batches by VVM status	If the store is only to be used for vaccines, you can sort the list of available batches by VVM status.
Patients created in other stores not visible in this store	If this is checked, patients that are created in other stores across all sites are visible in this store.
Names created in other stores not visible in this store	If this is checked, names (customers, suppliers, manufacturers, donors) created in other stores are visible in this store.
Allow users to enter total quantities to distribute to appropriate packs	Users can enter the total quantity that they wish to distribute to appropriate packs.
Round up the distributed quantity	The value for distributed quantities will be rounded upwards.
Able to pack items into multiple boxes	Checking this enables the functionality for packaging goods into boxes.
Store: Able to issue in foreign currency	Foreign currencies can be used on supplier invoices for overseas suppliers.
Allow editing selling price on customer invoice lines	Individual selling prices can be edited on customer invoice lines. Please see Customer Invoices .
Purchase order must be authorised	Turns on purchase order authorisation. See Ordering Items From Suppliers .
Finalise customer invoice automatically	Automatically finalise customer invoices with confirmed status, which are not subject to further editing.
Customer invoices must be authorised	Turns on customer invoice authorisation (i.e. goods can only be sent to customers if authorised).
Authorisation needed only if over budget	This additional option is enabled when customer invoice authorisation is turned on.
Confirm customer invoices automatically	Set a New Customer Invoice status to confirmed when the OK button is pressed.
Supplier invoices must be authorised	Turns on supplier invoice authorisation (i.e. goods can only be brought into the store if authorised).
Confirm supplier invoices without asking	Set a New Supplier Invoice status to confirmed when the OK button is pressed.
Goods received lines must be authorised:	Turns on goods receipt authorisation (i.e. only authorised goods receipts can be entered).
Locations must be entered for goods received	A shelf location must be entered on the goods receipt item line form when receiving stock.
Able to specify manufacturer when receiving, ordering or quoting for items	Gives users the option to record the manufacturer of goods when making a purchase order or receiving stock.
Show item unit column when issuing	If checked, when goods are issued on a customer invoice or prescription, the unit of measure is shown.
Log transaction edit	
Set pack to one for all visible items in this store	
Use remote authorisation for response requisitions	Turns on remote authorisation for response requisitions. See 26.15. Remote Authorisation .
Can manually link requisition to supplier invoice	When receiving stock, users can match the supplier invoice to the initial requisition.
Automatically populate supply quantities with requested quantities	On requisitions, automatically populate supply quantities with requested quantities.
Show extra fields on requisitions	When a line is selected on a response requisition, an extra box is displayed with additional information.
Show comment field when entering supplier invoice lines	Allows users to type a comment for individual items received on a supplier invoice.
Use EDD placeholder lines in supplier invoices from this store	If turned on, any placeholder lines on a customer invoice that is a stock order will be replaced by the expected date of delivery (EDD) of the goods.
Consolidate batches	Items with the same batch, expiry date, pack size, location, donor, cost centre and supplier are consolidated into one line.
Edit prescribed quantity on prescriptions	When checked an additional Prescribed quantity field is available when entering a prescription.
Allow users to choose diagnosis on prescriptions	When checked an additional Diagnosis drop down list is available on the prescription form.
Use consumption and stock from customers for internal orders	If checked, when calculating the current stock and consumption figures, the consumption and stock from customer orders is included.
mobile: Enforce lookback period	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .
mobile: Uses vaccine module	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .
mobile: Uses dispensary module	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .
mobile: Uses dashboard module	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .
mobile: Uses cash register module	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .
mobile: Uses payment module	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .
mobile: Uses patient types	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .
mobile: Uses Hide Shapshot column	This preference only has an effect if this is an mSupply mobile store. See 26.15. Remote Authorisation .

Notification preferences

These are used by the notification/alert functionality described on the [14.01. Notifications \(Alerts\)](#) page. The notifications inform users of situations that need their attention. The thresholds that give rise to some of the notifications can be set here.

- Threshold for overstock:** The minimum months of stock an item must have to be considered as overstocked. i.e. in danger of expiring on the shelf before it is used. An alert is triggered for an item if the total quantity in stock (including all batches) divided by the average monthly consumption of the item (calculated using the last 12 months' usage in the current store) is greater than or equal to this threshold number. The default is 6 months.

Tip

This value should be set no lower than the maximum amount of stock that you would expect to regularly have in stock. Based on the formula developed in [Calculating the required stock quantity](#), this would be **Ordering cycle + (months of) buffer stock**. The default value of 6 is suitable for a store with a 2-monthly order cycle. For a central store with an annual order cycle, then this figure should be set to **36**

- **Threshold for understock:** The number of months of stock that an item must have less of to be considered understocked i.e. in danger of not having enough to meet demand. An alert is triggered for an item if the total quantity in stock (including all batches) divided by the average monthly consumption of the item (calculated using the last 12 months' usage in the current store) is less than or equal to this threshold number. The default is 3 months.

Tip

This alert should only be triggered when your stock levels fall below your buffer stock levels. Based on the formula developed in [Calculating the required stock quantity](#), **Buffer stock (months) = 2 x Ordering cycle**. The default value of 3 is suitable for a store with a 6-weekly order cycle. For a central store with an annual order cycle, then this figure should be set to **24**

- **Expiring items period:** An alert will be triggered for an item if a batch is due to expire in less than this number of months. The default is 3 months.

Tip

This alert should be triggered if there is a reasonable risk that your store, or your store's customers will need to dispose of stock due to expiry. However, this is only a real concern if there are *significant quantities* of the item with short expiry. So, in isolation, Expiring items period is a bit arbitrary. As a rule of thumb, the Expiring items period can be set to equal the ordering cycle. On that basis, the default value of 3 is suitable for a store with a 3-monthly order cycle. For a central store with an annual order cycle, then this figure should be set to **12**

Custom data

This section is for store specific custom data fields that must always be present. User definable custom fields are handled on the Custom fields tab (see the [Custom fields tab](#) section below for details).

Monthly consumption lookback period: The number of months of consumption information to use when calculating average monthly consumption for this store. Currently only used when the Côte d'Ivoire customisation is enabled.

Months lead time: The number of months before ordered goods normally arrive. Used to calculate how much stock to order for the suggested quantity in requisitions, for example. Currently only used when the Côte d'Ivoire customisation is enabled.

When finalising a goods receipt

There are three options:

- Don't receive goods into stock until supplier invoice is taken off hold - for goods to enter stock you must finalise the goods receipt and then take the automatically generated supplier invoice off hold
- Receive goods into stock, and leave supplier invoice confirmed - goods enter stock as soon as the goods receipt is finalised. The automatically generated supplier invoice is created with confirmed status.
- Receive goods into stock, and finalise supplier invoice immediately - goods enter stock as soon as the goods receipt is finalised. The automatically generated supplier invoice is created with finalised status.

How you set this preference is determined by how separate your goods receiving and finance sections are. If they are not in the same building, you might want to use the "Receive into stock and leave confirmed" option, as this will allow you to proceed with issuing goods without waiting for the finance department's approval.

For stock transfers, the supplier invoice in the receiving store should be...

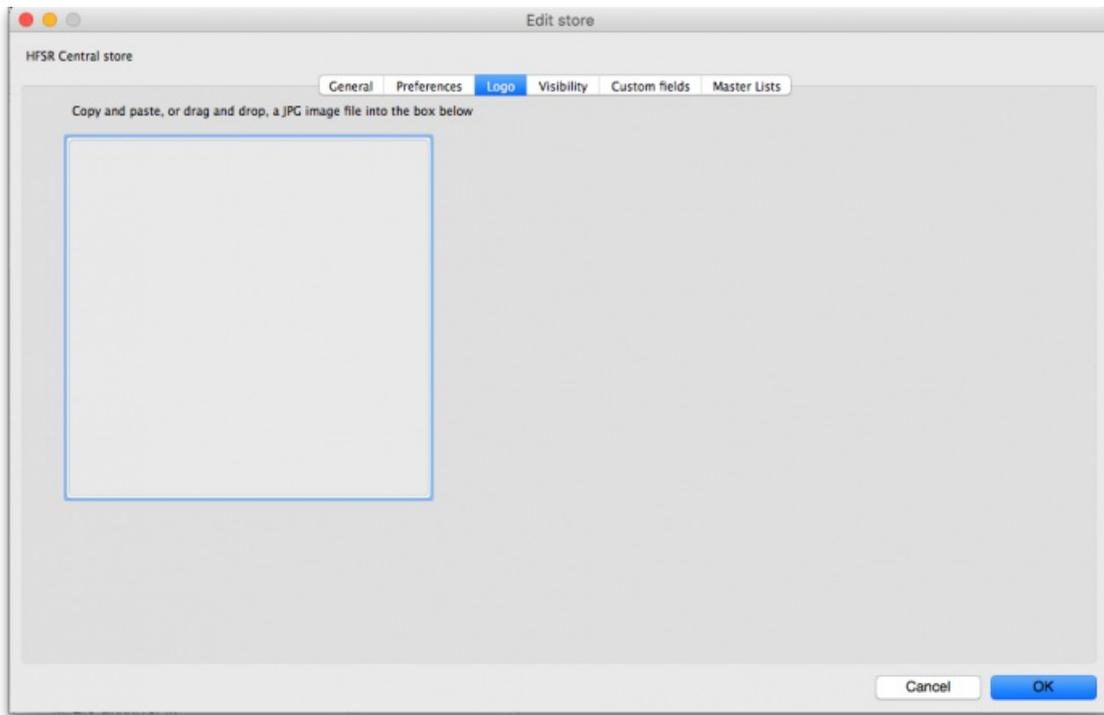
Important

This option applies to all stores that this store transfers stock to.

This option is used to determine whether stock transferred from one store to another is received to a destination store and automatically introduced to stock or not. The **On hold** option prevents stock from being introduced, while the **Finalised** option automatically makes the stock available for use in the destination store - **without the receiving store having the opportunity to amend the Goods Receipt**

- Choose **Finalised** if there is no need to check / alter the quantity received compared to what was sent.
- Choose **On hold** if the store is being used by mSupply mobile, and the goods receipt needs to be confirmed before receiving.

Logo tab



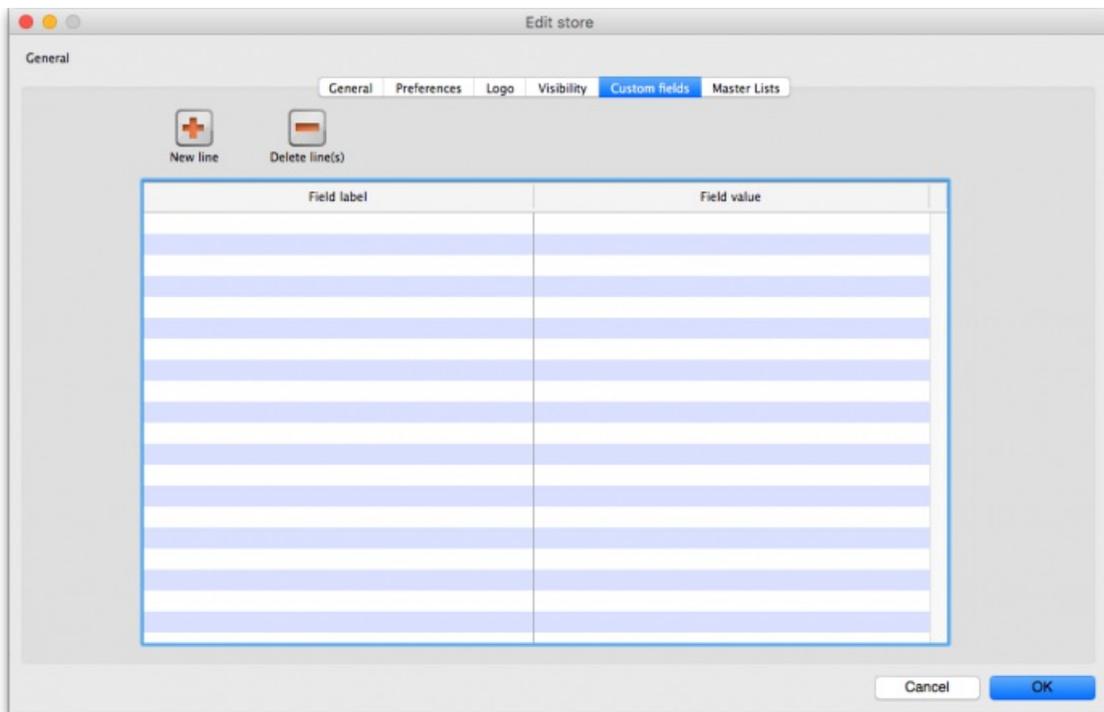
Here you can set the **store logo** by pasting in a logo you have copied to the clipboard - you must copy the contents of a file to the clipboard, not the file itself. The file can be in .jpg, .png, .bmp, .gif, or .tiff format. This logo will be displayed at the bottom right of the mSupply navigator screen when you login to this store only.

This store logo will override the logo saved in the [Settings > Preferences > Logo](#) tab.

To print this store logo on standard customer and supplier invoices etc. you will need to go to the [Settings > Preferences > Logo](#) tab in mSupply and tick the **Display logo on invoice** checkbox. When a store logo is set it will print the store logo instead of the logo set on that preferences tab.

Note that after saving the store logo you must login to mSupply again or use the [switch function](#) to reload this store to see it.

Custom fields tab



This tab shows the custom fields that have been set up for stores (see the [Custom fields](#) section for details). You can also add or edit custom fields directly from this screen.

Adding a custom field

To add a new field, click on the *New line* button; a new line with default values of "Field label" and "Field value" in the two columns is added to the table and highlighted. Click on the value in each column and type the real label and value for the piece of information.

Editing an existing custom field

To edit the label or value of any custom field, simply click on the cell in the table and edit the entry.

Deleting a custom field

To delete any custom field simply select its row in the table and click on the *Delete line(s)* button. You can use Shift+click, Control+click, Control A (or Cmd instead of Ctrl if you're using a Mac!) to select multiple lines and delete them all at once if you like.

Master lists tab and Visibility tab (controlling item visibility)

Controlling the visibility of items in different stores is important because you can only order, distribute, receive goods for and report on items that are visible in your store. It's also important that stores don't have items visible that they don't use so that they don't accidentally order them etc.

If you have lots of stores in your data file, managing item visibility can turn into a difficult task. Thankfully, mSupply has some helpful tools to make it simple! There are 2 ways to manage item visibility and you use one or the other, not both:

1. automatically using the Master lists tab or
2. manually using the Visibility tab

Each are useful in different situations and are described below.

Master lists tab

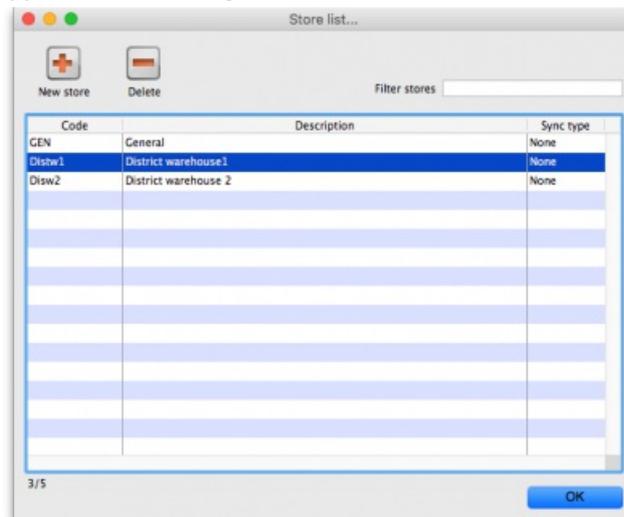
If you have a lot of stores in mSupply, we recommend that you use master lists to control item visibility. Especially in a [syncing system](#) because it means that the visibility of newly created items will be automatically handled correctly. The visibility of items in a store whose visibility is controlled by master lists is immediately updated if any changes are made to any of the master lists. For instance, if a new item is added to a master list controlling visibility then that new item is made visible in all stores that use the master list. And any items deleted from the master list are made invisible in any store using that list.

The first thing to do is to turn on the preference to make master lists control item visibility in stores. Do that in **File > Preferences...** on the *Item* tab - see [General preferences, the item tab](#) for details.

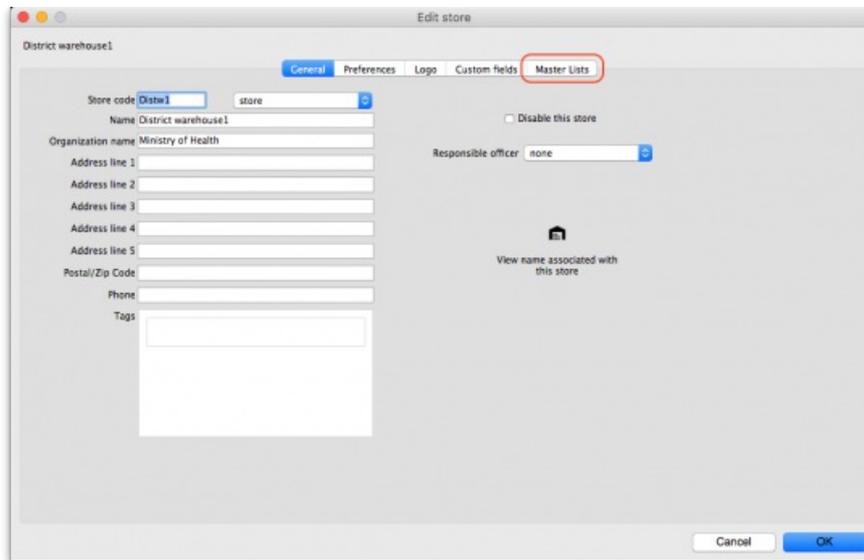
The next thing to do is to create the master list(s) that will control item visibility. See [Item master lists](#) for details on how to do that. Giving your master lists helpful names will help you remember what they're for e.g. "Store xxx visibility list".

Now edit the store to tell mSupply which master list(s) will be used to define which items are visible in the store:

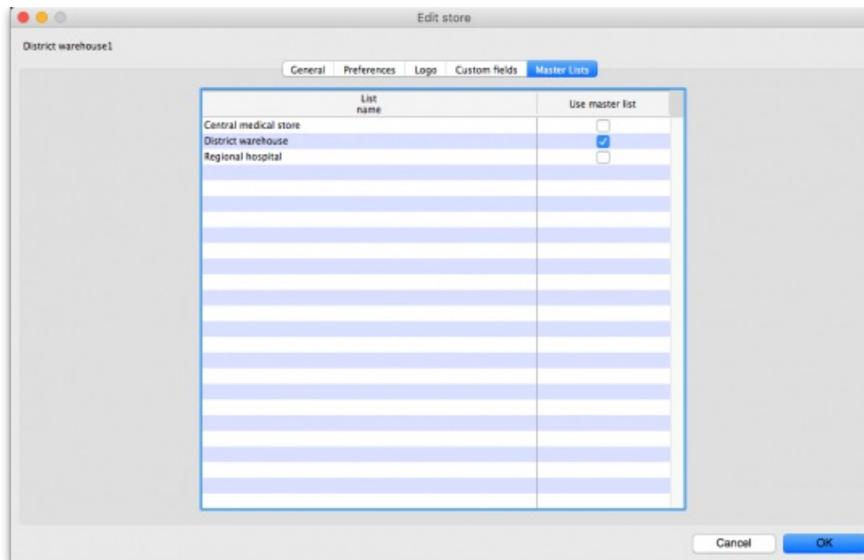
1. Click on **Special > Show stores...** (or click on the *Stores* icon on the *Special* tab of the navigator)
2. Double-click the store who's visibility you would like to manage:



3. Click on the *Master lists* tab:



4. Select which master list(s) you would like to control the visibility of items in your chosen store by checking their checkbox in the *Use master list* column:



In this example, the District warehouse master list has been selected to control the visibility of the District warehouse 1 store.

5. Click the **OK** button to finish. As soon as you do that the items on the selected master list(s) are made visible in the store and any items **not** on the selected master list(s) are made **invisible**. Any new items added to the selected master list(s) will be made visible in the store and any items removed from the master list(s) will be made invisible in the store.

Visibility tab

⚠ Important

If your system is a Sync system (with Primary and Satellite servers) and your store is hosted on a Sync Satellite server, then you will not see the Visibility tab. These settings need to be made while logged in to the Sync Primary Server.

💡 Tip

You will also *only* see this tab if you are editing the store you are logged in to.

To log into a store you may need to first give yourself permission to do so under File > Edit Users > Double-click your user name > the Log in rights tab. Phew!

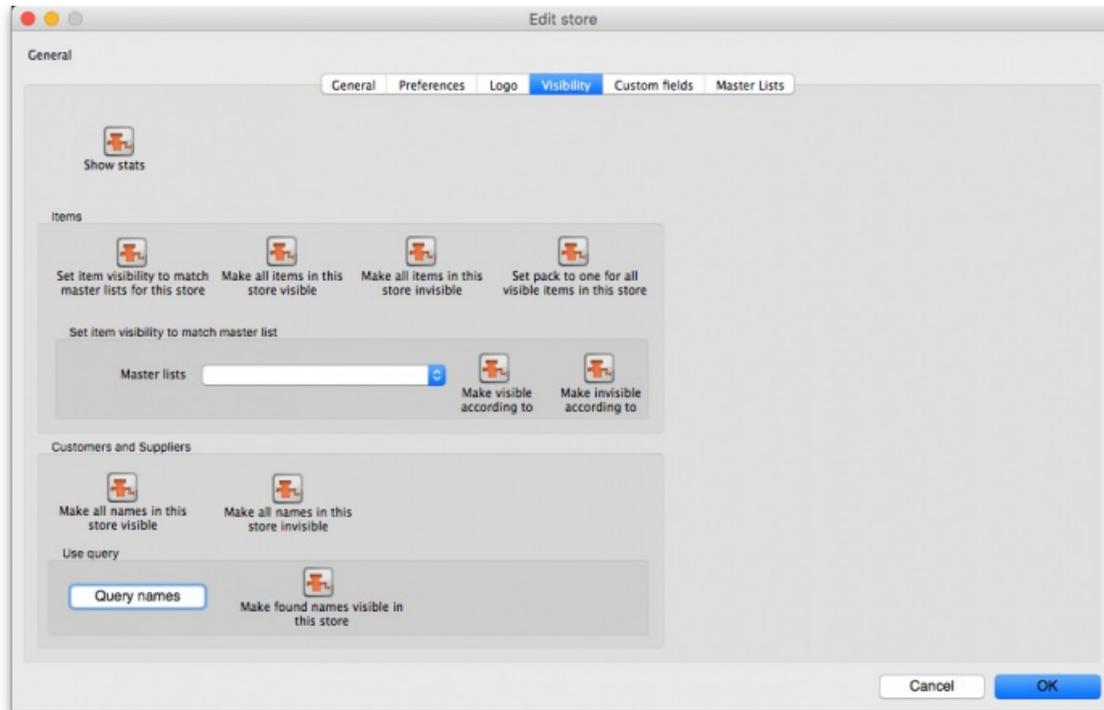
The Visibility tab contains tools for manually setting the visibility of **items** and **names** in a store.

The item visibility tools are good to use if you do not have many stores in mSupply and only need to make occasional changes to visibility for a number of items. If you want to make a change to a single item's visibility in a single store then you can do that by going to the item's details window and using the store tab (see [Item basics](#), [the stores tab](#)).

⚠ Important

If you have turned on the [preference to control item visibility by master list](#) then you will not be able to use the visibility tab or the visibility settings on the store tab of an individual item's details window.

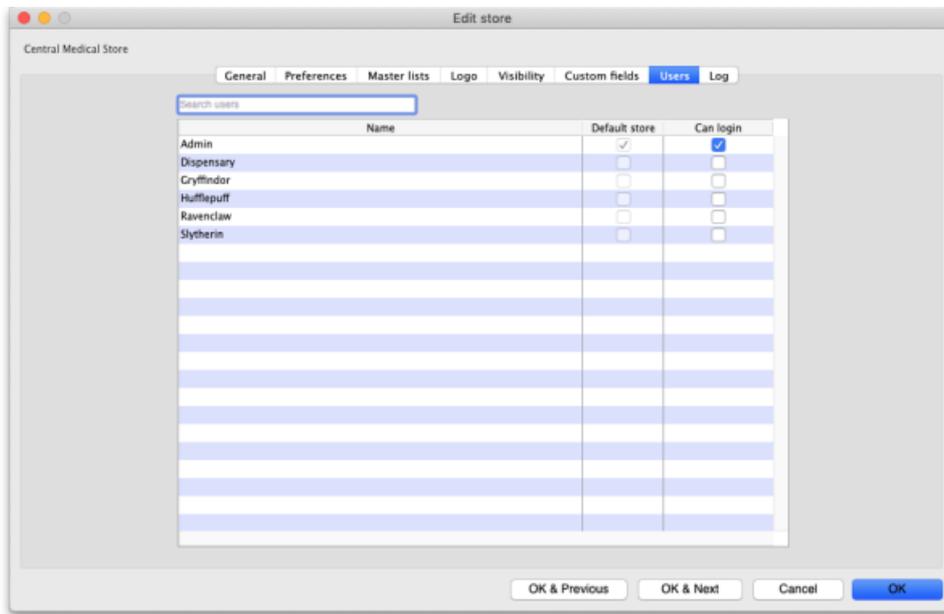
Here's what the tab looks like:



The buttons provide you with different ways to hide and show items and names in the store (Note: be careful showing names in databases that have a lot of names records. For example if you have 20 virtual stores and 200,000 names in your database, showing all names in all stores will create 4 million (20x200,000) records to map the visibility of each name in each store):

- The **Show stats** button shows how many items and names are currently hidden and visible
- The **Set item visibility to match master lists for this store** button matches the item visibility to the master lists that are selected on the *Master lists* tab. (Note: this is a one-off operation, no changes will be made to item visibility if the master lists are changed after you click this button. See the section above if you want that to happen!) If there are some items that can't be set to invisible (because they have stock, for example) a temporary master list will be created containing the items which could not have their visibility removed. Use the list to decide what to do with each item.
- The **Make all items in this store visible** and **Make all items in this store invisible** both do just as they say.
- The **Set pack to one for all visible items in this store** will check the *Allow pack to 1 conversion* and *Convert pack to 1 when receiving* checkboxes for all items in the store so that all stock received into the store will automatically be received in packs of 1. This is useful in a dispensary store, for example.
- The **Set to match** button requires you to choose a master list. Clicking the button makes the items that are on the master list selected in the drop down list next to it visible in the current store. Note that it *does not* hide items that are already visible but not on the master list.
- The **Make all names in this store visible** button does exactly what it says and makes all names in the datafile visible in the current store.
- The **Make all names in this store invisible** button does the opposite and makes all names in the datafile invisible in this store. Be careful using this - you won't be able to receive or distribute stock from/to anyone until you make some names visible in the store!
- The **Query names** button enables you to search for names (customers, suppliers, manufacturers, donors etc.) in the datafile. Every search you run creates a selection which is then operated on by the **Make found names visible in this store** button.
- The **Make found names visible in this store** will make all names in the last selection made with the **Query names** button visible in this store. Ask Sustainable Solutions for help if you're not sure about getting the right selection of names, as the consequences of making a mistake can be time consuming to fix!

Users tab



The users tab shows which users have permission to log into this store.

The table shows a list of all the users in alphabetical order. If a user can login to this store then their corresponding *Can login* checkbox will be checked. If the store is the user's default store then the checkbox in the *Default store* column will be checked.

You can add or remove permission for a user to login to this store by checking or unchecking their *Can login* checkbox (only if you have permission to edit store details though).

Synchronisation tab

mSupply has a synchronisation system designed to cope with environments which have weak or intermittent internet. The system passes information between a server and satellite (or tablet running mSupply mobile) when there is an internet connection, and stores information to be sent when there is not.

This tab is where the store specific settings for synchronisation are made. See [Remote Synchronization](#) for more details.

Deleting a store

To delete a store, click on the *Delete* button in the View stores window. **Note:** deletion of a store is a serious thing to do and is only possible when that store contains zero stock and there have been no transactions recorded. mSupply will check and tell you that deletion is not possible if these criteria are not met. If you can't meet these criteria and you still want to stop people using the store then you can [Disable it](#) - see above.

Alert

If the store is **Active** on a sync satellite site, then this process will not delete the sync satellite site.

Transition a customer to a virtual store

You may have a customer that is about to start using mSupply. That customer needs to become a store in mSupply. There are two ways to do this.

- [Create new store and then merge with the existing customer name](#)- the 'old' method
- [Turn an existing customer into a store](#)- recommended!

Important

Whichever method is used, this is difficult to reverse. Only do this once you are sure. You have been warned!

Create new store and then merge with the existing customer name

Until version v5.02 (see below), the procedure was:

1. [Create the new store](#) with a similar name
2. Use mSupply's [Merge names](#) functionality to merge the two names into one

Important

- You **must** choose the newly created store's Name as the "Name to keep" and the older Customer's name as the

- “Name to delete”. However, doing this means that you will lose the original name properties. Therefore you should also take a note or a screenshot of name properties that you want to keep (e.g. address, categories etc.) and then re-apply them to the new store name.
- mSupply may prevent the merge due to unfinalised CIs from other stores in the system. You will need to finalise these CIs on the corresponding stores before the merge is successful.
 - These can be hard to find on a multi-store system where the transactions could have come from a number of places. Suggested approach: Use [Supervisor mode](#), view CIs, and customise the list view to show Store name.
 - If these transactions are on a number of stores on satellite sites on dodgy internet connections, it can take **days** to log in to the satellite sites, finalise the CIs, and sync the finalised CIs back to the Primary. Meanwhile, there is a danger that new transactions will be created! 😞
 - These inconveniences are why the [Turn an existing customer into a store](#) feature was developed 😊.

Turn an existing customer into a store

Due to the limitations of the method described above, from mSupply v5.02 onwards, you can choose to convert an existing customer into a store, and thereby retain all of its properties. This is done while creating the store:

1. Log into a store that will have the same or similar user and group permissions as the new store.
2. **Customer > Show customers...** to find the customer that you want to convert into a store and copy the Name. This will ensure that you are converting the correct name into a store - see warning below!
3. **Special > Show stores... > New Store**
4. Click on the **Turn an existing customer into a store** checkbox
5. Enter the existing customer name into the **Name** field. You can search for existing customers by typing the first few letters of the customer's name, and then press **Tab**. To ensure that you are converting the correct name into a store, paste the Name that you copied in step 2 above. This should result in at least the store code field getting populated. If this does not happen, then the existing customer has not been recognised - try again.
6. Populate the [Responsible officer](#), [Store credentials](#) and [Tags](#) fields if required.
7. Click **OK**

Previous: [26.06. Transaction categories](#) || Next: [26.08. Bulk Store Preferences Editor](#)

Last modified: 2022/03/23 23:05 by Mark Glover

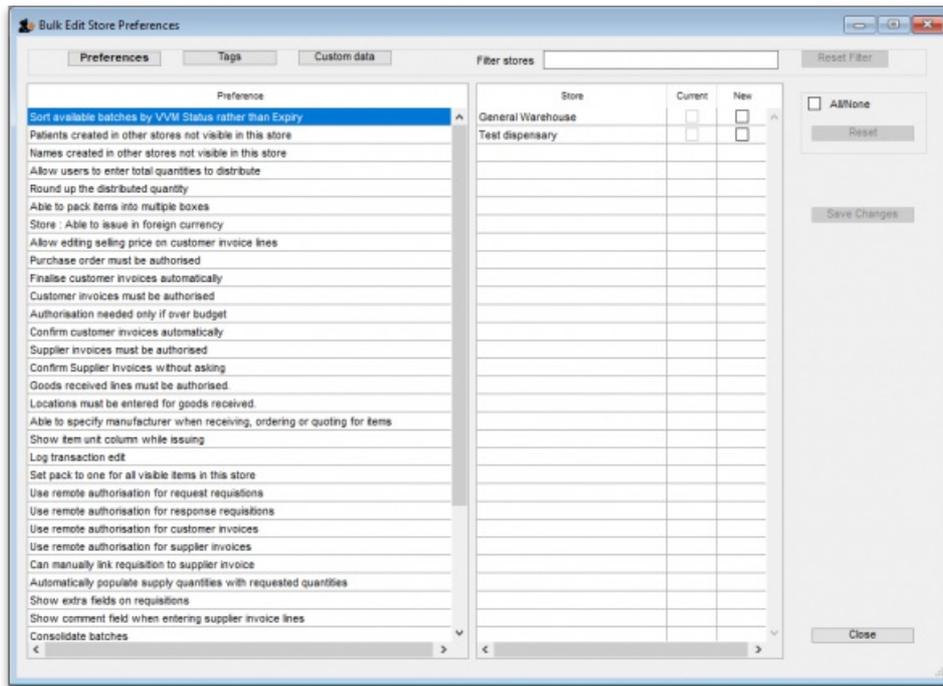


26.08. Bulk Store Preferences Editor

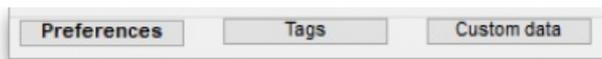
The **Bulk Store Preferences Editor** allows changing preferences and other properties for many (or all) stores at once. This will be particularly useful in any system where you have many stores in a single datafile.

For a user to be able to use this function, they must have the *Edit store details* permission turned on (see the [Managing users](#) section for details).

Open the editor by choosing the *Special > Bulk edit store preferences...* menu item. This window will open:



The editor allows editing of basic **Preferences**, **Custom Data** (Not yet implemented but coming soon!) and **Tags** (Not yet implemented but coming soon!). Preferences are selected by default when the window opens but click one of the others in the top panel if you want to work with another type of store setting:



The *Preferences* table in the left hand panel shows all the available settings of the type specified above. The *Stores* list in the right hand panel shows all the stores in your datafile that you can edit the settings for (normal stores, dispensaries and report type stores).

When you select a Preference, the Stores list shows the current settings for each of the stores in the **Current** column - this column is read only and can't be changed.

To change a selected preference, click on the checkbox in the **New** column to switch the preference on or off.

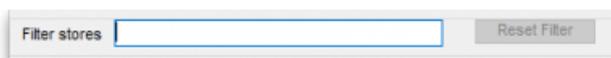
You can apply a setting to all displayed stores with the **All/None** checkbox on the far right panel. If you want to undo what the **All/None** button did then click on the **Reset** button.

Once you're done making changes for this preference, click the **Save Changes** button to write your preference settings to the database. The **Current** column will be updated with the new settings to reflect the saved changes.

Please note: You *must* save changes before switching to another setting, or your changes will be lost. mSupply won't stop you moving to another preference before saving changes but it will tell you if you lose unsaved changes.

Filtering stores

If you only wish to make changes to a subset of stores, you can filter the Stores list with the *Filter stores* bar in the top panel:



When you click the text entry field, you will be presented with a simple query editor:



Query in [store]

 Create new selection

Find:  is   

Submitting this query will update the list of Stores to match the query you created. Restore the full list of Stores with the **Reset Filter** button.

Previous: [26.07. Virtual stores](#) | | Next: [26.09. Custom data](#)

Last modified: 2022/02/11 15:47 by Gary Willetts



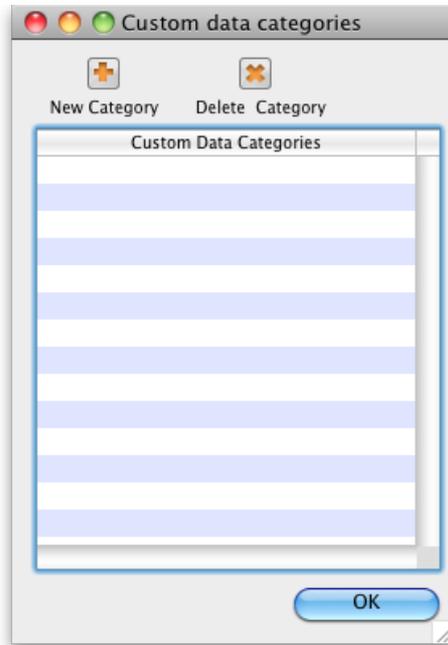
mSupply documentation wiki



26.09. Custom data

Custom data allows you to add data to mSupply that doesn't naturally fit into one of the existing fields.

- Choose **Special > Show custom data...** to show the list of custom data sets.

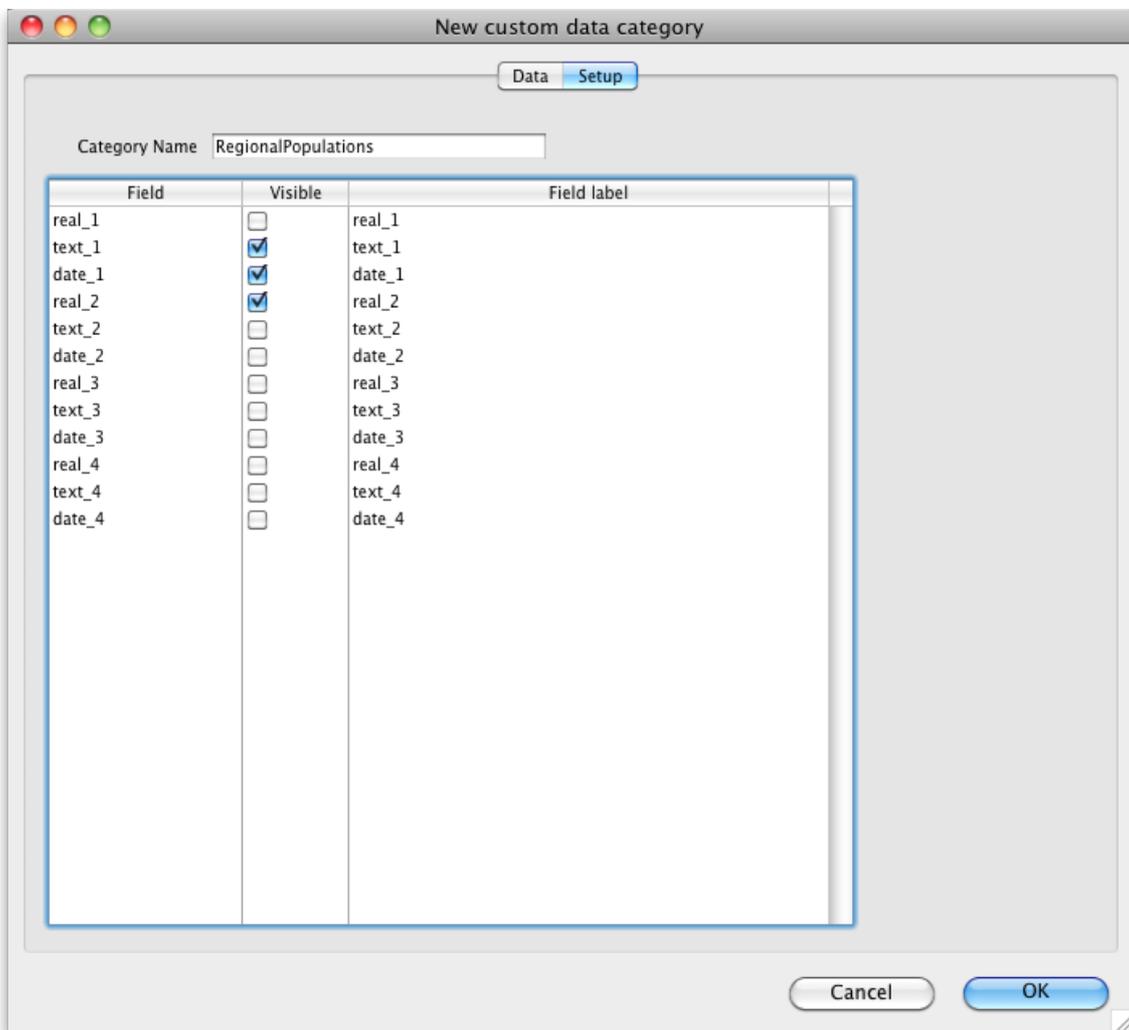


Setup fields

- Click **New**
- This window is shown:

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- [Setup fields](#)
- [Adding data](#)
- [Using data in reports](#)
- [Setup fields](#)
- [Adding data](#)
- [Using data in reports](#)

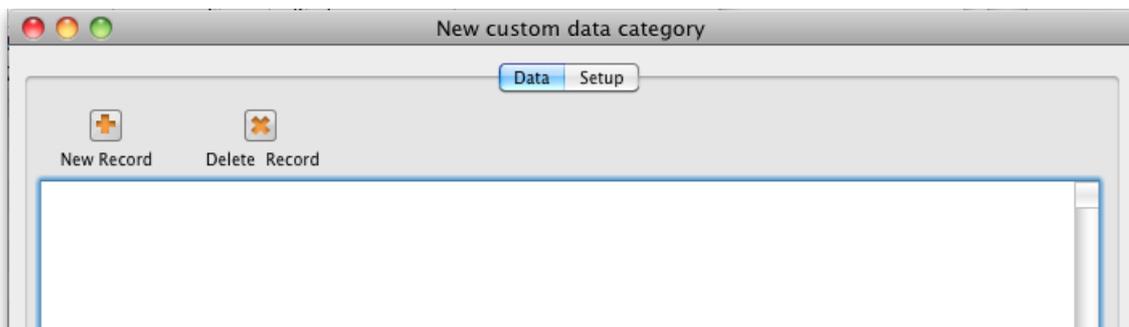


- For our example, we're going to record population in several regions each year, so we need
 - A real number field to store the population number
 - A text field to store the region name
 - A date field to store the year
- We've labelled the data set *RegionalPopulations*
- To change the field names, click once on the name, and then wait a second or two and click again- now it is editable:



Adding data

- Click the **data** tab then click **New**



Using data in reports

- You can extract data by using the following method in a pagepro report
- `custom_value_get("data_set";"field_to_query";"search_value";"field_to_return";→"variable_to_return")`
 - "data_set" is the name of the data set. e.g. "RegionalPopulations"

- field_to_query is the internal name of the field "text_1", "Text_2", "real_2", "date_7"
- "search_value" is the value you're looking for in "field_to_query"
- "field_to_return" is the field name of the value to return
- "variable_to_return" is a pointer to the variable that will contain the data returned.
- Sound too complicated? We usually build these reports for clients, but this documentation is for the technically minded who want to build their own.

Previous: [26.08. Bulk Store Preferences Editor](#) | | Next: [26.10. Currencies](#)

Last modified: 2022/02/11 15:47 by Gary Willetts



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26.10. Currencies

Choosing *Currencies* from the *Special* menu opens a window with a list of currently entered currencies. The home (default) currency always has a rate of 1, and the entry in the rate column of additional currencies is the number of units of the default currency equivalent to 1 unit of the other currency. In the screenshot below, the home currency is the Australian dollar (AUD) and the *Rate* of the Euro is 1.3317, so, at the time of writing, 1.3317 Australian dollars (the default currency) was equivalent to 1 Euro, 0.7485 Australian dollars was equivalent to 1 New Zealand dollar, etc.

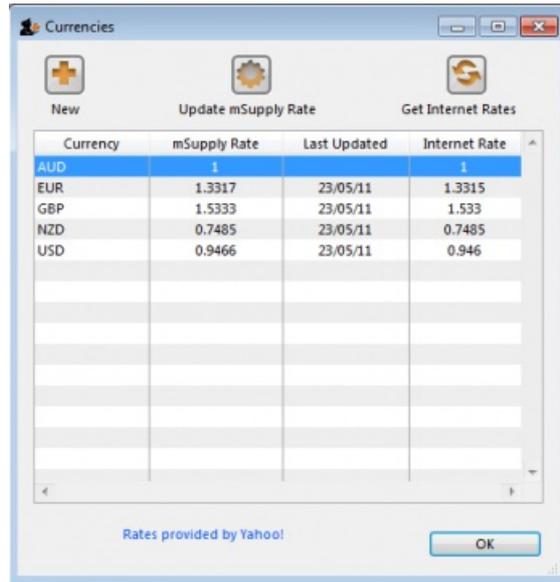


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- Buttons in the Currency list window
- Editing a currency entry
- To change your default currency
- Buttons in the Edit currency window
- Using Foreign currencies in transactions

Buttons in the Currency list window

New: To add a new currency.

Get internet rates: Providing you have an internet connection, clicking this button will update the rate of exchange from the Yahoo website.

Update mSupply rate: The refreshed rates will only become active when you click this button.

OK: Click *OK* to close the *Currencies* window when you have finished editing currencies.

Editing a currency entry

Double click a currency to edit it manually. Note that your “home” currency should be entered with a value of “1”, and all other currencies should be entered with a rate relative to your home currency. A window with the currency code and the current rate will appear.



You can edit the rate. Note that doing so will automatically update quotes that use that currency.

To change your default currency

1. Double-click on your default currency in the list
2. Click the padlock icon
3. Choose a different home currency.

Note that all other currencies will have to have their rate entered relative to the new default currency

Buttons in the Edit currency window

Delete: Click to delete the currency. If the field is dimmed, the currency is in use by quotations, and cannot be deleted.

Cancel: Click to exit the window without saving changes.

OK: Click this button when you are finished editing currencies.

Using Foreign currencies in transactions

We discuss this very important topic [right here](#)

Previous: [26.09. Custom data](#) | | Next: [26.11. Using foreign currencies in transactions](#)

Last modified: 2022/02/11 15:48 by Gary Willetts



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26.11. Using foreign currencies in transactions

The foreign currency feature enables you to receive stock from suppliers in the suppliers own foreign currency and also distribute goods to customers in their own currency.

Set up foreign currencies for customers and/or suppliers

⚠ Important

You must have *Foreign Currencies* configured in mSupply if you are using this feature. You set them up using [Currencies](#). Once this is done, follow the steps below.

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- [Set up foreign currencies for customers and/or suppliers](#)
- [Set the Store to use foreign currency](#)
- [Set the currency of the Customer or Supplier](#)
- [Using foreign currencies](#)
- [Purchase orders](#)
- [Supplier invoices](#)
- [Customer invoices](#)
- [Supplier credit](#)
- [Customer credit](#)
- [Set up foreign currencies for customers and/or suppliers](#)
- [Set the Store to use foreign currency](#)
- [Set the currency of the Customer or Supplier](#)
- [Using foreign currencies](#)
- [Purchase orders](#)
- [Supplier invoices](#)
- [Customer invoices](#)
- [Supplier credit](#)
- [Customer credit](#)



Set the Store to use foreign currency

- From the Navigator click drop down menu **Special> Show Stores...** double click to select the store in which you want foreign currencies to be used and in the window that appears hit tab **Preferences**. - Check **Store mode: Able to issue in foreign currency**. - Click **OK** and return to the mSupply Navigator.

Set the currency of the Customer or Supplier

- From the **Navigator** choose **Customers > Show Customers**. - Locate the Customer and double-click it. In the window that appears click the **General** tab and in **Currency** drop-down list (top-right) select the appropriate currency for that Customer. - Click **OK** to return to the Navigator and do the same for the Supplier if required.

Using foreign currencies

- Generating an invoice for goods (either from a Supplier or to a Customer):
 - [receive goods from a Supplier in a foreign currency](#)
 - [issue goods to a Customer in a foreign currency](#)
- Generating a credit for returned or unwanted goods (either from a Customer or to a Supplier):
 - [receive returned goods from a Customer in a foreign currency](#)
 - [send/return goods to a Supplier in a foreign currency](#)

Purchase orders

To Do

Instructions in these section to be update

Supplier invoices

Info

In this example, our store operates with Australian dollars (AUD) as the local currency, and is making a purchase from a European supplier which uses the Euro (EUR)

1. From the Navigator choose **Suppliers > New Supplier Invoice**

2. In the Supplier Invoice window that appears select your supplier and view its details by double-clicking.
3. Click the **Price** tab and change the currency (as highlighted in box1 below) to the currency in which the supplier provides the items to you.
4. Return to the **General** tab and click button **New line** to add a new item line.
5. In the window that appears type the details of the item you are receiving and hit button **OK & Next** to add further items.
6. Once all items are added, again click the **Price** tab and review the item prices as highlighted in box2 below:

Supplier invoice

Name: International Dispensary Association
 Their ref: example ida
 Comment:
 Entry date: 29/08/2013
 Confirm date: 29/08/13
 Colour: Black
 Invoice number: 1,010
 Status: cn
 Goods receive ID: 0
 Purchase Order ID: 0
 Entered by: Sussol
 Store: General

Category: None

General Summary by Item Summary by Batch Price Log

Tender reference:
 Currency: EUR
 Currency rate: 1.4817

Supplier subtotal: 210
 Local charges: 0
 Extra foreign currency charges: 0
 Total foreign currency charges: 210

Line	Item Name	Qty	Pack	Batch	Expiry	Price FC	Extension FC	Price	Local c...	Price exten
1	Benzhexol 2mg tab	1000	1	RS-851	31/10/16	0.01	10.00	0.01	0.00	14.81
2	Lubricating jelly (KY) (g)	100	25	JK-577	31/01/17	2.00	200.00	2.96	0.00	296.34

Other charges
 Item(s):
 Amount: 0.00

Subtotal: 311.15
 0 % tax: 0.00
 Total: 311.15

Hold Finalize Export batch: 0 Margin: -1.66
 OK & Next Delete OK

Info

The columns headed **Price FC** and **Extension FC** in box 2 above show the cost price of goods to you in Euros - i.e. the Foreign currency which the supplier uses, while the figures in the columns on the right show the prices in Australian dollars - i.e. your local currency.

7. Click **OK** to save the Supplier invoice and introduce the items to stock.

Important

- If you change the supplier on an invoice that has item lines, the following message will appear. Check the currency is correct for the new customer and adjust it if necessary.



Customer invoices

Info

In our example, the supplier uses Australian dollars (AUD), and is creating an invoice for Highland Health Centre which uses Solomon Islands dollars (SBD).

1. Ensure *Foreign Currencies* are active as per the instructions at the top of this page.

- From the Navigator choose **Customers > New Customer Invoice**.
- In the Customer Invoice window that appears select your Customer in field **Name** and note the currently set currency and its rate as highlighted in **box 1** below.
- Now click the **New Line** button to add a new item line.
- In the window that appears type the details of the item you are issuing and hit the **OK** button. Repeat as needed.

Customer invoice

Name: Highland Health Centre Confirm date: 00/00/00 Colour: Black

Their ref: HC4 Category: None Invoice: 30,040

Comment: Entry date: 19/09/13

Goods receive ID: 0

Status: nw

Entered by: Sussol

Store: General

New line Delete line(s) History Confirm

General Summary by Item Summary by Batch Transport details Log

N...	Li...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Price fc	Price fc ext...	Sell Price	Price exten
1	TAB		Metoclopramide 10mg tab	1000	1	YT407	31/10/16	0.06	63.69	0.01	10.00

Other charges Item: Amount: 0.00

Subtotal: 10.00

0 % tax: 0.00

Total: 10.00

Currency: SBD Currency rate: 0.157 Foreign currency total: 63.69

Hold Finalize Export batch: 0 OK & Next Delete OK

Info

- Box 1 shows the customer's currency, SBD, the Currency Rate, which shows the value of 1 Solomon Island dollar in the supplier's currency, Australian dollars, and the invoice value in the customer's currency.
- Observe the item's foreign currency values (SBD) in the columns **Price fc** and **Price fc ext** on the Customer Invoice in box 2 below:

- Click **OK** to save the Customer invoice.

Important

- If you change the customer on an invoice that has item lines, the following message will appear. Check the currency is correct for the new customer and adjust it if necessary.



Supplier credit

Info

In our example, the supplier, International Dispensary, uses Euros (EUR), while we use Australian dollars (AUD).

1. Ensure Foreign currencies are active as per the instructions at the top of this page.
2. From the Navigator click drop down menu **Supplier> New Supplier Credit**
3. In the Supplier Credit window that appears select your Supplier in field **Name** and note the currently set currency and its rate as highlighted in **box 1** below.
4. Now click button **New Line** to add a new item line.
5. In the window that appears type the details of the item you are receiving and hit **OK**. Repeat as needed.
6. As this is a credit note, the value is shown as a negative amount
7. Box 1 shows the supplier's currency, EUR, the Currency Rate, which shows the value of 1 Euro in our currency, Australian dollars, and the credit note value in the supplier's currency.
8. Note the item's foreign currency values (SBD) in the columns *Price fc* and *Price fc ext* on the Supplier Credit in box 2 below:

9. Click **OK** to save the Supplier credit.

⚠ Important

- If you change the supplier on an invoice that has item lines, the following message will appear. Check the currency is correct for the new customer and adjust it if necessary.



Customer credit

📘 Info

In our example, the supplier uses Australian dollars (AUD), and is creating a credit note for Highland Health Centre which uses Solomon Islands dollars (SBD).

1. Ensure Foreign currencies are active as per the instructions at the top of this page.
2. From the Navigator click drop down menu **Customer> New credit...**

- In the Customer Credit window that appears select your Customer in field **Name** and note the currently set currency and its rate as highlighted in **box 1** below.
- Now click button **New Line** to add a new item line.
- In the window that appears type the details of the item you are crediting and hit button **OK**.
- Boxes **1** and **2** show details exactly the same as explained in the previous two examples

- Click **OK** to save the Customer credit.

⚠ Important

- If you change the customer on an invoice that has item lines, the following message will appear. Check the currency is correct for the new customer and adjust it if necessary.



Previous: [26.10. Currencies](#) || Next: [26.12. Product \(drug\) registration](#)

Last modified: 2022/02/11 15:48 by Gary Willetts



26.12. Product (drug) registration

Introduction

The process by which a governing authority controls which products can be supplied in a country is called registration. The process involves keeping a register of the products that are allowed to be supplied by particular suppliers. Each supplier must:

- Obtain a supplier registration number and
- Obtain a registration for each product they wish to supply. This registration will usually be per brand and dose form, will be time-bound and therefore will need renewal.

A critical part of the process is supplying documents to verify product quality. The Product (drug) registration functionality in mSupply is all about recording and tracking the status of suppliers' registrations and storing the documentation for easy retrieval.

Getting started with the Registration module

Activate the Registration module

Before using the Registration module you will need to activate it in the Drug registration tab of the [General Preferences](#).

Making the Registration module visible

mSupply treats the Registration module like a store (see [Virtual stores](#)). A user won't be able to log in to a virtual store on the login window unless they have permission to do so (see [Managing users](#). You will need to allow the users who are going to do the registration work to see the Registration Module 'store'.

Making things visible in the Registration module 'store'

When a new store is created, no existing items or names (suppliers, manufacturers, customers, etc.) are visible in it. This clearly needs to be fixed if you are going to register existing items, suppliers, or manufacturers!

Tip

Any items, suppliers and manufacturers created after the Registration module 'store' has been created will be automatically made visible in the Registration module 'store'.

Make existing suppliers and manufacturers visible

To make existing suppliers and manufacturers visible, you need to make them visible in the Registration module 'store' - refer [Names: Using, adding and editing, the Store tab](#).

Make existing items visible

To make existing suppliers and manufacturers visible, you need to make them visible in the Registration module 'store' - refer [Items, the Stores tab](#). This must be done while logged in to another store.

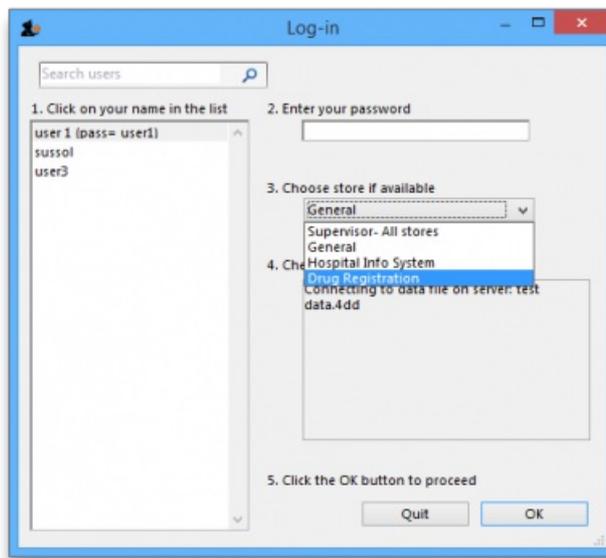
Using the Registration module

The Registration module has its own Navigator. If mSupply doesn't start in Registration mode when you log in you may switch to it by choosing *File > Switch...* and selecting Registration:

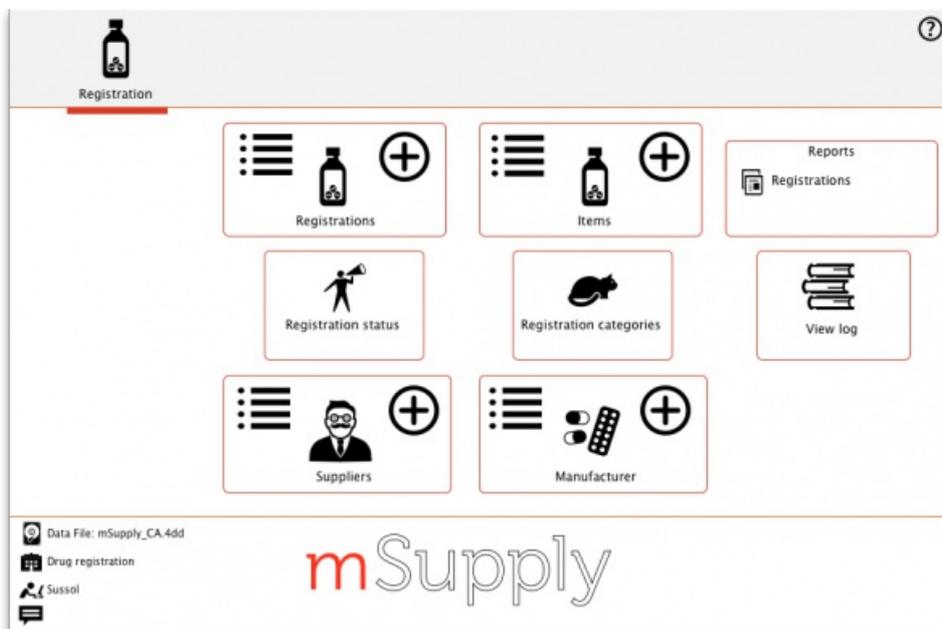
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 - Activate the Registration module
 - Making things visible in the Registration module 'store'
- Using the Registration module
 - Show (list) registrations
 - New registration
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 - New supplier
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 - Registration categories
 - Drug registration status window



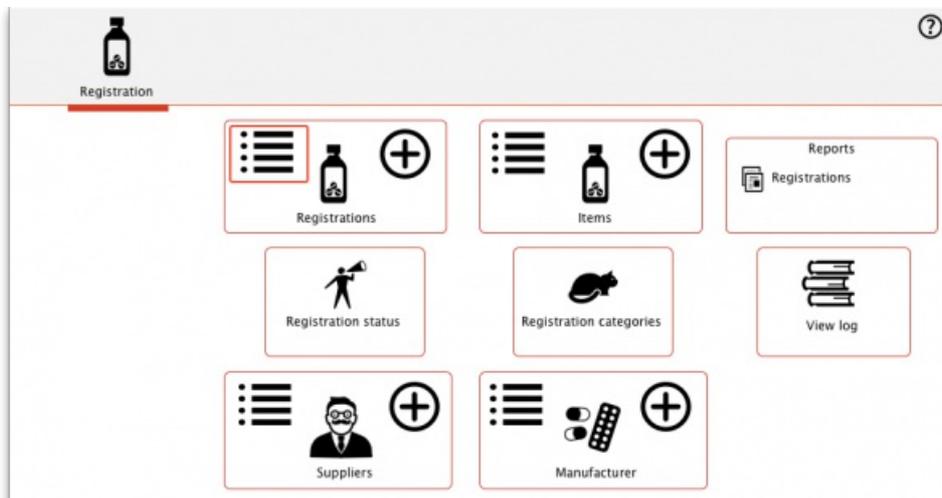


You will then be presented with the Navigator for Registration:



Show (list) registrations

To see a list of registrations click on the List button:



This will open the filter window to allow you to refine your search. The filters all work in the normal way so, if you want to list all registrations, do not enter anything in the filters:

Show registrations

Find Registrations whose

Expiry date is on or b...

and

Supplier Name starts with

and

Item code starts with

and VEN Category

and category 1 is

and category 2 is

and category 3 is

and category 4 is

and Status is

Clicking the *Find* button will display a list of all the registrations that match your search criteria:

Drug registrations...

Filter list as:

25/25

Item Name	Supplier	Status	Application number	Registration number	Trade name	Is registered	Registration expiry
Test item	Test Drug Reg		1	1	guardian	<input type="checkbox"/>	
Co-trimoxazole (Septrin) 40mg/...	Academy Chemic...		6	6	Test trimoxazole	<input checked="" type="checkbox"/>	3/2
ABC 300mg, tablet	Access Spectrum		3	3	Natural ABC	<input checked="" type="checkbox"/>	12/3
Fendona 10kg	Hetero Labs Limi...		4	4	Hetero Fendona	<input type="checkbox"/>	
Levofloxacin, 1g	Alere Medical Co...		5	5	Alere Levofloxacin	<input type="checkbox"/>	
Diclofenac sodium 50mg, tablet	FFND		7	7	DH Diclofenac	<input type="checkbox"/>	
Artesunate injection 60 mg	Nanova Co.Ltd		8	8	Artesunate	<input type="checkbox"/>	
Ball bearing for plug fan motor	Drug Registration		9	9	Ball AHF	<input type="checkbox"/>	4/2
NMCP Future item 2	Waimaw Townsh...		10	10	Manufacturer	<input checked="" type="checkbox"/>	12/2
Cefixime 100mg, tablet	Indaw township	Refused	11	11	fireg	<input type="checkbox"/>	
Rack with lid for 1-2ml Cryo vial	Drug Registration		12	12		<input type="checkbox"/>	
Lab requisition form	Lanmadaw Town...		13	13	labreq	<input type="checkbox"/>	
ABBOTT EID m2000 Reagent Kit...	Htilin Township		14	14		<input checked="" type="checkbox"/>	7/2
Hand Compression Sprayer Ca...	Bago MMA	Waiting for docume...	15	15	higy	<input checked="" type="checkbox"/>	4/3
Water for injection 5ml, bottle	Indaw Township		16	16	jubilee	<input type="checkbox"/>	
Zilprenum	Zegong Township		17	17	asd	<input type="checkbox"/>	
Zilprenum	Zabbuthiri Town...		18	18	jsd	<input type="checkbox"/>	
Quinine DHCL, Inj 300mg/ml, 2ml	Waw Township		19	19	gdfgd	<input type="checkbox"/>	
Laboratory Coat, Medium	Tabayin Township		20	20	ddfgd	<input type="checkbox"/>	
Water for injection 5ml, bottle	Waibargi Towns...		21	21		<input type="checkbox"/>	
Gene Xpert Machine (4 modules)	JICA		22	22		<input type="checkbox"/>	
ABC 300mg, tablet	Alere Medical Co...		23	23		<input type="checkbox"/>	
Electronic Pipette Boy	Access Spectrum		24	24		<input type="checkbox"/>	

New

This will allow you to enter new registrations. See the section [New Registration](#).

Delete

You may remove registrations by highlighting an item on this list and clicking the delete button.

Find

This allows you to refine your search without having to go back to the previous window.

View / edit registration

To view and edit the details of a registration, **double click** it in the list and it will bring up a window where you can view and edit the details:

Drug registration details...

Supplier: KERIPIA SC

Item Name: Acetylcysteine Injection, 200mg/ml, 10ml
100400

Manufacturer: KERIPIA SC

Trade name: AcetySuper

Pack Size:

Comment: test

Currently registered: Approval date: 00-00-00

Application number: 8

Application date: 2017-02-05

Registration number: 8

Reg. expiry date: 00-00-00

Category 1: None

Category 2: None

Category 3:

Category 4:

Status: Refused

Document Log

Add Remove

Document name	Date uploaded

OK & Next Cancel OK

New registration

To enter a new drug registration record, click on



This will open the following window where data can be entered in fields as described below:

Supplier

- To get a list of suppliers starting with a particular letter, enter the letter and press **Tab**. This will let you select the supplier from a list.
- If you enter a letter and there is only one supplier beginning with that letter it will automatically be entered into the Supplier field.
- If the supplier is not listed you may need to create a new supplier record by clicking on the New Supplier button.
- If you want to list all suppliers you can enter @ and click Find.
- For more details see the New Supplier section below.
- Once you have chosen a supplier you will be able to edit the supplier details by clicking on the Edit Supplier button.

Item name

Enter the first letter of the item, press **Tab**, and select the item from the list that displays.

Manufacturer

As above enter the first letter of the manufacturer, press Tab, and select from the displayed list. If the manufacturer is not displayed a new record for the manufacturer will need to be created by clicking on the New Manufacturer button.

Trade name

As trade names for drugs vary widely this is a field to fill out manually.

Currently registered

If this item has been approved for registration then tick this box. The approval date will change to today's date once the window has been closed.

Status

You can assign a drug registration a status you have previously defined in the Drug Registration status window

Documents

You may attach documents to the registration record by clicking the plus button. This will open a window to allow you to navigate to and choose a locally stored document. To view documents stored in this way simply double click the document listed below.

Logs

The log tab allows you to see a list of events such as when this item was approved.

Show (list) suppliers

See [Show Suppliers](#)



New supplier

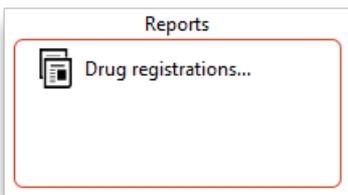
See [Names: using, adding and editing](#)



Show / new manufacturers

The process for viewing or adding a new manufacturer is the same as the process for viewing/adding a supplier - refer to the instructions above.

Reports



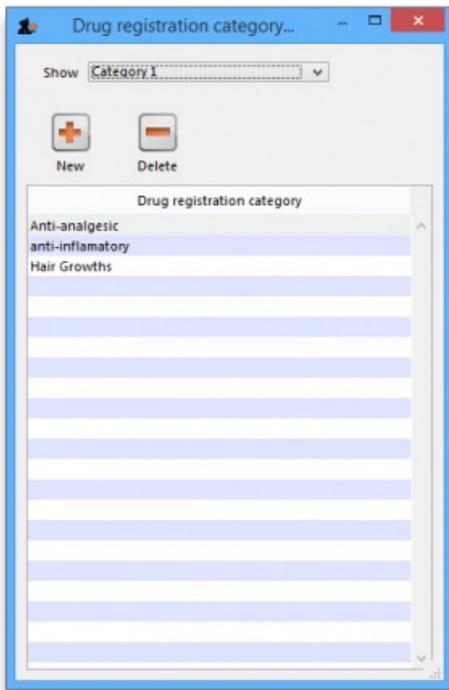
Clicking on Registrations will open a report listing all of your registration records.

Registration categories

Item categories are a great way of grouping your items. This enables you, for example, to report on specific groups of products by filtering by category. This can be extremely helpful.



To create a new category click on the Cat. This will open this window:



View registrations in category

- To view a list of registrations assigned to each category **double click** on the category in the list.

New

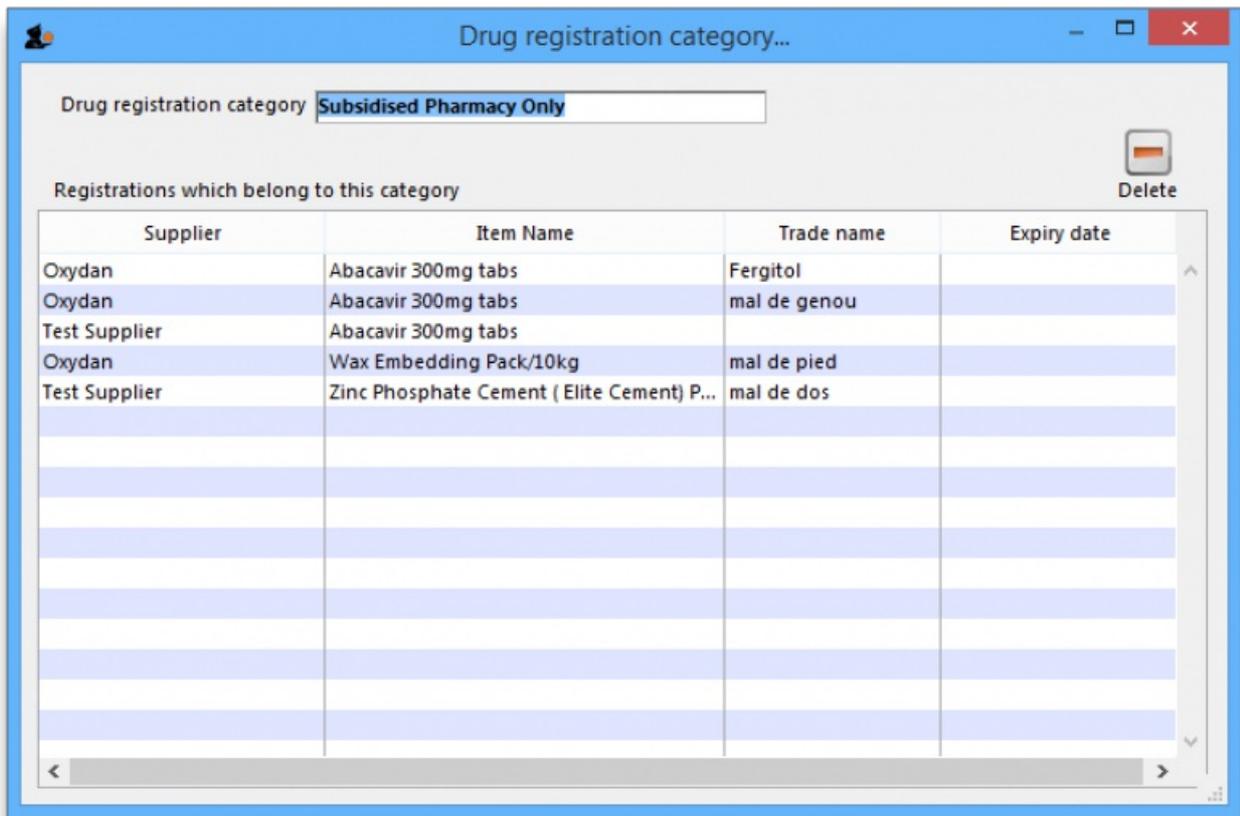
- Click the **New** button to add a new category.

Delete

- Click the **Delete** button to remove a category.

Alert

If there are registrations assigned to a category, then mSupply will not let you delete the category until you have removed the category from the *drug registration records*. mSupply will open the category so that you can see the Registration records that are assigned to this category.

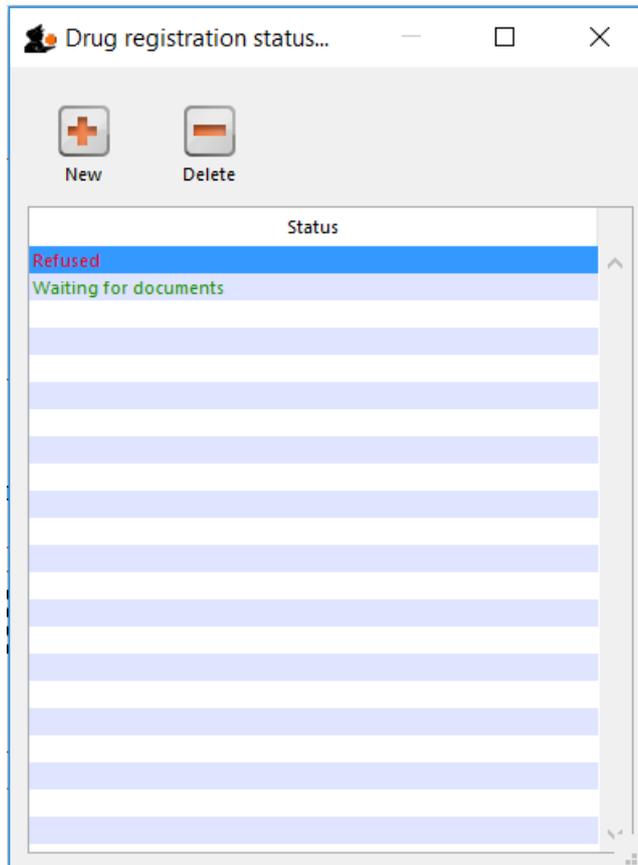


Drug registration status window

In this window you can define for yourself the different states or phases of a Drug Registration (for example, In Process, Refused, Waiting for documents, etc). This means that the status of a registration can be seen at a glance.

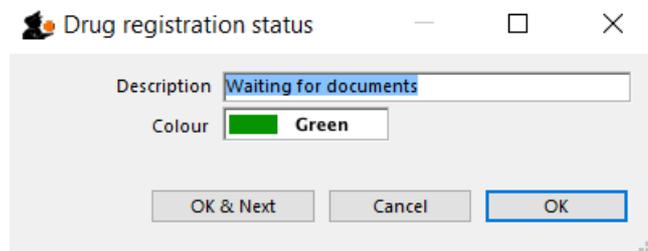


To show, create or delete a status click on the above button in the Navigator.



Edit a status

To edit a status, double-click on it. You can change its name or identifying color. The drug registrations that have been assigned this status will be affected by the change.



Add a new status

* Click the **New** button to add a new status.

Delete a status

* Click the **Delete** button to remove a status.

Alert

If this status has been assigned to registrations, then mSupply will not let you delete the status until you have removed the status from the *drug registration records*. mSupply will tell you how many drug registrations have been assigned this status.

Previous: [26.11. Using foreign currencies in transactions](#) | Next: [26.13. Using the mSupply remote client](#)

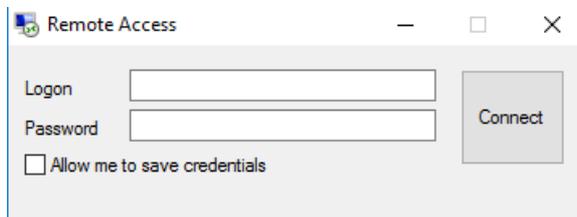
Last modified: 2022/02/11 15:48 by Gary Willetts

26.13. Using the mSupply remote client

As well as using an mSupply client connecting to a local mSupply server, or using a standalone version of mSupply, it is possible to access a copy of mSupply running on a remotely hosted server. In this case, we use remote access software called TSplus (<http://www.tsplus.net>).

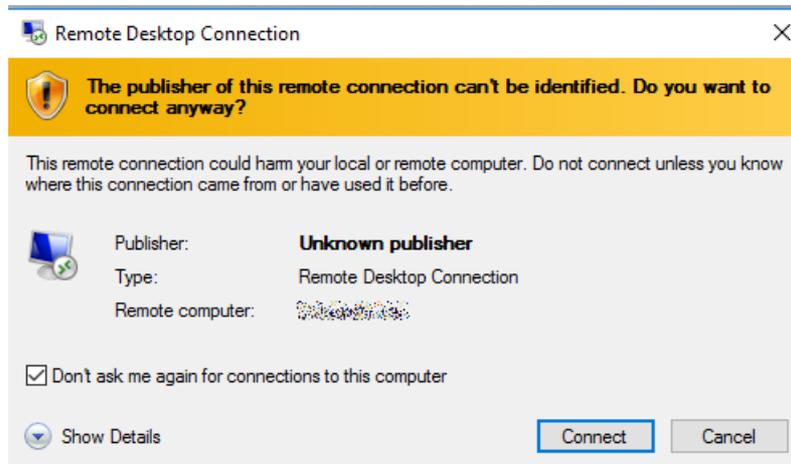
Connecting to mSupply

The first time you run the remote access client, you'll have to enter your TSplus username and password. These correspond to a Windows account on the remote server and are completely separate from your mSupply username and password.



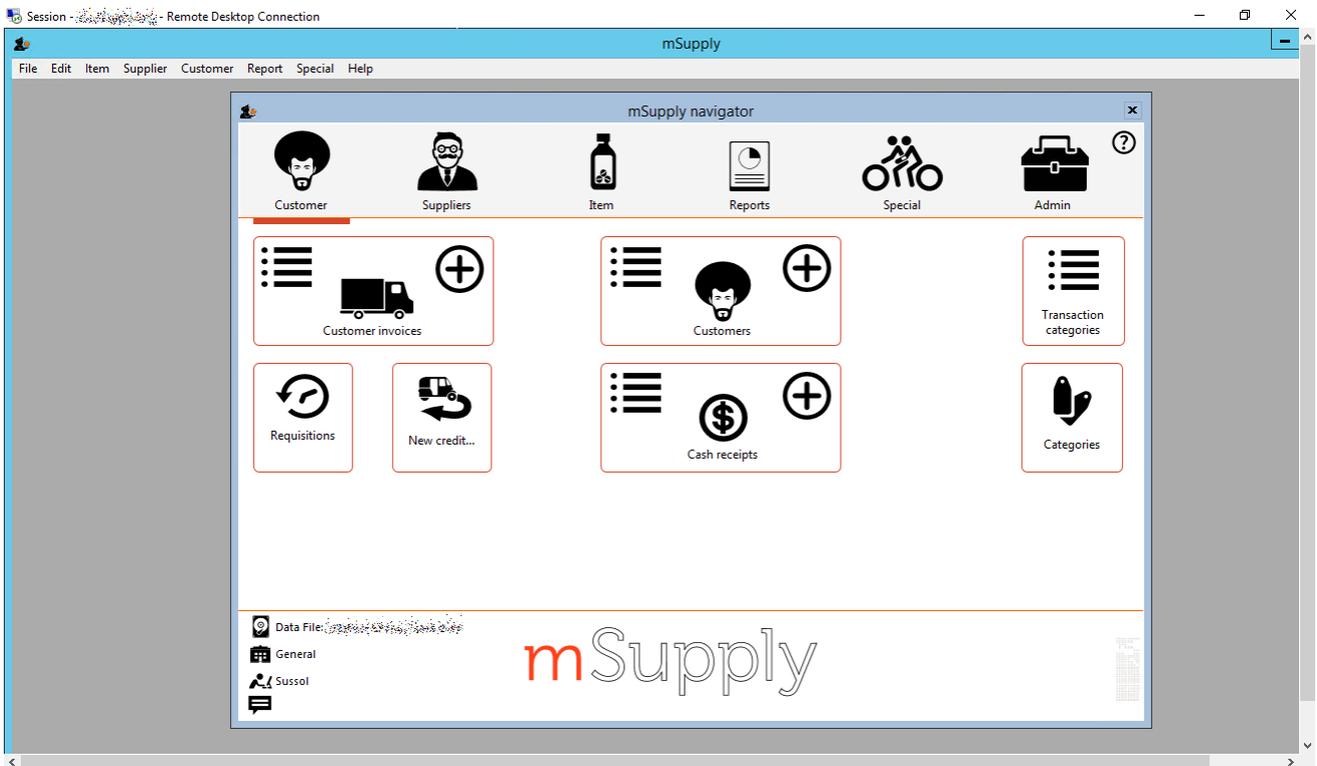
We recommend that you select the “Allow me to save credentials” box so that you don't have to remember it in future.

After clicking *Connect*, you may get a warning Window similar to this one:



If so, then select the “Don't ask me again for connections to this computer” box to avoid seeing it again in future.

You should then see the normal mSupply login screen - simply login as usual to get to the mSupply navigator, which looks exactly the same as normal except that it is enclosed in a session window:



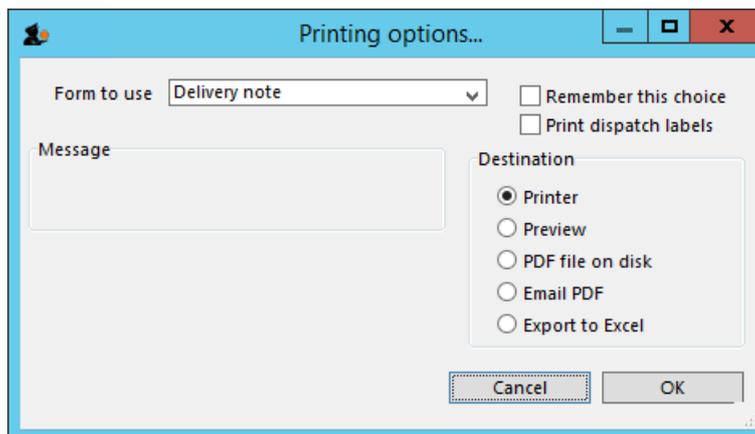
⚠ Important

When you're finished, exit mSupply by using the *File* → *Exit mSupply* menu item. If you just use the X button at the top right of the session window, it will close the window but mSupply will continue to run on the server, and use a license which may be needed by someone else.

After exiting mSupply, right-click on the empty desktop and click on the *Logout* button to close your session.

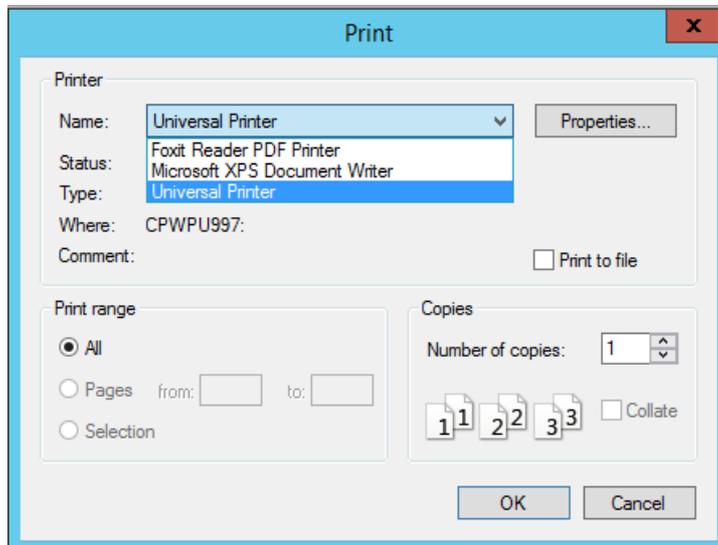
Printing from mSupply

Because mSupply is running on a remote server, printing forms and reports is slightly different as there is an extra step involved to download them to your local computer. There are several ways to do this, depending on which print option you choose e.g. printing a customer invoice:



Universal Printer

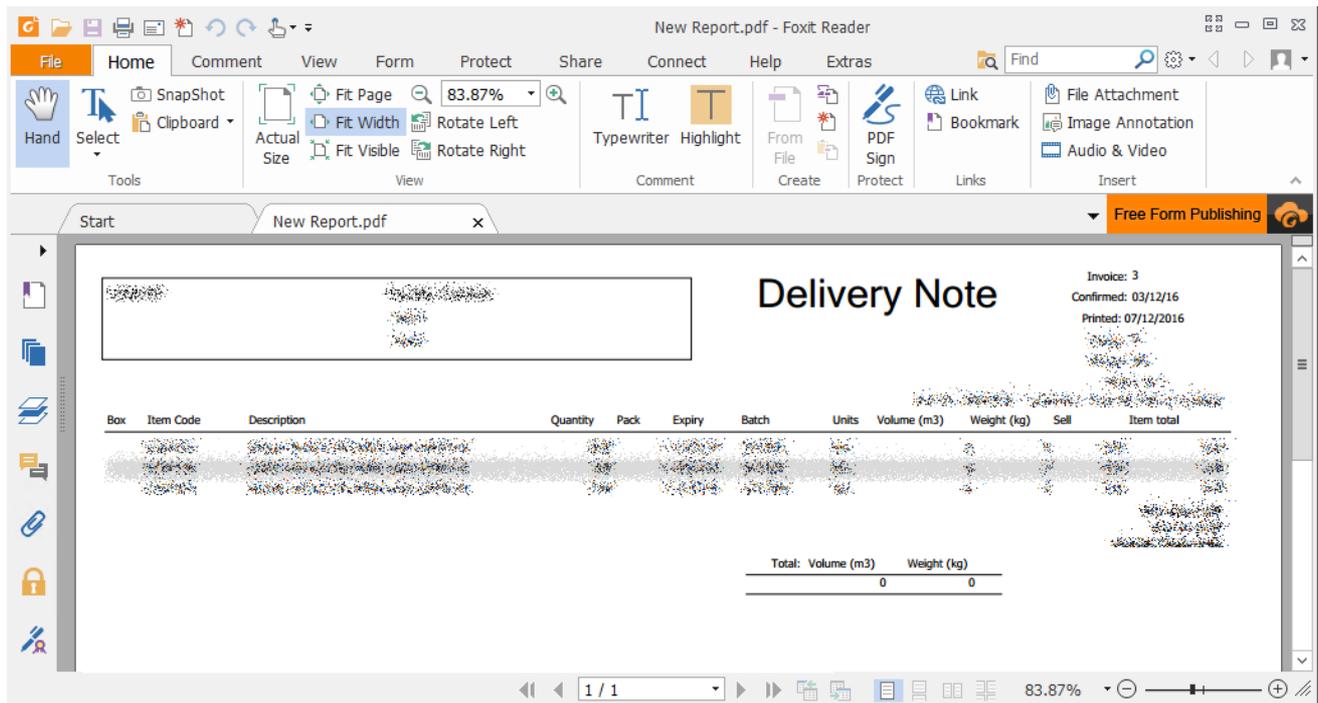
TSplus comes with a "Universal Printer" driver, and if you select the *Printer* option and then choose this as your printer, the print job should get downloaded to your local computer and then prompt you to choose one of the printer drivers on your local computer to receive the print job.



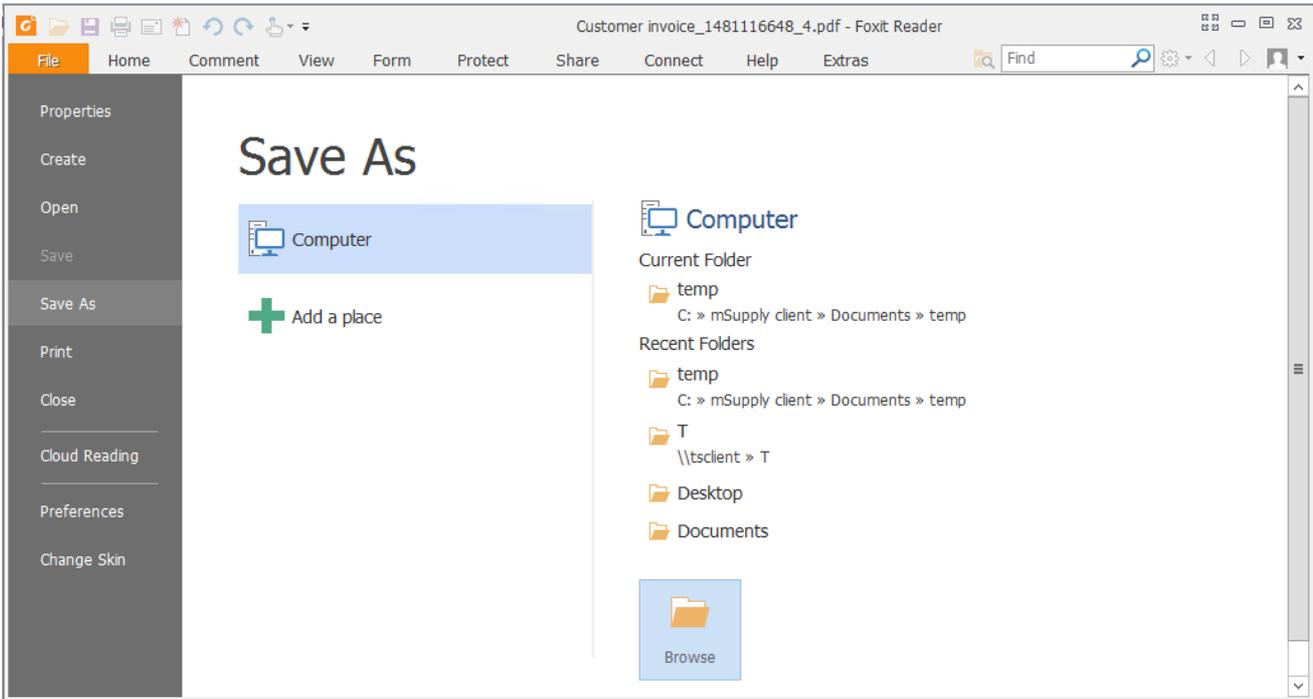
PDF printer

Foxit or some other virtual PDF printer driver will have been installed on the remote server. You can either:

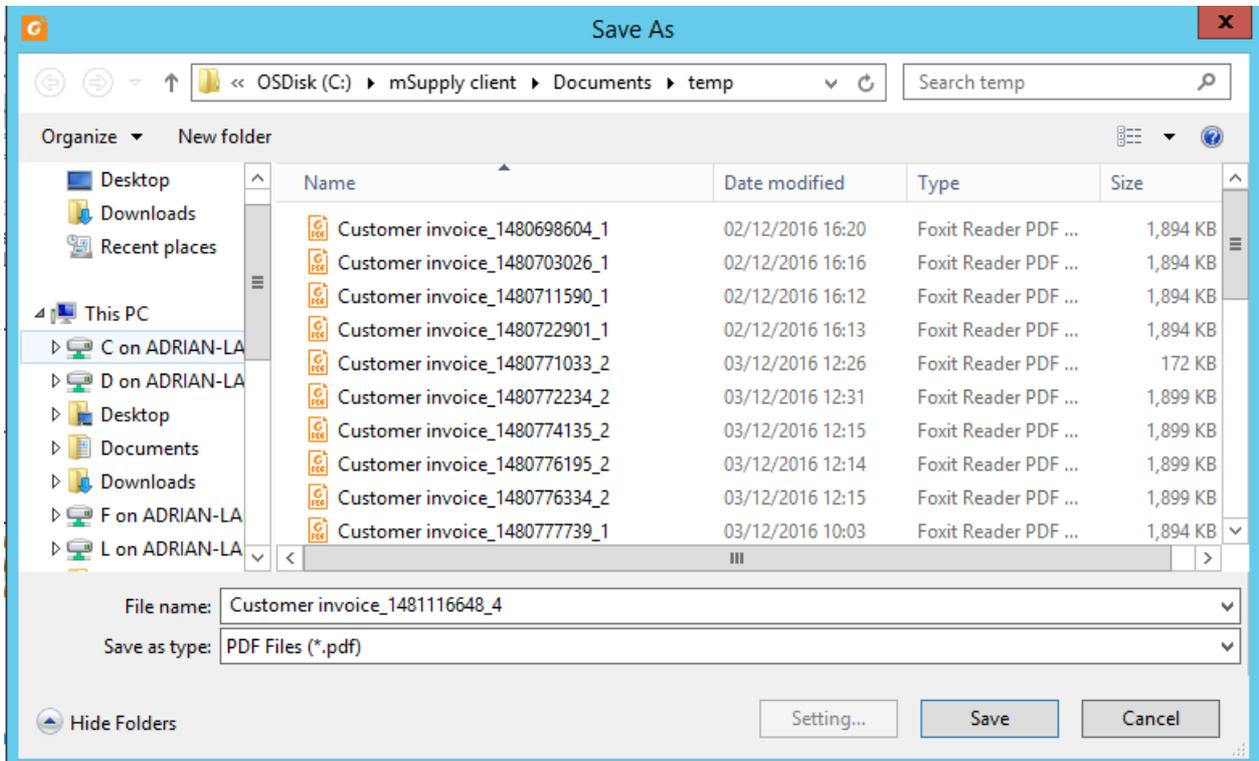
- select the *Printer* option and choose the virtual PDF printer driver as your printer - this will prompt you for a location to save the PDF file and then open it in the default PDF viewer (you may be prompted to choose either Foxit or Sumatra - the screen shots below use Foxit, but Sumatra is similar)
- select the *Preview* option - this will generate a PDF file in the default location (C:\mSupply client\Documents\temp) and then open it in the default PDF viewer
- select the *PDF file on disk* option - this will generate a PDF file in the default location and open that folder, and then you can double-click on the file to open it in the default PDF viewer



Regardless of which of these you choose, you can use *File* → *Save As* to save the PDF file to a folder on your local computer:



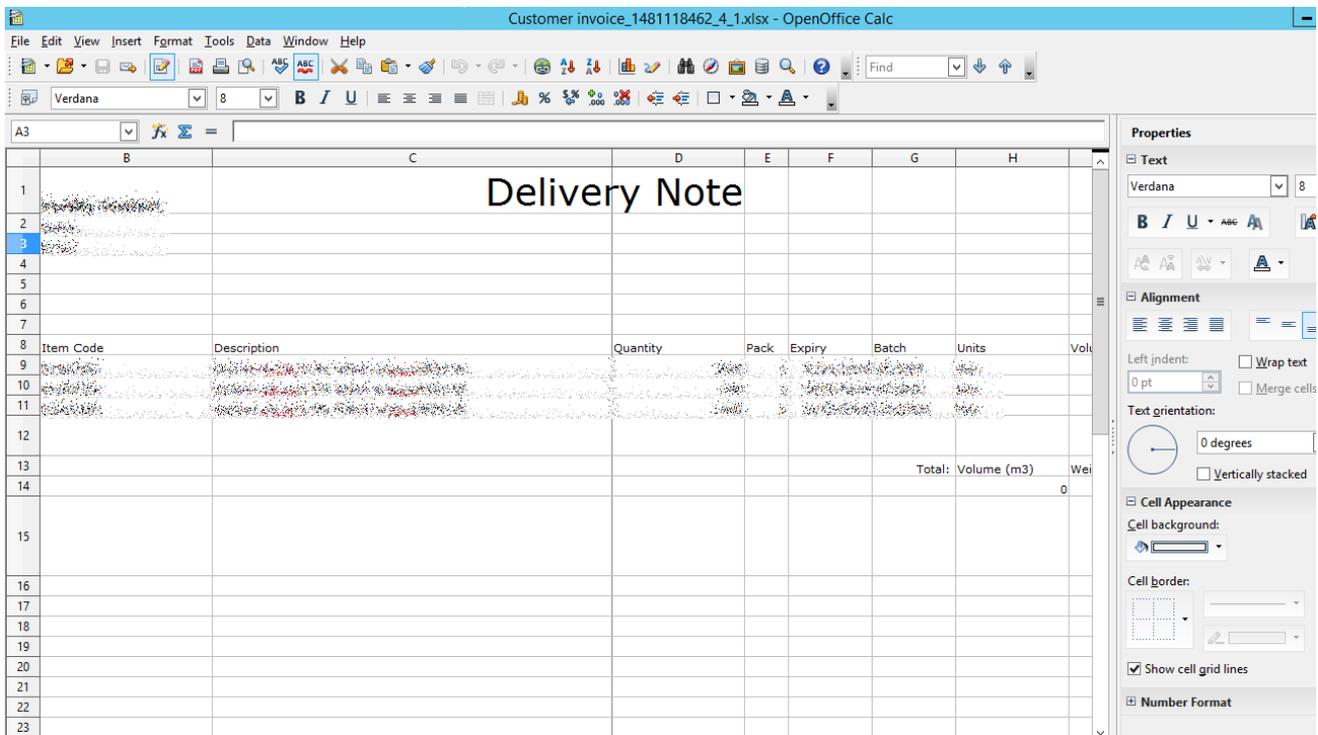
Click on *Browse* to choose where to save it - *This PC* includes all of your local drives as well as the ones on the remote server:



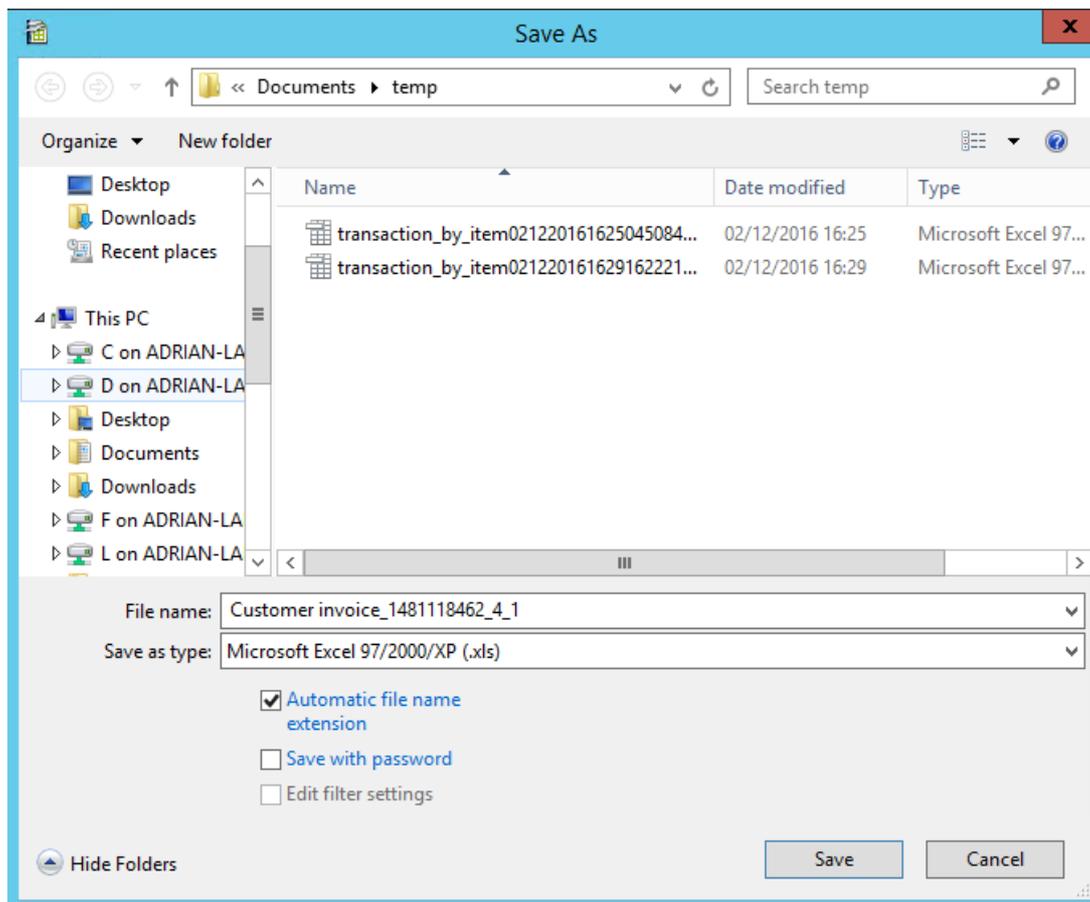
Exporting to Excel

MS Office won't normally have been installed on the remote server, but Open Office will have been. The first time you try to export to Excel, you'll have to choose the location of "Excel" - in this case, it will be something like `C:\Program Files(x86)\Open Office 4\program\scalc.exe`.

Select the *Export to Excel* option to open the report/form in Open Office:



In the same way as for PDFs, you can select a local drive from the *File* → *Save As* menu (either as an Open Office .ods document, or an Excel .xls document):



Transferring data

Dropbox will have been installed on the remote server, and can be used to transfer saved reports or other data between the server and any other computer which has access to the Dropbox account.



mSupply documentation wiki





26.14. Authorisation

Sometimes it is important that certain critical processes are not carried out until they have been **authorised**. mSupply allows authorisation to be set according to local needs for:

- [Purchase orders](#)
- [Goods receipt notes](#)
- [Supplier invoices](#)
- [Customer invoices](#)

Requisitions can be authorised using the remote authorisation app. See the [26.15. Remote authorisation](#) page for details about that.

Configuring mSupply for authorisation

Turning on authorisation

Authorisation must be set up for **each store independently**. For each store, you can decide which transaction types require authorisation.

To do this, choose *Special > Show stores* from the menus, double-click on the store you are logged into and click on the *Preferences* tab. Now turn on the authorisation preferences for the transactions you want to be authorised. See the [26.08. Virtual stores](#) page for details on which preferences do what. lick the **Special** tab, then click **Stores**.

Setting up authorisers

Certain users must be designated as authorisers for each store by giving them permissions to authorise different transaction types.

To do this, choose to *File > Edit users* from the menus and double-click on the user (or change the **Show** drop down list to *Group* and double-click on the group of users) you want to designate as an authoriser and give them the *Authorise purchase orders*, *Authorise goods received*, *Authorise customer invoices* or *Authroise supplier invoices* permissions in the appropriate stores.

See the [25.15. Managing users](#) page for details on where to find these permissions.

Supplier invoice authorisation

When the *Supplier invoices must be authorised* store preference is set, new supplier invoices will show an **Authorised** checkbox:

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 - [Setting up authorisers](#)
- [Supplier invoice authorisation](#)
- [Customer invoice authorisation](#)
- [Goods receipt authorisation](#)
- [Purchase order authorisation](#)
- [Monitoring authorisations](#)
- [Configuring mSupply for authorisation](#)
 - [Turning on authorisation](#)
 - [Setting up authorisers](#)
- [Supplier invoice authorisation](#)
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- [Monitoring authorisations](#)



An authoriser must check the **Authorised** checkbox before the supplier invoice can be confirmed (it will be disabled for users who do not have the *Authorise supplier invoices* permission).

If the **OK** button is clicked while the **Authorised** box is unchecked, a warning message will appear telling you that unauthorised invoices cannot be confirmed and nothing will happen.

If you have permission to authorise a supplier invoice, you can also unauthorise it:

- If the invoice has a new (*nw*) status then it has not been entered into stock. If you unauthorise it, users can edit it and you will still control the process of authorisation before the goods are entered into stock.
- If the invoice is confirmed (*cn*), the goods have already been entered into stock. If you unauthorise it, users will be able to edit it again and any changes users make will affect stock levels immediately. It is good practice, therefore, to only unauthorise a confirmed invoice to make changes immediately and the reauthorise it straightaway.

Tip

When supplier invoices have to be authorised, they **cannot be confirmed until they are authorised** Until then:

- Unauthorised invoices are held at suggested (*sg*) status.
- The official invoice cannot be printed.
- Goods are not received into stock.

Customer invoice authorisation

When the *Customer invoices must be authorised* store preference is set, new customer invoices will show an **Authorised** checkbox:

Customer invoice

Name: Acumao/Remexio CHC Confirm date: 23/05/2013 Colour: Black

Their ref: AIL-403-2 Invoice: 9,252

Comment: Category: None Entry date: 23/05/2013

Goods receive ID: 0

Status: cn

Entered by: Sussol

Store: General

Buttons: New line, Delete line(s), Backorders, History

Line	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1		Acces Pin With Stopper for use IV.inj. site	2	1			0.61148	1.22296

Other charges: Amount: 0.00000

Subtotal: 1.22296

0 % tax: 0.00000

Total: 1.22000

Buttons: Hold, Finalize, Export batch: 0, OK & Next, Delete, OK

Authorised

An authoriser must check the **Authorised** checkbox before the customer invoice can be confirmed. The **Authorised** checkbox will be disabled for users without permission to authorise.

If the **OK** button is clicked while the **Authorised** checkbox is unchecked, a warning message will appear stating that unauthorised invoices cannot be confirmed and nothing will happen.

Tip

When customer invoices have to be authorised, they **cannot be confirmed until they are authorised** Until then:

- Unauthorised invoices are held at suggested (sg) status.
- The official invoice cannot be printed.
- Goods are not removed from stock.

Goods receipt authorisation

When the *Goods received lines must be authorised* store preference is set, a new Authorised column will be displayed and will contain a checkbox for each goods receipt line. It looks like this:

New goods

Supplier: Gold medical supplies Store: General Warehouse

Received date: 05/11/19 Tender reference

Supplier reference: Goods received ID: 12

Comment: Created by: Admin

Modified by:

Entry date: 05/11/19

Purchase order: 12

Supplier Invoice: 0

Status: nw

Buttons: Add from purchase order, Add an un-ordered item, Delete line, Check space, Print goods receipt

Line	Location	Item code	Item name	Batch	Exp date	Pack Size	Quan	Authorised
1		aci250t	Aciclovir sodium 250mg inj	HYE778	31/5/25	10	20	<input type="checkbox"/>

Authorisation comment: _____

Buttons: Finalise, OK & Next, Delete, OK

Users who have the *Authorise goods received* permission turned on can check the *Authorised* checkbox for each line that is authorised. When the goods received note is finalised, only lines that are authorised will be added to the supplier invoice to be received into stock. The unauthorised lines will

remain on the finalised goods received note as a permanent record of what was actually received but not authorised.

Info

Any unauthorised goods received note lines do not count towards stock received against purchase orders or on goods received notes so they can be received again at a later date if they are resent by your supplier.

Users who have the *Authorise goods received* permission turned on may also leave a comment in the **Authorisation comment** field to record anything that needs to be noted.

Important

Invoices can be edited after authorisation but **goods receipt lines cannot be unauthorised** to fix mistakes! Any authorising errors can only be fixed using stock adjustments.

Purchase order authorisation

When the *Purchase orders must be authorised* store preference is set, new purchase orders will show an **Authorised** checkbox:

Line	Item code	Item	Orig Qty	Pack	Adj Qty	Tot. rece...	Stock on...	On Order	Cust.b/o...	Price Ext	Expected...	Store:

An unauthorised purchase order can still be confirmed and have goods receipted against it so it is not as restrictive as authorisation on, for example, customer or supplier invoices.

However, an unauthorised purchase order will print with an *Unauthorised* watermark across it. An authorised purchase order will print without the watermark.

Monitoring authorisations

Printing unauthorised invoices

When an invoice is **not** authorised, it will print with a clear **Unauthorised** watermark. Authorised invoices will print without the watermark.



Sames

Invoice: 9181

Page 2 of 2

Supplied to : Nitbe/Utaco
 Nitbe, OECUSSI

Status: cn
 Comment : Maria Ribeiro
 Confirmed: 11/12/2012
 Printed: 23/05/2013

Invoice Category :
 Comments : Maria Ribeiro

Authorized by :
 Collected by :

Line	Item	Quan	Pack	Batch	Expiry	Price	Extension	Box
24	Syringe Disposable 2.5 ml w/needle 0.6x 25 mm 2,5ml	100	1	None	00/00/00	0.00	0.00	
25	Syringe Disposable 5 ml, w/needle 0.7x30 mm 5ml	100	1	4294003	31/12/16	0.00	0.61	
26	Disposable Needle 19 G x 1.1/2 (box/100) 1.1 x 40 mm	100	1		00/00/00	0.01	1.22	
27	Disposable Needle 21 G x 1.1/2 (box/100) 0.7 x 25 mm	100	1		00/00/00	0.01	1.00	
28	Disposable Needle 23 G x 1.1/4 0.65 x 32mm	100	1		00/00/00	0.01	1.00	
Total: 647.68000								

Prepared By : Signature : Delivered By : Signature :
 Checked By : Signature : Received By : Signature :
 Authorised By : Signature :

Viewing authorisation logs

mSupply records the authorisation and unauthorisation of invoices and creates a record every time the authorisation status of an invoice changes.

To view the records, click the **Log** tab of an invoice.

Customer invoice [Read Only]

Name: [redacted] Confirm date: 23/05/2013 Colour: Black

Their ref: DILI-099-1 Invoice: 9,259

Comment: [redacted] Category: None Entry date: 23/05/2013

Goods receive ID: 0 Status: fn Entered by: Store: General

General Summary by Item Summary by Batch Transport details **Log**

Date	Time	User	Event
23/05/2013	11:11:01	2	Customer invoice is authorised.
23/05/2013	11:10:24	2	Customer invoice is un-authorised.
23/05/2013	11:09:49	2	Customer invoice
23/05/2013	11:09:39	2	Customer invoice is authorised.
23/05/2013	11:09:30	2	Customer invoice 9259

OK & Next Delete OK

Advanced users can also view all logs by going to **Special > View log...**

Previous: [26.13. Using the mSupply remote client](#) | Next: [26.15. Remote authorisation](#)





26.15. Remote authorisation

Function added in version 4.01, overhauled to current form in version 5.05

mSupply has features to allow various types of transactions to be authorised within the application before they affect stock so that supervisors can make sure the transactions are correct (see the [26.14. Authorisation](#) page for details).

Remote authorisation allows supervisors to authorise requisitions *via a web app*, so that they can participate in the authorisation process without having to login to mSupply.

Please note: it is only response requisitions that are made in response to request requisitions (called internal orders - see the [6.04. Ordering from one store to another](#) page for details) that are included in remote authorisation. Other requisition types or response requisitions made manually are **not** included in remote authorisation.

When an authorisation request is made, authorisers receive an email containing a link to the web app. When the authoriser logs in, they are shown all pending authorisations which they can either approve, edit and approve or deny.

Authorisation by masterlist/vertical program

In the remote authorisation module authorisers can only authorise the requisition lines which belong to items on the master list they are able to authorise for.

A masterlist can be used to represent a vertical program so this method can also be thought of as authorisation by vertical program.

Authorisers can also be set up with **auto-authorisation**, where transactions will automatically be authorised if the user has not approved or denied the transaction before the set **auto-authorise period** has elapsed.

Setup

Turn on remote authorisation

Remote authorisation must be turned on for **each store separately**. This means that, in the same datafile, some stores can use it while others do not. You turn it on for a store in the store's preferences:

1. Choose *Special > Show stores* from the menus.
2. Double click the store to edit.
3. Click on the **Preferences** tab.
4. Check the *Use remote authorisation for response requisitions* checkbox to turn remote authorisation on for that store.

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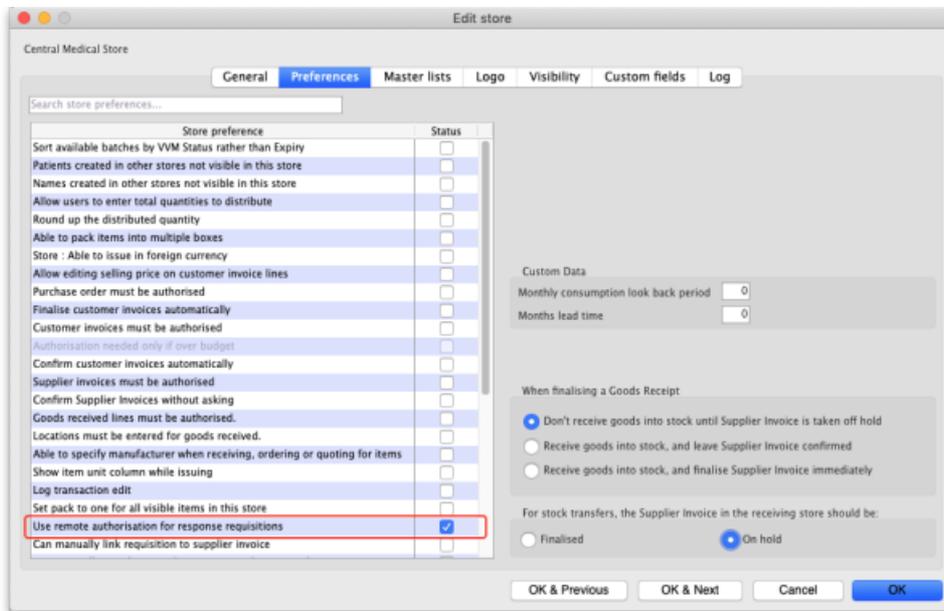
[Using the remote authorisation system](#)

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[The authorisation statuses of requisitions](#)

[Authorising using the web app](#)





5. Click the **OK** button to save the changes.

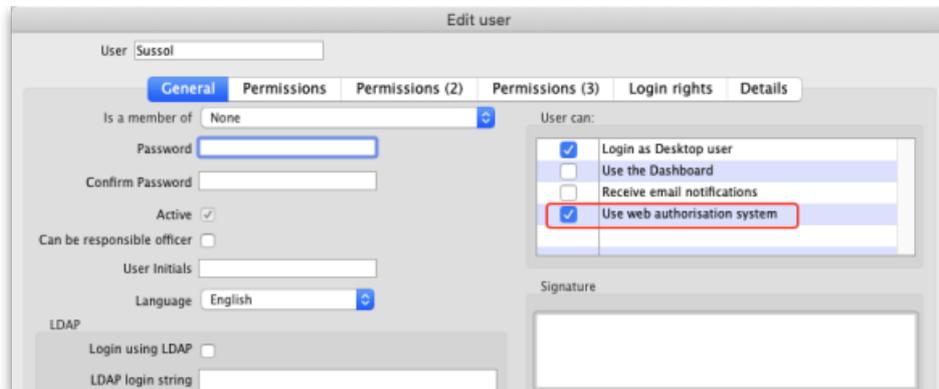
From now on, response requisitions produced from request requisitions (internal orders) must be authorised before being confirmed.

Set up authorisers

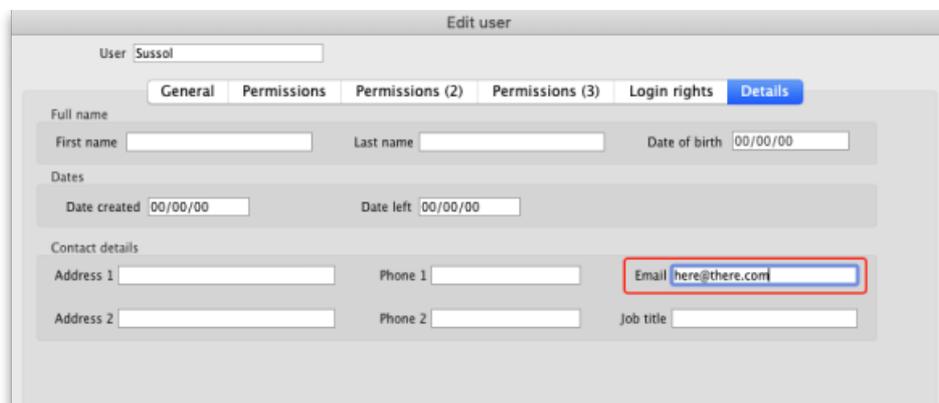
Set up the user accounts and details

All authorisers must have an account in mSupply. See the [25.15. Managing users](#) page for details about adding and editing users.

To allow a user to login to the remote authorisation web app as an authoriser you must check their *Use web authorisation system* checkbox on the *General* tab of their details window:



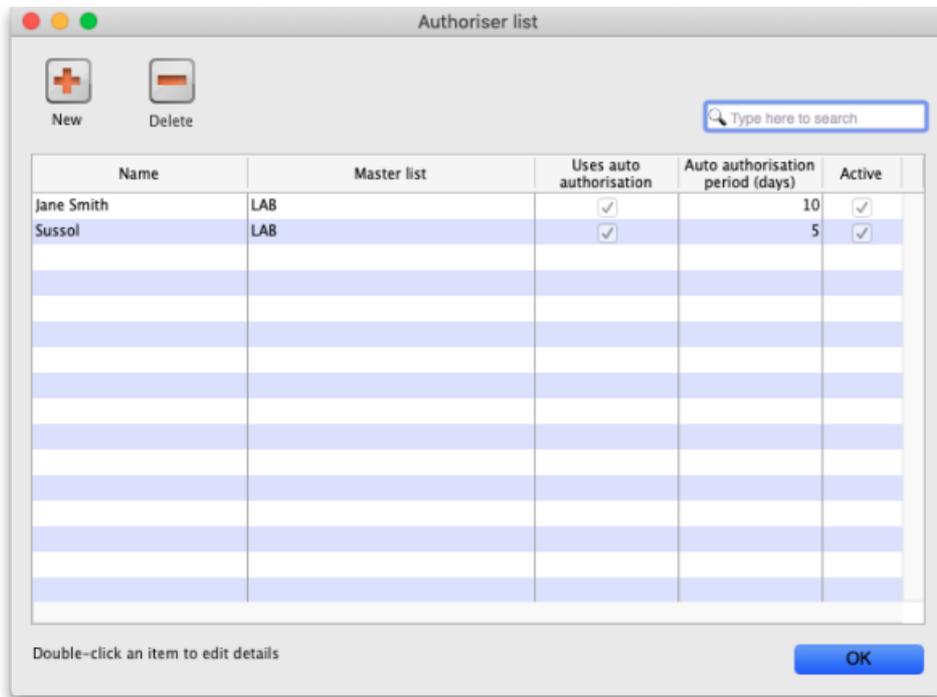
You must also enter their email address on the *Details* tab of their details window:



This will enable them to receive emails when a requisition is awaiting their approval.

Assign the users as authorisers

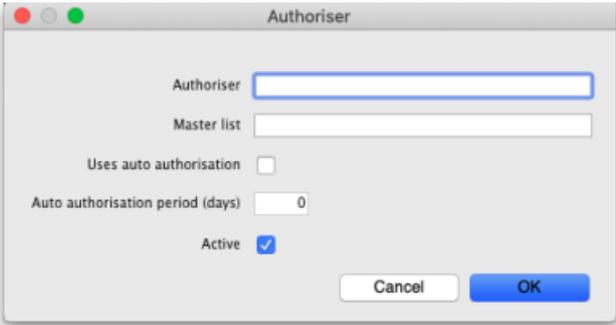
After the user accounts have been setup, you can assign them as authorisers. To do this choose *Special > Show authorisers* from the menus. This window will open:



The window shows a list of the users who are currently setup as authorisers in the system; if none have been set up then the list will be empty.

Delete button: Select an authoriser in the list and click the **Delete** button to remove the user as an authoriser. This does not remove or disable their user account or prevent the user from logging into the authorisation web app, it only removes their ability to act as an authoriser.

New button: Click on the New button to assign a user as an authoriser. This window will open:



- **Authoriser:** Enter the name of the user here. Type the first few characters of their username and press the Tab key on the keyboard to select the user from a list of users with usernames that start with what you have typed.
- **Master list:** Enter the name of the master list containing the items that the user can authorise. The user will only be able to authorise lines on requisitions for items that appear on the list you select here.
- **Uses auto-authorisation:** If this is checked then, after the number of days set in the **Auto-authorisation period (days)** field, any requisition lines that are waiting for authorisation by this user will be automatically authorised.
 - **Auto-authorisation period (days):** The number of days after which any requisition lines waiting for authorisation by this user will be automatically authorised by the system.
- **Active:** This is checked by default. If this is checked then the user's assignment is active and they can act as an authoriser. If it is not checked then the user cannot act as an authoriser. This is useful when an authoriser is to be removed as an authoriser for a period of time and then added back in again e.g. when they go away on holiday.

Click on the **OK** button to save the new assignment or the **Cancel** button to cancel it.

Editing an authoriser assignment: Double-clicking one of the users in the list will allow you to edit the assignment; the 'Add assignment' window shown above will open, populated with the current settings for the user. Edit the settings to be what you wish and click on the **OK** button to save your changes..

Enable emailing of authorisers

When a requisition is created that requires one or more lines to be authorised, the appropriate authorisers are emailed to tell them that a requisition requires their attention in the authorisation web app.

To set up the emailing:

- Set up the email server in the preferences. This is done on the *Email* tab of *File > Preferences*. See the [15.01. General preferences](#) page for details on that.
- Tell mSupply what the URL of the remote authorisation web app is. You do that on the *Server* tab of *File > Preferences*. See the [15.01. General preferences](#) page for details.

The email address to send the emails to is taken from that given in *Details* tab of the user's details page (see the [Setup the user accounts and details](#)

section above).

Using the remote authorisation system

Requesting authorisation

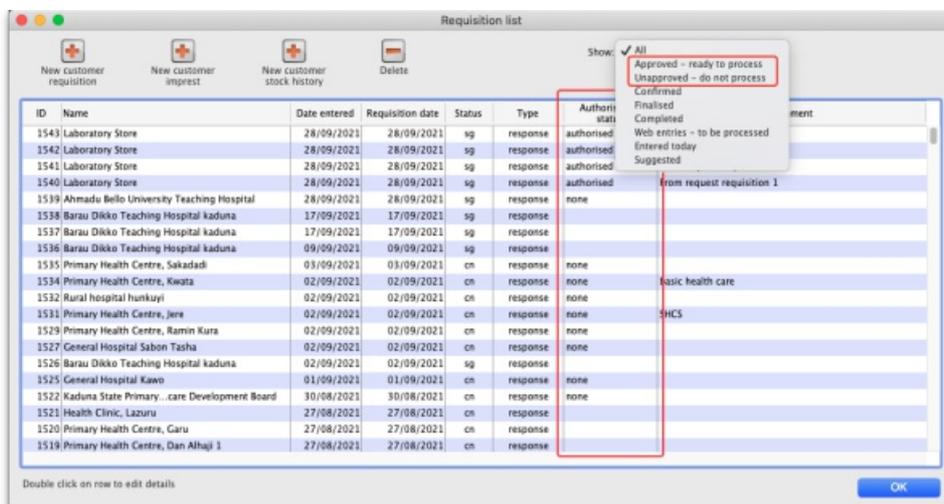
You do **not** need to request the authorisation of a requisition. When the remote authorisation system is turned on as described above, when a requisition that requires authorisation is **confirmed**, an authorisation request is automatically emailed to all active authorisers who are assigned to authorise a master list containing any of the items on the requisition.

The only types of requisition that can be authorised using remote authorisation are response requisitions created automatically in the supplying store in response to an internal order (internal orders are also called request requisitions). See the [6.04. Ordering from one store to another](#) page for details on internal orders.

To action an authorisation request they have received by email, an authoriser logs into the remote authorisation web app.

The authorisation statuses of requisitions

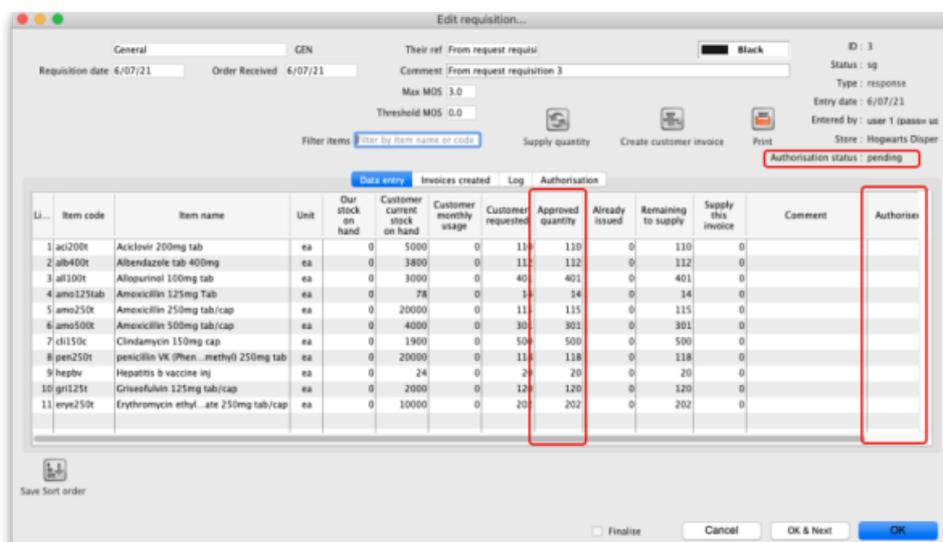
When the remote authorisation system is turned on, the list of customer requisitions, displayed by choosing Customer > Show requisitions from the menus, has an extra *Authorisation status* column and some additional filter options:



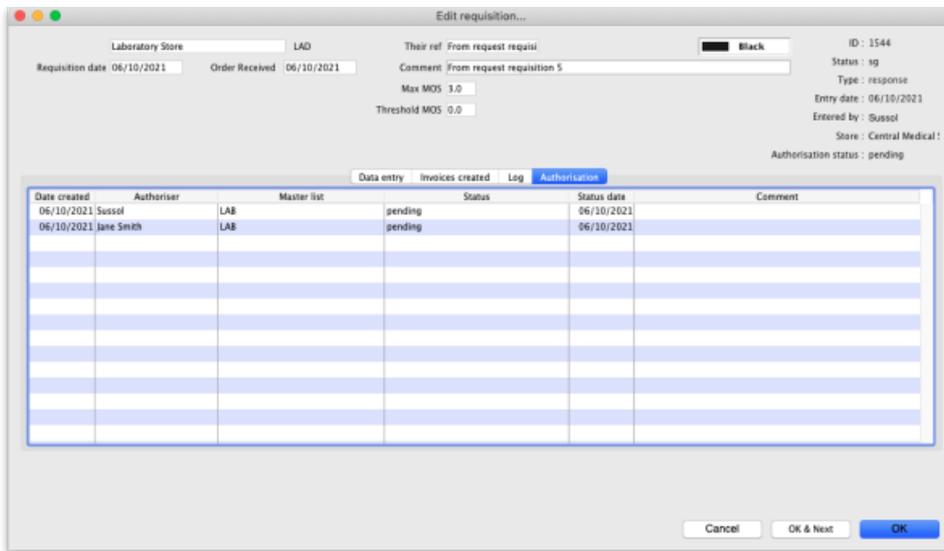
If you open a response requisition when the remote authorisation system is turned on, you will see the requisition's authorisation status and two additional columns:

- **Approved quantity:** the quantity that was approved by the authoriser. The authoriser can change the quantity allowed on the requisition so the approved quantity might be different from the requested or calculated quantities.
- **Authoriser comment:** any comment that the authoriser added to the requisition line.

This screenshot shows where you can find them:



There is also an additional Authorisation tab on these requisitions, which shows the authorisation history of the requisition:



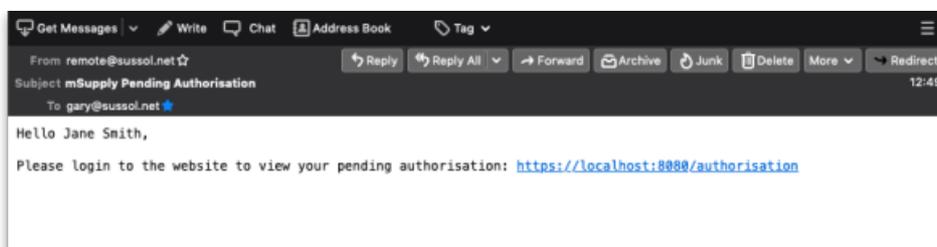
This particular screenshot shows that two authorisers have been requested to authorise lines on this requisition.

The authorisation status can have a few different values:

- **None:** the requisition does not need authorisation and is not subject to the remote authorisation system. This is true for all manually created response requisitions and any requisitions of other types (customer stock history, imprest or request). All requisitions with this status can be edited normally and customer invoices can be created from them as normal.
- **Pending:** the requisition is awaiting authorisation of one or more of its lines. A requisition with this status cannot be edited and you cannot create customer invoices from it.
- **Authorised:** all lines that were waiting for authorisation have been authorised (with or without adjustments). The comments and quantity to supply can be edited and customer invoices can be created from requisitions that are authorised.
- **Denied:** the authoriser has reviewed the requisition and the lines have all been denied. Like the *Pending* status, a requisition with this status cannot be edited and you cannot create customer invoices from it.

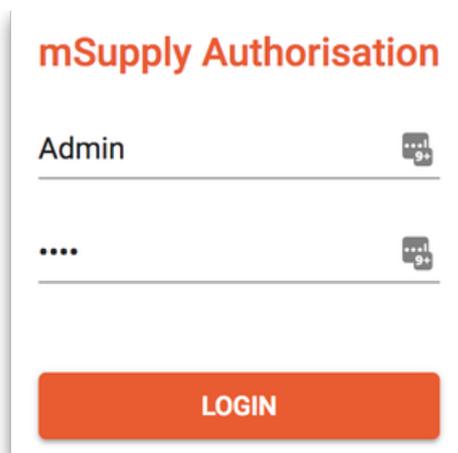
Authorising using the web app

When an internal order is finalised and contains items in master lists that are assigned to users for authorisation then an email is sent to all the users who are set as authorisers for those items. The email looks like this:



The link in the email is to the web app they need to log in to action the authorisation request. The URL is in the format **server:port/authorisation**; for example, <https://demo.msupply.org:2048/authorisation>.

When they click on the link (or paste it into their browser), authorisers are shown the login page where they login using their mSupply username and password:



Once logged in, the authoriser can see all pending (and previous) authorisation requests.

mSupply Authorisation						Jane Smith LOGOUT
Invoice Number	Master List	Store	Receiving Party	Status	Status Date	
1544	LAB	Central Medical Store	Laboratory Store	Pending	06/10/21, 12:49:47	
1543	LAB	Central Medical Store	Laboratory Store	Authorised by another authoriser	04/10/21, 08:35:05	

Note that only requisitions with a status of *Pending* are editable in the web app. Any other status means that the requisition has already been processed, either by you, another authoriser or automatically by the system if the auto-authorise period for an authoriser has passed, and it is no longer editable.

To finish the authorising session and logout, click on the **Logout** button. This will log the user out and return them to the login window.

To view a requisition, click on it in the list. The requisition details window will open:

mSupply Authorisation						Jane Smith LOGOUT				
← ①	Invoice Number: 1544 Status: Pending Store: Central Medical Store Receiving Party: Laboratory Store Master List: LAB Status Date: 2021-10-06 Comment: From request requisition 5				Authorisation Comment ②					
Line Number	Item Code	Item Name	Unit	Supplier Stock On Hand	Customer Stock On Hand	Customer AMC	Customer Requested	Request Comment	Authoriser Quantity	Authoriser Comment
1	bdvn21g	BD Vacutainer needles 21g	pack	10	0	0	15	Very important, please supply all	③ 15	④ +
3	bb250	Blood bags 250ml	pack	0	0	0	16		16	+
				⑤ DENY	APPROVE WITH CHANGES		⑥			

1. Click on this arrow to go back to the list of requisitions.
2. Enter any authorisation comment for the whole transaction. When saved, this comment will appear in the *Comment* column of the *Authorisation* tab on the requisition in mSupply.
3. Edit the quantities for each line that you are able to authorise in these cells. Note that not all lines of the requisition are displayed in this window. Only the lines that the user can authorise are shown (i.e. those that are for items that appear in the master list the user can authorise for).
4. Click on this icon to view, add or edit the line authorisation comment. When you click on it, this window will open:

View/Edit Comment

CANCEL SAVE COMMENT

If there is a comment for the line already, it will be populated for you. You can edit the comment (or add one) and click on the **Save comment** button to save your changes. Click on the **Cancel** button to close this small window without saving any changes. Any comment that is saved here will appear in the *Authoriser comment* column on the requisition details window in mSupply.

5. Click on this button to deny approval of all the requisition lines shown. This will deny the whole requisition and will mean that it cannot be processed in mSupply. This and the **Approve with changes** button will be disabled when the changes have been saved.
6. Click on this button to approve all the requisition lines shown. This will save any changes you have made to the approved quantities. This and the **Deny** button will be disabled when the changes have been saved.

⚠ Important

If a requisition is open in mSupply, it is locked and changes cannot be saved. If you click on the **Approve with changes** or **Deny** buttons and the buttons do not become disabled then the changes were **NOT** saved. You will need to wait until the requisitions have been closed in mSupply before you can save your changes.

When a requisition has been approved or denied by an authoriser, its details and authorisation status will be updated in mSupply. If all the lines awaiting authorisation have been authorised then the requisitions's status will be updated to *Authorised* and the requisition will be able to be processed as normal.

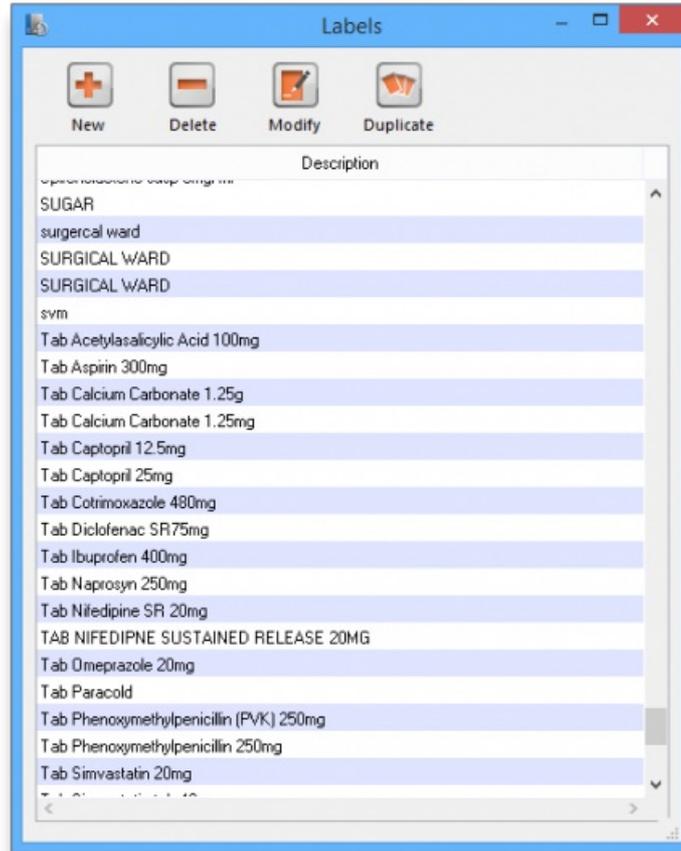


26.16. Misc labels

This function allows you to create and save labels that you can print at any time from a label printer. Before you can print labels using this function, you must setup the printer must be set up and configured in mSupply - see the [25.18. Label printer hardware setup](#) and [10.08. Label printing preferences](#) sections of this user guide for information about this.

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- [The labels list](#)
- [Normal tab](#)
- [Multiple tab](#)
- [The labels list](#)
- [Normal tab](#)
- [Multiple tab](#)



The labels list

To open this list, choose the *Special > Misc labels* menu item. This window will open displaying a list of all the currently saved labels.

Double-click a label in the list to edit/print that label. Click the New button to add a new label.

The window for editing or adding a label look the same, the only difference is that the existing label will be populated with the current settings saved for that label.

Info

The labels are designed to print to plain 90mm x 40mm (w x h) labels from a Zebra label printer. Please contact us if you require support of other printers and other label formats.

Normal tab

This is for normal layout of printing. This will occur once per label. You can use the **quantity to print** field to specify how many time to print this same label.

Label name

This field will not print on the label, this name is shown in the list of available labels when the *Special > Misc labels* menu item is chosen.

Label details

These fields will print on the label in roughly the position that they are on the screen.

Note that if you enter a very long left and right footer they may overlap in the middle of the label.

Print a single test label to check first.

Line spacing

The spacing you want between each line of text.

Size

The font size you wish to use for each part of the label.

Quantity to print

Specify how many copies of this label you wish to print.

Note that the quantity to print is not saved - it is reset to 1 each time you open the label.

Print button

Clicking this button will print to your default mSupply label printer. It will print then number of labels specified in the *Quantity to print* field.

Cancel button

Clicking Cancel will close the window without saving any changes you have made.

OK Button

Clicking OK will save any changes you have made and close the window.

Multiple tab

This allows you to print the same thing multiple times on the same label.

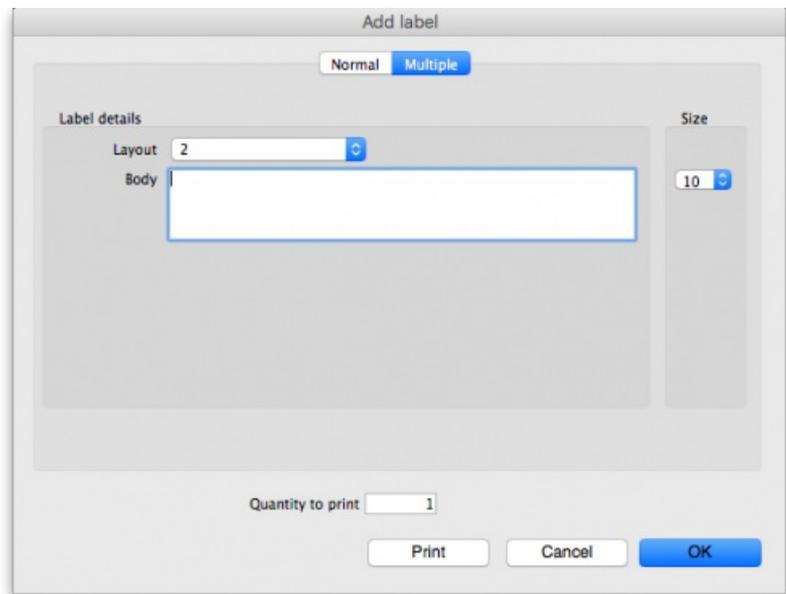
Layout:

Select "2" for the same thing printed twice on the label, side by side.

Select "4" for the same thing to be printed 4 times on the label in a 2x2 grid layout.

Body

The text you want printed on the label. This label will have no headers and footers.



Previous: [26.15. Remote authorisation](#) || Next: [26.17. Keyboard shortcuts](#)

Last modified: 2022/02/11 15:49 by Gary Willetts



mSupply documentation wiki





26.17. Keyboard shortcuts

These are the keyboard shortcuts you can use in mSupply. They can really speed up your work because using them is much quicker than using a mouse once you get used to them. Try it and see!

Tip

The Windows operating system uses the Control key and the Mac operating system uses the Command key to activate keyboard shortcuts. For clarity's sake we've used the control key in the table below. If you're using a Mac just substitute Command for Control.



Shortcut	What it does
General useful computer shortcuts / Navigation keys - work in most applications	
Ctrl + A	Select All text in a field / cell
Control + X	Cut
Control + C	Copy
Control + V	Paste
Control + Z	Undo
Control + Y	Redo
Control + Q	Quit the application
Tab	moves focus to next field / cell. Also used after typing in a selection textbox (e.g. item name) to bring up a window showing selection
Shift Tab	moves focus to previous field / cell
Spacebar	toggles between two options (with a checkbox or radio button), e.g. Male / Female in Patient details entry window
Almost Everywhere	
Enter	Activates the default button (which is highlighted) on the active window. Default button is usually OK.
Control + . (full stop)	Cancel/Delete
Control + Shift + N	OK & Next
Control + Shift + P	OK & Previous
Navigator	
Control + F	Show customer invoices
Control + I	Show items
Control + N	New customer invoice
Control + D	New prescription
Control + J	Show supplier invoices
Control + H	New supplier invoice
Control + 1	Show log in window
Control + 2	Show switch stores window (same as log-in but no need to enter user/pass)
Control + 0 (zero)	Show purchase orders
Control + Y	Show customers
Control + U	Show suppliers
Invoice entry	
Control + N	Add a new line to the invoice
Control + Shift + N	OK & Next to save, print (if printing checked) and open a new prescription entry window
Invoice line entry	
Control + K	Same as clicking OK (Enter key is the default OK & Next button)
Choice lists	
U or up arrow	Highlight the next line above the currently highlighted line
D or down arrow	Highlight the next line below the currently highlighted line
Stocktake list	
Control + N	Add a new stocktake
Control + Shift + N	Add a new blank stocktake
Stocktake entry	
Control + N	Add a new line to the stocktake



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26.18. Troubleshooting

Entering dates

Expiry dates

- Note that the “normal” way to enter a date (dd/mm/yy or mm/dd/yy) is determined by your computer, not mSupply. If you want to change it
 - Windows: <https://www.windowscentral.com/how-change-date-and-time-formats-windows-10>
 - Mac: <https://support.apple.com/kb/PH18435>

Print preview problem

Sometimes users will have issues with previewing PDFs before they print. Our experience is that this is often due to some incompatibility between mSupply and certain XPS viewers. We recommend use of the excellent, free [Sumatra PDF reader](#) to view XPS files, which is one of the reasons why we include it as a recommended install with mSupply Client software! Installing Sumatra PDF and making it the default XPF viewer will normally fix any print preview issue.

Using Sumatra as XPS Viewer

How to set Sumatra as default XPS viewer on Windows

1. Open Settings > Apps > Default apps.
2. Click the Choose default apps by file type link.
3. Scroll down to find .xps (XPS File), and click the button on the right side to select a different program as default.
4. Select 'Sumatra PDF' from the list to set it and click the option 'Switch anyway'.

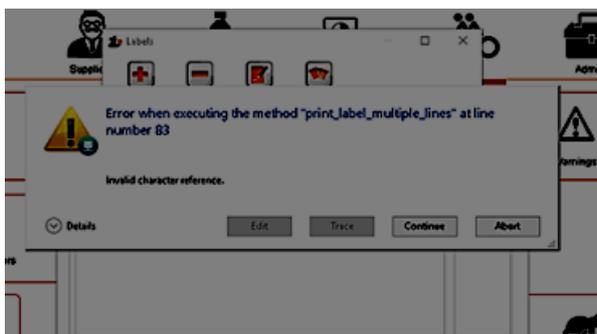
Change the default XPS viewer on Windows

You might also need to do the following.

1. Follow the menu path Start > Devices and Printers
2. Right click on the Microsoft XPS Document Writer
3. Select Printing Preferences
4. On the tab XPS Documents uncheck the checkbox that says: Automatically open XPS document using the XPS viewer

Prescription printing error

You may encounter **Error when executing the method “print_label_multiple_lines” at line number 83**



This has been known to occur when the margin settings for the label printer are incorrectly set. Try adjusting the print margins in [Label printing preferences](#).

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- Expiry dates
- Print preview problem
- Using Sumatra as XPS Viewer
- Prescription printing error
- Entering dates
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- Prescription printing error







User Guide



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- [27.02. mSupply Support Web Portal](#)

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27.01. Support and mSupply Up-to-Date program

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- [Support](#)
- [mSupply Up-to-Date program](#)
- [Support](#)
- [mSupply Up-to-Date program](#)



This page explains what is covered by our support and mSupply Up-to-Date program charges. Please note that both charges are optional

Support

Support covers all the ways we help you use mSupply well and keep it running. This includes communication via:

- Email to support@msupply.org.nz
- Our support portal at <https://support.msupply.org.nz/>
- Skype/Telegram chats and voice/video
- Phone

We also offer

- Remote access using Teamviewer - refer [Install Remote Support software](#)
- With your permission:
 - Unattended access to your server

What we provide

- Help with “How do I ?” questions.
- Help if you think things aren't working correctly.
- Installation of updates
- Backups of your data to our cloud storage
- We aim to give a first response to all support requests within 4 working hours, using working hours in Nepal (10am-6pm Nepal time). In reality we have much longer working hours, and are therefore able to respond outside Nepal working hours, because of our offices in New Zealand and staff in the UK.

mSupply Up-to-Date program

Our Up-to-Date program provides you with the latest versions of mSupply for a fixed yearly fee.

New versions include:

- Updates to the underlying database system that provide compatibility with new versions of Windows and MacOS as they are released.
- Updates to the underlying database system that provide performance improvements or new capabilities. (For example in 2018 we installed 64 bit versions of mSupply that made many operations such as long reports ten times faster than before).
- New features in mSupply - our version history is here: <https://www.msupply.org.nz/history>
- Bug fixes

Members of our mSupply Up-to-Date program have their feature requests treated with priority. If these features are applicable to a wide user base they are often included for no extra charge.

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27.02. mSupply Support Web Portal

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- [Register](#)



We all like it when things run smoothly but every so often things go wrong. The mSupply Support Portal is where you go to get technical support for mSupply.

Log a one-off support ticket

To log a support ticket with our support team, go to <https://support.msupply.org.nz/> and enter the details of the issue and click the “send message” button.



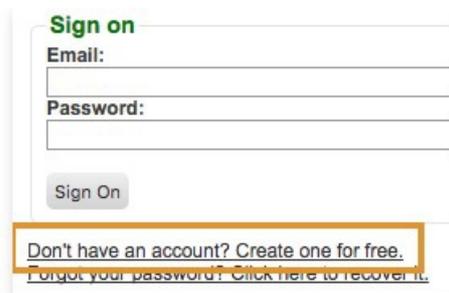
Register

If you are a regular support user, it makes sense for you to register with us so you can keep track of your support tickets.

To register, click the green sign in button on the right



then click on the link “Don't have an account? Create one for free.”.



Enter your email address and click the “Send Confirmation Email” button.

Register

What is your primary email address?

Send Confirmation Email

This will send an email with a code to your selected email address. Enter this code and your name and password into the next screen and click the "Register" button.

Confirm Your Registration

Email:
someone@somewhere.org

Enter the confirmation code sent to your email address:

First name:

Last name:

Choose a password:

Confirm your desired password:

Register

Once registered and signed in, you will be able to lodge support tickets, access ticket history and administer your account. Under my account, you can also use the "Sharing/Collaboration" link to the left of the window to share tickets with others in your organisation.



mSupply

[contact us](#) [ticket history](#) [my account](#)

Contact Us:

What email address should we reply to?

Subject:

Message:

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Last modified: 2021/10/08 11:34 by Gary Willetts



User Guide



28. Frequently Asked Questions

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- [28.02. Remote support - installing TeamViewer](#)
- [28.03. Why is my stock balance report showing negative?](#)
- [28.04. How to remove stock lines that have '0' available](#)
- [28.05. What do I need to set up mSupply Mobile?](#)
- [28.06. Why is my stock on hold?](#)
- [28.07. How to correct wrong pack sizes](#)
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Last modified: 2021/10/08 09:15 by Gary Willetts



28.01. How to re-set the mSupply client

Over time, the mSupply client may not function as expected. There are a variety of reasons for this. Bad network connection to the server may have corrupted critical files during transfer. Unstable hardware may have shutdown un-gracefully or crashed damaging files. There may have been a virus issue.

Below is an image of one of many symptoms that the user may notice.



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- [Corrupted client configuration files](#)
- [Procedure](#)
- [Corrupted client configuration files](#)
- [Procedure](#)

Corrupted client configuration files

Info

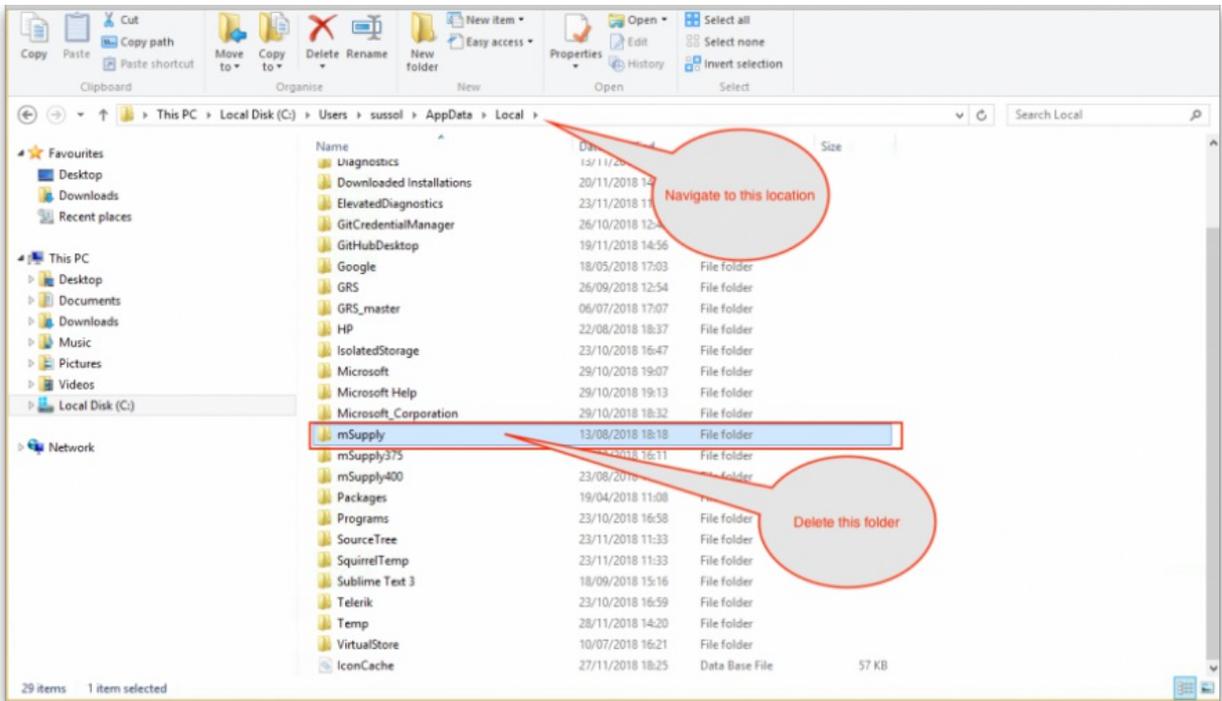
As part of the installation, a batch file with the name **Reset client temp folder** is installed on the desktop. This file can do all the resetting described below. So, if it is still on the desktop, or you know where it was moved to, we recommend you double-click on that file to run it. You will be asked to confirm you want to continue; you should press Y on the keyboard if the client application is closed down - if it isn't closed down, close it and then press Y. The file will then carry out all the steps described below and reset the client for you.

mSupply client generates and stores its configuration in files and folders. These files are safe to delete as they will be re-created by the mSupply client when it is started.

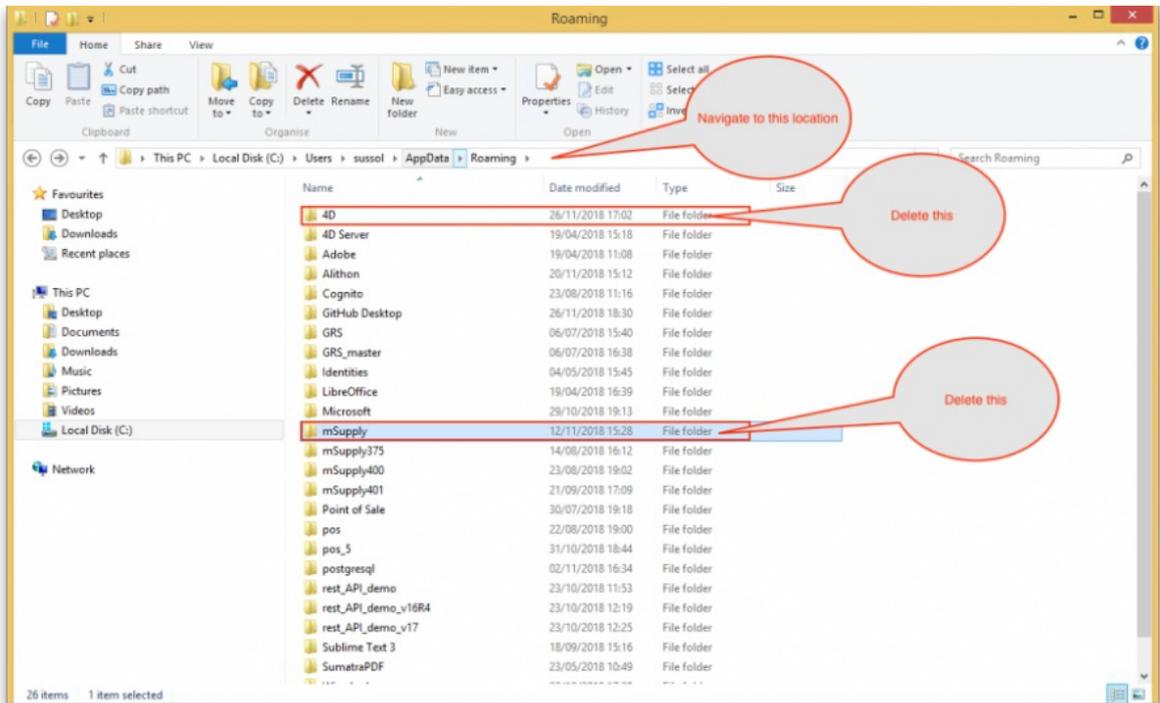
So let's assume that one of the files have been corrupted and that we need to delete them.

Procedure

1. Make sure the mSupply Client is not running. If it is running, quit out of it.
2. On windows : Navigate to `c:\Users\SomeUser\AppData\Local`, Then delete the "mSupply" folder. Note: **SomeUser** will be the Windows account name. In the example here, the Windows account name is **Sussol**.
3. Please note that the "AppData" folder may be hidden, so enable your file explorer to view hidden files / folders.



4. Navigate to the “Roaming” section in : c:\Users\SomeUser\AppData\Roaming and delete the following folders :
- o 4D
 - o mSupply



5. Finally Restart the mSupply Client.

Previous: [28. Frequently Asked Questions](#) | Next: [28.02. Remote support - installing TeamViewer](#)

Last modified: 2021/10/08 11:39 by Gary Willetts

28.02. Remote support - installing TeamViewer

Over the years we have used a number of applications for providing remote support to clients. As of writing this (January 2020) TeamViewer is the software that we use.

Please use the download link below, this is customised for interaction with Sustainable Solutions to allow us to best provide you with remote mSupply support.

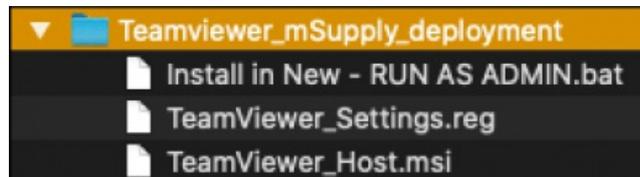
Installing the TeamViewer Host customised for mSupply

1. **Uninstall** - if TeamViewer is already installed on the machine you will need to uninstall it.
2. **Change the Computer Name** to something meaningful **before** installing TeamViewer. Use a name that reflects the site and / or user would be useful. e.g. **Auckland - Grafton Pharmacy** - this is what the machine will show up as on our international directory.

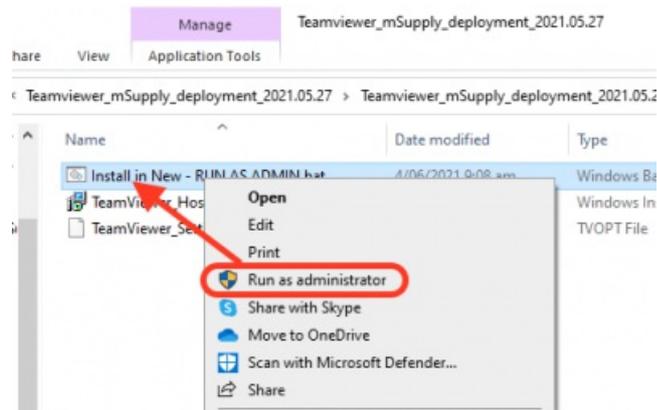
Important

The TeamViewer Host module appears to only use the first **15** characters of the name. If you are connecting several computers, make sure that the first 15 characters are unique for each computer.

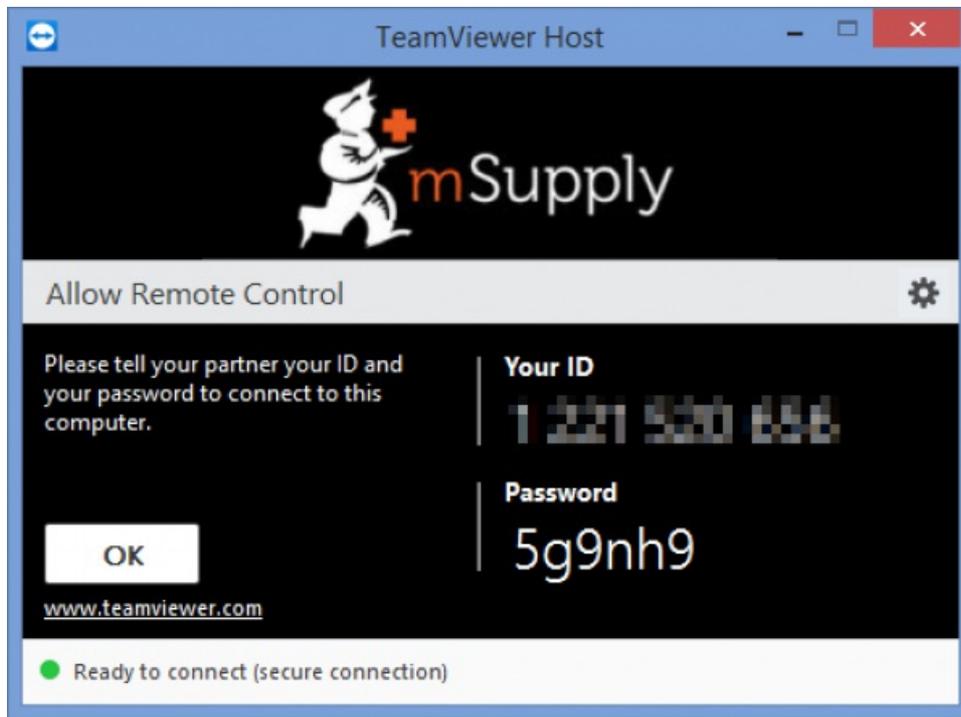
- o To change the computer name in Windows go to: **Control Panel > System and Security > System > Advanced system settings > Computer Name > Change...**
 - o *Note that the Computer description is NOT the Computer Name*
3. **Download** and save the zip file at the following link
https://www.msupply.org.nz/files/Teamviewer/Teamviewer_mSupply_deployment_2021.05.27.zip
 4. **Extract** the files from the Teamviewer_Support_deployment.zip file onto the host computer



5. **Open** the folder you saved the three files to
6. **Run as administrator** - **right click** on the file **Install in New - RUN AS ADMIN.bat** and select **Run as administrator**. You must chose to "Run as administrator" for this to work properly, even if you are already logged on to the computer as an administrator.



The Teamviewer Customised Host window should appear on your screen:



Tip

If the above window does not appear, the full installation has not completed. It definitely helps to run the batch (Install in New - RUN AS ADMIN.bat) file with a reasonable internet connection. If the internet connection is not good enough, then some or all of the actions in the batch file will not complete. If that happens, please re-run the batch file (as Admin) when the internet connection is better.

- 7. Notify Sussol** When you see this TeamViewer Host window, send us a message or email (on support@msupply.org.nz) and give us the computer name that you gave the machine in step 4 above. Otherwise, the TeamViewer ID should also work (a screenshot is fine). We will then be able to confirm for you that the remote access is operational and ready for us to provide you remote support.
- 8. Recommendation Browser :**

Tip

It is recommended to use Google Chrome as browser if you use teamviewer on web. It supports "WebClient" connection more than other browser

Previous: [28.01. How to re-set the mSupply client](#) || Next: [28.03. Why is my stock balance report showing negative?](#)

Last modified: 2022/03/09 08:32 by Rachana Kunwar



28.03. Why is my stock balance report showing negative?

Occasionally mSupply will show negative stock balances when running reports to view stock levels at a past date. This may look to be wrong but in many cases this is mathematically correct.

The two primary reasons for the cause in negative stock values are :

- You may have entered backdated customer invoices using the current available stock. Here you would have created a customer invoice, but modified the confirmed invoice date to reflect past transaction.
- You issued backdated placeholder lines on confirmed invoices using the current available stock. Initially when you created a customer invoice, you had no stock but had to resort to placeholder lines. After receiving stock, you re-open the old confirmed customer invoice to issue the placeholder lines with recently available stock.

In both the cases if you were to report on stock level at a certain point (the date before you receive supplies), then you may get negative stock values. mSupply to calculate stock level at a certain date needs to work back from current stock level. So if your data shows that you have issued stock that you haven't technically received due to the order of the confirmed date, then you are likely to see Negative stock balance.

The image below shows a ledger for a single batch that was received in 16/2/2016, but between 04/09/2015 to 27/10/2015, the stock has been issued inside three backdated invoices.

Item code MAL0012 Item name Primaquine, 7.5mg, tab

General Ledger Status Reference documents

Quantity according to stock

Total Quantity 0 Available 0

Date	Invoice	Name	Ty...	In/...	S...	Expiry
04/09/2015	234881140	township	ci	out	cn	30/06/2017
23/10/2015	234881155	township	ci	out	cn	30/06/2017
27/10/2015	234881156	township	ci	out	cn	30/06/2017
16/02/2016	234881040	Central Warehouse	si	in	fn	30/06/2017
22/10/2015	234881154	township	ci	out	cn	30/06/2017
16/11/2015	234881162	township	ci	out	cn	30/06/2017
17/11/2015	234881163	township	ci	out	cn	30/06/2017
17/11/2015	234881164	township	ci	out	cn	30/06/2017

Item stock line ledger

Total Quantity 0 Available 0

Reconcile from start of year

Total Quantity 0 Available 0

Reconcile Cancel OK

Previous: [28.02. Remote support - installing TeamViewer](#) | Next: [28.04. How to remove stock lines that have '0' available](#)

Last modified: 2021/10/08 11:40 by Gary Willetts

28.04. How to remove stock lines that have '0' available

Occasionally users will come across stock lines in mSupply that cannot be removed easily. It almost like you have stock but you cannot carry our stock take or inventory adjustment to reduce the stock level to zero.

Below are two examples :

Item details...
Item name: Paracetamol 500mg tablet
Store: Pharmacy
Item code: pct500tab

Line	Available packs	Total packs	Hold	Pack size	Batch	Expdate	Supplier	Manufacturer	Location	Cost Price	Sell Price	Status	Total...
1	10	10		1						0.00	0.00		0
2	0	100		1	150701	30/07/20	lmvad			0.00	0.00		0
3	22560	22860		1	130816	30/07/20	c			0.00	0.00		0
4	17729	19129		1	130816	31/07/20	\$			0.00	0.00		0

Stock: Minimum stock: 2,000, Total stock value: 0.00, Stock on hand: 42,099, Average unit cost: 0.00, Stock on order: 0, Total Volume: 0.00

Above we have Paracetamol 500mg where for the highlighted batch (red square) we have a total of 100 but available is 0. This means that 100 in stock but all of this has be reserved for a customer.

Below is another example :

Item details...
Item name: Amoxicillin 250mg Capsules
Store: Pharmacy
Item code: amoxy250cap

Line	Available packs	Total packs	Hold	Pack size	Batch	Expdate	Supplier	Manufacturer	Location	Cost Price	Sell Price	Status	Total...
1	42	92		1	KM3665	30/09/20				0.05	0.03		0

Stock: Minimum stock: 5000, Total stock value: 4.60, Stock on hand: 92, Average unit cost: 0.05, Stock on order: 0, Total Volume: 0.00

For Amoxicillin 250mg we have 92 in total and 42 available. This means that we have $92 - 42 = 50$ reserved for customers.

Handling reserved stock

Customer invoices that are of status “nw” or “sg” will end up reserving stock. This theoretically means that you have the stock but it cannot be used as it has been reserved by the invoices.

You as a manager will be required to view the “nw” and “sg” invoices and decide if they are still valid or not. If the invoices are valid then you should “confirm” them if not they can be deleted.

So search for customer or prescription that are of “nw” status. Follow the image below. Do customer > Show invoices... or patient > Show Prescriptions...

Find transaction...
customer invoices
15 most recent transactions, or:
status equals nw
Complex Find Cancel Find

Search for “Status” equal to “nw” as above. If the “nw” invoices exist, then you will be shown a list. Double click to review. Delete if the invoice is not valid otherwise “Confirm”.

Info

“nw” invoices will exist in the database if you have suffered un-expected hardware or network communication failure.

Now repeat similar for “sg” type invoices :

Find transaction...
customer invoices
15 most recent transactions, or:
status equals sg
 Use list view if one entry found
Complex Find Cancel Find

Info

“sg” invoices are part of the warehouse functions. You may have simply forgotten about these invoice or the customer lost interest in the order.

Your search for “nw” or “sg” invoice may result is the list below.

Types	Name	Type	St	Entered	Confirmed	Insum	Total	Their ref	PS printed dt.	Comment	Exp bsh
Customer Invoices	NUR	YES	CI	02/12/2015		129747	0				0
Supplier Invoices	NAA	TRE	CI	07/01/2016		131104	40				0
Inventory adjustments	NUR	YES	CI	20/05/2016		138199	0.2				0
Supplier credits	NUR	YES	CI	14/06/2016		139327	0				0
Customer credits	OUT	T	CI	12/09/2016		143994	0				0
Builds	NUR	YES	CI	23/08/2016		143002	15.3				0
Repacks	ER 2		CI	12/09/2016		143996	6.56				0
	NUR	YES	CI	03/10/2016		144847	6.72				0
	NUR	YES	CI	05/10/2016		144848	0		05/10/2016		0
	NUR	YES	CI	06/12/2016		147791	0				0
	NUR	YES	CI	07/12/2016		147911	0				0
	NUR	YES	CI	05/01/2017		148911	0				0
	NUR	YES	CI	09/01/2017		148992	0				0
	NUR	YES	CI	09/01/2017		149001	0			Weekend Inprest	0
	NUR	YES	CI	13/01/2017		149242	0				0
	NUR	YES	CI	15/01/2017		149248	0				0
	NUR	YES	CI	01/02/2017		150145	37.8				0

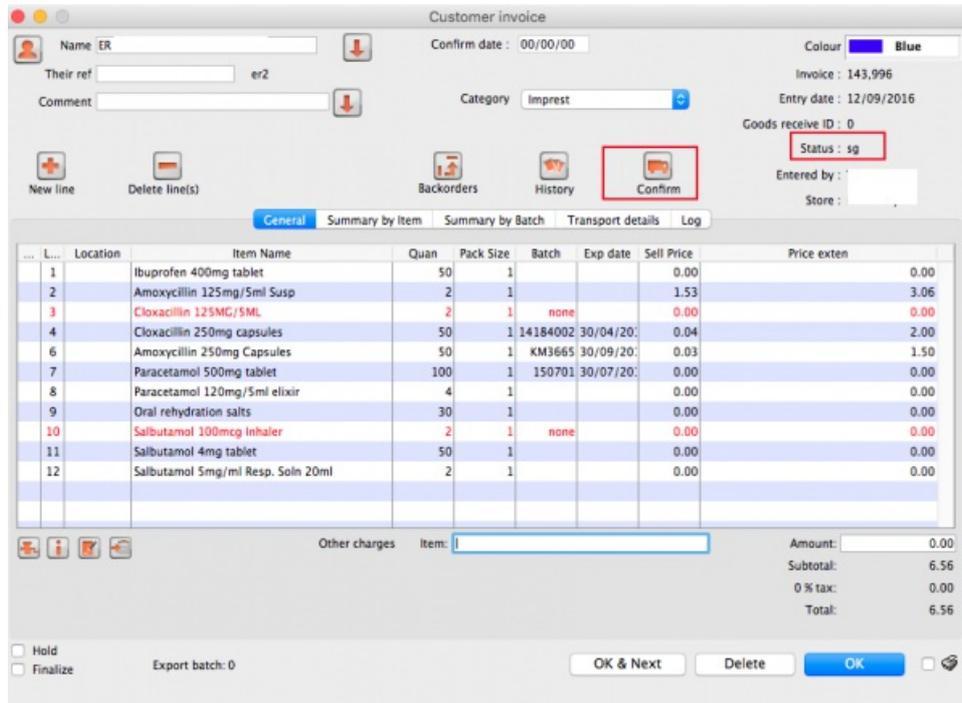
Note the highlighted “Status” column

Your job is now to review each invoice and to either “confirm” them or to delete them. These invoices may no longer be valid, you have to decide on

this.

Confirming an invoice

To confirm a customer invoice, open it and click on the **Confirm** button:



Note the status detail. This will show *cn* when the invoice is confirmed, *notnw* or *sg*. The **Confirm** button will not be shown if the invoice is already confirmed.

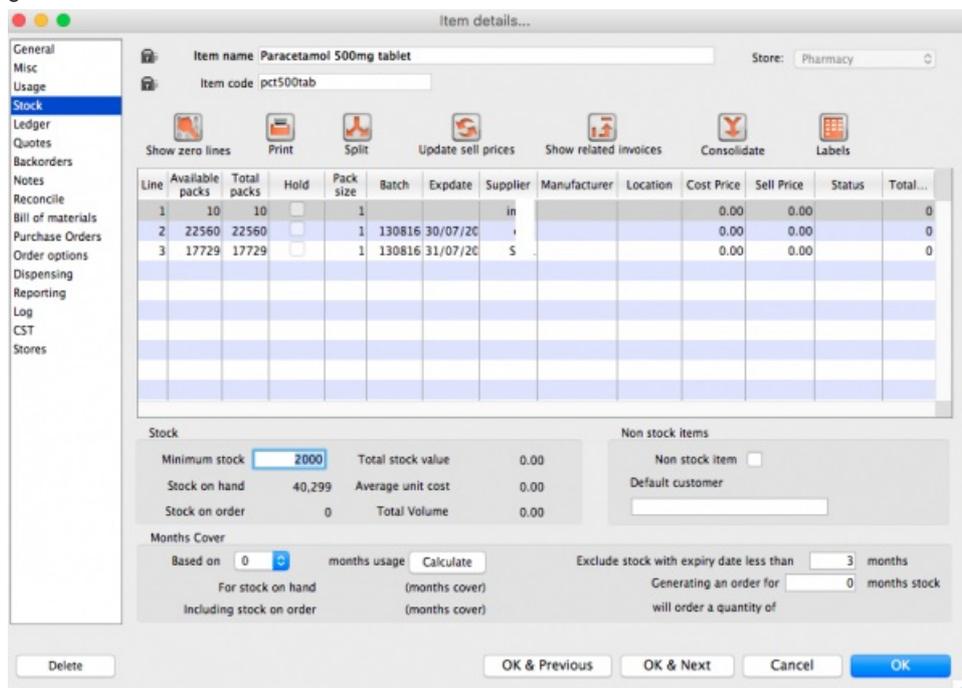
For prescriptions, you won't see the **Confirm** button because they are automatically confirmed when you close them by clicking on the **OK** button.

The result

Once all the "sg" and "nw" invoices are processed, then your stock figures will update and they shouldn't be any stock that has been held as reserve.

Below the images should speak for themselves - the *Total packs* matches the *Available packs*. Please compare the image below with the ones above at the start of this topic.

Paracetamol 500mg:



Amoxicillin 250mg:

28.05. What do I need to set up mSupply Mobile?

Information required

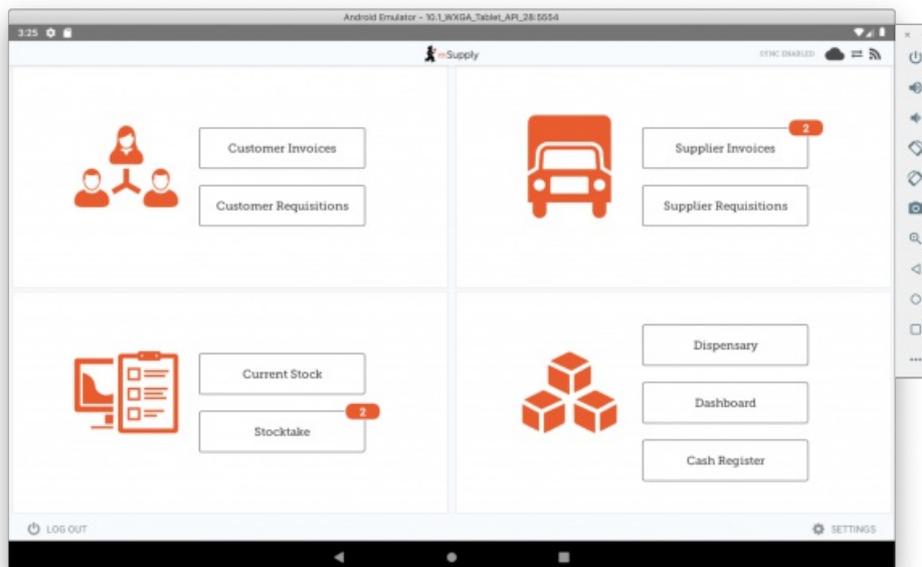
- The new mSupply Mobile store needs to be set up in mSupply desktop. The Sustainable Solutions team can help you with this, but some information is needed:
 - **Store Name** e.g. **Mobile Clinic HC**
 - **Store Code** e.g. **mobilehc**
 - **Sync Site Name** This is a Sync Site associated with the Store Name, and is usually the same as the Store Name, e.g. **Mobile Clinic HC**
 - **Item Master list** for items to be visible in the mobile store, e.g. **TB Clinic Items**
 - A list of **Stores** and **Customers** to be visible in the new mobile store.
 - A list of **Stores** where the new mobile Store will be visible.
 - A list of *'transfer'* **Stores**. These are stores that current mobile store can order/send stock. This should be the same list as the list of **Stores** where the new mobile Store will be visible.
- A few things that can be done by a user:
 - Create the **User Name** (and **Password**) in mSupply desktop for the **Responsible Officer** that will log in into the new mSupply mobile store on the tablet - refer [Managing users](#).

Tip

The **Sync Site Name**, **User Name** and **Password** will need to be entered when logging in to mSupply Mobile on the tablet. It's advised to consider making them easy enough to enter via touchscreen keyboard (short, no caps, limited 'funny' characters... 😊)!

Configuration in mSupply

To enable the additional options in mobile such as **Dispensary**, **Cash Register** and **Dashboard** (bottom right of main page, below) you will need to enable some options in mSupply admin.



Dispensary

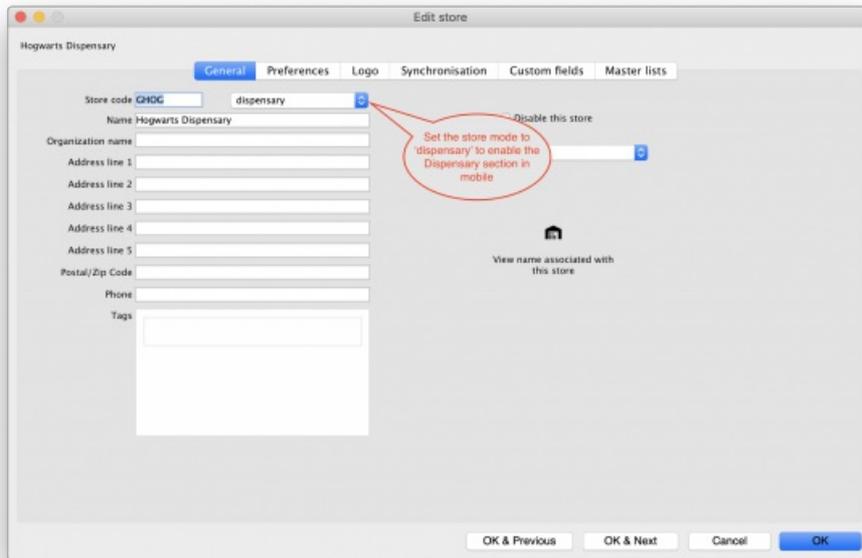
This is controlled by the store mode, which is found on the first page when editing a Store:



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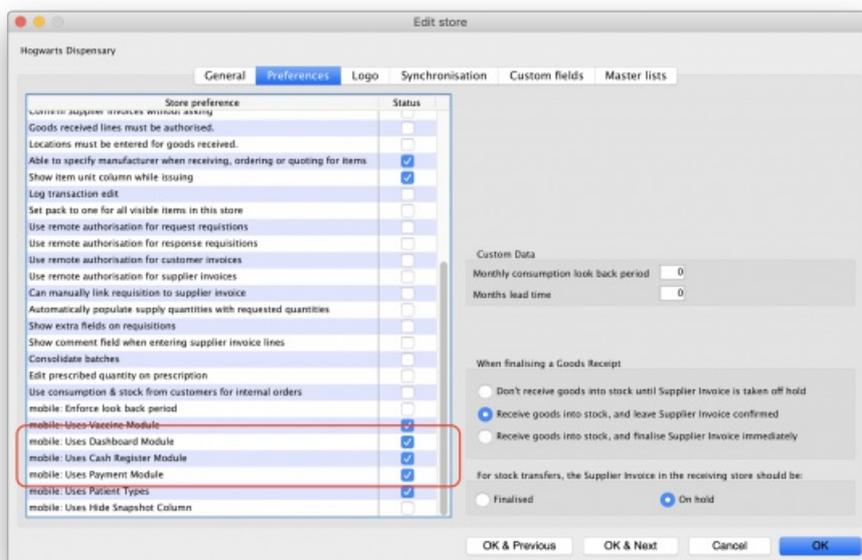
- [Information required](#)
- [Configuration in mSupply](#)
- [Installation of mSupply Mobile APK and initiation](#)
- [User login](#)
- [Information required](#)
- [Configuration in mSupply](#)
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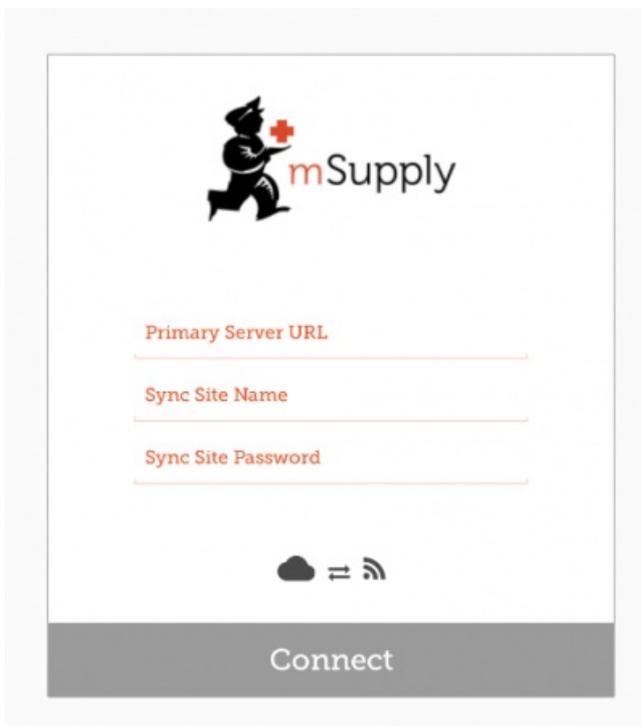
Cash Register & Dashboard

For these, click on the **Preferences** tab when editing a store. Enable the options **mobile: Uses Dashboard Module** and **mobile: Uses Cash Register Module** as highlighted below:



Installation of mSupply Mobile APK and initiation

- Download the mSupply Mobile .APK file to your tablet from the link provided by Sustainable Solutions. Check with Sustainable Solutions for the download link. Depending on your mSupply server version, you may require specific version of mSupply Mobile.
- Once the download is completed and the app starts, it will ask for:
 - **Primary Server URL**, which will look something like <https://msupply.demo.org:2048>. This will be advised to you by Sustainable Solutions.
 - **Sync Site Name**, e.g. **Mobile Clinic HC** (as provided above).
 - **Sync Site Password**. This will be provided by the Sustainable Solutions team once the store has been configured in mSupply).



The image shows the 'Connect' screen of the mSupply mobile application. At the top is the mSupply logo, which features a stylized figure carrying a red cross. Below the logo are three input fields: 'Primary Server URL', 'Sync Site Name', and 'Sync Site Password'. At the bottom of the screen is a grey button labeled 'Connect'. In the center, there is a small icon representing a cloud connected to a Wi-Fi signal.

- Now the initial sync will start.

Important

The initial sync could take quite some time. Please ensure that the internet connection is stable, and be patient. If the initial sync has been interrupted, you will need to restart the app and re-enter the above information.

User login

After the initial sync is complete, another page will open asking you to login as a user:

- **User Name**, as created in mSupply desktop, above
- **Password**



The image shows the 'Login' screen of the mSupply mobile application. At the top is the mSupply logo. Below it are two input fields: 'User Name' and 'Password'. At the bottom of the screen is a grey button labeled 'Login'.

Info

- An existing **store** can be turned into an mSupply mobile store
- An existing **customer** (that is *NOT* a **store** in mSupply) can also be turned in to an mSupply mobile store. *However*, this requires that all Customer Invoices for the customer are finalised.
- To help Sustainable Solutions set up multiple stores at once, please use the attached excel template, filling out ALL information.

 msupply_mobile_setup_template.xlsx

Previous: [28.04. How to remove stock lines that have '0' available](#) | Next: [28.06. Why is my stock on hold?](#)

Last modified: 2021/10/08 11:41 by Gary Willetts



mSupply documentation wiki





28.06. Why is my stock on hold?

There are a number of reasons why stock can be **On hold**. This stock will be included in any stocktakes, but cannot be issued by mSupply. Depending on the reason, there will be different actions required to issue the stock:

- The **Item** is **On hold** - refer [About items](#), [Tabs on the Item Details Window](#), [The General tab](#)
 - mSupply will allow you to manage this stock, but it will not allow you to select this item for issue. To issue stock, you will need to take the **Item** off hold.
- The **Stock line** is **On hold** - refer [Issuing goods to a customer \(customer invoices\)](#), [Adding lines to an invoice](#), [Selecting from Item Lines](#), [Lines on Hold](#) for an explanation and instructions on how to change the hold status of the **stock line**.
- The **Location** is **On hold** - refer [Locations and location types](#), [Adding a location](#), [General tab](#) for an explanation and instructions on how to change the hold status of the **location**.



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Last modified: 2021/10/08 11:41 by Gary Willetts



28.07. How to correct wrong pack sizes

Introduction

In a warehouse or dispensary, stock may be received in 'bulk' (larger pack sizes) which then need to be physically and logically broken down in to smaller, 'issue size', packs before the stock is issued. It often makes sense to keep last-expiring stock in bulk quantities until closer to the time it will be issued:

- It makes for easier stock-taking; just counting the number of cartons, rather than working out how many inner packs are in the cartons, and then multiplying that by the number of cartons.
- If you will be [splitting a stock line](#) to move a carton(s) to a more accessible location for issue, then keeping the 'carton' pack size makes it easier to identify how much stock needs to be split off.

In any case, whenever it is done, you will need to change the pack size of your stock.

Important

It is important that changing pack size does **NOT** change the total amount of stock that you have. mSupply is carefully designed to ensure this.

However, if you have accidentally told mSupply that you have issued more stock than you actually have, then mSupply does allow for these to be corrected through the process described in [Changing pack size for stock already issued](#) below.

Changing pack size for stock on hand

The pack size for Stock on hand is changed through either of two methods:

- [Repack items](#)
- [Splitting a stock line](#)

Changing pack size for stock already issued

If your staff have forgotten to tell mSupply about the new pack size through a [Repack](#) or [Split](#), then stock may be issued without noticing the large pack sizes. This will result in mSupply being told that much more stock has been issued than actually has been.

In an pharmacy environment, the same could also be true if the '[Pack to one](#)' preference has not been set. Most users tend to rely on the stock being introduced to the system in the correct pack sizes (suitable for patient consumption) and when this is not done, the dispenser doesn't pay attention to the pack sizes and accidentally tells mSupply that they are issuing stock with large pack sizes.

In both cases the customer or patient receives drug quantities that are generally much less than what mSupply has been told.

It is **much** better to take measures to ensure that these errors do not occur frequently, but if you find that you haven't, mSupply does have the facility to correct the pack size for stock that has already been issued. As you can imagine, this is a powerful and potentially harmful feature and so there is a special user permission to allow this. Only high level users should have the user permissions to carry out the task below.

User permissions

Firstly to correct pack sizes you need to have the following user permission :

- Can update pack size, cost and sell price

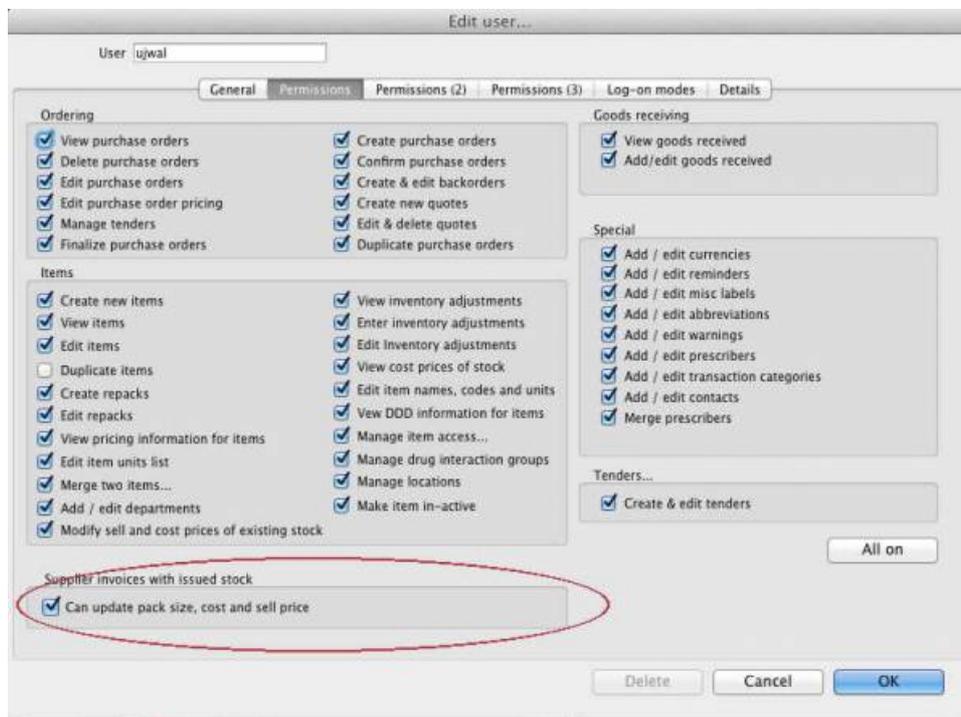
Do the following :

- View File > Edit Users...
- Double click on the user that requires the right to correct pack size mistakes.
- View the "Permissions" tab
- Make sure the permission "Can update pack size, cost and sell price" is ticked (see image below)

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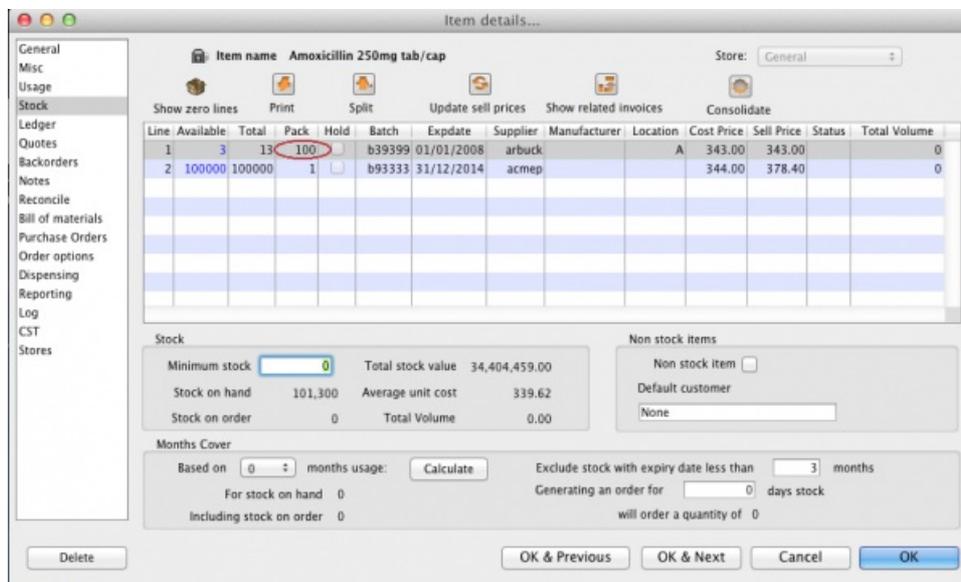


Locating the item

For this tutorial let's assume that we are inside a pharmacy where Amoxicillin 250mg tab/cap should have been introduced as single tablets rather than boxes of 100 tablets. The pharmacy never has to dispense the whole bottle (100 tablets) to one patient.

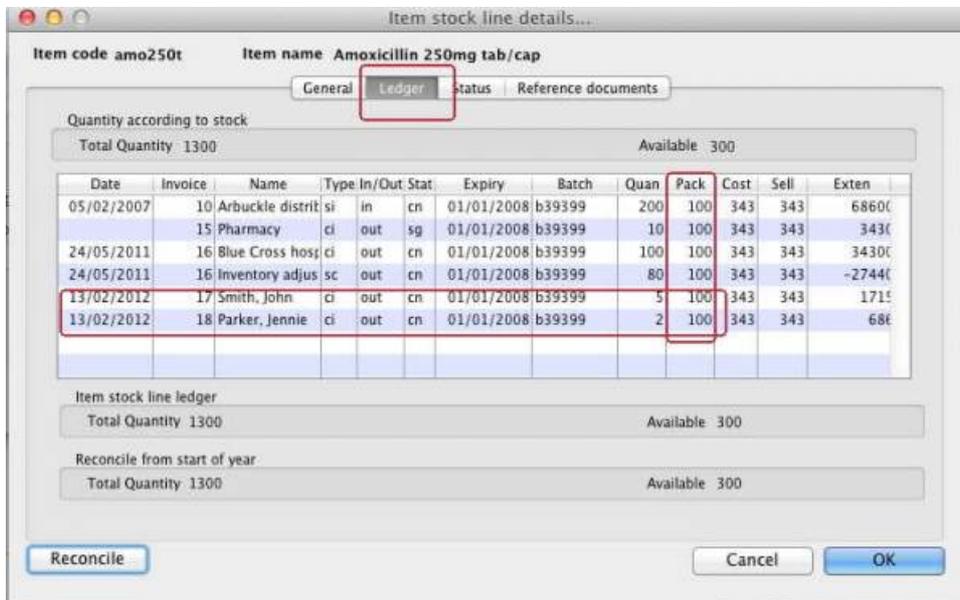
View the item where the pack size needs to be adjusted :

- Item > Show items... from the mSupply menu. Use the search filter
- Navigate to the item in the list and double click.
- Go to the "stock" section. View the image below:



The image above shows that a batch of Amoxicillin 250mg tab/cap has been received in packs of "100".

Double click on this stock line and view the ledger associated with this batch:



The image above shows that two patients (John Smith and Jennie Parker) were issued in total 500 and 200 tablets when the correct amount should have been 5 and 2 tablets. Let's assume that the pack size on all should in fact be "1"

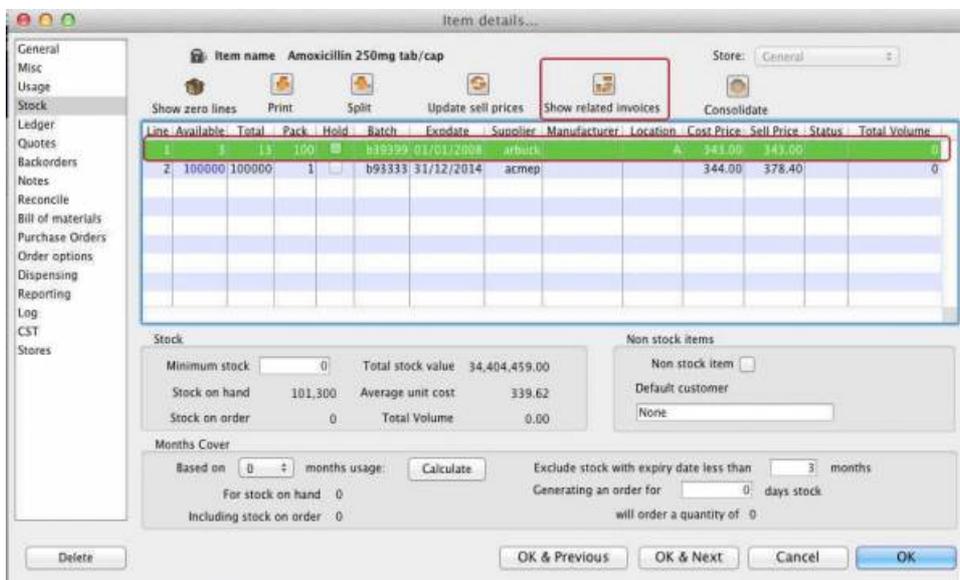
Now close the item stock line details window and view the item again.

Getting to the source

To correct the pack size from "100" to "1", we now need to locate the invoice that initially introduced this batch (b39399) of Amoxicillin 250mg tab/cap to our stock.

Do the following :

- Get back to the item detail window showing the batch lines.
- Select the batch line.
- Then click on the "Show related invoices" icon
- You will now be presented with a list of invoices connected to this particular batch of stock.



Locating the stock introducing invoice

From the list of invoices we now need to view the invoice that initially introduced the stock.

The image below contains customer and patient invoices ("ci" type), an inventory adjustment ("sc" type) and a supplier invoice ("si" type). The supplier invoice has been highlighted.

Double click on the line for the supplier invoice to open it.

Name	Type	Sta.	Entered	Confirmed	Invnum	Total	Their ref	PS printed dt.	Comment	Exp btch
Arbuckle distribution	si	cn	15/02/2007	15/02/2007	10	77518.5933			Short Expiry	0
Pharmacy	ci	sp	15/02/2007		15	3875.9		24/05/2011		0
Blue Cross hospital	ci	cn	24/05/2011	24/05/2011	16	37072	po882	24/05/2011	Express Courier please	0
Inventory adjustments	ic	cn	24/05/2011	24/05/2011	16	-27620			Reduced stock	0
Smith, John	ci	cn	13/02/2012	13/02/2012	17	1715				0
Parker, Jennie	ci	cn	11/02/2012	13/02/2012	18	886				0

Viewing the invoice

View the invoice and you will see one or more lines showing items that have been introduced to stock. Among them will be one containing the item you're interested in - make sure you identify the right one because there could be more than one batch of that particular item. For this example the invoice only contains one line. This invoice line was responsible for introducing an unsuitable pack size for dispensing purposes.

Double click on the line to open up the supplier invoice line:

Supplier invoice

Name: Arbuckle distribution Entry date: 05/02/2007 Colour: Black

Their ref: b933 arbuck Confirm date: 05/02/2007 Invoice number: 10

Comment: Short Expiry Status: cn

Category: None Goods receive ID: 0

Entered by: ujwal Purchase Order ID: 0

Store: General

Li...	Loc...	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Sell Price	Price extension
1	A	Amoxicillin 250mg tab/cap	200	100	b39399	01/01/2008	343.00	343.00	68,600.00

Other charges

Item(s): Subtotal: 68,600.00

Amount: 0.00 13 % tax: 8,918.00

Total: 77,518.00

Hold Export batch: 0

Finalize Margin: 0.00

OK & Next Delete OK

Correcting pack size

You should now see a window similar to the image below :

Add/edit supplier invoice line...

Item: Amoxicillin 250mg tab/cap amo250t New item

Quantity: Units issued: 197

Pack size: ea

Total quantity: 20000

Batch:

Expiry:

Invoice line unit cost (USD):

Adjusted local cost (USD): 343.00

% Margin:

Sell price:

Location:

Volume per pack: m3

For this example let's assume that the total quantities are correct. Here we did indeed receive 20,000 tablets. So we are going to make the following adjustments.

Tip

The step below is only possible if you have the user permission "Can update pack size, cost and sell price" set as described above. If this permission is not set, the pack size is disabled but still viewable.

Starting with mSupply v4.12.06 the pack size field is only enabled if there are no pending repacks connected to the stock. If suggested repacks are encountered, they either need to be deleted or finalised.

Below we have changed the packsize to "1" and pushed the quantity to 20,000

So, as before, the total tablets we have received is : 20,000 X 1 = 20,000

Click "OK" to save the changes.

Add/edit supplier invoice line...

Item: Amoxicillin 250mg tab/cap amo250t New item

Quantity: Units issued: 197

Pack size: ea

Total quantity: 20000

Batch:

Expiry:

Invoice line unit cost (USD):

Adjusted local cost (USD): 343.00

% Margin:

Sell price:

Location:

Volume per pack: m3

We are done. Close the invoice.

Review of the changes

Now, to see the result of the pack size adjustment, view the item and its ledger associated with batch "b39399":

The screenshot displays two windows from the mSupply software. The main window, 'Item details', shows the item 'Amoxicillin 250mg tab/cap' with a 'Total' quantity of 19813 and 'Available' quantity of 19803. The 'Item stock line details' window provides a detailed view of the stock ledger, showing a table of transactions with columns for Date, Invoice, Name, Type, In/Out, Status, Expiry, Batch, Quantity, Pack, Cost, Sell, and Extent. A red box highlights the 'Pack' column, showing values of 100, 10, 100, 80, 5, and 1. The 'Total Quantity' is 19813 and 'Available' is 19803.

Date	Invoice	Name	Type	In/Out	Status	Expiry	Batch	Quan	Pack	Cost	Sell	Extent
05/02/2007	10	Arbuckle distrib	si	in	cn	01/01/2008	b39399	20000	1	343	343	6860000
	15	Pharmacy	ci	out	sg	01/01/2008	b39399	10	1	343	343	3430
24/05/2011	16	Blue Cross hosp	ci	out	cn	01/01/2008	b39399	100	1	343	343	34300
24/05/2011	16	Inventory adjust	sc	out	cn	01/01/2008	b39399	80	1	343	343	-27440
13/02/2012	17	Smith, John	ci	out	cn	01/01/2008	b39399	5	1	343	343	1715
13/02/2012	18	Parker, Jennie	ci	out	cn	01/01/2008	b39399	1	1	343	343	680

From the image above we see that the available and total stock figures have changed.

We can also see that pack sizes on past ledgers have been converted from "100" to "1".

Previous: [28.06. Why is my stock on hold?](#) | Next: [28.08. How to report by invoice category](#)

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mSupply documentation wiki

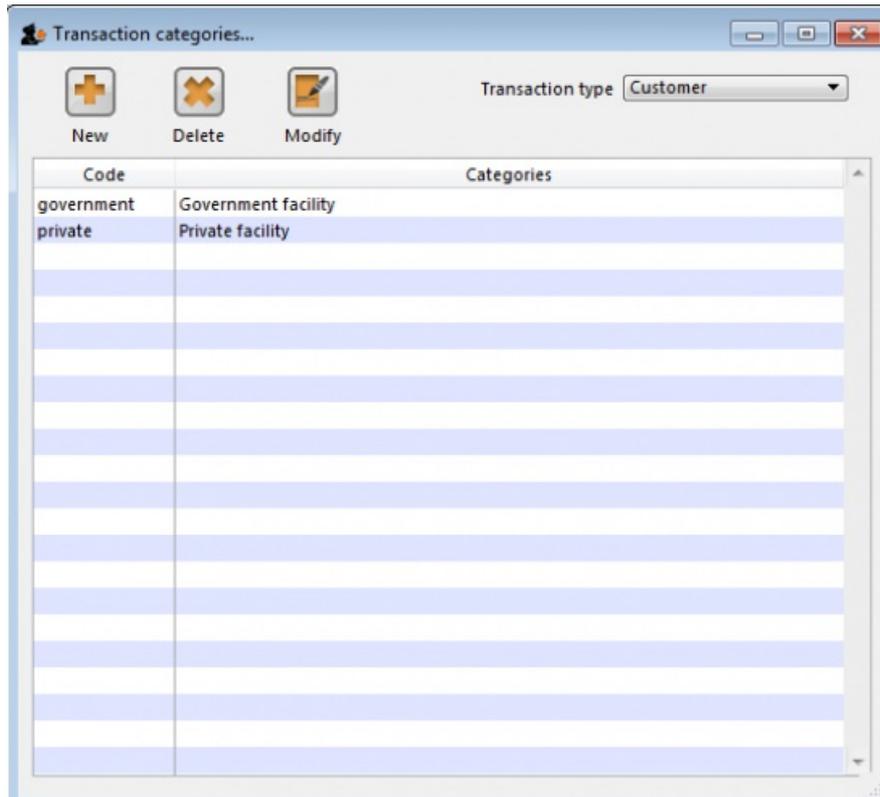


28.08. How to report by invoice category

Within mSupply if you have categorised invoices (or transactions) in a particular manner then you will be able to run reports based on this category. In dispensary mode Prescriptions can also be categorised. For example you may be required to tag your customer invoices as “Government” or “Private” facilities.

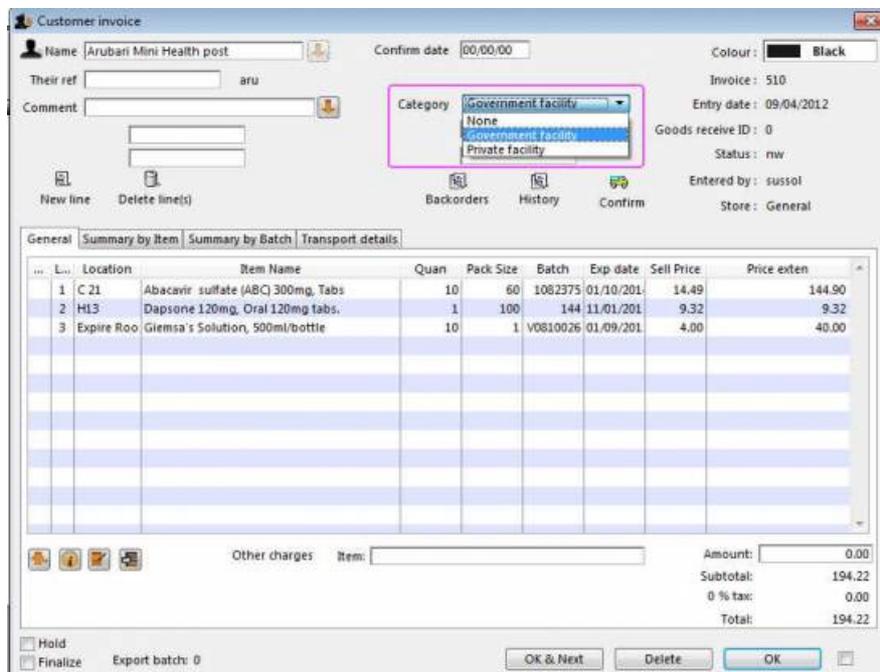
Follow these steps to generate a report by invoice category :-

- Make sure there is at least one transaction category available in your data file. If not, then follow the instructions at [26.06. Transaction categories](#) to create a transaction category.



For this example the image above shows the addition of two categories for customer invoices.

- On your Invoices window, all of your categories will be displayed under the “Category” drop-down list.



- Choose the category from the list and click on the OK button. For reporting purposes, the invoice will need to be confirmed.
- For reporting, from mSupply menu or Navigator , View Report → Transactions.

- On the right hand side of that window, you will see the section “Transaction filter”. Here we have chosen to search for “Code” *contains* “government”, which produces the same results as searching for “Code” *equals* “Government”.
- Click on the OK button and you will now have the opportunity to view items issued to government facilities.

Item	To From	Code	Date	Invoice	#Packs	Pack Size	Total	Cost Price	Sell Price	Price Extension
Aspirin 100mg ABC 100mg 100	Avastir 100 Health post	AVU	09/04/12	810	10.00	80.00	800	14.49	14.49	114.90
Aspirin 100mg ABC 100mg 100	Avastir 100 Health post	AVU	09/04/12	810	1.00	100.00	1.00	9.32	9.32	9.32
Aspirin 100mg ABC 100mg 100	Avastir 100 Health post	AVU	09/04/12	810	10.00	1.00	10	9.00		90.00
Grand Total										114.22

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28.09. Imprest work flow

Version : v3.11 or v3.12 or later

The imprest module allows a pharmacy or warehouse to decide on quantities of drugs its receiver facilities (customers or [Virtual stores](#)) should receive. Periodically a stock take is carried out at the customer's site and drugs are replenished to meet the predefined (imprest) level.

The tutorial below suggest how an imprest should now be carried out.

We will assume that the facility or customer has been assigned with a suitable imprest list. If this is not the case then please do the following:

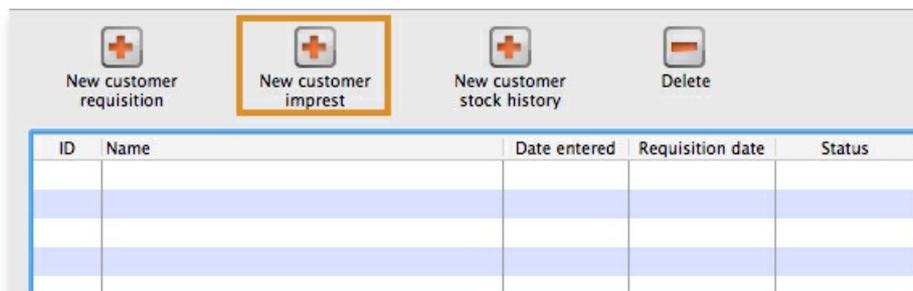
- Select Item > Show Item master list... from the menus to create a master list (see [here](#) for details).
- Assign the master list to the customer. See [Item Lists > Assigning a list to a customer](#) for instructions.

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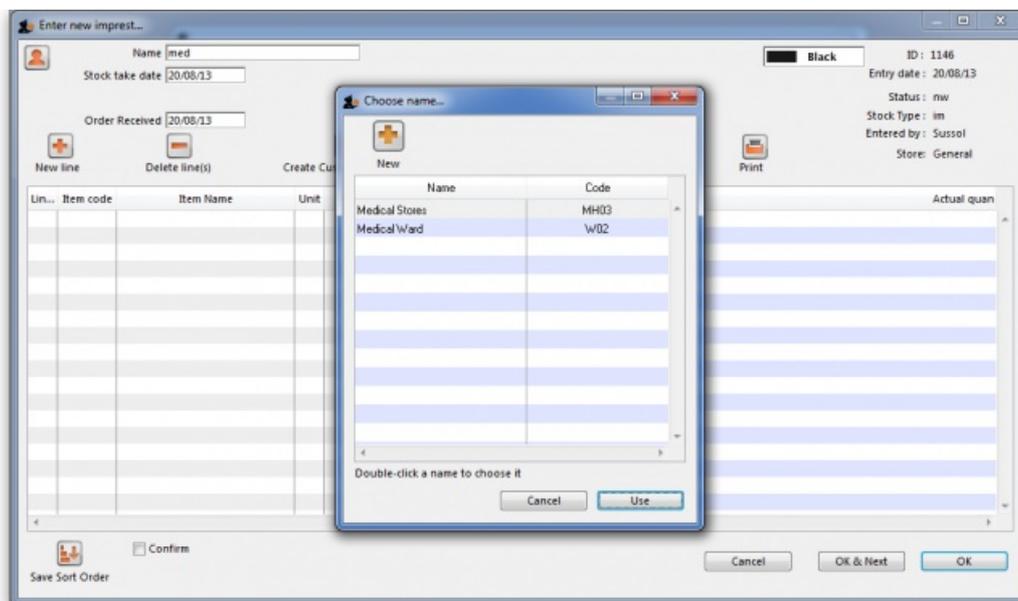
- [Create an imprest](#)
- [Print the imprest](#)
- [Updating the stock quantities](#)
- [Assigning stock](#)
- [Create an imprest](#)
- [Print the imprest](#)
- [Updating the stock quantities](#)
- [Assigning stock](#)

Create an imprest

Click on 'Requisitions' in the 'Customer' (or Patients) tab.. Click on the *New customer imprest* icon in he window which appears.



Type the first few characters of the customer name in the Name field and press tab. A List of matching customers is displayed (unless only one customer name matches what you entered). Choose the intended customer and click the *Use* button.



At this point the master list of items associated with the customer is displayed in its default sort order.

Print the imprest

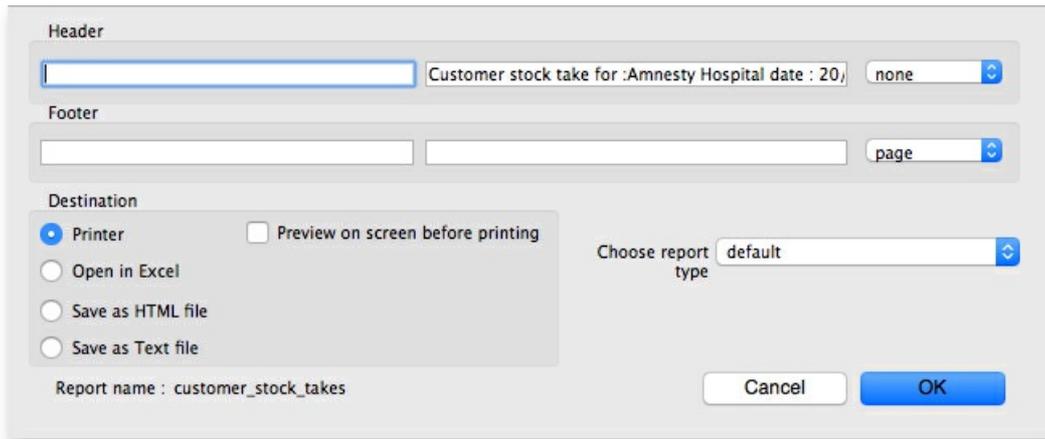
The image below shows an example of what you now see: a list of items with their required imprest quantities. The next task is to print the list and carry out a physical stock take at the customer site.

First of all, make sure the list is in the correct order. If it is, fine. If not, re-order it as appropriate (by clicking on the column headers or dragging items up

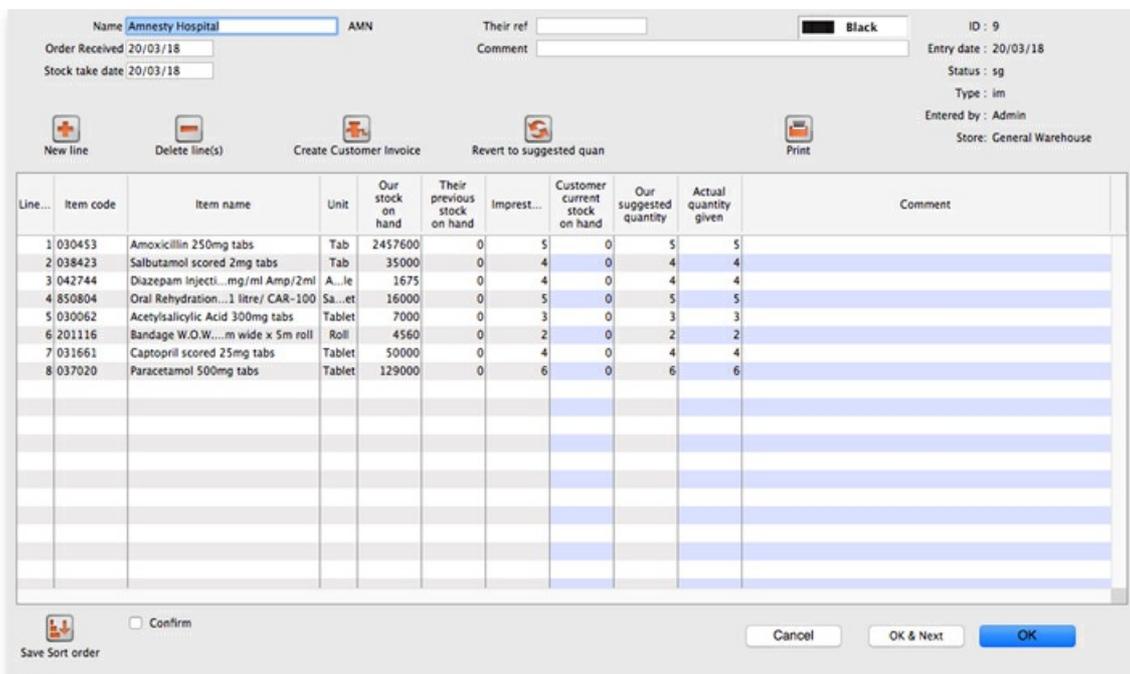
or down the list) and click on the *Save Sort Order* button.

Now print the list by clicking on the *Print* button  and selecting the "Customer stock takes" option.

The print dialogue opens. Here you can add header and footer information for your printouts. Press OK when ready and print the list.



The print dialog box is titled "Header" and "Footer". It contains several input fields and dropdown menus. The "Header" section has a text box containing "Customer stock take for :Amnesty Hospital date : 20," and a dropdown menu set to "none". The "Footer" section has two empty text boxes and a dropdown menu set to "page". The "Destination" section has radio buttons for "Printer" (selected), "Open in Excel", "Save as HTML file", and "Save as Text file". There is also a checkbox for "Preview on screen before printing" which is unchecked. A "Choose report type" dropdown is set to "default". At the bottom, there is a "Report name : customer_stock_takes" label and "Cancel" and "OK" buttons.



The printout shows a table with columns: Line..., Item code, Item name, Unit, Our stock on hand, Their previous stock on hand, Imprest..., Customer current stock on hand, Our suggested quantity, Actual quantity given, and Comment. The data is as follows:

Line...	Item code	Item name	Unit	Our stock on hand	Their previous stock on hand	Imprest...	Customer current stock on hand	Our suggested quantity	Actual quantity given	Comment
1	030453	Amoxicillin 250mg tabs	Tab	2457600	0	5	0	5	5	
2	038423	Salbutamol scored 2mg tabs	Tab	35000	0	4	0	4	4	
3	042744	Diazepam injects...mg/ml Amp/2ml	A...le	1675	0	4	0	4	4	
4	850804	Oral Rehydration... 1 litre/ CAR-100	Sa...et	16000	0	5	0	5	5	
5	030062	Acetylsalicylic Acid 300mg tabs	Tablet	7000	0	3	0	3	3	
6	201116	Bandage W.O.W....m wide x 5m roll	Roll	4560	0	2	0	2	2	
7	031661	Captopril scored 25mg tabs	Tablet	50000	0	4	0	4	4	
8	037020	Paracetamol 500mg tabs	Tablet	129000	0	6	0	6	6	

At the bottom of the printout, there is a "Save Sort order" button with a "Confirm" checkbox, and "Cancel", "OK & Next", and "OK" buttons.

Please note that after printing the list you should not re-order it - it will be confusing later when you come to enter the counted quantities for each item.

Now, using the printout, carry out the actual stock take.

Updating the stock quantities

After carrying out actual stock take at the customer's site it's time to enter the actual stock quantities. In the window displayed below, edit the value in the *Customer current stock on hand* column with the stock take quantities you've written on the print out for each item.

mSupply automatically completes other two columns (*Our suggested quantity* and *Actual quantity given*).

Info

Imprest formula:

- Our suggested quantity = Maximum of
 - 0, and
 - Imprest quantity - Customer current stock on hand

Name: Amnesty Hospital AMN Their ref: Colour: Black ID: 9
 Order Received: 20/03/18 Comment: Entry date: 20/03/18
 Stock take date: 20/03/18 Status: sg
 Type: im
 Entered by: Admin
 Store: General Warehouse

New line Delete line(s) Create Customer Invoice Revert to suggested quan Print

Line...	Item code	Item name	Unit	Our stock on hand	Their previous stock on hand	Imprest...	Customer current stock on hand	Our suggested quantity	Actual quantity given	Comment
1	030453	Amoxicillin 250mg tabs	Tab	2457600	0	5	4	1	5	
2	038423	Salbutamol scored 2mg tabs	Tab	35000	0	4	4	0	4	
3	042744	Diazepam Injecti...mg/ml Amp/2ml	A...le	1675	0	4	4	0	4	
4	850804	Oral Rehydration...1 litre/ CAR-100	Sa...et	16000	0	5	3	2	5	
5	030062	Acetylsalicylic Acid 300mg tabs	Tablet	7000	0	3	3	0	3	
6	201116	Bandage W.O.W...m wide x 5m roll	Roll	4560	0	2	3	0	2	
7	031661	Captopril scored 25mg tabs	Tablet	50000	0	4	4	0	4	
8	037020	Paracetamol 500mg tabs	Tablet	129000	0	6	6	0	6	

Save Sort order Confirm Cancel OK & Next OK

Assigning stock

Once the updating of stock quantities is done and you are satisfied, you can click the *Create customer invoice* button to assign stock to the customer. Clicking the button will open the following window:

Name: Amnesty Hospital Confirm date: 00/00/00 Colour: Black
 Their ref: AMN Invoice: 21
 Comment: Invoice from requisition Category: None Entry date: 20/03/18
 Goods received ID: 0
 Status: sg
 Entered by: Admin
 Store: General Warehouse

New line Delete line(s) History Confirm

General Summary by Item Summary by Batch Transport details Log

...	L...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1			Amoxicillin 250mg tabs	5	1	none		0.00	0.00
2			Salbutamol scored 2mg tabs	4	1	none		0.00	0.00
3			Diazepam Injection 5mg/ml Amp/2ml	4	1	none		0.00	0.00
4			Oral Rehydration Solut...t for 1 litre/ CAR-100	5	1	none		0.00	0.00
5			Acetylsalicylic Acid 300mg tabs	3	1	none		0.00	0.00
6			Bandage W.O.W. 15cm wide x 5m roll	2	1	none		0.00	0.00
7			Captopril scored 25mg tabs	4	1	none		0.00	0.00
8			Paracetamol 500mg tabs	6	1	none		0.00	0.00

Other charges Item: Amount: 0.00
 Subtotal: 0.00
 0 % tax: 0.00
 Total: 0.00

Hold Finalise Export batch: 0 OK & Next Delete OK

All the entries appear in red - they are **placeholder** lines which have the correct quantity but have no batch chosen (notice 'none' in the batch column for each line). You have to double-click each line in turn and select which batches you wish to assign to the customer.

As an example, you will see the window below when you double click an item line:

Item Amoxicillin 250mg tabs 030453

Line 1

Quan 5 of 0 Total 5

Pack 1 Tablet Bulk/Outer pack size 0

Add Place holder Re-distribute all Re-lookup Sell Price

L...	Issue	Available	Tot in st...	Pack	H...	Batch	Expdate	Supplier	Location	Cost Price	Sell price	Status
1	5	0	0	1	<input type="checkbox"/>	none				0.00	0.00	
2	0	21...595	2397.595	1000	<input type="checkbox"/>			invad	B1	0.00	0.00	
3	0	14	20	500	<input type="checkbox"/>	17KD003	9/12/17		B1	0.01	0.01	
4	0	0	50	1000	<input type="checkbox"/>	K568672	9/12/17		B1	0.03	0.03	

Total quantity issued 5
Total quantity available 2204595

Cancel OK OK & Next

Normally you would click on the *Re-distribute all* button to have mSupply make the appropriate selection for you (it chooses batches with shortest expiry first). Having done that, the window now appears like this:

Item Amoxicillin 250mg tabs 030453

Line 2

Quan 1 of 2197.59 Total 1000

Pack 1000 Tablet Bulk/Outer pack size 0

Add Place holder Re-lookup Sell Price

L...	Issue	Available	Tot in st...	Pack	H...	Batch	Expdate	Supplier	Location	Cost Price	Sell price	Status
1	0	0	0	1	<input type="checkbox"/>	none				0.00	0.00	
2	1	21...595	2397.595	1000	<input type="checkbox"/>			invad	B1	0.00	0.00	
3	0	14	20	500	<input type="checkbox"/>	17KD003	9/12/17		B1	0.01	0.01	
4	0	0	50	1000	<input type="checkbox"/>	K568672	9/12/17		B1	0.03	0.03	

Total quantity issued 1000
Total quantity available 2204595

Cancel OK OK & Next

Clicking on *OK & Next* displays the next item on the invoice. When the final item has been processed, clicking on *OK* or *OK & Next* will display the complete invoice (all red lines replaced with black lines with the chosen batch displayed). The image below shows the invoice part way through this process:

When you've selected batches for every line, make sure the *Hold* checkbox is not checked then confirm the invoice to assign the stock to the customer. Now all you have to do is print off the pick list, physically pick the stock off the shelves and send it to the customer. Congratulations - job done!

Previous: [28.08. How to report by invoice category](#) | Next: [28.10. Tips and tricks](#)

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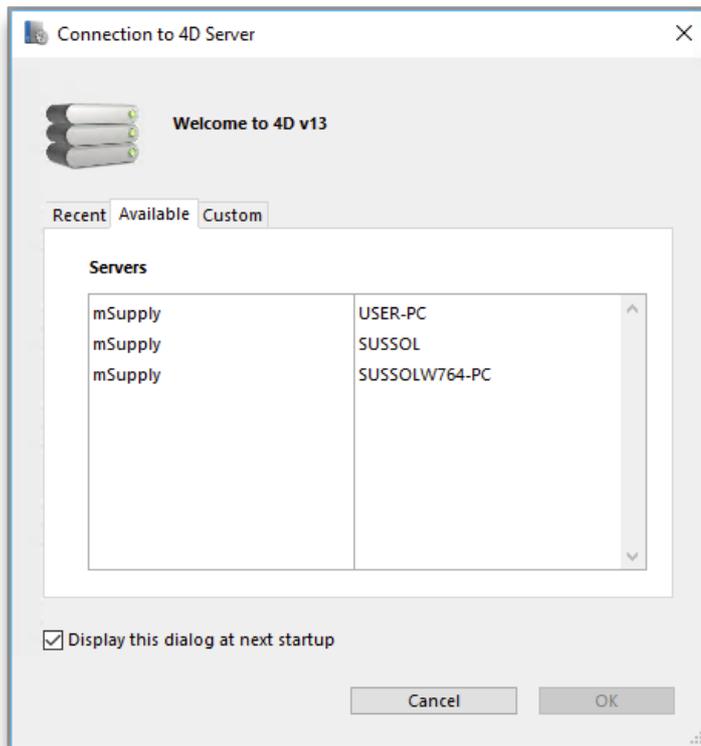


28.10. Tips and tricks

mSupply Client: Connecting to a different server

It is unusual, but you may be in a situation where your mSupply client application needs to switch between more than one mSupply Server.

Launch the mSupply client application by double-clicking on the mSupply client icon, then immediately hold down the **Alt** key until the mSupply Server connection dialog box appears:



Tip

If you tick the **Display this dialog at next startup** tick-box, this dialog box will automatically be displayed on startup of the mSupply client application, and you will not need to do the double-click, **Alt** routine described above.

There are three ways of selecting the mSupply server to connect to. These are accessed via the tabs: **Recent**, **Available** and **Custom**:

Recent tab

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[Carry out stock takes and inventory adjustments](#)

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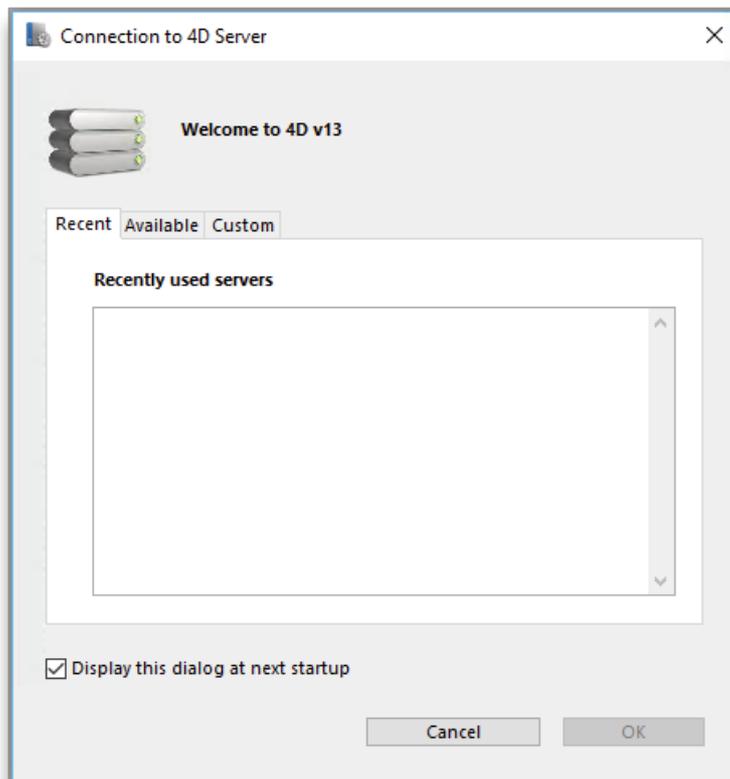
[Emptying out a store and starting again...](#)

[Creating customers that are not visible to all the stores](#)

[Changing an item's name and pack size](#)

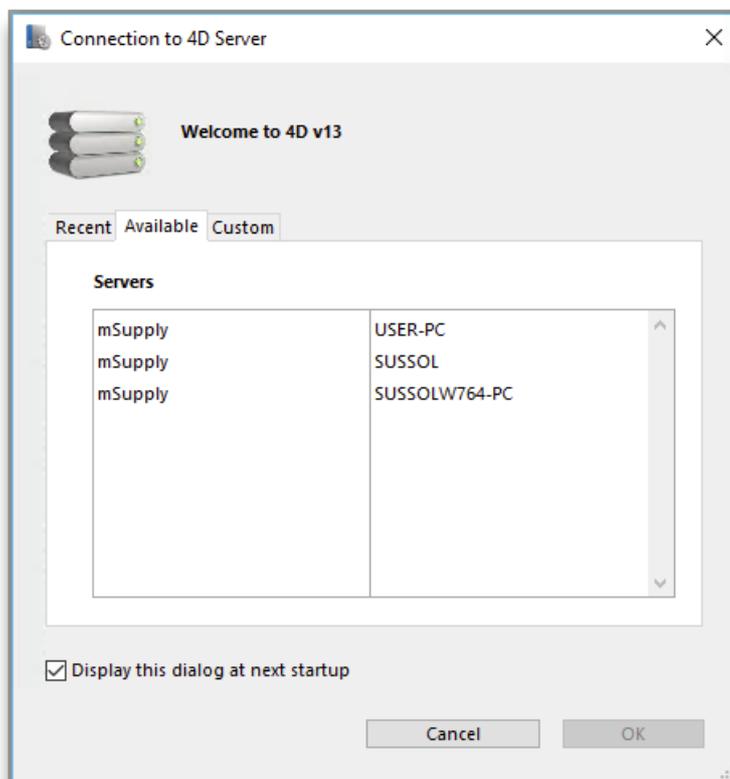
[Changing the item](#)

[Carry out stock takes and inventory adjustments](#)



The **Recent** tab retains a list of all mSupply servers recently used. The list is sorted by alphabetical order. To connect to a server from this list, double-click on its name or select it and click the **OK** button.

Available tab

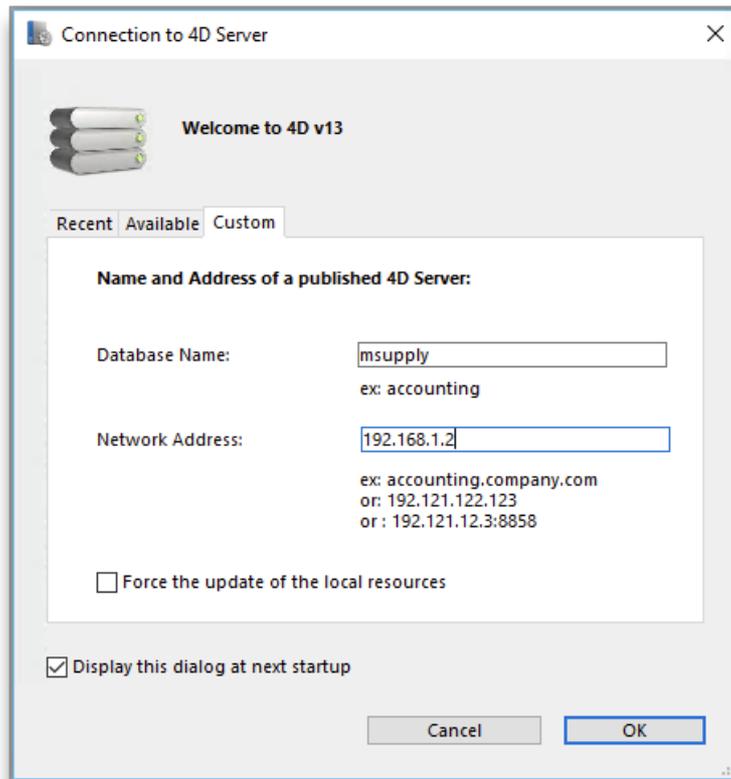


The mSupply Server includes a built-in TCP/IP broadcasting system that publishes by default the name of the mSupply Server databases available over the network. These names are listed on the **Available** tab of the connection dialog box.

This list is sorted by order of appearance and is updated dynamically. To connect to a server from this list, double-click on its name or select it and click the **OK** button.

Computer networks can be configured to stop dynamic publication of the database name on the network. In this case, you will need to manually configure the the connection on the **Custom** tab.

Custom tab



The **Custom** tab allows assigning a published server on the network using its IP address and database name.

Database name: allows defining the name of the mSupply Server database.

Network address: allows entering the IP address of the machine where the mSupply Server was launched. If two servers are operating simultaneously on the same machine, the IP address must be followed a colon and port number, for example: **192.168.92.104:19814** .

By default, the publishing port of a mSupply Server is **19813** . This number can be modified in the **Database Settings...** under **Client-server** tab of mSupply server.

Info

If a database was selected in the **Recent** or **Available** tabs when you clicked on the **Custom** tab, these two fields display the corresponding information from that tab.

Once the server details have been entered, clicking the **OK** button will connect you to the server.

Tip

If you tick the **Force the update of the local resources** tick-box, it allows you systematic updating of the local resources on the client machine when it connects. As a rule, updating of the local resources is automatic on the remote machine each time it connects, when the structure of the database has been modified between two connections. Most of the time, this option is unnecessary. Nevertheless, in certain specific cases, it may be necessary to force the update.

Emptying out a store and starting again...

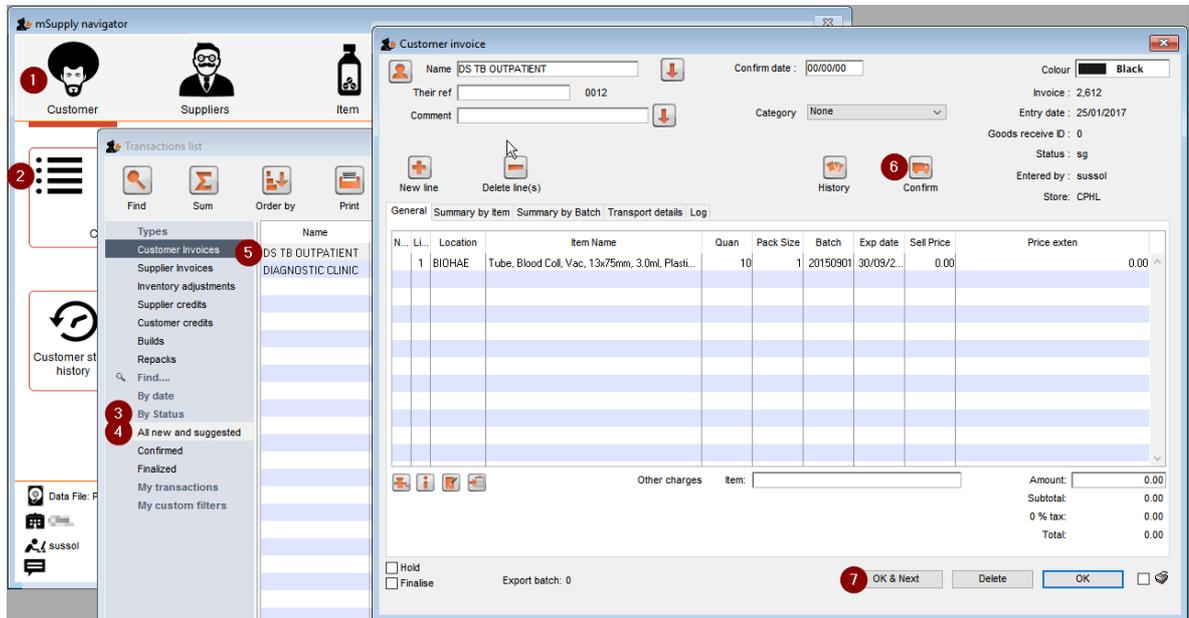
Sometimes, the actual stock situation in a store becomes so out of step with mSupply's records that you want to start again from scratch with a brand new stocktake.

Alert

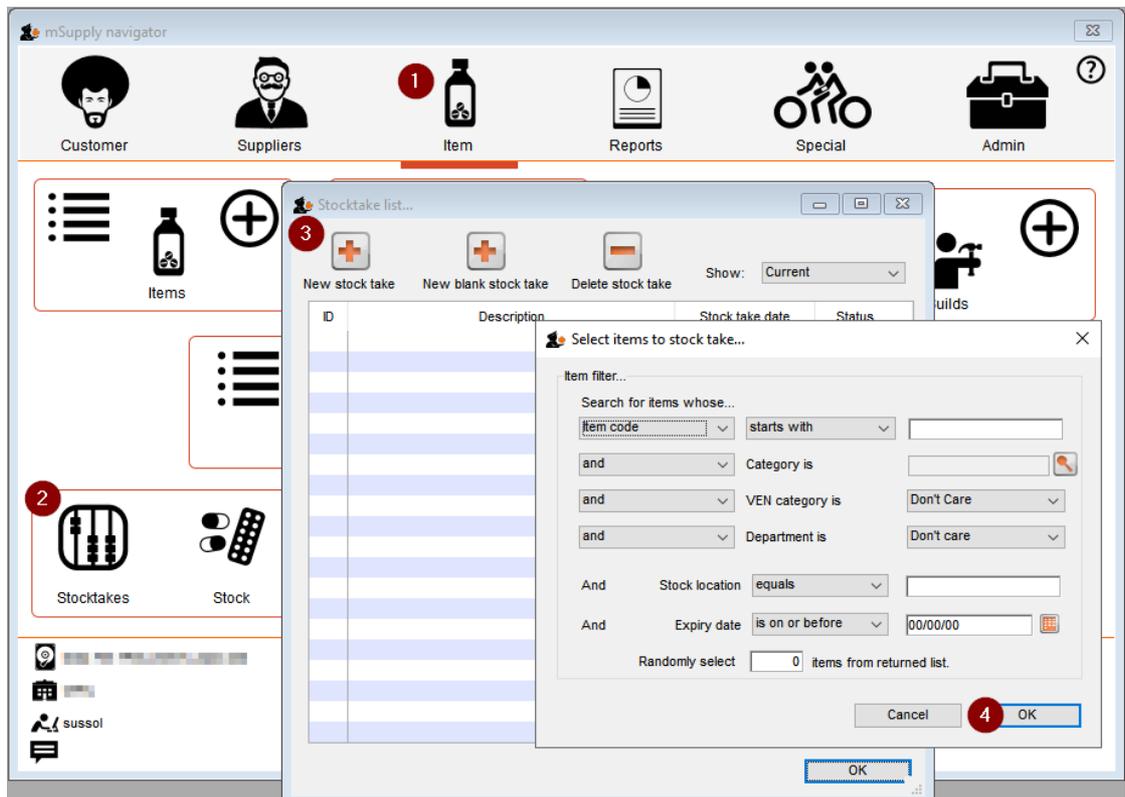
Be warned: Following the procedure below will result in the stock lines losing all **Cost price** data. Cost price data can be added back to the stock lines, but that is ordinarily a slow process that will not necessarily get back the correct Cost prices. But, you are only doing this because the mSupply record is so desperately inaccurate anyway... 😞

To do this, you will need to:

1. Confirm or delete all customer invoices with status = **nw** (New) or **sg** (Suggested). This should remove from stock all lines that have been made unavailable, but are still showing as in stock - see figure below.
 - a. Click on **Customer**
 - b. Click on **Show Customer Invoices**
 - c. Click on **By Status**
 - d. Click on **All new and suggested**
 - e. Double-click on the first displayed invoice
 - f. Click on **Confirm** (or, if you want to delete the CI, delete each of the lines, and then Click on **Delete**)
 - g. Click on **OK & Next**
 - h. Repeat steps f & g until all invoices are confirmed (or deleted).



2. Empty the mSupply store of all stock by means of an Inventory Adjustment based on an mSupply stocktake of all stock in the store
 - a. Create the stocktake - see figure below.
 - I. Click on **Item**
 - II. Click on **Stocktakes**
 - III. Click on **New stocktake**
 - IV. Click **OK** (accept default filter values which includes all stock)



- b. Set all actual quantities to zero (0) - see figure below.
 - I. Click once on the first stock line. The whole line will become highlighted.
 - II. Click once on the value in the 'Enter Quantity' column. The Enter Quantity value will become highlighted
 - III. Type 0, then press **Tab Tab**. Repeat this for each line of the whole stocktake. You should be able to be faster than 2 stock lines

per second, maybe a lot faster. At 2 stock lines per second, you can get through 1000 stock lines in less than 10 minutes...

c. Click on **Create Inventory adjustments** If you've got a lot of stock lines, this could take a while...

Lin...	Location	Item code	Item name	Batch	Expiry	Snapsh...	Pack Size	Enter Quantity
1	Hae	791601	Boule Quintus, 5-part Diluent, 20l (EBOS 1...	1501-399	31/01/2017	2	1	0
2	Hae	791602	Boule Quintus, 5-part Lyse, 5l (EBOS 150...	1504-430	30/06/2019	1	1	0
3	Hae	791603	Boule Quintus, 5-part Stopper, 1l (EBOS 15...	1504-388	31/12/2016	1	1	0
4	F3	178015	Immunocomb HIV 1/2, 100 tests	150120	30/04/2016	5	1	5
5	F3	178015	Immunocomb HIV 1/2, 100 tests	150204	31/05/2016	3	1	3
6	A1	176796	Lopinavir 100mg + Ritonavir 25mg, Dual Co...	E443256	29/02/2020	25	60	25
7	B2	176791	Lopinavir 100mg + Ritonavir 25mg, Dual Co...	H45-876	31/10/2017	20400	60	20400
8	B1	176791	Lopinavir 100mg + Ritonavir 25mg, Dual Co...	H45-876	31/10/2017	34	36000	34
9	F1	733004	Rapid Diagnostic Test (RDT) for Troponin-1...	90AD14003	30/06/2016	1	1	1
10	F3	733004	Rapid Diagnostic Test (RDT) for Troponin-1...	20141202	31/12/2016	3	1	3
11	F1	732404	SD Bioline Dengue IgG/IgM, Kit	11DDA036A	31/10/2017	1	1	1
12	BIOHAE	743201	Tube, Blood Coll, Vac, 13x75mm, 3.0ml, Pla...	20150901	30/09/2017	53	1	53

3. Import new stock as described in [Importing items & stock](#)

Creating customers that are not visible to all the stores

In a multi-store system, you will often be wanting to create new customers that are visible in only one store. By default, when new customers are created, they will be made visible to all stores in the system. If you actually want these new customers to be visible to only one store, you will need to [edit the store visibility](#) for that customer, and un-tick the visibility for all the other stores - a tedious exercise in a system with scores or hundreds of stores!

For this reason, there is a solution: There is a [store preference](#) called **Names created in this store not visible in other stores**. To use it:

1. [Edit the store preferences](#) for the store that needs to be able to see the new customers and turn on the **Names created in this store not visible in other stores** store preference.
2. Make sure that you have [user permission](#) to create customers in this store.
3. Log in to the store
4. Create the new customers

Tip

... or import the customers - refer [Importing Names](#)

Changing an item's name and pack size

There may come a time when you decide that you need to change the name and pack size of an item.

For example, Malaria RDTs (Rapid Diagnostic Tests) are commonly packed in packets with 25 tests in each pack. The packs can not really be broken down further in the supply chain, and it will only be opened at the last mile service delivery point. Therefore you made a decision to define this item as:

Rapid Diagnostic Test (RDT) for Malaria, Pack/25 with a default pack size of 1.

This works fine until your Malaria Programme team have advise you that they prefer to count the individual test in such a way that it matches the

number of patients that need to be tested. If they need enough tests for 750 people, they want to order 750 of this item, not 30 (750/25). Therefore, you decide that you need to change the name and pack size of this item to:

Rapid Diagnostic Test (RDT) for Malaria with a default pack size of **25**.

⚠ Important

- Changing the Item name and pack size is the easy bit. The challenge is that all existing stocks need to be recounted with resulting inventory adjustments.
- If your system is of any substantial size, you will want to consult with stakeholders to plan a smooth transition.
- After a change, such as this, all historic issuance / AMC records will be 25 time less than future issuance AMC records

Changing the item

If the item is currently described as:

The screenshot shows the 'Item details' form with the 'General' tab selected. The 'Item name' field contains 'Rapid Diagnostic Test (RDT) for Malaria, Pack/25' and the 'Item code' field contains '732401'. There are also fields for 'Storage' and 'Pricing' which are currently empty.

... with a pack size of 1.

💡 Tip

In this example, the Item code = 732401. The code is often an easier way to select the item.

Edit the item (you will need [user permissions](#) to do this) to:

This screenshot shows the 'Item details' form with the 'General' tab selected. The 'Item name' field contains 'Rapid Diagnostic Test (RDT) for Malaria, Pack' and the 'Item code' field contains '732401'. The 'Storage' and 'Pricing' fields are empty.

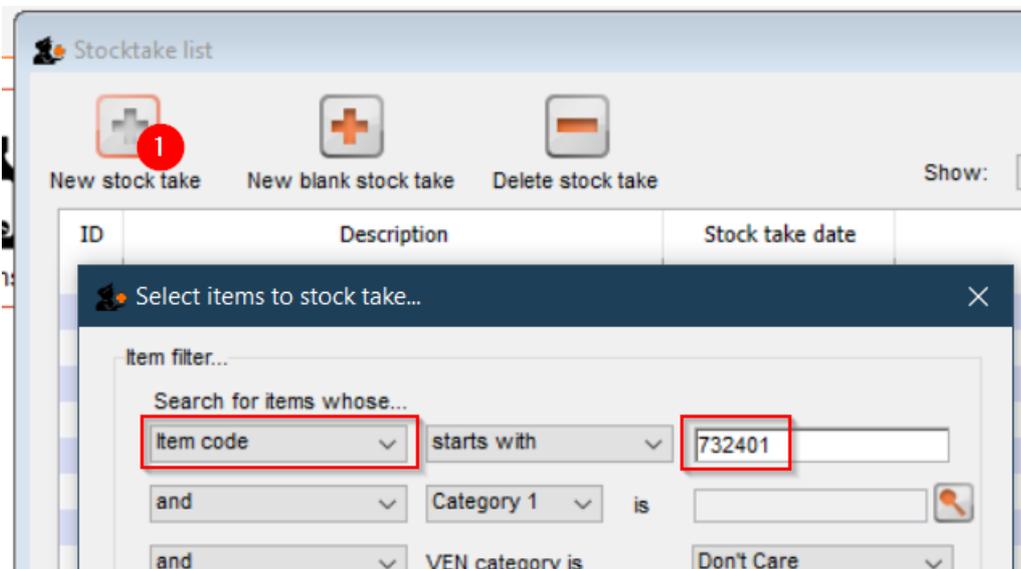
On the Storage tab, replace the **Preferred pack size** of 1 with 25

The screenshot shows the 'Item details' form with the 'Storage' tab selected. The 'Item name' field contains 'Rapid Diagnostic Test (RDT) for Malaria, Pack' and the 'Item code' field contains '732401'. In the 'Default' section, the 'Preferred pack size' field is set to '25' with a red arrow pointing to it. Other fields include 'Default shelf location', 'Outer pack size' (0), 'Volume per pack' (0 m3), 'Outer pack volume' (0 m3), and 'Weight per pack' (0 kg).

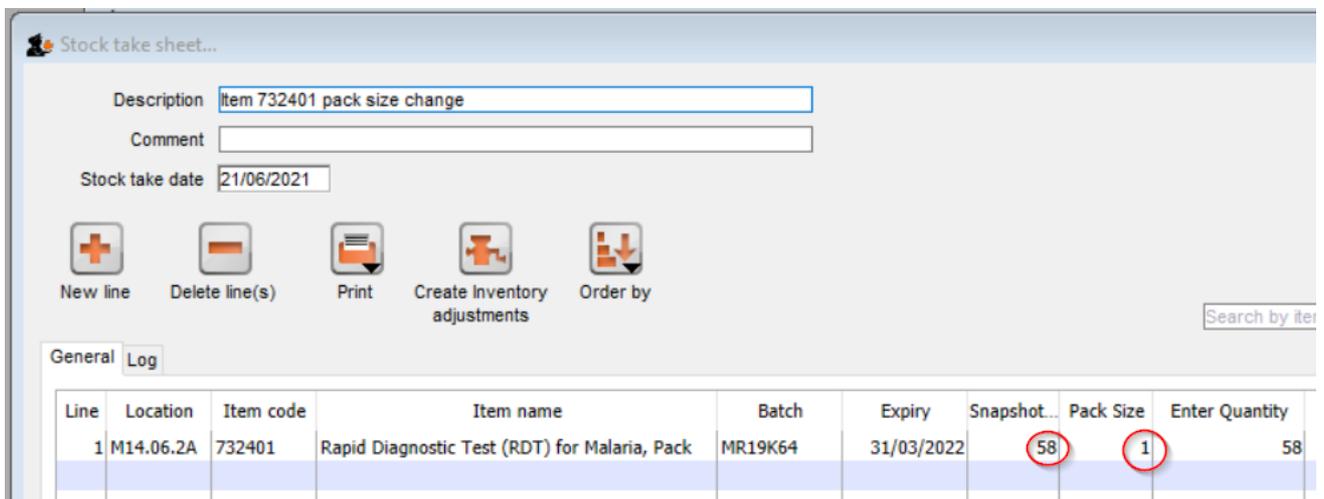
Click **OK**

Carry out stock takes and inventory adjustments

Create a New stock take for Item code starts with **732401** :



This reveals that there are **58** packs in the store with pack size =1:



To correct this, we need to:

1. Add a New line
2. 732401 <Tab>
3. Select the line of the existing stock line (see that the Stock on hand = 58)
4. Click on the button to use details of this existing stock line
5. Set stock take qty = 58
6. Set Pack size = 25
7. Set Stock stock location to the same as the existing stock line
8. Click **Add new**

Stock take sheet...

Description: (1)

Comment:

Stock take date:

(1)

 (4)

Add stocktake lines

Item: (2) Black

Total stock for this item: 58

Existing stock lines

Batch	Expiry	Pack size	Cost price	Sell price	Stock on hand	Location	<input type="checkbox"/>
MR19K64	31/03/2022	1	0	0	0	M13.09.1A	<input type="checkbox"/>
MR19K64	31/03/2022	1	0	0	58	M14.06.2A	<input type="checkbox"/>
MR19K64	31/03/2022	1	0	0	0	M09.01.3A	<input type="checkbox"/>
MR19K64	31/03/2022	108	0	0	0	M14.06.2A	<input type="checkbox"/>
75006205	28/02/2022	25	0	0	0	M14.06.2A	<input type="checkbox"/>
75006205	28/02/2022	25	0	0	0	M14.06.2A	<input type="checkbox"/>
75006205	28/02/2022	1	0	0	0	M14.06.2A	<input type="checkbox"/>

New stock line

Stock take qty: (5)

Pack Size: (6)

Batch:

Expiry date:

Location: (7)

Donor:

Cost Price: 12 month average
 Sell Price:

(4) (8)

With the resulting stock take:

1. We give the stock take a useful title
2. We update the **Enter Quantity** details of the the original stock line to 0
3. Carry out a stock count to ensure that the stock on the shelves matches the newly added line and make any necessary adjustments in the **Enter Quantity** column.
4. Click the **Create Inventory adjustments** button to finalise the stock take.

Stock take sheet...

Description: (1)

Comment:

Stock take date:

(3)
 (4)

General

Line	Location	Item code	Item name	Batch	Expiry	Snapshot...	Pack Size	Enter Quantity
1	M14.06.2A	732401	Rapid Diagnostic Test (RDT) for Malaria, P...	MR19K64	31/03/2022	58	1	0 58 (2)
2	M14.06.2A	732401	Rapid Diagnostic Test (RDT) for Malaria, P...	MR19K64	31/03/2022	0	25	58





28.11. Benefits of a multi-store system

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- [Introduction](#)
- [Quantification and ordering](#)
- [Receiving the order](#)
- [Filling the order](#)
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- [Introduction](#)
- [Quantification and ordering](#)
- [Receiving the order](#)
- [Filling the order](#)
- [Receiving the stock](#)

Introduction

When you have mSupply installed in a multi-store system, and the store operators have been faithfully recording stock transactions (receiving, issuing) and doing stock takes and finalising the inventory adjustments, then mSupply can do all the hard work of getting them to work together.

Quantification and ordering

1. Generate a [Suggested order quantities report](#) to get a sense of what is needed. Review it to make sure that it makes sense, then,
2. If you are ordering to a supplier outside of your mSupply system, [Create a new \(calculated\) purchase order](#)
3. If you are ordering to another store in our mSupply system, generate an [Internal Order](#)

⚠ Important

Internal orders do not include pack sizes; all items are ordered in 'single' units.

Receiving the order

In the supplying store:

1. [Process the order from the customer](#) This is the opportunity for the store manager to review any orders and adjust quantities to be issued (for example, because of a need to ration scarce stock).
2. [Create the customer invoice](#) including, if possible, using the [Grinder button](#) to automatically select stock based on FEFO

⚠ Important

While requisitions do not include pack sizes; this is taken in to account when stock lines are selected. mSupply does allow decimal quantities. You may wish to review and amend any decimal quantities prior to printing the picking list, but this is not actually necessary because your stock pickers can make necessary changes... see below

Filling the order

1. [Generate the picking slip](#)

⚠ Important

When the picker comes across a line with a decimal quantity, they should take the initiative to round up or down the quantity picked to a whole number and record that on the picking slip accordingly.

Receiving the stock

In the receiving store, when the stock has arrived:

1. [Receive the goods](#)



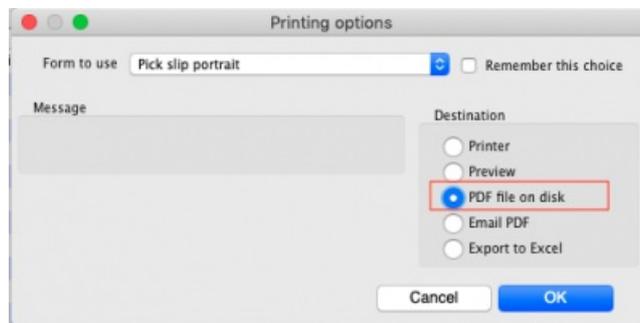
28.12. How to access Temp folder

Introduction

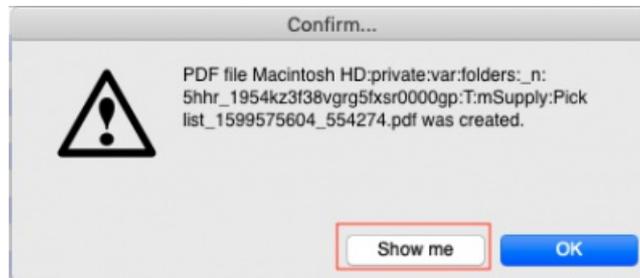
mSupply uses the operating system to store generated reports and printouts like excel and PDF documents. There may be instances where viewing the temp folder is required. There are various way to navigate to the temp folder.

Using mSupply

View any customer or supplier invoice. Pretend you want to print the invoice. As shown below choose to view the **PDF file on disk**.

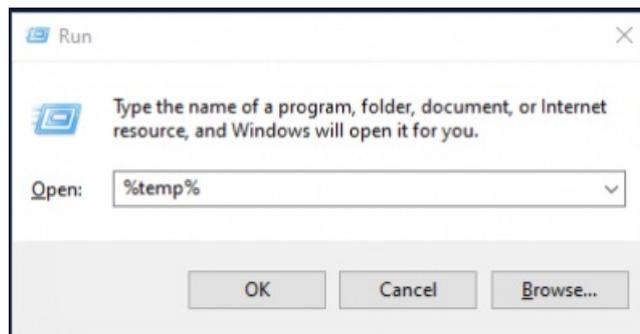


Once the report or print out is generated you will be shown the option to view the file. Choose **Show me** as shown below. You will be shown the file inside the temp folder location.



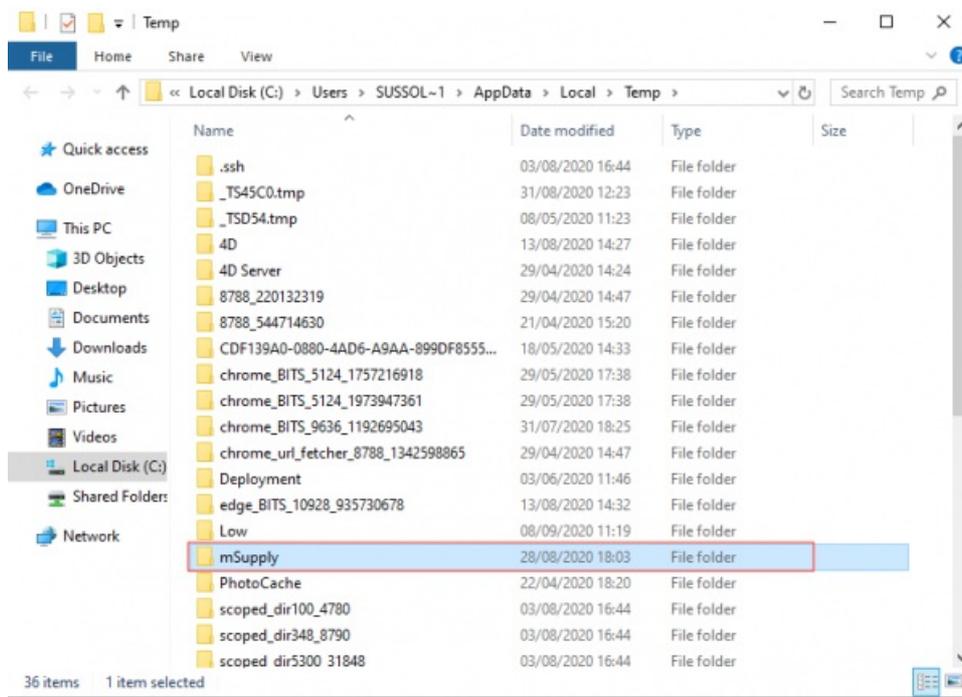
The Smart Geek Way

If you are using Windows, then you can show off to your friends using this technique. On your computer keyboard, hold down the "Window Key" and click the "R" key. A window such as below will be displayed. This is known as the Run window.



We want to open the **Temp** folder, so type `%temp%` as shown and click OK to run.

The Temp folder will be displayed in an File Explorer window as shown below.



The folder **mSupply** should contain all the files that mSupply has generated.

Previous: [28.11. Benefits of a multi-store system](#) | Return to: [28.13. Fixing incorrectly received stock](#)

Last modified: 2021/10/08 11:47 by Gary Willetts



mSupply documentation wiki



28.13. Fixing incorrectly received stock

The problem

Sometimes goods receiving officers will accidentally receive stock incorrectly in any of a number of ways including:

- Too little stock was recorded as received
- Too much stock was recorded as received
- Stock of an incorrect item was recorded as received
- The stock was recorded as received from the incorrect supplier
- The stock was recorded as received from the correct supplier, but against the wrong PO

These can all be corrected.

Tip

The methods described here will clearly identify the original error. If these methods are not followed, then a [stocktake](#) will correct the stock count, but will not help to identify the source of the original error.

Important

Any user activity affecting stock needs to have records that management or an auditor can inspect. As with paper records, it is not appropriate to edit historic records. Instead, additional records are entered to correct historic mistakes. Management and auditors will then be able to see records of the original mistake and the corrective actions. To assist with this, clear details of what is happening should be recorded in the **Comments** field of the 'correcting' transactions.

GR+SI receipts

- Stock received on the basis of a purchase order should come in to stock through a [Goods Receipt](#) which will be processed into a [Supplier Invoice](#). For the remainder of this discussion, these transactions will be referred to as '**GR+SI receipts**'.

SI only receipts

- Stock that is not being received on the basis of a purchase order will not have a Goods Receipt and should have come in to stock through a Supplier Invoice directly. For the remainder of this discussion, these transactions will be referred to as '**SI only receipts**'.

Too little stock was recorded as received

If too little stock was recorded as having been received, this can be corrected by receiving more of the same stock.

GR+SI receipts

1. Create a new [Goods Receipt](#) for the additional stock. Enter necessary details in the **Comment** field, e.g. **Receipt of additional stock not recorded as received on GR ####** where **####** is the number of the GR which had the incorrect record.
2. Process the resulting [Supplier Invoice](#). Again, enter necessary details in the **Comment** field, e.g. **Receipt of additional stock not recorded as received on SI ####** where **####** is the number of the SI which had the incorrect record.

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- The problem
 - GR+SI receipts
 - SI only receipts
- Too little stock was recorded as received
 - GR+SI receipts
 - SI only receipts
- Too much stock was recorded as received
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 - GR+SI receipts
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 - SI only receipts
- Too much stock was recorded as received
 - GR+SI receipts
 - SI only receipts
- Stock of an incorrect item was recorded as received
- The stock was recorded as received from the incorrect supplier

SI only receipts

1. Create a new [Supplier Invoice](#). Enter necessary details in the **Comment** field, e.g. **Receipt of additional stock not recorded as received on SI #####** where **#####** is the number of the SI which had the incorrect record.

Too much stock was recorded as received

If too much stock was recorded as having been received, this can be corrected by creating a [Supplier credit](#) to return the goods to the supplier. While your store never actually received this stock, this transaction will correct your stock count and the **Comment** field will explain why this transaction has been created.

⚠ Important

- [Supplier credits](#) are not associated or linked with any [Purchase Orders](#), [Goods Receipts](#) or [Supplier Invoices](#). Therefore, they do not amend any lines on those original documents. Nor should they - those documents are historic records which should not be amended later.
- Because [Supplier credits](#) are not associated with [Purchase Orders](#), they do not impact on the mSupply record of [Outstanding purchase order lines](#).
- Because [Supplier credits](#) are not associated with [Supplier Invoices](#) they do not impact directly on amount payable to the supplier for the [Supplier Invoice](#). However, the value of the [Supplier credit](#) will be recorded against the amount owing to the supplier.
- After creating a [Supplier credit](#), both invoices will exist together:
 - The [Supplier Invoice](#) that brought in the stock
 - The [Supplier credit](#) that removed the stock

GR+SI receipts

1. Create a new [Supplier credit](#) for the excess stock. Enter necessary details in the **Comment** field, e.g. **Return of additional stock recorded as received on GR ##### and SI ++++** where **#####** and **++++** are the numbers of the GR and SI which had the incorrect record.

SI only receipts

1. Create a new [Supplier credit](#) for the excess stock. Enter necessary details in the **Comment** field, e.g. **Return of additional stock recorded as received on SI #####** where **#####** is the number of the SI which had the incorrect record.

Stock of an incorrect item was recorded as received

If stock of an incorrect item was recorded as received, then we have two carry out both of the above actions. It doesn't actually matter which order you do these in:

1. Return the incorrectly received stock by following the actions to be taken if [Too much stock was recorded as received](#)
2. Receive the stock that was actually delivered by following the actions to be taken if [Too little stock was recorded as received](#)

The stock was recorded as received from the incorrect supplier

If the stock was incorrectly recorded as coming from the incorrect supplier, then you will need to return all of the stock to the incorrect supplier, and then receive it all from the correct supplier. It doesn't actually matter which order you do these in:

1. Return the incorrectly received stock by following the actions to be taken if [Too much stock was recorded as received](#). In this situation, it is highly recommended to [Create a supplier credit from a finalised supplier invoice](#), including *all* of the stock on *all* of the stock lines.
2. Receive the stock that was actually delivered by following the actions to be taken if [Too little stock was recorded as received](#)

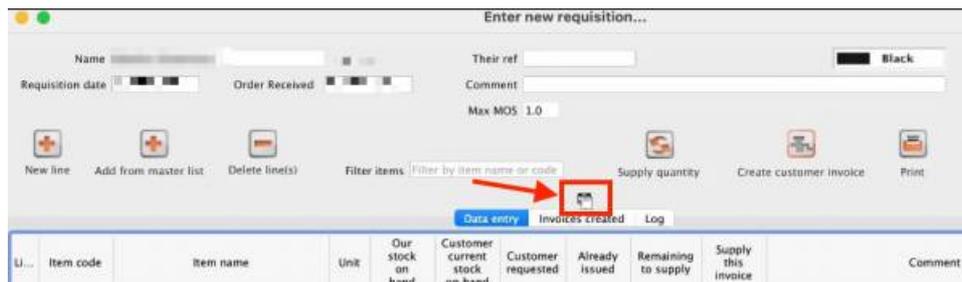
Previous: [28.12. How to access Temp folder](#) | Next: [29. Synchronisation](#)



28.14. Navigating inactive windows or form

The problem

Cursor on mSupply changed from arrow to window and user can't click anything resulting in inactive windows/form.



Active window

- They may have active window that has been pushed behind the current shown window.
- They may have minimised the active window unknowingly.

Important

There may be an **alert window** that has been pushed back by the user clicking the inactive window.

Fixes

- Drag the Top most window to the side and check if there is another active window or an alert behind it.

OR

- Hit the **“Enter”** key and mSupply should bring the active window to the front.

Last modified: 2021/11/29 10:26 by Arpita Singh



User Guide



29. Synchronisation

- [29.02. Synchronisation Sites](#)
- [29.01. Introduction to synchronisation](#)
- [29.03. Sync Site Wizard](#)
- [29.04. Sync Site Export](#)
- [29.05. Sync Site Import](#)

Previous topic: [27. Help](#) || Next topic: [31. Client specific information](#)

Last modified: 2021/10/08 09:15 by Gary Willetts





29.02. Synchronisation Sites

Synchronisation Sites, often simply called *Sync sites* or *Sites*, are configured for each device that is running mSupply that is using the synchronisation system. The synchronisation system ensures that all data on remote sites are synced to the central server.

Type of sites

When thinking about sites, it's useful to align the concept with real world scenarios as well as the type of mSupply installation being used.

mSupply Desktop Single User

mSupply Desktop Client/Server

mSupply Mobile

Permissions

As Synchronisation is sensitive to misconfiguration, only system administrators should have permission to edit sites. The user permission to edit Sync settings is found under *Edit user > Permissions tab > Admin*

Without the permission, a user may still view sites but may not edit them.

Viewing Sync Sites

From drop down menu *Special* and click *Show Sites...* or from the navigator as below:

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Type of sites

mSupply Desktop Single User

mSupply Desktop Client/Server

mSupply Mobile

Permissions

Viewing Sync Sites

Editing Sync Sites

Creating New Sync Sites

Saving or Discarding Changes

Site ID

Site Code

Site Name

Password

Hardware ID

Type

Adding stores

Removing stores

Set site as active

Deleting Sync Sites

Viewing/Editing Site Details on the Remote Site

Check connection

Enabling Sync

Sync Mirror Setup

Type of sites

mSupply Desktop Single User

mSupply Desktop Client/Server

mSupply Mobile

Permissions

Viewing Sync Sites

Editing Sync Sites

Creating New Sync Sites

Saving or Discarding Changes

Site ID

Site Code

Site Name

Password

Hardware ID

Type

Adding stores

Removing stores

Deleting Sync Sites

Viewing/Editing Site Details on the Remote Site

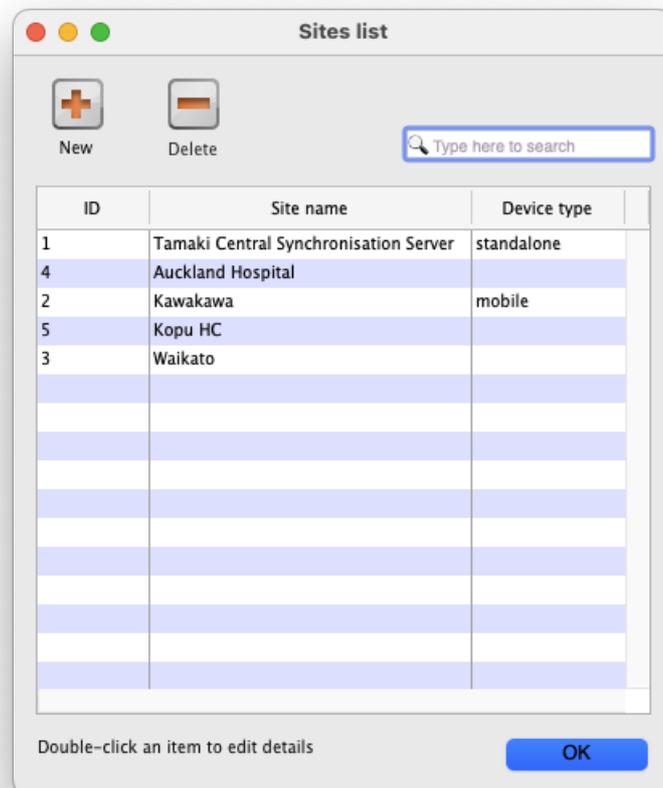
Check connection

Enabling Sync

Sync Mirror Setup



From here you'll see the list of all sites:



You can see the unique site ID, site name and application type of the remote site here.

Note, the central server site will always be at the top of the list when sites are viewed on the central synchronisation server.

Editing Sync Sites

To view any existing sync site, double click any Site in the list to view the and edit its details. The details will be explained in the section below.

Creating New Sync Sites

Click the “New” button in the Site List window above to create a new Site. This will open the Site details window:

The screenshot shows a window titled "Sites" with the following components:

- Details:**
 - Site ID: 6
 - Site code: 6
 - Site name: [empty]
 - Password: [empty]
 - Hardware ID: [empty]
 - Type: standalone
- Settings:**
 - Site is active on this datafile:
 - Use js node HTTP client:
 - Set site as active: [gear icon]
- Buttons:** Add store, Remove store, Check connection
- Table:**

Store code	Store name
- Bottom Buttons:** OK & Next, Cancel, OK

Saving or Discarding Changes

While editing a site, no changes that you make are saved in mSupply until you press *OK*. This allows you to press *Cancel* to discard all the changes to the site you had entered, including additions or removals of stores.

Site ID

The Site ID is a unique ID number for the site used throughout the mSupply system. It will be automatically allocated with each new site that you create.

Site Code

The Site Code is a free text field allowing you to set a short human readable code to identify the site. You can edit this at any time and it will not affect any workings of the sync system.

Site Name

The Site Name should succinctly describe the site. The value here will be used in authentication by the remote site communicating with the central server.

Note: due to this being used for authentication, beware editing it. If you change the site name on an actively used site, the remote site will stop syncing. To resume syncing, the site name must be restored to the old value on the central server, or updated to the new value on the remote site.

Password

The password is a password! It is used by remote sites to authenticate with the central server. You cannot view the password that is set, so you should record it securely.

Note: due to this being used for authentication, beware editing it. If you change the password on an actively used site, the remote site will stop syncing. To resume syncing, the password must be restored to the old value on the central server, or updated to the new value on the remote site.

Hardware ID

The Hardware ID is automatically set by remote sites when they authenticate with the central server for the first time. It identifies the particular device that is syncing, be it a tablet or a desktop computer. Once set, any sync requests for this site coming from a *different device* will be rejected, as they'll have a different hardware ID.

This is to protect against having multiple devices syncing to the central server using the same remote site details. If this were to happen, it'd cause both devices to have out of sync data. One would need to be disabled, and the other resynchronised.

If a device is lost or destroyed, you will need to setup mSupply on new hardware. In this case, for the site to start syncing on a new device you'll need to reset the Hardware ID by pressing the reset button to the right of field on the central server.

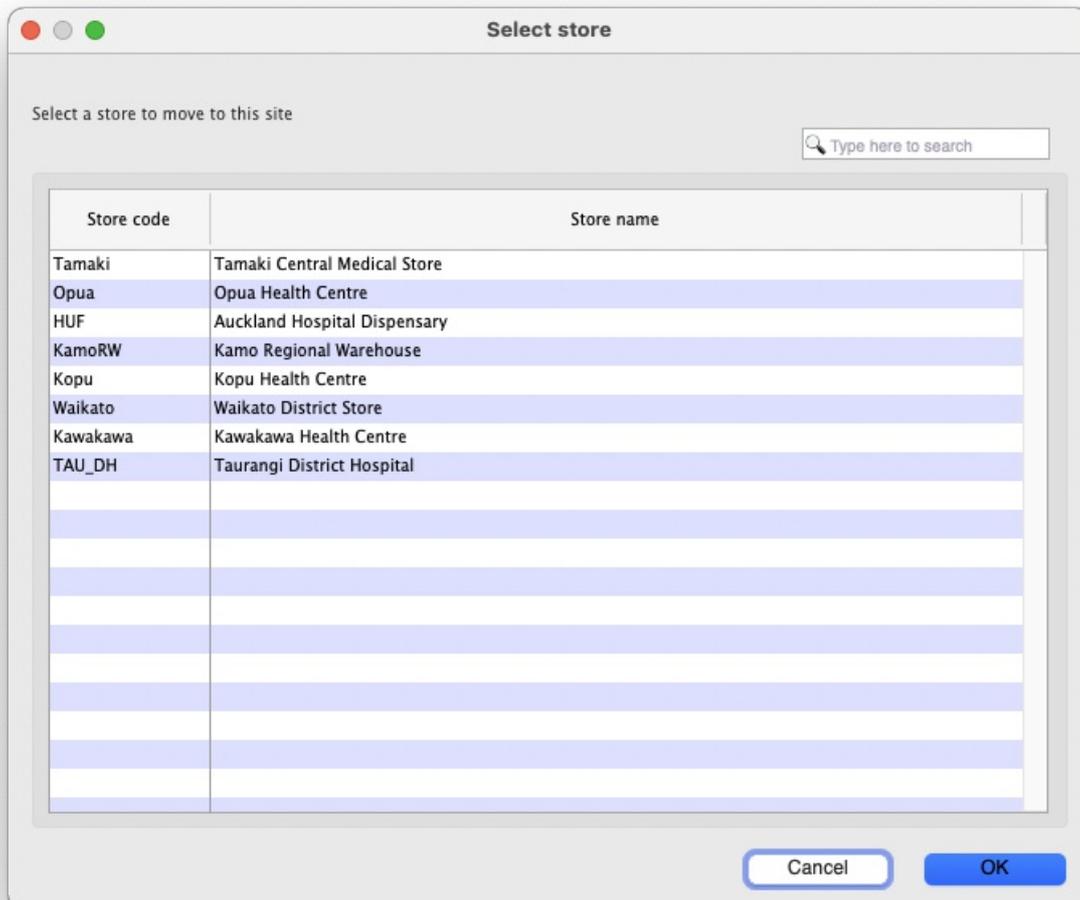
Type

The site type simply indicates the intent to synchronise the sync site with mSupply Desktop or mSupply Mobile. When a remote site synchronises it will update the value of this. As of [v4.12](#), this setting has no functionality. Functionality around this is planned for the future.

- standalone: mSupply Desktop or mSupply Server
- mobile: mSupply mobile

Adding stores

To add a store press the *Add store* button, which will bring up a list of stores that you may add to the site:



Double click a store, or highlight one and press *OK*.

The store you select will be removed from the site it is currently active on.

The store was on an existing remote site

If the store is currently on another actively used remote site, please use caution. It is important to ensure the old remote site fully stops any usage of the store and synchronises before starting usage on the new site the store was moved to.

The Store was on the Central Server

It is OK to move stores from the Central Server to a remote site, as the Central Server will be guaranteed to have the most up to date data

Store Data

When editing an existing site, all store data of any added stores will automatically be queued to sync to the remote site after pressing OK to save the changes.

Removing stores

To remove a store, highlight the store you wish to remove in the list of stores in the Site window, then press the *Remote store* button.

Stores removed from a remote site will automatically be moved to the Central Server Site.

Deleting Sync Sites

Instructions and gotchas on creating sync sites

Viewing/Editing Site Details on the Remote Site

All explanation of what the site editing is on the remote site

Check connection

Enabling Sync

Sync Mirror Setup

Last modified: 2022/04/12 09:08 by Chris Petty



mSupply documentation wiki





29.01. Introduction to synchronisation

Updated: mSupply Version 4.12

mSupply's remote synchronisation allows mSupply running stores on local servers to send data to a central mSupply server for combined reporting.

Synchronisation explained

It's like this:

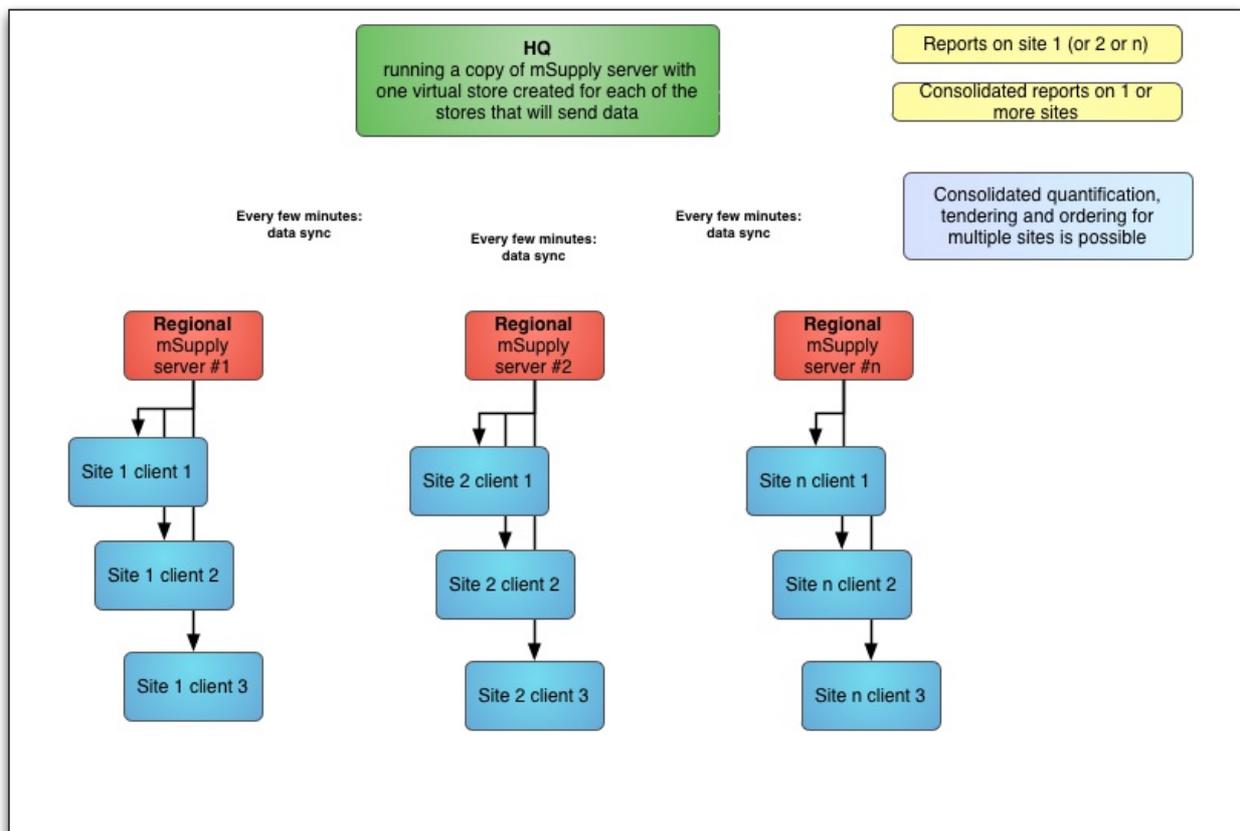


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- Data types
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Definitions

- The **central server** (a.k.a. **sync server**) is a central mSupply server. In any given setup, there will only be one central server, which must be

running a *web server*, and it is responsible for:

- o aggregating the store data from all stores ⇒ enables centralised reporting, and a real-time backup
- o controlling how all of the stores sync with each other
- o routing transfers from one store to another
- o running the mSupply dashboard
- The **primary server** is a central mSupply server. In any given setup, there will only be **one** primary server, and it is responsible for:
 - o controlling the central data which is common across all stores e.g. names and items
 - o controlling the store records themselves, their preferences and visibility in stores ⇒ all stores exist on the primary
- A **remote site** is any mSupply server, single-user standalone mSupply, or mSupply mobile instance which *is not the central server*.
 - o the syncing process is initiated from each remote site on a schedule, and pushes its own updated records to the central server first, before pulling any updated records from the central server
- For most installations, the central server and the primary server are one and the same, but for **mirrored** systems (see [Mirrored sync](#) below for details) they can be different - in that case the primary server is just a special case of a remote site.
- The central server, and all of the remote sites are collectively referred to as **sync sites**.
- Each sync site has a unique ID and connection parameters (IP address, username and password), setup in the [synchronisation preferences](#), along with a list of the other sync sites with which it can send/receive synchronisation data. These settings are complicated, easy to get wrong, and so should *only be modified by Sustainable Solutions*.
- Multiple copies of the same store can exist across multiple sites (see [Store setup](#) below for details), but they can have different store types on different sites:
 - o each store is **active** on a *single* sync site, and that is where its own store data can be added, edited, and deleted
 - o a **collector** copy of a store is a *full read-only copy* of the store - these will usually exist on the central server, and can be logged into and reported on
 - o a **transfer** copy of a store is a *partial read-only copy* of the store - these exist on other sites where the store is visible, to enable the site's active store(s) to send and receive transfers
- To preserve data integrity, and to avoid potential clashes where more than one sync site tries to modify the same record, *only one sync site can edit/update any specific type of data*. There are some special cases (see [Data types](#) below for details), but most data falls into one of the following main types:
 - o **Central data** (a.k.a. **system data**) is common to all stores (e.g. suppliers, customers, items) - this can only be edited or imported on the primary server, and changes are synced to all sites
 - o **Central store data** is data related directly to a store record e.g. store preferences and visibility - this can only be edited or imported on the primary server, but changes are only synced to the site where the store is *active*
 - o **Store data** (e.g. transactions, stock, locations) can only be edited or imported on the sync site where the store is *inactive*, and changes are only synced to any site where the store exists as a *collector* copy (e.g. the central server)
 - o **Patient data** (e.g. patients, PMR records, insurance policies) can only be edited on the sync site where its *home store* is *active*, and changes are synced to any site where the patient is visible

Mirrored sync

In a mirrored synchronisation system, the primary server becomes a remote site with responsibility for editing the central data:

- this remote site doesn't need to be online all the time, so that it can run operations for its own active stores and still be able to administer centrally-controlled data, without being a bottleneck for sync
- the central server (especially if it's in the cloud) can be always online and available for remote access to reports and the dashboard, and for processing and routing of sync data

The typical use case is where a site in a country that has the responsibility for administering items has poor internet (typically the Central Medical Stores), so that it either can't run the central server locally and/or can't reliably connect to a cloud-based central server. By using mirrored sync, this site retains authority, but a reliable central server elsewhere ensures that synchronisation with other sites is not hindered and that external users can still access the dashboard.

Store setup

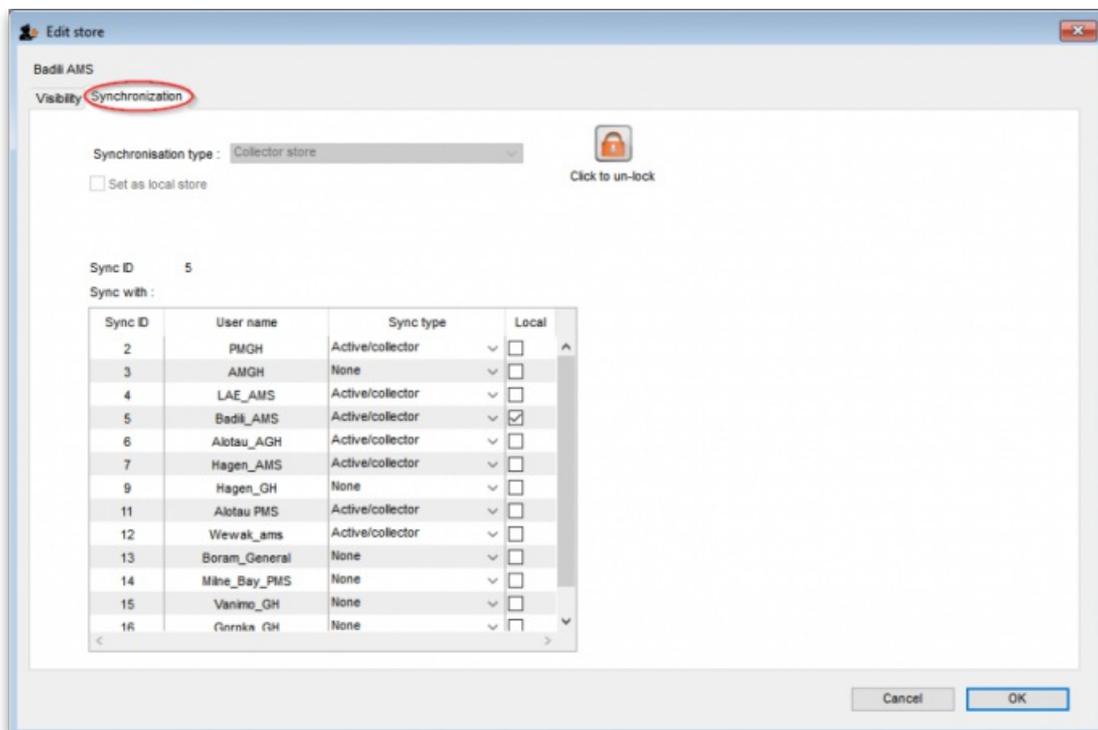
Stores to be synced will exist as separate instances of the same store on more than one sync site:

- on the primary server - the store itself and its non-sync related preferences are editable ⇒ all stores must exist on the primary server
- on the central server - the store's sync preferences are editable ⇒ all stores must exist on the central server

⚠ Important

On a mirrored sync system, the store must be created first on the primary server. It will then sync to the central server, where the store's site can then be assigned and its sync preferences configured.

- store data (e.g. store transactions, stock) can only be edited on a single sync site - the site on which the store is defined as *active*. This is controlled on the central server by the store preferences on the **Synchronisation tab** for each [virtual store](#) on each sync site:



Synchronisation type drop down list: Shows the sync type of the current store. Will be editable on the central server if you have unlocked it using the **Click to unlock** button.

Click to unlock button: Click it to enter the unlocking password to enable you to edit the settings on this tab.

Set as local store checkbox: Will be editable on the central server if you have unlocked it using the **Click to unlock** button. If checked, this will change the store's **Sync ID** to be that of the current site and will uncheck any of the elements in the **Local** column in the **Sync with** table.

Include transactions in sync checkbox: Only affects dispensary stores, as transactions are always synced otherwise. If checked for a dispensary store, this will also sync prescriptions and related dispensary data. This preference is turned on by default for all stores and is permanently disabled (regardless of whether you have unlocked the settings using the **Unlock** button). It can only be turned off by Sustainable Solutions.

Resync patient records when store is saved checkbox: If checked, when you click the **OK** button to save the store's settings, the central server will resend all the patient records for patients visible in the store to the active copy of the store. Along with that, all the other dispensary related information that is required will be sent, such as patient medication records, prescribers, abbreviations, insurance providers, directions, prescription categories and diagnoses. Quite a lot of information 😊

Sync ID field: Displays the sync ID of the current store so that you can see which one in the table below you're talking about! The store's sync ID should almost always be the ID of the site where the store is active.

Sync with table: Shows the other sites in your sync setup that the current store will sync with. Also defines what relationship those other store instances have to your current one and therefore what records need to be sent to that site from the instance of the current store on the current site. Will be editable (*only* on the central server) if you have entered the password using the **Click to unlock** button. Checking any checkbox in the **Local** column will set the store's **Sync ID** to be that of the selected row, and will uncheck any others as well as the **Set as local store** checkbox.

Tip

This setting is a bit confusing, but it does work to understand it as 'whatever the sync type of the store is on that site'.

Important

If your version of mSupply server is pre 3.50, after changing sync settings for a store you will have to restart the mSupply application on the primary server for the changes to be applied.

- Once a store has been set up (see the relevant parameters below), item and store visibility for the store needs to be set up on the *central server* - see [Virtual stores](#), [Controlling item visibility](#).
- To do that, once you log in to the central server, you need to switch to the new store - see [Switching store](#)
- To do that, you need to have permission to log in to it - see [Managing users](#) (It's a good thing this doesn't happen often! 😊)

Alert

These settings are necessarily complex and should *only be modified by Sustainable Solutions*, after discussions to agree on the configuration which is the best fit for requirements.

Store sync types

Each store in a synchronised system needs to have a sync "type" as described here.

Active

A store whose sync type is **active** means that the store-specific data can be edited (added, edited, deleted) on the sync site where you are logged into this store.

Collector

A store whose sync type is **collector** means that the store-specific data can *not* be edited on this sync site. The store on this server receives all store data from an active store on another sync site i.e. it is a replica of a corresponding active store on another sync site. This means that the store can be examined and reports generated on this sync site.

Transfer

A store whose sync type is **transfer** is similar to the collector type except that the store on this sync site is used *only* as a vehicle for receiving stock transfers or requisitions from other stores on the *same* sync site and passing them on to the corresponding store on other sync sites. It doesn't receive any other store data (such as stock lines). That is, *it is not a replica of an active store* and should not be used as such. The store can *not* be examined or have reports generated on this sync site. The benefit of a transfer store over a collector store is that transfer stores require less data to be synced between servers.

Store sync-with options

Updated: mSupply Version 4.12

The Store 'sync-with' options control which store-specific synchronisation data gets sent to the other sync sites which are linked to that sync site:

None

A value of **None** means that this store doesn't sync with the corresponding store on the selected sync site. That is, there is no instance of this store on that sync site. If a store is not visible to any stores *active* on the selected sync site, or its visibility settings are changed so that it becomes invisible to all *active* stores on the selected sync site, then it will automatically be set to **None** for that site.

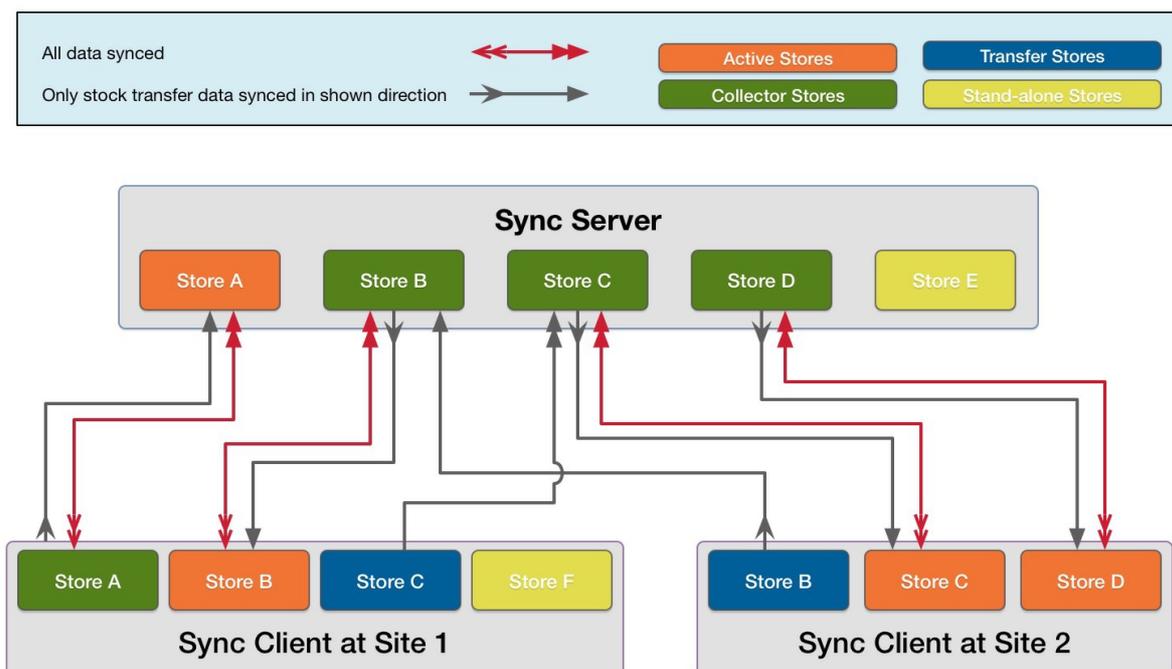
Active/collector

A value of **Active/collector** means that store-specific data edits, including any edits to the core store data, are synced to the corresponding store instance on the selected sync site. The store instance on the selected sync site will normally be of type *active* (on the site with matching sync ID) or *collector* (on any other sites). A store cannot be a collector on the selected sync site unless it is visible to at least one other store which is active on the site.

Transfer

A value of **Transfer** means that any updates to the core store data, or any stock transfers or requisitions into that store, are synced to the corresponding store instance on the selected sync site. No other transactions or other store-specific data will be transferred. The store instance on the selected sync site will normally be of type *transfer*. If a store's visibility settings are changed so that it becomes visible to any other stores which are active on the selected sync site, then it will automatically be set to **Transfer** for that site.

mSupply Sync Example



- In a standard (non-mirrored) setup, the sync server is *both* the primary server *and* the central server
- In a mirrored setup, the sync server is *only* the central server - the primary server is one of the remote sites, except that:
 - it can also control central data
 - like the central server, *all* stores must exist

Store A

An example of a store on the sync server which needs to also be reportable on another remote site.

Store A exists as an *Active store* on **sync server** and as a *Collector store* on **remote site 1**:

- On **sync server** store-specific data for this store can be entered. It can also receive stock transfers or requisitions from other stores active on the same sync site (**sync server**). This data is then synced to **remote site 1**.
- On **remote site 1** store-specific data for this store cannot be entered. However, the store can receive stock transfers or requisitions from other stores active on the same sync site (**remote site 1**). These will be synced to **sync server**.

Sync server settings for Store A

Synchronisation type : Active store

Set as local store

Include transactions in sync

Sync ID : 1

Sync with :

Sync ID	User name	Sync type
2	Sync Client 1	Active/collector
3	Sync Client 2	None

Remote site 1 settings for Store A

Synchronisation type : Collector store

Set as local store

Sync ID : 1

Sync with :

Sync ID	User name	Sync type
1	Sync Client 1	Active/collector

Store B

An example of a store on one remote site which needs to receive stock transfers from a store on another remote site.

Store B exists as a *Collector store* on **sync server**, an *Active store* on **remote site 1**, and a *Transfer store* on **remote site 2**:

- On **remote site 1**, store-specific data for this store can be entered. It can also receive stock transfers or requisitions from other stores active on the same sync site (**remote site 1**). This data is then synced to **sync server**.
- On **sync server**, store-specific data for this store cannot be entered. However, it can receive stock transfers or requisitions from other stores active on the same sync site (**sync server**). These are then synced to **remote site 1**.
- On **remote site 2**, store-specific data for this store cannot be entered, and is *not* synced from **sync server**. However, it can receive stock transfers or requisitions from other stores active on the same sync site (**remote site 2**). These are then synced to **sync server**, and then to **remote site 1**.

Sync server settings for Store B

Synchronisation type : Collector store

Set as local store

Sync ID : 2

Sync with :

Sync ID	User name	Sync type
2	Sync Client 1	Active/collector
3	Sync Client 2	Transfer

Remote site 1 settings for Store B

Synchronisation type : Active store

Set as local store

Include transactions in sync

Sync ID : 2

Sync with :

Sync ID	User name	Sync type
1	Sync Client 1	Active/collector

Remote site 2 settings for Store B

Synchronisation type : Transfer store

Set as local store

Sync ID : 2

Sync with :

Sync ID	User name	Sync type
1	Sync Client 2	Active/collector

Store C

Another example of a store on one remote site which needs to receive stock transfers from a store on another remote site.

Store C exists as a *Collector store* on **sync server**, an *Active store* on **remote site 2**, and a *Transfer store* on **remote site 1**:

- On **remote site 2**, store-specific data for this store can be entered. It can also receive stock transfers or requisitions from other stores active on the same sync site (**remote site 2**). This data is then synced to **sync server**.
- On **sync server**, store-specific data for this store cannot be entered. However, it can receive stock transfers or requisitions from other stores active on the same sync site (**sync server**). These are then synced to **remote site 2**.
- On **remote site 1**, store-specific data for this store cannot be entered. However, it can receive stock transfers or requisitions from other stores active on the same sync site (**remote site 1**). These are then synced to **sync server**, and then to **remote site 2**.

Sync server settings for Store C

Synchronisation type: Collector store

Set as local store

Sync ID: 3

Sync with:

Sync ID	User name	Sync type
2	Sync Client 1	Transfer
3	Sync Client 2	Active/collector

Remote site 1 settings for Store C

Synchronisation type: Transfer store

Set as local store

Sync ID: 3

Sync with:

Sync ID	User name	Sync type
1	Sync Client 1	Active/collector

Remote site 2 settings for Store C

Synchronisation type: Active store

Set as local store

Include transactions in sync

Sync ID: 3

Sync with:

Sync ID	User name	Sync type
1	Sync Client 2	Active/collector

Store D

An example of a store on a remote site which needs to also be reportable on the sync server.

Store D exists as an *Active store* on **remote site 2** and as a *Collector store* on **sync server**:

- On **remote site 2**, store-specific data for this store can be entered. It can also receive stock transfers or requisitions from other stores active on the same sync site (**remote site 2**). This data is then synced to **sync server**.
- On **sync server**, store-specific data for this store cannot be entered. However, it can receive stock transfers or requisitions from other stores active on the same sync site (**sync server**). These are then synced to **remote site 2**.

Sync server settings for Store D

Synchronisation type: Collector store

Set as local store

Sync ID: 3

Sync with:

Sync ID	User name	Sync type
2	Sync Client 1	None
3	Sync Client 2	Active/collector

Remote site 2 settings for Store D

Synchronisation type: Active store

Set as local store

Include transactions in sync

Sync ID: 3

Sync with:

Sync ID	User name	Sync type
1	Sync Client 2	Active/collector

Store E

An example of a store which is local to the sync server only.

Store E exists only on **sync server** (and **primary server**, if different):

- On **sync server**, store-specific data for this store can be entered. It can also receive stock transfers or requisitions from other stores active on the same sync site (**sync server**). This data is not synced anywhere.

Sync server settings for Store E

Synchronisation type: Active store

Set as local store

Include transactions in sync

Sync ID: 1

Sync with:

Sync ID	User name	Sync type
2	Sync Client 1	None
3	Sync Client 2	None

Remote site settings

None

Store F

An example of a store which is local to a single remote site.

Store F exists on **remote site 1**, but it must also exist on the **sync server** (and **primary server**, if different) as a *Transfer store*, so that it can be centrally managed:

- On **remote site 1**, store-specific data for this store can be entered. It can also receive stock transfers or requisitions from other stores active on the same sync site (**remote site 1**). This data is not synced anywhere.

Sync server settings for Store F

Synchronisation type : Transfer store

Set as local store

Sync ID : 2

Sync with :

Sync ID	User name	Sync type
2	Sync Client 1	Active/collector
3	Sync Client 2	None

Remote site 1 settings for Store F

Synchronisation type : Active store

Set as local store

Include transactions in sync

Sync ID : 2

Sync with :

Sync ID	User name	Sync type
1	Sync Client 1	Transfer

Data types

The table below is a high-level summary of the different data types:

- **Central data** can only be edited or imported on the primary server, and changes are synced to all sites
- **Central store data** can only be edited or imported on the primary server, but changes are only synced to the site where the store is *active*
- **Store data** can only be edited or imported on the sync site where the store is *inactive*, and changes are only synced to any site where the store exists as a *collector* copy (e.g. the central server)
- **Patient data** can only be edited on the sync site where its *home store* is *active*, and changes are synced to any site where the patient is visible
- **Local data** can be edited or imported on any site but doesn't sync anywhere
- **Sync data** can only be edited on the central server but doesn't directly sync anywhere
- **Message data** can be edited on any site and syncs according to the sending/receiving store
- Some data can fall into more than one type, depending on the situation.

Data	Type	Notes
Items	Central	Including item-related data e.g. item categories, units, BOM masters
Names (except patients)	Central	Including name-related data e.g. name categories, contacts, tags
Merging of items, units and names (except patients)	Central	
Groups and departments	Central	
Item master lists and programmes	Central	
Budgets, periods and accounts	Central	
Transaction categories and payment types	Central	
Purchase order categories	Central	
Custom data	Central	
Barcodes	Central	
Currencies	Central	
Options and properties	Central	
Location types	Central	
Regimens and indicators	Central	
Drug interactions and warnings	Central	
Abbreviations and item directions	Central	Dispensary data
Diagnoses	Central	Dispensary data
Insurance providers	Central	Dispensary data
Patient event types	Central	Dispensary data
Vaccinators and vaccine settings	Central	
Custom reports	Central	Standard reports are regenerated on each upgrade
Asset settings	Central	
Regions	Central	
Sites and sync-related preferences	Sync	Changes on the central server indirectly update related records on remote sites
Dashboard reports	Sync	
Messages	Message	Depends on sending and/or receiving store (which can be blank)
Stores and non sync-related store preferences	Central store	
Purchase orders (centralised)	Central store	

Data	Central store Type	Notes
Payments (centralised)	Central store	
Visibility of items and names (except patients)	Central store	
Visibility of existing patients and prescribers	Central store	
Visibility of new patients and prescribers	Patient	New visibility records sent to central server
Patients and prescribers	Patient	Including patient-related data e.g. PMR, insurance policies
Merging of patients and prescribers	Patient	
Repeats	Patient	Dispensary data
Patient events	Patient	Dispensary data
Name notes	Store	
Customer stock history and requisitions	Store	
Locations	Store	
Merging locations	Store	
Stock and replenishments	Store	
Stocktakes and inventory adjustments	Store	
AMC projections	Store	
Transactions and prescriptions	Store	Including other transaction-related data e.g. backorders, builds
Transaction notes	Store	
Item notes	Store	
Boxes	Store	
Goods received	Store	
Indicator values	Store	
Vaccine monitors/sensors	Store	
Assets	Store	
Store credentials	Store	
Authorisers and authorisation	Store	
Purchase orders	Store	Except for centralised procurement or supervisor-mode ordering
Payments	Store	Except for centralised payments
New users	Store	New user records sent to central server
User licenses and existing users	Local	
User permissions	Local	
Preferences (non-store)	Local	Except for a few special cases which are explicitly synced
Tenders and quotes	Local	
Incoterms and tender conditions	Local	
Reference documents	Local	
HIS	Local	
Drug registration	Local	
Labels	Local	
Logs	Local	
Reminders	Local	
Adverse drug reactions	Local	

Stores

These are a special case:

- changes to the store record itself (all except the *Synchronisation* tab) are allowed only on the primary server, and then propagate on to any other sync sites as determined by the “syncs with” settings for that store on the sync server (i.e. to any other sync sites where “syncs with” is not *None*)
- the store’s sync preferences (the *Synchronisation* tab) are controlled on the sync server
- a store should only ever be *Active* on one sync site at a time (usually on the site where it is *Local*)

Centralised procurement

If this preference is switched on in the primary site, then purchase orders can be entered for any store on the primary, regardless of its sync type (i.e. not just for active stores).

If it is switched on in a satellite, then purchase orders cannot be entered for any store on the satellite, even if it is active.

When this preference is changed on the primary, the change will propagate to all the satellites as well.

Alert

It is still possible to edit the preference on the remote (e.g. to allow local procurement for stores active on that site), but if that is the case, then the related permissions for purchase orders for those stores on the primary will need to be disabled manually in order to prevent purchase orders for those stores being editable on both sites.

Dispensary data

Stock transactions

By default, prescriptions and any other operations in dispensary mode which affect stock levels are not synced to the sync server, unless the *Include transactions in sync* option is enabled in the store sync preferences, as these can potentially generate a lot of sync traffic and there is usually no need for the central users to have this level of detail - the same site will usually have another store which supplies the dispensary and its transactions will be synced, and that's usually enough to infer usage for the dispensary store.

If this preference is switched off in a dispensary store on a remote site, the following data will not be synced back to the central sync server:

- Transactions (including backorders, builds etc.)
- Prescriptions
- Stock lines
- Stocktakes

If the preference is switched on, all of the store's transaction & stock data will be synced to the sync server.

Patients

Patients in mSupply are a special kind of customer, but for the purposes of synchronisation, we need to treat them differently - more like store-specific data rather than system data. This is because patient data is often locally controlled rather than centrally.

Since mSupply v4.09, patients have a *home store*, initialised either according to the store they were created in, or according to their most recent prescription. Patients and their related data (patient medication records, repeats, insurance policies) can only be edited in an active dispensary store on the same *home site* where their home store is active.

Patients and their related data records will be synced to the primary server, and forwarded on to any other site which has an active/collector store in which the patient is visible. Prescriptions will be allowed in dispensary stores on any of those sites, except for repeats which can only be processed in dispensary stores on the patient's home site.

Newly created patients will also be made visible in any other dispensary stores on the home site, depending on the store's visibility preferences. Subsequently, patient visibility is controlled from the primary server in the same way as for other name (customer & supplier) records.

Other dispensary data

Abbreviations, item directions, insurance providers and patient event types are treated as a special kind of system-specific data i.e. they are editable on the primary, but only synced to sites having at least one active dispensary store.

Prescribers are also treated as a special kind of store-specific data, like patients i.e. they are editable in any active dispensary store on their home site, synced back to the primary server, and shared with dispensary stores on other sites where they've previously prescribed.

Transferring patients/prescribers to a different home store

Watch this space...

Transfers

Transfers occur when there are two stores involved in a transaction, and includes stock transfers, requisitions (from a mobile store) and internal requisitions (from another desktop store). In a syncing system, very often these two stores are not active on the same site, so there has to be extra processing to ensure that both halves of the transaction are synced to both the initiating store/site and the responding store/site.

Both stores need to exist on both sites, and usually the initiating store is a transfer store on the responding site, and vice-versa. As of mSupply v3.83, unless both stores are active on the same site (in which case, everything can be done locally), the bulk of the processing is done on the central sync server when it detects the initiating half of a transfer transaction. In simple terms, the logic is something like this:

1. when the sync server detects the initiating half of a transfer transaction
 - a. it creates the responding half of the transaction, but with a dummy invoice/serial number of -1
 - b. it ensures that both halves of the transaction are synced to both initiating and responding sites
2. when the responding site receives the responding half of the transaction
 - a. it assigns the next invoice/serial number for the store and sends that back to the sync server
 - b. it also creates a log message for the initiating half of the transaction and sends that back to the initiating site via the sync server

- any subsequent changes to the initiating half of the transaction (usually very limited in scope) on the initiating store/site will be synced back to the sync server (according to the normal sync rules)
- any subsequent changes to the responding half of the transaction on the responding store/site will be synced back to the sync server (according to the normal sync rules)

Stock transfers

- This is where the customer in a customer invoice is another store
- The initiating half of the transaction is where the customer invoice is finalised in the initiating store/site
- The responding half of the transaction is a supplier invoice (on hold by default) in the responding store/site

Mobile requisitions

- This is where the supplier in a supplier (aka request) requisition is another store
- The initiating half of the transaction is where the supplier requisition is finalised on mobile
- The responding half of the transaction is a response requisition in the responding store/site
 - this shows up as a customer requisition on mobile if the responding store is active on another mobile site
 - or as a response requisition if the responding store is active on a desktop site
 - the user can create one or more customer invoices to fulfil the requisition
 - these customer invoices (when finalised) will generate corresponding supplier invoices back in the initiating store as stock transfers

Internal requisitions

- This is where the supplier in a purchase order is another store, and is a two-stage process
- The initiating half of the first transaction is where the purchase order is confirmed in the purchase order store/site (i.e. where the purchase order is editable)
 - if centralised procurement is enabled, this will be the primary site, otherwise it will be the normal initiating store/site (i.e. where the purchase order's store is active)
- The responding half of the first transaction is a customer invoice in the responding store/site
- The initiating half of the second transaction is where the customer invoice is finalised in the responding store/site
 - note that adding extra customer invoice lines before the invoice is finalised will create corresponding new goods received lines
- The responding half of the second transaction is a goods received record in the initiating store/site (i.e. where the purchase order's store is active)
- If centralised procurement is enabled:
 - the received quantities for the original purchase order lines will be updated on the primary whenever the corresponding goods received lines are received there (and forwarded from there to the initiating store/site)
 - when the primary receives any subsequent updates to goods received lines from the initiating store/site, it will update the quantities in the corresponding purchase order lines
- If centralised procurement is not enabled, the received quantities for the original purchase order lines will be updated in the initiating store/site when it receives the goods received lines from the primary

Reporting

- On the sync server if you login in supervisor mode, you can then run reports on one or more stores. The reports can answer questions such as:
 - How much stock on hand of item X (or all items) are there at each location?
 - What is the value of stock on hand across the whole system?
 - How many of item X is being used each month at each location?
- When the synchronisation system is turned on, a new **Special > Users report... > Sync report...** menu item is available. Choosing this will create a report showing the last time each of your sync stores connected to the central sync server. Those that connected more than a month ago will be highlighted in red.

Requirements

Synchronisation Server

The Sync server module is the component that controls all the logic of the sync system described in this chapter. This module is priced separately - refer [Pricing](#)

Web Server

Any communication through the web to an mSupply central server requires the [Web Server Module](#). This module is priced separately - refer [Pricing](#)

Internet connection

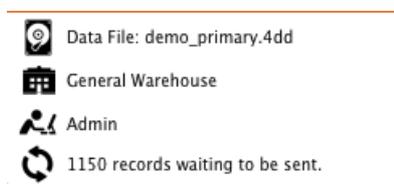
Each sync site requires an internet connection. This doesn't have to be on all the time for each satellite server, but at least an hour or so per day or per week, depending on the transaction volume, how often primary server data needs to be updated, and the speed and latency of the internet.

Tip

Obviously, the internet needs to be on at the central server at the same time as any other sync site that it will communicate with. For this reason, the central server needs to have high availability, and so in most cases, will be cloud hosted.

How to tell if synchronisation is happening

The Manual Sync Button



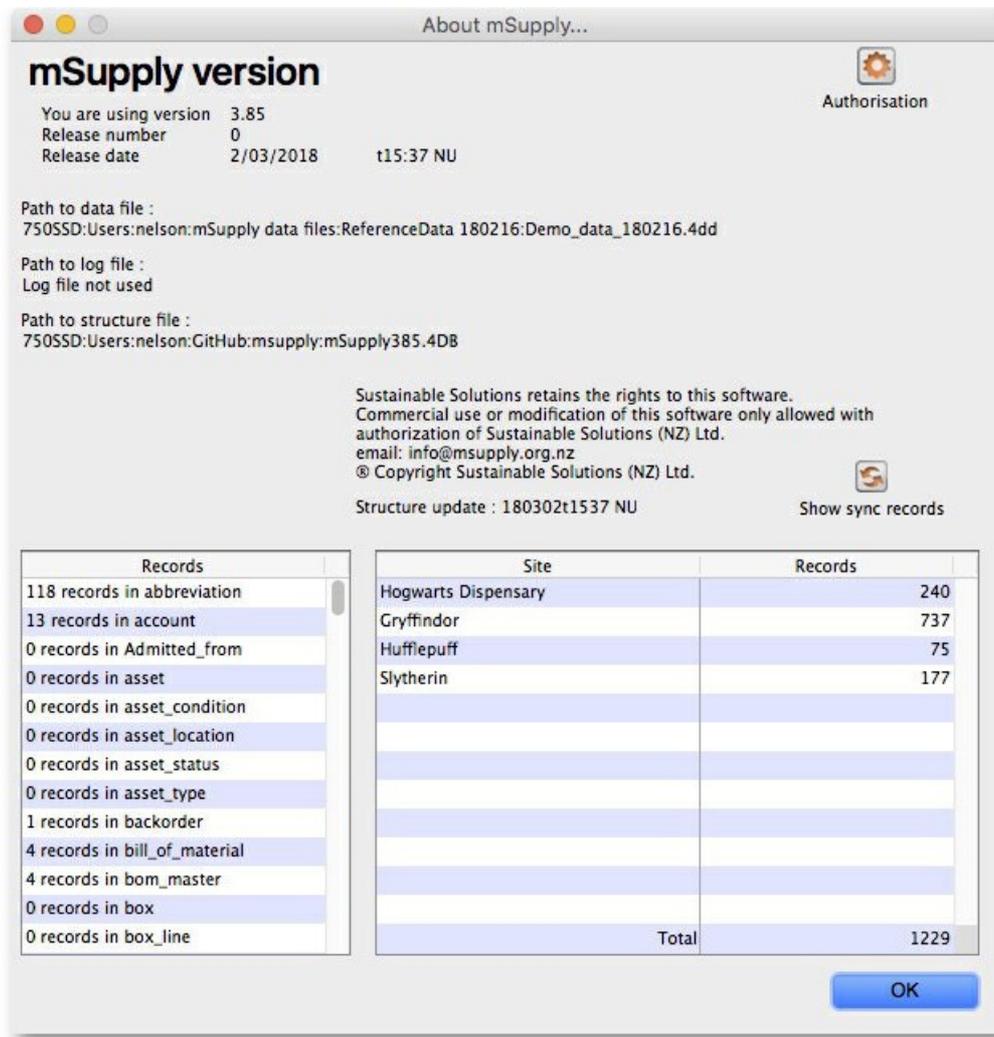
If you click the “2 arrows” icon it will initiate an immediate synchronisation and update the statistics on the number of records remaining as sync progresses.

On a remote site

If there are queued sync records, there will be a message at the bottom left of the navigator which shows the number of sync records in the queue. If this is not going down, there may be an entry in the log.

On the sync server

- Choose **Help > About mSupply**
- At the bottom left of the window there is a list of tables and the number of records in each table.
- Scroll the list to near the bottom, and you will see the number of records in the **sync_out** table.
 - If the number is zero, your copy of mSupply is up to date
 - If the number is growing from day to day, there are possible reasons:
 - you need to provide more internet time or faster internet
 - there may be a problem that needs the attention of Sustainable Solutions. Before contacting us, make sure the internet is connected for an hour, and see if the number is decreasing or not.



Setting up or extending a sync system

This is not something for end users to configure, so it's best left to the experts at Sustainable Solutions! However, there is a lot of preparation ground work that can be done beforehand:

1. Decide how to configure your server(s)
 - for a local combined primary and sync server:
 - can your local server be online most of the time (it is more important that the internet to be reliable than for it to be fast)?
 - have you a fixed external IP address?
 - can you open the necessary firewall ports to allow access to the local server from outside?
 - for a combined primary and sync server on the cloud:
 - is your local internet fast enough to support remote access to the cloud server to administer system data?
 - otherwise, it's better to have a separate local primary server and cloud sync server
2. Do a site survey for all the proposed stores
 - how is the internet access and local network?
 - how reliable is the power supply?
 - is there a suitable location for mSupply?
3. Decide which version of mSupply is best for each store - don't worry, this can be changed later and licenses can be transferred
 - central primary server: mSupply server with local clients (depending on the number of users)
 - central sync server: mSupply server with local clients (depending on the number of users) and web server
 - multi-user central/district warehouse/busy dispensary: mSupply server with local clients (depending on the number of users)
 - single-user store/quiet dispensary (desktop): mSupply single-user desktop
 - small store/clinic: mSupply mobile
4. Decide on the heirarchy of the stores you want to include
 - which stores supply other stores?
 - can stores which have the same supplying store transfer to each other, or just with the supplying store?
 - for dispensary stores, do you need to see prescription details on the central server
5. Decide on the users for each site and their roles/permissions

Moving stores between sync sites

Misconfiguring of store or site settings can corrupt data across the synchronisation system. This should only be done by someone trained to do so and with guidance from the mSupply team

Moving a store from the central server to a new sync site

Use the [site wizard](#).

Moving a store from one sync site to another

To move a store from one site to another means to make it *not Active* on the 'From' site, and **Active** on the 'To' site. By default, mSupply will leave the store configured to maintain a full **Collector** copy on the 'From' site with all the associated sync traffic. This is not normally desired. Except for this process of determining which site a store is **Active** on, all sync settings are governed by [store visibility settings](#).

Alert

This process involves editing store sync settings which is dangerous. Editing store sync settings must happen on the central server and is restricted (by password) to Sussol technicians. Please consult with us to coordinate this. The full process is documented here for your information.

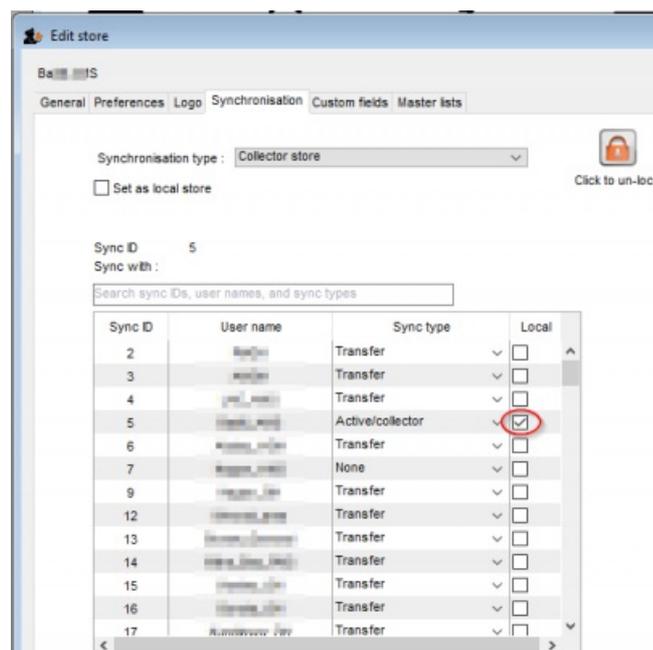
Important

- A mobile site can only have one **Active** store.
- Therefore, only one of the stores on a 'From' desktop site can be moved to a single mobile site. If another **Active** store on the 'From' desktop site needs to be moved to a mobile site, then it will need to be moved to another sync site, mobile or desktop.

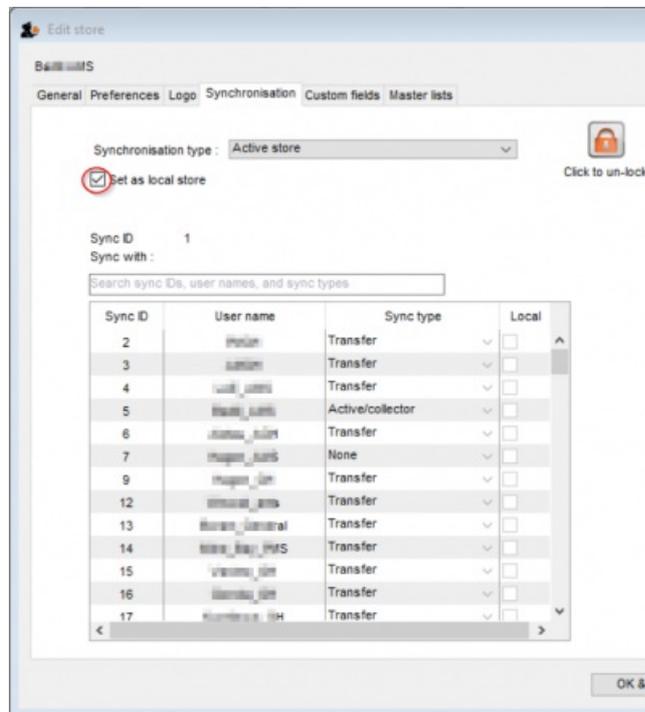
Tip

If the 'To' store is the central server, then this same procedure applies

1. Ensure that both the 'From' site and the 'To' site (only relevant if it is a desktop site) are fully synchronised.
2. Ensure that no new data is entered on either site until the move is complete. Therefore, best to plan for this process to happen overnight or over the weekend...
3. On the central server, **Special > Stores >** double-click the store that is being moved **>Synchronisation tab > Click to un-lock**, enter code to edit (**Sussol technicians only**)
4. If the 'To' site is a desktop site that already exists, then make the store **Active** on the 'To' site by finding the 'To' site in the list and click on the **Local** checkbox.



5. If the 'To' site is the central server, or doesn't yet exist, make the store **Active** on the central server by clicking on the **Set as local store** checkbox



6. Set the sync type for this store on the 'From' site to whatever you want:
 - a. **None** if the 'From' site only had this store on it. You will likely also want to delete the sync site - see step 12 below.
 - b. **Transfer** if this store will likely need to transfer to / from another store on the 'From' site
 - c. **Collector only** if a full copy of the store is to be maintained on the 'From' site. This is not normally desired and is not recommended!
7. Click **OK** to save changes
8. Click **OK** to exit the stores list
9. If the 'To' site is the central server, skip to step 12.
10. If the 'To' site doesn't yet exist, use the [site wizard](#) to create the new sync site and move the store to it.
 - a. If the 'To' site is a *new* desktop site, create the data file using [Sync site export](#) and [Sync site import](#).
 - b. If the 'To' site is a *mobile* site, then get it initiated as discussed in [Installation of mSupply Mobile APK and initiation](#).
The store should now be visible on the on the new site, in which case it is safe to operate it.
11. If the 'To' site is an *existing* desktop site, then code needs to be run on the Central server to generate sync out records for that store - refer to [Sussol internal reference](#).
12. If the 'From' site now has no stores on it (it was a mobile site or a desktop site with only one store on it), then the sync site can be safely deleted. (**Sussol technicians only**)

Alert

If you are moving the store from **Mobile to Desktop** or vice versa, this process will not change the site type. As of 2020-10-02 this must be done by Sussol technicians only by use of the record browser.

Previous: [28. Frequently Asked Questions](#) | Next: [29.03. Sync Site Wizard](#)

Last modified: 2022/02/11 15:52 by Gary Willetts

29.03. Sync Site Wizard

The sync site wizard is a tool to quickly create a sync site for a particular store. It does all the behind-the-scenes work for you, making sure that sync settings are updated for the store you are moving as well as for all the stores it has visible.

Tip

This Sync site wizard only allows a single store to be created on a sync site. However, after that is done, you can move a store from one sync site to another; see the [29.01. Introduction to synchronisation](#) page for details.

Before you use it

To use the sync site wizard you must:

- be on the central server machine
- have permission to “add/edit sync sites” (see the [25.15. Managing users](#) page for details on setting user permissions)

If you do not meet these criteria, you will be shown a warning and the wizard will not open.

Using the wizard

Choose *Special > Create sync site...* from the menus. This window will open:

Store details

Store name

Responsible Officer

Site details

Sync ID

Site name

Password

Site type

OK & Next Cancel OK

Alert

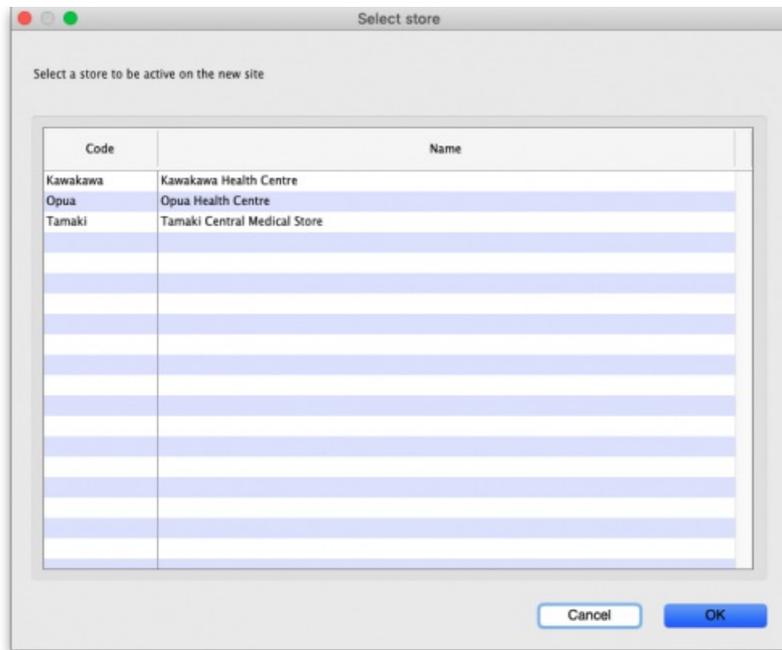
If the sync site is an mSupply mobile store, then delete any Supplier Requisitions where Status = `sg` before the store is moved!

Selecting a store

First select a store. You can search in the **Store name** field by typing the first few characters of the store name and pressing the Tab key on the keyboard. This will present a list of stores starting with names starting with what you typed to choose from, or if there is only one match it will just be selected for you. No matches will prompt “try again”. You can use “@” as a wild card to get all stores available.

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- Using the wizard
 - Selecting a store
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- Reviewing sites
- Before you use it
- Using the wizard
 - Selecting a store
 - Selecting a responsible officer
 - Sync ID
 - Site name
 - Site password
 - Site type
- Reviewing sites



The stores are restricted to those that are **Active** on the **Primary** server. This is to prevent accidentally moving stores being used on an existing sync site to a new site unintentionally.

Selecting a responsible officer

Selecting a responsible officer is just like selecting a store. The responsible officer needs to be given permission to:

- Login to desktop
- Login to the store
- Add/edit users in the store

If the store selected already has a responsible officer, this will automatically be selected and cannot be changed from the sync site wizard. If you need to, you can edit the responsible officer through the store editor (see the [26.08. Virtual stores](#) page for details).

Sync ID

The sync ID is used by the synchronisation system to identify what records go to which sites. It must be unique. This means it must not be one already used by an existing sync site.

It will already be filled with the number after the current largest sync ID used.

Site name

The site name is used for specifying on remote devices what sync site it is operating when configuring synchronisation.

The site name must also be unique. You may enter any text here. You may want to indicate what facility it is based in or what device it is.

Site password

The site password is used along with the site name when configuring a device to use the synchronisation system.

Make sure it is strong and record the password in a secure manner. We recommend a password manager like [Bitwarden](#).

If you would like Sussol to be able to provide support, the site name and password will need to be recorded in Sussol's secure credentials repository. Please consult with Sussol on how to communicate the credentials in a secure manner.

Alert

Please don't send the credentials together in an email, this is not secure. At least send them in separate emails but far better is to use an email to send one part and Skype, Telegram or WhatsApp or similar to send the other.

Site type

The site type simply indicates the intent to synchronise the sync site with mSupply Desktop or mSupply Mobile. As of [v4.12](#), this setting has no

functionality. Functionality around this is planned for the future.

Reviewing sites

To view and edit sync sites that you've created, you can do so through [preferences](#).

We are continuing to work on accessibility of the synchronisation system. This includes new interfaces for viewing and editing sync sites in the near future.

Previous: [29.01. Introduction to synchronisation](#) | Next: [29.04. Sync Site Export](#)

Last modified: 2022/02/23 03:52 by Chris Petty



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3. Click **Export**

All the selected sites will be exported one after another. A progress bar will be shown. Cancelling the export will stop after completing the current site being processed.

What is "has admin"?

- A site has an admin if it has at least one user that has add/edit users permission for a store on that site and also has login rights to that store. The permission may come from the user's group.
- mSupply will not let you select for export a site that does not meet this criteria.
- The purpose of this is to ensure that there is at least one user who can login and add/edit users in the new data file - otherwise you will have created a permanently crippled data file ... 🤖

How Long Will Export Take?

Exporting new sites with new stores is fast as these sites won't have many records yet. If your mSupply system has lots of system data such as items, names and master lists, you may expect a new site with a new store to take a up 5 minutes to export.

Sites with busy stores that have been operational for some time can take much longer. A site with a busy dispensary store with 100,000 prescriptions you may expect it to take 15 to 30 minutes to export.

Previous: [29.03. Sync Site Wizard](#) | Next: [29.05. Sync Site Import](#)

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29.05. Sync Site Import

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- [Access](#)
- [Importing a datafile](#)

Having exported an XML of your data, you can then import the data into a new datafile.

Access

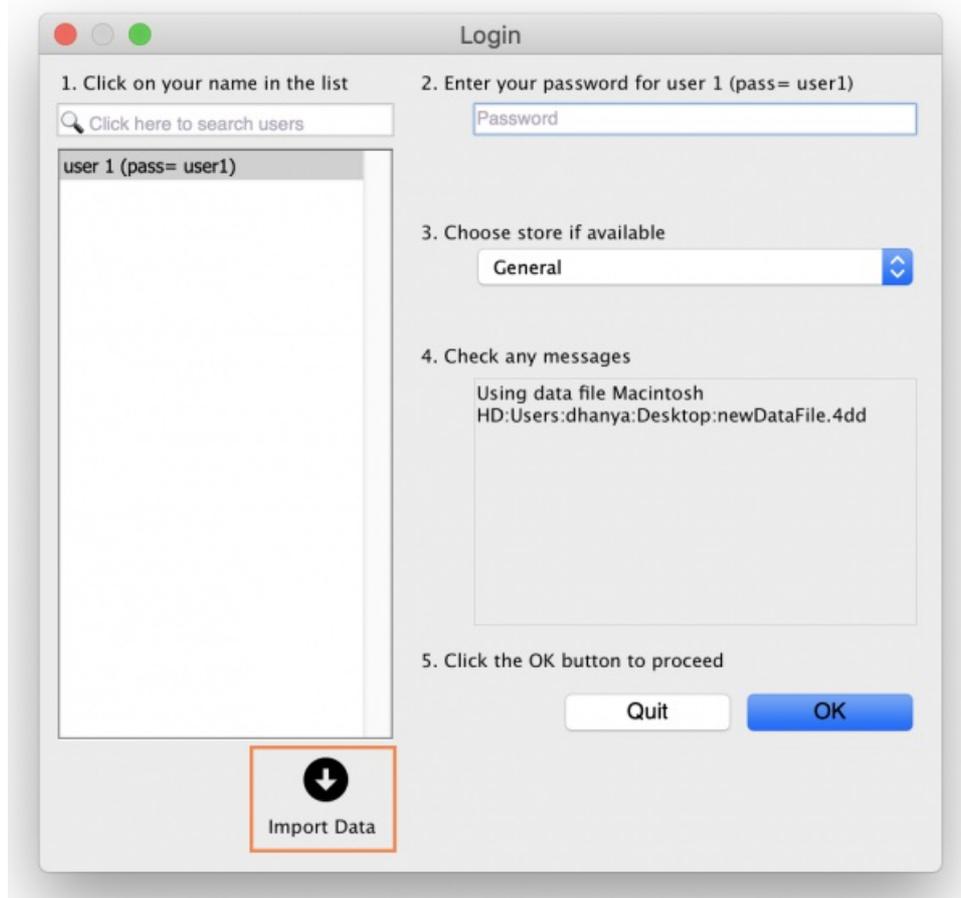
To import data, you must:

- Be using a single-user version of mSupply - you can't create a new datafile from an mSupply client.
- Have an XML file to import - to create one, refer to [29.04. Sync Site Export](#).
- Create a new datafile - refer to [Creating a new data file](#). You don't need to actually log in.
- This datafile must have the same name as the XML file you would like to import, so if it doesn't already have the name that you want, you will need to rename the XML file first.

Importing a datafile

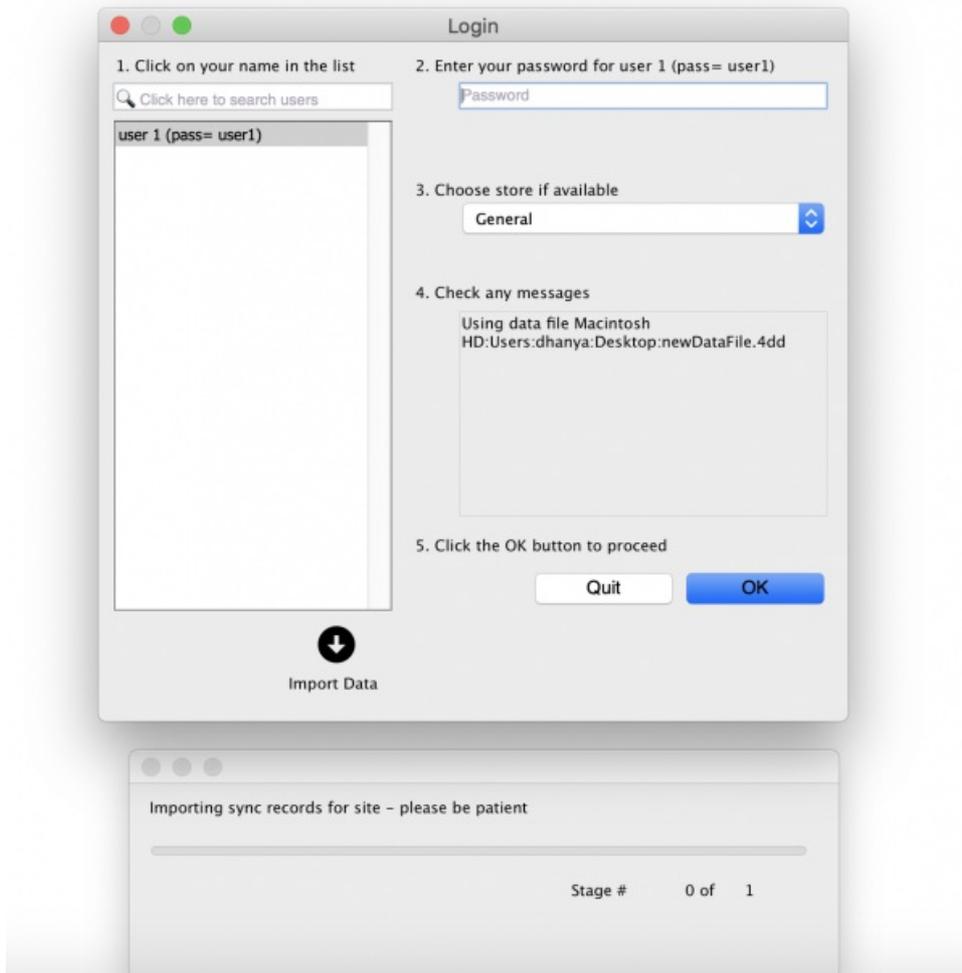
When you open mSupply with the new datafile created above, you will see an **Import data** button on the bottom left.

DON'T LOG IN!

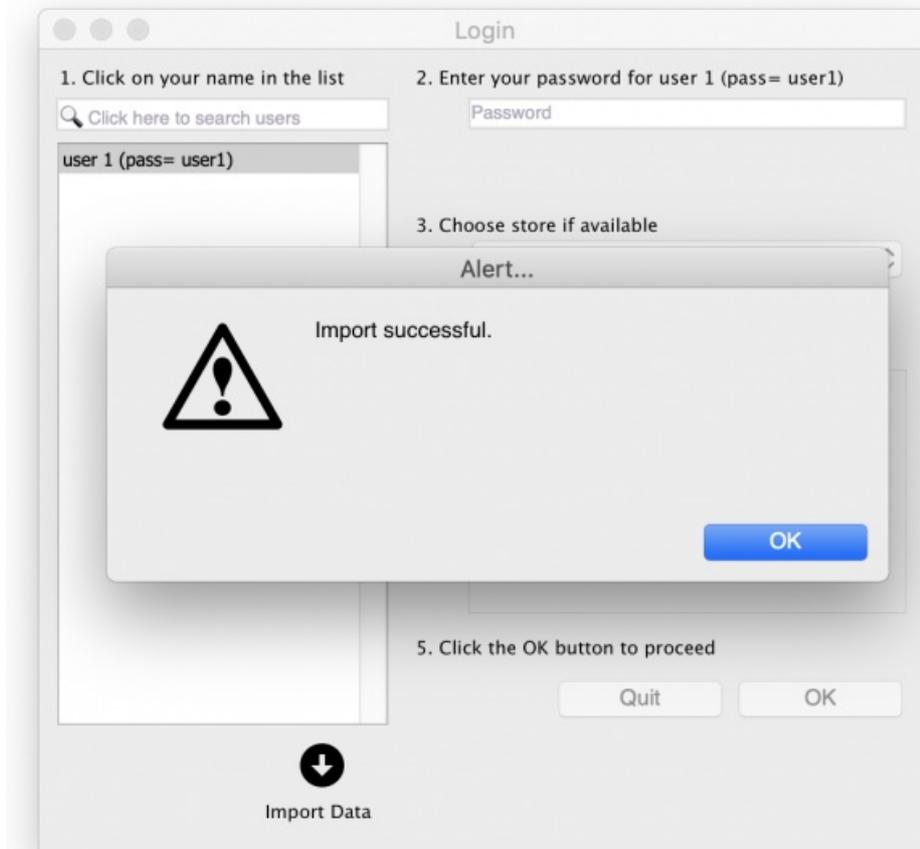


Click the **Import data** button. This will display a open/save window where you can choose the file you want to import.

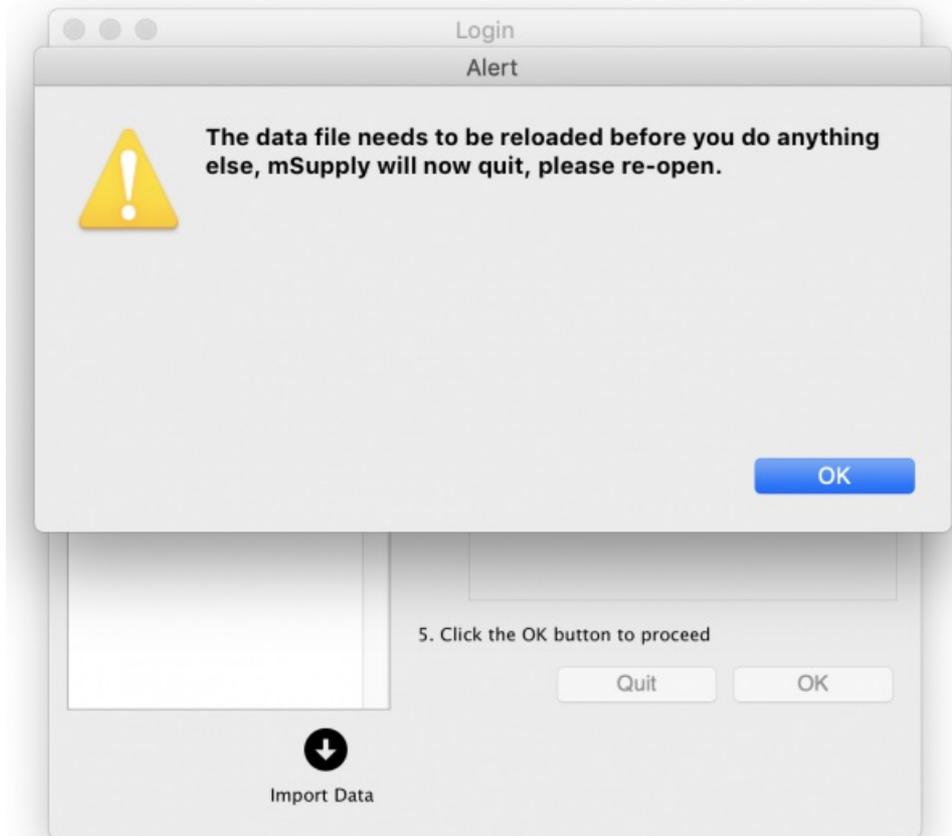
Choose the XML file you created in the sync site export, and click **OK** to confirm the import. If the XML file has the same name as your datafile, you will then see a progress bar appear.



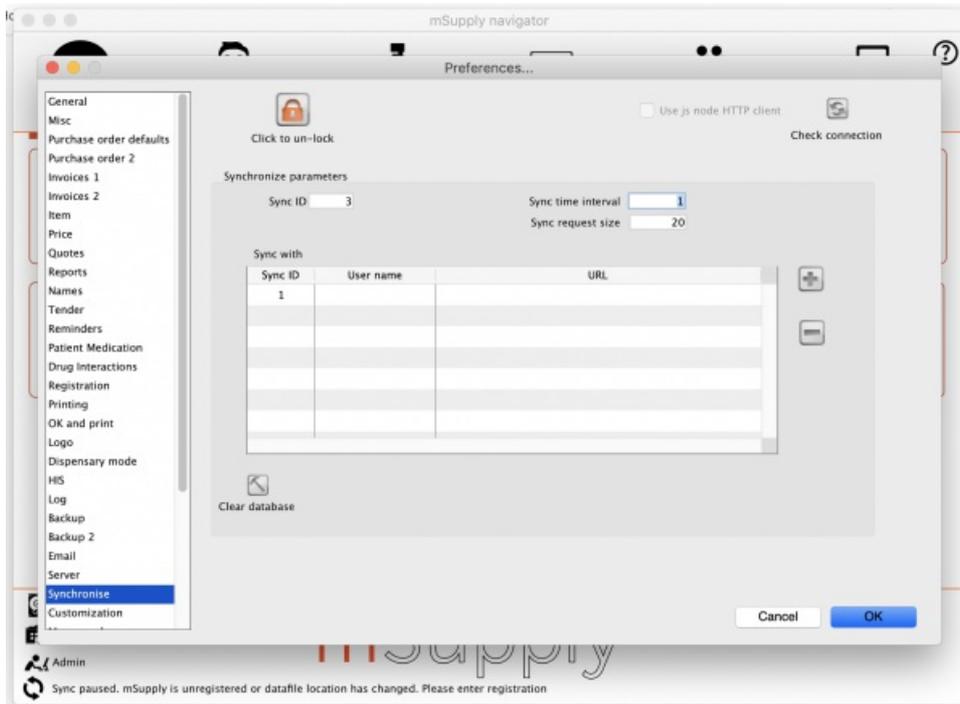
Once the import is completed, you will see an alert pop up telling you it has completed.



mSupply needs to reopen for you to use the new datafile. mSupply will alert you that it will be closing, and automatically close. You can then reopen and start using your new datafile.



If the data file you exported had a sync site created for the store, the import will automatically populate your sync settings in the Preference window.



⚠ Important

At least two things will need to be done for sync to start working:

- The sync site **Name** and **Password** will need to be entered
- The datafile will need to be **registered**

Both of these require Sustainable Solutions' technical assistance.



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