mSupply

user guide

Version 2 [20 May 2008]

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Introduction

Thank you for choosing mSupply.

Before you launch in (if you haven't already!), we suggest you plan to take the following steps.

- 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 <info@msupply.org.nz>

About this user guide

This user guide is designed for either printing or viewing within Acrobat Reader or another PDF viewer. If the images do not show properly, please upgrade to Acrobat Reader 6 or later, as we use JPEG2000 compression to keep the download size reasonable..

If you are using Acrobat Reader, choose *show bookmarks* from the window menu. You can then easily navigate through the sections and chapters by clicking on a bookmark. You can also use the *find* command to find words and topics which interest you.

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 are based in Kathmandu, Nepal

We can be contacted at:

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Please feel free to request more information.

Thanks

Juliet has always been encouraging and more, and has put up with me thinking about mSupply when I shouldn't have been.

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 Khatry has stuck with Sustainable Solutions for five 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 superb development environment we use.

Thanks to those people in the 4D tech mailing list who have helped for no benefit to themselves.

John Ross 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.

Copyright

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.

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 organization in a developing country. All users 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. Sustainable Solutions shall be the sole arbiter of those qualifying for this offer.
- 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

v2 (very soon .... towards the end of May)

Most of the major changes in version 2 are listed under earlier beta versions. Changes between v2b2 and v2 final include:

Features

- Inter-user messaging system - a simple system to see which other users are logged in, and to send them messages.
- Security much improved for web itnerface- can't execute arbitary URLs any more.
- Can now include Purchase Order lines with zero suggested quantity when creating a purchase order (allows you to investigate lines that mSupply considers have sufficient stock)
- Shipping labels (or "box/carton labels") from customer invoices (EPL printing to Zebra printers only)
- Item labels for items manufactured from builds
- Order lines history now shows the goods received ID
- Change of nomenclature - items previously known as 'Non-stock' items are now called 'Ad Hoc' items to diferentiate from re-defined Non-stock items.
- New, simplified Ad Hoc item handling (old system still in place, but we recommend you don't use it)
- New section on 'Non-stock' items
- Logging of user log-in and log-out (can be turned on/off in the preferences)
-

Bug fixes

- Checking for duplicate item codes now working
- Volumes now show m3 by default before a value is entered.
- Viewing goods received lines on a purchase order fixed.
- Other minor bug fixes

v2b2 (18th April 2008)

New Features

- New report: outstanding purchase order lines
- New report type for Stock on Date report that allows easy display on spreadsheets
- Quote validity can be specified as a mandatory field
- Quote preferred checkbox can be turned off by mSupply when quote validity date is reached.
- Extra fields available for item list view

Bug fixes

- Stock totals displayed were sometimes wrong
- Backorders created on invoice confirmation were not being assigned to the correct store
- Ad Hoc items were showing total backorder quantity for all Ad Hoc items.

v 2b1 (1st Feb 2008)

New Features

- Multiple store management. When you log into mSupply you can choose a store. Until you log into a different store mSupply will only show you the transactions, stock and report results related to the current store. You can also log in as "supervisor mode" and report on stock and transactions across all stores.

- Patient information recording: you can now specify tests and values and then keep a record of results of these values for each patient. This enables mSupply to be used in simple clinic situations.
- Inter store transfers
- Handy calculator for days stock required.
- Duplication of multiple customer or supplier invoices
- French version completed (almost!)
- Purchase orders can now have split deliveries of a line or lines
- Automatic order calculations take into account forward commitments due to existing split delivery requests
- Ad Hoc items can now be excluded from most reports
- Start of year stock can now be set retrospectively

Bug fixes

- Close box now works for item and invoice windows!

v 196r6 (24th Jan 2008)

New Features

- Prescriber report now includes prescription count as well as item count.

Bug Fixes

- Transaction report: "not equals to" filter for transaction categories. now works correctly.
- Repeats can no longer be issued when the transaction type is "cc" (Customer credit)

v 1.96r4 (31st Aug 2007)

New Features

- Allow new users to logged as store by default
- Set store as default mode if new database is created
- Checks for unique item code
- Import default location key of an item, now we search for location code, if does not exist create location and assign location code for the item
- Added a new method accesible from the quick report editor: qr_get_loc_from_key_new_process that allows using an item's shelf location in custom reports
- The duplicate item code check is only carried out if the item code is changed.
- Internet version checking improvements.

v 196r3 (5th June 2007)

New Features

- Pack size shows when viewing details for a stock line
- Repacks: can now delete a repa ck if not finalized.
- Repacks: now record user id
- Location management
- Purchase order lines, Goods Received lines and Supplier invoice lines: changing the pack size changes the volume based on the previous ratio.
- Goods Receipts: new button to show volume availability at chosen locations (lines are coloured red/orange/green to indicate no space/tight space/ enough space)
- Same line colouring applied to purchase orders on the location tab to show effect of receiving purchase order
- Available volume is now shown when double-clicking a goods receipt line

Bug Fixes

- Available volume is now shown when double-clicking a goods receipt line
- Occasional error when choosing an item to issue with a long supplier code fixed (non-critical)
- Repacks: bug when saving a repack with status "sg" fixed (critical)

- Purchase Orders now correctly ignore the current purchase orders' stock volumes when calculating volume on order.
- Purchase Orders: volume for this order now excludes lines already received.
- Labels on the item usage tab were wrong.
- Negative numbers in location management windows (indication over-full locations) now display their units correctly

v 196 (24th April 2007)

New Features

- Now certified with Windows Vista
- If editing a supplier invoice line where stock has already been issued, you have the option to view which customer invoices the stock was issued on.
- Many new options for printing dispensary labels
- Mini invoiices can be printed on dispensary labels
- Location management now handles item volumes, including the ability to determine whether a purchase order will result in more stock being delivered than there is available volume. This is especially relevant for cold chain items.
- New form of transaction report
- Backorders button on Customer invoice now has "New" and "Modify" buttons
- In Preferences > Invoices 1, there is a new option "Activate budget module"
- A budget period can now be set for both Customer and Supplier invoices
- In Preferences > Printing, the option "Don't print placeholder lines on pick slips" may be toggled on or off
- Customer invoices: the $ icon at lower left has a new option to print a Proforma invoice in place of a pick slip.
- Each name has an option to determine if invoices are printed with items in alphabetical order or line number order
- The New Goods Receipt input form has two *new line* buttons, allowing entry of a line from the purchase order, or entry of a line not on the purchase order
- The Show Goods Received form has a "Find" button in the lower left corner, allowing a rapid search for a particular line

Bug fixes

- The French localization has had many errors fixed.
- Convert pack to one option for items is now respected when converting a goods receipt to a supplier invoice.

See the technical notes chapter for changes in earlier versions.

Conventions used in this manual

If you aren't familiar with using a computer, you should read this chapter, and also work through the tutorial.

Menus

Choose *new item* from the *item* menu (sometime also written as *Choose Items) New item* means.... Click on the word *item* in the menu bar, then choose *new item* from the menu that drops down.

Field

An area where you can make an entry, either text or numbers - usually a white coloured box.

Check box

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

Tab & Shift

You can move from field to field by using the *TAB* key. Holding down the *SHIFT* key while pressing the *TAB* key will move you from field to field in the reverse order to normal. (Note that on Windows, some buttons are "tabable"- that is, pressing the tab key moves the "focus" (the active area) to a button. Pressing the "return" key then activates that button.)

Highlight button

Pressing the *ENTER* key will operate the highlighted button in a window, which is usually the OK button.

Double-click

In lists (e.g. of Names or of Items), double click the left mouse button on a line to edit or view more details.

Insertion point

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

OK button

The OK button can be operated by pressing the "Enter" key,.

Cancel button

The cancel button can be controlled by holding down "CONTROL" ("COMMAND" on Macs), and pressing the period key (full stop).

Path to a file

(Or to a document) is 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

Windows and Macs have different modifier keys. We've tried to list both in the manual, but sometimes one might slip through, so

The Windows "CONTROL" key does the same as the "COMMAND" (cmd) key on Macs

The Windows "ALT" key does the same as the "OPTION" (opt) key on Macs.

Column headings

in mSupply can be clicked to sort the list by that item. Columns that can be clicked for sorting have blue text. (In future this will be true of all columns).

Stock

Also called "inventory"- an entry in mSupply that represents physical stock (inventory) in your store.

Item

An "*item*" in mSupply is a particular product. An item may or may not have stock lines at any given time. For example: In the example data file provided with mSupply, "Amoxycillin 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 a particular item in your store.

Negative values

In general, there is no need to enter negative values in mSupply. Even when you are entering returned goods from customers, or returned goods to suppliers, you must 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.

Supplier invoice

A supplier invoice is the same as a "bill" or a "purchase"

Build

A transaction that records the manufacturing of an item by turning raw materials into a finished product.

Setting up mSupply

Hardware requirements:

Windows

Hardware requirements vary widely depending on what you want to use mSupply for

Here's a rough guide.

Absolute minimum	Windows 2000 or XP computer with a 500 Mhz Pentium processor or equivalent.
Suggested single user or Client machine for use with server.	Win 2000 or later, 800 Mhz or faster Pentium processor or equivalent, 256Mb RAM
Suggested server	Win 2000 or later, 1.4Ghz Pentium 4 or equivalent, 512Mb or more RAM. 2 Hard disks. Attached to Uniterruptible power supply with software to shut down server if battery power is about to run out.

If you have an older operating system, please contact us for an old version of mSupply that runs on Windows 98 or later.

Macintosh

Mac OS X 10.3 or later.

50Mb hard disk space.

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 it's data in a couple of files that rapidly become too large to fit on diskettes. 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.

- *Synchronize* is a good backup program for Macintosh.
- *Backup Magic* is a similar program available for Windows.
- If you are looking for an industrial strength backup solution, you should use Retrospect (Available for Mac & Windows), and a tape backup device.
- You need to be able to store backed up data off-site to prevent the risk of loss by fire, theft, etc.
- Note! Sustainable Solutions will not be able to help you if you have hardware failures and you do not have a backup.

Hardware recommendations:

- 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 you are able to obtain good support.
- Buy brands with a reputation for quality (even if it means buying a slower/older machine).
- We have clients running mSupply on a wide range of hardware. We are happy to discuss hardware options further via email or phone.

Upgrading 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.

IMPORTANT! *Always make a backup of your data file before upgrading.* We will not be able to help you in the event of some unexpected disaster if you haven't followed this advice.

Installation

We are assuming you have obtained mSupply either via the Internet or on a CD.

If 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 default name for the file is "mSupply_installer.exe"

If you are using the CD, it should automatically run when inserted. Otherwise, locate the file "mSupply.....exe" on the CD using Windows Explorer.

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

- Double-click "mSupply_installer..exe", and it will automatically run the mSupply installer.
- The installer will do the following:
  - Create a folder on your chosen drive called "mSupply"
  - Create in the mSupply folder a sub folder called "example folder" containing an example data file. 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.
  - Install "mSupply manual....pdf" -this document.
  - Create two shortcuts on your desktop: "*start mSupply*" and "*mSupply manual*"
  - 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 mentioned below :

- Un-install mSupply using the Windows menu *Start* > *Program Files* > *mSupply* > *Uninstall mSupply* . This will remove all installed files of mSupply which inculdes 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 previous file does not exist.

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

Notes for Windows users

- In the *regional settings* in control panel, make sure 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 2 digits. Having the wrong seting 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.

Starting mSupply for the first time

To start mSupply, either

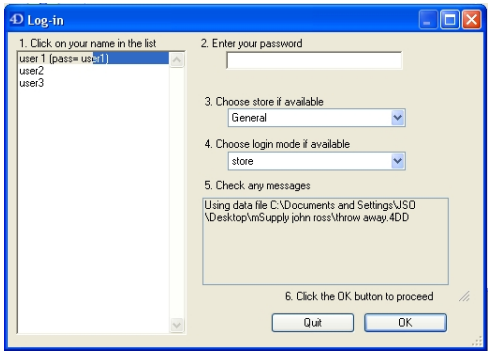
- double-click the *start mSupply icon* on your desktop, or
- choose the *start mSupply* item from the mSupply menu in the programs section of the Start menu (on Windows). If this is the first time mSupply has been started after installation, then an example data file will be opened allowing you to follow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

If you would like to create a new data file now, then log in to the example data file and from the mSupply menu do the following.

- *File > New Data File*...Navigate to a convenient location. Assign a name to your data file and click the save button. mSupply will now start creating a new data file.
- You will be presented with a login window. See next page for instrucions

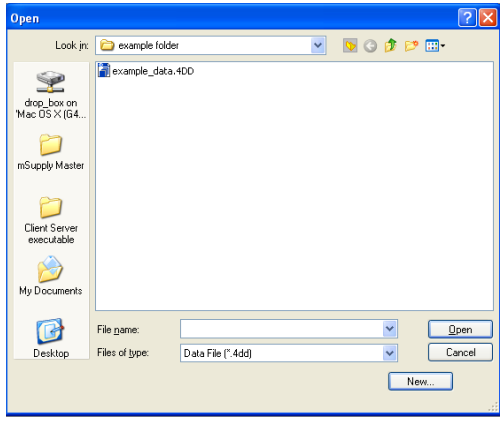


- Start entering your data.

Alternative method for creating a new date file

Here is an another way to create a new data file.

- Quit mSupply if it is running.
- Start mSupply and then immediately hold down the "alt" key (You will now be shown the window to choose a data file. This window has a "New" button allowing you to create a new data file if you wish.

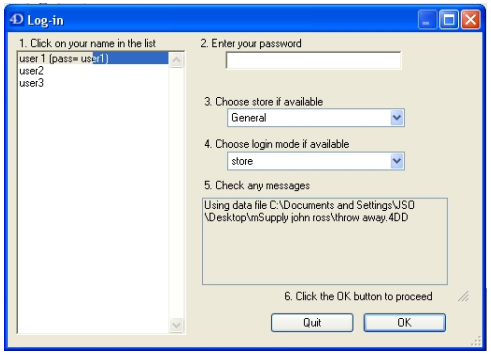


- Click on the "New" button in the bottom right coner of the window. Another window will open where you can choose the location and name of your new data.

Once mSupply has opened up a particular data file, that file becomes the default file which is opened automatically on restarting mSupply. To use 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 openedusing 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:



User name

You should select "user 1(pass=user1)"from the list

Password

At 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.

Store

At 3. select from the drop down list 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 mode*. 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.

For further information see *Show stores* on page 225.

Mode

At 4. "Choose login mode ....", you have the option to select Store mode or Dispensary mode; the default can be set in your Preferences

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

1. Create a new data file

In order to create a new data file, see *Starting mSupply for the first time* on page 13

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 to store your data file. The documents folder on a MAC could be used in a similiar manner.

2. Prepare the new data file for use

1. Give a name to your home currency. After you save the file, mSupply will create one currency with a rate of "one" and a name of "Hom". Choose *Special* > *Currencies* and double click the one line in the window. Enter a two or three letter code to represent the currency you will use to operate your database (eg "ICr" for Indian Rupees, or "Rnd" for Rands, or "USD" for US dollars). This currency will have a "rate" of "1". Currencies are used when you are calculating cost prices for orders in other currencies, and when you are comparing quotations from suppliers.
2. Enter your preferences. Choose *Special* > *Preferences* to do this. Read the chapter of the manual on the File Menu - Preferences to learn what the different Preference settings do.
3. Enter your Suppliers and Customers (If you like you can also do this as you go along by simply entering a customer or supplier the first time you create an invoice or order from them)
4. Enter the items you keep in stock. There are a number of ways you can do this:
   - You can skip this step if you want to just enter items as you enter your actual stock in the next step by clicking the "new item" button when you come to enter a stock line for which there is no item.
   - You can import a file of tab-delimited item data, which you can create, for example, in MS Excel. See the Import... command in the "File menu" chapter. A file containing the WHO essential drug list is available from the download page of the mSupply web site. We recommend you use this file.

- You can enter each item using the New item Command from the item menu.

5. If you intend to record the location of each item, you should define the locations that your store contains.For further information see *Location - Defining locations* on page 73.
6. About Dispensary Mode

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

The modes present the user with a different menu bar and different windows, depending on whether you are issuing stock to an organisation or an individual

For further information see *Dispensary Mode* on page 103.

Tutorial

If some of the terms used below are not clear, please read the *Conventions* chapter earlier in this manual.

Only mSupply's basic features are covered in the Tutorial; its many enhanced features are covered in depth in appropriate chapters in the User Guide.

mSupply Explained

The chart (right) shows the common steps in most pharmaceutical supply processes. (Of course, 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 supply to customers. *mSupply* records a full audit trail by only allowing stock adjustments by way of a transaction. Therefore, given an opening balance of stock for the year, *mSupply* can show a series of transactions that result in the recorded closing stock.

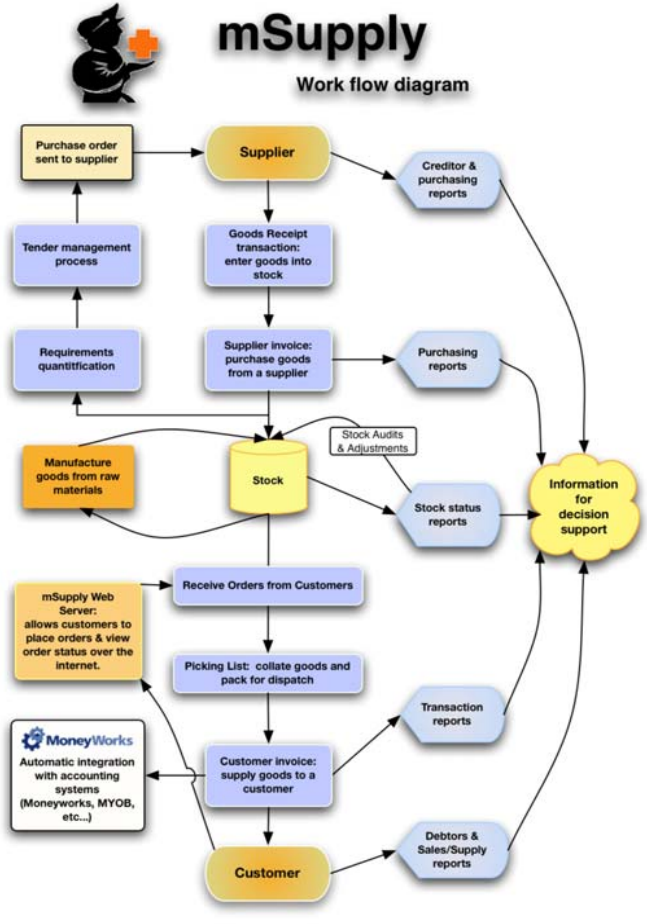
Of course, there is much more to it than that, but these two transactions are the core of the system.

Note that mSupply has dozens of preference settings which change the behaviour of many aspects of the software. If you have customized preferences from their default settings, some aspects of this tutorial may not be as stated below. 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, read the setup chapters in the manual to do this

Note - mSupply runs best with a screen resolution of 1024 or 768 or greater. If you have your screen set to 800 x 600 or lower, some windows will not fit on the screen. To change screen resolution:

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

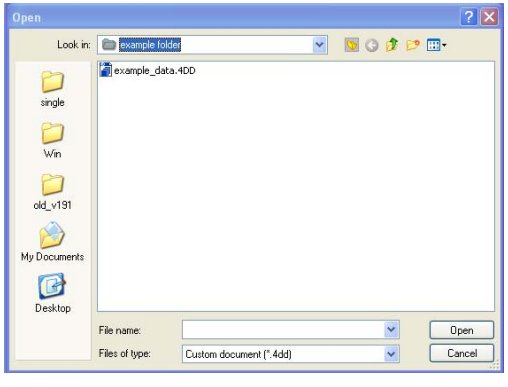


Opening the example data file

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

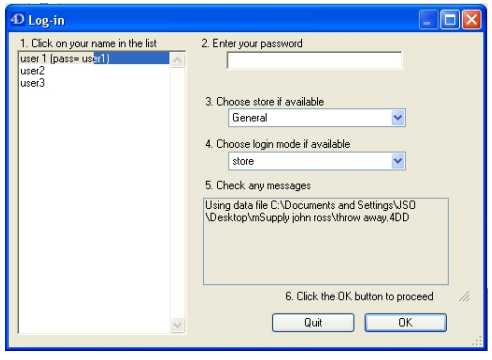
If you are opening mSupply for the first time, the the program should automatically open the example data file.

If you have already been using mSupply and have another data file open, but would like to open the example data file for use with this tutorial, then you can use the mSupply menu *File > Open data File...* to open the example data file.. By default the example data folder is stored inside "*c:/program files/mSupply/example folder/*"; navigate to the location and open the data file.



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

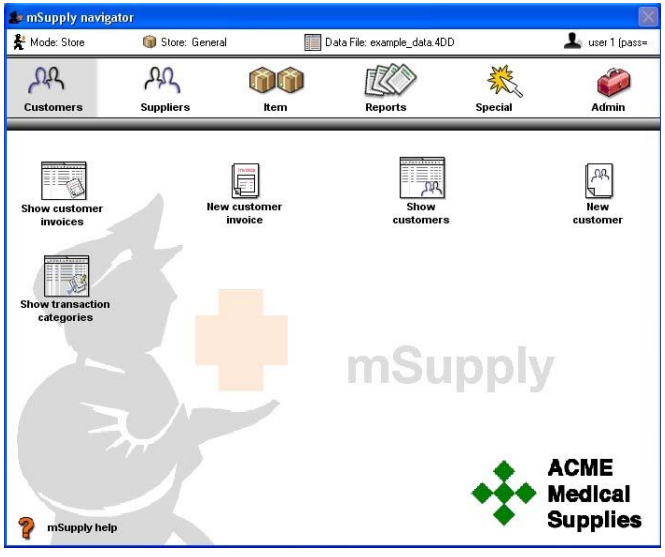
A password entry window is presented as mSupply opens up a data file. The message panel informs the user that the example data base is in use.



The "User 1" (pass= "user1") entry should be highlighted, but if it is not, it should be selected. Enter "user1" (without the quotes) in the password area (2.).

The 'Choose store .....' drop-down list will display 'General', and the 'Choose login mode ....' drop-down list will display "store"- these should not be changed. Click the *OK* button. After you have logged on, the Navigator screen appears:

The Navigator



Overview

The mSupply Navigator provides access to most of the functions you will be using regularly in mSupply. You will learn that many of these functions may also be opened with shortcut key sequences from the various *Menu items*, and once you have gained some experience, you may find it quicker to use the shortcuts.

The Navigator always opens at the *Customers* screen, shown above.

Displayed along the top of the screen are four items of information: [1.]the mode selected at logon (store or dispensary), [2.]the store in which you are working - for most users this will be 'General", [3.] active data file, and [3.]the user currently logged on. Keep the pointer on the datafile name, and after a few seconds the full path to the data file will be displayed.

Immediately below this, there are six large icons, "*Customers, Suppliers ..... Admin*." Click on the icon appropriate to the task you are performing, and you will be presented with a panel displaying annotated icons listing the available functions and procedures; these are in turn selected either by clicking on the icon of your choice with the mouse, or by advancing through the icons with the right or left arrow keys and pressing the *Enter* key. You will be using the *Items* panel of the Navigator in the next step in the tutorial, and as the same procedures are common to all panels, you will quickly become familiar with using them.

The bottom right area of the Navigator screen is available for displaying your own logo - the logo of "Acme Medical Supplies" is displayed in our example. The placing of your logo is performed by choosing *File > Preferences > Logo*.

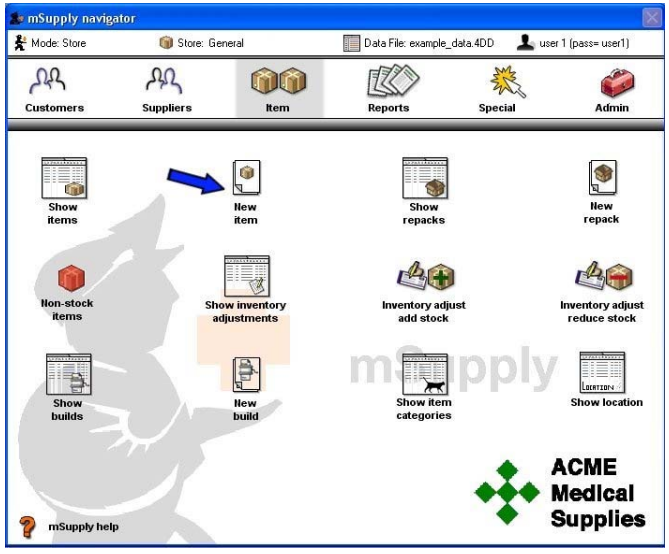
Adding and viewing items

Adding a new item to the database

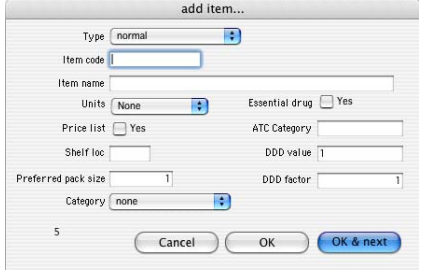
For this section of the tutorial, we are going to add two new items to our mSupply database.

From the Navigator's opening screen, click on "Items", the 3rd of the large icons near the top of the screen

and the following screen appears:



- Click on the *"New item"* icon
- 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. Use the tab key to advance from field to field or click on the field you want to edit with the mouse.

Type

The default entry "normal" appears, and should not be changed.

Item code

Enter "amo500c". Press the Tab key to advance to the next field.

Item name

Enter "Amoxycillin 500mg tab/cap". Press the Tab key to advance to the next field

Note: Continue to use the Tab key for the rest of the tutorial when you need to advance to the next field.

Units

"None" is displayed by default. The alternative is "ea" for "each".

Price list

Click on the square 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". Amoxycillin is stored on shelf 3 in the "a" section of our imaginary store. Note that "A" is interpreted differently from "a", so it is good to use either all upper case or all lower case letters for entering 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.

ATC code, DDD factor, Essential drug

For this tutorial, ignore these fields and leave them blank.

Click the "OK & next" button to add this item to mSupply. The window will now go blank allowing you to add a further item.

Note: If you had no more items to add, you could click the OK button to add only the item you wanted, and then to exit. If you accidentally click "OK & next" and then want to exit, just click the cancel button. The Amoxycillin 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:

Note that if you make a mistake, you can click in a field and edit the value.

Item code	"amo125s"
Item name	"Amoxycillin 125mg/ 5ml syrup".
Units	"mL" (double-click the entry in the window that appears to choose it.
Price list	check the check box.
Shelf location	enter "a7".
Preferred pack size	enter "60".

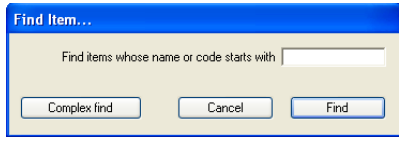
Click OK now that you have added the item, then click *cancel* to exit the window.

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

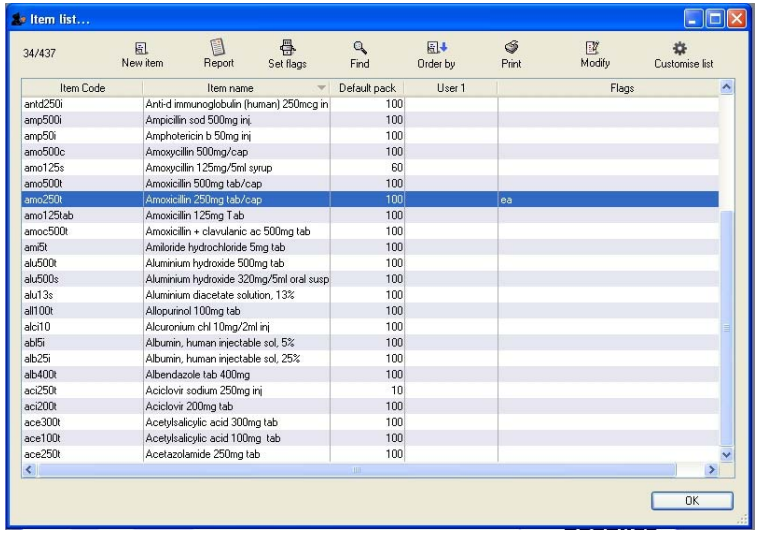
Viewing or Editing item details

Click on"Show items" from the Navigator 's Item screen.

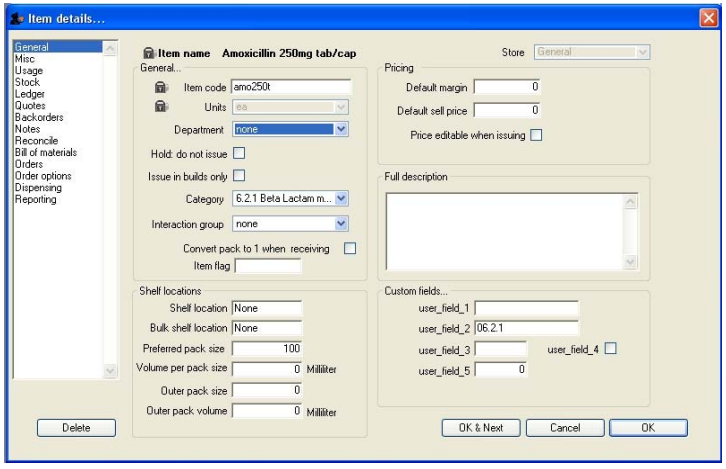
You will be presented with a window to find items:



- Type "a" into the text entry area, then click the Find button.
- You will be presented with a list of all the items whose name or code starts with "a"



- We will choose the Amoxycillin 250mg tabs/caps - an item that was already in the example data file. To choose the item, double-click anywhere on its line in the window.
- You will now be presented with a window that displays a lot of information about "Amoxycillin 250mg tab/caps". From this window you can see stock on hand, view and edit supplier quotations, view usage for this item for the last 24 months, view backorders, view, add and edit notes for this item. Phew!



- At this stage, we only want to know how to view the information. For an explanation of all the information displayed, and for further information see *Item Edit - General options* on page 45.
- When you are finished viewing the information, click the OK button to return to the list of items.
- If you want to view a different item, you can double-click it's line. Otherwise click the OK button to exit to the mSupply start up screen.

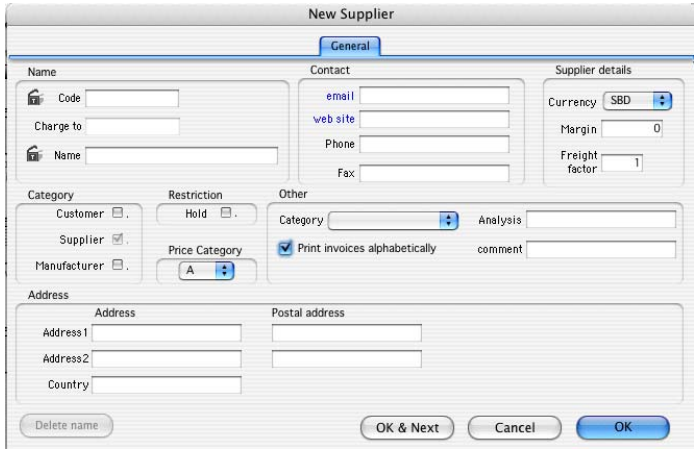
Customers, Suppliers, and Contacts

Adding a Customer or Supplier

For this tutorial example, we will first add a new supplier, then add a new customer.

Adding a Supplier

From the Navigator's opening screen, click on the 2nd of the large icons, *Suppliers*, near the top of the screen, and then click on "New Supplier" from the Navigator screen that appears. You will be presented with this window to enter the details:



You can now enter the details for your new Supplier.

Code	Enter "Acmep" 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 entering invoice data. (for example, try to start the code with at least the first three letters of the Supplier name)
Charge to	Enter "Acmep" 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.
Customer check box	Leave this box unchecked, as we are entering a new Supplier.
Supplier check box	As you chose "new supplier" this box will already be checked.

Hold checkbox	If this box is checked for supplier or customer, that particular supplier or customer cannot supply or be supplied with items.
Price Category	This applies to customers. It is possible to assign multiple sell prices to customers. Leave it set to “A”.
Print invoices alphabetically	This is only for customer invoices at the moment.
Address, Postal address, Contact.	You can complete these with appropriate values.
Currency	The field is automatically filled in with "Nrs" (which stands for Nepali rupees - the default currency in our example data). This is the currency that this supplier will use to bill us.
Margin	Enter "10". Items purchased from this supplier will have a 10% margin added to them to calculate the selling price.
Freight factor	Enter "0". Acme pharmaceuticals does not charge any freight to us - their prices are "CIF". This field is only used for comparing quotations from suppliers - it is not used for actual invoices.
Category & Analysis	Ignore these for now
Comment	You can enter a brief note here (Ignore it for now)

If you are happy with the details, click *OK*. You will be returned to the mSupply startup screen.

Enter a new customer.

From the Navigator’s opening screen, click on the 1st of the large icons, *Customers*, near the top of the screen, and then click on "New Customer" from the Navigator screen that appears. You will be presented with a window similar to the *New Supplier* one above to enter the details:

Fill in the fields as follows:

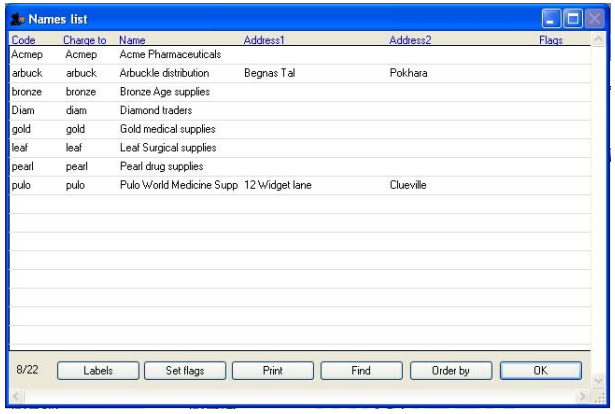
Code	Enter "bluec"
Charge to	Enter "bluec"
Name	Enter "Blue Cross Hospital" - the name of our customer.
Supplier check box	Leave this box unchecked, as we are entering a new customer.
Customer check box	As you chose "new customer" this box will already be checked.
Address and Contact fields	You can fill these in with appro-proiate values
Currency, Freight factor, and Margin fields	These fields will not be visible, as they only apply to suppliers.
Category & Analysis Fields	Ignore these for the time being
Comment field	If applicable, a note or comment may be entered.

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

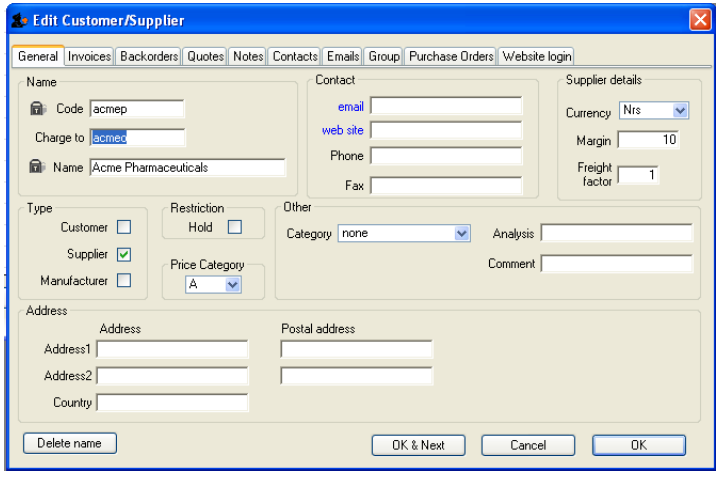
Editing a Customer or Supplier

Let's now look up "Acme Pharmaceuticals"

- Choose "Show suppliers…" from the Navigator’s "Supplier" screen. You are presented with a window to enter as much of the Supplier name or the code as you know. For this tutorial, just click the OK button- you will get a full list of all suppliers.



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



- Note the window has "Tabs" along the top edge , "General","Invoices", "Backorders", "Quotes" and "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 on 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 supplier, then click OK again to exit the list of suppliers.

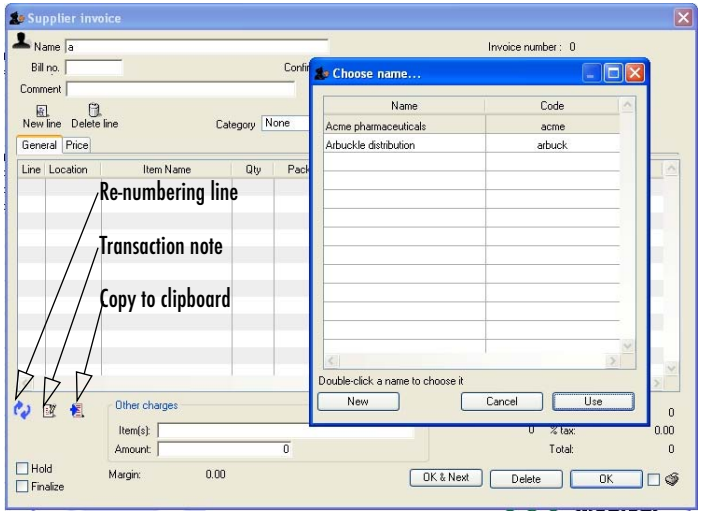
Enter incoming goods (a supplier invoice)

In some countries an invoice for incoming goods is referred to as a "bill"- 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
Amoxycillin Caps 250mg	1000	100	b93333	31/12/2010	344	344,000.00
Amoxycillin syrup 125mg/5ml	65	60	bb23d	31/12/2009	21	1,365.00
Amoxycillin syrup 125mg/5ml	100	60	bb22d	15/12/2010	21	2,100.00
Total:						347465.00

Choose *new invoice...* from the "Supplier" menu.



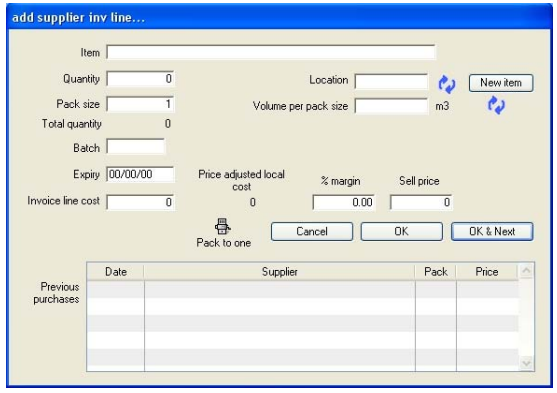
The cursor will be positioned in the "name" field. Type in "a" and then press the tab key. If there is only one supplier whose name starts with "a", the details will automatically be filled in. In our case the supplier "Arbuckle distribution" was already present, so you are presented with a window listing the suppliers starting with "a". Double-click the line containing "Acme Pharmaceuticals" to choose them for this invoice. The insertion point will jump to the "bill no." field.

Type "A939" into the "bill no." field. Press the tab key 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 the *Tab* key. You will be presented with a window listing all items whose name starts with "a". Double-click the "Amoxycillin 250mg tab/cap" entry to choose it. The cursor will now be positioned in the "Quantity" field.
- Enter the number of units received: "1000" (Note that this is the number of packs, not the total quantity of capsules). Press tab to advance to the next field.
- Enter the pack size: "100." Press tab to advance to the next field.
- Enter the batch number: "b93333." Press tab to advance to the next field.
- Enter the expiry date: "31/12/2010" (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 "12/31/10"). You only have to enter 2 digits for the year, as long as the year is in the range 1961 to 2060. Dates outside this range must have the year entered as four digits. Press tab to advance to the next field.
- In the "Invoice line cost" field enter the cost price: "344"

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.

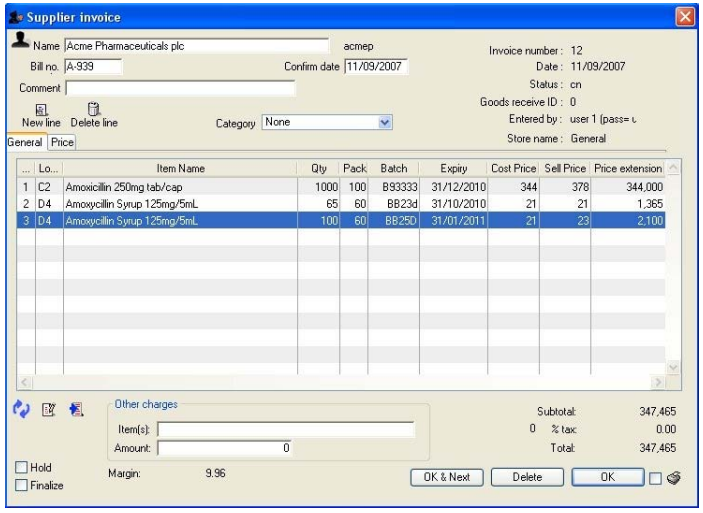
- Enter "a" into the *item name* field and press tab. In the list of items showing, you will find "Amoxycillin syrup 125mg/5ml". Double-click the entry.
- Enter the remaining invoice details for "Amoxycillin syrup 125mg/5ml":
- num units: "65"
- pack size: "60" (Note that it is better to record the actual volume of most packs, unless the volume is not important- for example with an eye-drop, where you could record the pack as "1")
- batch: "bb23d"
- expiry: "31/10/2010"
- 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 example invoice 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"



If you have made a mistake, click on the line you wish to edit, 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.

Now click the OK button. As long as you have left the "print" check box 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 "preview" check box, 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 still view and edit the invoice details until the invoice is finalized. Note that if you issue some of the stock you have just entered to a customer, some fields relating to that stock will no longer be edit-able.

NOTE - As of mSupply v190, a more precise alternative for logging received goods has been implemented. for further information see Viewing and editing supplier invoices created via Goods Receipts on page 138.

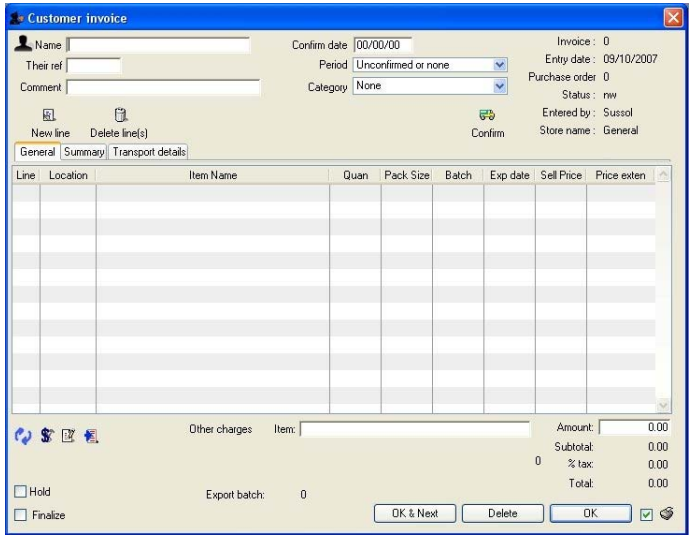
Enter outgoing goods (a customer invoice)

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
Amoxycillin 250mg tab/caps	10000
amoxycillin 125mg/5ml syrup	120

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

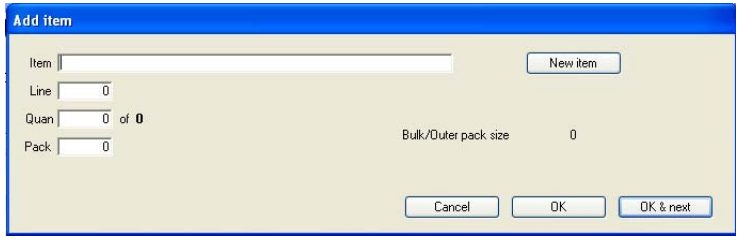


Type "b" into the "Name" field, and press the tab key. You will be presented with a list of customers whose name starts with "b". Double-click the "Blue Cross Hospital" entry to select it.

In the "Their ref" field enter "PO882".

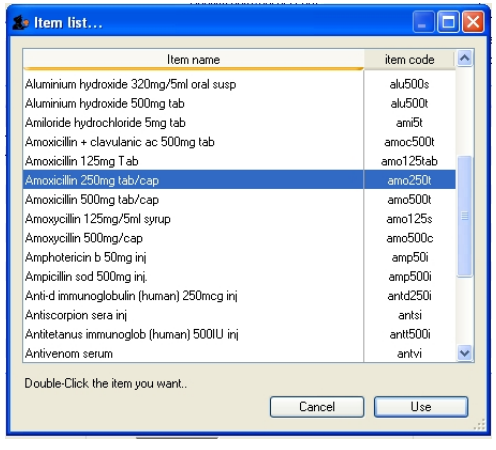
In the comment field enter "This afternoon by courier"

click the "New line" button to add a line to the invoice. You are presented with the "new invoice line" window.

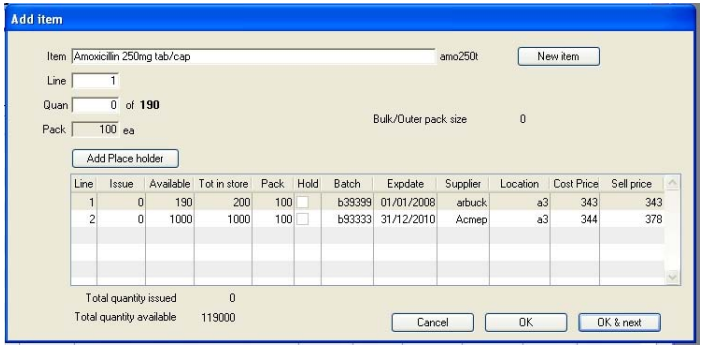


Enter the following details:

- Type "a" into the "name" field then press the tab key. In the list you are presented with, double-click the "Amoxycillin 250mg tab/cap" entry.



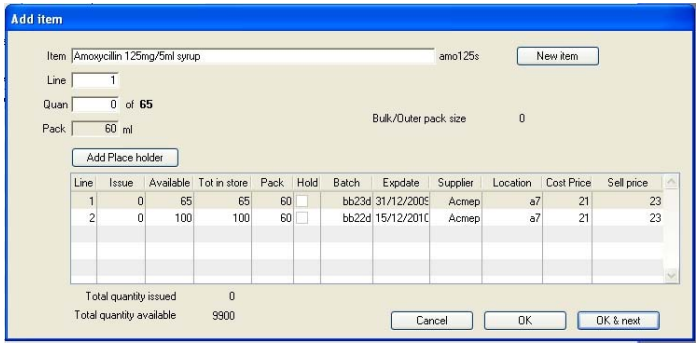
- You will see that a list of available stock has appeared in the window, and the cursor has moved to the "line number" field. Enter "2" to choose line 2. (The list is sorted so batches with the shortest expiry date are at the top - usually you would choose the shortest expiry batch, but today we're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



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

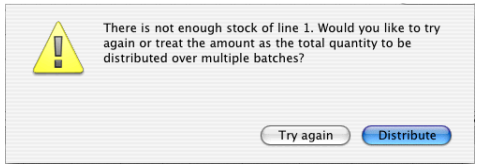
Click the *OK & next* button to add the second line of the order.

Once again enter "a" and press the tab key. Double-click the "Amoxycillin 125mg/5ml syrup" entry. The window will close and the list of available Available batches will be filled out.



Note that in the list of available stock, the second line we entered from "Acme pharmaceuticals" is now at the top of the list - this is because the list is sorted so that the item with the shortest expiry date comes to the top of the list.

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



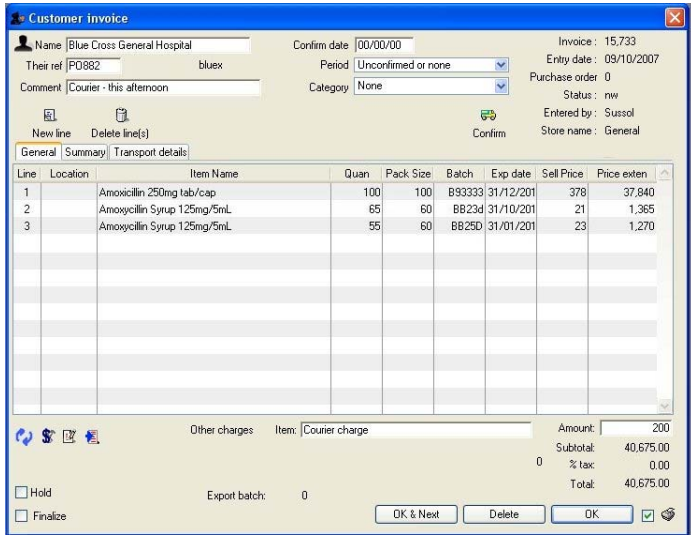
For this tutorial, choose "Distribute" (which is likely to be your normal choice), and the necessary stock to complete the order will be drawn from another batch/other batches, starting with the batch which will be the first to expire. There will be occasions, however, when you wish to override this automatic means of distribution, and in this event you would select "Try Again" and manually select the batches from which you wish to meet the order.

Click the *OK & next* button

Because the invoice has not been confirmed, the "available" amount for the line has been reduced, but the "total stc" (total stock) is still showing as "100". 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 supplier invoice window.

For the purposes of the tutorial, ignore the *Period* and *Category* fields.



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:
- There, enter "Courier charge" and press the *Tab* key
- In the "amount" field enter "200" and press the *Tab* key. The new total should be "40,675.00"

Now we are ready to print a packing slip. Click OK (make sure that "print" is checked). Print out your packing slip. You will notice the packing slip has a column where you can write down 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!)

Firstly, we need to look up the invoice. Here's an easy way to look up the last invoice you have entered:

- Chose *show invoices..* from the *customer* menu.
- If you know the invoice number (printed on the packing slip) you can enter it. 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, we just type "1" and click OK - you will be taken straight to the invoice.

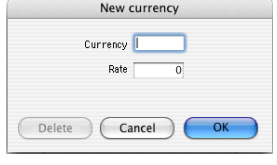
Click the "confirm" truck icon. Click OK to confirm you want to proceed.

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

Entering Quotations

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

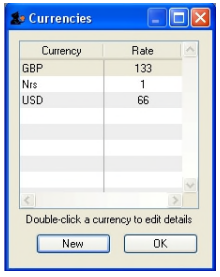
Click on the New button, and a window appears which allows you to enter another currency:



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 - equiva-

lent to 1 US dollar; at the time of compiling this tutorial, the rate was 66 N Rs to US $1, so 71 is entered in the Rate field. Click on the OK button, and repeat the exercise for British pounds, the rate presently being 133.

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



We're now ready to proceed.

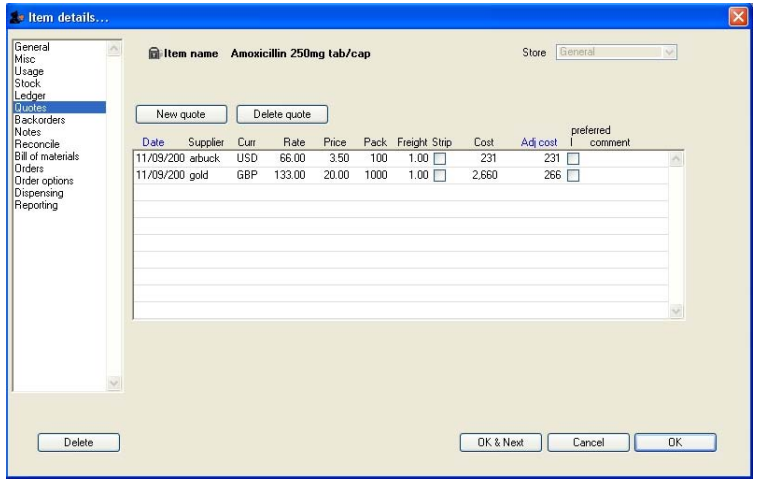
To enter the quotations:

1. Choose Items > Show items...
2. Type "Amox" then press enter.
3. Double-click the "Amoxycillin 250mg caps" entry from 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

11. Click "OK" when you are done.

Now we can see the list of quotes. If you have done it correctly, it should look like this:



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

Thanks for doing the tutorial. We hope you learnt something useful.

Where to now?

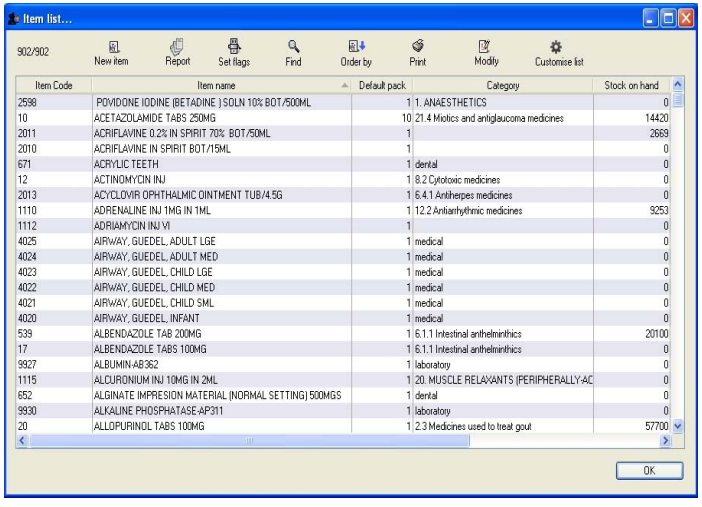
- Continue with the "getting started" chapters in the User Guide..
- Use the example database to experiment with different commands as you read about them in the manual.
- Have a "dummy run" at starting a new data file and using it.

Working with lists

Whenever you do a search in mSupply that finds more than one item, you will be presented with a list of records (be they items, names, contacts or another list) that matches the criteria you entered.

mSupply uses two types of list display. Shorter lists, such as those you see when you view an invoice, or view the stock for an item use a list with a striped background. These lists have resizable and movebale columns, and have an indicator to show the sorted column. Their use is discussed in the next chapter. In this chapter we are concerned with tools for handling lists of names and items and transactions, which run into hundred of thousands or millions of records.

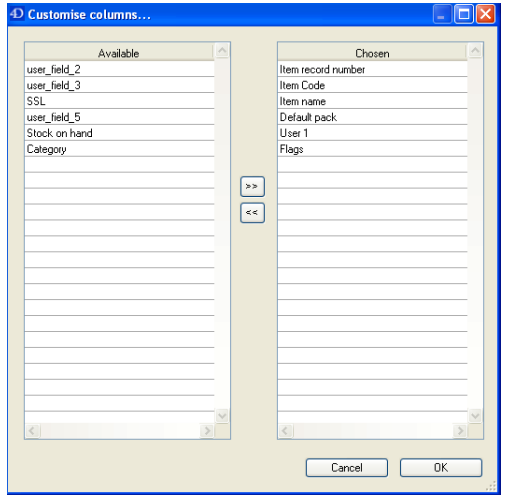
When these lists are displayed, a series of buttons are present along the bottom of the window. The following graphic shows the item list window



Item Code	Item name	Default pack	Category	Stock on hand
2598	POVIDONE IODINE (BETADINE) SOLN 10% BOT/500ML	1	1. ANAESTHETICS	0
10	ACETAZOLAMIDE TABS 250MG	10	21.4 Miotics and antiglaucoma medicines	14420
2011	ACRIFLAVINE 0.2% IN SPIRIT 70% BOT/50ML	1		2669
2010	ACRIFLAVINE IN SPIRIT BOT/15ML	1		0
671	ACRYLIC TEETH	1	dental	0
12	ACTINOMYCIN INJ	1	8.2 Cytotoxic medicines	0
2013	ACYCLOVIR OPHTHALMIC OINTMENT TUB/4.5G	1	6.4.1 Antiherpes medicines	0
1110	ADRENALINE INJ 1MG IN 1ML	1	12.2 Antiarrhythmic medicines	9253
1112	ADRIAMYCIN INJ VI	1		0
4025	AIRWAY, GUEDEL, ADULT LGE	1	medical	0
4024	AIRWAY, GUEDEL, ADULT MED	1	medical	0
4023	AIRWAY, GUEDEL, CHILD LGE	1	medical	0
4022	AIRWAY, GUEDEL, CHILD MED	1	medical	0
4021	AIRWAY, GUEDEL, CHILD SML	1	medical	0
4020	AIRWAY, GUEDEL, INFANT	1	medical	0
539	ALBENDAZOLE TAB 200MG	1	6.1.1 Intestinal anthelminthics	20100
17	ALBENDAZOLE TABS 100MG	1	6.1.1 Intestinal anthelminthics	0
9927	ALBUMIN-AB362	1	laboratory	0
1115	ALCURONIUM INJ 10MG IN 2ML	1	20. MUSCLE RELAXANTS (PERIPHERALLY-AC	0
652	ALGINATE IMPRESION MATERIAL (NORMAL SETTING) 500MGS	1	dental	0
9930	ALKALINE PHOSPHATASE-AP311	1	laboratory	0
20	ALLOPURINOL TABS 100MG	1	2.3 Medicines used to treat gout	57700

Customising the columns viewed

Click the customise list button in the toolbar will display a window like this:



On the right is a list of columns you are using.

On the left is a list of available columns you are not using. To add a column to the view, click on the item in the left-hand list, then click the right--pointing button in between the lists. You can control-click to add multiple columns at the same time.

To remove a column select the column(s) to remove from the right-hand list, and click the left-pointing button to move the columns back to the available list. You can not remove the first column in chosen list, as it is a hidden key column to uniquely identify each row.

Rennaming columns

By clicking twice on a field name in the right hand list you can change the column title.

Column widths

The easiest way to set column widths is to drag the dividers 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 order of column in a list, drag the column header to a new location. (This is done when viewing the list, not in the customise list view window.

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.

Ordering (Sorting) lists

Ordering a list is the same as sorting it. We will use "ordering" from now on.

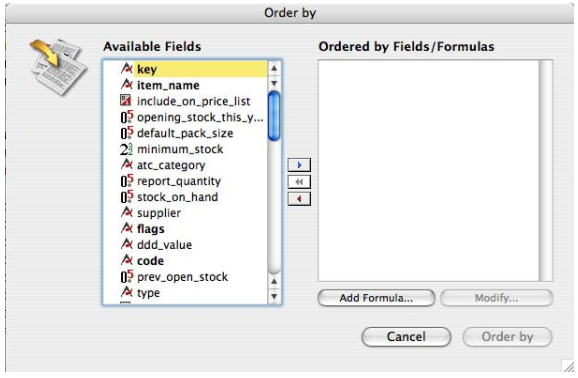
Any column that has a blue heading can be ordered by clicking on the blue column heading. The column will be sorted in ascending order. *Ascending* means:

- 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*.

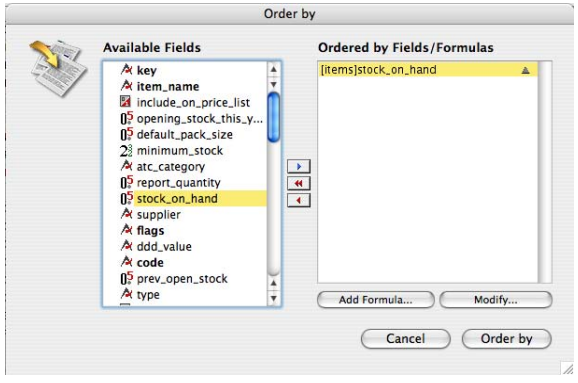
Note that ordering a list does not add or remove any records from the list. It only changes the order in which the records are displayed.

Clicking the *Order by* button shows the order by window:



The Available Fields list will change depending on which type of records you are viewing. The list shown is for items. To order by a particular field, double-click it in the left-hand list.

If we double-click on the "stock_on_hand" field the window will look like this:



(You can also drag fields to the right, or click the right-pointing arrow after highlighting the field on the left)

You can order by multiple fields by adding further fields to the right-hand list.

To change to ascending/descending ordering

Each item in the "Ordered by Fields" list has a small triangle to the right. If the triangle is pointing up, the ordering will be ascending. If pointing down, it will be descending.

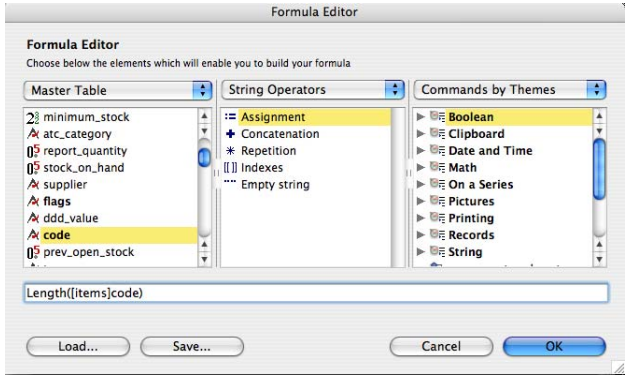
To change the direction, click on the triangle.

To remove a field

Highlight the field in the left-hand column, then click the red left-pointing arrow between the two lists. The double left-pointing arrow will clear the "Ordered by Fields" list

Using formulae

If you wanting to order by a formula, click the *Add formula* button. In the following graphic the formul 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 than your organisational specifications.

Click the OK button to close the window.

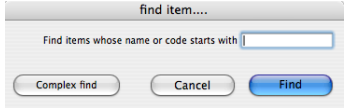
Once the details are entered, click the *Order by* button to order the list.

Finding records

In this user guide the terms *find* and *query* are used interchangeably

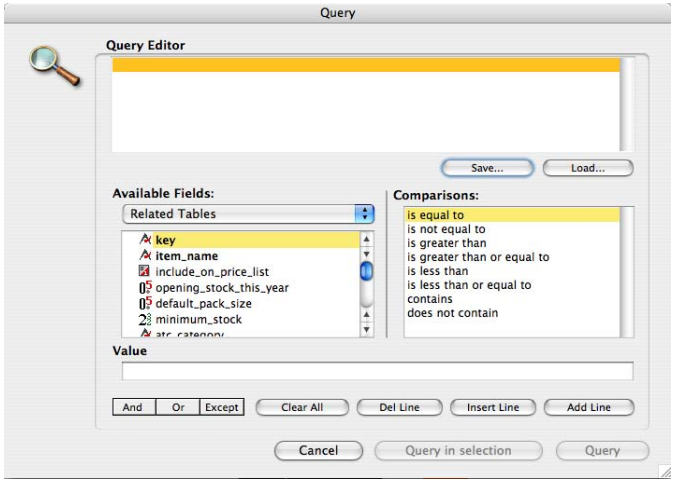
In the item list shown above there is a Find button.

This button shows 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 find using multiple criteria. Clicking this button shows the query editor



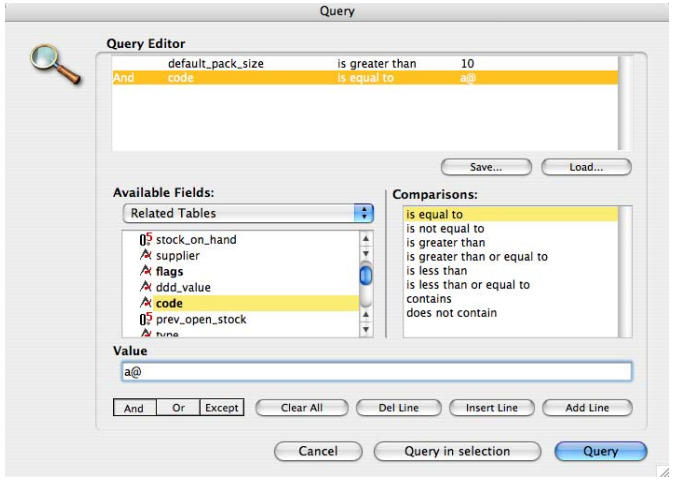
Within this window there are three areas from which you have to choose or set a value for each line of a query.

1. Available fields
2. Comparisons
3. Value

For example, if you want to find all items whose default pack size is greater than one and whose code starts with "A" we would undertake the following steps

1. Click on “default_pack_size” in the available fields list.
2. Click on “is greater than” in the Comparisons list
3. Enter “10” (no quotes) 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 equal to” in the Comparisons list
7. Enter “a@” (no quotes) in the value field.
8. Click the Query button to perform the query.

Before step 8, the window would look like this



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

Note that we have used the wildcard character “@” to match all items whose code starts with “a”

If you wanted to find items that matched either one of the criteria we entered, we would click on the second line in the top list and then click on the “or” button at the bottom left of the window.

Saving and Using saved queries

If you think you will use a complex query again, click the *Save...* button. You will be asked to choose a name and location to save the query. The saved file is very small.

When a blank query window is first shown, you can re-use a previously saved query by clicking the *Load...* button and locating the query file.

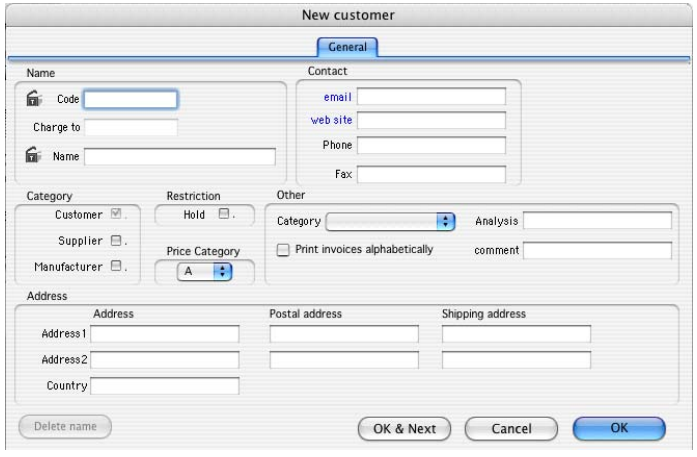
Names: using, adding and editing

About names

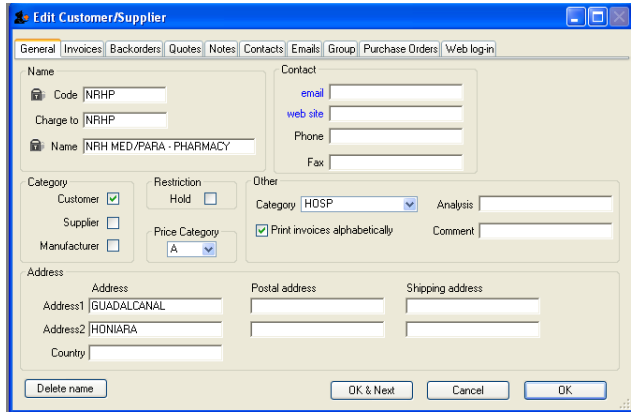
In mSupply a "name" can be a customer, a supplier, a manufacturer, plus all or none of the above. (Note that a "customer" can be anyone you supply goods to- e.g. another organization, or a ward in your hospital, or a patient)

Adding a Customer, Supplier or Manufacturer

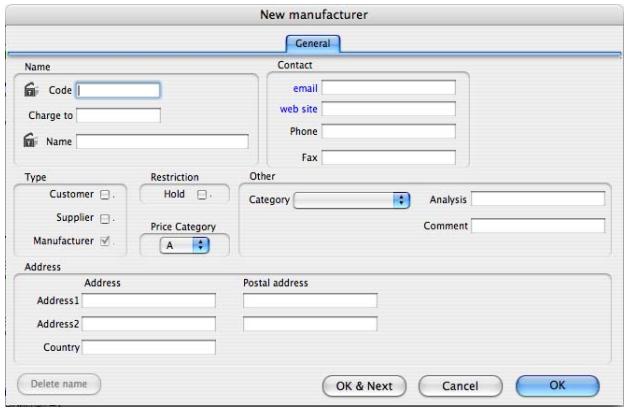
To add a new customer, choose *Customer* > *new customer* from the menu.



To add a new supplier, choose *Supplier* > *New supplier* from the menu. (Makes sense really!)



To add a new manufacturer, choose Supplier > New manufacturer from the menu:



Items 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" is the code that 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 to make sure this is the case). For example:

- If you have for example, 3 hospitals you supply, but you send the bills to the one place 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

Hosp	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 a currency entered against it (The currency it uses for you invoice(s). If the currency isn't yet in your system, close the name entry window and choose "currencies" from the "special" menu to add a currency.
- Note that 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 be automatically synchronized with the name code.

The "customer" or "supplier" check boxes 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)

Type:

In the main entry screen, there are 3 check boxes to mark each entry as a customer, a supplier or a manufacturer.

Restriction: Hold checkbox

If this is checked this name can not be used for receving or issuing goods.

Price Category

Selection of any of the categories will fix a certain price 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 increased/ decreased by the percentage specified in the preferences for this price category.

Eg: If customer XYZ is in category B and in the prefernces category B is assigned value of 50. If an item is issued to customer XYZ that has a normal selling price of $10, the selling price on this invoice will be $15.

Address and contact details

These are fairly self-explanatory (we think....)

For customers, you can enter separate delivery and billing addresses.

Category

This drop-down list shows a list of categories that you have assigned using Supplier > Show categories or Customer > Show categories.

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.

Print invoices alphabetically

If you check this button for a particular customer as in the above "New customer window", item lines will be alphabetically sorted in printed customer invoice for that customer. This will override the "Sort by line number" and

"Sort by shelf location" set in Preferences > Printing.

Extra information for customers only.

Shipping address

If the name is a customer, shipping address fields will be shown.

Extra information for suppliers only:

Supplier Details: 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. Note that if suppliers quote you "CIF" prices, then you should enter "0" here. An example: by looking back on invoices from IDA, we see that freight to Nepal generally amounts to about 15% of the net value of the invoice. There we enter "1.15" in this field for IDA.

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 who have the "manufacturer" checkbox checked.

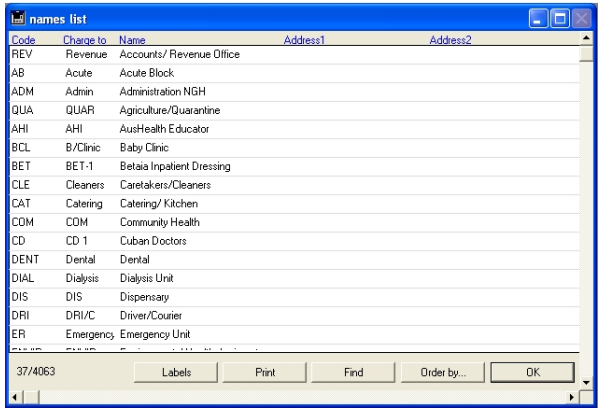
For the manufacturer field to be shown, the option must be turned on by marking the "show manufacturer field on supplier invoices" option on the "invoices 1" page of the mSupply preferences.

Editing a Customer, Supplier or Manufacturer

For this example we will edit a customer. Editing a supplier is just the same, except that you can 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 codeas you know:

If you leave the name/code field empty, youcan also click the *OK* button to get a full list of all customers. Note that the window has a series of radio buttons on the left to change the target of your search to customers, suppliers, manufacturers or all names.



If the text you entered matches more than one customer, a list of matching names is shown.

Buttons in the names list window

Labels

Clicking this button allows you to print address labels for the names in the list. The label editor is displayed.

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.

Flags

This button allows you to mark certain names with a flag.

Firstly, 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.

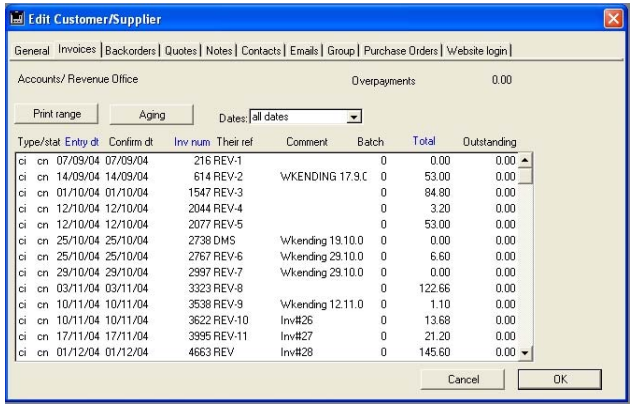
Editing or viewing a name

To edit/view a particular name, double-click the entry you want from the list. You will be shown a window where you can view the customer details. Double-click a line to view details for that customer or supplier.Note the window displayed has "tabs" (buttons) along the top edge called "Invoices", "Backorders", "Quotes" ;"notes";"contacts";"Emails";"Group";"Purchase order" and "Website login".

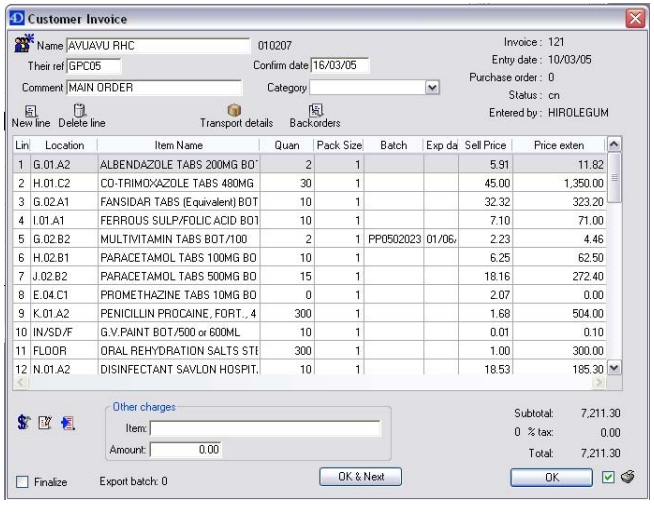
If you want a list of all customers or suppliers, click the find button without entering anything in the search field.

The Invoices tab

Here you can view the invoices for a customer or supplier.



You are now able to edit an invoice directly from this window. To do so, double-click the invoice you wish to edit. A new window will open with the invoice details displayed.



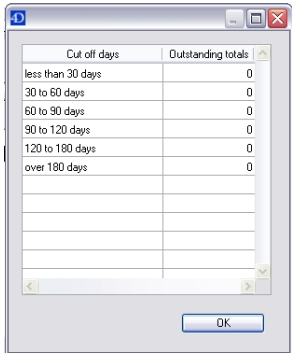
Options for the invoices tab:

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

Clicking this button displays a list of aging categories and the outstanding unpaid balance for each invoice in each category.



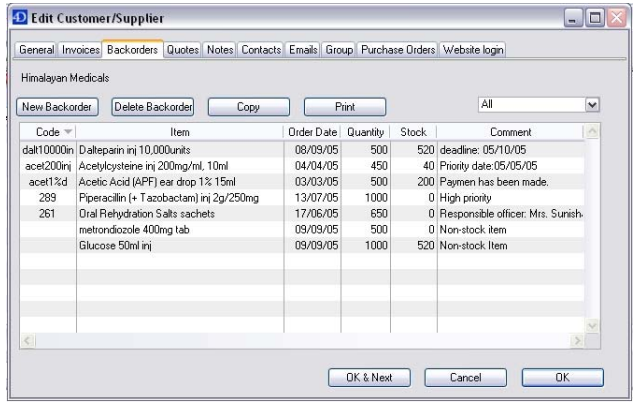
Cut off days	Outstanding totals
less than 30 days	0
30 to 60 days	0
60 to 90 days	0
90 to 120 days	0
120 to 180 days	0
over 180 days	0

OK

Dates

Choose a date range from this menu to quickly show recent invoices, or to revert to showing all invoices

The Backorders tab



Edit Customer/Supplier

General | Invoices | Backorders | Quotes | Notes | Contacts | Emails | Group | Purchase Orders | Website login

Himalayan Medicals

New Backorder | Delete Backorder | Copy | Print | All

Code	Item	Order Date	Quantity	Stock	Comment
dalt10000in	Dalteparin inj 10,000units	08/09/05	500	520	deadline: 05/10/05
acet200inj	Acetylcysteine inj 200mg/ml, 10ml	04/04/05	450	40	Priority date:05/05/05
acet1%d	Acetic Acid (APF) ear drop 1% 15ml	03/03/05	500	200	Paymen has been made.
289	Piperacillin (+ Tazobactam) inj 2g/250mg	13/07/05	1000	0	High priority
261	Oral Rehydration Salts sachets	17/06/05	650	0	Responsible officer: Mrs. Sunish
	metrondiozole 400mg tab	09/09/05	500	0	Non-stock item
	Glucose 50ml inj	09/09/05	1000	520	Non-stock Item

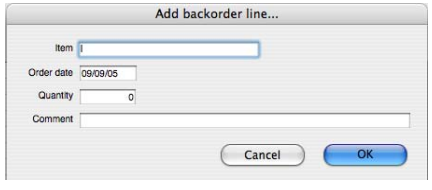
OK & Next | Cancel | OK

Here you can view, add and edit the backorders for a customer name. 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.



Add backorder line...

Item

Order date 09/09/05

Quantity 0

Comment

Cancel | OK

- 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.

Copy

This command copies the backorder to the clipboard, allowing you to paste the report into an email message, word processor or spreadsheet document.

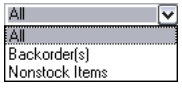
Print

The list of backordered items for the customer is printed.

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.

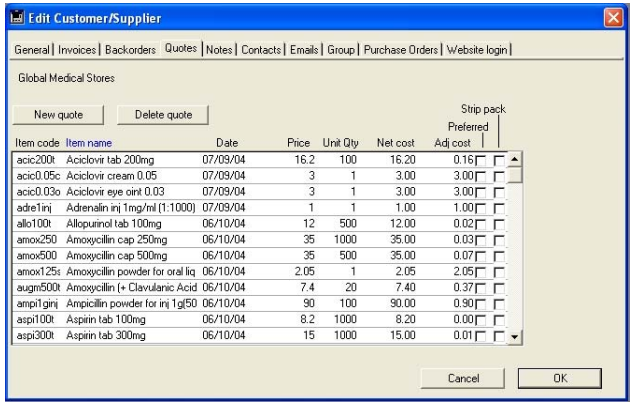
Show:

This drop-down list allows you to choose which backorders to display.



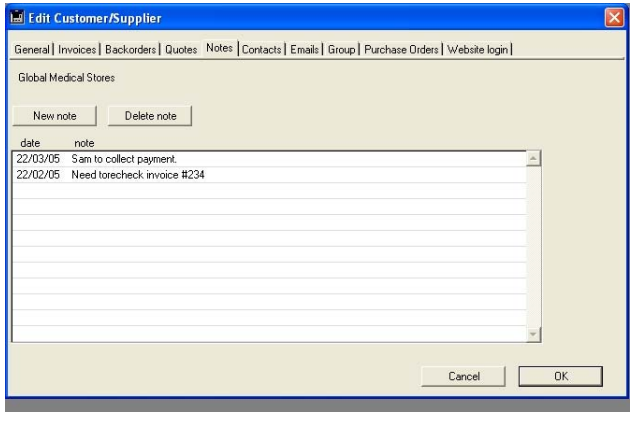
- Backorders are normal items that have not been supplied to customers.
- Ad Hoc items are items that customers have ordered that you do not want to add to your stock list, but would rather make a special order just for that customer.

The Quotes tab



Here you can view the quotations you have entered in mSupply for this supplier.

The Notes tab



Here you can view, add and edit notes.

A list of the first line of current notes is shown.

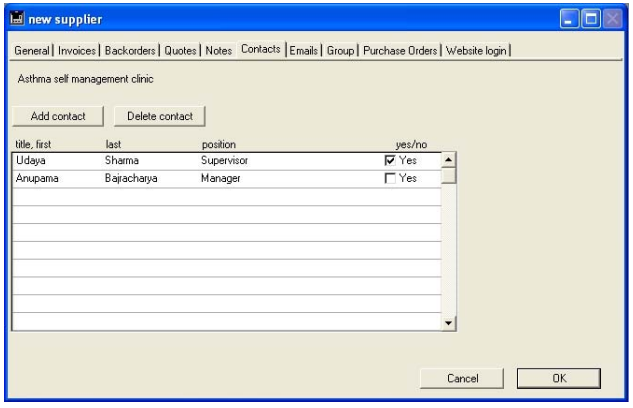
The text of a note can be up to 32,000 characters.

To add a new note, click the "new note" button, enter the details, then click the OK button.

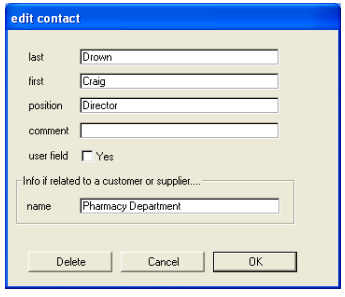
To edit or view a note, double-click on it.

To Delete a note, click on it, then click the "delete note" button.

The Contacts tab



To add a contact for this contact or supplier, first click once in the list of contacts. The *Add contact* button will be highlighted. Click the button, then enter the details in the window that is shown.

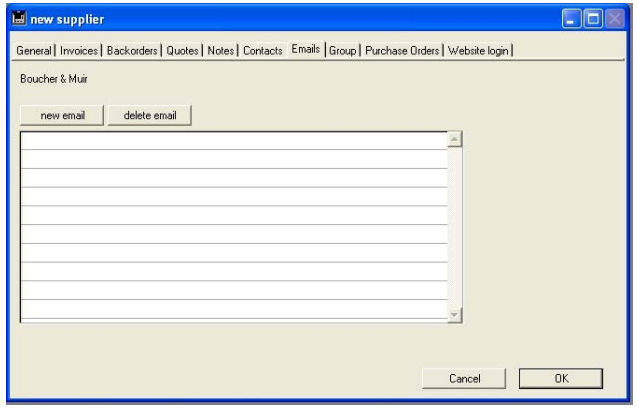


Note: mSupply is not designed to function as your main source of all contact information- it is only designed to keep simple information about customers and suppliers, and people within those organizations.
If you want more complete contact management there are many software programs available. The free Palm Desktop (for Mac & Windows) can be download from http://www.palm.com

The *yes/no* check box on the right is a way of marking contacts. You can then use this field to find a sub-set of your contacts (e.g. those to whom you want to send a price list or newsletter).

To delete a contact, click on the contact you wish to delete, then click the "delete contact" button.

The Email tab

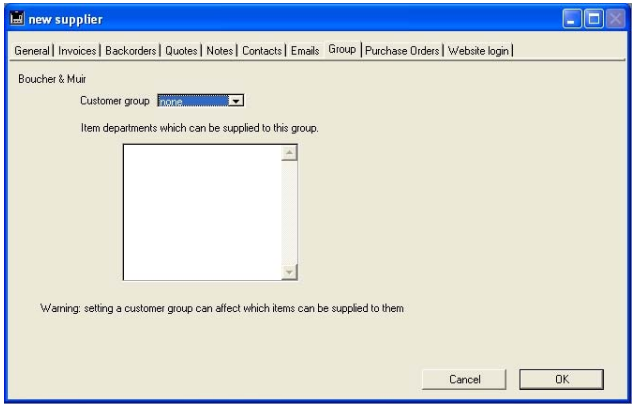


This tab displays all the emails that have been associated with this name.

You can use the “New Email” button to compose a new email to this name.

To delete an email, click on its line to highlight it, then click the “Delete email” button.

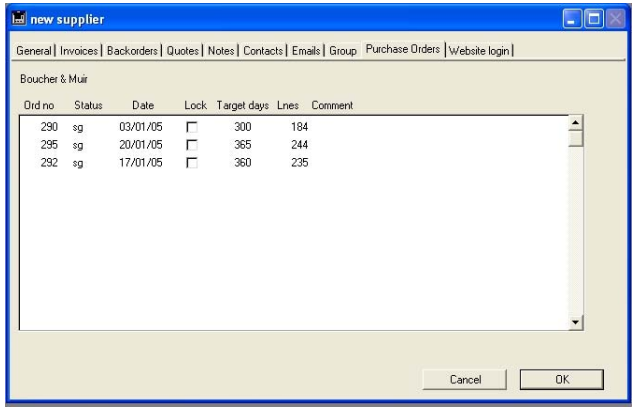
The Group tab



This tab displays the group information for the current customer. Groups are only relevant to customers, not suppliers.

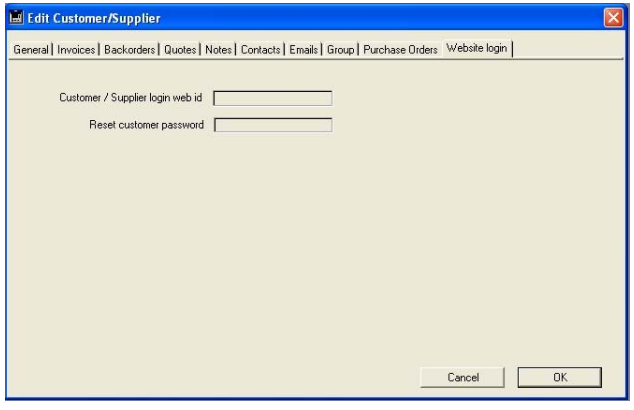
Here you can select the group of which a customer is a member. When you choose a group, you will be shown a list of item departments which are linked to the chosen group. Once the group system is activated in the preferences, only items belonging to one of the listed departments (or items with no department) will be able to be supplied to that customer.

The Purchase Orders tab



This tab shows a view of purchase orders for the current name. If you are viewing a customer the list will (hopefully) be empty!

The Website login 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.

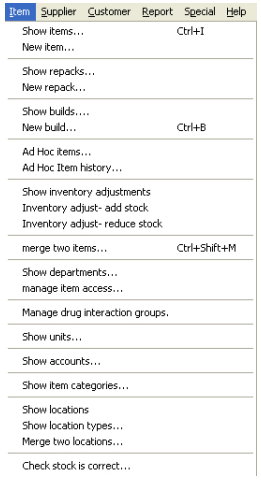
Items

An item in mSupply is usually a product that you purchase and supply. However, there are also other types of items

- A service item has no stock, but can still be added to customer invoices and charged for. Examples of a service item might be a freight charge or a consultation fee.
- A cross reference item points to another item, so that when it is chosen in a list, it is substituted with the item it refers to. This allows you to have items in your system that are referred to by trade name, but are only issued according to their generic name.

Managing items is mostly done from the Item menu. This menu also contains commands for managing lists related to items such as accounts, drug interactions and units.

The Item Menu



Show items....

Use this command for editing or viewing just about any information about an item

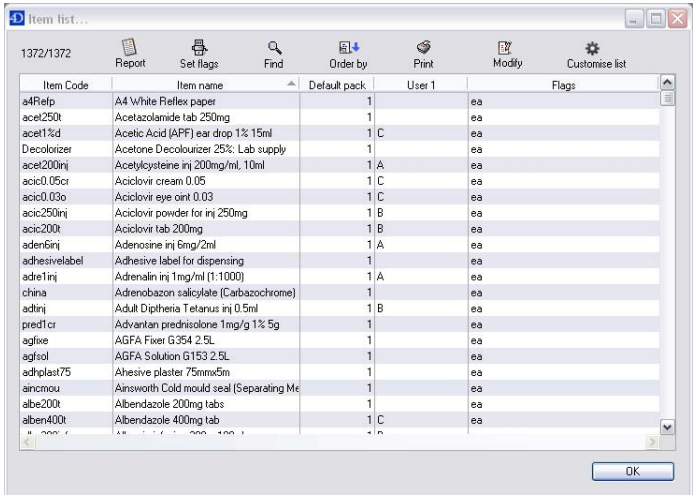
Firstly you are presented with a window asking you to enter either as much of the item code or name as you know:

Click the “Find” button or press "return" when you want to proceed. If only one item was found you will be taken straight to the item details, otherwise you will be shown a list of matching choices. An item is considered to have been matched if its name or item code starts with the characters entered.

The *Complex find* button gives you access to a more powerful query editor where you can find a very specific set of items. See the custom report section of the Report menu chapter for a more detailed description of the query editor.

(Tip: to do a “contains” search, enter an “@” sign before the text. E.g. entering “@250” will find all items with “250” anywhere in their name.

If you want a list of all items, click the find button without entering anything in the search field.



Double-click the item in the list that you want to view.

Other Buttons in the item list view

Report

Click this button to open a report editor window where you can design a report. The report will use the currently displayed records (not the highlighted records).

Set flags

A flag is a quick way of identifying a group of items for use in a report.

You can set and remove flags for multiple items at the same time. To do so, hold down the control key (command key on Mac) and click on the lines you wish to flag. They will become highlighted. Then click the "set flags" button. You will be shown a window like this:

We reccommend you use a single character (or two) as the flag.

If you choose "Append to existing flags, any items with existing flags will have the new flag added to the end of the flag. If you choose "Replace existing flags", then the selected items will have their flags cleared. Note that you can clear all flags for all items by selecting all items (control - A) then leaving the "Set flag to.." field blank, clicking "Replace existing flags", and then clicking the OK button.

Order by

Clicking this button will bring up the standard Order by window, where you can choose fields to sort the displayed items by.

Print

Click this button to print the currently displayed items in a list.

Find

Clicking this button displays the Find window, the same as if you had chosen Items > Show items.

Modify

Click this button to show details for the first record that is highlighted. Clicking the "OK and next" button in the item details window will jump to the next highlighted record. To highlight multiple records, hold down the control key (command on Mac) while you click on the records you wish to highlight.

Customise list

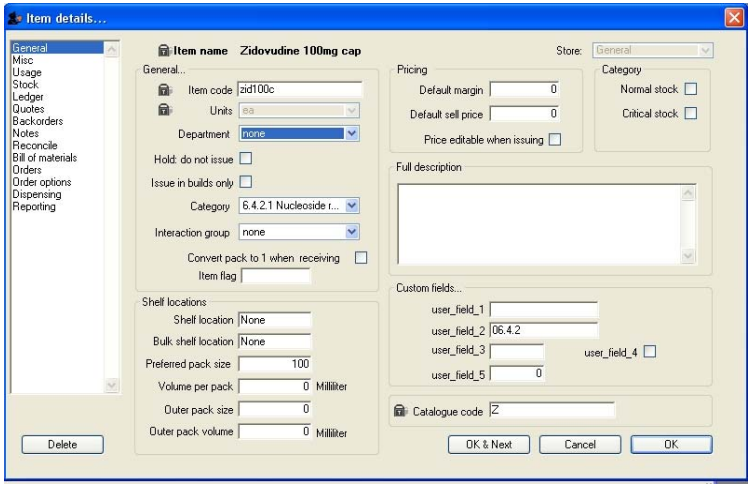
Clicking this button will show a window where you can choose which fields from the items table are shown in the list view. For further information see *Working with lists* on page 31.

The Item Details WIndow

The item details are presented with a vertical list along the left side. Click on the appropriate item to view detailed information about an item.

If you make changes that you don't want to save, you can click cancel. Note however that changes you have made to quotes, notes and backorders will be saved, even if you click *Cancel*.

Item Edit - General options



Item name

You cannot edit the item name directly. Rather, click on the lock icon next to the item name, and enter a new name in the window that appears. Note that you should never change the name of an item to a completely different item here. As of version 1.5 of mSupply, historical records will still record the correct name, but invoices in process will pick up the new name when you edit an invoice line.

Item code

This is the code assigned to the item.

To change an item code, you must click on the lock icon first, and then enter the new code in the field.

Units

Choose the unit you use for this item. It is useful to distinguish items you issue by pack (eg eye drops) from items you issue by volume (eg oral liquids)

What are those lock icons?

Before you can edit an item's name, code or units, you need to click the small padlock icon to the left of the field. If you have sufficient user permissions to edit the field, you will then be able to change the field contents. If not, you will be alerted. You assign user permissions for each user by choosing *File>Edit users and groups*

Department

You can assign each item to a department by choosing from the list of departments here. To set up departments, use the *show departments...* command in the item menu.

Hold: do not issue

If this box is checked, the item will not be available to be issued on invoices. It will still appear in lists, but you will get a warning if you choose it when issuing stock, and will be required to choose a different item. Note that this applies to all batches of the item; should you wish to hold selected batches only, you should choose *Stock* from the options list on the left, and in the *Hold* column, check the box for the particular batch/batches to be held.

Issue in builds only

Checking this box will mean that the item cannot be issued on customer invoices- it may only be used in manufacturing. This is to stop someone accidentally issuing a raw material on a customer invoice (for example, items which by law can not be sold in an unprocessed state).

Category

The item category should be selected using the drop down list. Item categories are explained in detail later in this chapter. For further information see *Show item categories...* on page 71.

Interaction group

Here you can choose the interaction group for the item. We recommend you base interaction groups on ATC code groupings available from <www.drugref.org>

You can set up interaction groups by choosing file > manage drug interaction groups. For further information see *Manage Drug interaction groups* on page 68.

Convert pack to one when receiving

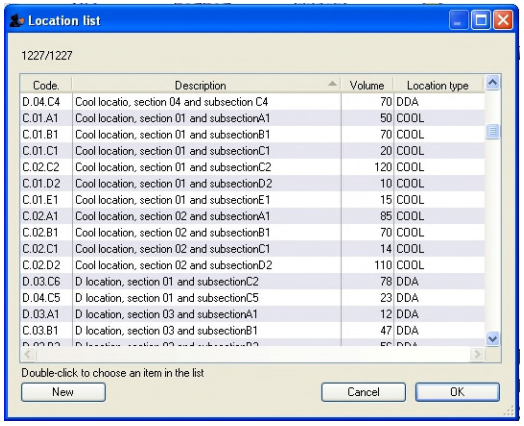
If this box is checked, when you receive items the pack size will automatically be converted to "1". This is primarily for use in dispensary mode, but may be useful in other situations too.

For example: say you receive 50 x 100 boxes of Paracetamol, but you issue var-

iable amounts of paracetmol on invoices. If this option is checked, as you receive the stock on a supplier invoice, it will be converted to 5000 (quantity) x 1 (pack size). You will now be able to issue any quantity you like. The cost and sell price are automatically adjusted for the new quantity.

Shelf Location

Type as much of the location (ie the first few characters) 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 like this:



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

Note that each batch of stock can have its own shelf location. When you receive items into stock, they will be given the shelf location you enter here unless a different location is chosen.

Volume per pack

If you are using available volume tracking in your warehouse, then fill in the default volume for one pack of the item here.

Note that mSupply always stores volumes as m^3 (cubic metres), but you can enter a volume as millilitres (ml), litres (L) or cubic metres (m^3)

You enter	Value displayed	mSupply stores
30ml	30ml	0.00003 m^3
1500L	1.5 m3	1.5 m^3
600 L	600 L	0.6 m^3
1500 ml	1.5 L	0.0015 m^3

Bulk shelf location

Similar to shelf location but it is used to store bulk quantities of goods/items. You can enter a code here (up to 20 characters) to identify the place where the item is stored.

Outer pack size

This field is for entering the number of items present in one pack (outer).

Outer pack volume

Here you can enter a volume for a standard outer pack. This may be different to an exact multiple of the volume per pack you entered above, as outer packs may have their own packing. (For example, vaccine packs may come in an insulated container.)

Store

The store which you are using is displayed here; most users will be using a single store and this paragraph is not relevant. For users managing more than one store, the desired store may be selected from the drop down menu. For users having access to all stores, and wishing to work with the cumulative data from them all, the display will show "Supervisor mode". Such users may also access a single store should they so wish.

Pricing option: default margin

This is the margin that will be applied to this item on supplier invoices to calculate the sell price. Note that if a supplier margin is also set, there is a setting in the preferences (file | preferences) that determines which margin will be used. Note also that if a default selling price is set, this price will be used rather than the margin.

default sell price

Only enter a price here if you want a fixed selling price for this item. Enter

the price for one unit (eg 1 capsule or 1 gm). A price entered here will override an margins you have specified for either the supplier or the item.

User fields 1, 2 and 3 & 4

You can use these fields for your own data. You can (query) search for items with a particular value or range of values in this field when producing a custom report

To set the names of the user fields, choose File > Preferences and click on the "Misc" option in the left hand list.

Catalogue code

Frequently organisations may apply a second code to an item - e.g. one for auditing purposes, in addition to one for general use. This field allows the entry of such a code.. Provided the *Include catalogue code for each item* box is checked under *Preferences* > *Misc*, a report on Catalogue codes may be produced.

Buttons in the item details window

Cancel

Exits the window without saving changes. (Note that changes to other information you have made such as editing a backorder, adding a quote etc. *will* be saved).

OK

Saves changes then exits the window.

OK & Next

Saves changes, exits the window, then brings up the next item in the item list. If you did not have an item list open, or if you have reached the last item in the list, you will be returned to the list or the initial menus, depending on your starting point.

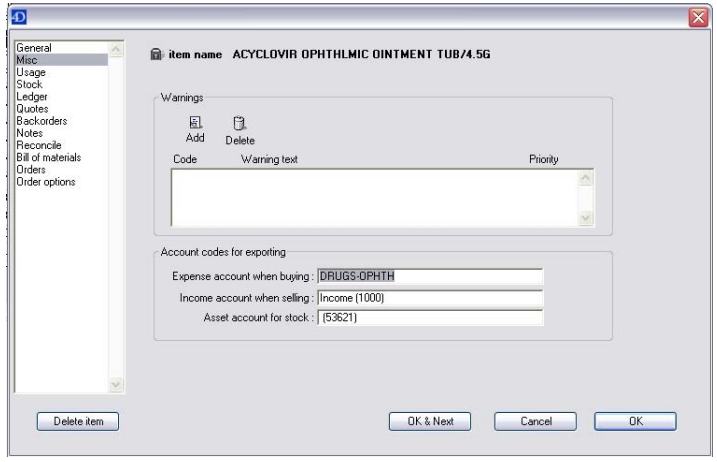
Delete Item

If an item has no transactions, quotes, order lines or backorder lines, it can be deleted using this button.

In other words, once you have received stock for the item, you can't delete it. You can delete an item immediately after you have created it or imported it. Note that if you have imported an item and stock, you can delete it, and it's associated stock will be deleted too (but not once it has been used in a transaction such as an invoice or build).

Item Edit- Misc options

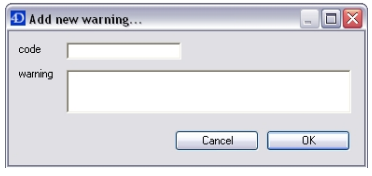
This window currently has settings for cautionary warnings used when dispensing medicines and accounts used when exporting transaction information.



Warnings

Warnings are chosen from a standard list. This list is set up using the Special > Warnings menu.

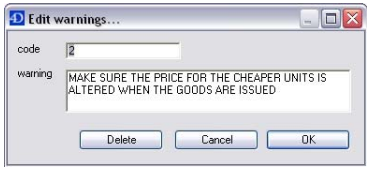
Use the "New" button to add a warning for the item.



To delete a warning, double-click on its line then click the "Delete" button.

When an item has more than one warning, the warning that has priority will be automatically printed on the label. You can add other warnings as part of the label directions if required.

To set a warning's priority, double-click its line in the list

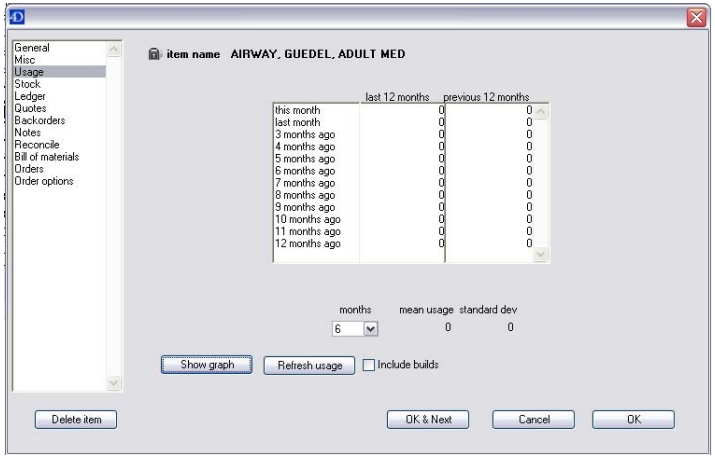


Accounts

You can set the general ledger account to be used for exporting purchase and supply transactions involving this item here.

To set each account enter a portion of the account description or code and press the *Tab* key. You will be shown a standard choice list if more than one account matches what you typed.

Item Edit- "Usage"



The Usage tab allows you to view the item usage per month for the previous 24 months. This information is very useful for quickly spotting a trend in usage for a particular item.

Show Graph button

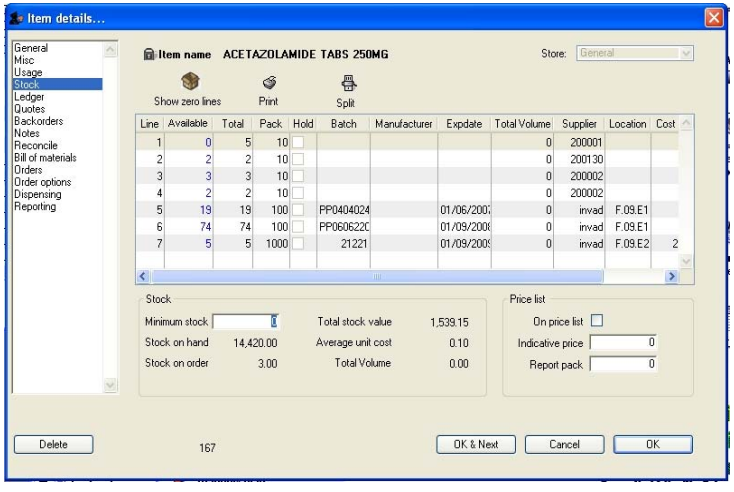
Clicking this button shows the same information in a graphical format.

Below the list of usage for each month there is a popup menu to choose from 1 to 24 months. After choosing a value the average usage and the standard deviation for the period in question will be shown.

Refresh usage button

This button allows you to update the usage with transactions that were added since you opened the window (this applies to multi-user mode). It also allows you to show the usage with or without build transctions included in the totals, depending on whether or not the "include builds" checkbox is checked or not.

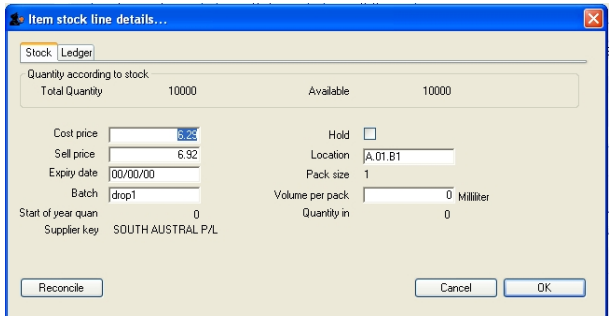
Item Edit- Stock options



The "Stock" tab shows the lines of stock for this item.

Editing a stock line

To edit the cost price and selling price for an item line, double-click the line you wish to edit. Note that only users in the level 1 or level 2 access groups are permitted to edit stock lines.



The *Stock* tab

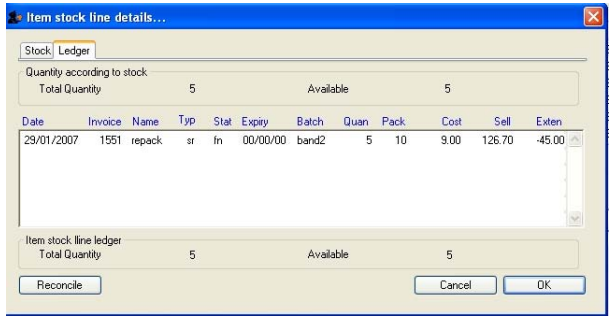
This tab shows the details of a stock line.It also gives you total and available quantity of a stock line.

Hold batches

To hold a batch check the *hold* check-box. Once an item is held, it cannot be issued. It will still appear in the available stock window, but held lines will have a check box in the hold column, and if a user attempts to issue the line they will be informed that the line is on hold. Note that the *Hold: do not issue* option in the General options takes precedence, and if that option is checked, then no stock may be issued, regardless of batch.

The *Ledger* tab

This tab shows a list of supplier and customer invoices for the item batch being viewed. You can use this window to view immediately the list of customers who have been supplied with this particular batch.



Show zero lines

This button will show all the lines that are still in your data file, but which have no stock on hand. If you can think of a use for this information, please let us know! When you click the button the button title changes to "hide zero lines", which allows you to get back to the info you really wanted.

Other information on the stock options page

Minimum stock

The minimum stock you wish to keep on hand. Note that you do not need to

enter a quantity here for mSupply's ordering system to work. In fact, it is better in most cases to leave this number set to zero. This field should only be filled in if you absolutely must keep a minimum on hand. For example, if you stock naloxone for narcotic over dosage reduction, and even if you only use 1 vial every year, you have decided you need to keep five vials on hand, you would enter "5" as the minimum quantity for naloxone.

Stock on hand

The total stock of this item on hand.

Stock on order

The total quantity of stock of this item on order from suppliers

Analysis

This is the value of the last item ranking analysis. The figure represents the value of sales for the item for the last analysis period.

Qualifying quantity

The minimum quantity to be supplied before bonus stock is given.

Bonus quantity

The quantity of bonus stock to be given when the qualifying quantity is reached.

Bonus price

If your bonus stock is totally free, leave this field as "0". If you charge a surcharge on bonus stock of (say) 5% of the original price, enter "5" here.

For example, if you enter a qualifying quantity of 10 and a bonus quantity of 2 the following bonus stock will be given:

Order quantity	Bonus quantity
9	0
10	2
15	2
20	4

Price List

On Price list

If this box is checked, this item will be included when a price list is produced.

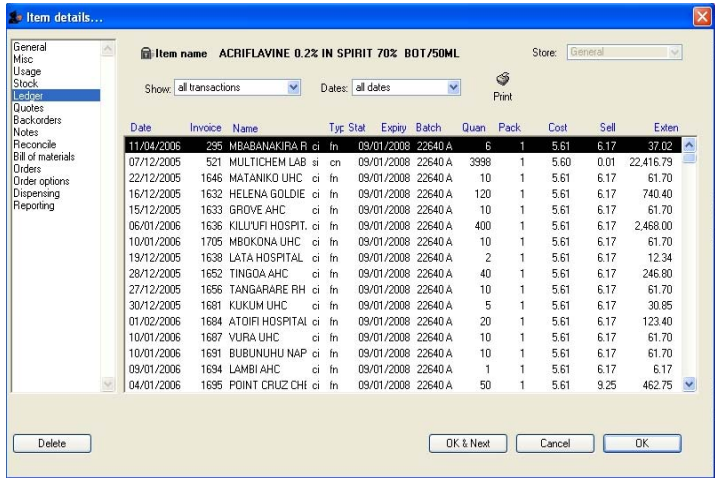
Indicative price

The price for the item that will be used when you produce a price list

Report pack

The pack size for the item that will be used when you produce a price list

Item Edit - Ledger options



The item "Ledger" tab lists all the transactions for the item in question.

Drop-down lists

You can use the "Show...." menu to show:

- Only supplier transactions
- Only customer transactions
- Transactions for just one name (click on a transaction line for the name you are interested in)

- Transactions for one particular item line. This will show the supplier invoice on which the item line was received, and all subsequent issues of that item line to customers. This can be useful for tracing a particular batch of medicines.

Tip: Clicking on the column headings of the transaction list will sort the list by the information in that column. The column header will be underlined to show by which column the list is sorted.

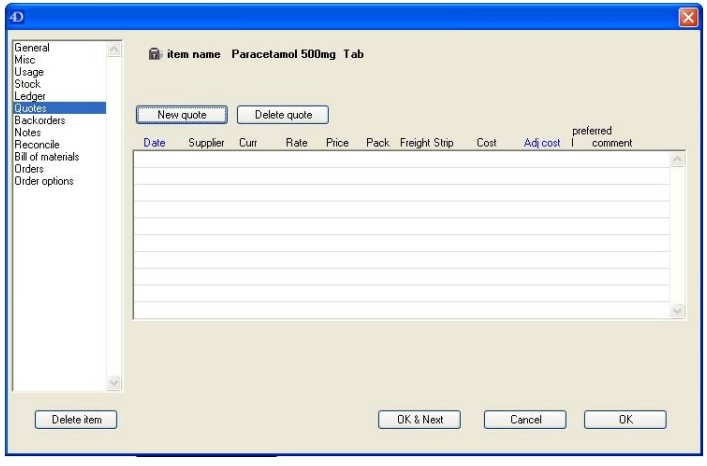
Note: If the cost price column is blank, this is because the current user does not have permission to view cost prices. (This option can be turned on or off for each user from the "File > edit users…" menu item).

If you want to view an invoice for one of the displayed lines, simply double-click the line you are interested in. The invoice (or payment, as the case may be) will be shown in a new window.

Print

Clicking this button will give you the choice of printing either the information currently displayed in the window or a complete ledger from the start of your year (along with the current stock and a running total of stock on hand)

Item Edit- Quotes options



A quotation is a record of a price you have been given by a supplier. For each item you can have multiple quotes recorded, reflecting different prices you have been quoted from different suppliers, or even different prices from the one supplier for different pack sizes.

When you come to compare quotes, there are several factors that need to be taken into account. By entering the information in mSupply you are able to find the best price once these factors have been taken into account, and you build a history of quotations from each supplier.

Cost

Cost is the price for that pack size in your local currency, taking into account the freight factor and the exchange rate.

Adjusted cost

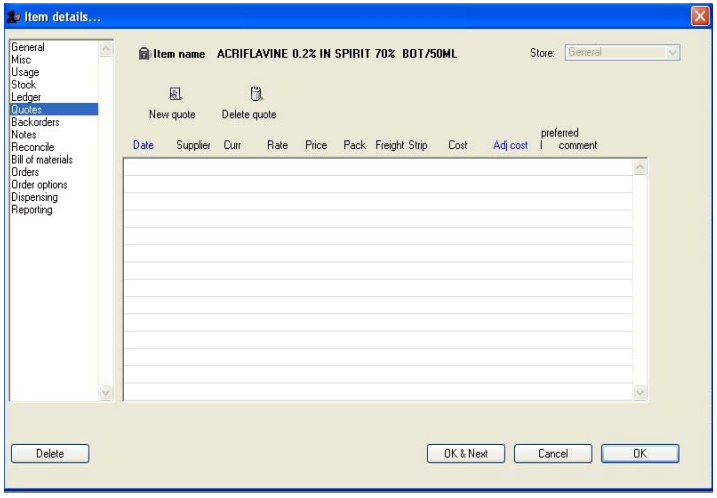
Adjusted cost is the price for your "preferred pack size" you have entered for that item. This second price allows for a direct comparison between suppliers. Note that if you change the "preferred pack" for an item, all your quotes will be updated to reflect the new pack size.

Comparing quotes:

Click "Adj cost" heading in the list of quotes to bring the cheapest quote to the top of the list.

Add a new quote

Click the "new quote" button. The quotes input window will open



- Type as much of the supplier code as you know, then press the *Tab* key- you will be presented with a list of suppliers if there is more than one to choose from.
- Enter the price and the pack size in the currency you have been quoted.
- Note that the currency and freight factor are filled in with the information you have entered for the supplier.
- If the supplier has quoted in a different currency to the supplier's default currency, you can change the currency for this quotation from the drop-down list on the right.
- The freight factor is the factor you need to add to the supplier's prices to account for delivery costs. If your supplier includes these costs in the quoted price (i.e. prices are "CIF"), the freight factor for the supplier should be set to "1". If your supplier adds freight that amounts to about 15% of the invoice price, set the freight factor to 1.15.

Strip pack

This check box allows easy identification of quotes that are for strip/blister packed items (as opposed to "loose" items).

Preferred

This check box allows you to identify one (or more) suppliers as the preferred supplier for the item. One of the ordering methods uses the "preferred" check box to indicate which items should be considered for ordering from a particular supplier. See the Ordering chapter for more details.

Supplier code

If you are using electronic invoice transfer, you must use this field to record the code for the item that this supplier uses on their electronic invoices.

Supplier bar code

Here you can record the bar code identifier for this product.

Price Break

Enter the quantity that generates a price break along with the percentage discount that will apply once this quantity is reached.

Freight

Enter the value for the preferred pack (outer pack) and the freight for that pack provided by the supplier.

Click OK to accept the details, or cancel if you decide not to add a quote for this item.

To modify a quote:

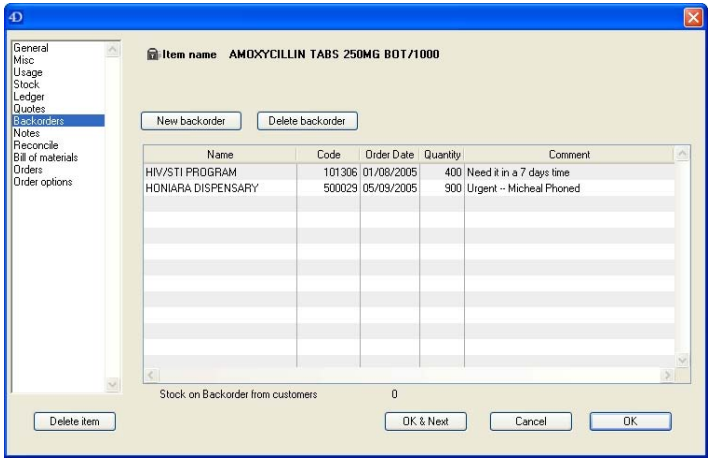
Double-click the line you want to edit.

In the window that appears you can change the date, the supplier, the price, the pack size, the "strip" check box, or the "preferred" check box.

To delete a quote

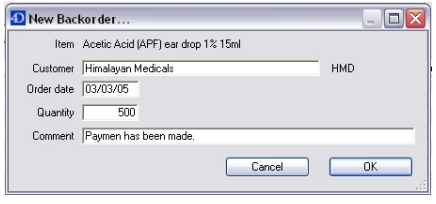
- Click on the quote line you wish to delete
- Click the "Delete quote" button.
- Confirm that you want to proceed.

Item Edit- Backorders options



You can view the backorders for an item here. To edit a backorder, double-click the line you wish to edit.

To add a new backorder for this item, click the *New backorder* button. This window will be shown:

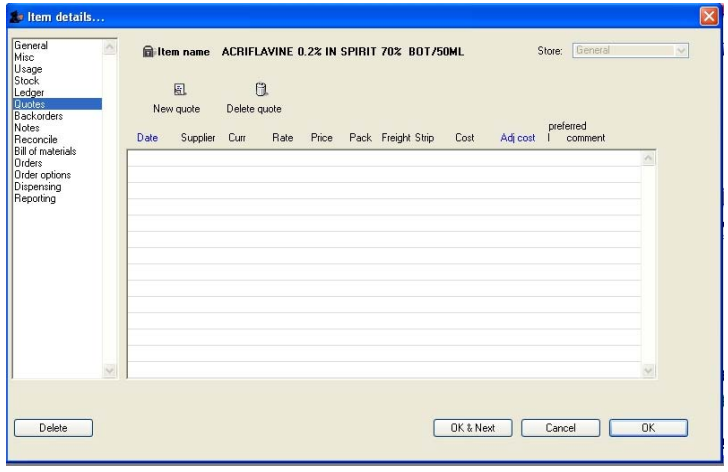


- Enter part of the customer name, then press *Tab* to search for the customer.
- Enter the order date, quantity and any comment, then click OK the save the new backorder entry.

To delete a backorder, click the line you wish to delete, then click the *Delete backorder* button.

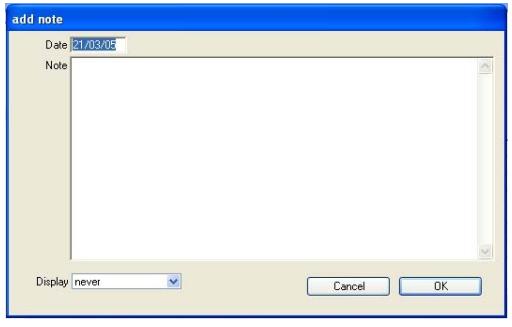
The total stock on backorder is shown below the list.

Item Edit - "Notes"



You can add and edit notes for an item here.

Click the *new note* button to add a note. A note can be up to 32,000 characters.

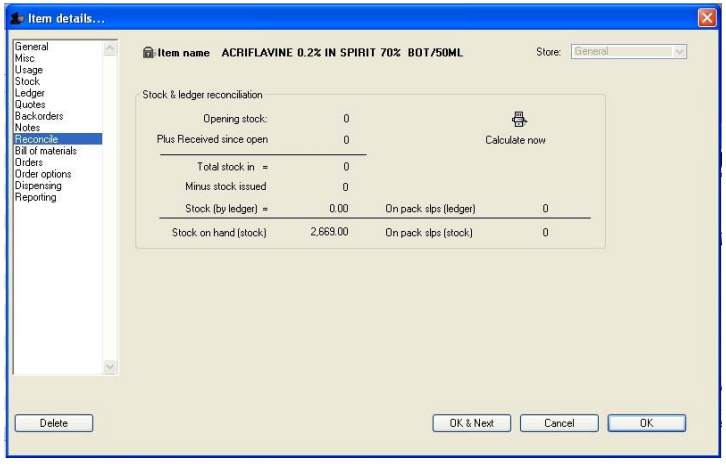


To edit a note, double-click the note in the list you want to edit.

Notice that in the lower left corner of the note editing window with "Display" label, there is a drop-down list:

Use this list to set the text of the note to display as an alert when this item is issued on a customer invoice, received on a supplier invoice, or choose "all" to have the message display for both customer and supplier invoices.

Item Edit - Reconcile options



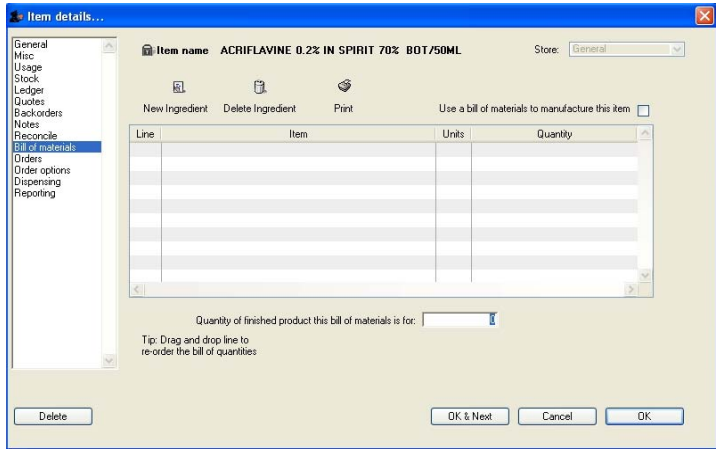
Clicking the "reconcile" button will give a summary of usage.

It is useful for checking mSupply is working like we claim it does! If you get an error here it is most likely due to your using mSupply when a power failure occured. In multi-user versions we are able to provide you with a log file that will allow you to incorporate transactions entered even if a power failure has occured. In normal use ,with a UPS, mSupply will automatically save data and you will not see an error here.

Item Edit - "Bill of Materials" options

(This option may not be showing if you do not have a registration for mSupply that enables manufacturing, or the buttons may be dimmed so you can not make entries if your user permissions do not allow you to view Bills of Materials.)

Note too that if your user permissions do not allow you to add and edit Bills of Materials, this option may not be available.



Here you can specify a Bill of Materials for the item if it is a manufactured item. Once you have done so, and have checked the "Use a Bill of Materials to manufacture this item" check box, when you enter a new build, it can be automatically filled out with the correct materials (ingredients) and the correct quantities for the total to be manufactured.

Items on the Bill of Materials Options page:

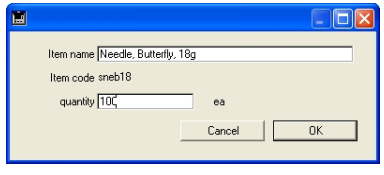
Use a bill of materials to manufacture this item

If this check box is not checked the bill of materials (if one has been entered) will not be used when manufacturing builds.

New ingredient

This button allows you to add items to the bill of materials.

You will be shown a window like this:



Enter the start of the item name or code then press the *Tab* key. If only one matching entry is found, you can then enter the quantity. Otherwise you will be shown a list of matching items. Double-click the item you wish to use.

Click the OK button when you have finished, and the item will be added to the bill of materials for the item you are editing.

Note: Be careful to enter quantities corresponding to the units you have specified for the item.

Delete ingredient

To delete an ingredient, first click on the ingredient you wish to delete so that it is highlighted, then click this button.

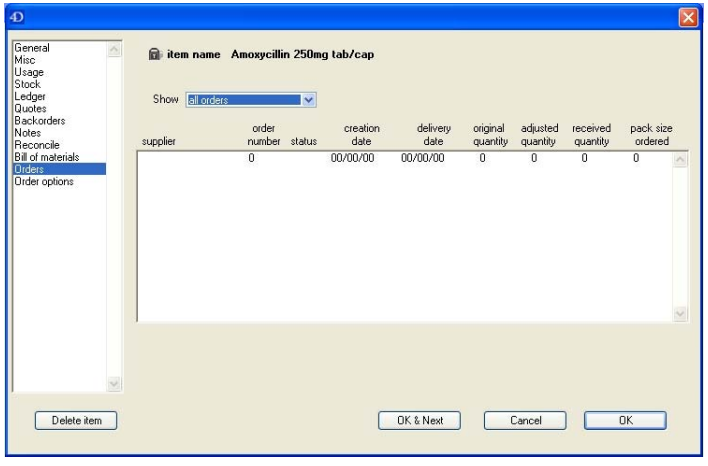
Print

This button allows you to print the bill of materials that is displayed.

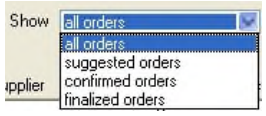
Quantity of finished product this bill of materials is for

This is the total quantity of this item that will be produced by the bill of materials that is entered for the item. Be careful to set this quantity and the units correctly.

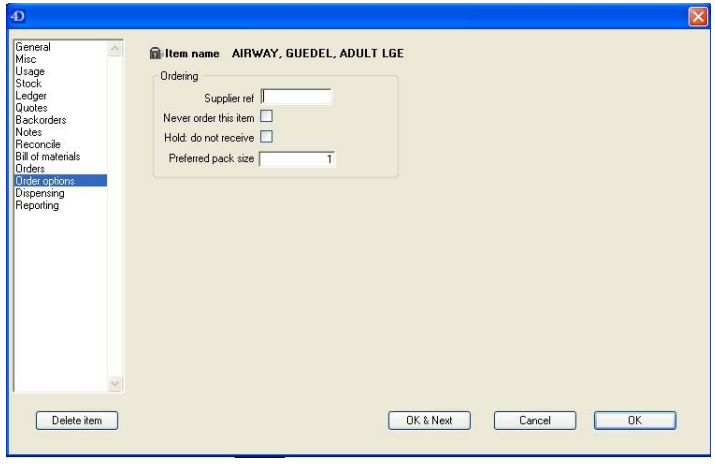
Item Edit- Order options



The dropdown list beside "Show" is used to display all the orders or suggested orders or confirmed orders or finalised orders for the particular item.



Item Edit - Order Options



Ordering: Supplier ref

Enter a code in this field, and then enter the same code when creating a new supplier order only to evaluate the items with that code for ordering.

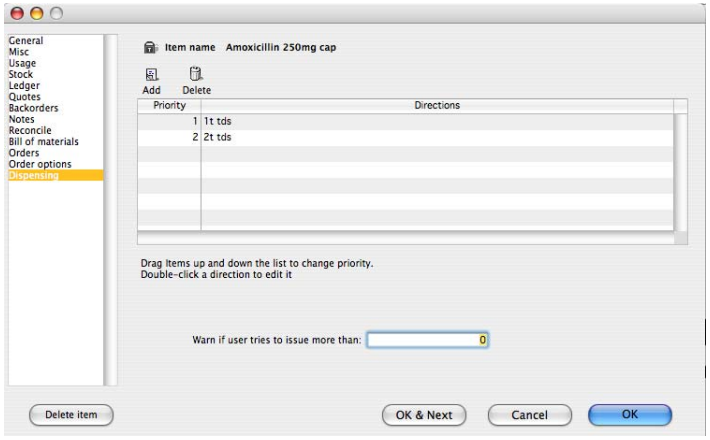
Never order this item

If you have items that are "one-offs" or have been discontinued, use this check box to stop them appearing in orders.

Hold: do not receive

If this check-box is checked, you can not receive this item. This can be useful if you have changed to using a different item, and you do not want people to accidentally use the redundant item.

Item edit - Dispensing options



Here you can set the default directions for an item that is being dispensed. The priority one direction will be entered for the item automatically when you dispense it.

If there are directions with a priority of 2 or more, they will be available from a drop-down list when dispensing the item. Note that even if you set up default directions, you can override these at the time of dispensing, either with longhand text or by editing the abbreviation that has been entered.

Warning: If you choose to use this option be very careful to:

- Inform other users that default directions have been entered.
- Ensure the directions are appropriate.
- Check each prescription dispensed, and change the directions if the prescription has different directions to the default set.
- Update the default directions if you change any of the abbreviations.

Add button

Click this button to show a window where you can add directions. You can enter any combination of directions and text. (Abbreviations are managed by choosing Speical > Abrreviations.)

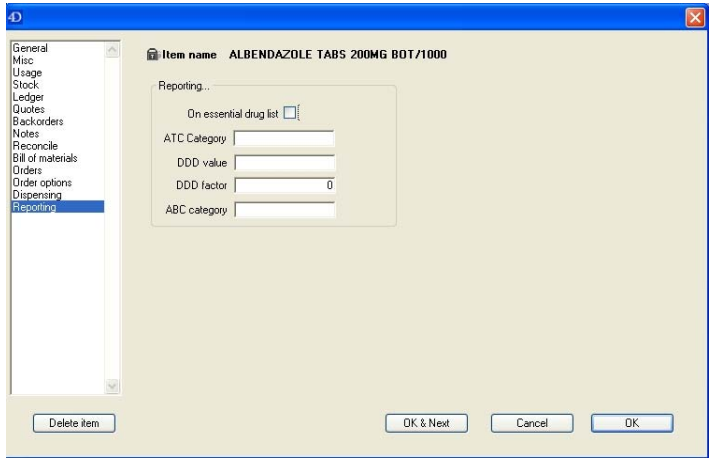
Delete button

Click a line, then click this button to delete directions you no longer need, or if you have made an error.

Warn if user tries to issue more than field

You can enter a number here and have the user warned if they try to dispense more than this quantity.

Item Edit- Reporting options



Reporting: Essential drug list

If this box is checked, the item is on the WHO Essential Drugs List.

Category

This field should be used for an item categorization system such as ATC codes

DDD value

The DDD value is the defined daily dose of the item. For example, doxycycline's DDD value is 100mg., while the DDD value for Amoxycillin is 1g. DDDs give a way of calculating the quantity of treatments of a drug or class of drugs given to a population.

DDD factor

Defined Daily Dose factor- this is the number of units of the item that make

up the DDD value. For example, for amoxycillin 250mg capsules the DDD factor is 4. For Doxycycline 100mg tablets it is 1

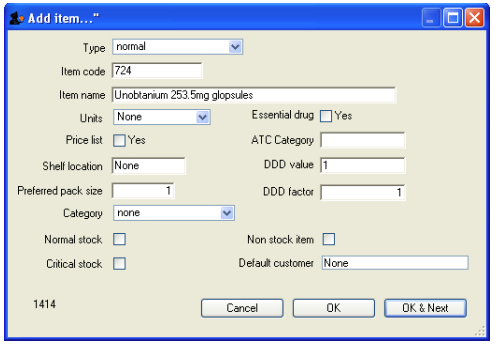
ABC category

This option allows you to mark items that are commonly used and then report on only those items. For further information see *ABC analysis...* on page 179.

New item.

Use this command to add new items. (It is not for adding actual stock- just details about an item)

You will be presented with a entry screen.



Here are some suggestions for making things systematic. (You are at liberty to ignore these suggestions, as you do not need to know or remember item codes in order to use mSupply).

- The "code" field should start with the first three letters of the item name
- The item name should not be the trade name of the item, and should start with the most obvious and broadest description.
- eg a "brody forcep" should be entered as "forcep, brody". "aqueous iodine" should be entered as "iodine, aqueous"

If you think the item should appear in the published price list, then check the appropriate box.

Price list

If this box is checked, this item will be included when you produce price lists.

Reference pack

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

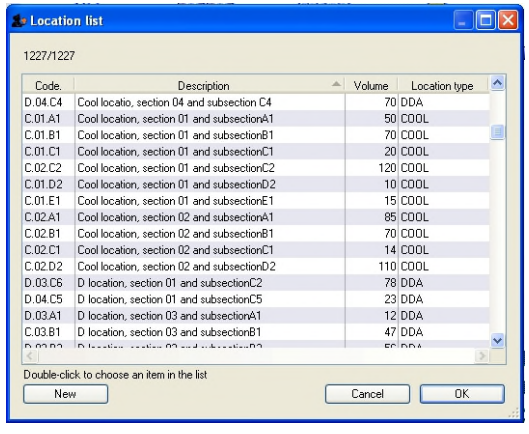
Category

Choose a category from the list.

Item categories are set up using the menu command Item > Show item categories... For further information see *Show item categories...* on page 71.

Shelf location

Type as much of the location (ie the first few text characters) 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 like this:



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

Essential drug

Check this box if the item is on your Essential Drugs List

ATC Category

Here you can enter category information. mSupply works best with the ATC classification system, but other systems can also be used.

DDD value

The Defined Daily Dose for this item. This is a text field, so you can enter the units as well (eg "1g" or "250mg")

DDD factor

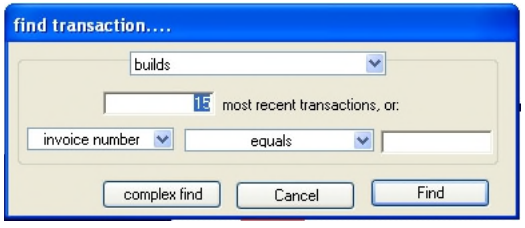
The DDD for this item divided by the strength (eg if the "DDD" is 1000mg, and the strength is "125mg", you would enter "8")

Pressing OK will accept the details and allow you to add another item.

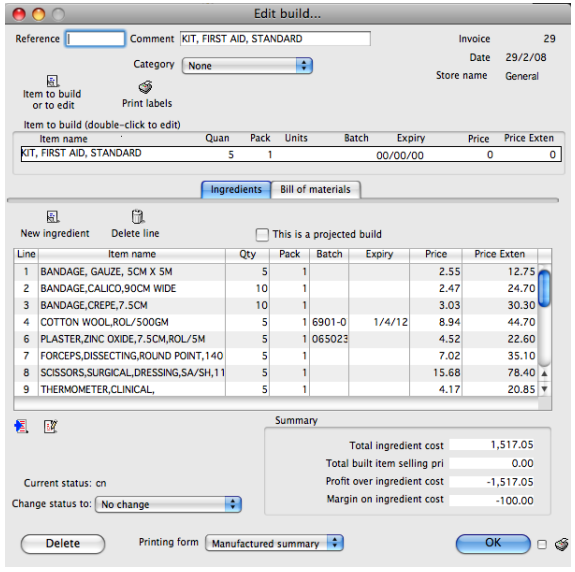
If you don't want to add more items, press cancel. Items previously added are still saved- just the details showing on the screen are not saved.

Show builds...

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 in the picture below.



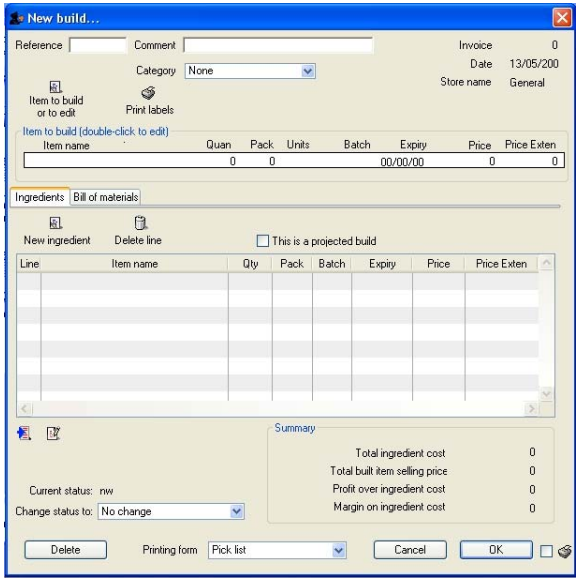
Here you can view a particular build by double-clicking on it.

New build...

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.

Note that you must have an *mSupply* version that allows use in manufacturing for this feature to be enabled.

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



Note: if you have restricted access to builds, you will not be able to see cost prices or the profit summary window at the bottom of the window

*The build window has two parts: The top part of the window records the details of the item to be built and the lower part lists ingredients that are used in the manufacture of the product.

Adding ingredients manually

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

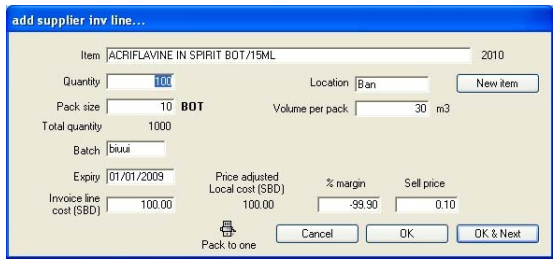
Firstly, if you are entering a projected build (one that you expect to perform in the future), Check the *This is a projected build* check box. If this box is checked, all items added will be placeholder lines rather than actual stock. Doing this allows you to enter your manufacturing schedule in advance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

Adding the item to be built.

- To add the item to build, click "New item to build" button. You will be shown the window below for receiving goods.



- 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	"Finalized." 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.

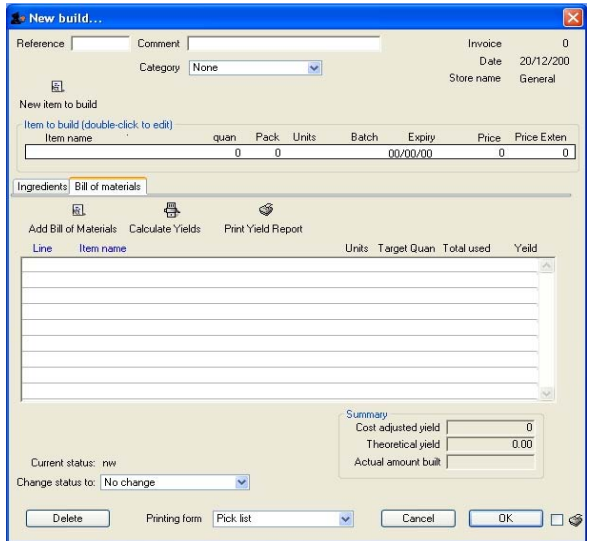
Converting projected builds into an actual build.

- 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 by clicking on the *Print labels* icon will print 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.

When you click on the “Bill of materials” tab in the build window you will be shown the following information:



Add Bill of Materials Button:

This button will add a Bill of Materials according to the formula entered for the item.

Before you click this button you should enter the item to be built including the quantity of finished product.

Once you know the actual yeild of finished product you can adjust the final quantity manufactured by double-clicking the item to build.

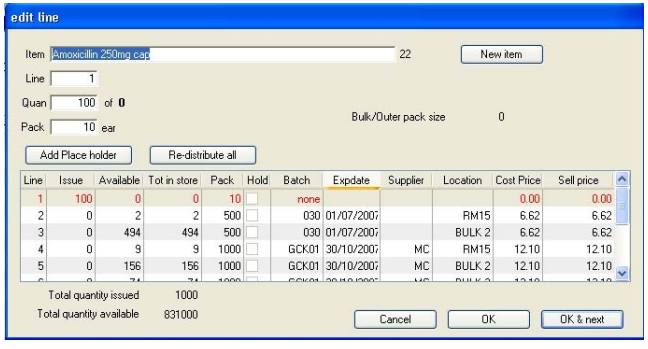
Print options

It's possible to print either a Pick list, detailing the ingredients and quantities, or a summary of the manufactured product. To achieve this, the box alongside the print icon in the lower right corner must be checked, and the appropriate form selected from the *Printing form* drop down box

Choosing stock after adding a bill of materials

Each item added is also added to the "ingredients" tab, but no stock is attached to the item- it is a placeholder item. This is done as mSupply can not 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)

Actually to issue stock for use in the build you need to return to the ingredients *Tab* and double-click each line, then choose stock from the available stock list. 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.



At this time (or later) you can 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.

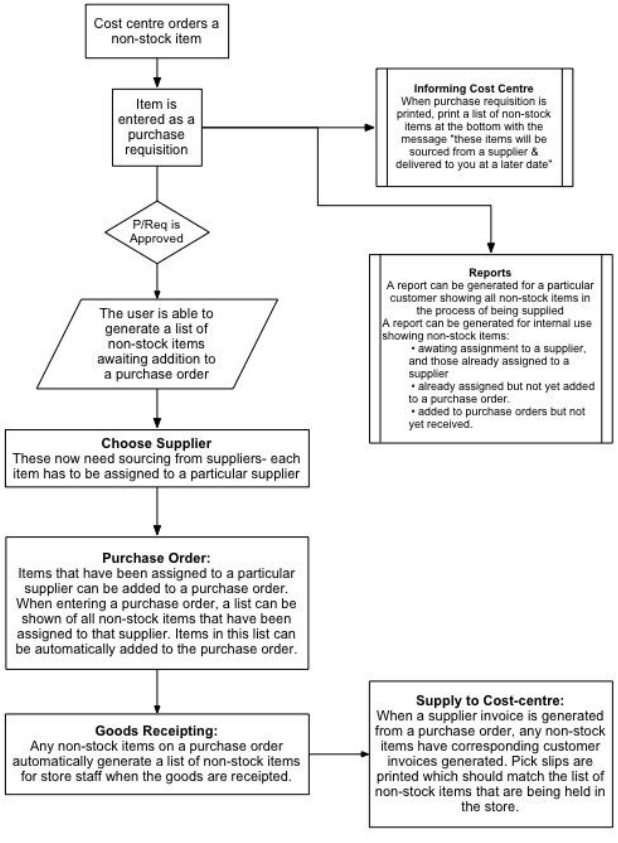
Calculate Yields button

This button 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.

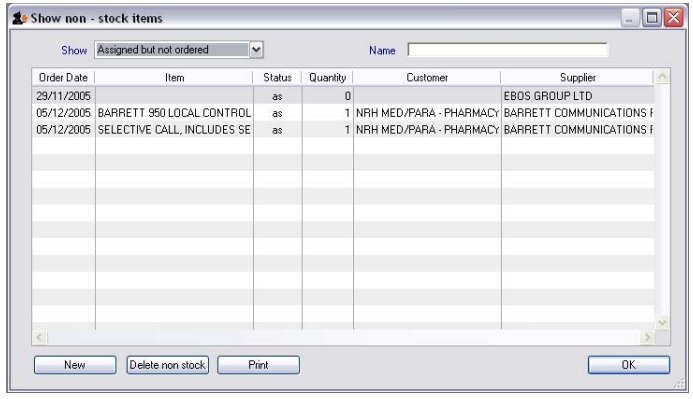
Manage Ad Hoc items...

Ad Hoc items are items that you don't keep in stock. When a customer orders an item that you decide will be a "one-off" purchase, you can enter it as an Ad Hoc item.

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.

The "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

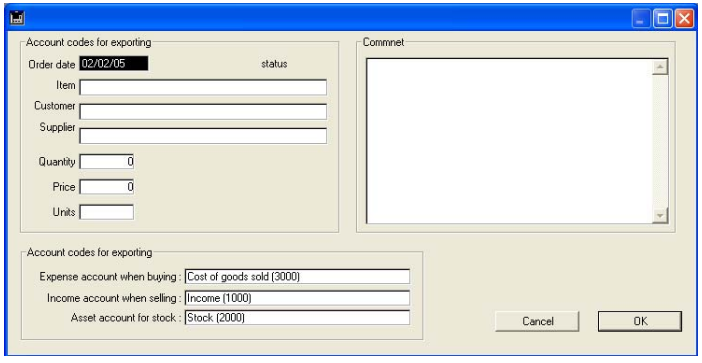
The "Name" field

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.

The "New" button

Clicking the "new" button displays a window like this:



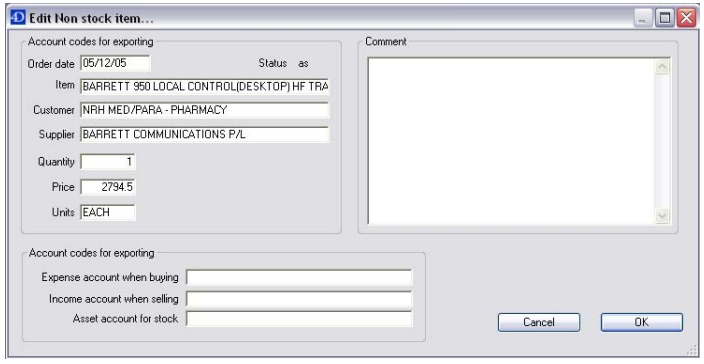
From this window you can add an item name, the name of the customer, then name of the supplier, the quantity to order, and add a comment.

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

You can edit the default accounting codes for the item or just leave them set to the default values.

Editing an Ad Hoc item

To edit an item, double-click it in the list to display the item details:

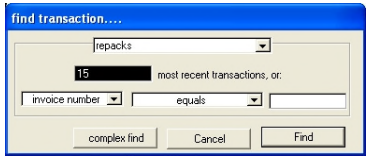


Adding Ad Hoc items to a purchase order

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. For further information see *The Ad Hoc items tab* on page 131.

Show repacks...

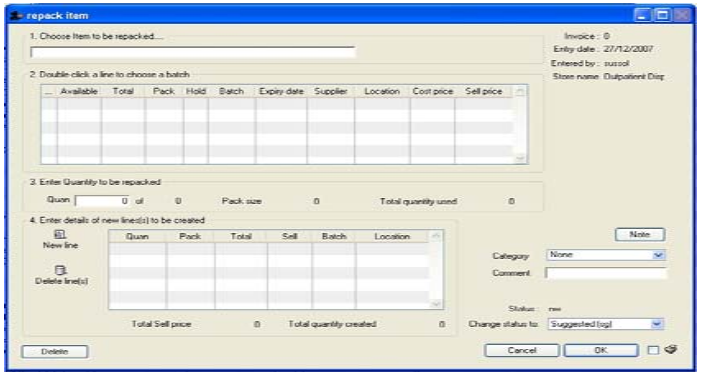
Repacked items can be viewed in the normal transaction list window.



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.

New repack...

This command will display a window where you can re pack a particular item into smaller packs.



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

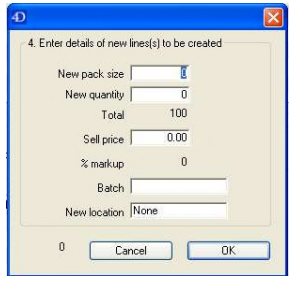
At [2.] double click a line to choose the batch; for repacking, batches cannot be mixed, and a single batch must be used.

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 on *Newline* 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 40x50 and 30x100. 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 below.

Printing

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 produce a detailed record of the re-packs.

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.

Note: currently there is no way to edit a repack transaction after you have clicked the "OK" button, so get it right the first time! (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) repacks can be deleted.

When to use inventory adjustments

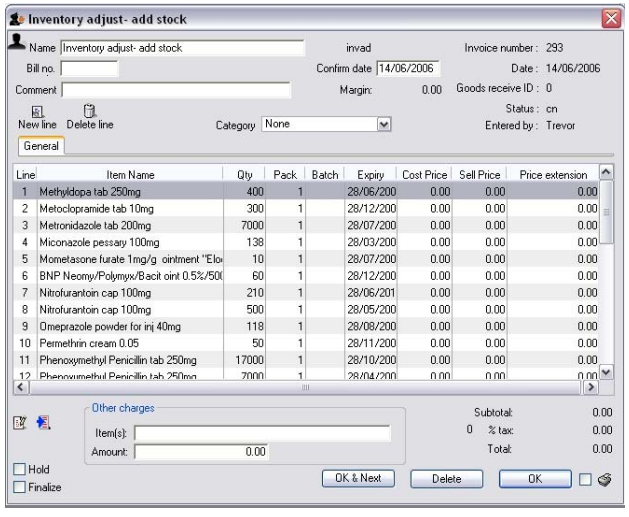
Items>Inventory adjustments. Inventory adjustments allow you to increase or

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)
- You do a stock take and find that physical stock is different to the stock recorded in mSupply. In this case the first thing to do is to see if you can find out where a mistake may have been made in issuing stock. For example, you may be able to retrieve extra stock mistakenly given to a client, or may need to ask a supplier for an order that has been entered but never actually received.
- Stock has been stolen.
- As a general rule, consider using a regular invoice to account for any transactions with a customer or supplier. Only use an inventory adjustement as a last resort.

Inventory adjust - add stock...

Use this function when you have done a stock take and find that the physical stock of an item or items exceeds the amount recorded in mSupply.



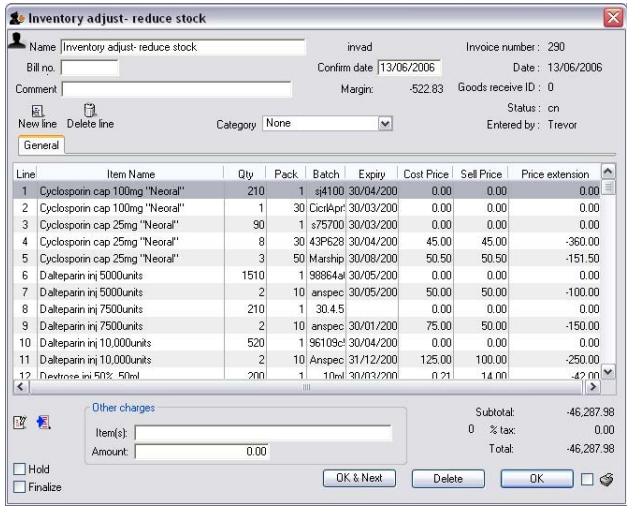
A transaction that is like a supplier invoice will be created. Enter the details in just the same way you would as if you were receiving goods from a supplier, except that mSupply fills in the *name* field for you automatically, and does not allow you to edit it.

After a stock take, this can be used to adjust any stock lines where the stock recorded in mSupply is less than the physical stock.

You will be asked to enter the margin when starting this transaction. For a normal inventory adjustment, set this to zero. If you are entering stock when starting to use mSupply for the first time, enter the percentage to apply here.

Inventory adjust- reduce stock

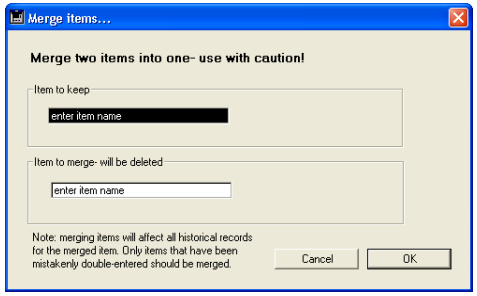
Use this function when you have done a stock take and find that the physical stock of an item or items is less thanthe amount recorded in mSupply.A transaction that is just like a customer invoice will be created, except that you do not choose the customer. See the section on entering customer invoices for a description of the entry procedure.



Note: Inventory adjustments are treated by mSuppy as a kind of Supplier invoice (or credit). To view or edit an inventory adjustment, Choose the "Show inventry adjustments" option from the "Item" menu.

Merge two items....

If an item has inadvertently been added twice, with slightly different descriptions, here is your safety line! Enter the item to keep and the item to be merged.



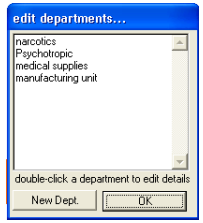
Important- if you merge two items that are in fact different, you will really mess things up. There is no un-do for this operation.
Note that merging items affects all historical records except for item names on finalized transactions, which will retain the original name for safety reasons.
Note: Items that either have a bill of materials or are used in a bill of materials can not be used for the item to delete/merge. If you try to do so, you will be warned.

Show departments...

Items>Show departments. This item allows you to create and edit item departments. Once you have created departments, each item can be assigned to a department.

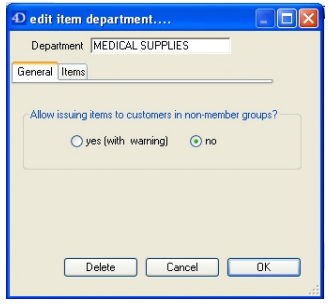
For example, a manufacturer might create departments for raw materials, packinging materials, and quality control reagents.

You are shown a list of departments:



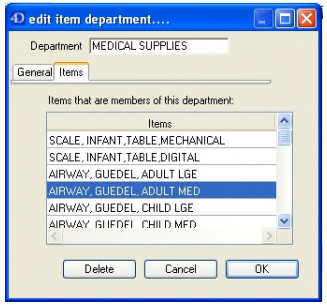
To add a new department, click the *New dept.* button.

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

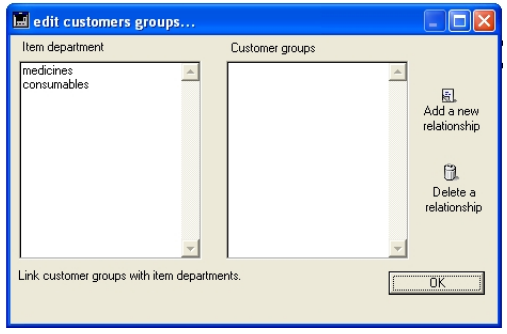
Double-click it to display the entry window, then click the *delete* button. Note that you can not delete a department that has item members. You will be warned if you try to do this. To delete a department with Items, click the items tab and note the items that are members, then edit those items (using 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. See the *Manage Item Access* entry below for more details

Manage Item Access...

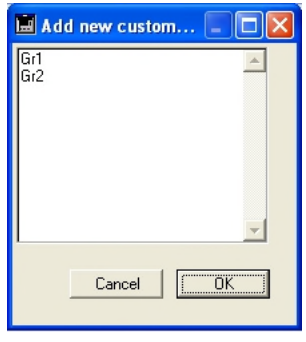
This menu item allows you to create and edit item departments.

Item departments are a bit complicated. Here's what you need to remember

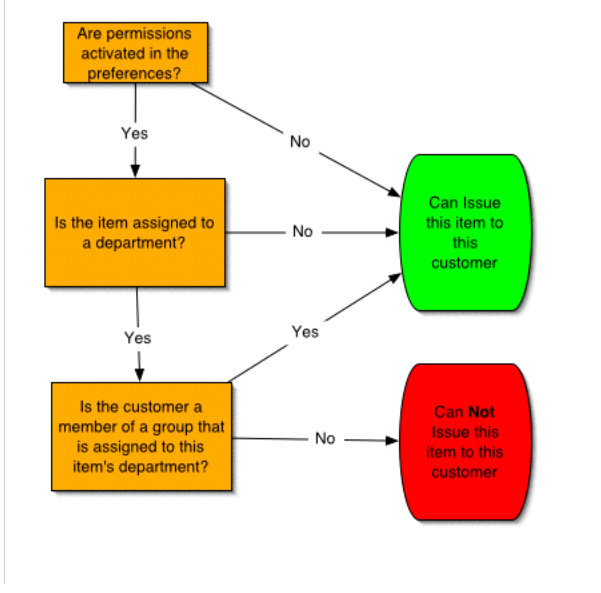
- Each customer is a member of one group
- Each item is a member of one department.
- Each group can have any number and combination of item groups in it.
- When you attempt to issue stock to a customer whose group does not contain the department of the item you are issuing, either a warning will be displayed or mSupply will refuse to issue the stock, depending on the entry for that department in the "show departments" list.



- The left hand list shows the available departments
- The right hand list shows the customer groups that are members of the department which is highlighted on the right hand side.
- The icons at the right side allow you to add and remove groups from 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.



- Depending on how the item department options are configured, attempting to issue an item to a customer whose group is not a member of that department will either result in a warning message or in mSupply refusing to issue the stock.
- Note that the option must be turned on in the preferences under the *Invoices2* tab before this option will have any effect.
- Here is a summary of how department groups affect whether an item can be issued.



Manage Drug interaction groups

Items>Manage Drug Interaction. Drug interaction groups allow you to specify groups of items that interact with each other, and then specify a warning if these items from interacting groupsare issued to the same patient.

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

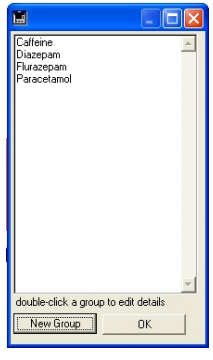
Steps in setting up interactions:

1. Choose a way of defining interaction groups. We recommend you use the system being developed at <http://www.drugref.org> as in future, mSupply will be able to check automatically interactions with the drug interaction server that is in development there.
2. Define which items are in which groups.
3. Add interactions between groups.

Let's look at each of those steps in turn

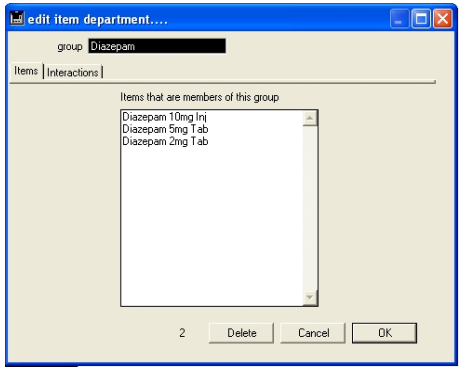
Definining interaction groups

Choose Items> Manage Drug interaction groups... You will be shown a list of groups:



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

Here we have double-clicked on diazepam:

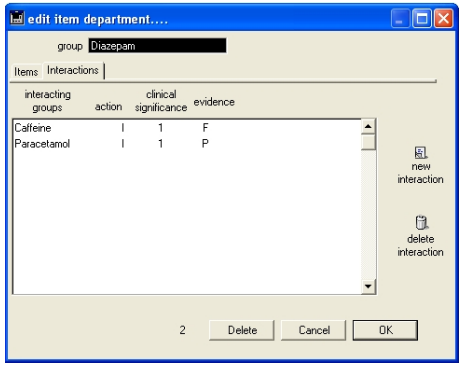


The window has two tabs.

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

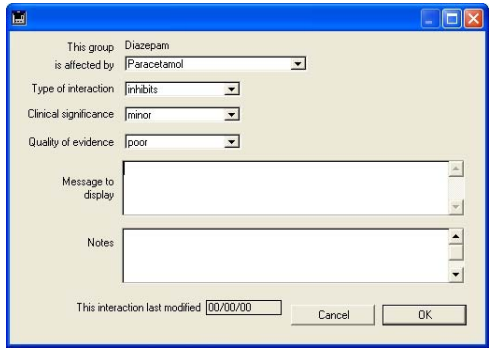
You assign an item to a group by viewing the item details (Choose Items > Show items), and setting interaction group from a drop-down list.

The "interactions" tab shows a list of groups that the current group interacts with.



This tab has two buttons either 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 interaction you wish to edit. You will be shown a window like this:



You choose the group that affects the current group, and then enter details about the interaction by choosing from the drop-down lists.

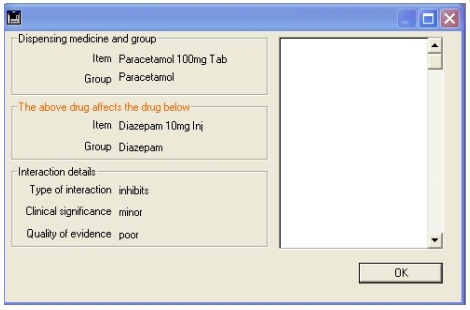
The choices available are:

- Type of interaction
  - Inhibits
  - Augments
  - No effect
  - Conflicting evidence
- Clinical Significane
  - Minor
  - Moderate
  - Major
  - Unkown
- Quality of evidence
  - Poor
  - Fair
  - Good
  - Unknown

You can enter a message to display when an interaction occurs, and any notes you may want to record. These fields are optional.

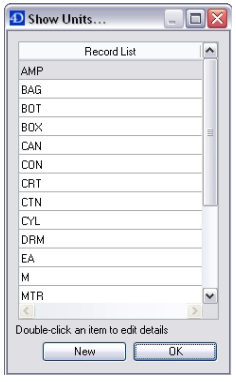
When you are issuing items in dispensary mode, you will get a warning like

this if the patient has been issued both the items in question:

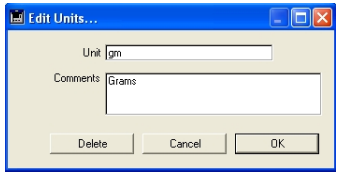


Show units...

Items>Show units. Choosing this item shows a list of units:



Click the "New" button to add a new unit.

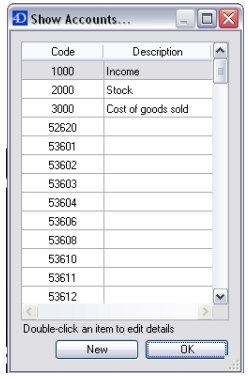


Note that you will need to have sufficient user permissions to use this function.

Warning: do not change the record for one unit into a different unit, as all items using that unit will be updated.

Show Accounts...

Items>Show accounts. 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 integrate your information with external accounting software. Double-click a line to edit its details. Changing an account code or description will affect all items that are assinged to that account.

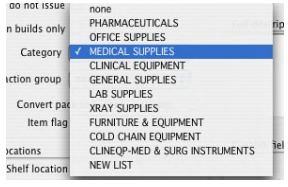
Click the "New" button to add a new account.

Fill in the code, description field and select the account type. The field “items that use this account code” itemline(s) will be displayed for each account code. Account types are “Expense“, “Income“ and “Asset”.Click on *OK* button to add and *Delete* button to delete new account.

Show item categories...

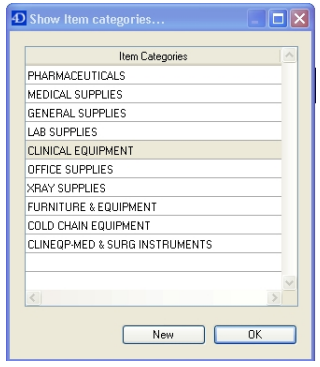
Using item categories

When viewing an item’s details, a category can be assigned to that item, as shown in the following graphic:



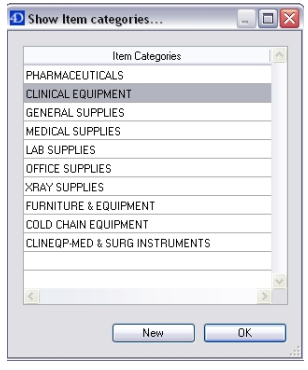
It is recommended that each item is placed in its appropriate category, but there is the option to select <NONE>

Selecting this item opens the *Show Item Catgories* window, showing the list of categories to which items may be allocated.



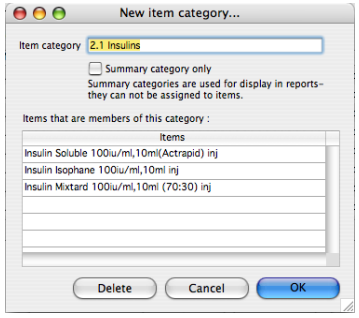
Reordering the list

The Item Categories list appears initially inthe order in which the entries were made, but reordering the list is very straightforward. Simply select (by single clicking) the category name which you wish to reposition in the list and drag it to its new position. In this example, the entry <CLINICAL EQUIPMENT> has been repositioned from fifth place to second place.



Adding a new category

To add a new category, click the New button and the following window appears:



The category name is entered in the "Item category" field, and the Items panel remains blank; only after items have been assigned to the newly defined category will they appear under "Items"; this is performed when adding a new item, Item> New item, or when editing an existing item.

You can report on the value of items issued according to their item category, and if you use dot notation you can even produce summary reports that group item categories together. For further information see *The 2 period comparison by item category report* on page 176.

Editing a category name

To edit the name of an existing category, in the *Show Item Categories* window, double-click on the name of the category to be edited; the New item category window appears with the selected category name already highlighted in the "Item category"field.

You can now change or edit the category name.

Note that all items in the selected category will now appear under the edited name; the previous name of that category will no longer appear in the list.

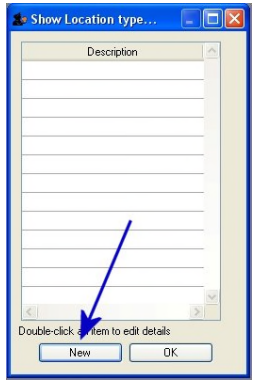
Show Locations..

Defining location type

Note that it is better to define the location type before the location. This section discusses location types first, then returns to explaining locations.

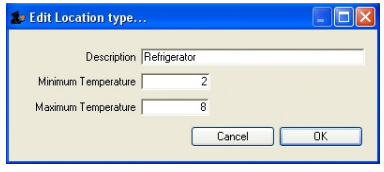
Location types

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



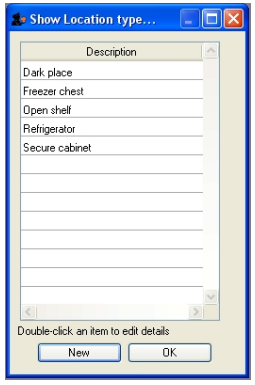
The window that appears allows you to define the criteria for the various types of location in your store - e.g. the permitted temperature range, whether location must be dark, etc.

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:



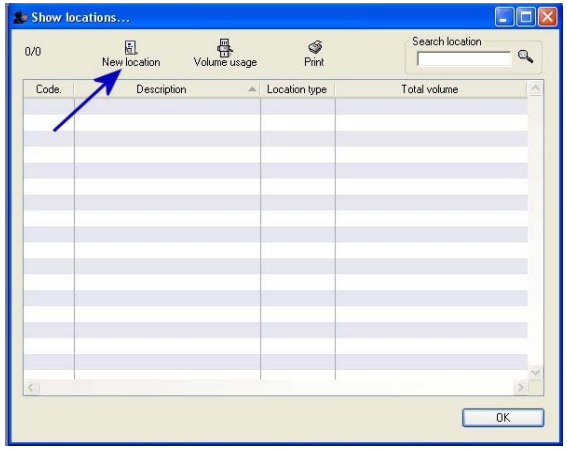
It is worth emphasising that the list does not show the actual store locations, but the types of locations.

Should you wish to edit the details of any storage type,double click on it; you can also add new location types when necessary.

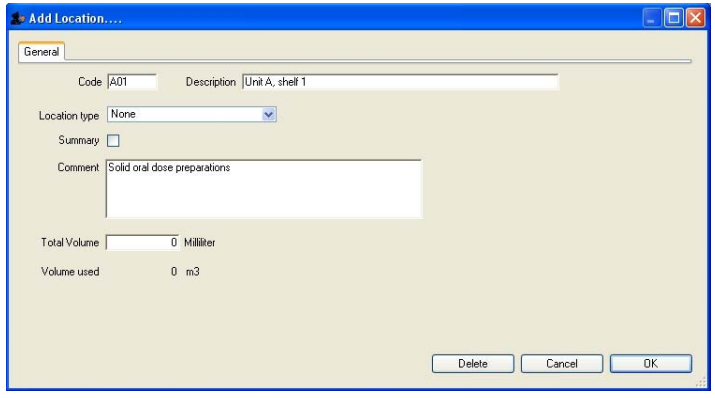
Location - Defining locations

Before you can associate an item with a specific location (e.g. Shelf D4, Refrigerator 2, etc.), these locations must be defined and entered into mSupply.

From the menu, choose *Item > Show locations,* even if you have not yet defined any locations, as the window which appears has a *New location* button for this very purpose .



Clicking on *New location* brings up this window:



Here you can enter the code, description and appropriate comments, as shown.

Location volumes

You can also enter the volume of the location you are defining. Volumes are stored in cubic metres [m^3], but smaller volumes - e.g. 5l - may also be defined, provided the appropriate unit ("litres" = "l" in the example) is

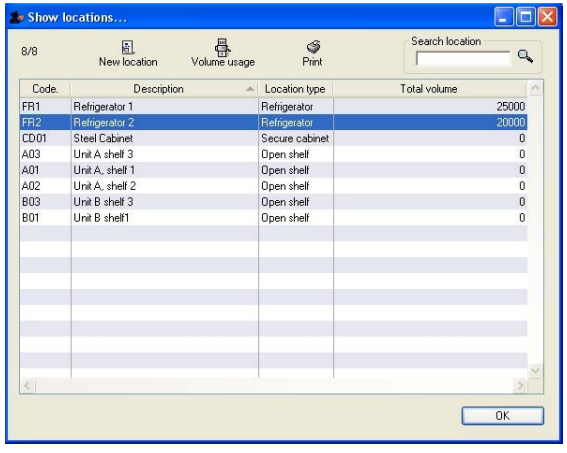
entered following the number. See also *Volume per pack* on page 46

This feature 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. (You would also need to know the volume of the vaccines that you are ordering).

The Location type field initially has the entry 'None", and before using this feature, you must, as discussed earlier, define the various location types - e.g. Secure cabinet, refrigerator, etc.. [For further information see *Defining location type* on page 72.]

Once the locations have been defined, you can associate each item in your store with its location, but do remember that a location has to be defined before an item can be associated with it.

To view the locations you have defined, choose *Item > Show locations*, and you will see a list of location codes and descriptions. In the example shown, two refrigerators are listed, one with a capacity of 25 litres, and one of 20 litres - with their volumes expressed as millilitres.



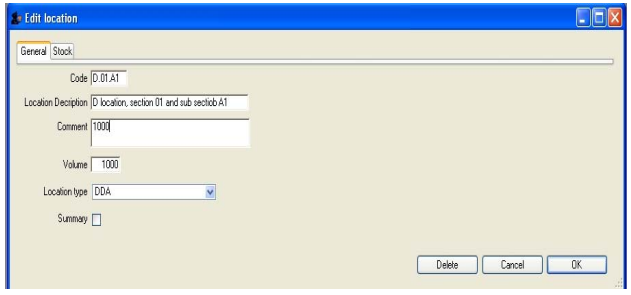
Clicking the *Volume usage* button will fill in the volume usage column with the volume used at each location provided that the volume of the location has been defined.

If you want to see a particular location, enter the first characters of the location code or description into the *Search location* box and click the magnifying glass icon to show matching locations.

Editing a shelf location

Double clicking on a line allows you to view and/or edit location details.

When you double-click on a line, the following window is displayed.

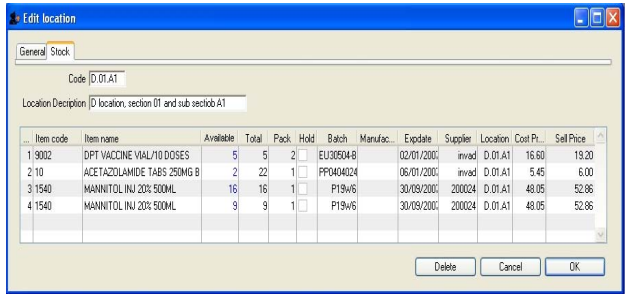


General tab

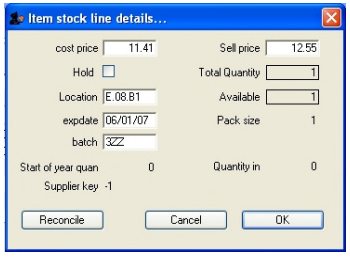
The *General* tab shows code, location descripion, comment, volume, location type and summary.

The Stock Tab

The *Stock* tab shows a list of existing stock linesfor that particular location. Clicking on the "Stock" tab diplays the following window.



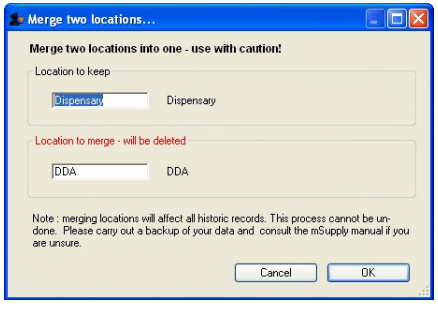
Double-click on a particular batch of interest to view further information.



Merge 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 Supplier > Merge two locations, this window is shown



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 locationto merge. When you have checked that the information is correct, click the *OK* button.

Check stock is correct...

Item > Check stock is correct.

Note: This command is disabled in Version 2 and later versions, as this operation is performed 'on the fly'.

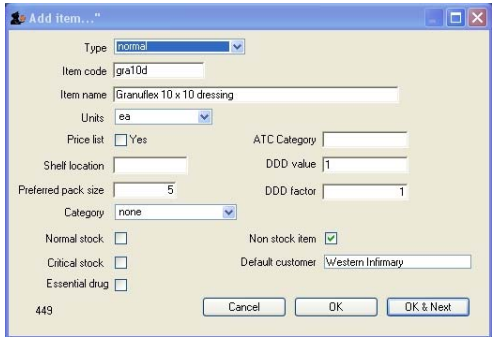
Each item has a "stock on hand" figure which is kept up to date by mSupply. However, we have left this command here in case you suspect your stock on hand figures are wrong. If mSupply is doing it's job you should get an "*all stock records were already correct*" message when choosing this item. (Please report to us if you don't!)

Non-stock items

There are occasions when you need to order an item that is not on your stock list, and you do not wish to add it to your stock list. Such an item is considered a '*non-stock item*'..

The procedure for dealing with non-stock items will be described.

Step 1



From the *Item* menu, select *New item*, and enter the particularsas 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. To place an order for a non-stock item, a customer must be identified, and this customer becomes the *default customer* for the item.

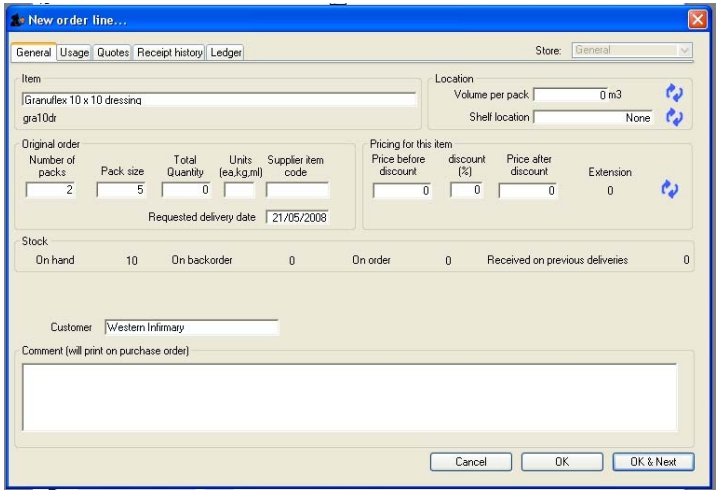
Should you need to order the same item for a different customer at a later

date, the new customer is entered at the time the purchase order is being created.

The example is for non-stock item Granuflex dressing.

Step 2

Create the Purchase order which will include the non-stock item,



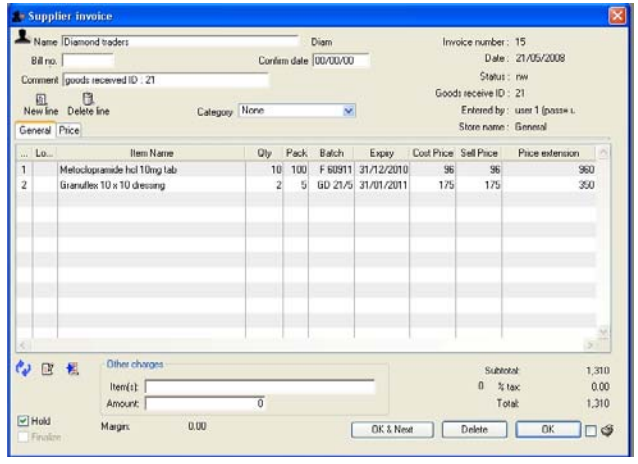
You will observe that the *Customer box* already contains the default customer, in our example, Western Infirmary. You are able to edit this box, and select another customer - for example when a subsequent order for this item is placed for a different customer.

Step 3

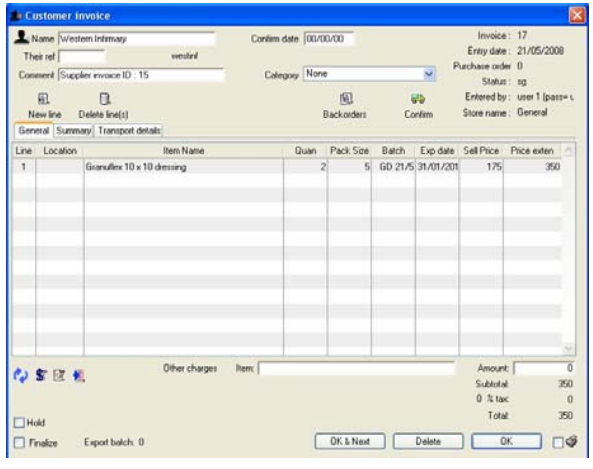
On receiving the order, proceed as usual to the *New Goods receipt* form.

In our example, we have ordered 2 items from Diamond Traders, one of which is our non-stock item..

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



Uncheck the *Hold* box (bottom left corner) then click on OK, and an *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, Western Infirmary



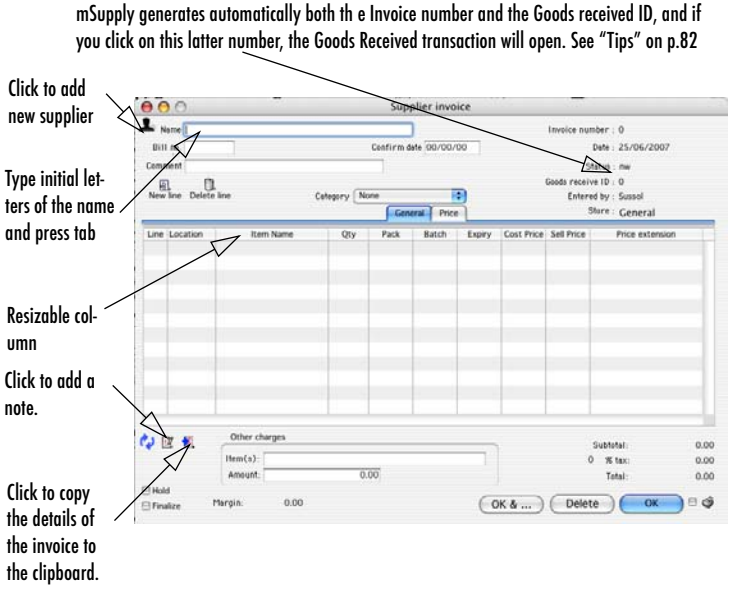
Receiving Goods- a Supplier Invoice

All goods you receive should be entered into mSupply by entering a "Supplier Invoice" or by using the purchase order system, which ends in the creation of a supplier invoice. In some countries a supplier invoice is called a "bill"

Entering a supplier invoice puts the goods into stock ready for issue. It 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 receipting system. For further information see *Viewing and editing supplier invoices created via Goods Receipts* on page 138.

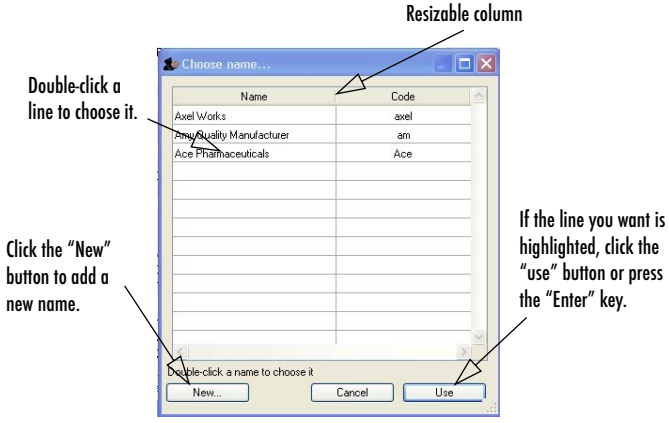
Choose Supplier > New invoice. The supplier invoice entry window will open. The cursor will be in the *Name* field.



Information to enter in the main window

Name

Enter the first few characters of the supplier's name, and then press the *Tab* key. Any name that has the "supplier" check box checked can be used. If only one name matches the entry, the supplier 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* arrows or the "d" and "u" keys on the keyboard to move the highlighted item down or up, and then use the"enter" key to choose the highlighted item..

Bill no.

Enter the bill number- the serial number on the bill the supplier gave you.

Comment

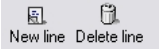
Enter anything you like. Now you've run out of things to enter!

Category

Category for supplier transaction is created in File>Preferences>Invoices1 .

The categories created are listed in this category field.

Buttons in the supplier invoice window



New line

Will add a line to the invoice. This command can be used on any invoice that is not finalized. 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 finalized invoices

Delete line

Will delete a line whose batch is "none". To delete other lines, you must first edit the line and set it's quantity to zero.

The Hold Check Box

Checking this box means that the invoice can not have it's status changed. If it's status is "nw" it can not become "cn" (confirmed). If it is "cn", it can not be changed to "fn" (finalized).

Note the "nw" status invoices do not have the stock entered into the system yet, so this allows you to enter a supplier invoice, but to make sure the stock is not available for issued until all the details have been checked.

The Finalize Check box

This check box allows you to finalize an invoice when you click the OK button. This will mean that it can no longer be edited, so be sure first that all the details are correct. Note that only users with "Can finalize individual invoices" checked in their user permissions can operate this check box. Other users will be warned if they try to turn it on, and the check box will automatically uncheck.

If this check box is not checked and OK button is clicked, it will display a confirm window with a message "Confirm invoice and enter into stock now?"If you click on "Later", the invoice will have a status "nw"(new). If you click on "confirm", the invoice will be confirmed.

If this check box is checked and if the invoice is not yet confirmed, it will display a confirm message.If you click on "Later", the invoice will have a status "nw"(new) and will not be finalised.If you click on "confirm", the invoice will be confirmed as well as finalized.So be very careful! A finalised invoice may be viewed and/or printed but it can not be edited.

If "Confirm supplier invoices without asking" is checked in the "Invoices 1" tab of the Preferences window, so all invoices will be finalized (whether you like it or not!)

Copy button

This button copies the invoice details to the clipboard, allowing you to paste them into a spreadsheet or email message.

Delete

Allows the deleting an invoice.

When you press delete button, it will leave no trace of your entry, and the invoice number assigned will be reused.

Note:Unless the invoice has a status of "nw" if you have added lines to an invoice, you must manually delete eachline 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 cancel will delete the invoice and automatically delete each line
sg	The cancel button will only delete the invoice if you have first deleted all lines using the "delete line" button
cn	Same as for status "sg"
fn	No changes or deletions can be made

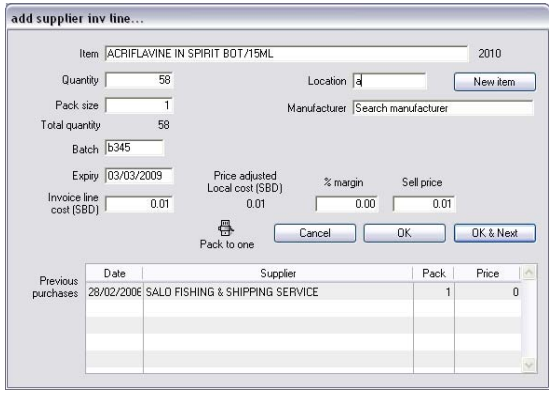
If the invoice has already been saved by previously clicking OK, cancel will be disabled or not present.

OK

Saves the changes you have made and exits the window. You are given the opportunity to print if you want to. If the invoice status is "sg" a packing slip will be printed, otherwise an invoice will be printed. (Tip: you can bypass the print messages by holding down the shift key as you click OK)

Adding new lines to a Supplier invoice

Click the *new line* button to add a line to the invoice. A window will appear like this:



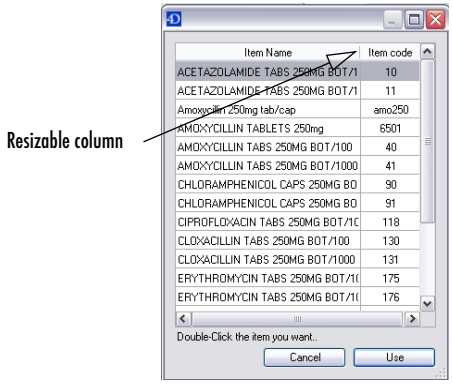
The cursor will be in the field ready for you to enter the item name.

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 which to choose the item you want to issue by double-clicking it: 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.



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 l 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 you can't find the item you are entering, you can click new item to add the item.

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 in the first place!

Now there are a series of fields to enter to fill in the basic information for the line

Num units

How many did you receive?

Location

The location of the item has to be entered in this field.

Pack size

How many units in a pack

Note: Say you receive 50 packs of 100 amoxycillin caps, you should enter "50" in the quantity field and "100" in the pack size field. However, if you issue the capsules in strips of 10 to customers (eg you allow them to order 20 or 30 capsules), you should enter quantity " 500" and pack size "10"

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 56 years!

Cost Price

Enter your cost price for one pack of whatever size pack you entered above.

Margin and Sell price

If you have allowed editing of these fields in the 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).

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.

Manufacturer

This field will only be shown if you have turned the option on in the preferences.

You enter a manufacturer just the same 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 correct manufacturer from the list if more than one choice matches what you typed.

If the manufacturer you want to choose is not in the list, you can click the *New* button to add a new manufacturer.

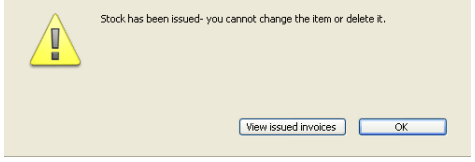
Editing lines on a supplier invoice

Supplier invoice lines can be edited at any time until the invoice is finalized.

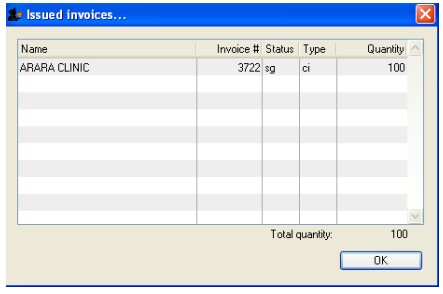
To edit a line, simply double-click on the line you wish to edit.

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:



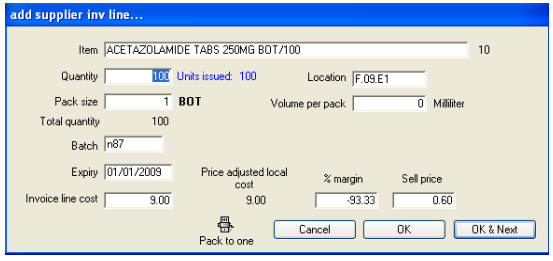
Clicking *View issued invoices* will show you a list of customer invoices that this particular line was issued to:



Clicking *OK* will take you to the item issue window, where certain fields will not be able to be edited. Also, you will not be able to reduce the quantity you received below the quantity already issued.

The item issue window

You will be presented with a window where you can edit the line details in much the same way as if you are entering new details.



In the graphic above you will notice the "units issued: 100" text in blue to the right of the *Quantity* field. This will only be present if stock has already be issued to customers. You can click on that text to display a list of issued invoices as described above with the *View issued invoices* button.

Note that the *OK & Next* button is very useful for editing a whole invoice. Simply double-click the first line of the invoice, then use the *OK & Next* button to go from line to line.

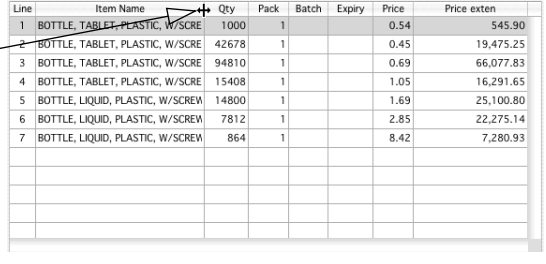
Note also that many options for the window are set in the mSupply preferences. For example, whether or not line one is chosen automatically, and whether you can use placeholder lines.

Working with the list of invoice lines

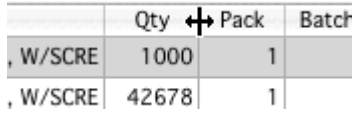
Resizing Columns

These columns are resizable. If any of the column data is cut-off or remains hidden, the column width can be increased or decreased. It can be done by positioning the mouse at the borders of the column. The cursor changes to a cross with arrowheads on the horizontal bar. Click and drag the cursor to the left or right.

Mouse changes to divider sign



Line	Item Name	Qty	Pack	Batch	Expiry	Price	Price exten
1	BOTTLE, TABLET, PLASTIC, W/SCRE	1000	1			0.54	545.90
2	BOTTLE, TABLET, PLASTIC, W/SCRE	42678	1			0.45	19,475.25
3	BOTTLE, TABLET, PLASTIC, W/SCRE	94810	1			0.69	66,077.83
4	BOTTLE, TABLET, PLASTIC, W/SCRE	15408	1			1.05	16,291.65
5	BOTTLE, LIQUID, PLASTIC, W/SCREW	14800	1			1.69	25,100.80
6	BOTTLE, LIQUID, PLASTIC, W/SCREW	7812	1			2.85	22,275.14
7	BOTTLE, LIQUID, PLASTIC, W/SCREW	864	1			8.42	7,280.93

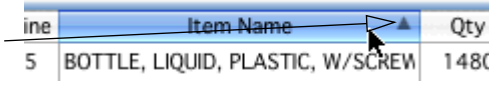


	Qty	Pack	Batch
, W/SCRE	1000	1	
, W/SCRE	42678	1	

Sorting Columns

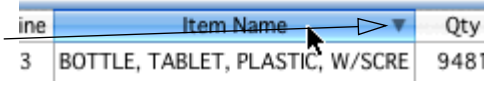
Columns can also be sorted either in increasing order or decreasing order by clicking on the header.

Increasing order



ine	Item Name	Qty
5	BOTTLE, LIQUID, PLASTIC, W/SCREW	148(

Decreasing order



ine	Item Name	Qty
3	BOTTLE, TABLET, PLASTIC, W/SCRE	9481

The columns can be moved by clicking on the header and dragging it to the new position.

Deleting a line on a supplier invoice

To delete a line, do one of the following:

- Click on the line you wish to delete, then click on the *delete line* button (it's got a trash can icon)
- Double-click the line to edit it (see above) and set it's quantity to zero.

Click the *OK* button. You will be asked if you really want to delete the line. Click *OK* to proceed.

Note: you can not delete a line from a supplier invoice that has been finalized.

Selling price calculations in mSupply

mSupply uses a number of pieces of information to calculate the selling price of an item. This can be confusing, but it also gives you a lot of power to have the price calculated just the way you like it.

Here's the logic mSupply uses:

- Does the item have a selling price specified? If it does, this price will be used no matter what other information is available. Note that the price entered for the item is for one unit. The price will be multiplied by the pack size to get the selling price for the line you are entering.
- Is either the margin specified for the supplier or the margin specified for the item zero? If so, the other (non-zero) value will be used?
- Is there a margin specified for both the supplier and the item? If so, the preference "item margin overides supplier margin" will be examined to see if it is on or off. If it is set, the item margin will be used, otherwise the supplier margin will be used.

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.

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. This window will be shown:

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 pricing rules as described above will still apply.

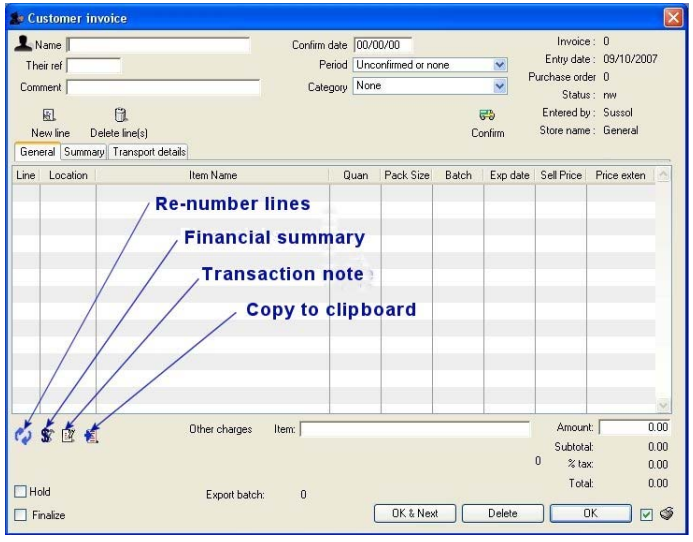
Tip: Rapid access of Goods Received note from Supplier invoice, and vice versa

Supplier invoices show the number of the *Goods Received* transaction in the upper right area of the window. By clicking on the actual number, that particular *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.

Issuing Goods to a Customer (Customer Invoices)

Creating a new Invoice

Choose *new invoice* from the *customer* menu. A window like this will open:



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 icon to the left of 'Name'.

Their ref

Enter the customer's order number if there is one

Comment

Enter any information you wish to record here

Buttons in the customer invoice window

New line

Will add a line to the invoice. This command can be used on any invoice that is not finalized. 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 finalized invoices

Delete line(s)

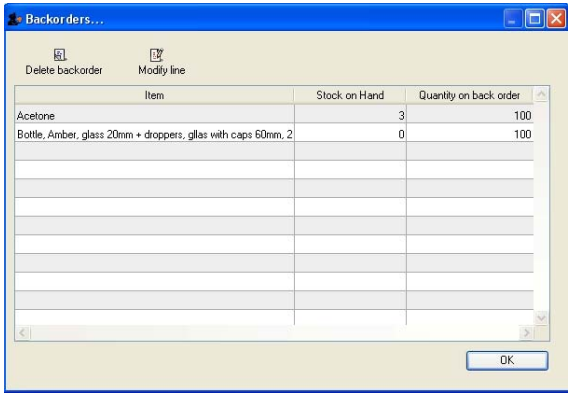
Will delete a line which has been selected, and appears highlighted; multiple lines, which do not need to be sequential, may also be selected and deleted using this button.

Backorders

Note: This icon is displayed only if '*We run a backorder system*' is checked in the *Preferences>invoices 2* options. Clicking this button shows you a list of items that are on backorder for the customer you have chosen. If you click the button before choosing a name, you'll be told so!. For viewing the backorder list of items, you must first confirm the transaction.

Confirm

When this button is clicked, the status of the order changes from new (nw) to confirmed (cn0); modifications may still be made.

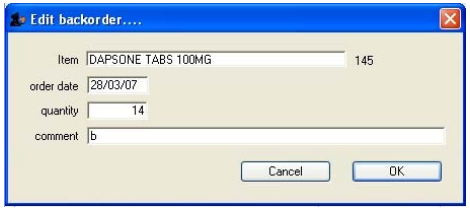


Delete backorder

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.



Note: The Backorders button will be hidden if you have backorders turned off in the Preferences.

Confirm

This button is only available for invoices with status "sg" (suggested). For further information see *Confirming an invoice* on page 92.

Small icon buttons in the Customer invoice window

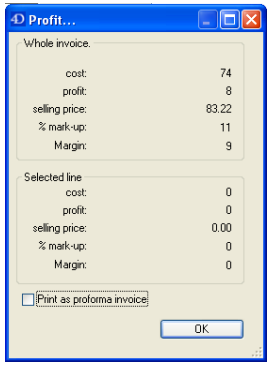
There are a row of small icon buttons at the bottom left of the window. Hovering the mouse over the button gives a description of what the button does.

Reorder lines

This button 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.

Financial summary

Clicking this button shows you a summary of the cost and selling price information for the invoice.



Print as Proforma invoice: If you check this checkbox rather than printing a pick slip, a proforma 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

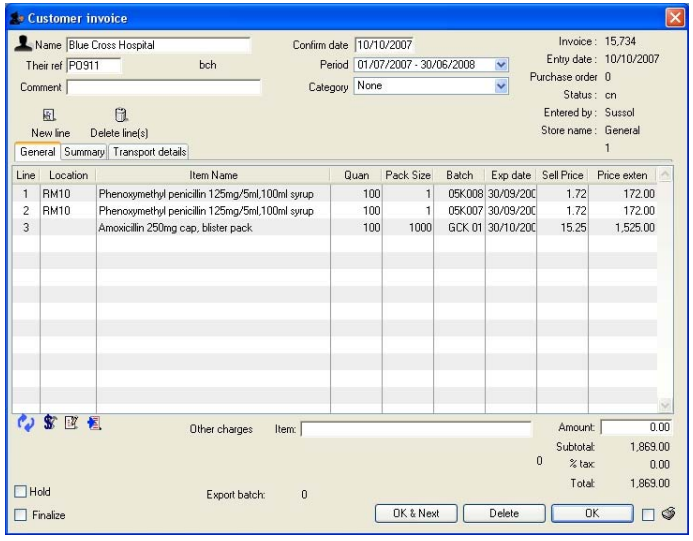
Copies the entire invoice to the clipboard

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.

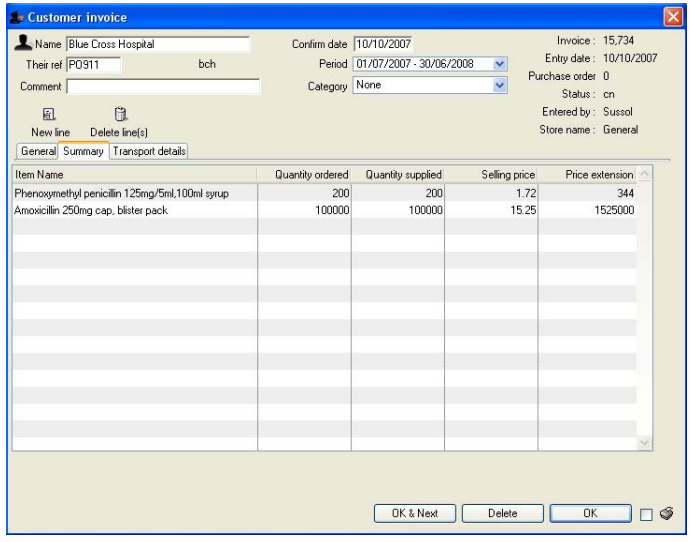
General

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:



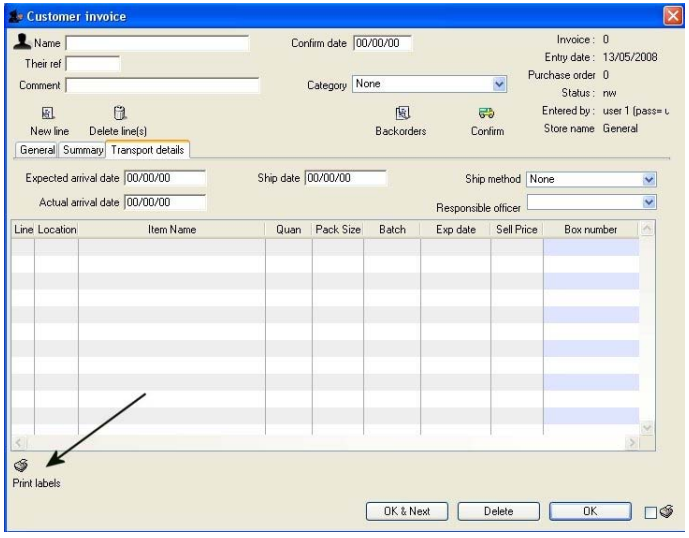
Summary

The Summary 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 tab is selected.



Transport Details

Selecting this tab displays the following window:



Here you can add information about the method of transportation and related information related to shipping - e.g: Ship Date, Ship Method, Responsible officer, box number.

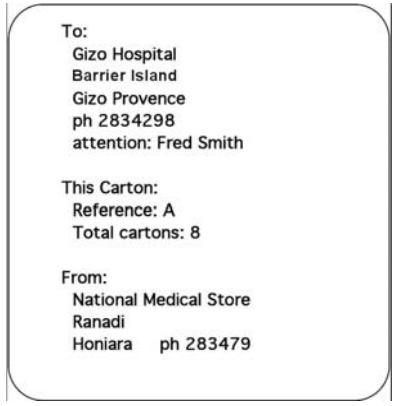
The choice list for Ship methods is set by choosing *Customer > Show shipping methods*.

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 and groups*, then double-click a user name to set up each user as a responsible officer (or remove them from the responsible officer list)

If you enter information here, you can report on performance of your transport operations in various ways using the "Transport Report" in the "Report" menu.

You can enter a box number (or other reference) for each line by clicking on a line in the list, and then clicking again in the "Box number" column. Once you have started entering box numbers, you can use the "Tab" key to advance to the next line.

If you are using the *Box number* feature, and having allocated a box number to every item in the order, you may then print labels for each box by clicking on the *Print labels* icon, when the requisite number of labels will be printed, and may be attached to the appropriate box. An example of a printed label is shown:



Finalise

This check box, under the *General* tab, 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 check box will automatically uncheck.

If the invoice is not yet confirmed, it will be confirmed as well as finalized 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.

If this check box is checked but dimmed out, it means that "Finalize customer invoices automatically" is checked in the "Invoices 2" tab of the Preferences window, so all invoices will be finalized (whether you like it or not!)

Delete

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. When an invoice has been deleted the invoice number assigned will be reused.

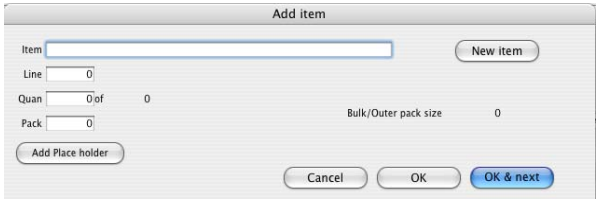
OK

Saves the changes you have made and exits the window. You are given the opportunity to print if you want to. If the invoice status is "sg" a packing slip will be printed, otherwise an invoice will be printed. (Tip: you can bypass the

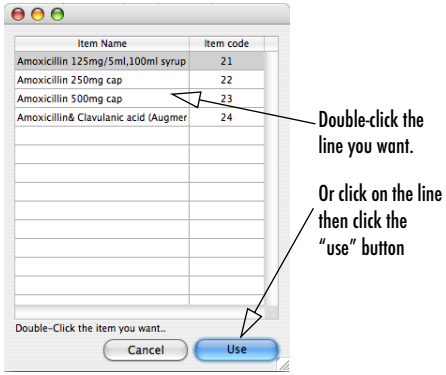
print messages by holding down the shift key as you click OK)

Adding lines to an invoice

Clicking *New line* will bring up this window:



The first thing to enter is the item name or code. Enter as much of the item name as you know, then press *tab*. All items whose name or code starts with the text you have entered will be displayed.



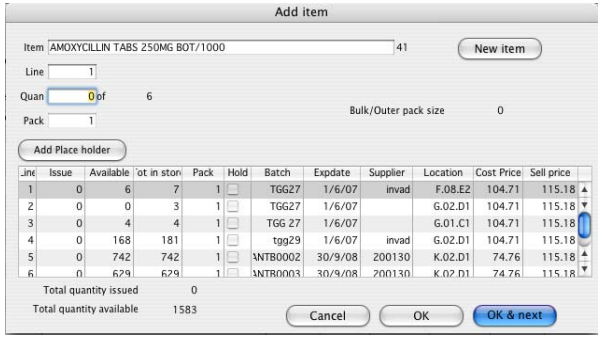
Double click on the one you want, or click cancel to try again.

If no entries match the request, the text will read *try again*. You can try as many times as you like! If you decide the line is not entered in the system, click *New item* to add the line.

If only one entry matches the request, it will be chosen automatically, otherwise you are presented with a list of matching entries.

Once you have the line you want, the list at the bottom of the window will display the available item lines (if any). Each item line may be a different pack size, batch, expiry, price. The lines are numbered in the left hand column You can choose the line you want in one of three ways:

- By typing the line number into the line number field
- By double-clicking on the line in the list
- By clicking once on the list to select the line you want, then clicking again in the issue column to allow you to directly edit the issue amount in the list



Once you have chosen your line, the number available will show to the right of the quantity field, and the pack size and batch will be filled in. You can enter any number greater than zero and less than or equal to the number available. Once you have entered a quantity, the value will be entered in the "issue" column in the list.

Click OK to return to the main invoice screen, or OK & next to add another line.There are a number of situations that are more complicated

If the quantity ordered by the customer can not be totally filled, enter a place holder line for the balance outstanding. For further information see *Place-holder lines* on page 90.

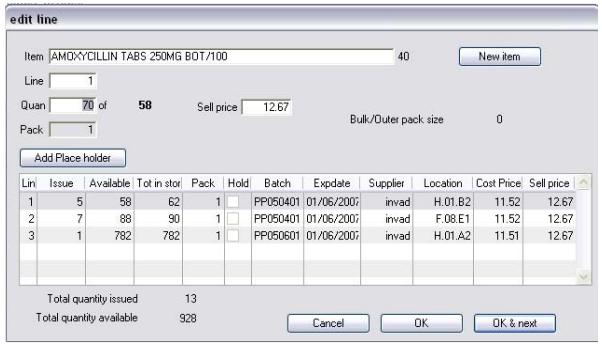
Issuing from multiple lines

If the quantity you wish to issue can not be filled by the available quantity of a single line, you can issue from multiple lines without leaving the window. There is an automatic and a manual way of doing this

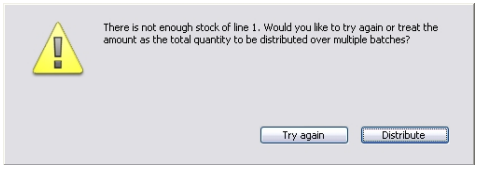
Automatically issuing from multiple lines

To do so automatically, simply enter the total quantity you wish to issue into

the "Quan" field. Note that this should be the number of packs. The pack size of the currently selected line will be used to calculate the total quantity required. In the example below, the user has entered 70.



When the tab key is pressed to leave the field, if the quantity entered is more than there is available for that line, this message is displayed.

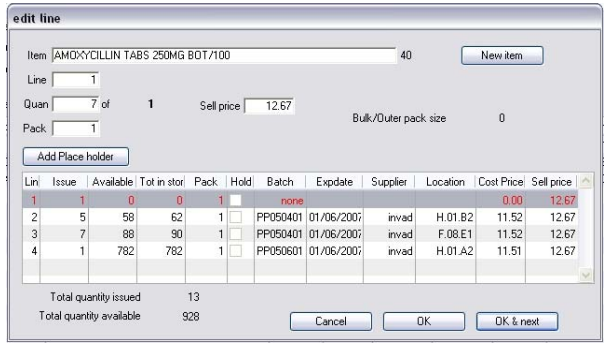


If you accidentally entered more than you intended, click "Try again", otherwise click the "Distribute" button. In the example above, all 58 available of line 1 will be issued, and 12 will be issued from line 2.

Placeholder lines

If you have set "Allow placeholder lines" in the preferences, and if there are no lines available, or none of the lines are suitable (for example, this order needed strip packaged stock, and the available lines are all bulk packs), then click the *Placholder line* button. You can now add a *place holder line* that will record the quantity and pack size until you either get stock, or you confirm the order, at which time the item will be moved to back order or deleted (depending on how you have set your preferences).

As in the window displayed below, placeholder lines are coloured in red so you can easilty identify them.



Note that 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.

When confirming an invoice the following actions will occur:

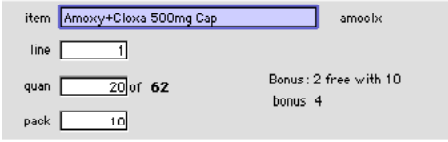
- If you have activated backorders, a backorder line will be created for each placeholder line.
- If you have set the preferences to delete placeholder lines when confirming, they will be deleted, otherwise they will remain on the invoice to show the client that their order was received, but the goods were not supplied.

Issuing all available stock of a batch

Sometimes you might end up with an unusual avilable amount of a particular batch. Due 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 amount available of that batch.

Bonus Stock

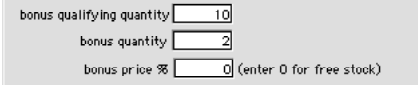
- If you have activated the bonus stock module in the preferences (on the *invoices 2* tab, then any items with bonus rates set will automatically have a second line with the bonus stock amount:



- The bonus details will be shown when the item is chosen, and the bonus amount will be updated when the quantity is entered.
- Each time the quantity exceeds a multiple of the bonus qualifying amount, the bonus amount will be increased by the amount specified for the item. For example, given the "2 free with 10 example above:

Quantity	Bonus
8	0
10	2
14	2
18	2
20	4
28	4
30	6

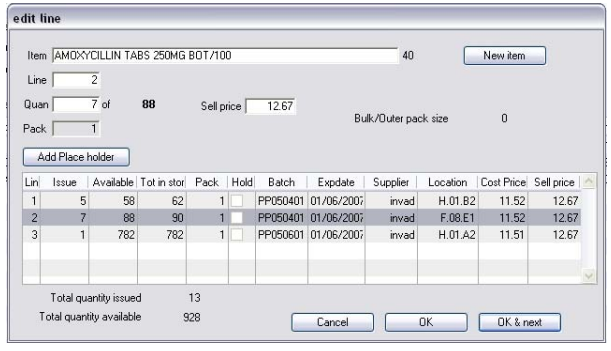
- The bonus amount for item item is set on the "stock" tab of the item details window:



See the manual section on *File > Show items...* for a description of entering bonus amounts

Editing an invoice line

- To edit a line, double-click on it. You will be presented with the same window as when you add a new line, except that the item name is already chosen. Note that the quantity you have already chosen is added back into stock- You are viewing the stock records as if the line has not yet been processed.
- Note too that any other invoice lines for the same item are also taken into account, and the issue column is filled out with the the amount of each batch being issued on the invoice. In the window below, there are three lines on the invoice for different batches of amoxycillin, and all three are shown when editing, irrespective of which of the three lines was double-clicked.



At this stage you can alter the quantity, or choose a different item line (that is, a different batch), or you can even click in the item name field, and select an entirely different item. Note that 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.

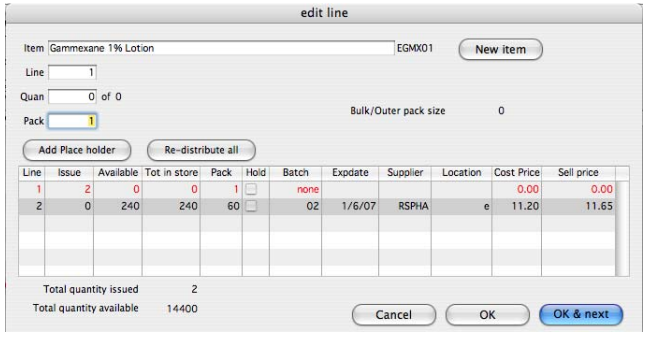
Changing the batch to be issued

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.

Deleting a line from an invoice

- If the line is a placeholder line, you can simply click the line you wish to delete, then click the delete line button.
- If the line is a normal invoice line (with stock associated with it), double-click on the invoice line. In the line details window that appears, press Tab to advance to the quantity field, enter 0 (zero), then click OK. You will be asked to confirm that you really want to delete the line.

Note :you can not remove an item from an invoice that has been finalized.

Reordering invoice lines

Invoice lines can 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 mesage.

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.

Confirming an invoice

Note: if you have "confirm invoices automatically" set in the preferences, the confirm invoice button will be hidden, and this option will not be applicable.

- Confirming an invoice should be done when the goods have left the store (or have been packed ready for dispatch).
- The confirm button is only available for invoices with status "sg" (suggested).
- 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. See the section below for a fuller explanation.
- For example:
  - You get an order for 3 bottles from Fred, and create an invoice for Fred. The quantity is still 10, but quantity available drops to 7, as these 3 bottles can't be issued to someone else.
  - You are about to dispatch the order. At this point you confirm the order. The quantity and the available amounts are now both 7.
- In summary, the *confirm* button does the following:
  - Each line has its quantity in stock redcuced by the amount issued on that line
  - It changes the order status to "cn"

- If you are running a backorder system, it deletes any place holder lines (those with a batch entry of "none") and adds them to that customer's backorder file. Otherwise the line is simply deleted. Once an invoice is confirmed you will be asked if you now want to print an invoice.

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 finalized.

Note that 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 finalized invoices.

Transferring goods to another Store

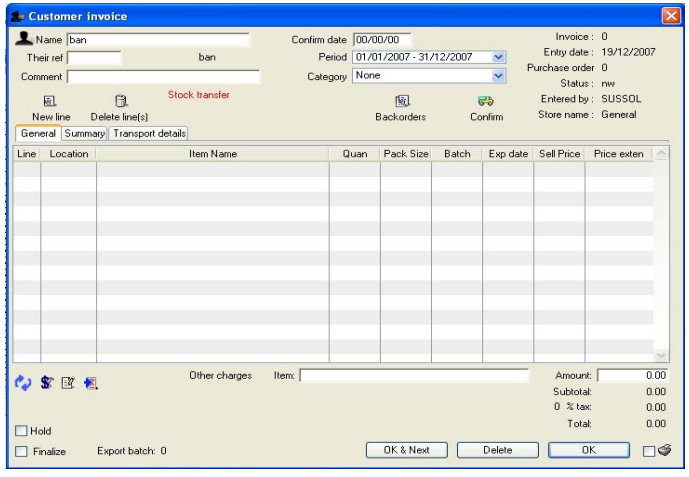
This feature is available only to those users who are managing more than one store on their systems - e.g. if you have a General store for holding stock, and you supply a Dispensary with their day to day needs.

This procedure follows closely the steps as described under 'Issuing Goods to a Customer (Customer Invoices)', and to avoid unnecessary repetition, please make sure you are familiar with that procedure.

You must be logged in to the issuing store; the receiving store being the 'customer', so you create a new invoice from the *customer* menu, and in the *Name* field the name of the receiving store is selected in the normal way (i.e. type the first few letters of the store's name, press the TAB key, and *select the store in red colored text from the list displayed). "Stock transfer" label under comment field defines that the issuing goods is for a store. not for a customer.

The procedure from this point is identical to that described under "Issuing Goods to a Customer" above.

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, and as a Customer invoice in the issuing store,



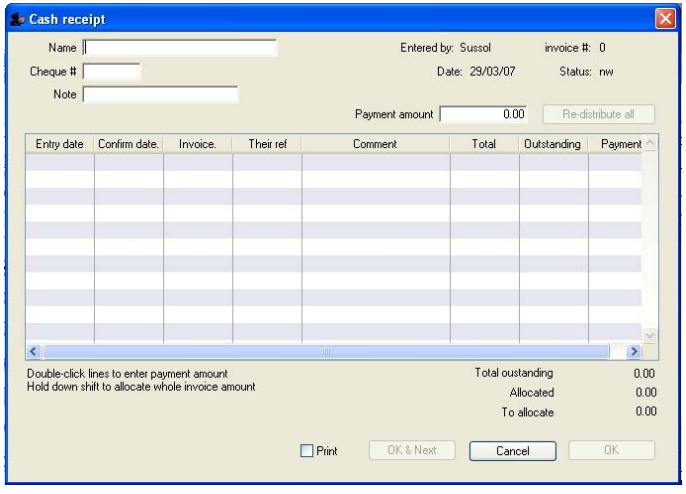
Receiving payment from Customers

A payment from a customer is usually referred to as a *Cash Receipt* (whether the payment is by cash, cheque or transfer)

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.*

Note that the "activate customer payment module" checkbox on the "invoices 2" tab of the preferences must be checked before you can use the payment module. 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.

When you choose *Customer > New cash receipt...* you are presented with a window like this:



- Enter the customer name or code into the first field and press *Tab*. You will be shown a list if there is more than one matching entry for what you have typed.
- Once a customer is chosen all invoices that have unpaid amounts will be listed.
- Note: only finalized invoices are shown. If you receive a payment for an invoice that is not yet finalized, your options are:
  - Record the amount as an overpayment (see below)
  - Finalize the invocies that are being paid and restart the payment process (If the customer is paying you it most likely means they agree with the invoice and it is OK to finalize it!)
- Enter the cheque number and a note if you want to.
- Enter the total amount of the payment into the lower right hand field.
- To allocate the payment to invoices:
  - Double-click an line in the list to be shown a box to enter the payment amount, or:
  - Hold down the shift key while double-clicking an invoice to allocate the full outstanding amount of that invoice.

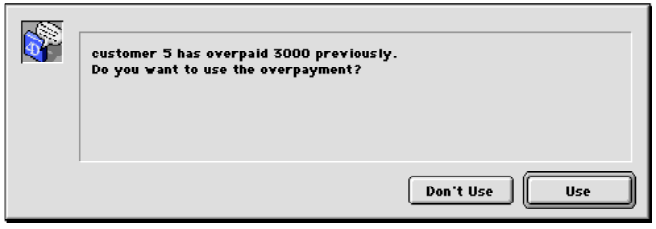
Note:you can not click the "OK" button if you have allocated a greater amount than the payment amount.

Note: customer credits should be entered as a negative amount. It is generally good practice to allocate credits as soon as they show in the list.

Overpayments

- Sometimes a customer might pay you more than the amount owing (not so likely, but it does happen to some nice organizations!), or the customer might pay you for an invoice that is not yet finalized. If this happens, allocate any amount that relates to invoices in the list. When you click *OK* the 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...)

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.

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* l *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* l *import invoice* to import the invoice.
6. Customer checks the supplier invoice that is created against other documentation and against actual goods received.

Note:

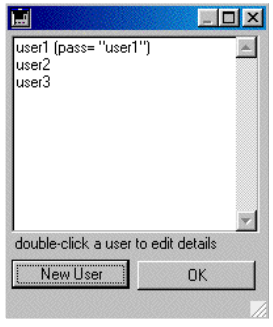
- The invoice can still be edited after import
- The standard rules for calculating selling prices are used.
- If you want your suppliers to send you electronic invoices, persuade them to buy mSupply! Alternatively, we can supply the mSupply invoice format to their software vendor for inclusion in their own software.
- We recommend you perform a trial of the system on a backup data file before using in a production situation.

Restricting User Access

Applying restrictions

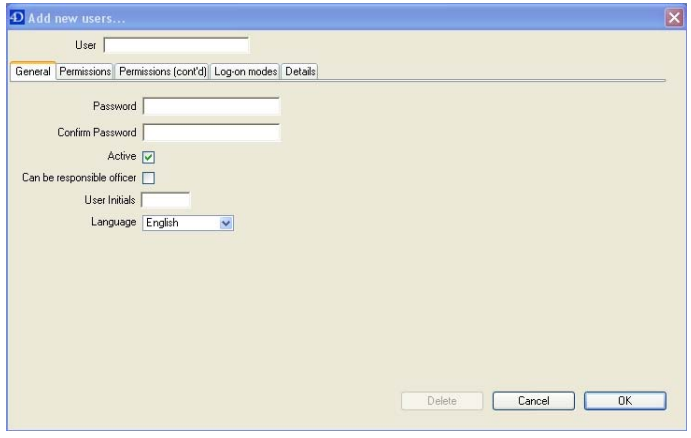
mSupply has a comprehensive system of restricting user access, allowing you to manage who has access to which commands and what information within your system. User access is managed by choosing *file* | *edit users and groups* .

You are presented with a list of current users.



Double-click a user to edit their details or delete them. Click the "new user" button to add a new user. Note: it is best not to create and delete users excessively- it is better to edit the users in the system.

Double-clicking an entry gives you this window (same for a new user, but entries are blank):



Note also that "user 1" and "user 2" are the designer and administrator- these two users have access that overrides the grouping scheme. You cannot delete these users, and they always have level 1 access. If you only want one person to have full access, set the administrator password to be the same as the designer password.

When you enter a password you have to enter exactly the same text into the second field, so that you don't mistakenly enter something you didn't realize you had typed. Be careful to make sure caps lock is not on when you type your password. Passwords are case sensitive.

Note: 'Access group' was an option up to version 1.96 but has been removed for version two, as users found the combination of access group and individual user permissions too confusing. Now all acess options are controlled by user.

Active :

If "Active" checkbox is checked, then that user has access to use the system . But the access ability changes with the Access Group level.

Can be responsible officer :

If this box is checked, the name of that user will appear in "Responsible

Officer" in "Transport Details" section.

Language:

Allows you to view mSupply according to the language selected. Curently, mSupply is available in English and French version onlyus.

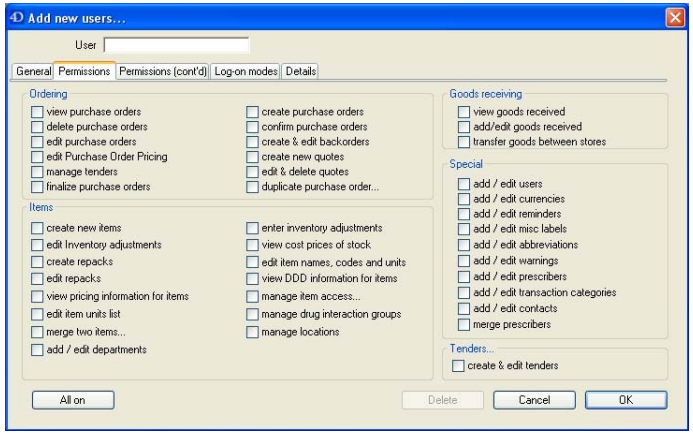
User initials should be entered in the User initial field.

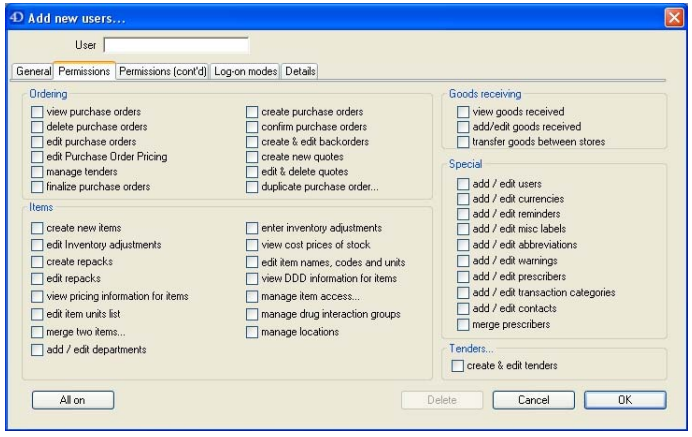
The Permissions tabs

Here you can set access for certain functions on a user-by-user basis.

Let us know if there is a particular function in mSupply that you want restricted in this way and we shall consider adding it to the next version of mSupply.

Note that there are two tabs of permissions. Note also that newly created users do not have their permissions turned on- you have to turn each permission on manually.





Current user permissions:- you can use this table to record which user has- which permissions in your organisation.

Permission	User name				
Ordering					
View purchase orders					
Delete purchase orders					
Edit purchase orders					
Edit purchase order pricing					
Manage tenders					
Finalize purchase orders					
Create purchse orders					
Confirm purchase orders					
Create & edit baclorders					
Create new quotes					
Edit & delete quotes					
Duplicate purchse order					
Goods receiving					
View goods received					

Add/edit goods received					
Transfer goods between stores					
Items					
Create new items					
Enter inventory adjustments					
Edit inventory adjustments					
View cost prices of stock					
Create repacks					
Edit item names, codes and units					
Edit repacks					
View DDD information for items					
View pricing information for items					
Manage item access					
Edit item units list					
Manage drug interaction groups					
Merge two items					
Manage locations					
Add/edit departments					
Goods receiving					
View goods received					
Add/edit goods received					
Transfer goods between stores					
Special					
Add/edit users					
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					

Tenders					
Create and edit tenders					
Names					
Create customer, supplier & manufacturer names					
Edit customer, supplier & manufacturer names					
Edit name codes					
Edit name categories					
Create and edit patient event					
Edit patient details					
Add/edit group					
Reports					
Manage reports					
Revert reports to original					
View all reports					
Remote data					
View remote data					
Edit remote data					
Invoices					
Create customer invoices					
Edit customer invoices					
Create supplier invoices					
Edit supplier invoices					
Finalise invoices individually					
Edit comments on finalised invoices.					
Import supplier invoice					
Duplicate supplier & customer invoice					
Finalise multiple invoices					
Admin					
Show e-mails					
Purge					
View log					
Set start of year stock					
Preferences					
Export & import					

Builds and bill of materials					
View cost prices on builds					
Finalise builds					
View bill of materials					
Edit bill of materials					
Build items					
Edit build items					
Cash transaction					
Make cash payment					
Receive cash payment					
Web Interface					
Edit web passwords					
Edit & create web messages					
Printing					
Print duplicate packing slips.					
Print duplicate customer invoices					

* - only applicable to the mSupply web services module. Installations without this module can safely ignore these options.

Note that the user group settings on the first tab still apply. For a user to have access to a command they must

a) be in an Access group of appropriate level, and

b) have the appropriate permission check box checked.

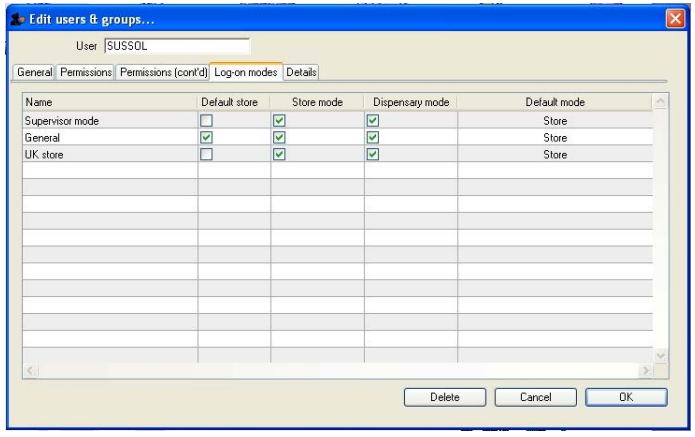
Commands and actions restricted by user group

As of version 2 all user permissions are set on a per user basis as we found many users were confused by the mix of individual and group permissions..

The Log-on modes tab

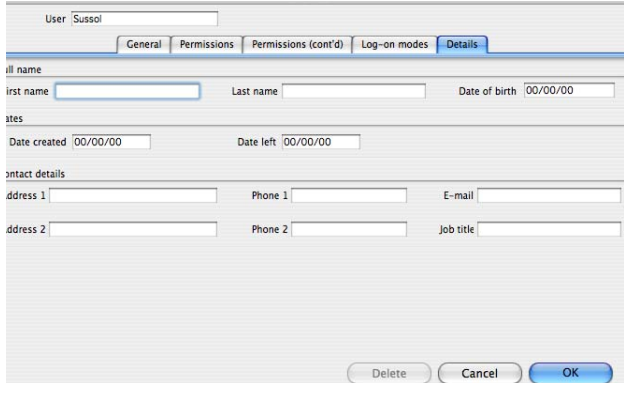
mSupply now has two "modes" to allow its use in a store or a dispensary environment. For further information see *Dispensary Mode* on page 103.

At login, the window will reflect the settings checked under the "*Log-on modes*" tab; here the default store, and default mode may be set. The stores and the modes accessible to individual users must be set here.



The details tab

On this tab you can record information about users.



Think of it as a mini address book for you staff, but well hidden away!

Restricting Customer access to items

mSupply has a system of restricting access to certain items. For further information see *Manage Item Access...* on page 67..

Dispensary Mode

About Dispensary Mode

Store Mode

Store mode is the standard mSupply mode, and is the only mode available in versions prior to 1.6.

It assumes that customers are organisations, rather than individuals.

Dispensary Mode

Dispensary mode allows you to use mSupply to supply medicines to patients. It is more suited to use in pharmacies, clinics and hospital dispensaries.

Regardless of mode, each user can only use those functions for which they have permission, according to the permissions set for that user.

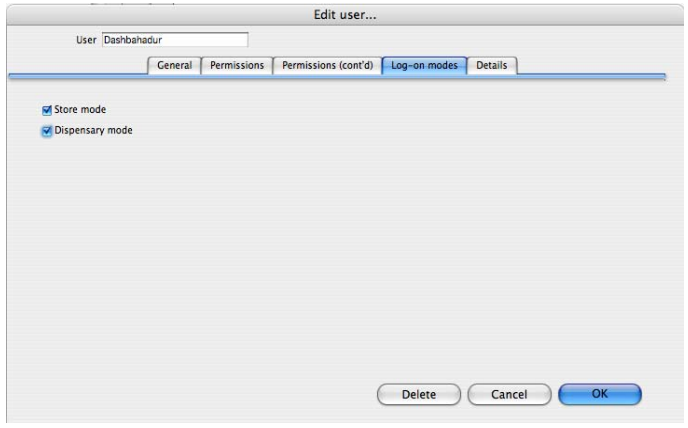
Note that in client-server versions of mSupply, different users can be logged in in different modes at the same time, allowing you to dispense to patients and supply wards, stores, clients or cost centres simultaneously.

Activating Dispensary Mode

When you create a new data file or upgrade to version 1.6, dispensary mode is on by default.

To turn dispensary mode off:

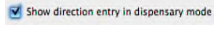
- Choose file > edit users and groups...
- Double-click on a user in the list
- Go to the "Log-on Modes" tab.
- Uncheck the boxes for the modes you do not want to make available for that user.



- Repeat for other users in the list

Note: If one mode or the other is dimmed out, it is because your mSupply registration does not allow you to use those modes. Contact Sustainable Solutions if you wish to upgrade your registration.

- Choose File > Preferences > Invoices 2 then check the "show direction entry in dispensary mode" box.



Once you have deactivated a mode for a user, it will not appear in the choices when they log on.

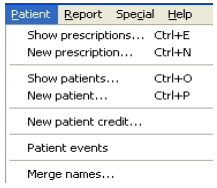
What is a "name"?

In mSupply a "name" can be a customer, a supplier, both or neither. A "customer" can be anyone you supply goods to- e.g. another organisation, or a ward in your hospital, or a patient.

What changes in dispensary mode?

Different menus

The menus in dispensary mode have different names. For example, the customer menu becomes the patient menu.

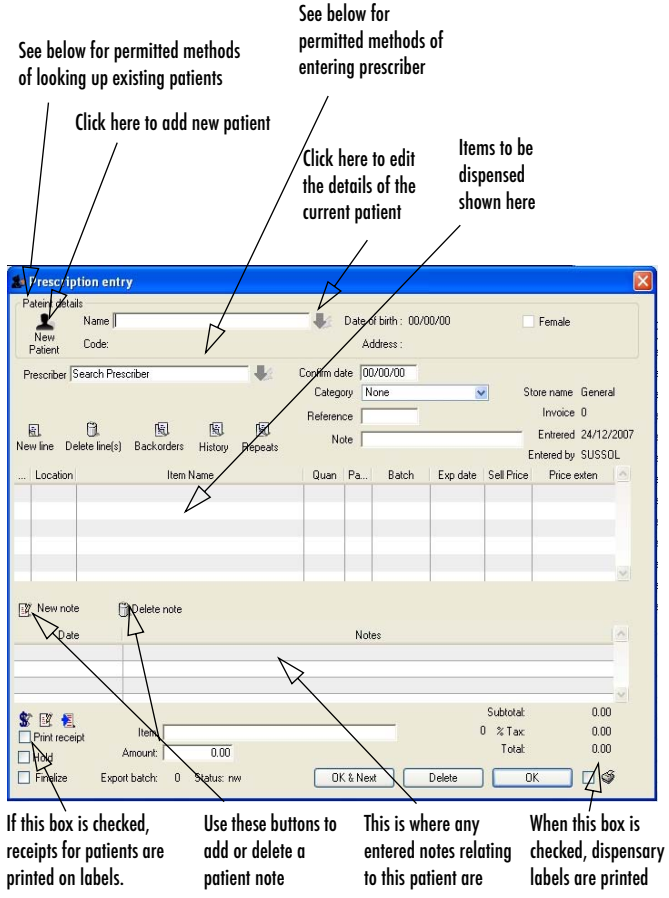


In simple dispensary mode, there are a lot less choices in the menus. There should be enough options to allow a user to dispense medicines, but not to do much else.

Different windows

Prescription entry

In dispensary mode, we refer to entering a "prescription" for supply of items rather than an "invoice" The prescription entry window looks like this:



How to look up a patient

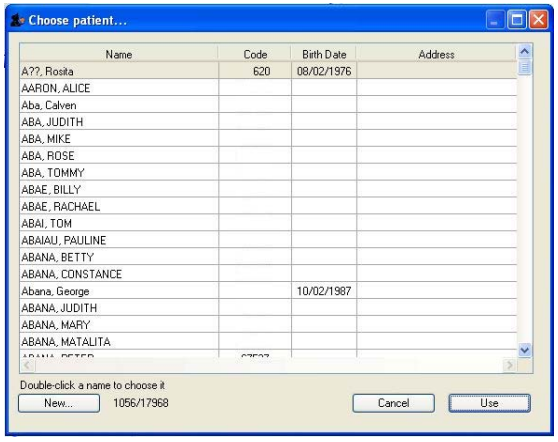
When you are entering a patient name, mSupply will treat anything entered before a comma as a last name, and anything entered after a comma as a

first name.

For example, to find John Smith, enter “Smi,J” or “smith,joh”

If the patient’s name code is known, enter a “*” (no quotes) and then the name code or part of it. eg “*58298”

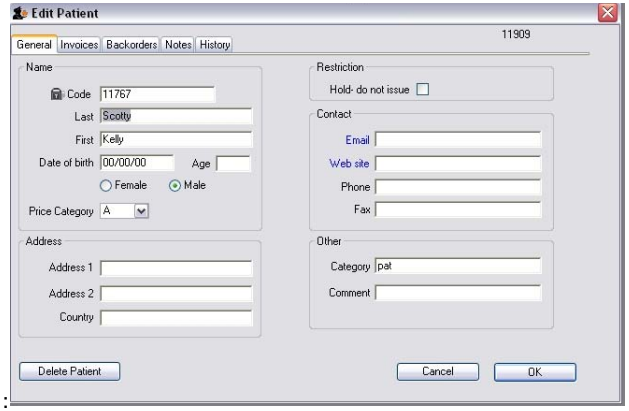
If there is more than one matching name, you are shown the name choices window



Entering a new patient

To enter a new patient, you have two options:

- In the name choices window (above) click the *New* button. (Shortcut: Ctl-Shift-P)
- In the *Prescription Entry* window, click the *New Patient* icon to the left of the name entry area. This window will be shown (Shortcut: Ctl-Shift-P) :



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 edited.

Entering the prescriber

To enter a presciber, you can type either their code, their last or first name in full or abbreviated, or “last comma first”. For example for the presciber Dr Felix Brown (whose code is 123) any of the following are accetptable

- 123
- bro
- fel
- bro,fe

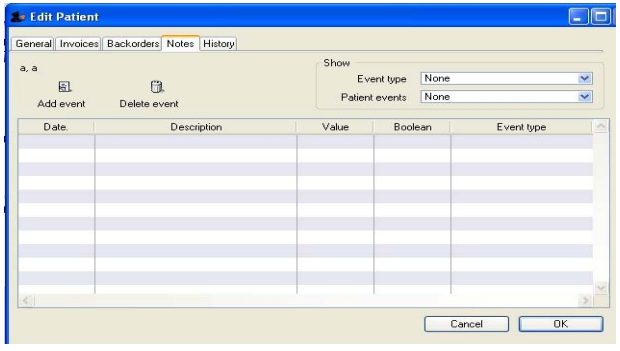
Press the tab key after making the entry to show a list of matching prescribers. If only one presciber matches, the name will be entered directly without the list being shown.

Note that there is a setting on the “dipensing” page of the mSupply preferences that affects whether or not you can accept and print a prescription without entering a prescriber.

Notes display

Any notes you enter in the notes tab will display each time you enter the

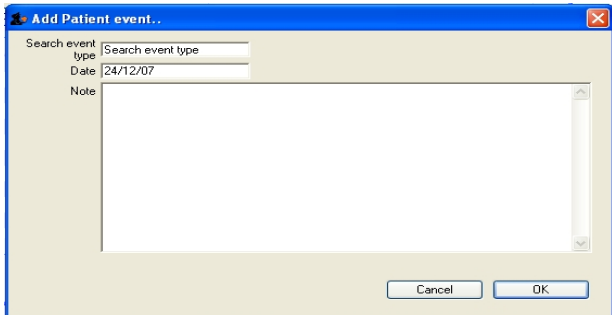
patient name in the *Prescription entry* window. These notes can be used to remind you of patient preferences for certain dosage forms, or drug sensitivities.



Before you add an event for a patient, you need to make sure that patient event s have been set up. To add patient event, choose *Patient* > *Patient events* , then click the "New" buton. By default "Note" patient event of type "Description" and code "NT" is provided. Youcan also have event of type numeric and boolean.

Add and delete event

By clicking the "Add" button on the form you will be presented with the following window



Enter first few letters of the patient event you are looking for and select an event from the list. If the patient event you have selected is numeric then a field where you can enter numeric value is displayed and if the patient event selected is boolean field then a check-box is displayed.

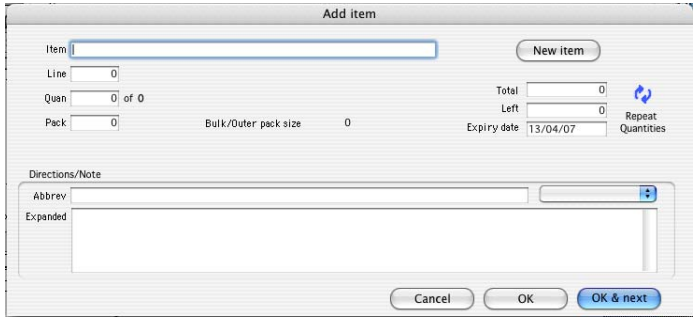
You can delete the event by selecting the event you want to delete and click the delete button.

Show

You can list events of a patient by selecting desired event type or patient event from drop-down list on the form.

Entering prescribed items

On the *Prescription entry* window click on *New line* , and *Add item* window appears.



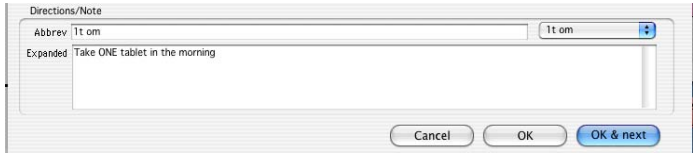
Once the item name and quantity have been entered, provided that the *Show direction entry in dispensary mode* option has been selected in Preferences, directions on how to take the medicine should be entered.

Entering directions

For many commonly prescribed items, there are default directions already present; in the example below, the item being dispensed is FRUSEMIDE 40mg tablets, and the default directions are "Take ONEtablet 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.



The drop-down list shows any standard abbreviations you have entered for the chosen item. If a stand abbreviation exists, the highest priority abbreviation will be entered when you choose the item.

If you have entered more than one standard abbreviation, you can choose one other than the default by choosing it from the drop-down list.

Note that 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. For further information see *Item edit - Dispensing options* on page 56.

Printing Labels

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 used labels longer than 40mm with no problems.

- Label spcifications:
- 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 want to 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 preinted when you click OK

Printing multiple labels

If you want to print more that 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?

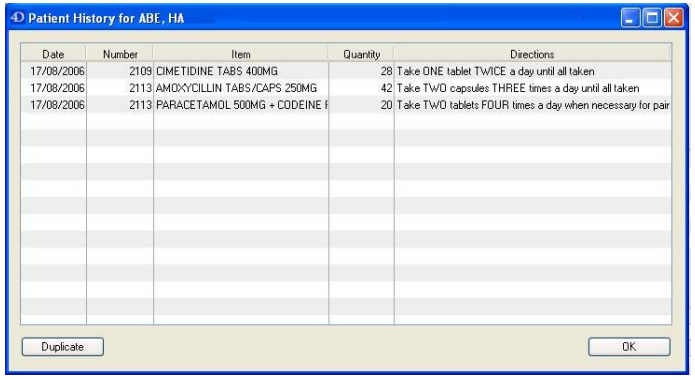
As the quantity of a particular batch of an item gets used up, you will need to issue stock from more than one batch to a patient. mSupply handles this when printing labels, and combines the totals for any item on a prescription so that only one label is printed for the total quantity.

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).

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.

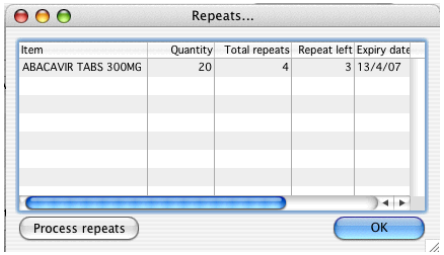


Duplicating a prescription

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.

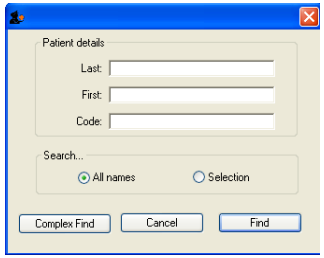
Repeats

mSupply allows for the recording of repeat prescription. 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 a little later.



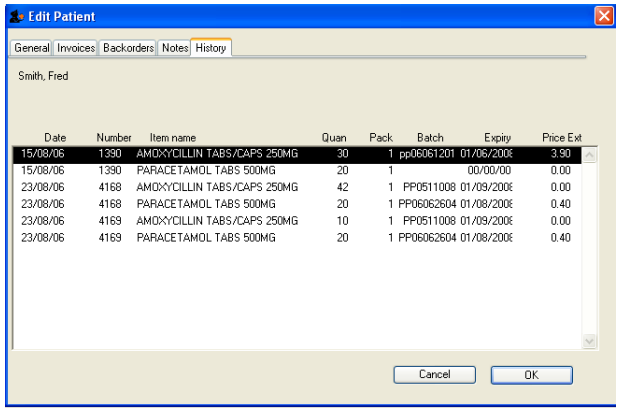
Viewing patient details

You can view a patient's details on-the-fly as you enter a prescription as described above. You can also view patients by choosing Patients > Show patients.



Enter the details you want to search for and click *Find*

You will be shown a list of matching entries, or taken directly to the detail view if only one patient matches the values you entered.

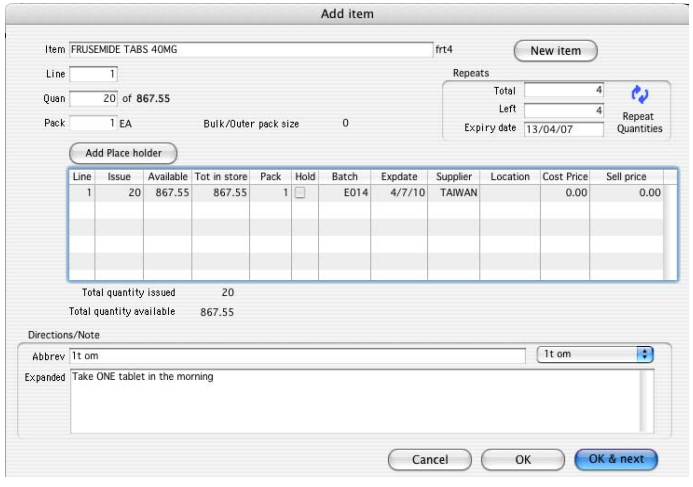


Patient history tab

The details displayed are similar to displaying a customer in store mode. However there is also a history tab that shows each item dispensed. Double-clicking an item in the list will display the transaction in a new window.

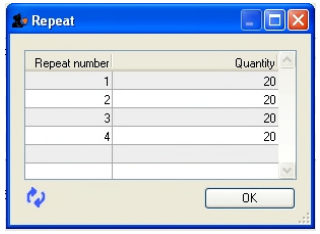
Repeat Dispensing

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 precription 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 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.

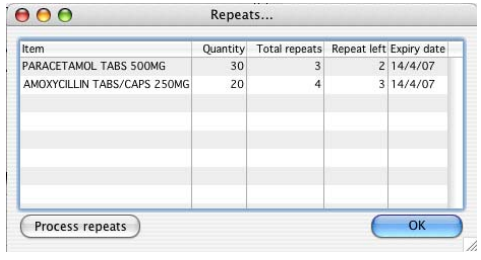


This window allows the user to alter the quantity of a particular repeat - e.g. if there is insufficient stock on a particular visit of the patient; the quantity can be edited by clicking on the quantity line, and again clicking on the quantity, which may now be edited. The arrow on the left bottom corner 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 shown on the left is contained in *Prescription entry.* You can

issue the repeat to a particular patient. Click ing on the Repeats icon displays the window shown below.



The repeat window shows items to be dispensed, quantity, total repeats, repeats remaining and expiry date for a particular repeat. *Process repeats* and *OK* button are described below.

OK

Click *OK* button to exit from the *Repeats* window

Process repeats

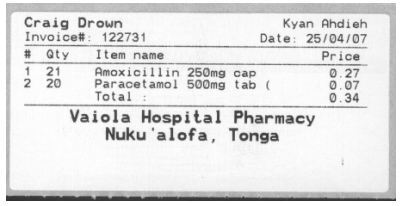
This button is used to issue the repeat for a particular patient and for a particular item line. For issuing the repeat, first select a desired item line and then click on the *Process repeats* button. Now the system automatically manages the repeats internally.

Printing labels

Patient labels are printed when the *Print labels* option is checked in the *Prescription Entry window.* Sample labels, produced by the Zebra TLP2844 printer are reproduced below:

Printing receipts

When the *Print Receipt* option is checked in the *Prescription Entry* window, the printer will, after printing the medicine labels, produce a patient receipt as shown below.



Should you wish to use a different printer for receipts, this option can easily be incorporated in mSupply if you advise us of your requirements.

The mSupply Web Server

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: The current version of mSupply does not include restricted access system. It is designed for use on small intranets only. Do not start the web server on computers that are accessible from the internet. Note however that the current web interface provides read-only access to your data only, so there is no danger of malicious editing or deleting of data.

The advantages of accessing mSupply in this way are:

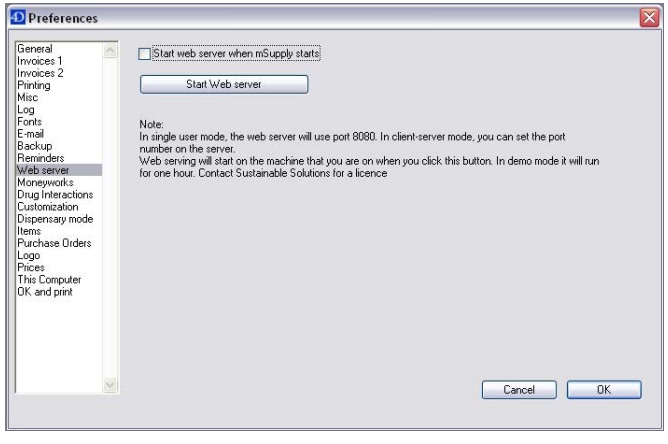
- It's easy. Most people are familiar with using a web browser.
- It's low maintenance. You do not need to install any client software.
- It's cost effective. Once you have purchased a web server licence an unlimited number of people can connect.
- It allows customer access to information. The web interface built into mSupply can easily be customized 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 bandwith connections. The mSupply web server allows you to provide access to mSupply from locations that only have dial-up acccess

Currently the mSupply web server allows you to view information about names, items and transactions from any web browser on your network.

We are able to extend the web serving functionality of mSupply significantly according to client requirements.

Activating the web server

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.

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.

Note that without a web server licence, mSupply's web server will only run for one hour. After this you will have to quit and start mSupply again to restore web server functionality (or better still, buy a licence for using the web server from us!)

Note: The web server functionality can easitly be extended from mSupply-simply let us have your suggestions !

Connecting to mSupply from a web browser

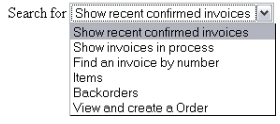
Once the mSupply web server is running, you can access it by typing http://ip_address_of_machine_running_msupply:8080

The link can be bookmarked if you use it frequently to save you typing it each time.

Firstly you will be shown the mSupply introduction page.

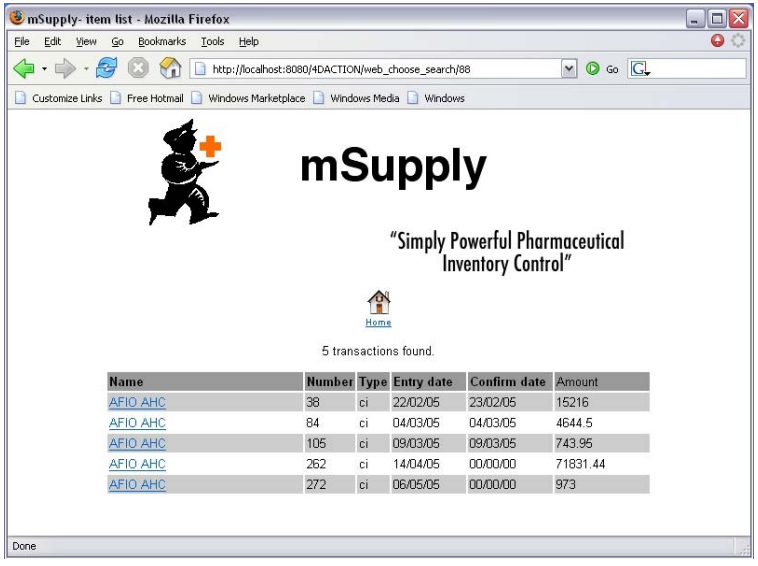
The suppliers and the customers are given a unique code and password. Enter the code and password to login. The window as shown below is displayed.

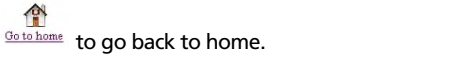
Choose whether you want to view confirmed invoices, invoices in process, invoices by number, items, backorders or view and create order. Click the "OK" button



Show recent confirmed invoices

Select "Show recent confirmed invoices" . It will display the invoices that have been confirmed.

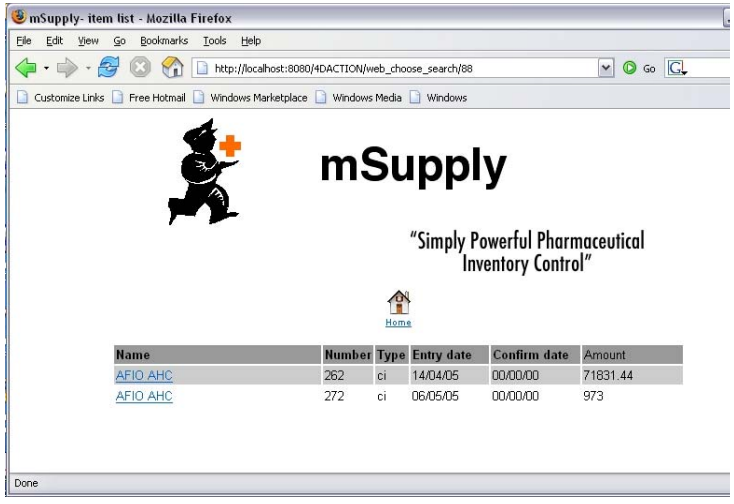


Click on 

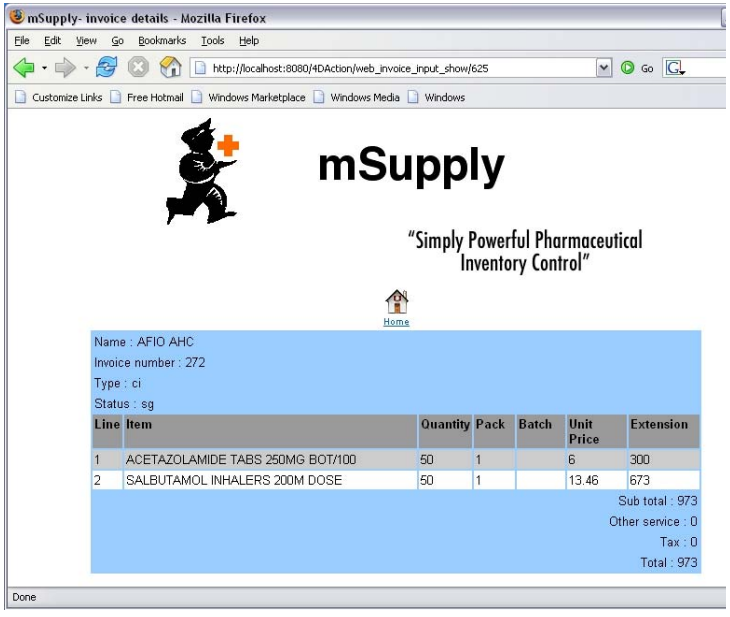
to go back to home.

Show invoices in process

It will display the list of invoices that have not been confirmed or finalised.
The invoices displayed have their status of suggested(sg).



On clicking the link, it will show the detail information about that particular invoice.

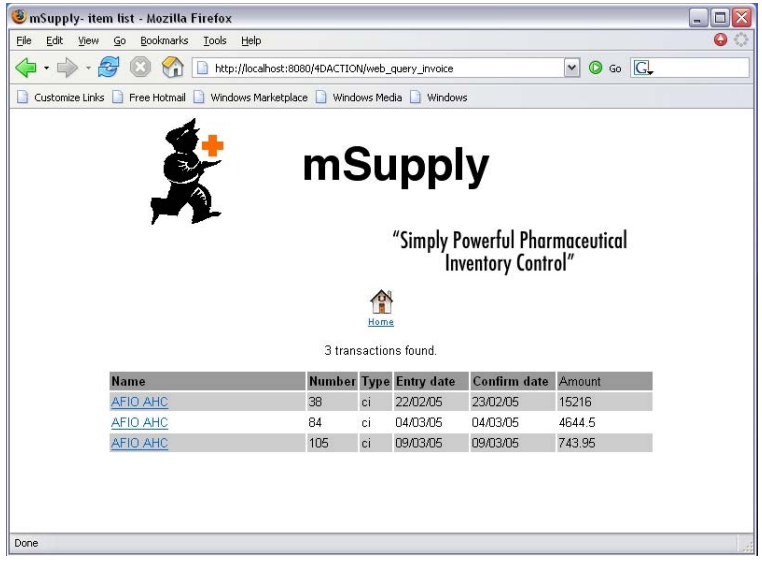


Find an invoice by number

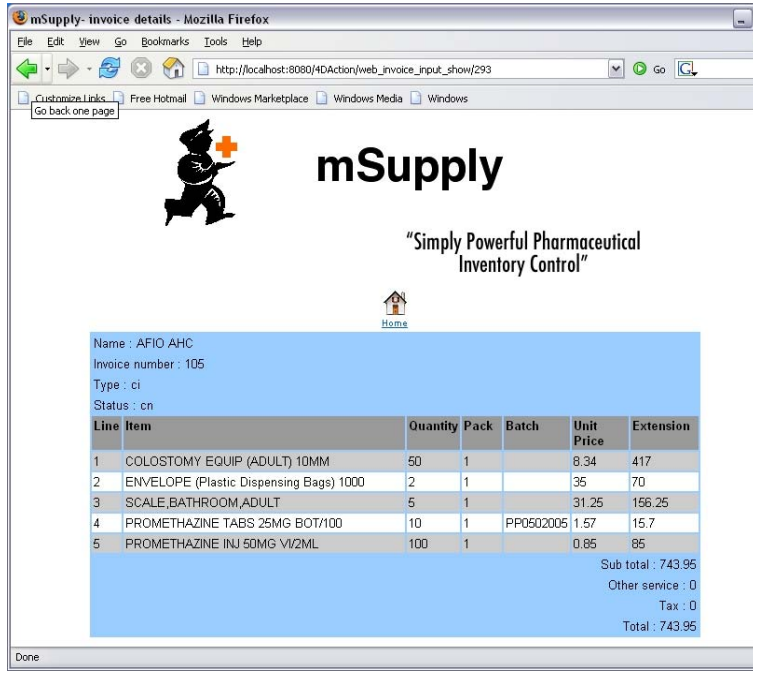
Select "Find an invoice by number". Click OK button. You will be shown the invoice query page:

Here you can search for invoice by invoice number or you may give a period when the invoice transactions were entered. Click Find button.

Enter either an invoice number or an invoice date. The results you get will depend on the data file you are using! Here we will find invoices issued from 01/10/04 to 01/10/05.



By clicking on a link we are able to view the invoice details. Here we have selected the third invoice in the list for viewing.

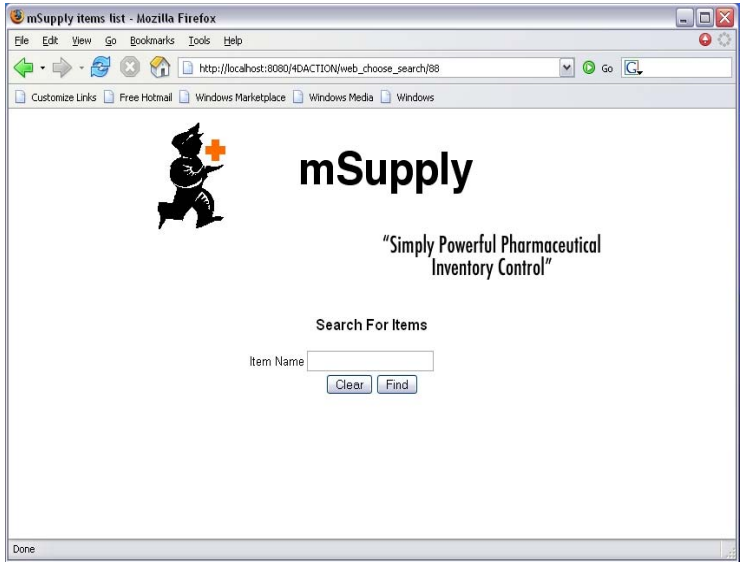


Pricing

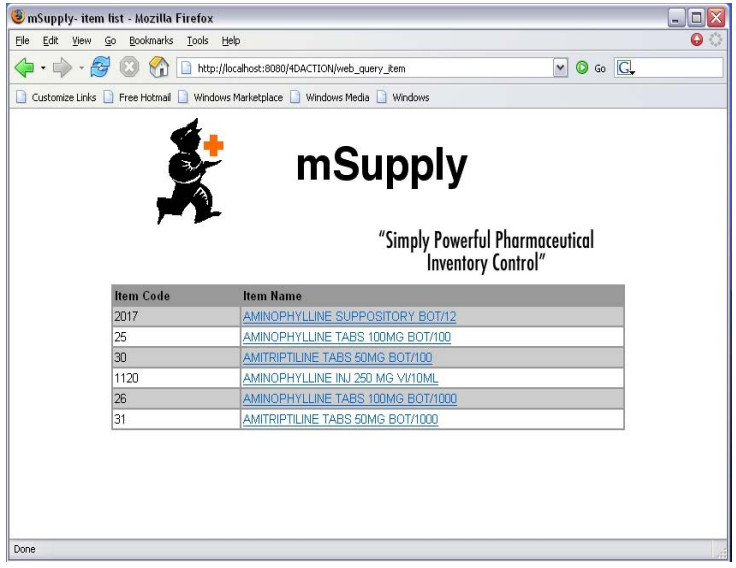
Pricing for web-enabled versions of mSupply is done on an individualized basis. Please contact Sustainable Solutions for details.

Items

Select "Item" to make a search of invoices on the basis of items. It will display the window as shown below.

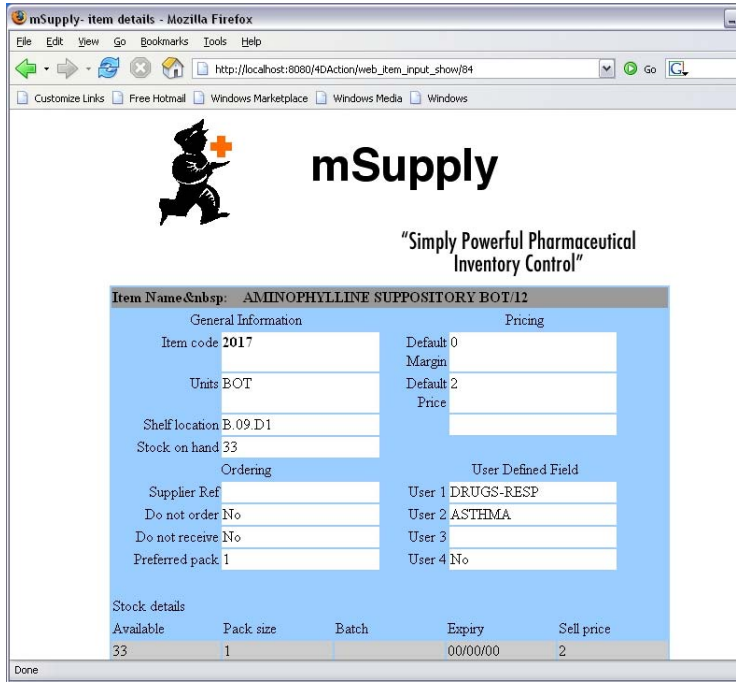


Enter the name of the item which you want to search or leave it empty to list all the items. Click Find button.



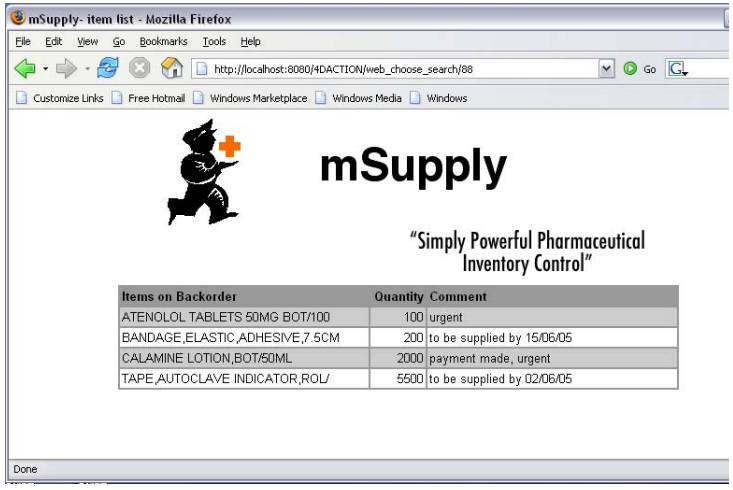
Item Code	Item Name
2017	AMINOPHYLLINE SUPPOSITORY BOT/12
25	AMINOPHYLLINE TABS 100MG BOT/100
30	AMITRIPTILINE TABS 50MG BOT/100
1120	AMINOPHYLLINE INJ 250 MG VI/10ML
26	AMINOPHYLLINE TABS 100MG BOT/1000
31	AMITRIPTILINE TABS 50MG BOT/1000

On double clicking a link, it will display information about the item in the window as shown below.



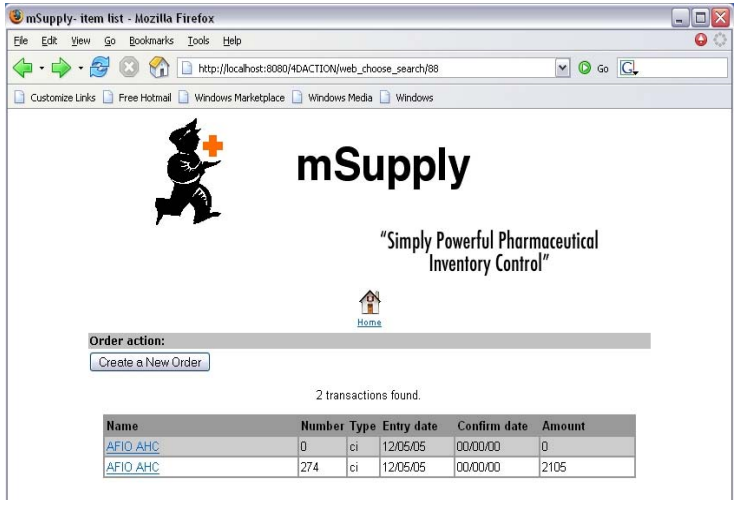
Backorders

Select "Backorders" to view the items on backorder. It will display a list of items on backorder, quantity, comment.



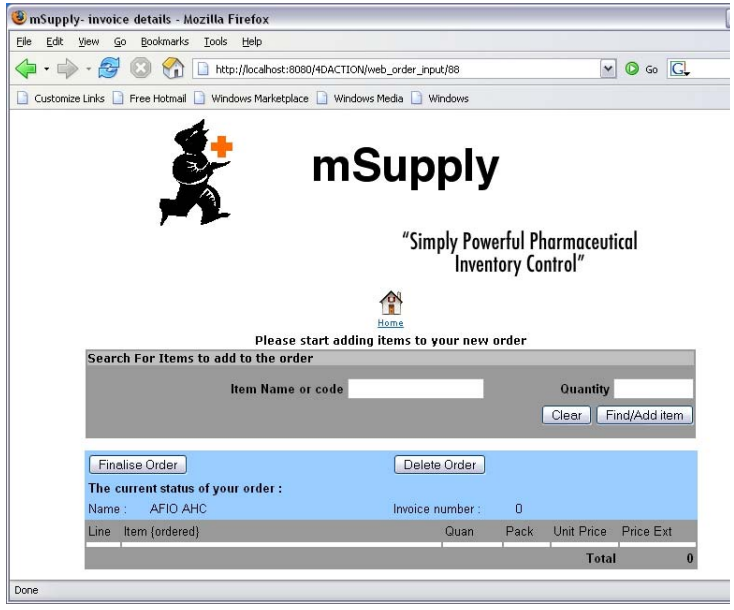
View and create order

Select "View or create order". It will display a list of orders that have been created. A user can create a new order by clicking on "Create a new Order" Button.

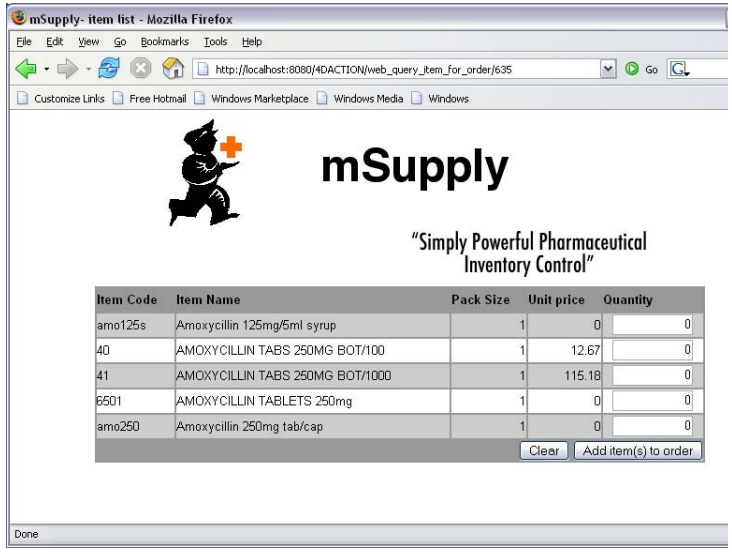


Creating a new order

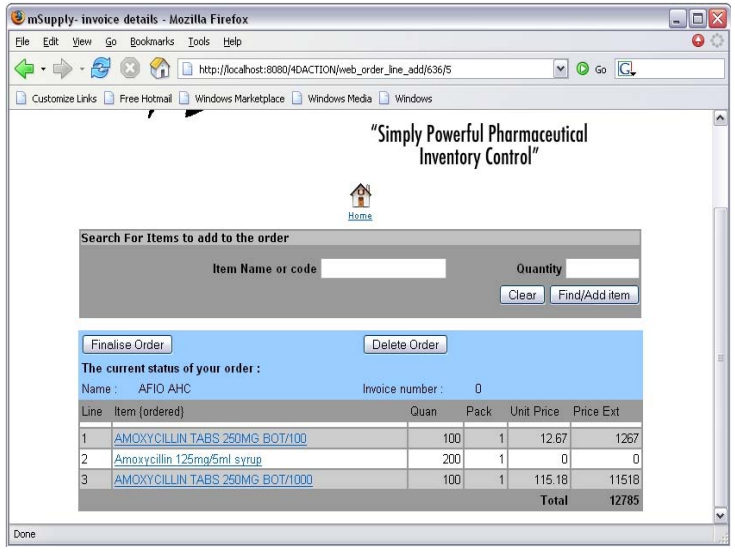
Click on "Create a new order" button. It will display a window for placing your order.



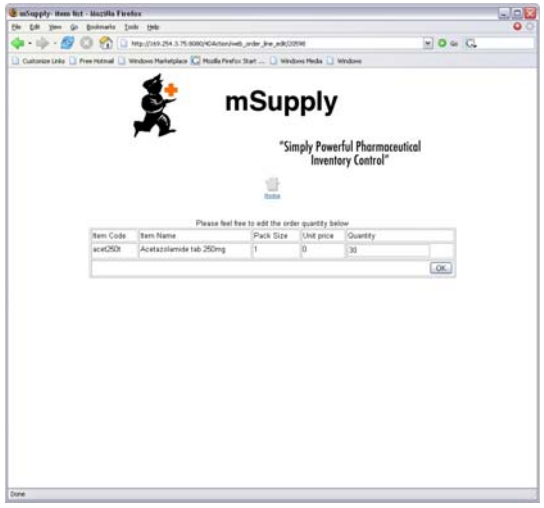
Enter the name or code of the item. Click on "Find/Add item" button. It will display a list of the items meeting the specification of query. Here, we typed "amo" in item name field, so a list of items beginning with "amo" are displayed.



To set all the quantity to zero, click on "Clear" button. The quantity of items to be ordered is entered in quantity field. After entering in the quantity field, click on "Add item(s) to order" button.It will display the status of the order.



"Delete Order" button will delete the order you have created. You can click on the item link to edit the quantity.



You can change the value and click OK. If you want to add some other items, then find and add the item as discussed above. After the order is complete, click “Finalise Order” button.“Finalize Order” button will finalize the order that you have created.

gOrdering Items From Suppliers

mSupply provides a way for you to generate a purchase order to send to a supplier. Each organization tends to have unique 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.

Logic used for calculating quantities

mSupply attempts to calculate purchase order quantities based on your current stock situation and hsitorical usage patterns.

A purchase order is generated using the following information:

- How much stock you wish to order (expressed as the number of days of average usage you wish to order)
- The current stock level
- The average usage over the last X days (you choose X yourself when you generate a purchase order). mSupply looks back at your actual sales transactions and calculates your average daily usage for each line.
- The amount of stock on backorder from customers (if any)
- The amount of stock already on order from Suppliers, but that has not yet arrived in your store.

Let's take a simple example of Amoxycillin 250mg capsules:

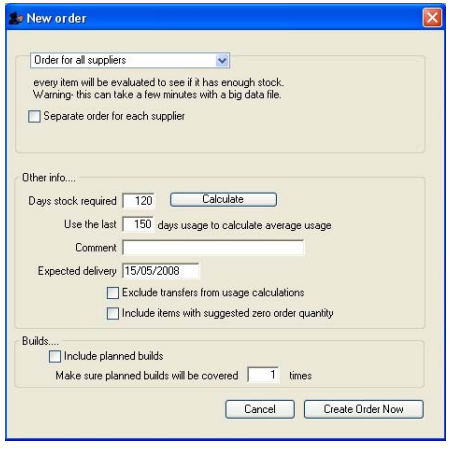
- You want to order enough stock to last the next 3 months.
- Your current stock is 35,000 capsules
- You ask mSupply to calculate your average usage by looking back over the last 150 days. The result is that mSupply finds you have issued 225,000 capsules to customers in that period:
- 225000/150 = 1500 capsules per day
- We want 120 days stock:
- 1500 x 120 = 180,000 capsules needed.
- We already have 35,000:
- 180,000 – 35,000 = 145,000 capsules to order.
- mSupply will suggest you order 145,000 capsules. If you want to change this quantity you can edit it, and will have full sales information available at that time.

Note: mSupply does not use "minimum" & "maximum" stock levels as its primary means of determining order quantities. They are not a very reliable, as they take a lot of manual work to maintain. Be assured that the system that mSupply uses will give you much better inventory control! (Minimum stock levels are present to allow you to ensure a minimum quantity of rarely used items. e.g. essential emergency supplies. They should not be used for most items).

Creating a new purchase order

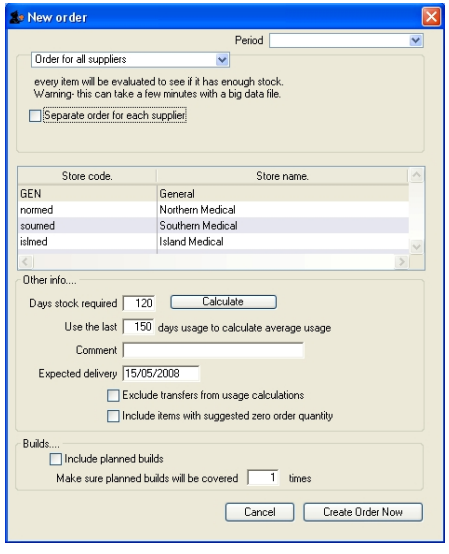
To Create a purchase order, Choose Supplier > New Purchase Order.

In most instances the following window will be displayed:



However, if you are in *Supervisor Mode*, the window displayed will list all the stores to which you have access, and you can select multiple stores, in which case the new Purchase Order (PO) will cater for the stores you have selected,

and when received by the Supplier, the PO will list the goods which should be despatched to each store.



There are a number of choices available to generate the order in the way that best suits you.

Clicking on the *Calculate* button brings up a window allowing you to enter the necessary information from which mSupply will calculate the quantity to be ordered.

You will need to take several factors into account when calculating how many days stock is needed:

- the lead time between ordering and delivery.
- how often you order from this supplier
- how much "buffer" stock you want on hand just before your next order arrives.
- your cash flow situation

Here's an example:

- Orders take two months to arrive. from IDA (International Dispensary Association) - (Lead time - 2*30=60
- You order every four months. (Ordering cycle - 4*30=120)
- We want a buffer stock of at least one month (30 days) when a purchase order arrives. If you are about to place a purchase order with IDA, you need to order enough stock to last until the following order arrives- you will order again in four months time, and that order will take 2 months to arrive. When it does arrive, you will want a one month buffer still in stock. Therefore, you want to order enough stock to last the next seven months, so enter "210" into the "stock required (days)" field.

Note that order quantities can be calculated using the report 'Suggest order quantities' from the Report menu. The optional tender management module also includes automatic order calculation functionality. Orders can also be calculated as discussed below.

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, and cash flow reasons or storage space restraints mean you are unable to accept the order as a single delivery, and you want certain items to be delivered in, say, four consignments, at three monthly intervals. The order as generated lists the totalquantity to be ordered, and you need to modify this; what you are actually doing is editing a purchase order line, and the procedure is described under that heading a little further on in this manual. For further information see *Split Deliveries* on page 135.

Order types available from the popup menu

Order for all suppliers.

- All items in the database will be evaluated to see if they need ordering. If you have a large number of items, this may take a few minutes. With this selection, you have the option to generate either a single order or a separate order for eacjh supplier by checking the *Separate order for each supplier* box.. In this case, mSupply will look at which quotation is marked as "preferred" for each item, and 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

- Click on the *Query items* box, to bring up the *Query Editor* window, and enter the required parameters; use of the *Query Editor* is described in detail in the Reports chapter. For further information see *Using the query (search) editor* on page 161.

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.

Days stock required

- Enter the number of days stock you want on hand. For example, if you use 200 tubes of clotrimazole cream per month, and you enter "90" days, mSupply will order enough clotrimazole cream to build your stock from its current level up to 600 tubes (that is, 3 months supply)

Other items in the create order window

Calculate button

The calculate button will automatically calculate “days stock required” for given lead time, ordering cycle and given buffer stock.

Use the last ..... days usage to calculate average usage..

The number you enter here is the number of days of usage history mSupply uses to calculate your average daily use. This figure is then used to calculate how much stock is needed. The bigger the number you enter here (maximum 1095 - 3 years), the more accurate mSupply is likely to be (although it will be less responsive to fluctuations). Entering a large number will slow down the speed with which a purchase order is created.

Note: if you are using a data file that has less than 3 years of usage history, you should not enter a number greater than the number of days since you started using mSupply, or else your usage will not be accurately calculated.

Click the Create order now button to proceed. The order will be generated, and you will be presented with a screen showing the order lines

Comment

Add a comment (note) to the order should you so wish.

Period

The drop down menu lists the defined periods, and you should select the appropriate one, which will normally be the current period.

Expected delivery date

The default date appearing here is today’s date, but it cam be edited. Each line on a purchase order can have a unique expected delivery date. The date you enter here will be assigned to each line in the order as it is created. If you want to change the date for a particular line or lines (for example you may want split deliveries) you will be able to do so when editing the purchase order.

The date you enter here has no effect on the calculations of the required quantity to order for the current order, but the expected delivery date of existing purchase order lines is taken into account.

Consider this example:

your usage of Paracetamol is 1,000 per day

you have 10,000 in stock

There is an existing purchase order for 100,000 that is due in 60 days time.

If you ask mSupply to generate an order for next 90 days, it will use the expected delivery date of the existing order, and calculate that you need to order 50,000 tablets to cover the period between 10 days into the future (when existing stocks will run out) and 60 days into the future (when the pending purchase order will arrive)

Exclude transfers from usage calculations

This option is only applicable if you are running multiple stores. If you have more than one store, this option controls whether inter-store transfers are taken into account when calculating required quantities.

Take the following two examples.

1. You are in a hospital which has a store that does all the ordering for the hospital. The store supplies the pharmacy with goods. In this case you should leave the checkbox unchecked. That is, you want to include transfers, as this is valid usage from the perspective of the store.

2. You have two warehouses that both order directly from suppliers. Occasionally Warehouse A requests a transfer from Warehouse B if it urgently needs items. If you are generating a purchase order for Warehouse B, you would check the checkbox to exclude transfers, as they are "abnormal" usage, and if Warehouse A is using mSupply properly, they will be ordering more of that item from the supplier in the future!

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.

Builds….

In this section you can make sure that any items that are going to be used in manufacturing will be taken into account when calculating required quantities.

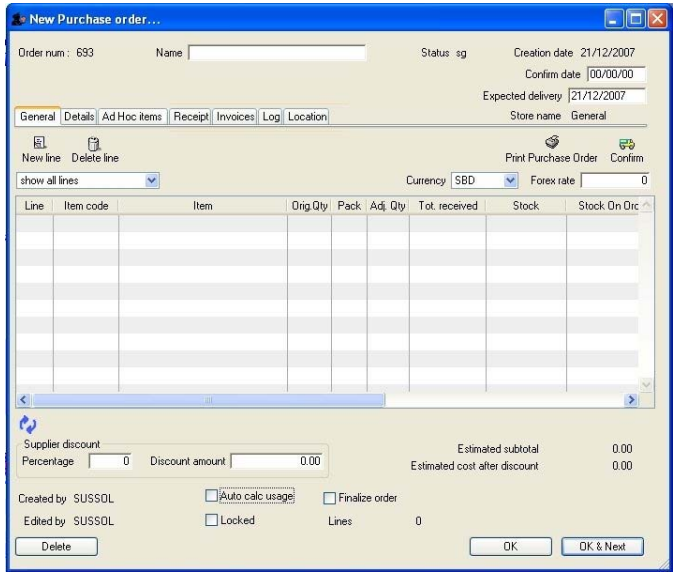
Builds (i.e. manufactured items) can be entered with placeholder lines to reflect a projected manufacturing schedule. If the check box in the “new order” window is checked the proposed order quantity for each item will be compared to the amount of the item that is required to all projected builds, multiplied by the “times covered” value you have entered.

For example if there is 50,000 gm of Mag Stearate on projected builds, and you have entered 1.5 in the “times covered” box, at least 75,000 gm (minus the quantity already in stock and the quantity already on order) of Mag Stearate will be ordered, whatever the usage calculation comes up with for an order quantity.

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 order editing window.

Creating a blank purchase order

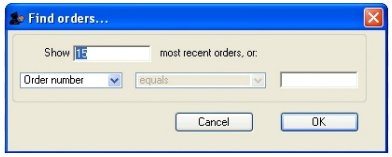
Choose Supplier > New blank purchase order. It will bring up a blank order form, to which you can add items.



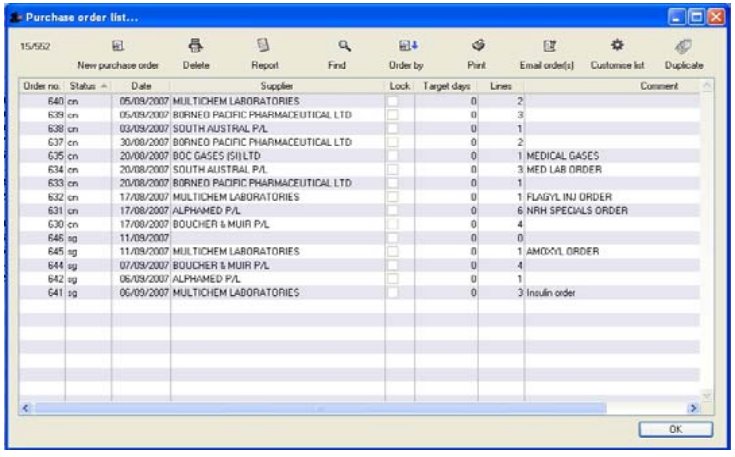
Editing a purchase order

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 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 and not shown the list below).



Since mSupply provides a way for you to generate and to calculate a purchase order to send to a supplier on the basis of your current stock situation and past usagae pattern. The above window "Purchase order list" shows the ordersfor the stockto the supplier

See the section *Ordering items from Suppliers* for a fuller description of creating and editing orders.

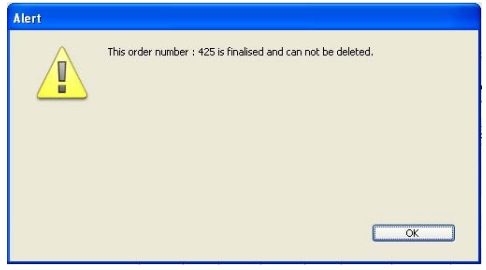
Buttons in the Purchase Order Window

New purchase order

When you clik the *New purchase order* button, a purchase order details window is displayed . See "New purchase order" below.

Delete

Any highlighted orders will be deleted by clicking this button. You can delete multiple purchase orders by highlighting more than one line. To do so, control-click (on Mac:: command-click) the lines you wish to highlight. If your orders are finalised, those can not be deleted. If you attempt to delete a finalized order, you receive alert message like the one below.

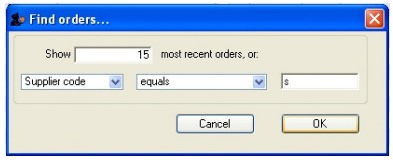


Report

Clicking on the *Report* button presents you with the quick report editor 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 is 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 coulmn will also sort the order list by that coulmn.

Print

When you click on the *Print* button, it shows two windows. The first window is the page setup for your printer, the second window allows you to specify how many copies to print .Whatever column sizes for fields are set in the Purchase order list window, those sizes are reflected in the printed output.

E-mail order(s)

Any highlighted orders will be converted to queued emails.

Customise list

This button activates the customize list window. For further information see *Working with lists* on page 31.

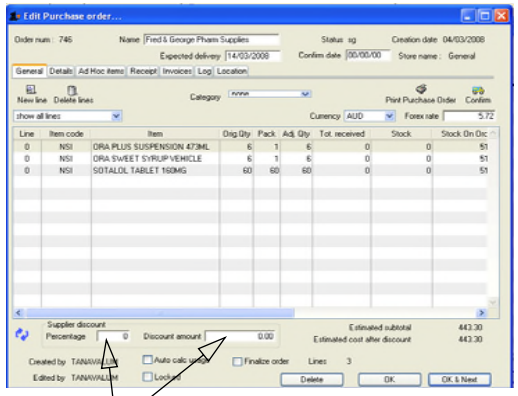
Duplicate

If you wish to duplicate any orders, highlight desired orders from list and click the "Duplicate" button.

Editing a purchase order

Double-click the order in the list you want to edit.

You will be presented with the Edit Purchase Order window:



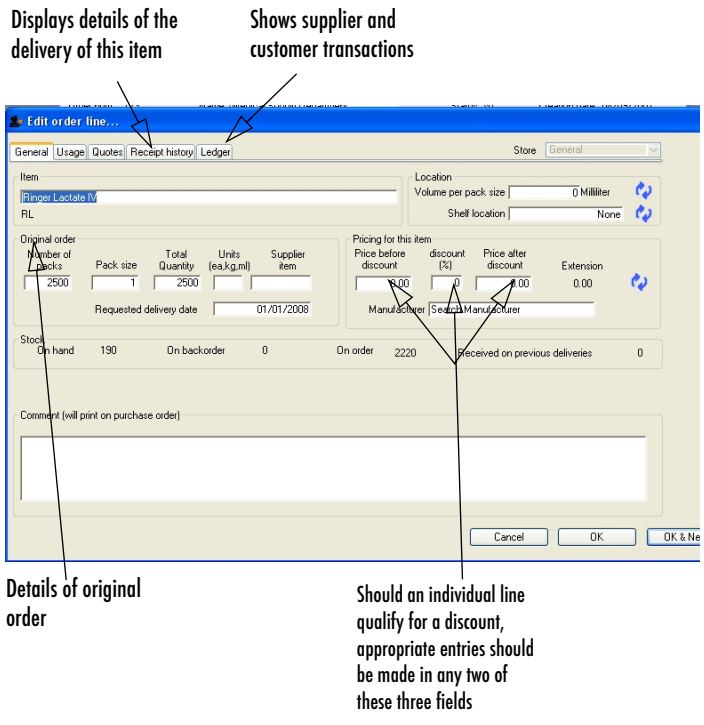
If the order qualifies for a discount applied to the entire order, either the percentage discount given, or the actual cash value of the discount should be entered in the appropriate field

Editing purchase order lines

To edit an order line, double click on the line you wish to edit.

Note: you can resize the order editing 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 you will be presented with a window allowing you to edit the item, quantity and pack size:



Information in the Edit Order Line window

Item

Here you can edit 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 editable once you have confirmed an order.

Pack size

This is the pack size the supplier prefers.

Units

The units that the pack is measured in.

Price

The quoted price for this item

Price extension

The price multiplied by the quantity ordered.

Volume per pack

In this field, you can define the volume per packfor 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.

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 ttthere 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.

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

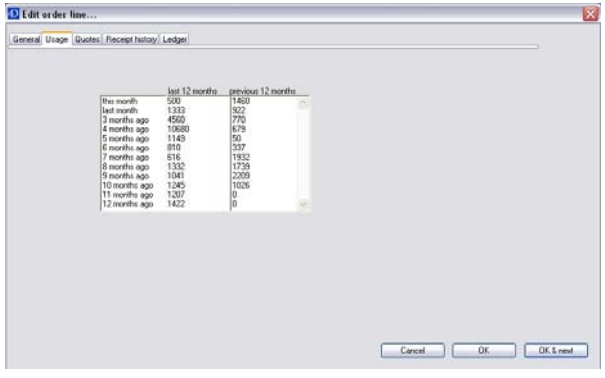
Quantity received

The total quantity of this line that has already been received on this order.

Tabs in the Order line details window

The 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.



The quotes tab

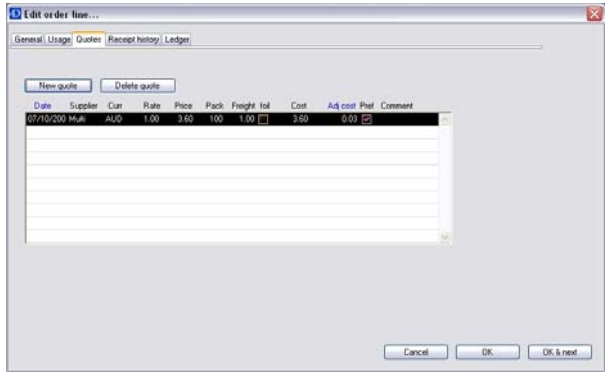
This tab shows quotes from suppliers for the item being viewed.

You can double-click a quote to view and/or edit details.

View quotations for the item in question. You can double-click a quotation to edit 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.

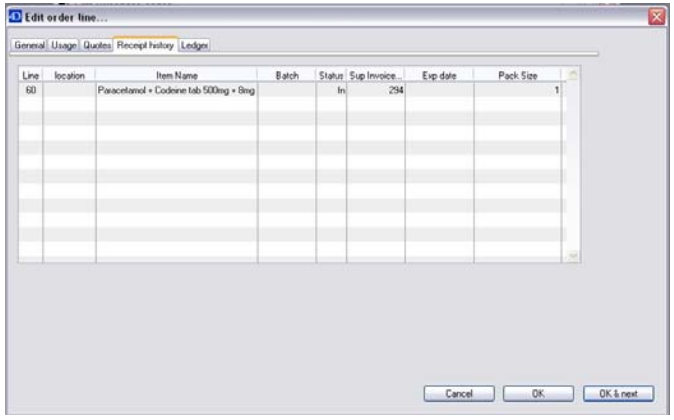
The *New* button allows you to add a new quotation.



The receipt history tab

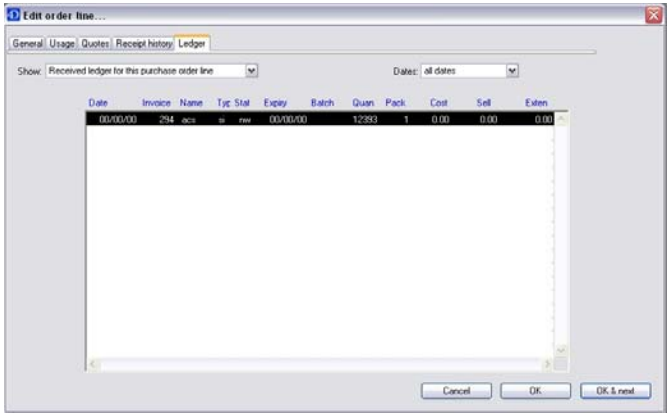
This tab shows all goods receipts for the item being viewed.

Currently double-clicking a line does nothing. From version 1.93 (Aug 2006), if you double-click a line the associated goods receipt transaction will open in a new window.



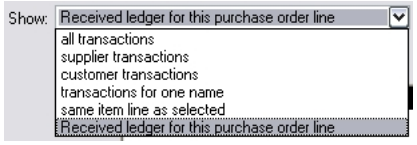
The ledger tab

This tab shows supplier and customer invoices for the item being viewed.

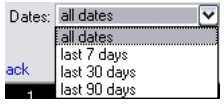


You can display a sub-set of the transaction lines by choosing options from the drop-down lists.

The option *Received ledger for this purchase order line* shows all supplier invoice transactions for the current purchase order line. Goods receipts are shown on a separate tab.



The *Dates* drop-down list allows you to show only recent transactions....



If you double-c lick a ledger line, the associated invoice will be opened in a new window

Buttons in the Order editing 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 editing 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.

Order status explained:

- When an order is first created it has status "sg" (for “suggested”)
- after an order has been confirmed, it has status "cn" (for “confirmed”) Confirmed orders have the order amount added to the "on order" field for each item, so that if another order is created for the same item, this quantity already on order will be taken into account.
- Orders that have been finalized have status "fn" (for “finalized”)
  - An order becomes finalized by clicking the *Make supplier invoice* button,
  - Finalized orders can no longer be edited.

- Should a supplier be unable to supply some or all of an item ordered, when the order is finalised, the 'unsupplied' amount is ignored in any of mSupply's subsequent *Stock on order* calculations.

Estimated order costs explained

From version 1.7 onwards, mSupply displays a new column (Price Ext) in the order editing window that shows the cost of the order line.

Other buttons in the Edit Order window.

Print purchase order for supplier

This 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

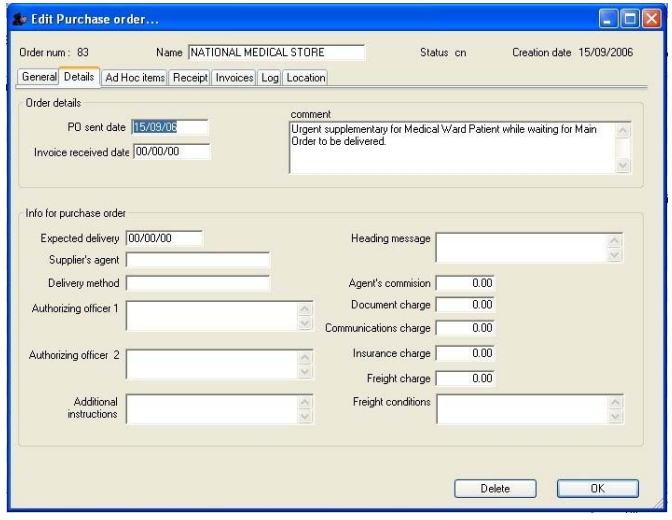
See the section above on "order status" for an explanation. Orders should be confirmed once the order has been placed with the supplier.

Auto calculate usage check box -

When this box is checked, each time you edit an item line, the usage for that line will be calculated. This is slower, but gives useful information uponwhich to base your ordering . Note that this option can also be turned on within the order line editing window.

The 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.



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 edit it if necessary to reflect the exact date.

Heading message

Any text you enter here (e.g. "Urgent", "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

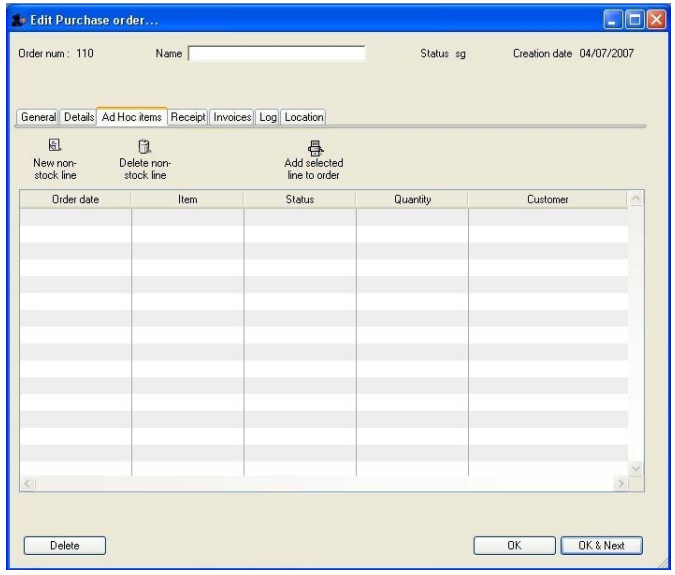
Enter any further information you wish to appear on the purchase order.

Commisions 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.

The 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.



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.

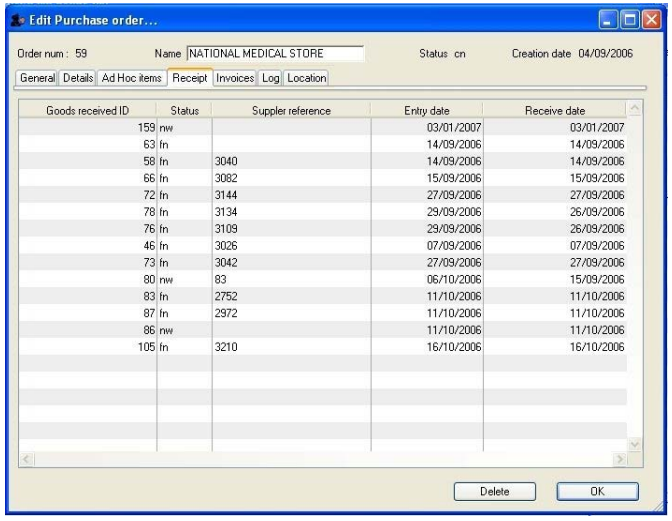
New Ad Hoc line button

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, edit and delete Ad Hoc items.

The Receipt tab

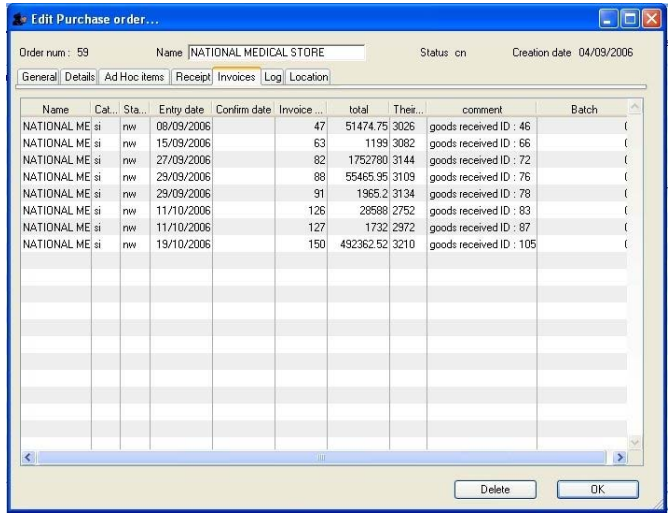
This is a record of the receipt of the order, and, where multiple deliveries have been made, records each instance.



Goods received ID	Status	Suppler reference	Entry date	Receive date
159	nw		03/01/2007	03/01/2007
63	fn		14/09/2006	14/09/2006
58	fn	3040	14/09/2006	14/09/2006
66	fn	3082	15/09/2006	15/09/2006
72	fn	3144	27/09/2006	27/09/2006
78	fn	3134	29/09/2006	26/09/2006
76	fn	3109	29/09/2006	26/09/2006
46	fn	3026	07/09/2006	07/09/2006
73	fn	3042	27/09/2006	27/09/2006
80	nw	83	06/10/2006	15/09/2006
83	fn	2752	11/10/2006	11/10/2006
87	fn	2972	11/10/2006	11/10/2006
86	nw		11/10/2006	11/10/2006
105	fn	3210	16/10/2006	16/10/2006

The Invoices tab

This tab displays a list of invoices that have been created from this purchase order.



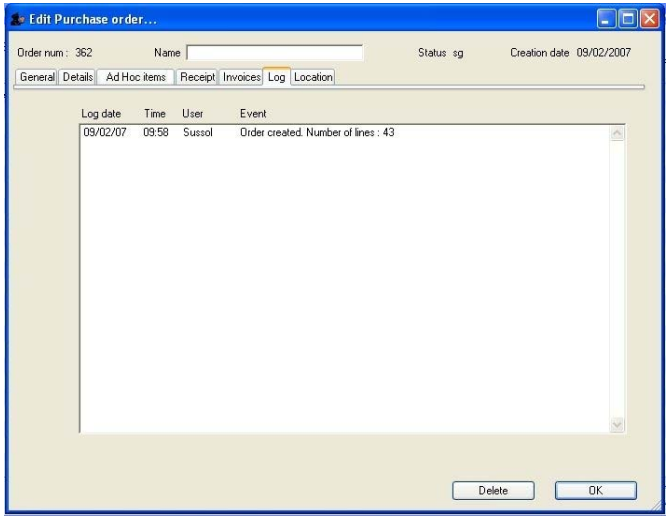
Name	Cat...	Sta...	Entry date	Confirm date	Invoice ...	total	Their...	comment	Batch
NATIONAL ME	si	nw	08/09/2006		47	51474.75	3026	goods received ID : 46	(
NATIONAL ME	si	nw	15/09/2006		63	1199	3082	goods received ID : 66	(
NATIONAL ME	si	nw	27/09/2006		82	1752780	3144	goods received ID : 72	(
NATIONAL ME	si	nw	29/09/2006		88	55465.95	3109	goods received ID : 76	(
NATIONAL ME	si	nw	29/09/2006		91	1965.2	3134	goods received ID : 78	(
NATIONAL ME	si	nw	11/10/2006		126	28588	2752	goods received ID : 83	(
NATIONAL ME	si	nw	11/10/2006		127	1732	2972	goods received ID : 87	(
NATIONAL ME	si	nw	19/10/2006		150	492362.52	3210	goods received ID : 105	(

There are two types of invoice that are created directly from purchase orders:

1. Supplier invoices are created each time a consignment arrives.
2. Customer invoices are created when a supplier invoice is created that contains Ad Hoc items.

The Log tab

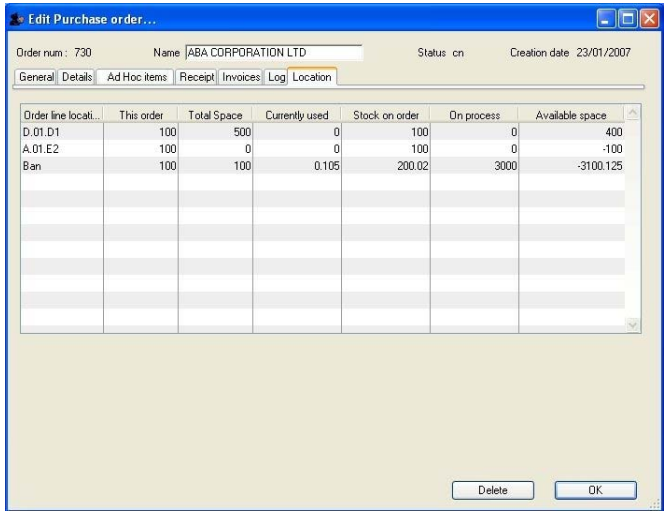
This gives information of events relating to the particular order.



The Location tab

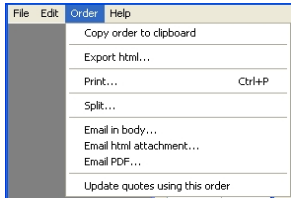
This tab displays the locations of the items received, if this feature is used. Where details of the volume of available space in any location has been entered, and where details of the area/volume of item pack has also been entered, the remaining available space will be displayed.

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.



The Order Menu

When the order editing 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.

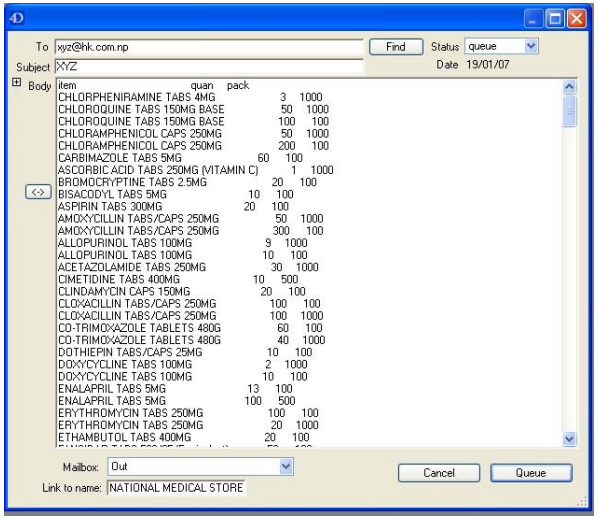
Split

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 edit 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 > list emails*, then double-click the email to edit it. Note that to make the columns line up properly, you will have to click the <I-I> 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.

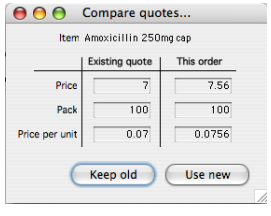
Note that you must use the PDF xChange PDF driver installed on the computer generating the email for this to work. The driver currently costs US$50, and is available from Sustainable Solutions <info@ss.org.np>

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.



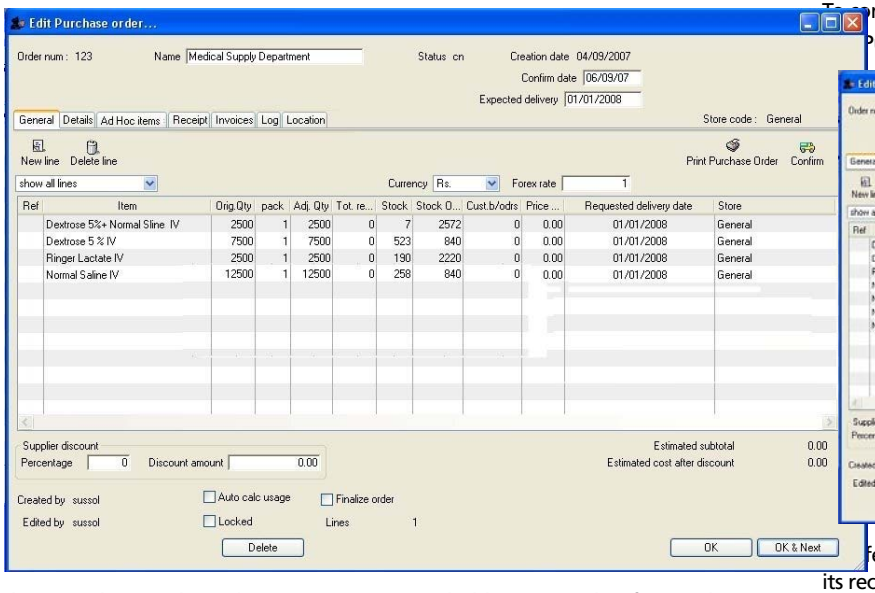
Note that you need to have your user permissions "Can add quotations" and/or "Can edit quotations" set before this command is available.

Split Deliveries

Creating split or multiple deliveries will now be described using the following example.

It is important to note that the Purccchase Order should not be finalised before this procedure is performed, as a finalised order may not be edited or altered in any way.

A store is placing an order for a year's supply of IV fluids and, having followed the normal procedures, mSupply has created the purchase order displayed: below.



The store does not have the storage capacity to hold 12,500 packs of Normal Saline, so the supply of this item needs to be made in multiple deliveries; it is decided that 5,000 be requested for delivery at the beginning of January, followed by 2,500 at the beginning of each of the months of April, July and October - i.e. at three monthly intervals.

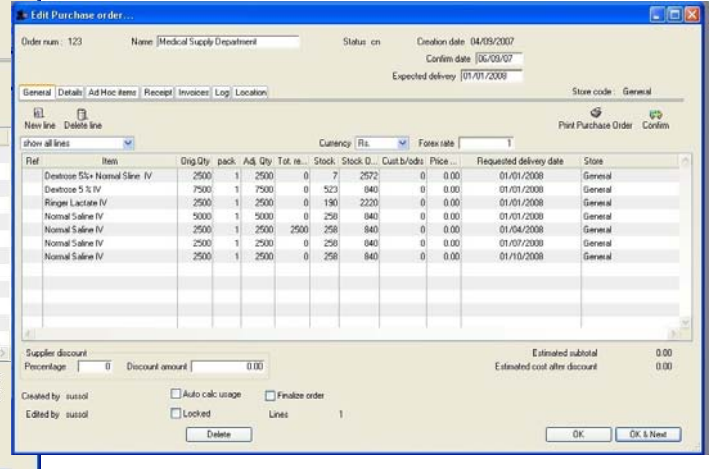
The Purchase Order is edited as follows:

- Click on *New line*, and add the item 'Normal Saline'
- In the *Number of packs* field, enter 5,000
- In the *Requested Delivery date* enter 1/1/08
- Click *OK & Next*
- In the *Number of packs* field, enter 2,500
- In the *Requested Delivery date* enter 1/4/08
- Click *OK & Next*
- In the *Number of packs* field, enter 2,500In the *Requested Delivery date* enter 1/7/08
- Click *OK & Next*

Repeat the last two steps, but enter 1/10/08 in the *Requested Delivery date*-field for the final delivery in October.

To complete the process, delete the line calling for 12,500 units on 1/1/08.

The Purchase Order should now look like this:



feature has the effect of allowing 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.'

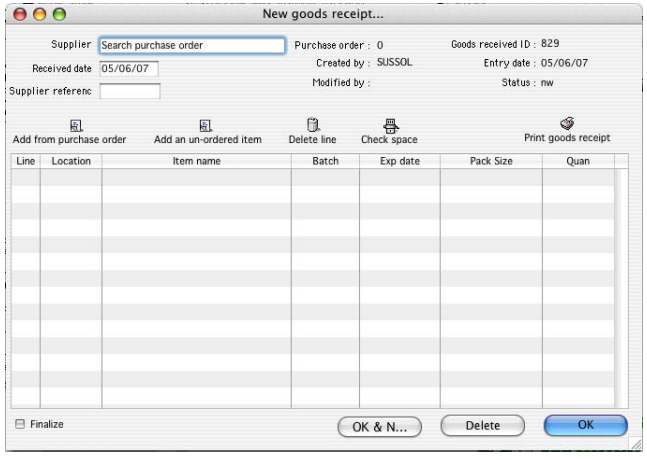
Receiving goods using the Goods Receipt function

Receiving multiple consignments (partial deliveries) for the one purchase order

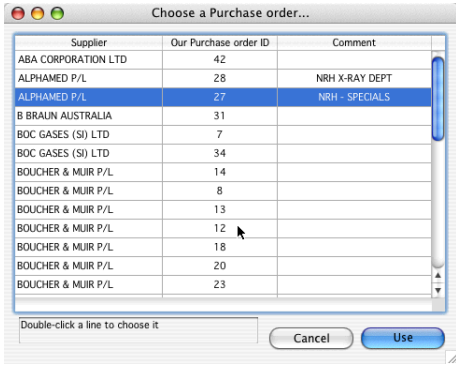
mSupply version 1.9 and later allows you to receive multiple consignments based on the original purchase order. This makes goods receipt process a little more complicated, but quite a bit more flexible. It also allows you to monitor supplier performance by comparing the amount received against the amount you actually ordered.

Entering goods received in the computer

Choose Supplier > New goods received, and this window appears:

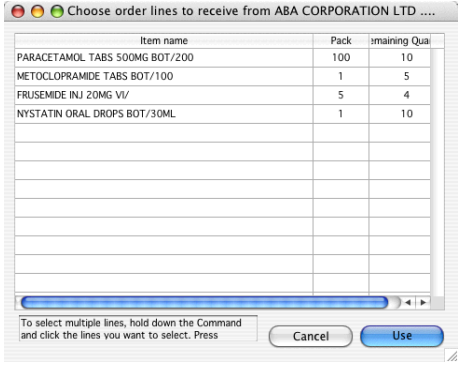


In the Supplier field (which displays *Search purchase order* when it first opens), enter the first few characters of the name of the supplier from whom the order has been received; to display all purchase orders awaited, enter @ in the Supplier field. (This has been done in the example shown below):



From this screen select the entry which matches the order you have received either by double clicking on the entry, or by highlighting the entry and clicking on the *Use* button.

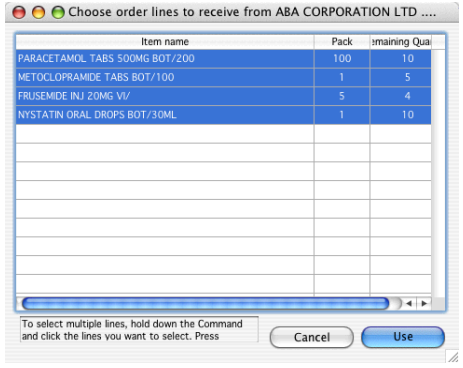
The *New Goods Receipt* window reappears with the supplier field and some other details completed. Clicking on the *Add from purchase order* icon brings up the *Choose order lines .....* window, which displays the goods on the purchase order, and you may either select each item separately, or - when the items ordered and the quantities ordered match the delivery exactly - select the entire order to enter the details of the items received .



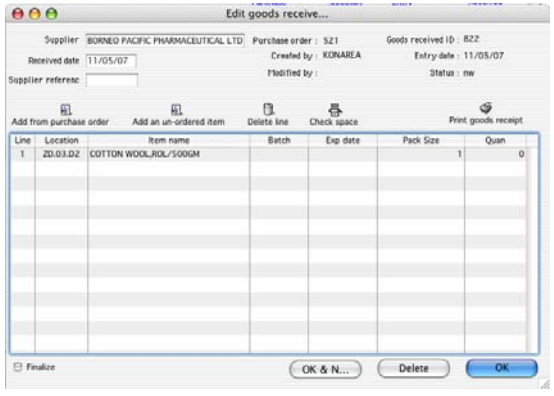
Occasionally goods may be received which were not ordered; when this occurs, click on the *Add an un-ordered item* icon and complete all relevant

details. Select the item before proceeding.

In both instances, when the items have been selected, click on the *Use* button.



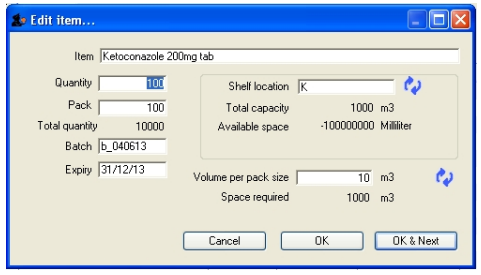
You are now presented with the *Edit goods received* window .



All the items you've selected are 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.

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.



After entering the details for each item, you can click on *OK & next* to proceed to editing the next item.:

Finalising Goods Received

When all available stock on the Goods Received list has been received, a Supplier invoice will be created, but in order to do this the Goods Received list must be foinalised by checking the *Finalise* box in the bottom left hand corner of the window.

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.

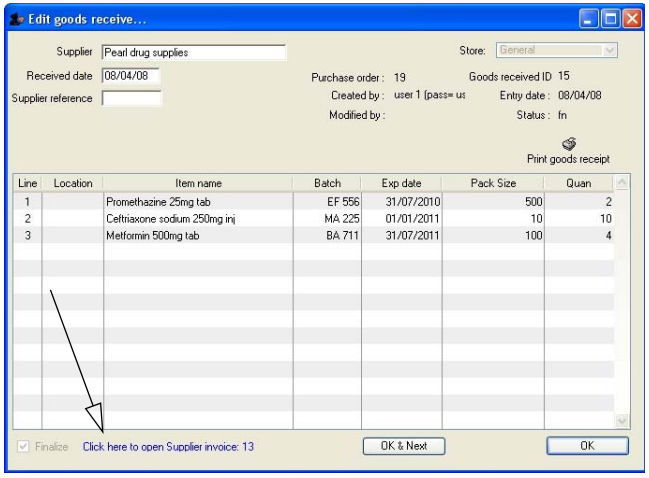
The Check Space button provides a means of quickly seeing if the incoming stock will fit in the space you have allocated: After clicking the button lines will be coloured as follows

- Red: there is not enough space at the chosen location to fit the stock.
- Orange: After receiving stock the location will be more than 90% full.
- Green: After receiving this line the location will be less than 90% full.

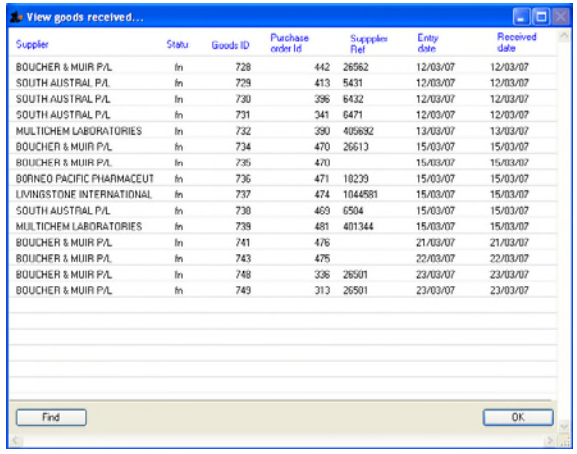
Viewing existing Goods Receipts

Choose Supplier > Show goods received...

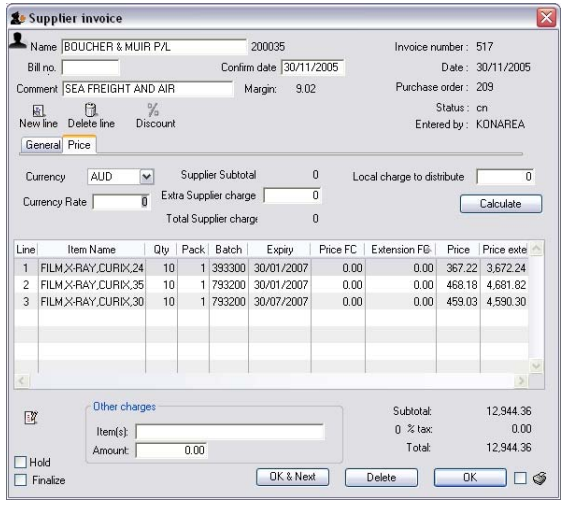
A standard mSupply find window is shown:



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.



Viewing and editing supplier invoices created via Goods Receipts



Supplier invoices created via goods receipts differ slightly from standard supplier invoices on the second tab: *Prices*. Here, you can add in any extra

charges from the supply side (jn the supplier's currency) and from your side (in your local currency) and mSupply will calculate an updated price for you.

Currency and Currency rate

Select the supplier currency from this drop-down box. The rate will be automatically entered below.

Extra supplier charge

Here, in the supplier's currency, enter any extra charges from, the supplier.

Local charge to distribute

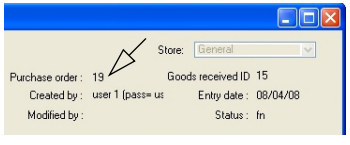
Here, enter any local charges, in your local currency.

Calculcate

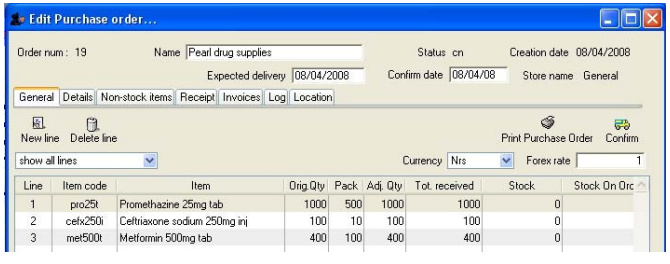
Click this button to have the extra supplier charge and the local charge to distribute automatically assigned to the lines below. The changes will be reflected in the total, also..

Goods Received: viewing relevant Purchase Order and Supplier invoice

Accessing the relevant Purchase Order when the *Edit goods received* window is open is achieved by clicking on the Purchase order number (upper right) ; in the example shown, by positioning the cursor over 19 .....:



.....and clicking, Purchase order no.19 is displayed:

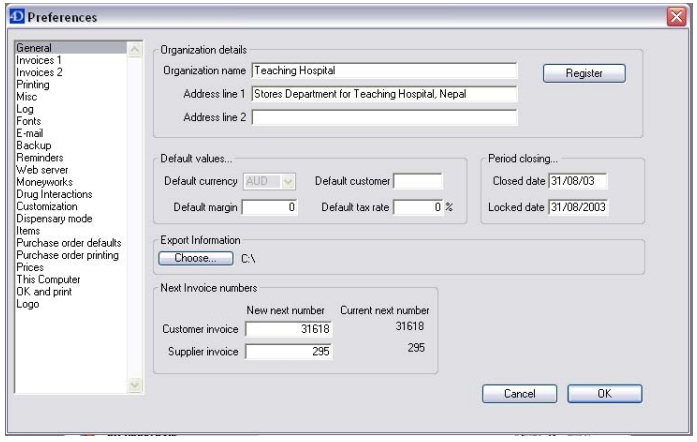


Similarly, if you click on the link *Click here to open Supplier ...* , the relevant Supplier invoice will open:I

Preferences...

Choosing the preferences menu item from the file menu opens a window with a side bar. Clicking on a subject in the side bar shows the options for that subject:

General



Organization name-

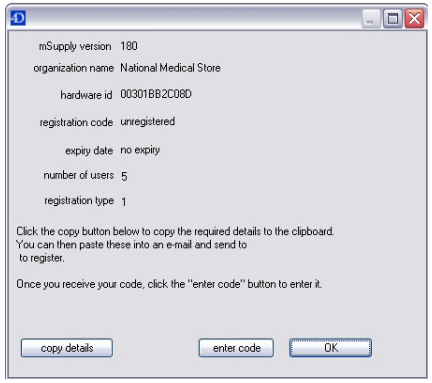
this will print on the top of invoices. Note that your organization name is tied to your registration code. Please contact info@msupply.org.nz for a new code before changing your organization name.

Address line 1 & 2

enter the address information about your organization that you wish to appear on invoices.

The Register button

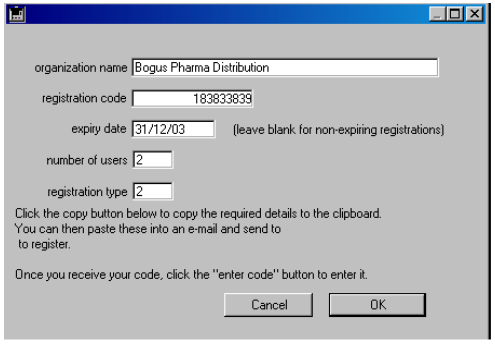
This button will be dimmed once you have registered. If you have not registered, clicking this button will display the registration details window:



- Here you are provided with the two pieces of information you need to register:
  - Your organization name
  - Your hardware id.
- Clicking the copy button will copy these two pieces of information to the clipboard, so you can paste them into an email and send them to us.

Note: if the hardware id field is not showing 12 characters &/or numbers, you do not have an ethernet card installed on your computer. Please consult us for installation instructions. Such cards can be purchased for $10 to $20.

- Once we have received your registration information we will generate a registration code for you. The code is entered by clicking the enter code button in this window. 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 number will describe what information to put in each field.



- Note: mSupply registration codes are specific for the computer and organization name and the expiry date of your licence (if it is time-limited). If you change either your organization name or the computer on which you are running mSupply you will have to contact us for a new code. (We may require evidence of the changes you have made before issuing a new number).

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 currency

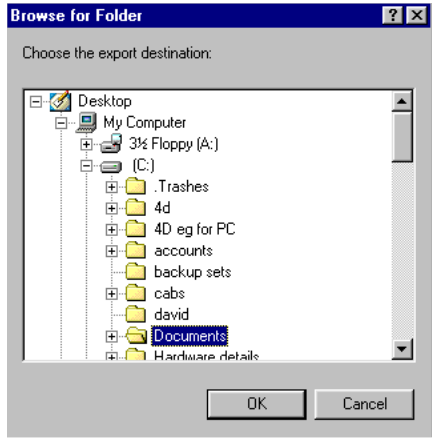
This is the currency you use yourselves. You can choose from a pop-up menu of currencies you have entered into mSupply.

Default margin

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 will 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.

Export destination

If you want your exported files to go to a particular destination, choose the name of the folder by clicking the choose button:



Once you have found the folder you wish to use, click the “OK” button.

(Note: Macintosh users: choose "desktop folder" to have exported files appear on the desktop. Windows users choose desktop.

Note: in client/server mode, exports automatically go the "exports" folder in the same folder as the 4D client application. This is because many networks will not allow clients access to a folder on the server computer)

Next invoice numbers

You may increase the invoice number at any time, but there is no real need to do this. Some people like to start a new year with the numbers moved up to the next thousand or ten thousand.

Note that you can't decrease an invoice number below the highest number already used.

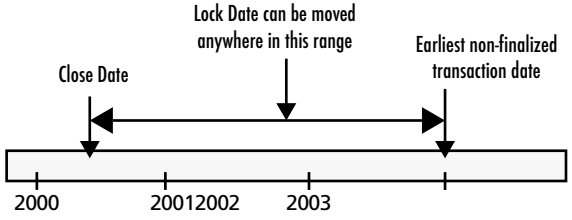
Note too that supplier invoices and customer invoices use separate sets of numbers- a supplier invoice and a customer invoice can have the same number without mSupply getting "confused". This might confuse you though, and if this is the case increase the invoice number for one series (eg next supplier invoice number) to "50000" (or some such number) so the two series are very different.

Period Closing

There are two fields you can enter dates into here.

[The *closed date* is the date before which no transactions can be entered. Setting the close date means that all transactions up to that date are finalized and no more transactions with an earlier date will be able to be entered in the future . The close date can not be moved backwards- only forwards.

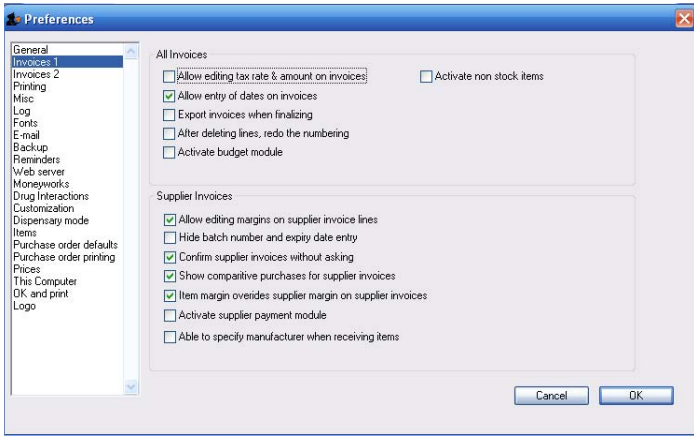
The *locked date* is the earliest date that can be entered for a transaction. The lock date can be moved forwards as far as the oldest non-finalized transaction, and backwards as far as the close date



If you try to set an invalid lock or close date you will be warned.

Be very careful setting the close date. Changes to the close date can not be undone.

Invoices 1



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 date entry on invoices

Normally the date is filled in with the date the invoice is created. If you need to enter your own dates, check this option. Note that you will not be able to modify the dates on finalized invoices.

The entry date is still maintained by mSupply. You can only edit the confirm date.

OK button will print by default

If this option is checked, the printing check box on supplier and customer invoices is on by default. On all invoices you can choose to print or not print- this merely sets the default setting.

Export invoices to a file when finalizing

If this box is checked, each time you finalize customer or supplier invoices, a tab-delimited text file of the finalized 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.

Invoice line display

there are three possible ways for invoice lines to be sorted when they are displayed. Choose the one that suits your needs:

no particular sort order	is slightly quicker at displaying the lines, especially if you have invoices with a lot of lines (eg more than 100)
by line number	maintains the order in which you entered the items. This option is the one most commonly chosen by mSupply users.
alphabetically	sorts alphabetically by the item name

Activate budget module

In order to use the Budget feature, this box must be checked. For further information see *Budget Overview* on page 224.. This feature is applicable to store mode only.

Activate Ad Hoc items

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 *Manage Ad Hoc items...* on page 61.

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 & 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.

confirm supplier invoices automatically

Check this box if you want mSupply to put goods into stock when you automatically click the OK button on a supplier invoice. Usually, you will want stock to be available for issue as soon as it is entered. If for some reason you want to be able to enter supplier invoices without having the stock immediately available, leave this option unchecked. You will then be prompted when you click the OK button on a supplier invoice whether to confirm the invoice then and there or later.

show comparative purchases for supplier invoices

When checked, the window shown by the new line button on supplier invoices will have a list at the bottom that displays recent purchases of the item you enter.

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.

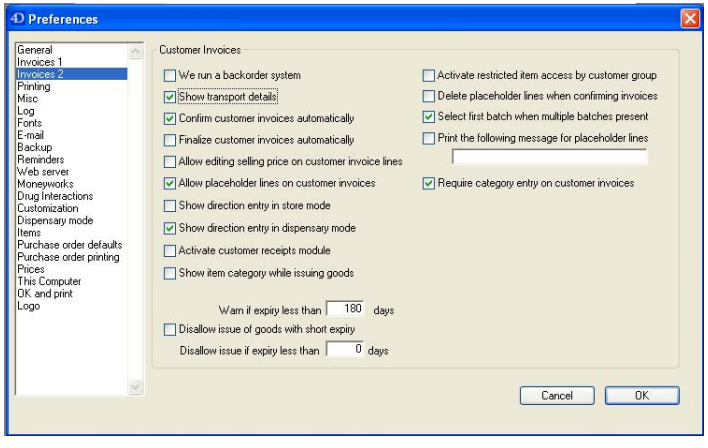
Activate supplier payment module

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 us mSupply's export facilities, there is no need to use the inbuilt payment system).

Able to specify manufacturer when receiving items

Check this box to show a manufacturer field when receiving each item on a supplier invoice. Manufacturers are set up using 'Show manufacturers' and 'New manufacturer' on the *Supplier* menu.

Invoices 2



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 "place holder" lines are handled.

A place holder line is a line entered on a customer invoice which does not have any stock associated with it. Place holder 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, place holder lines will be transferred to make backorders. If you are not using a backorder system, place holder lines will be deleted if the option below is turned on.

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.

Confirm customer invoices automatically

Check this box if you do not wish to run a 2-step issuing process for customer invoices. A two step issuing process means that when an invoice is initially created, it will have a status of "sg" ("suggested"). When you print a suggested invoice, a packing slip will be printed. Stock on "sg" invoices has been taken from the "available" entry, but not from the "total stock" entry for each item line. If the "one step confirm" button is checked, then the customer invoice entry window will no longer have a "confirm" button. The first time you click the OK button after creating a new invoice, the invoice will immediately be confirmed.

Finalise customer invoices automatically

Check this box if you want to disallow editing of an invoice as soon as it is entered. Once the OK button is clicked, on the main invoice form, the invoice will be finalised, and no further editing allowed. Until the OK button is clicked, individual invoice lines can be edited.

If you turn this option on, “confirm customer invoices automatically” will also be turned on if it is not on already. That is, if invoices are automatically finalis4ed, they will also automatically be confirmed.

Allow editing selling price on customer invoice lines

When checked, the selling price of lines on a customer invoice can be edited as the invoice is being made or edited.

Allow entering 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 direction entry 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.

Show direction entry in dispensary 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 dispensary 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, supplier invoices

will display a zero amount outstanding. (If you use a separate accounting system, and us mSupply's export facilities, there is no need to use the inbuilt payment system).

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.

Warn me if expiry is less than (days)

Entering a numver in this box causes mSupply to alert the user when any item selected is due to expire before this number of days has passed.

Disallow issue of goods with short expiry

If this option is checked, mSupply will not allow issue (customer invoices, 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.

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 confimed.

Select first batch when multiple batches present

When this box is checked the first batch (the one with the shortest expiry) will automatically be selected when issuing items. The cursor will then be positioned for you to enter the quantity.

If the box is not checked, the cursor will be positioned in the "line number" box, allowing you to select a line.

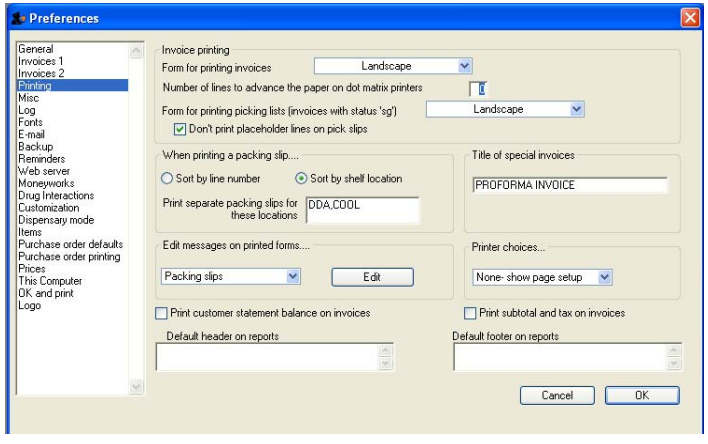
Print the following message for placeholder lines

When this box is checked, the message typed in this field will be printed in the batch column for placeholder lines. For example, you might enter "backorder" to show these lines will be backordered. If you check the box and leave this field blank , the batch field will be empty.

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.

Printing



Form to use for packing slips

. Choose the appropriate form.

- "simple...."- this form uses a mono-spaced font, which tends to do a better job with some dot-matrix printers.

- "nicer- for inkjet/laser"- This form is the recommended form.
- "shop receipt" is a simple receipt for printing onto A5 size paper. Information about batch and expiry is not shown.

Form to use for invoices.

Choose the appropriate form to use when you print customer invoices.

Dont't print placeholder lines in pick slips

Place holder lines will not be printed in pick slips if you have checked the "Don't print placeholder lines in pick slips" box in the preferences.

When printing a packing slip.

Packing slips can be sorted by line number (the order they were entered), or by shelf location (which will enable a "logical" order for picking goods from the shelves).

Print separate packing slips for these locations

By default mSupply will print a single pick slip for all locations. If, for instance, you need separate pick slips 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 slip being printed contains CS items, they will be printed separaterly, and the same for items with a"DD" location.

Edit messages on printed forms.

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:.....
- Position:.....
- Date:.....

A message on a packing slip might be as follows:

- Packed by:.....
- Date/time:.....
- Checked by:.....

Title on special invoices

Here you can enter a title that will be shown when you print a special invoice. Special invoices are typically used as narcotic receipt forms.

Printer choices

This is a new option in version 1.62. It allows the choosing of a particular printer model when printing invoices. More printer models will be added over time.

If you are not sure what to choose, leave this option set to "None- show page setup"

If you choose the name of a printer, when you print an invoice the page setup and print windows will not be shown. Instead, the invoice will be printed directly using the print setting stored for that printer.

Print customer statement balance on invoice.

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.

Print subtotal and tax on invoices:

If you are adding tax (VAT, GST or Sales tax) to your invoices, check this option to show a subtotal and tax amount

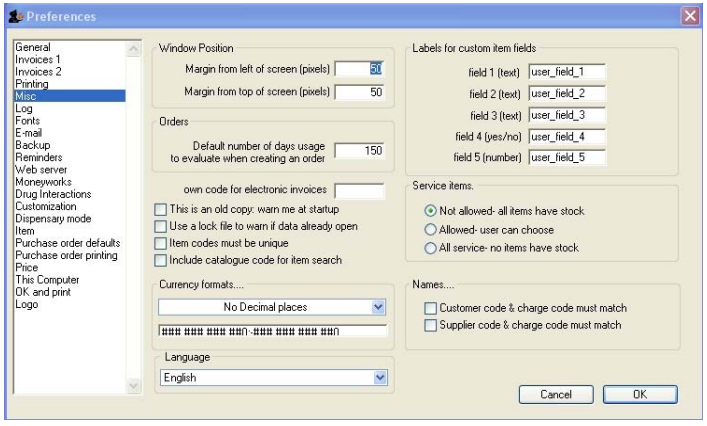
Default Header on reports

If you enter text here, it will appear on the top left header for most reports. A common use of this space is to include your organisation name.

Default Footer on reports

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.

Misc



Window Position

Here you can set the number of pixels from the top of the screen and from the left side of the screen (on Windows: the top/left of the application window) that new windows will open.

Orders

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.

Own code for electronic invoices

The code that customers must have for your organization 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 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

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 authorizes 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.

Note that this option has no effect in client-server mode- mSupply will properly handle multiple user access to one data file in this situiation.

Item codes must be unique

When this box is checked, mSupply will ensure that each new item entered has a unique 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.

Labels for custom item fields

mSupply provides you with five 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), and the fifth field is a numeric field. 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.

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.

Customer code and charge code must match

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

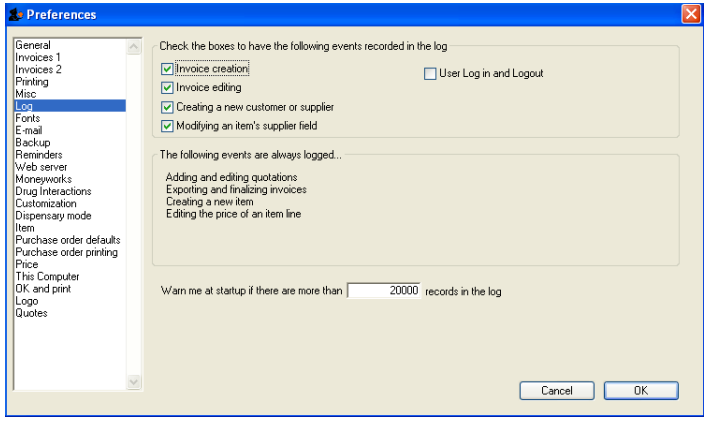
If checked, when entering or edit a Supplier, you will have to enter the same code for both the "code" and the "charge code" fields. (It is a good idea to leave this checked unless you have several suppliers that are invoiced separately, but whose invoices are collated onto a single statement at the end of the month)

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 ou 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 you can cause numbers to not display at all, or display erroneous data. Contact Sustianable Solutions if you need more information.

Log

mSupply logs some significant events automatically, but other events are only logged if you select the appropriate check boxes on this tab.



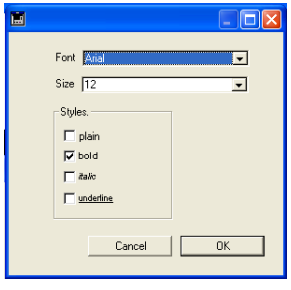
Item	What is recorded
Invoice creation	The log will record each new invoice created
Invoice editing	An invoice is considered to have been edited if it's total value has changed. The old value and the new value are recorded in the log
Creating a new customer or supplier	Whenever a new customer or supplier is created, their name and code will be recorded in the log.
Modifying an item's supplier field	The supplier field for each ittem can be used to determine to whom orders for goods are placed (depending on the type of order you generate). If you use this method, you may want to know if mSupply users change the preferred supplier for an item
User log in and log out	Each time a user logs in or logs out of mSupply

Please contact us if you need more detailed logging than is proved here. It is easy to incorporate into a future version- the trade-off is that it leaves the

potential open to create very large log files, which may be a problem for some users.

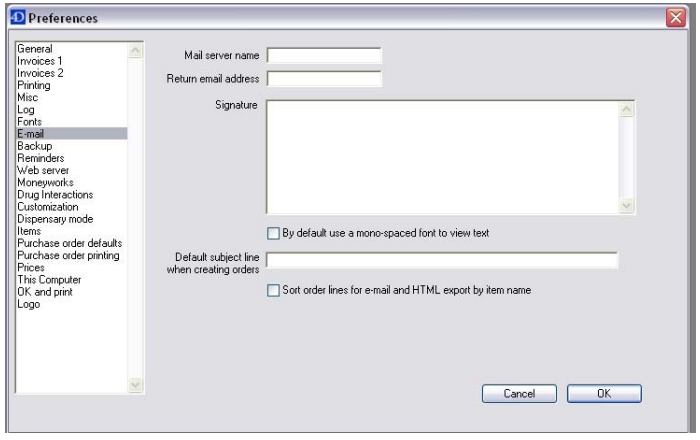
Font

You can edit the text styles used for items on customer and supplier invoices. Double-click an item to be shown the styles window:



You can choose from available fonts on your system, the text size and the text style. Click the *OK* button to save your changes, or *cancel* to exit the window without saving.

E-mail



Mail server name

The name of your mail (SMTP) server. eg "mail.mac.com". You only need to do this if you are using mSupply's inbuilt email functionality.

Currently mSupply does not support servers that require authentication. We can add this functionality if you ask us nicely.

Return email address

Enter your own email address. You only need to do this if you are using mSupply's inbuilt email functionality.

Signature

The text you enter here will be added at the end to all e-mails you send. You might want to put your organization contact details here. It is generally poor etiquette to make your signature too long.

Use mono-space font by default

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.

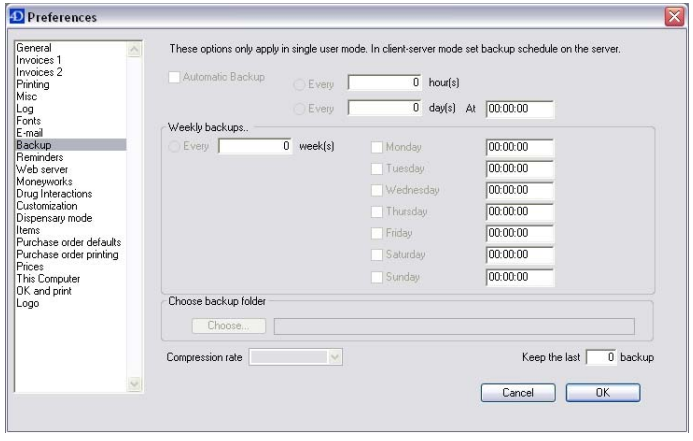
Default subject line when creating orders

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.

Backup



If you are going to use this function, contact Sustainable Solutions. For more information on this function For further information see *Backup.....* on page 193.

The settings in this window are to be used only for single-user mode. In client-server user mode you must set the backup preferences on the server machine.

Choose backup folder

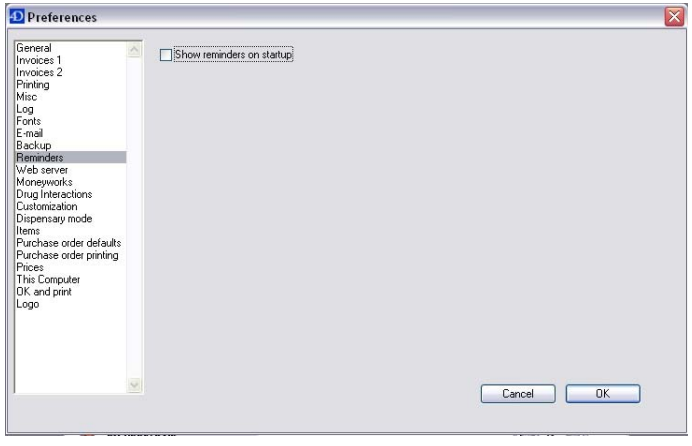
Click the "Choose" button to specify the destination of the backup files. We strongly recommend you backup to a different physical volume from the one where your mSupply data is stored.

We recommend running mSupply server as a Windows service. This allows automatic log on, and control of the starting and stopping of the server from command line tools that can be run when a UPS is shutting down. Please contact us for more information.

Compression ration

Choose whether backups should be compressed or not from this drop-down list. *Compact* will give the smallest backup size, but it will take longer for backups to run. *Fast* is a compromise of speed and size.

Reminders

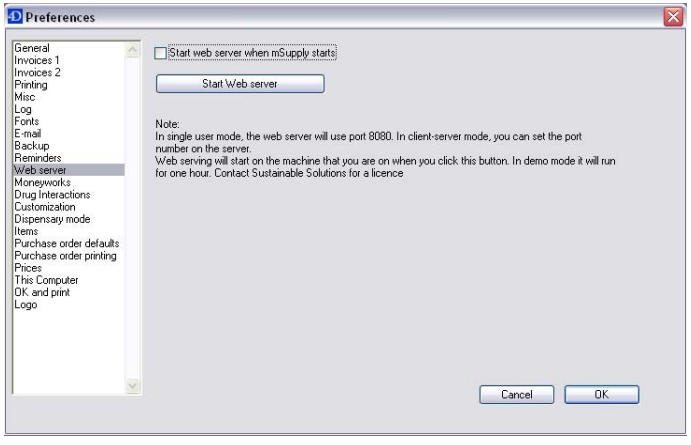


Reminders provide a simple to-do list built into mSupply.

If this option 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.

For further information see *Reminders...* on page 223.

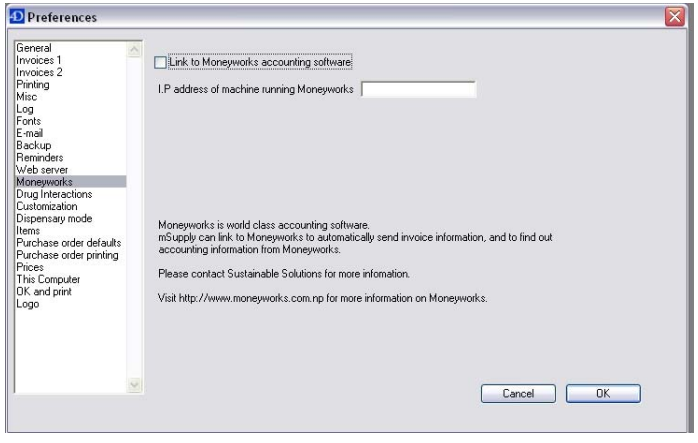
Web server



mSupply includes a built-in web server

Here you can set it to start, or to start automatically when mSupply is started..

Moneyworks



If you use the superb Moneyworks accounting software, you can have mSupply directly input invoices into Moneyworks.

Contact <info@ss.org.np> for more information on these options.

Visit http://www.moneyworks.com.np for more information on Moneyworks, including a free demonstration version.

Link to Moneyworks.. check box

This option turns on linking to 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.

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.

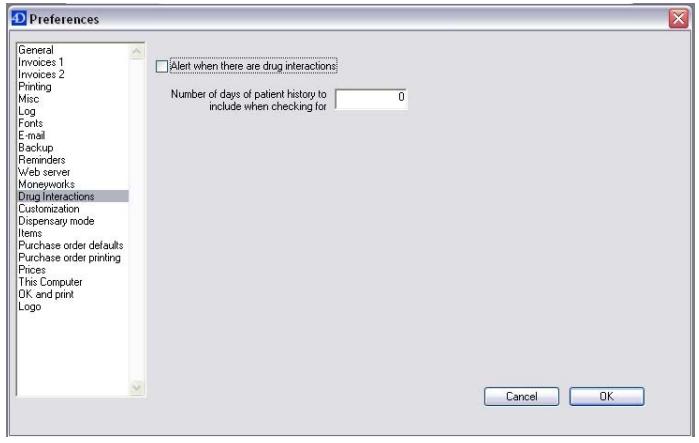
If you are on Windows or a Mac connecting to a local instance of Moneyworks, make sure this field is empty.

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.impo" and the map for customer invoices "ci_import.impo". 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 finalized using the "Finalize customer invoices" and "Finalize supplier invoices" commands.
- Note that the "Export invoices when finalizing" option must also be checked. (This is found on the "Invoices 1" page of the preferences.)
- If you get an error when exporting, usually you will get a message telling you what the problem is. Things to check include
  - Obviously, Moneyworks must be running
  - 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 finalized 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.

Drug interactions options

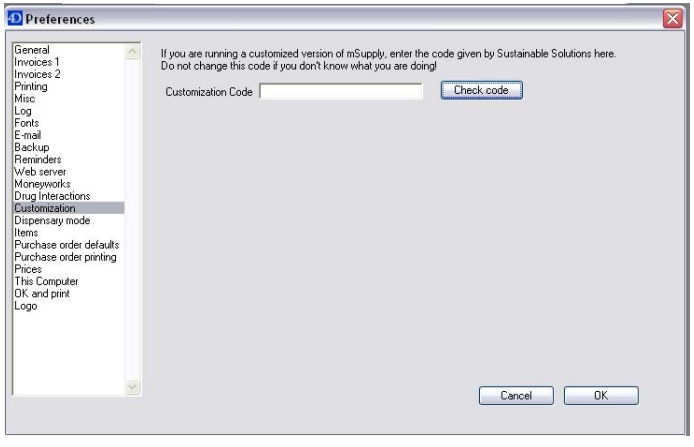


When operating in dispensary mode, you can choose have mSupply alert you to drug interactions.Dispensary mode is explained further in *Dispensary Mode* on page 103

The number of days of patient history.... field determines how far back from the current date mSupply should look for drugs that interact with the drug you have just entered.

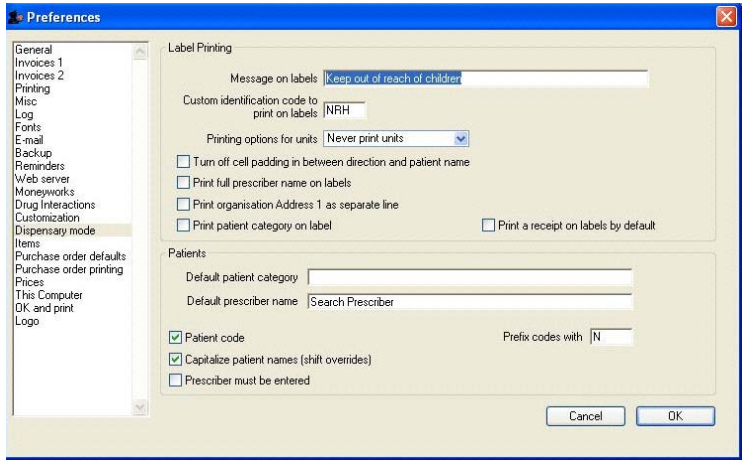
When drug interactions are activated, you will be shown a warning message when you enter a drug on a patient invoice that interacts with other medicines dispensed to that patient.

Customization Options



On request from client, we may make a changes to mSupply that are only visible to that client.This pane allows you to enter in a customization code to activate those changes

Dispensary mode



Message on labels

The text you type here will be displayed on medicine labels on its own 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.

Print prescriber full name

To have the prescriber's full name printed onlabels, check the box in *Print prescriber full name.*

Print organization address 1 as separate line

By checking the box *Print organization address 1 as separate line*, you can print organization 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 a receipt on labels by default

mSupply allows you to print a patient receipt on a label; to enable this function by default, check the box *Print a receipt on labels by default* in *Preferences:Dispensary mode* as shown above. This has the effect of enabling the "Print receipt" check box in the *Prescription entry window.* Note that if the *Print a receipt on labels by default* is not checked, the function may still be turned on in the *Prescription entry window.* For further information see *Printing receipts* on page 110.

Print patient category

Once you check the box of *Print patient category*, you are able to print the patient category on medicine label on patient name line.For this, you have to set the patient category in *Preferences: Dispensary mode*.

Default Patient category

The text you enter into this field will be assigned to the category field for new patients.

Assign Patient codes automatically

If this box is checked each new patient created will have a serial number assigned to them. The assigned code can be overriden by the user.

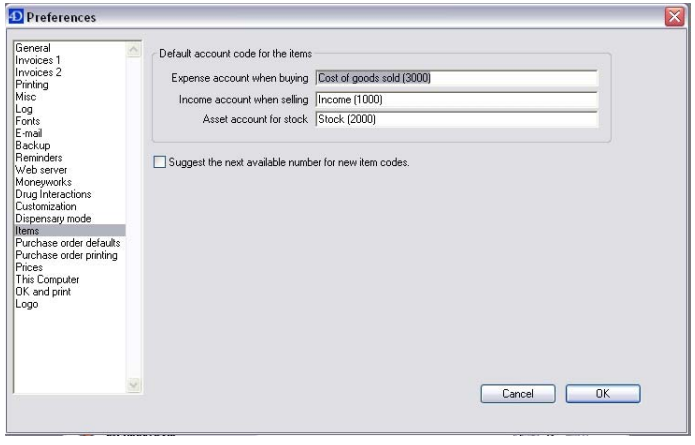
Prefix codes with

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.

Warn if no prescriber entered

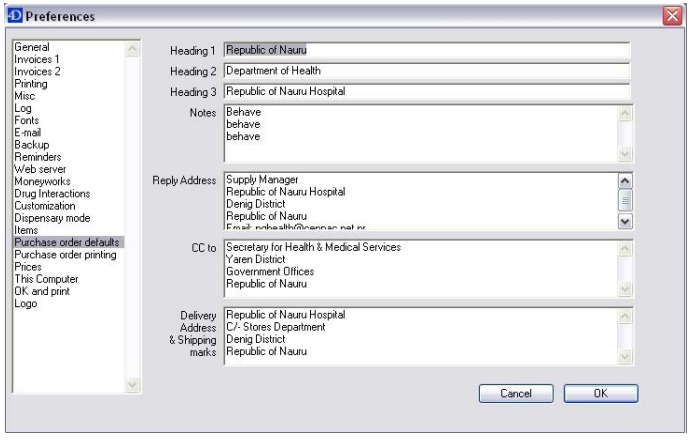
If this checkbox is checked, then the user will be warned if a prescriber has not been entered when they click the *OK* button for accept and print a prescription.

Item



In this window you can set the default account codes that will be used when new items are created either manually or automatically.

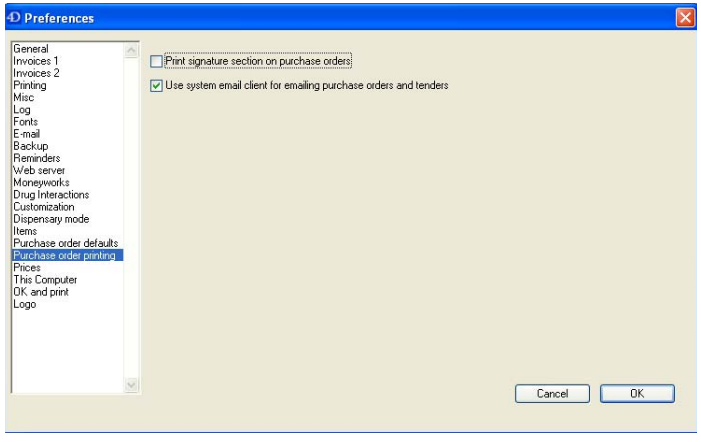
Purchase Order Defaults



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 Printing



Print signature scetion on Purchase Orders

When this box is checked a section will be printed on purchase orders that shows the authorizing 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.

Use system emailer....

When this option is checked sending tenders and purchase orders as attachements will result in an email with an attachment being created in your chosen email client such as Outlook, Thunderbird, Eudora, etc. (Windows only at this stage). When this option is not checked, emails will be created in the mSupply email queue.

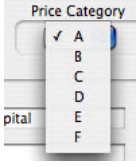
Note: this option requires that the Win2PDF driver be installed on Windows. Contact us to purchase. (On Mac the inbuildt PDF driver is used)

Prices

On checking the box for "Use customer price categories", it will activate the price categories.

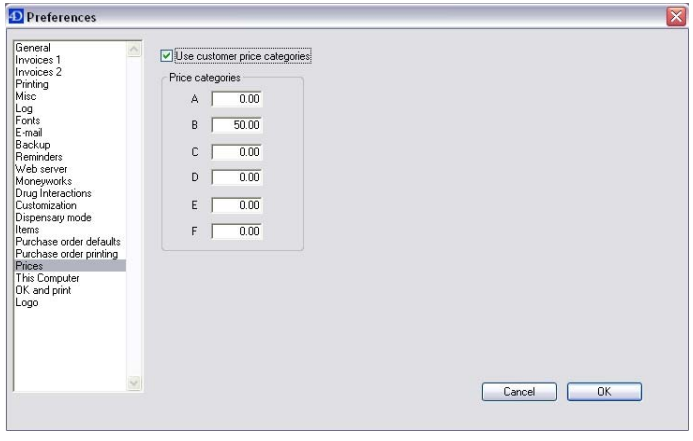
By default all customers are assigned a price category of "A"

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.

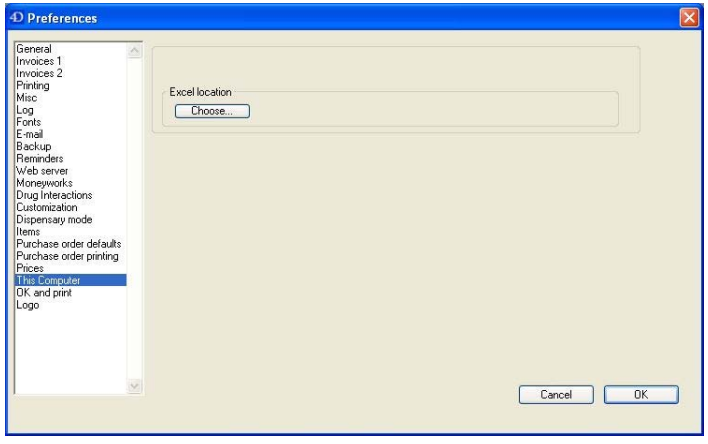
For example, you might have a group of customers to whom you charge commercial prices, which are 20% above your normal price. Enter "20" in the "B" category field, then assign your private customers a price category of "B"



This computer

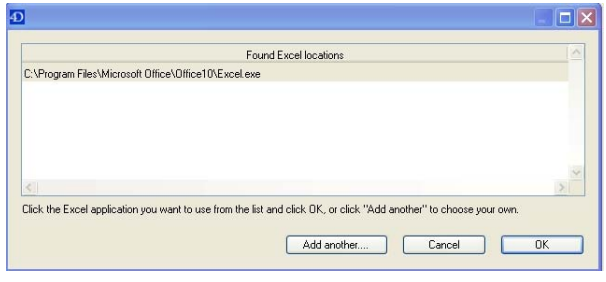
The settings in this window apply to the computer you are currently connected from. That means that if you are using mSupply in client-server mode you will see different values depending on which computer you are currently using.

Note that the computer is identified by it's network card, so if you change the network card you may have to re-enter the settings displayed here.



Excel location

Here you can set or reset the location of your Spreadsheet application. Once mSupply knows this location, it won't ask you again. Clicking the button results in mSupply searching common locations for Excel. If it finds them it shows the window below. If it doesn't it shows an open/save window where you can choose the location yourself.



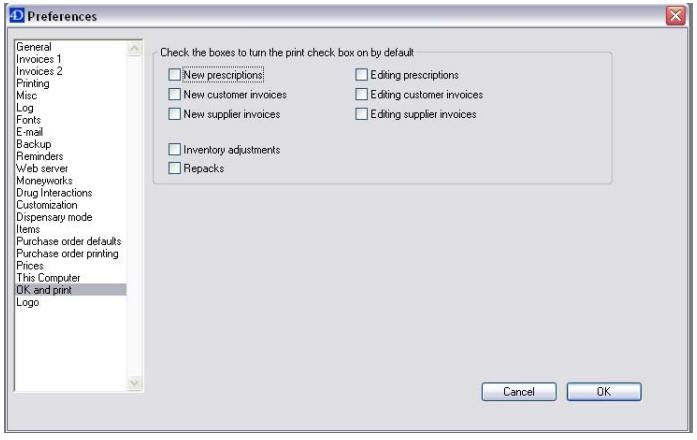
Click on the version of Excel you want to use and then click OK.

If Excel is installed in a non-standard location you can use the "add another" button to locate it and add that location to the list.

In client/server mode the location of Excel on each machine is stored separately.

Staroffice and Openoffice are also supported- if you use these applications just choose the "Soffice.exe" file instead of "Excel.exe"

OK and Print



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.

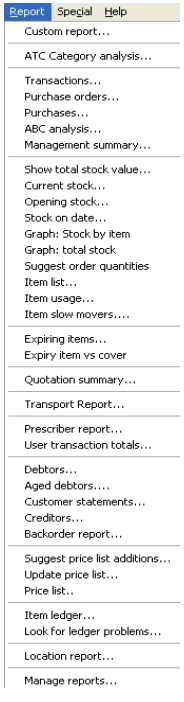
Logo

Here you can paste in a logo you have copied to the clipboard; it must be in the form of a Bitmap (yourlogo.bmp) or a Tagged image format (yourlogo.tif).

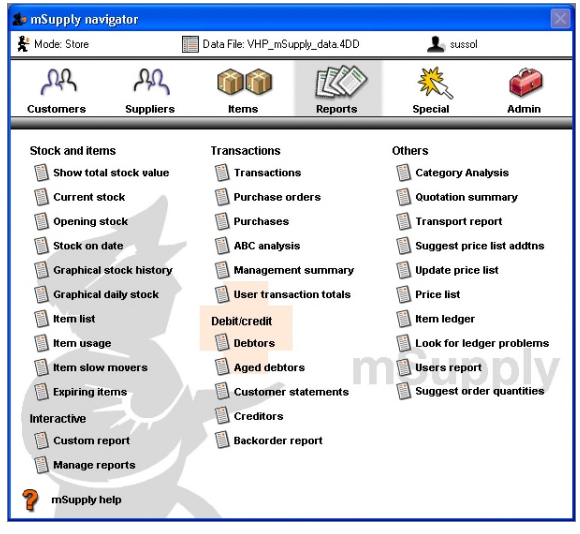
If you want the logo to be printed on invoices, mark the checkbox.

Currently the logo will only print on purchase orders and invoices that print in landscape format (Choose the invoice format from the "Printing" pane of the preferences).

Report Menu

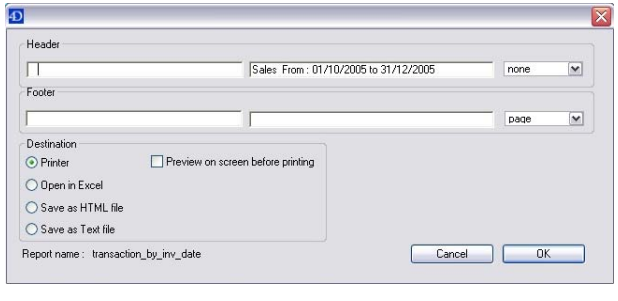


Alternatively, many reports are available from the *Reports* page of the Navigator, as shown below:



Report printing options...

Many of the reports below present you with a window like this before printing the report:



This window allows you to set various options:

Report destinations

Printer

On selection of this option, the print window will be displayed. 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 MS Excel, provided MS Excel is installed on your computer; this feature also opens the report as a spreadsheet in Staroffice/ Openoffice. [We've included special code to make sure they open using the "Calc" module of these applications.]

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.

The first time you use this option, mSupply may ask you for the location of your spreadsheet program, which it will then store for future reference.

The location can also be set by choosing File > Preferences and clicking on the "This Computer" tab.

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

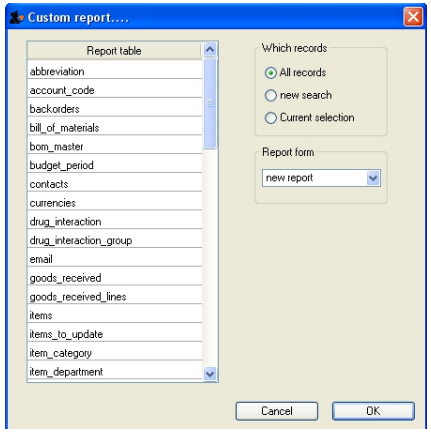
You can choose what information will be displayed at the top and bottom of each page. The default report heading is set according to the report you are printing. By default, the date will print on the left and the page number on the top right of each page.

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.

Custom Report...



The custom report window is displayed and this allows 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

- 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
  - Note: Do not save any reports in the reports folder - these reports are reserved for special use, and modifying them could create problems!
- 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 which is in the same folder as the mSupply application, they will be listed here.

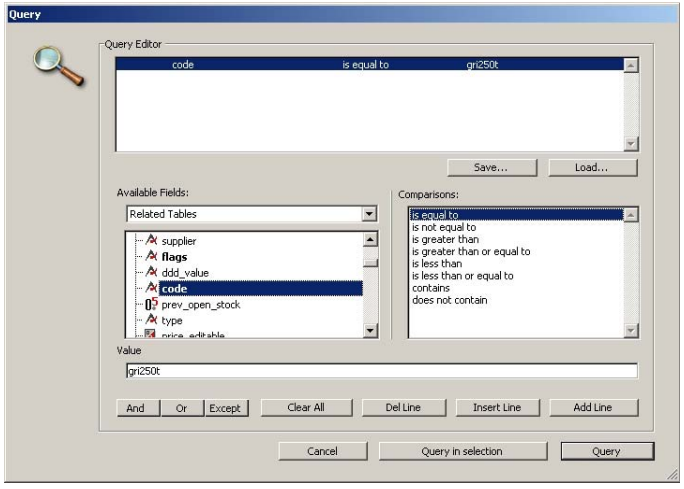
For a list of the fields in each table, and what each field contains, see the *Field Descriptions* chapter in this manual.

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

The query editor can be a bit daunting, but is also 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 significantly increase. Two examples will later be described, but here we look at a query about to be performed on the items table:



When you open the Custom Report editor, it is ready to take input values for a simple single line query. Each line of a query needs 4 items of information:

- The field to query. Choose this by clicking on the field in the middle-left list of fields. Just above the list of fields is a drop-down list that allows you to also choose fields from related tables. 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). The means that you can use the information stored in the transactions table (eg invoice date, number, status, etc.) to query transaction lines.
- The Comparator. Choose the comparator from the list of fields under "Comparisons" on the right by clicking on the comparator you wish to use.
- The Query value. Is entered in the bottom area (above the buttons). In the example above, the field chosen is an alphanumeric field (the item code), so an entry area is displayed where you can enter text or a numeric value - in this instance the item code "gri250t" has been entered. Note that you can also use the "@" symbol as a wildcard in your query value to perform "contains" queries.
- 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 bottom-left area of the window ("And", "Or" or "Except")

To add lines to a query, click the "Add Line" button.

If you have spent time creating 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" or "Query selection" buttons to proceed.

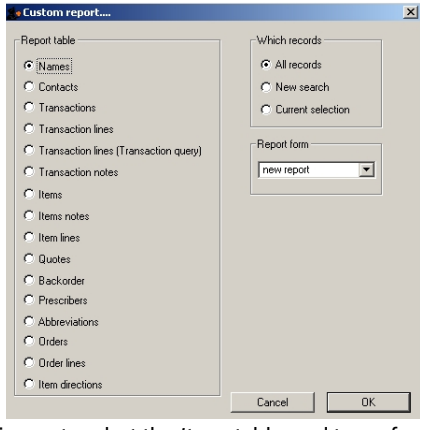
Designing a Report

We shall now describe the designing of two custom reports, [1] listing in alphabetical order the quantity of all items presently in stock, and [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.

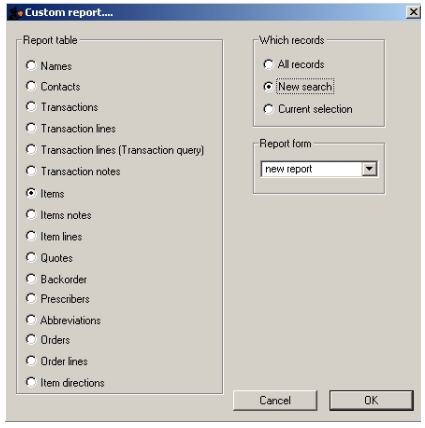
Report 1.

Having selected Custom Report from the Reports page in the Navigator, you are presented with this window:



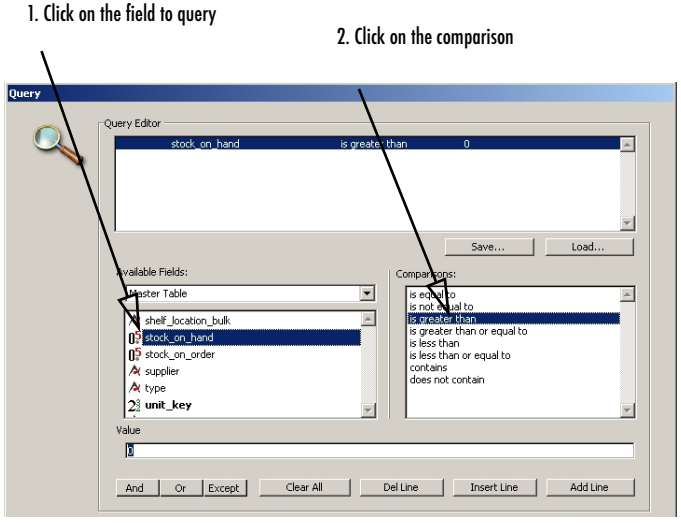
Our report requires us to select the *Items* table, and to perform a *New Search*,

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 *stock_on_hand* in the *Available Fields* panel on the left, [2] clicking on *is greater than* in the *Comparisons* panel on the right, and [3] entering 0 (zero) 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.



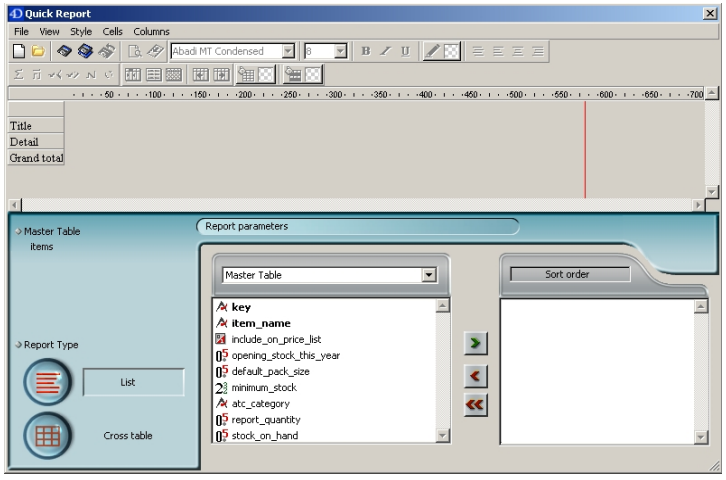
The Quick Reportwindow appears; this is where you can design the layout of the report, and specify how you want the records to be sorted:

We'll start by taking a closer look at the Quick Report features; 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, and the *Cross table mode will not be described*.

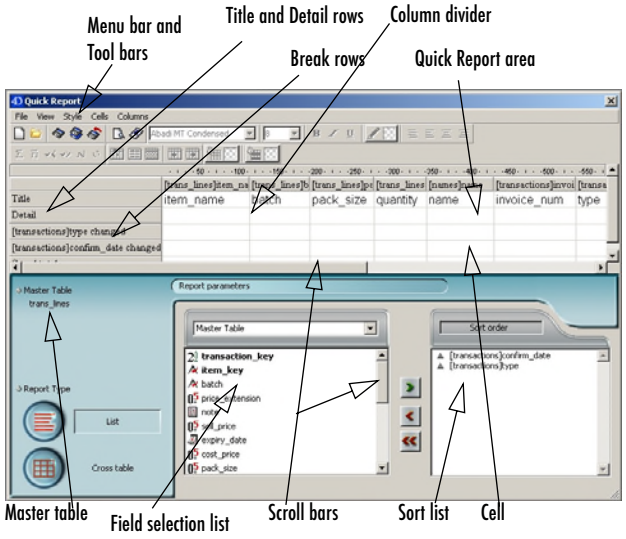
In the List mode, reports typically display records as a list with break rows where calculations are performed.

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.



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.

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.

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.

Cells:

A cell is the intersection of a row and a column.

Scroll bars:

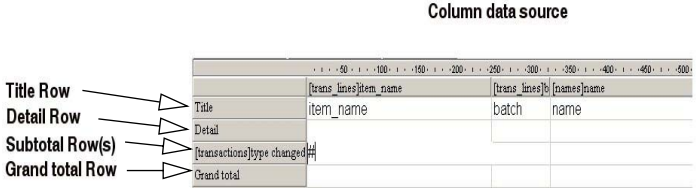
You use the scroll bars to view parts of the quick report design that extend beyond the area of the quick report form.

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.

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.



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.

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.

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.

Column data sources:

These titles indicate the source of the data for each column.

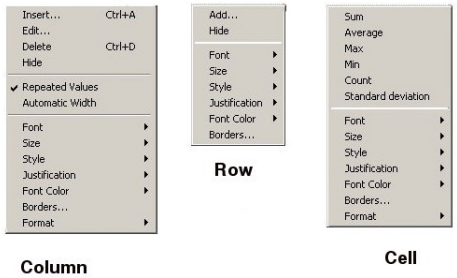
Contextual menus

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.

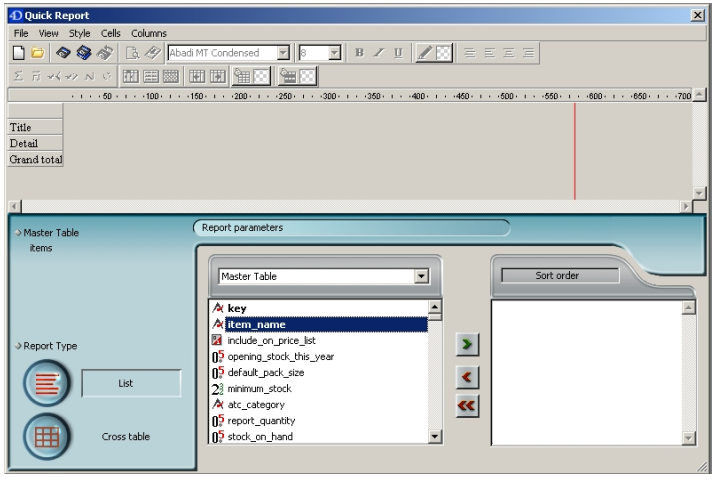
Adding and Modifying Text

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:

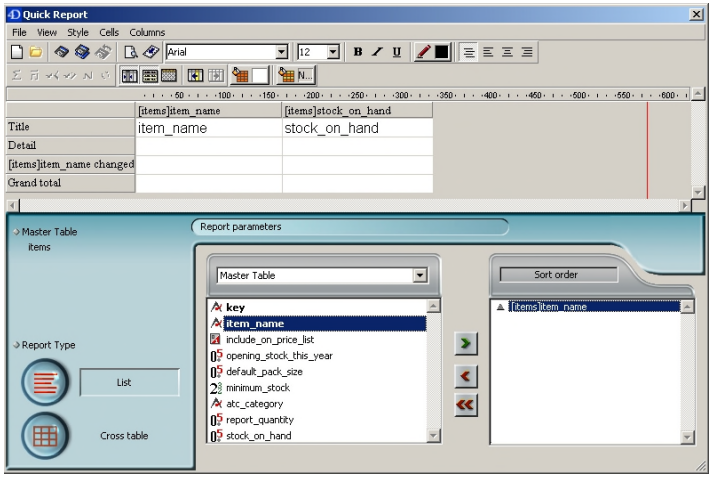
- Edit the text that automatically appears in the Title row of the report,
- Insert text in empty cells of the Subtotal and Totals rows,
- Insert the value of a Subtotal field in the Subtotal rows,
- Specify the font, font size, justification, and style for any text that appears in the report.

For our first report, we want two columns only, the first listing the items in alphabetical order, and the second showing the quantity presently in stock. 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 *stock_on_hand* 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:



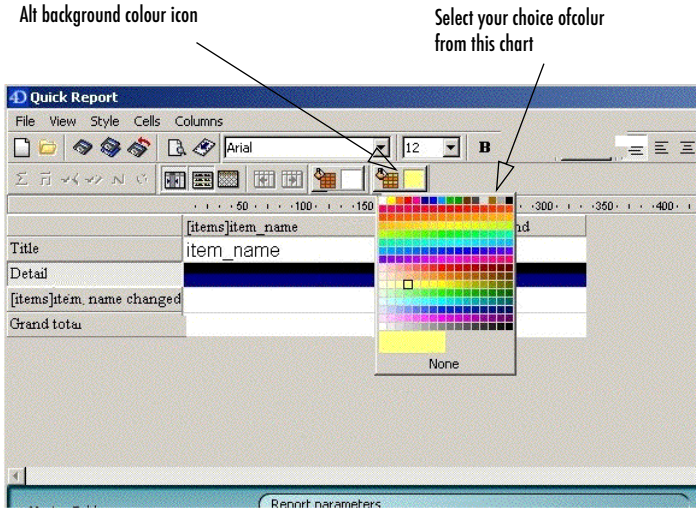
The column widths can be adjusted as appropriate by positioning the cursor on the dividing line between the column headings, clicking and dragging to the left or right until the desired column width is obtained:

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;* you can scroll through the pages of the report, and the diagram below gives an idea of how it will appear:

item_name	stock_on_hand
FRUSEMIDE TABS 40MG BOT/100	35
FRUSEMIDE TABS 40MG BOT/100	7
GAS,LIQUID PETROLEUM,CYL/45KG	216
GAS,MEDICAL,NITROUS OXIDE,CYL/SIZE G	6
GAS,MEDICAL,OXYGEN,CYL/SIZE E	6
GAS,MEDICAL,OXYGEN,CYL/SIZE G	27
GAUZE,90CM,ROL/100M	13485
GAUZE,90CM,ROL/5M	50860
GAVISCON TABS PKT/48	51
GEL-ELECTRO CONDUCTING 5LTR	77
GENTAMYCIN EYE DROPS 0.3% x 10ML	100
GENTIAN VIOLET PAINT BOT/50ML	2582

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	stock_on_hand
FRUSEMIDE TABS 40MG BOT/100	35
FRUSEMIDE TABS 40MG BOT/100	7
GAS,LIQUID PETROLEUM,CYL/45KG	216
GAS,MEDICAL,NITROUS OXIDE,CYL/SIZE G	6
GAS,MEDICAL,OXYGEN,CYL/SIZE E	6
GAS,MEDICAL,OXYGEN,CYL/SIZE G	27
GAUZE,90CM,ROL/100M	13485
GAUZE,90CM,ROL/5M	50860
GAVISCON TABS PKT/48	51
GEL-ELECTRO CONDUCTING 5LTR	77
GENTAMYCIN EYE DROPS 0.3% x 10ML	100
GENTIAN VIOLET PAINT BOT/50ML	2582

Adding report title

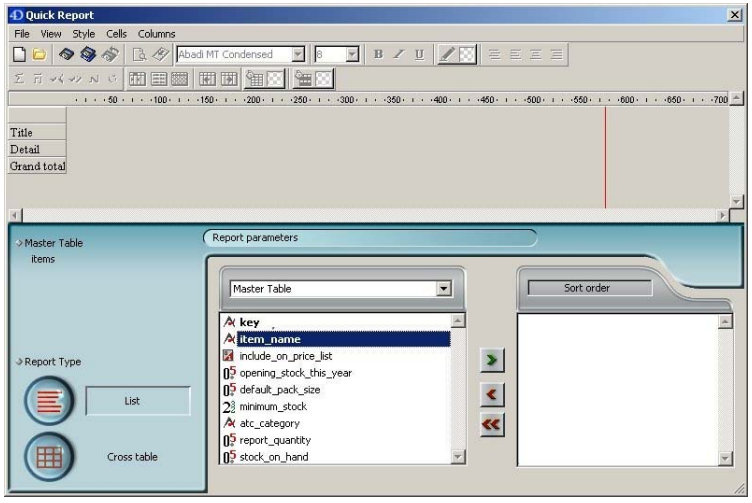
You may want to give your report a title to appear at the head of each page; this is achieved by clicking on *File*, then *Header and Footer*; a window appears in which you can create and/or edit such a header You will most probably want the header to appear in the centre of the line, and in this case, 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.

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.

Stock on hand

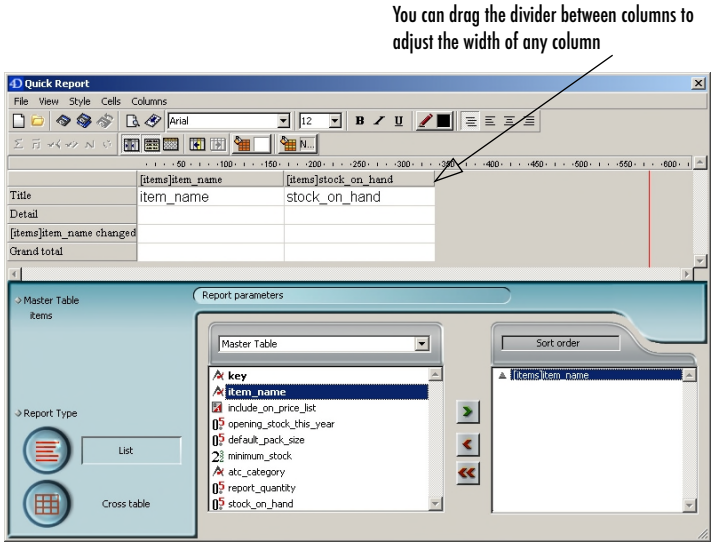
item_name	stock_on_hand
Acetazolamide 250mg tab	0
Acetylsalicylic acid 100mg tab	0
Acetylsalicylic acid 300mg tab	0
Aciclovir 200mg tab	5000
Aciclovir sodium 250mg inj	0
Albendazole tab 400mg	3800
Albumin, human injectable sol, 25%	0
Albumin, human injectable sol, 5%	0
Alcuronium chl 10mg/2ml inj	0
Allopurinol 100mg tab	3000
Aluminium diacetate solution, 13%	0
Aluminium hydroxide 320mg/5ml oral susp	0
Aluminium hydroxide 500mg tab	0
Amiloride hydrochloride 5mg tab	0
Amoxicillin + clavulanic ac 500mg tab	0
Amoxicillin 125mg Tab	78
Amoxicillin 250mg tab/cap	20000
Amoxicillin 500mg tab/cap	4000
Amphotericin b 50mg inj	0
Ampicillin sod 500mg inj.	0
Anti-d immunoglobulin (human) 250mcg inj	0
Antiscorpion sera inj	0

For our first report, we want two columns only, the first listing the items in alphabetical order, and the second showing the quantity presently in stock. 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 stock_on_hand 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:



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.

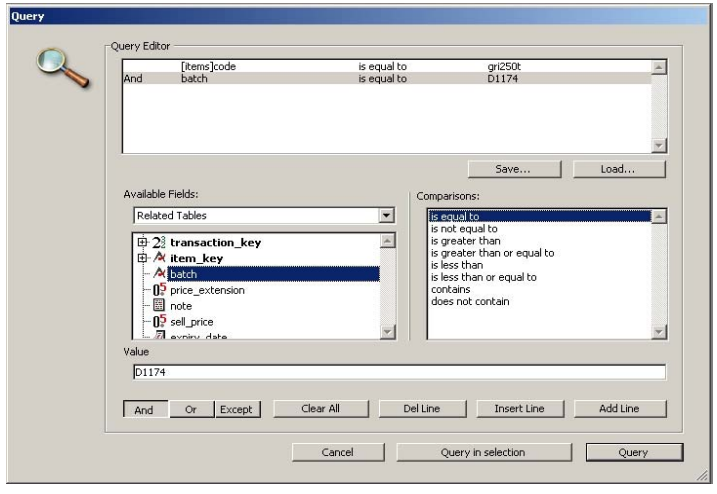
To print the report, click on File on the menu bar, and select Generate and - provided that your printer is connected, online and loaded with paper - your report will be printed.

Report 2.

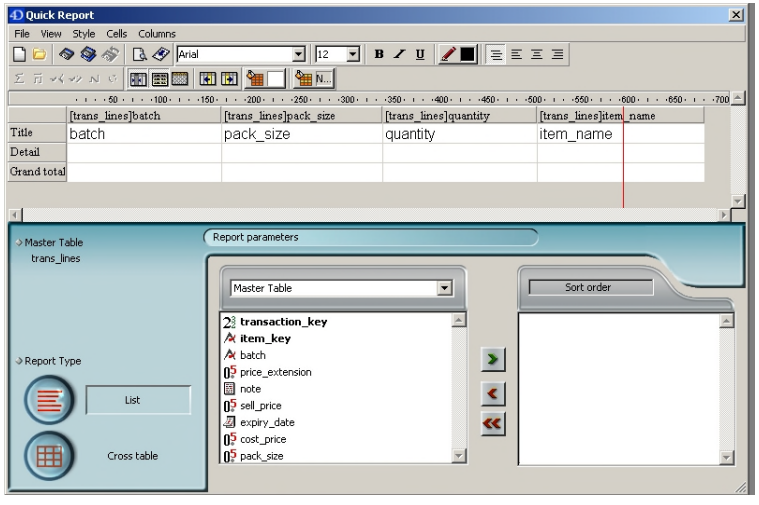
The second report lists the sources (suppliers) and the distribution (customers) of a particular batch number of an item - useful if a manufacturer recalls a particular batch. The item chosen for our example is Griseofulvin 250mg tablets, the code for which is gri250t, and the batch no.is D1174

Having displayed the custom report window, this report requires us to select the Transaction lines table, and to perform a New Search, using a new report form,

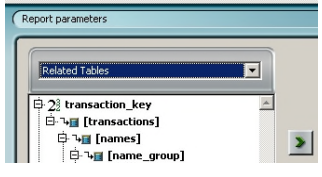
When the Query Editor window appears, expand the Item Key table, and once expanded, move down the list until *code* appears, and select it by clicking on it;the upper panel now shows *[items]code*, the default comparator *is equalto*,and so to complete the line, move the cursor to the *Value* entry panel in the lower part of the window and enter 'gri250t'. Click on *Add Line* and accept the default conjunction *And*; In the *Available Fields* panel, shrink the *Item Key* table, select *batch*, accept the *is equal to* comparator, and enter 'D1174' in the *Value* entry panel. You have now defined the criteria for the report, so you are ready to click on the *Query* button.



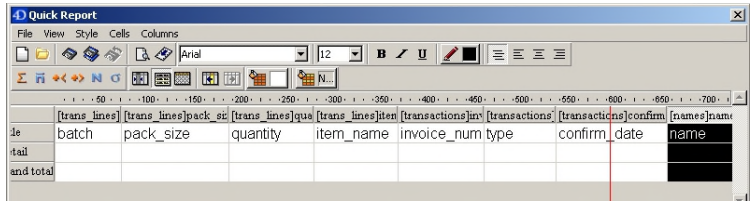
The Quick Report design window appears, with the Master Table - in this example the 'Transaction lines' table - expanded for selection of the fields required by our report; we'll be using four fields from the master table, namely item name, batch, pack and quantity; double-click on each of these in the 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 for the moment - 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 *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; this is how it should look:

Item_name	batch	name	type	invoice_num	confirm_date	pack_size	quantity
Griseofulvin 250mg tab/cap	D1174	Duwa regional hospital	ci	9	06/09/06	100	20
Griseofulvin 250mg tab/cap	D1174	Diamond traders	si	7	06/09/06	100	50
Griseofulvin 250mg tab/cap	D1174	Ventura district	ci	10	22/09/06	100	25

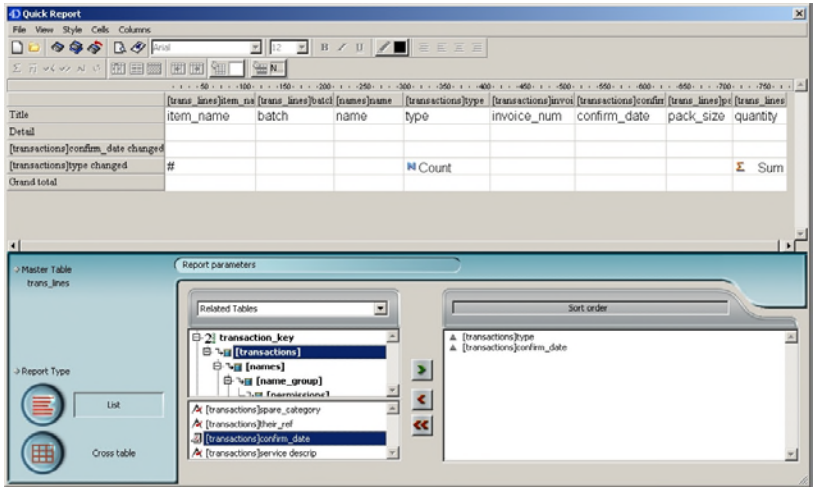
The next steps are :

[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 [3] 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 hash, '', is entered in the appropriate row - in our example, the '[Transactions]type change' row; we need to know how many customers have been supplied with this batch, so the Count icon is inserted in the row - note that it does not matter which column has the Count icon - for the time being it is entered in the 'type' column; also required is the total quantity ordered, and the total quantity distributed, so the 'Sum icon' is entered on the same row, but in the 'quantity' column.

[4] 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
Griseofulvin 250mg tab/cap	D1174	Duwa regional hospital	ci	9	06/09/06	100	20
Griseofulvin 250mg tab/cap	D1174	Ventura District Health Post	ci	10	22/09/06	100	25
Griseofulvin 250mg tab/cap	D1174	Gargan zonal hospital	ci	11	03/10/06	100	5
Griseofulvin 250mg tab/cap	D1174	Duwa regional hospital	ci	12	16/10/06	100	25
Griseofulvin 250mg tab/cap	D1174	Clauss Memorial health centre	ci	13	02/11/06	100	10
Griseofulvin 250mg tab/cap	D1174	Albert Young memorial hospital	ci	14	21/11/06	100	10
ci			6				95
Griseofulvin 250mg tab/cap	D1174	Diamond traders	si	7	06/09/06	100	50
Griseofulvin 250mg tab/cap	D1174	Pearl drug supplies	si	8	10/10/06	100	50
si			2				100

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 menu, click on 'Hide'; move the Count icon in the type column to the name column.

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.

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 *Classic 2* giving our report the appearance you see below.

Batch Report - 06 December 2006

Item	Batch	Customer / Supplier	Invoice no.	Date	Pack	Quantity
Griseofulvin 250mg tab/cap	D1174	Albert Young memorial hospital	14	21/11/06	100	10
Griseofulvin 250mg tab/cap	D1174	Clauss Memorial health centre	13	02/11/06	100	10
Griseofulvin 250mg tab/cap	D1174	Duwa regional hospital	12	16/10/06	100	25
Griseofulvin 250mg tab/cap	D1174	Gargan zonal hospital	11	03/10/06	100	5
Griseofulvin 250mg tab/cap	D1174	Ventura District Health Post	10	22/09/06	100	25
Griseofulvin 250mg tab/cap	D1174	Duwa regional hospital	9	06/09/06	100	20
Invoice type: ci			6			95
Griseofulvin 250mg tab/cap	D1174	Pearl drug supplies	8	10/10/06	100	50
Griseofulvin 250mg tab/cap	D1174	Diamond traders	7	06/09/06	100	50
Invoice type: si			2			100

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.

Category Analysis...

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 amoxycillin 250mg, a greater number of amoxycillin capsules has been used; but according to the DDD method, a greater number of patients have been received doxyxcycline.

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.

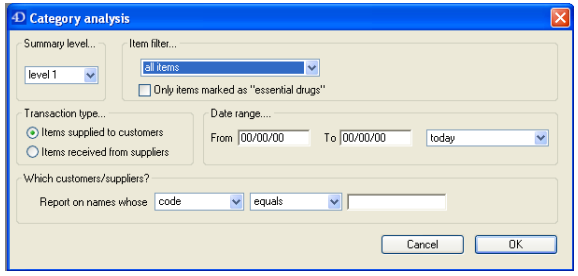
Reports using ATC and DDD codes

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.



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 aniti-infectives?", in which case we would click on the "items received from suppliers"

Date range...

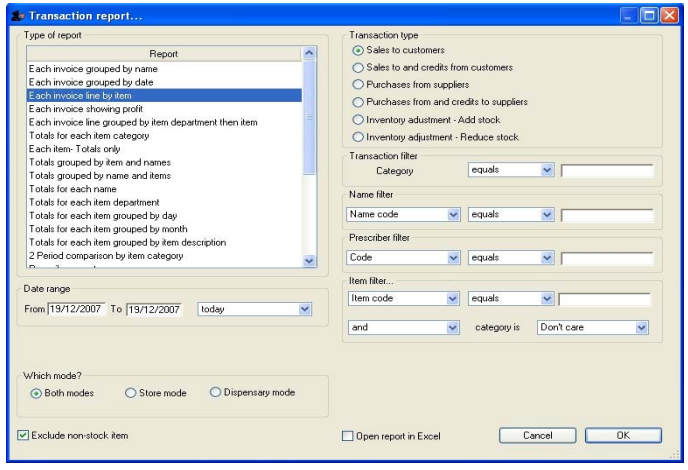
Enter a starting date and an ending date. Only transactions whose confirm date was within the range will be analyzed. The default range is the last 90 days. Note that the dates you enter are included in the range (that is the "from" date is "on or after" and the "to" date is "on or before")

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'"

Transactions....

This report summarises supplier or customer transactions in a number of formats.



Type of report

Choose from several formats for displaying the transaction information by clicking on the format in the list

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 Customer) and give totals for each name.
Each invoice grouped by date	As above, but totals given for each day.
Each invoice line by item	This report lists each item supplied or received, and lists the transactions for that item. This report can be very long
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 invoices will be grouped by the item department assigned to each item. Each item department is further sorted by items in alphabetical order.

Totals for each category	As above, but only the totals for each category will be displayed- each transaction will not be shown.
Totals for each item	Each item that has been received (or issued) will be shown with the total quantity and value received/issued
Totals grouped by item and names	Firstly the totals are broken down by item, and within each item, totals are shown for each name that has supplied/ received that item.
Totals grouped by name and items	As above, but firstly sorted by name, and then broken down by item within each name.
Totals for each name	The total value of items received/supplied to each name
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 shown. It also provides a grand total for the item quantity and price columns.
2 period comparison by item category	The user selects two periods, and the transactions for each period form a column. The rows are determined by the item category. This is a special report that has different input options. See the section below.
Prescriber report	This report allows you to view the total value, mean item value and item count for prescriptions dispensed for each prescriber

Cross tab: items in rows, names in columns, value in cells	These reports are like Excel pivot tables. Warning: they can be slow to produce if you have a lot of data. Start with small date ranges until you are comfortable your machine can handle the load. Note that reports that produce a lot of columns won't print well- it is better to export them to a spreadsheet and print from there.
Cross tab: items in rows, names 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, days in columns, quantity 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 and total count for each item.
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.The report shows the total count, total quantity and total value for each item. Lastly it also calculates a grand total of the items count, quantity and value columns.
Each invoice sorted by Address1 and name	The invoices are firstly sorted by the address1 field, and then by the name they were supplied to. This groups invoices together by whatever you entered in the "Address1" field for each name - e.g. you might enter the region or province.
Each invoice sorted by Address2 and name	As above, but the first sort is by the entry in "Address2" field.

Customer ordered short fall report	Where there has been a short fall, this report shows the short fall of each item and of each item category by quantity and percentage. It shows what demand from customers has been met or unmet. It applies only for issues to customers.
Each invoice line grouped by name	The invoice lines for the chosen date range are groupted together for each name. This report allows you to quickly see what has been issued to a client or clients.

Transaction type

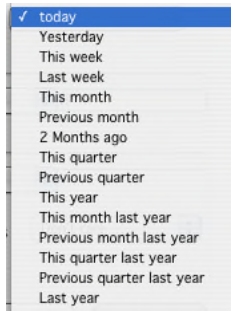
you can choose to report on:

- sales to customers (customer invoices: type “ci”)
- sales to and credits from customers (customer invoices & credits: type “ci” & "cc")
- purchases from suppliers (supplier invoices: type "si")
- purchases from and credits to suppliers (supplier invoices & credits: type “si” & "sc")
- Inventory adjustment - add stoc k (Refer to pag e no. 65)
- Inventoru adjustment - Reduce stock (Refer to page no. 65)

Date range -

Enter the date range of transactions to report on. Note that the date used is the date the invoice was confirmed, which 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 quickly choose from a list of common date ranges:



- Note that “last year” refers to the year before the current year (That is, if the current year is 2005, choosing “last year” will set the dates from 1st Jan 2004 to 31st Dec 2004.

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 a category that can be used to group certain kinds of names together.
- 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.

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:

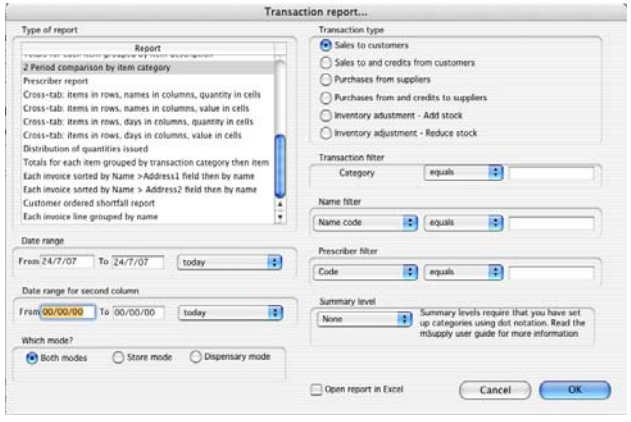
Which mode?

If you are using mSupply in both store and dispensary mode, you might want to report only on transactions in store mode or in dispensary mode. You can do this by checking *Store mode* or *Dispensary mode* radio button depending on your requirements.

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.



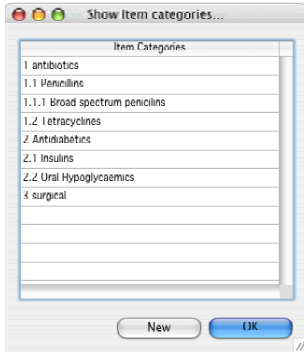
Set the date range for each of the columns and then choose a summary level.

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. e.g. "surgical.gloves.small 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 30/10/2005	From 01/07/2005 to 30/09/2005
None	1,094,025.43	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	9,579.24
1.2 Tetracyclines	41.00	107.08
2 Antidiabetics2	0.00	0.00
2.1 Insulins	8,646.00	34,866.00
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"

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
1.1 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 bbeen 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

Displays reports for gven prescriber only, depending upon the selection made (equals, starts with, contains, is not equal to).

Exclude Ad Hoc item

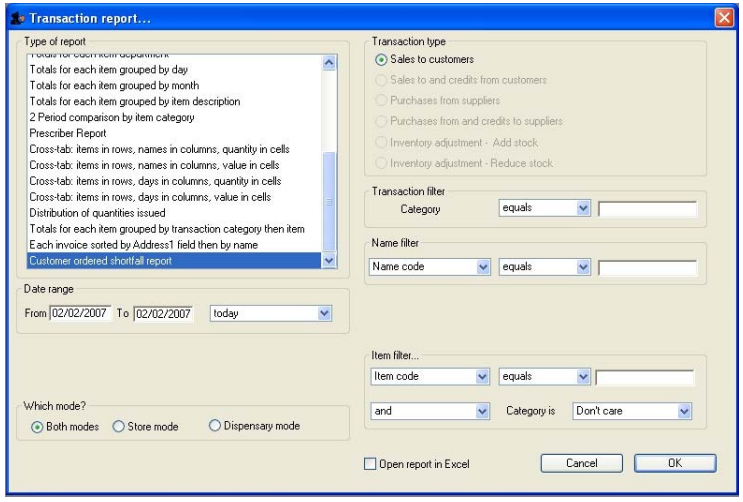
The check-box "Exclude Ad Hoc item" is displayed accordng to the type of report selected. By default, it is checked.

When checked, the transaction report generated will not include any Ad Hoc items (items you don't normally keep in stock).

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.

Note that for this report to make sense the preference"Allow placeholder lines on customer invoices" must be checked, and the preference "Delete placeholder lines when confirming invoices" must be un-checked.

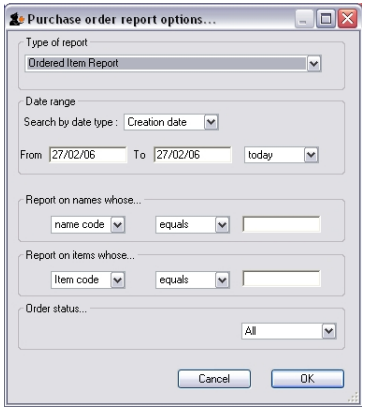


From the report window, select the desired parameters and click OK. An example report is shown below.

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				
4456	MASK,RESUSCITATION,ADULT	586.02	43.02	543	92.66
4460	MASK,OXYGEN,ADULT,W/O 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 S 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

Purchase Orders...



Types of report

There are three reports currently available:

- The *Ordered ItemReport* will list items that are on purchase orders according to criteria specified.
- The *Goods Received data 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.

Ordered Item vs.Goods Received Report Creation date : 30/04/2007 to 30/05/2007

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 *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.

Date range and date type

A date type option must be selected; options are:

- creation date
- sent date
- expected delivery
- actual delivery

The report may be generated between two specified dates entered in the *From* and *To* fields, while the dropdown list on the right affords ten preset date range options, from "today", "yesterday", "this week", "last week", "this month", etc.

Report on names .....

The report may be confined to suppliers meeting specific criteria by selecting "name code" / "analysis" / "Price code" in the left dropdown list, "equals"/ "starts with" / "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; here, the left dropdown list is "Item code" / "Item name" / "ABC category" / "Shelf location"/ "Flag", the centre dropdown list repeats the options in the paragraph above, and 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. By default this option is set to "Don't care", which means the item category will be ignored.

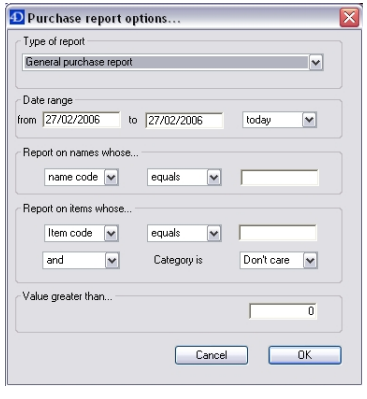
Note that only reports that report on *invoice lines* will produce meaningful results when you choose item criteria. Reports that report on whole transactions (e.g. "Each invoice grouped by name" or "Each invoice grouped by date") will not produce meaningful data, as any one invoice can contain multiple items. Choose reports that report on invoice lines (e.g. "Each invoice line

by item" or "Totals for each item grouped by month")

Order status

The default order status is "All", but the dropdown list allows the report to be confined to orders Suggested, Confirmed, Finalised, or Confirmed and Finalised.

Purchases...



This report finds all purchasing transactions with a specified time period that are over a certain value.

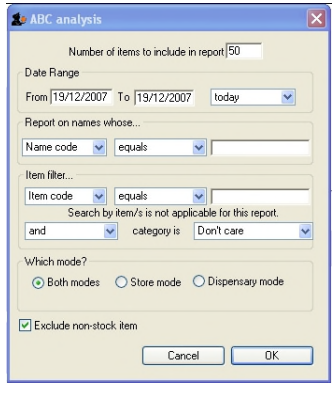
There are two items of information to enter:

- Enter the date range of transactions to report on
- Enter the value of a transaction line above which to report on.

It may be good for your organization to have a purchasing policy that stipulates that transactions over a certain value must be authorized by a second party (that is, someone other than the purchaser). This report allows you easily to monitor such a policy.

The report will be printed, or you can use the "print preview" check box in the "print" window to view the report onthe screen before printing.

ABC analysis...



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. It has been observed that 20% of the items an organisation supplies usually accounts for 80% of the value. Therefore, it is useful (and wise!) to concentrate firstly on the 20% of items that are most important. This report makes it easy to do just that.

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

The default date is for the last 90 days, but you can enter any date you wish here. Each item will have its "analysis" field updated with the total value of sales from the date you specify to the current date.

Report on names whose...

Leave this field blank to report on all names. You can enter a name code or analysis field value to produce the report for just one name, or for a group of names.

Which mode...

You can choose either store ordispensary mode or both modes of transactions

to be included in the report.

Exclude Ad Hoc items

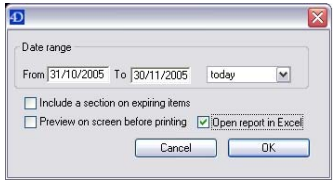
f you check this box then Ad Hoc items will not be included in the report.

The report lists items starting with the one with the highest value of sales. 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)

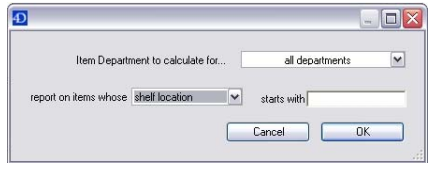
Preview on screen before printing

Check this checkbox if you want to view your report on screen first.

Open report in Excel

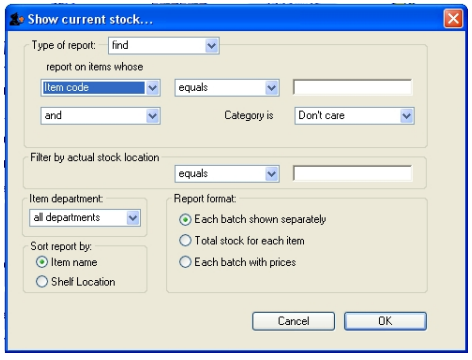
Check this checkbox to view the report directly in your chosen Spreadsheet program.

Show total stock value...



This report is used to find the total stock value either for a particular department or all departments. You can also report on the stock value of items with a particular name or shelf location by entering appropriate search criteria.

Current Stock...



A report will be produced that lists each item line that is currently showing stock greater than zero.

Type of report

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 stock take 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 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.

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 stock take, 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.

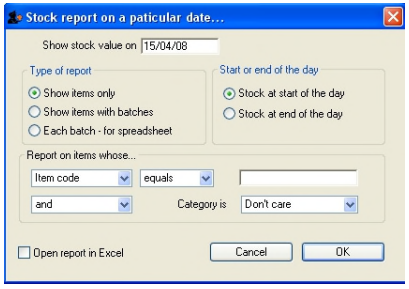
The lines are reported alphabetically either by item name or shelf location, depending on what you have chosen in the "Sort report by" options

Opening Stock...

A report will be produced that lists the stock at the start of the year.

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:



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. *Each batch - for spreadsheet*: as 2., but every row has an entry, to facilitate sorting, etc. on a spreadsheet.

In the right hand box you choose whether to include transactions for the day you are reporting on or not.

The *Report on items whose....* box allows you to restrict the report to certain items only, and/or to items with a certain category.

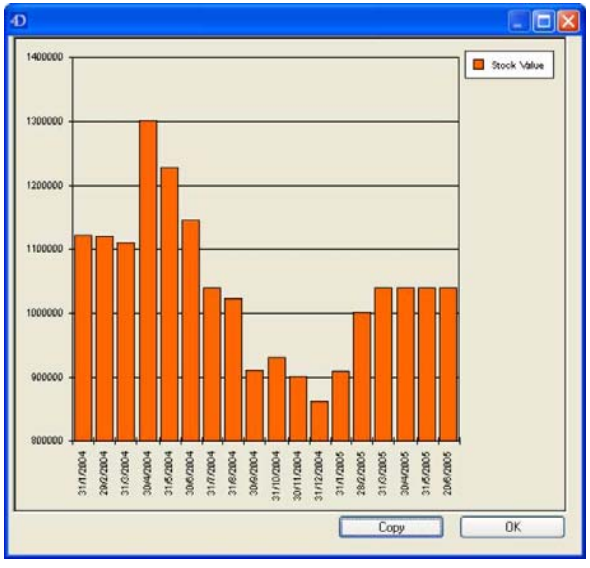
Open report in Excel

Check this checkbox to directly open the report in Excel rather than printing.

Graphical stock history

The graphical stock history report allows you to view the value of your stock over a desired period of time. When you choose graphical stock history, you are then able to enter the dates for any period you would like to view:

Select OK and a graphical stock history report showing stock value will be displayed



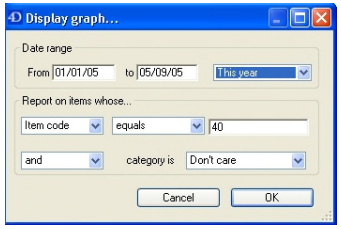
Graphical daily stock

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 this may affect the ability of mSupply to accurately calculate the information used

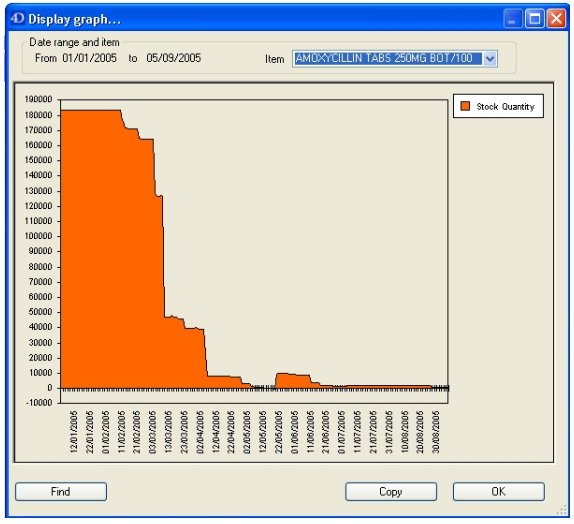
in this report.

Choosing this item from the menu show this window:



Enter the date range, and the items on which you wish to report on. 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.

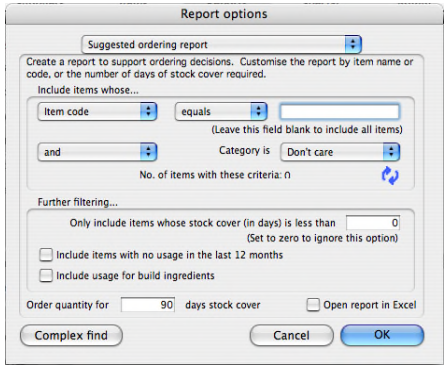


This window also displays a list of items that were found. To display the graph for a different item, choose it from the list.

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.

Suggest order quantities

Use this report to analyse your current stock and, based upon a required number of days stock cover which you enter, to suggest how much of each included stock item you should consider ordering. 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 amoxycillin stocks, you could enter "amox" into the field.

As shown in the following graphic, after the item name and code choices, other fields are listed, including the names given to custom item fields in the preferences.

If you wish to use item categories, then use the *item category* list to choose the item category to report on.

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 blue arrows) to calculate 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.

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.

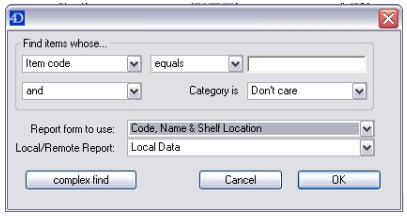
Order quantity for X days stock cover

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 installed spreadsheet) and displays the report directly. If you want to save the report, choose File > Save as... in your spreadsheet program.

Item list...



This report allows you to view an on-screen or printed list of items.

There is only one report layout listed in the window, but please tell us what you would like, and we'll consider adding it.

Local/Remote Report

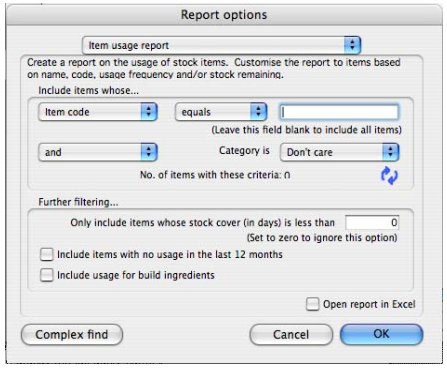
This option will only show "local data" as an option unless you purchase a web services enabled version of mSupply, in which case you can view reports from remote locations running mSupply. Contact us for more information.

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.

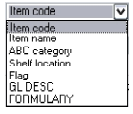
When you choose the menu item you are shown a window like this:



You can choose whether to carry out 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 3 functions. For now, leave this as it is.

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 amoxycillin stocks, you could enter "amox" into the field.

As shown in the following graphic, after the item name and code choices, other fields are listed, including the names given to custom item fields in the preferences.



If you wish to use item categories, then select the *item category* list to choose the item category to report on.

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 blue arrows) to calculate the number of items these basic parameters will find.

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

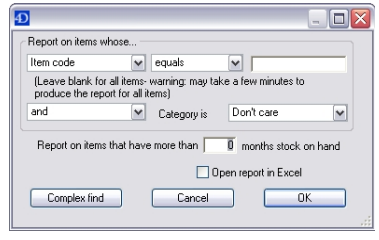
If you manufacture items, you can choose whether the use of ingredient lines in manufacturing is included in the report or not.

Open report in Excel

Checking this box opens Excel (or any installed spreadsheet) and displays the report directly. If you want to save the report, choose File > Save as... in your spreadsheet program.

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, Amoxycillin, etc.…)

Months stock

- Enter the number of months stock to report on. Items with more than this number of months stock on hand will be included in the list. 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 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). Three report type options are offered; select as appropriate. You may refine the search by using the *Name filter.*

Quotation Summary...

There are two options in *Report on* section, namely: *All quotations* and *Preferred quotations*. There are two options in *Group together by* section. They are *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.

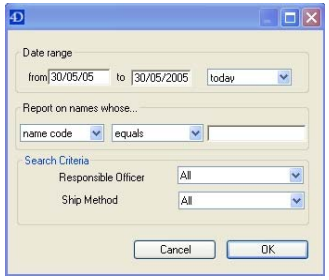
Item option displays the quotation report with the items arranged in alphabetical order along with the corresponding supplier's name.

In addition there is a filter 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, and the resulting report will display only quotations from that particular supplier.

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.



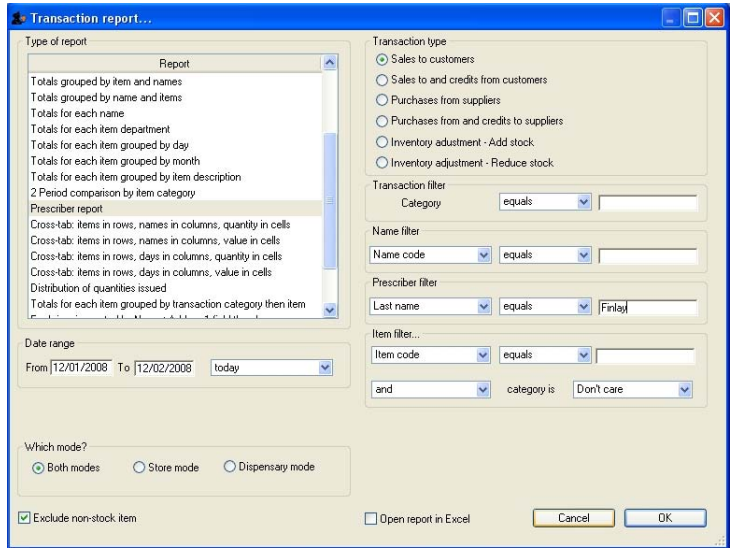
Click "OK" to run the report.
Note that transport details can only be entered on customer invoices if you have checked the "We use box numbers" option in the Preferences

Prescriber report

This report (v1.93 onwards only) 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 only report on prescibers whose type field is set to a certain type....

Click OK to proceed.

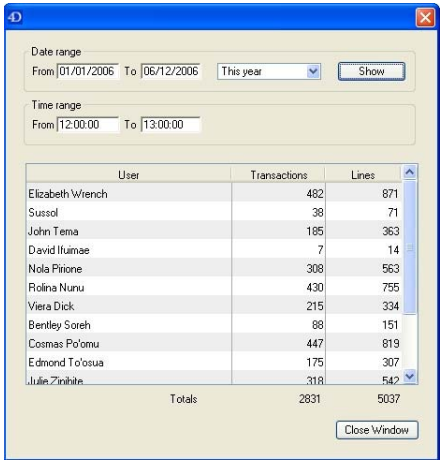


As usual, the report options window is shown, where you can choose the destination and set headers and footers.

User transaction 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.

Choosing this menu item shows a window like this (but without any user names and totals)



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.

Debtors...

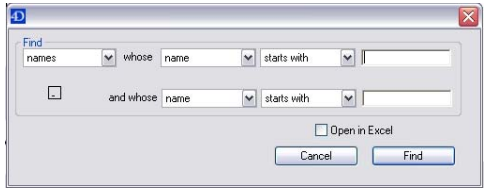
This report will produce a list of all debtors. *mSupply* uses an open-invoice system of accounting for debtors, so the outstanding amount for each invoice is displayed.

Not e 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.

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.

Backorder report

This report shows a list of Items that are not available or insufficient stock is present to meet the requirements of the order placed by the customer. Information about the item code, item name, current stock, customer code, b/ord quantity 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 organizations 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 oftransactions 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 prices of items from the item line on hand that has the most stock.

Only items whose "price list" check box is checked are updated.

Each line of stock is evaluated to determine which stock line you have the most of. That line is used as the indicator price for its item.

Note that if an item has no stock, then the price for that item will not be altered.

It is a good idea to run the "suggest price list additions" report first.

Price list...

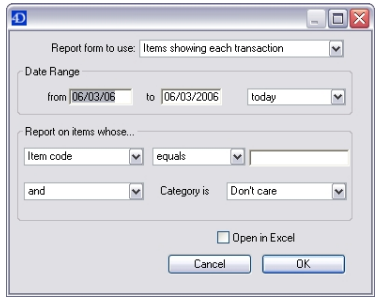
All items that are marked as included in the price list are placed in a report. If you wish to export to a text file, choose "save to disk" in the report options dialog that is shown. Note: items that are in stock, but that are marked as not in price list will not be included.

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.

Item Ledger date range



This report can be used to see the item ledger between the two dates you set. The ledger can be further filtered by using the normal search section underneath.

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.

Double-click a line in the report to investigate further.

The report was originally created as a check that the ledger was being accurately updated with all the different transactions in mSupply. It has been left as a menu option as it is also useful to pinpoint unauthorized adjustment of stock values.

Print item ledger...

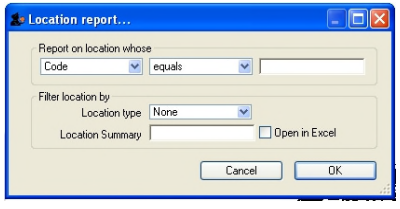
This report is for printing a full item ledger at the end of the financial year.

You will be asked for a starting letter. If you are printing a ledger for the end of the financial year, it is most likely good to type "a" and print, then choose the menu item again and type "b"- this way the report will be divided into sections, allowing easy printing of a particular section again.

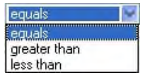
Location report...

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 widnow as below:



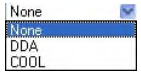
The report may be restricted to certain locations by using specific search criteria. Choose either "Code" or "Volume" from left drop-down list is . The centre drop-down list allows you to choose a comparitor.



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.



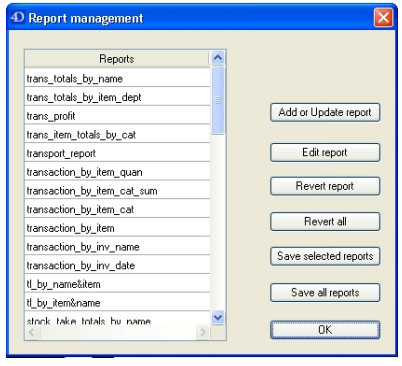
For example, you can specify the location type"COOL" to show only refrigerated locations.

Check the "open in Excel" checkbox if you wish to directly open the saved report in Excel (or any installed spreadsheet).

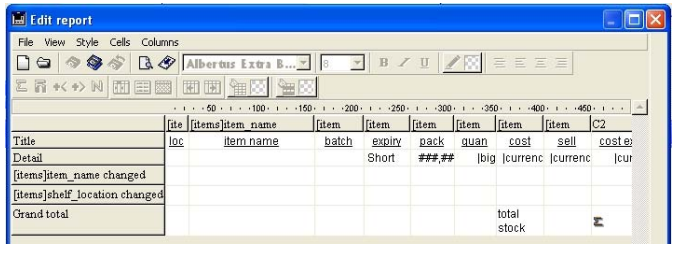
Click the OK button to run the report.

Manage Reports...

Choosing this item shows a list of built-in reports:



The built-in reports should not usually need editing. If you know what you are doing, you can click on a report and then click the "Edit report button" to be shown the report editor.



Using the report editor is complex, but it has the potential to produce a lot 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....

Revert report

This button allows intrepid souls to save face by undoing the damage they

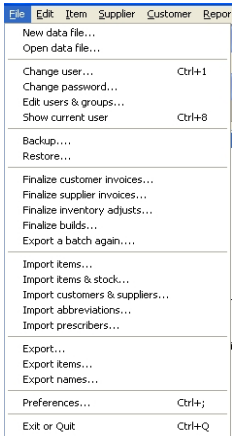
have done to a particular report. The report that was installed with mSupply will be reloaded from the disk, and any changes you have made to the version stored with the data will be discarded.

Revert All button

This button returns all reports to their original state when you installed mSupply. Use it with caution.

File menu...

Note that if you are running mSupply in Finalisingdispensary mode, the menus will not match the descriptions here.



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.

Open data fileFinalising…

This command will present you with a standard open/save window where you can select an existing data file to open.

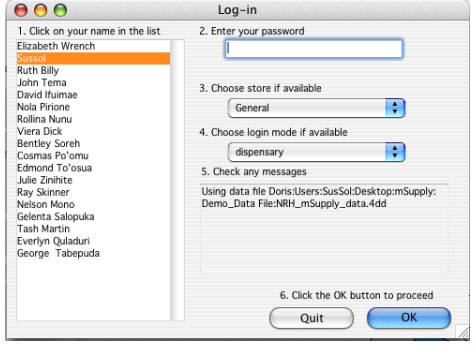
If you click the OK button after successfully selecting a valid mSupply data file, mSupply will close the data file currently in use (saving any changes made automatically), and then open the new data file.

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!

Change user

This menu item allows you to change to a different user without quitting 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.

Clicking the Quit button gives you the option of quitting mSupply or re-entering your user name and password. This stops a new user canceling the window and continuing to use *mSupply* under your login details.

Change Password

You can change your password using this command. You must know your old password to do this.

You are required to enter the new password twice to ensure you have typed it correctly.

Note: passwords are case sensitive- make sure you don't have *Caps Lock* on. If you forget your password you must ask the user who is either first or second in the password list to change your password for you.

Edit users and groups...

For further information see *Restricting User Access* on page 98.

Show current user...

A small window appears to show the current user (in case you've forgotten your name!). Actually, it is important to ensure that you do not start to use a computer where someone else is already logged in to mSupply, or else your work (and mistakes!) will be attributed to the person who was logged in.

Backup.....

This function allows a backup of your datafile to be made to the specified locationin your computer.The backup path can be set from File> Preferences.You can perform a backup manually as well as automatically. It is not necessary to quit the database before performing a backup.

"Backup" function works both in single user as well as multi-user mode. Under multi-user mode, this command performs a backup of the server data. A progress window will show how the backup is proceeding.

Note:- In multi-user mode , you can't run "Backup" and "Restore" function- from the client . This should always be run from the server computer.

See "*mSupply Server backup configuration*" for more details on page 246.

Restore...

Choosing this item allows you to choose a backup data file,;uncompress it and start using it as your main 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.

Finalise customer invoices....

All invoices that have status "cn" (i.e. confirmed invoices) may be finalized. If you have the export option turned on in the Preferences, finalized invoices will also be exported to allow import into an accounting program. They can

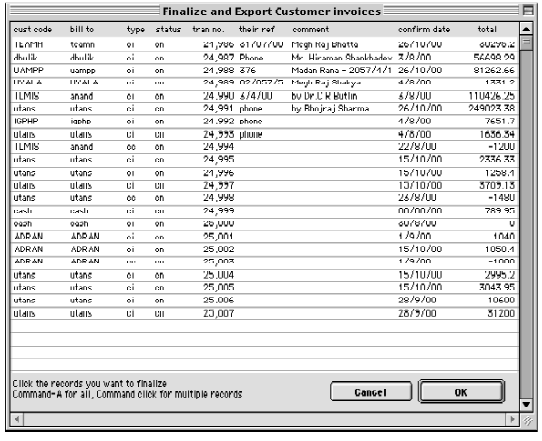
also just be "exported" to a printed list.

Once an export is done, invoices can no longer be edited. (They have status "fn" for finalized).

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 | Finalize customer invoices...* you will be shown a window displaying all the customer invoices that have not been finalized.

Note that if "export invoices when finalizing" is turned on in the Preferences, invoices that have been finalized 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.



Follow these steps:

- Hold down the control key (Windows) or command key (Mac) while clicking on the lines you wish to finalize. 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 finalization. It really is final).
- The transactions will be marked as "finalized" (status "fn"), and they may no longer be edited.

You will be given the opportunity to print the list of finalized 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.

Each time you finalize a group of invoices, they are given an export batchFinalisingFinalising. This is a unique number that allows you to recall those invoices

Moneyworks exports

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.

FinalisingNote that if "export invoices when finalizing" is turned on in the Preferences, invoices that have been finalized 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.

Finalise supplier invoices... .

As for the *Finalize customer invoices....* section above, but for supplier invoices

The export file created is called "supp_invoice_expt.txt"

Finalise inventory adjustments...

You need to finalize 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 finalized.

On choosing *item* | *finalize inventory adjustments*... you will be shown a window displaying all the inventory adjustments that have not been finalized. Follow these steps:

- Hold down the control key (Windows) or command key (Macs) while clicking on the lines you wish to finalize. 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 finalization. It really is final).

The transactions will be marked as "finalized" (status "fn"), and they will no longer be able to be edited.

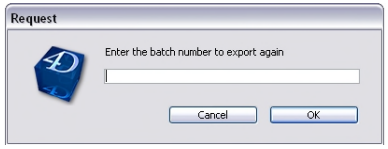
Finalise builds...

You need to finalize 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 finalized.

See the sections above for the details of how to finalize 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:



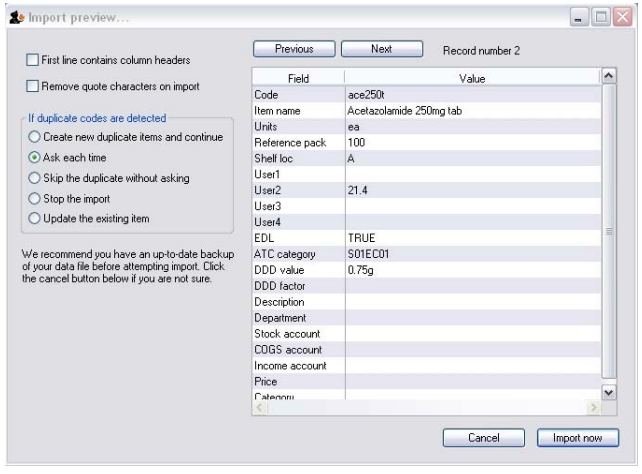
Invoice batch numbers are shown on the right hand side of the invoice list.

Import items....

You can import a tab-delimited text file of items with this command.

Please note that this command only imports items and not the stock. If you would like to import both, see the next heading: "Import items & stock".

When you choose the command you are first shown an open/save window where you can choose the text file to import. Once you have chosen the file 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 import from the second row.

Remove quote characters on import

Note that if you do not check this box , mSupply will strip out quotation characters as MS Excel inserts quotes around fields when it shouldn't. If you have put the quotes character into a field as an abbreviation for an "inch" it will be removed.. (Consider using the metric system!)

FinalisingDuplicate items in mSupply

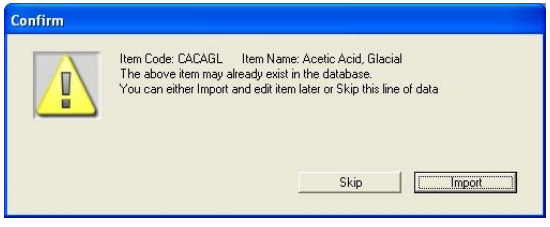
mSupply can allow you to import items into a data file that already contains item, depending on which radio button you have chosen for the duplicate codes section.

Create new duplicate and continue

Even if the code is a duplicate a new item will be created. Note that you can not use this option unles the preference "Allow duplicate item code" is selected in the mSupply Preferences

Ask each time

mSupply will warn you if it detects an item with the same code as an existing item. Having two or more items with the same code will not affect how mSupply works



You can open the "edl_tab.txt" file (A sample file containing a representative selection from the WHO Essential drugs list already formatted for import into mSupply) in a spreadsheet program such as MS Excel or Appleworks to view what the file should look like. The "edl_tab.txt" file is available on the download page of the mSupply web site

Field order for the text file:

Column Number	Column Letter	Field	Description
1	A	item code	8 alphanumeric characters (must be a unique value)
2	B	item name	30 alphanumeric characters
3	C	units	3 alphanumeric characters(ea, ml or mg). Entries in the units list will be created if you import a unit that does not already exist in the data file.
4	D	reference pack size	integer
The following fields are optional: you don't have to include them:			
5	E	shelf location	20 alphanumeric characters
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	30 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.

Column Number	Column Letter	Field	Description
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	category	The item category is actually stored in a separate table. As each item category is imported, a new record is created in the "item_category" table if one does not already exist. We strongly recommend you use the WHO EDL categories for this field

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 take account of the first four column, 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 pa
2	ace250t	Acetazolamic	ea	1
3	ace100t	Acetylsalicylic	ea	1
4	ace300t	Acetylsalicylic	ea	1
5	aci200t	Aciclovir 200r	ea	1
6	aci250t	Aciclovir sodi	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.

Open up mSupply with a new data file and chose the import command. Direct the open/save dialog box to the text file and click "OK" to import the file.

You will be asked if you want to remove quotation mark characters. If you have created the file in Microsoft Excel, it adds quotation marks around fields that have a comma in them (even though it shouldn't). If this is an issue, choose the option to remove the quotation marks.

Import items & stock

The *Import items…* menu item only imports item codes and descriptions, which still leaves you with the task of entering quantities for all items (usually by entering an inventory adjustment).

The *Import items and stock* command lets you import item codes, names and the initial stock of that item.

You can now import items and stock into an existing data file; however, this is a somewhat risky procedure, and we do not recommend it. If mSupply detects an item in the import with the same code as an existing item, the stock will be added to the existing item.

You have been warned!

Make a backup before proceeding with this command.

More than one batch of an item

It is possible to enter in various batches of an item separately. For example, if your import file contains two batches of "ace250t" on separate rows. *mSupply* will first fill in the item description and code and then enter in the stock

for the first batch the item. For the next line of data, *mSupply* carries out a search for the code, and adds another batch as the same item already exists, and then updates the total quantity.

It is not necessary to group the same batches together, but making sure that various batches of the same item have the same identical code is important, otherwise extra items will be created. The actual full name of the product is taken from the first batch the program encounters; subsequent batches that have the same code as an item that already exists in the data file will use the item name of the exisiting item. (You can even leave the item name blank for subsequent lines if you want to).

Note on pack sizes

The "pack size" and "quantity" field should be entered taking into account the way you will issue stock (For example, say you are importing Amoxycillin stock of 3000 capsules that are in boxes of 100. If you are going to issue stock of Amoxycillin individually (28 to this patient, 21 to another patient), then enter a pack size of "1" and a quantity of "3000". If you will only issue whole boxes, use a pack size of "100" and a quantity of "30". If you enter a pack size and quantity that does not fit, you will still have the option of repacking the items (using the "repack" function from the "item" menu) to meet your supply needs.

Field order for import file

Column	Field	Note
1	Item code	Upto 20 characters
2	Item name	Upto 50 characters
3	Units	Up to 3 characters
4	Pack size	Integer
5	Quantity	The number of packs (not the total quantity. Although if the pack size is "1" then this will be the same as the total quantity).
6	Cost price	The price of one pack
7	Sell price	The selling price of one pack (Set to the same as the cost price if you do not sell stock you issue)
8	Batch	Up to 20 characters
9	Expiry	In short format (dd/mm/yy or dd/mm/yy depending on the format set in your computer's operating system)
10	Description	Up to 32000 characters (Be careful not to have any carriage return characters in the text though, or the import file will not be valid)
11	Shelf Location	Text

In order to create a text file for importing purposes, firstly you need to enter your stock details into a spreadsheet (e.g. Microsoft Excel). The first row should be taken up by column descriptions or left blank as the import function will ignore this row.

You can omit the batch number and expiry date columns as in the example below.

	A	B	C	D	E	F	G	H	I	J	K
1	Code	Item name	Units	Packsize	Quantity	Cost price	Sell price	Batch	expiry	Description	Shelf location
2	1	Acetazolamide 250mg tab	ea	100	60	20	80	b9898	01/01/2009	Must stock	k1
3	1	Acetazolamide 250mg tab		10	90	23	40	n98989	01/12/2008		k1
4	3	Acetylsalicylic acid 300mg tab (Aspirin)	kg	10	100	80	120	bgh67vg	01/05/2008		s.1.2
5	3	Acetylsalicylic acid 300mg tab (Aspirin)		1	200	60	100	c56546k	01/01/2009		v.3.6
6	3	Acetylsalicylic acid 300mg tab (Aspirin)		100	10	90	110	b87697	01/03/2009		n.6.7
7	4	Aciclovir 3% 4.5g eye oint	ea	1	60	10	20	mv6896	01/01/2008		d.2.4
8	5	Aciclovir 250mg inj	ml	1	1000	45	90	tvx0009	01/01/2009		d.8

Note: make sure every line has an item code assigned: any lines without an

item code with be skipped when importing.

Once you have completed the spreadsheet list, save the file as a tab-delimited text file. Open up *mSupply* with a newly created data file and choose *File > Import items & stock*. A window will appear allowing the import file to be located. Choose the text file that you have created and click "OK". If the file has been successfully imported, an "All done" message will appear.

Import customers and suppliers

The *Import customers and suppliers…* menu item allows you to import customers and suppliers into an mSupply data file.

The required field order is

Column	Field
A	Code
B	Name
C	Type
D	Address1
E	Address2
F	Country
G	Email
H	Phone
I	Category. The customer or supplier category will be created if it doesn't already exist. If the name is a customer and a supplier, a customer category will be created.
J	Customer group. If the group name does not exist, it will be created by mSupply on the fly.
K	Last name (make sure this field is blank if you are importing a supplier or if you are importing a customer who is not a person [that is, an organisation])
L	First name (applies only to people)
M	Date of birth
N	Gender (enter "F" or "True" for females. All other values taken as male)

- Column C describes whether the name being imported is a customer or supplier:

Value	Meaning
C	Customer or Patient
S	Supplier
(blank)	Both a customer and a supplier

- You can provide a lesser number of columns, and mSupply will only import the information you have provided.
- Save the file as tab-delimited text (rows end with a carriage return and columns are separated with a tab character). Note that MS Excel tends to add extra characters (line feeds and quotes), but mSupply will gracefully remove these without complaining!
- Note that choosing this menu item will show a window where 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), and whether or not you wish to strip out line feeds and quote characters (which you'll want to do if you've used Excel to save the text file.

When you choose the menu item "Import abbreviations..." and "Import prescribers..." you will be shown the standard mSupply import window. For further information see *Import items & stock* on page 197.

Importing patients

If you are importing patient names, leave column B (the full name) blank. Make entries in the Last name and First name columns, and mSupply will automatically generate the name field for you. Below is an example of importing patients, customer and supplier name that demonstrate how to fill in the field with respect to import type.

To import Patients, column B [Names] needs to be left blank but Last name & First name must be completed

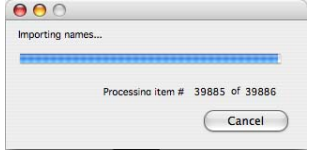
A	B	C	D	E	F	H	K	L	M
Code	Names	Type	Address1	Address2	Country	Phone	Last name	First name	Date of b
2		C	87100	IRELAND 64771	Ireland	(417) 548-2635	JOHN	SMITH	1/9/65
3		C	SANERA ROAD	MISSIPI 89754	U.S.A.	(417) 621-0253	MATHEW	CAHANE	2/7/90
4		C	1709 JOPLIN ST	SARCOXIE MO 6	CANADA	(417) 358-6976	JASON	LAWRENC	5/5/85
5			47895EPC	JAWALAKHEL	NEPAL	(417) 673-3777	THAKURI	SHERU	1/5/76
MSD	Medical Supply Depa	C	MAHARAJGUNG	KATHMANDU	NEPAL	977-01-221458	ROKA	HARI	1/5/75
IDA	International Dispens	S	LUCKNOW	HIGHWAY ROAD	INDIA	898-0757	SHRIVASTA	SANJAY	1/5/70

For Supplier, columns B [Names] , K, L, M & N should be completed..

For Customer, columns B [Names] , K, L, M & N should be completed..

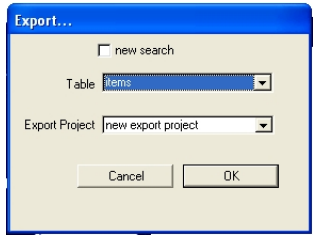
If 'Type' column is left blank, this represents both customer & supplier.

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 to inform you what proportion of the import process has completed.



Export....

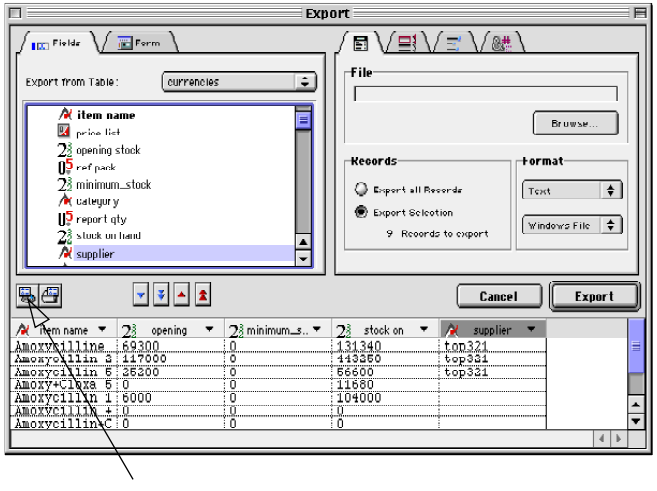
This command will display the export window, allowing you to export records from *mSupply* to a file.



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 use the same export format repeatedly, you can save an export format in the "export_projects" folder and it will be available for re-use later. Saved projects will appear in the popup menu in the export options window.

When you click *OK* the export options window will appear.



Here you can choose which fields will be exported by double-clicking records from the list. A preview of the first few records is shown in the lower pane.

If you want to save the export for re-use, click the button (arrowed) to save

the settings to disk. Locate the "export_projects" folder in the same folder as the mSupply application, and save it in that folder. It will then be available from the popup menu next time you do an export.

Export items...

This option allows you to export all of the stock items in your data file to a text file, in a format recognisable by mSupply so that you can later 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.

Export names...

This option exports all the names (suppliers, patients and customers etc) in your data file in exactly the same way as for *Export items...* above.

Preferences

For further information see *Preferences...* on page 141.

Exit/Quit

This command will exit mSupply.

There is no need to save your work. mSupply does this automatically.

The 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 retieved 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.

If the copy/cut/paste items are dimmed out, it is because you are not currently in a text entry field.

Supplier Menu

Show invoices....

You can view or edit supplier invoices using this command.

Note that finalized invoices can no longer be edited.

For further information see *Show invoices..* on page 216. for a full description of the *Show customers* menu item, which works in exactly the same way.

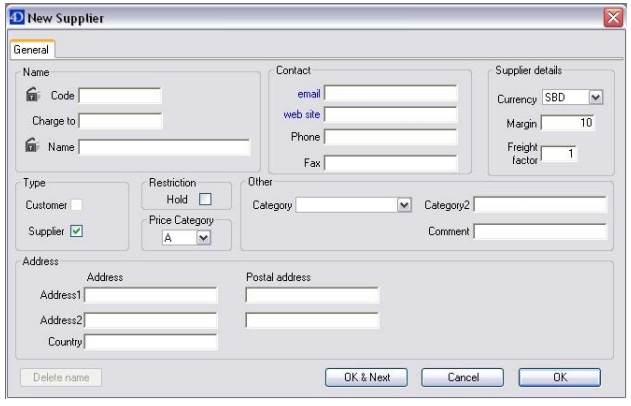
New Supplier invoice...

Record the receipt of goods here. Each invoice provided by a supplier should be entered using this command.

See the Section *entering supplier invoices* for a detailed description of the process.

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

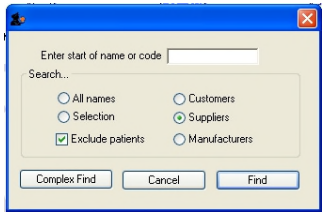
increased by 10% (i.e. 3 dollars) and will be sold for 33 dollars.

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- to view suppliers. A window like this is displayed.



In the field, type as much of the supplier name or code as you want to. If there is only one 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.

Note that 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.

New Supplier credit....

Entering a supplier credit is exactly the same as entering a customer invoice, except that you enter a supplier code rather than a customer code.

Note that the transaction uses the cost price of the goods to calculate the invoice value. If you have set the mSupply preferences to allow editing sell prices, you will also be able to edit the price at which you return goods on a supplier credit.

You can also adjust the cost price of an item line manually. To change an item line's cost price, choose Items | View or edit item... Locate the item concerned, then click on the "stock" tab to display the item lines. Click the item line you wish to change, then click the "edit line" button. (Only users in the "high access" group can perform this action.)

Import invoice....

This 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.

Note the following points about importing invoices:

- 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:

- 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.
- 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.

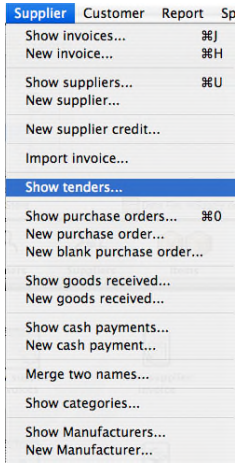
Show tenders...

Tender management is a new feature to mSupply. Versions 184 and 186 included beta implementations of tender management: this version (v190) includes the ability to manually create and edit a tender, or have mSupply create a tender for you automatically based on your stock usage data.

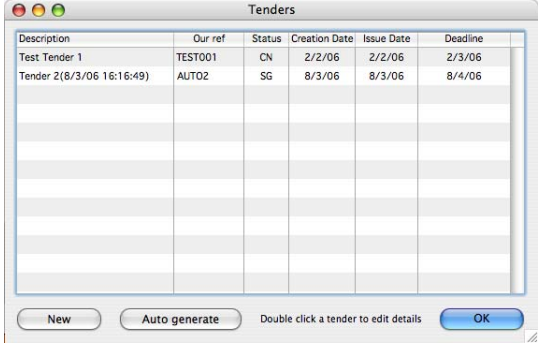
Note that for multi-user installations, Tender management activation requires

payment of a fee. Please contact Sustainable Solutions for more information.

To start, select 'Show tenders' from the supplier menu (see below), or select 'Show tenders' from the navigator's Suppliers page.



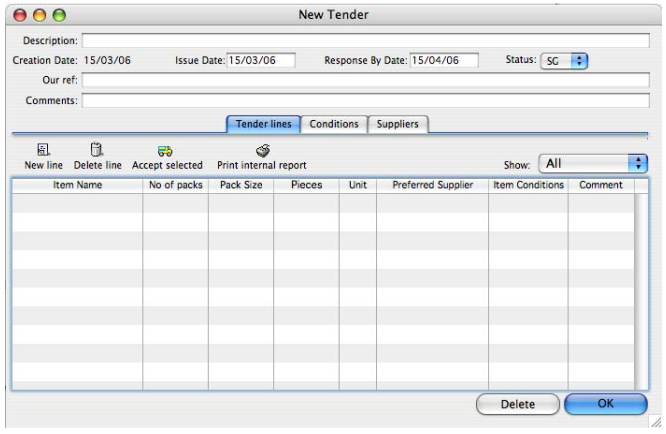
Choosing this menu item shows a window with a list of current tenders (if any) and some options.



To edit an existing Tender, double-click the tender line in the list.

To auto-generate a tender, click the *Auto generate* button. We'll get to auto-generation later.

To create a new tender, click the *New* button. A window like this is shown:



Here you can fill in basic information about the tender.

Creation date

The date the tender was created. This is set to today's date by default.

Issue date

The date the tender is/was sent to suppliers. By default, this is also set to today's date, but can be changed.

Response by date

The date that suppliers must respond to the tender by. By default, this 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 and finalized).

A suggested tender is one that is still being built.

Once a tender is set to confirmed status, no new tender items should be added. After a tender has been confirmed, suppliers can be added (see below) to contact for quotes. Responses from the suppliers can be entered into the tender, compared, and a decision made as to which quote is preferred for each tender item.

A tender can only be used as a basis for purchasing once it has been finalised.

If you set a tender's status to "fn" you will be given a warning when you click the OK button. Finalized tenders cannot be edited in any way.

Future versions of mSupply will have expanded user permissions, so you can determine which users have authority to edit tenders based on the tender status.

Our ref

This field should be used to enter a short reference code to appear in tender-related correspondence. It is strongly recommended that this not be left blank.

Comment

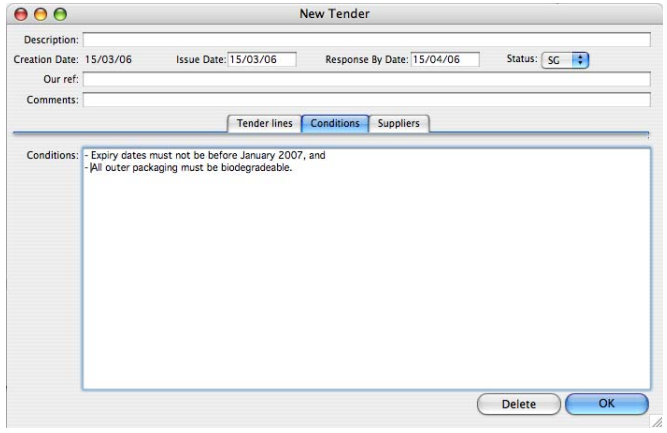
The comment field is for your internal use. It is not printed on any tender documents.

Tender lines Tab

This tab displays be 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. There are buttons for adding an item, removing an item, printing a report on the tender, and, once the tender is finalised, accepting the preferred quotes and creating purchase orders. Details of use are blow.

Conditions Tab

Clicking this tab shows a field where you can add condtions which apply to the tender as a whole and are NOT specific to certain items. To start a new line (as with any text box), press Shift+Enter (although any long lnes will wrap). See below for an example:



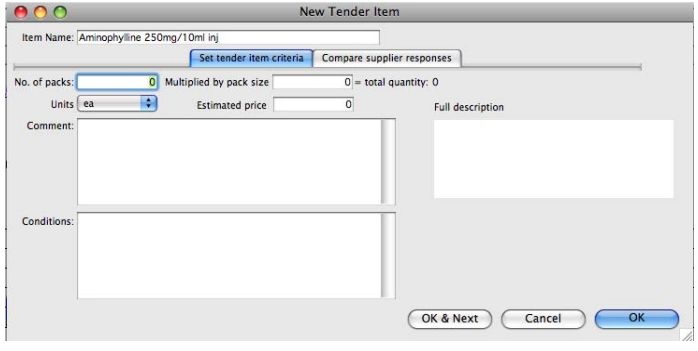
Note that a more complex set of fields will be added here as we receive client feedback.

Suppliers tab

This tab is used to manage sending of the tender to suppliers, and entering responses. Its use is discussed below.

Adding items to a tender

To add an item to a tender, click the *New line* button on the Tender lines tab. You will be shown a window like this:



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. The panel on the right displays the description of the item, assuming that the *Full description* details have been completed in the *Item details* under the *General* tab.

Fill in the number of packs you wish to purchase, and the pack size. The total quantity of individual units will be calculated.

Choose the units you wish to use.

Entries in the comment field are for your internal use, and won't be printed on the tender documents you give to suppliers.

In the tender conditions field, enter any conditions which are specific to this tender item, but NOT applicable to the tender as a whole. These conditions will be printed on the tender letter with the item details.

The second tab 'Compare supplier responses', is for use after suppliers have responded to the tender. This will be covered later.

Note: it is 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 in differing pack sizes.

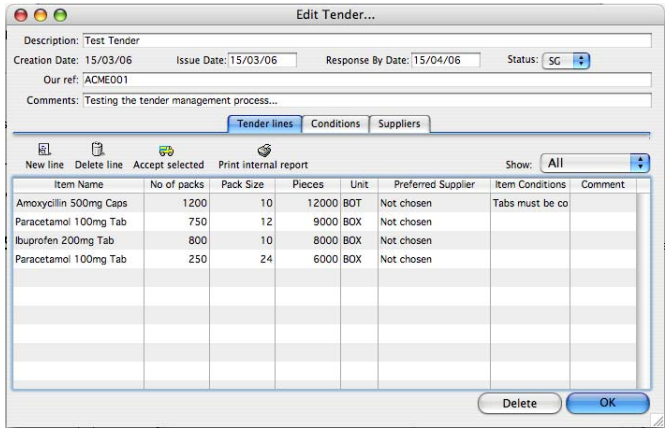
Deleting tender items

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.

Editing tender items

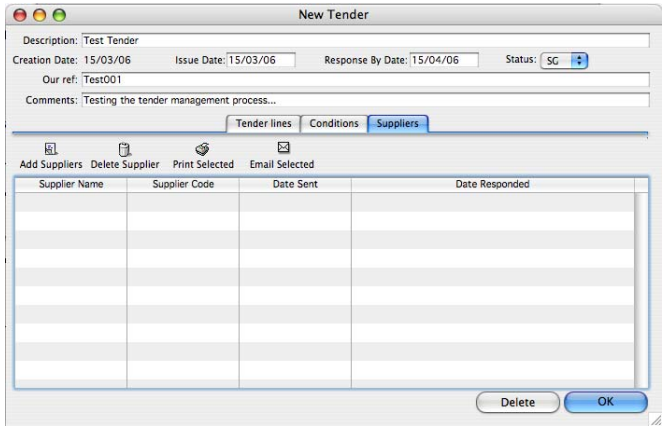
From the Tender lines tab, double-click the tender line you wish to edit. The 'Edit tender item' window will open, allowing you to edit the details in the same was as entering a new tender item, above. Note: you cannot edit or delete lines on finalized tenders.

n the graphic below, we see what the tenders window looks like after four items have been added. Note that the item 'Paracetamol 100mg Tab' has been added twice - once in a pack size of 12 and again in a pack size of 24:



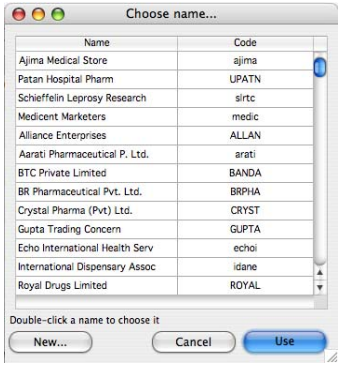
Suppliers Tab

Clicking this tab shows a list of suppliers to whom the tender is to be (or has been) sent:



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 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 quotes - see below.

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 finalized tender, or if the supplier has quoted on one or more tender items.

Print Selected button

Clicking this button prints a tender document for the highlighted suppliers, including all the items you specified.

Note that the tender document printed, while usable, is purely for illustrative purposes, and we will customize the printed layout to meet the requirements of each client.

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. To send emails, use the Special > Send queued emails... command. This option will only be effective if you have entered email address for the chosen suppliers.

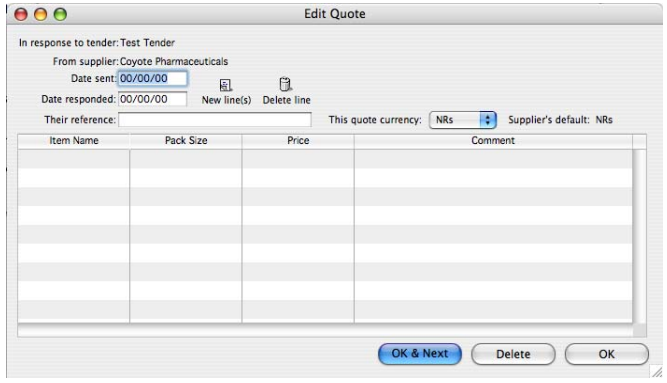
Note that the Win2PDF PDF driver must be installed for this command to work. Please contact us if you wish to purchase this driver.

Whichever method you choose, you will be given the option for the 'Date sent' field to ne automatically filled with today's date.

Receiving Quotations from suppliers in response to a tender

mSupply has always allowed you to receive ad hoc quotations from suppliers. The tender management system integrates with this existing functionality, allowing you to receive quotations against a particular tender.

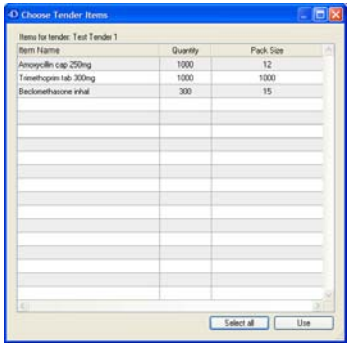
To receive a quotation from a supplier, double-click the supplier name from the suppliers tab of the tender. The 'Edit quote' form will appear:



Here, you can edit the date sent (note that this will usually be filled already by this stage), the date the supplier responded, the reference that the supplier is using for their own records (to be quoted in future correspondence), and, importantly, the currency in which the supplier has responded. If you have previously set a default currency for this supplier, this drop-down list will already be set to that currency. Otherwise, your own default currency will appear.

Adding quote lines

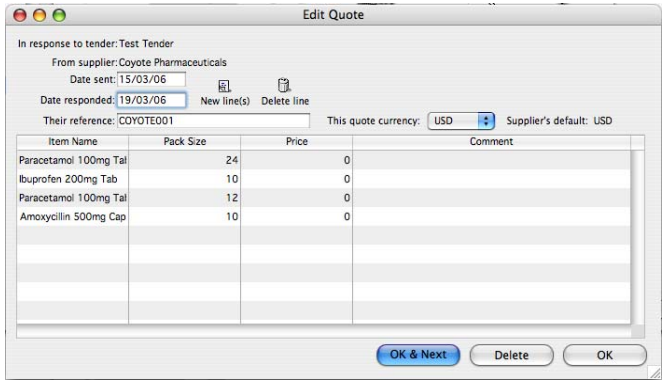
To add items that the supplier has provided a quote for, click the *New line(s)* button. You are shown a list of items for this tender.



Hold down the control key and click the items you wish to add, then click the *Use* button to add the items as quotations from the supplier. You can use the Control-A shortcut to select all items as well.

To add the same item twice to a quote from supplier, click the *Add lines(s)* button and choose the item a second time. You will be shown a warning that the item already exists, 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 here and you won't need to carry out two selections.

In the graphic below, the four lines in the tender have been added to the quote for this supplier. As the lines have not been edited yet, the price appears as 0 and the tender pack size has been used.

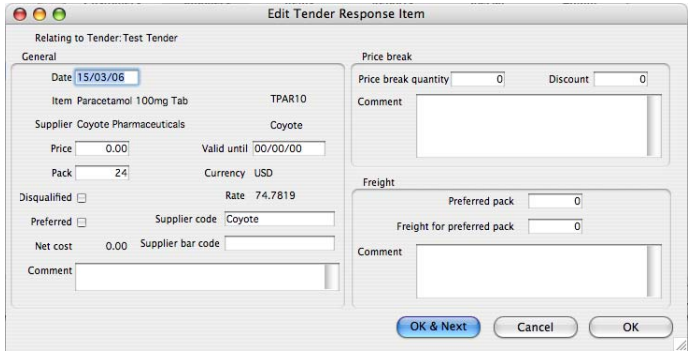


Deleting a quote from a supplier

If you wish to delete a quote, click on the line to highlight it, then click the *Delete line* button.

Entering prices for each quote line

Once you have added the items, double-click quote lines to be shown this window:



You will note that this form is very similar to the form for ad-hoc quotes - the main differences being that the currency cannot be changed, and the related tender is shown at the top. Enter the price and other details the supplier has returned to you. (The item and supplier fields are filled in automatically).

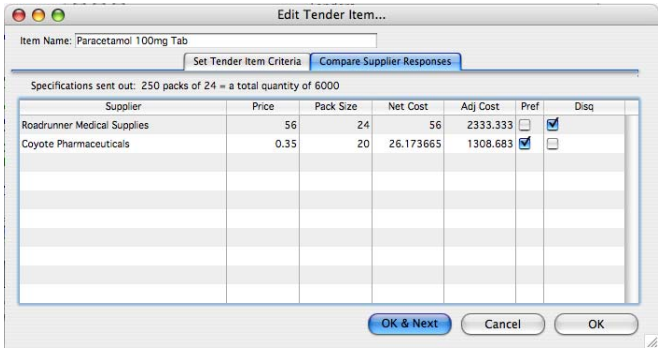
Note that the price you enter is the price for **one pack**.

To cycle through all the items, click *OK & Next.* To edit this quote only, click OK.

Comparing quotations from different suppliers

Once you have received all quotations for an item and entered the information, or once the due date has arrived, you are ready to compare prices. We suggest that at this point you change the status of the tender from suggested (sg) to confirmed (cn).

To compare prices, open the window for the tender, and on the Tender lines tab, double-click the item. If you have changed the tender status to CN, a list of all received quotes for that item will be shown, with comparitive prices (Net Cost and Adj. Cost) in your home currency. (If the tender is still at SG status, you will need to select the 'Compare Supplier Responses' tab:



To view detailed information about a quote, double-click it. The window for editing quote lines from a supplier is shown. You can make on-the-fly changes to the quote line in this way (if, for example, you phone your supplier for an updated quote).

In the example above, we see that Roadrunner has responded with a quote of 56 rupees per pack of 24, and Coyote has reponded with quote of 35 cents per pack of 20. The Net cost and Adj. cost columns show the comparative prices in local currency. Even though the tender specification was for packs of 24 and Coyote has quoted based on a pack of 20, the user here has chosen Coyote, as the Adj. Cost is so much less.

There are two important checkboxes for each quote.

Preferred checkbox

The quote with this item checked is the one chosen to win the tender.

Disqualified checkbox

If the supplied quote fails to meet compulsory criteria you have specified, you may choose to check this checkbox. Obviously, if this checkbox is checked, you will not be able to mark this quote as "preferred"

Note that if you want historical data of all stored quotes for an item, including those from previous tenders, this is available by choosing the menu item Items > Show items, locating the item, then viewing the *Quotes* tab.

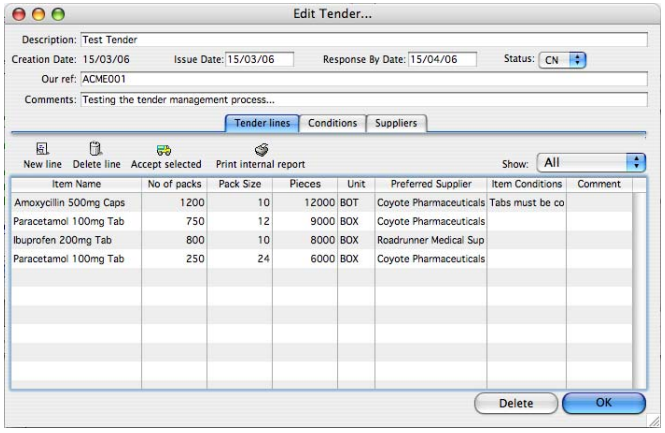
Adjusted cost

This column takes into account differences in exchange rate, pack size etc to show a comparitive price in your local currency. The supplier with the lowest price displayed in this column will be the price winner. You need to evaluate other features too, but this is usually a good guide.

After you have chosen a preferred supplier, their name will appear on the main tenders form on the tender line page (see below).

Accepting tenders

When you have chosen a preferred supplier for all the items in the tender (or as many as you wish to purc hase - tenders do not *have* to be completed - you may want to wait for more favourable market conditions, for example), return to the main tenders window. You should see something like the below, where Coyote has been chosen as the preferred supplier for three out of four items. Roadrunner will therefore be providing the remaining item:



At this point, the tender's status should be set to Finalised (FN), thus preventing any further editing.

Printing an internal report

At any time during the tender process, click to *Print internal report* button to print a report showing the current progress of the tender. A variety of information is shown on this A4 landscape report.

Accepting the quotes

Quotes for tender items can be accepted singly or en masse by simply selecting the lines on the form you wish to accept and clicking the *Accept selected* button. mSupply will generate purchase orders for the selected tender items with the preferred suppliers. mSupply will generate one purchase order per supplier. If you have previously generated purchase orders for the same item(s), you will be warned. For further information see *Editing a purchase order* on page 124..

Purchase orders from tenders

In general, the resulting purchase orders are no different to a normal purchase order generated by mSupply. However, the orders will have some differences:

- Something like 'Generated automatically on 15/3/06 at 16:31:27 from tender Test Tender, our ref: ACME001.' will appear in the purchase order comment field to let you know this is part of a tender.

- Similar information will appear in the log.

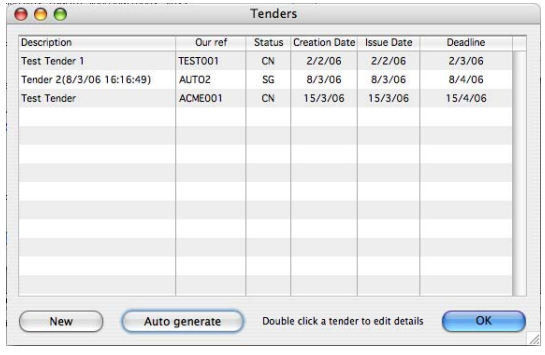
- The purchase order lines cannot be updated from other quotes in the usual way, as they are tied to a specific tender.

Acceptance letters

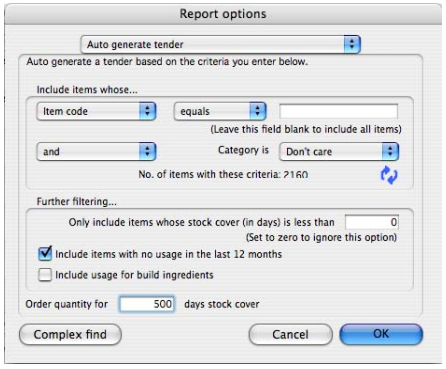
The main difference is that when you print a purchase order which is part of a tender, you will be offered the choice of printing an acceptance letter to go with it. The same also applies to emailing purchase orders. The acceptance letter provided, while usable, is intended only as a sample. As with tender invitation letters, the format is very basic and intended only as an illustration of the tender module. We are happy to customise the layout for clients.

Tender auto-generation

The above details how to manually create a tender, but you may wish instead to have mSupply automatically create a suggested tender for you based upon your projected demand. To do this, click the 'Auto generate' button from the 'Show tenders' window, as shown below:

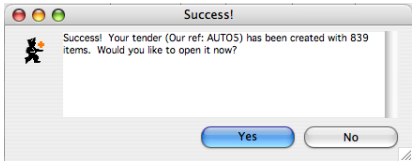


The following window will appear. You may recognise it from the Item usage report and suggested order report - it uses much of the same functionality:



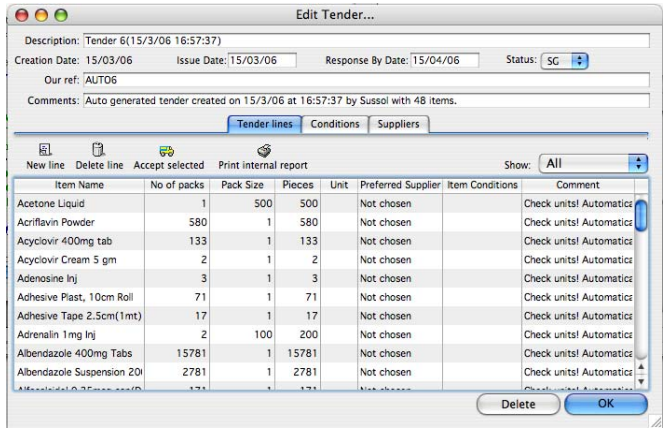
You can tailor your search by item in the usual way. Clicking the refresh button (double-blue arrows) shows an estimate of how many items will be processed. Further refinements can be added. Be sure to enter the number of days stock cover you want to order for in the last text box - in the example above, all items are to be processed, including those which have not been used in the last 12 months, and 500 days of stock is to be ordered (if it's needed).

Processing all this data may take a few 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 spare. If you do, click 'Yes'. A progress indicator will appear to show you how much work is left to be done. When mSupply has finished processing everything, it will let you know:



As you can see from the example above, auto-generated tenders may be rather large, so you may wish to process ten tenders with more specific criteria rather than one huge one at once. In our example, if we restrain our search to all items beginning with 'A', we get 48 tender items instead.

You can choose to immediately look at your tender, or return to it later. If you click 'Yes', you'll get something like the below example:



There are several things to notice here. First, several default values have been entered for the description, dates and ref fields that you're going to want to change. Second, there are no units chosen for any of the tender items, and the message 'Check units!' has been entered into each item's comment. Third, the pack size for most of these items is 1.

This is because mSupply looks for the default pack size and default unit for each itemas it creates the tender (these values are set when editing items - see the section on Items). 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.

Reviewing and continuing with the tender process is, from this point on, done in exactly the same way as normal tenders.

Future changes

The tender management module is relatively new to mSupply, and therefore may not have features which clients feel are necessary, and may possess features which clients do not need. We value feedback from our clients, particularly regarding new functionality, and the evolution of mSupply is largely driven in this way. So, please do contact Sustainable Solutions with any comments or requests regarding the tender management module - or indeed any aspect of mSupply.

Show purchase Orders....

Choosing this menu item shows the Find window for purchase orders. For further information see *Editing a purchase order* on page 124.

New Purchase Order....

This item allows creation of a new order from a supplier. When you *Choose Supplier > New purchase order*, a new purchase order window is displayed.

For further information see *Creating a new purchase order* on page 121.

New Blank Purchase Order...

Choosing this menu item creates a purchase order with no lines to which you can add order lines. For further information see *Creating a new purchase order* on page 121.

Show Goods Received

For further information see *Viewing existing Goods Receipts* on page 137.

New Goods Received

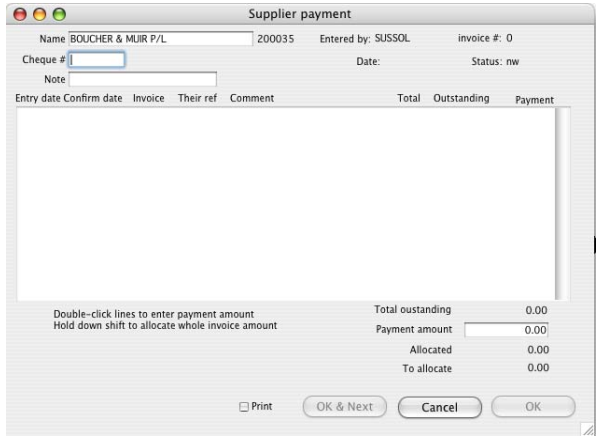
For further information see *Receiving goods using the Goods Receipt function* on page 136.

Show cash payments..

You will be presented with the standard transaction find window, where you can view a list of recent payments, or find a particular payment number.

New cash payment...

This command presents you with the new cash payment window.



Note that:

- You must have activated the payment module in the preferences (tab *invoices 1*) Once the system is activated, each supplier invoice will record the amount outstanding (The amount left to pay to the supplier). Any invoices entered before activation of the system will have their outstanding amount set to zero, so will not show for payment.
- Only finalized invoices will appear in the list. Use the *file* | *finalize supplier invoices* command to finalize invoices once all the details are correct.
- You can not 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.

Entry steps

- Enter the supplier name or code. Once you have chosen the supplier, a list of invoices that you have not fully paid will be shown.
- Enter the total amount you wish to pay. Alternatively, if you want to pay all invoices, shift-double-click each invoice and then the amount to pay will be shown in the "allocated" amount at the bottom of the window.

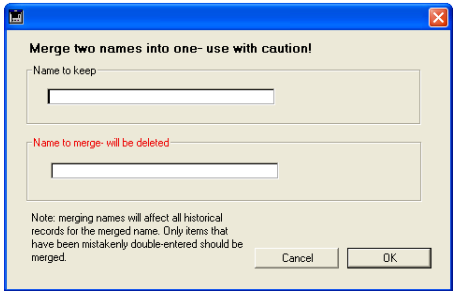
- To fully pay an invoice hold down shift and double-click it's line. (If the invoice is already marked as fully paid, the payment amount will be reset to zero)
- To partially pay an invoice, double-click it's line and enter the amount you wish to pay.
- Once you are happy with the details, click the *OK* button. If you want to print the information, make sure the *print* checkbox is checked.

Merge two names....

If you accidentally enter two names into *mSupply* that identify the same organization, you can use this command to combine them.

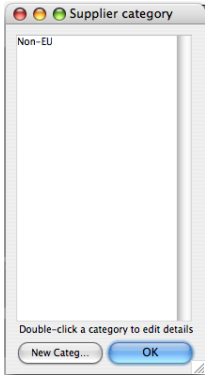
Use extreme caution: This operation will move all historical records from the name you delete to the name you are keeping. The operation can only be undone by reverting to a backup copy of your data file.

In the window displayed enter the name to keep, and then the name to delete. When you have checked then checked again that the information is correct, click the *OK* button. You will be given one last chance, and then.....

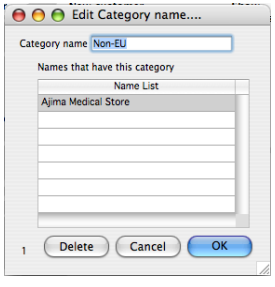


Show categories

Selecting this option brings up this window:



Here you can add and edit categories for your suppliers. To add a new category, click 'New category'. To edit an existing category name, double-click-double-click it in the list. Either action brings up this window:



In category name, add or edit the category name. A list of suppliers to whom this category has been assigned in shown underneath. If there are no assigned suppliers, click 'Delete' to delete the category.

Show manufacturers

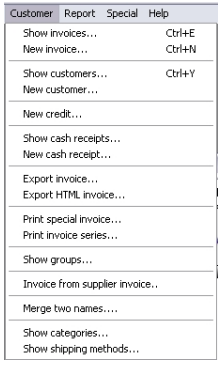
Select this option to show, view and edit manufacturers in the same way as you would edit suppliers. For further information see *Show invoices..* on page 216. which gives a fuller description of the equivalent command for showing customers.

New manufacturer

Select this option to add a new manufacturer in the same way as you would add a new supplier. See the *Names- entering, adding and using* section for a fuller description of this command.

Customer Menu

This menu contains commands related to managing customers and transactions to or from customers.

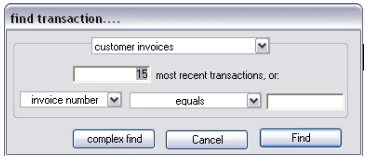


Show invoices..

This command is for viewing or editing any customer invoice

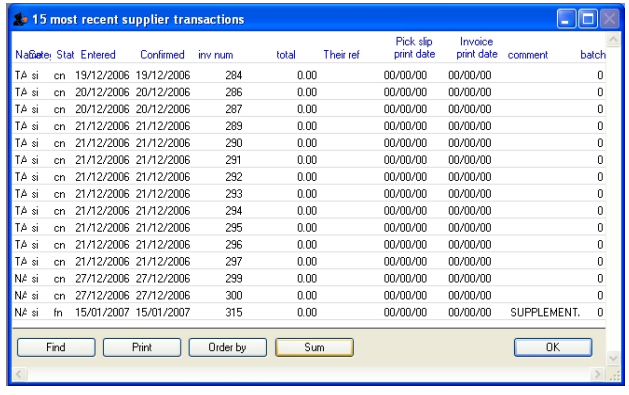
The Find Transactions window

You will be presented with a window where you can enter a number.



If you enter:	Transaction(s) Displayed
1	You will be taken directly to the most recent invoice entered
25	A list of the 25 most recent invoices
123 in the lower box	Invoice number 123 will be displayed.
Click the complex find button	The query editor will be displayed, where you can enter a more detailed query.

The list invoices window lookslike this:

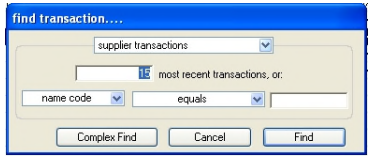


Note that you can resize the window to show more of the customer name.

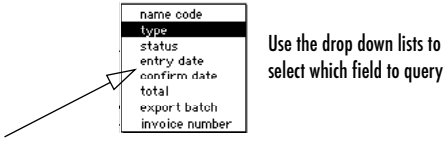
The following buttons are along the bottom of the window:

Find

This button is very useful. It will bring up the find transactions window as discussed above:



Click on the drop down list to determine which field to query



Choose the comparison from the next drop down list *(equals, starts with, etc)*

Note: the comparison popup menu will change depending on the type of field you have chosen in the first list.

This window is very useful for quickly finding a group of invoices.

If you want to query on multiple criteria, do your first query, then click *find* again, but this time make sure the *selection* radio button is selected. The second query will now search only the results of the first query.

Print

Prints the list of invoices displayed. (Does not print the actual invoice- just a list)

Order by

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.

Sum

Displays 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.

New Invoice...

This is the standard way to issue stock to a customer.

You will be presented with the invoice entry screen

See the *Issue Goods (Customer invoice)* chapter for a fuller description.

Show customers...

For viewing or editing any customer.

You will be presented with a window where you can enter as much of the customer name as you know.

If more than one customer name matches the entry you have typed, you are presented with a list of matching customers. Double-click the customer you wish to view or edit.

See the *Adding or Editing Customers and Suppliers* chapter for full details.

New customer...

Allows entry of a new customer.

See the *Adding or Editing a Customer and a Supplier* chapter for full details.

New credit...

Entering a customer credit is exactly the same as entering a Supplier invoice, except that:

- You will enter the customer name rather than the supplier name
- Items will be entered 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. We then presume you want to sell the item again for the same price you sold it originally, hence the cost and selling price must be the same

Note: there is no need to enter negative values in *mSupply*. Even when you are entering returned goods from customers, or returned goods to suppliers, enter positive values. *mSupply* automatically converts the invoice total to a negative amount.

Cash Receipts....

For viewing or editing any customer payment. The procedure is outlined above in the "Show invoices..." section of the manual.

New cash receipt....

See the chapter above *Receiving payment from customers* for an explanation of the payment receiving system.

Export invoice...

This 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 the *export HTML invoice…*command for that purpose.

When you use this command you will be asked to enter an invoice number. The default choice is the last invoice created. The invoice will 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 asked if you want to attach the file to an email. If you click *attach* then mSupply will create an email to the customer with the invoice attached to it.

Note: you will not be asked if the customer does not have an email address entered for them.

Export HTML invoice...

This command exports any customer invoice to a file that can be emailed to a customer and easily read or printed by them using a web browser.

When you use this command you will be asked to enter an invoice number. The default choice is the last invoice created.

The file will be named "*customer_code*_invoice_*number*.html", where *customer_code* is the code you have assigned to the customer, and *number* is the invoice number.

The exported file will be saved to the destination you specify in the mSupply preferences.

Once the invoice is exported, you will be asked if you want to attach the file to an email. If you answer *attach* then mSupply will create an email to the customer with the invoice attached to it.

Note: you will not be asked if the customer does not have an email address entered for them.

Print special invoice

Prints a special invoice. A special invoice is the same as a regular invoice, except that you can set different text to appear at the bottom of the invoice. One common use is to print invoices with areas for signing for the receipt of narcotic goods.

You can set the text that appears at the bottom of a special invoice from the "printing" tab of the preferences window.

Print invoice series.

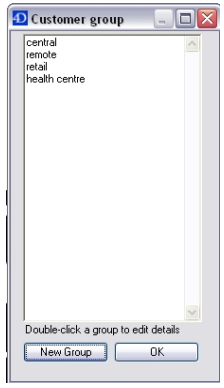
Allows printing of a range of invoice numbers. You will be asked for the first and last numbers to print.

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.

See the explanation of how to set up a restriction scheme under the “manage permissions…” heading under the “item menu” chapter above.

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 (Choose *Customer* | *Show Customers…*
- Click *OK* to leave the window.

Invoice from supplier invoice

This command allows you to take a supplier invoice and directly make a customer invoice.

It is useful for goods that are delivered directly from a supplier to a client, but are charged through your organisation.

You will be asked to enter the supplier invoice number and the customer code for the invoice to be created, so have this information ready.

When finished, a customer invoice with suggested status is created.

If any lines from the supplier invoice have been issued already, you will be alerted and only the available balance will be added to the customer invoice.

Merge two names....

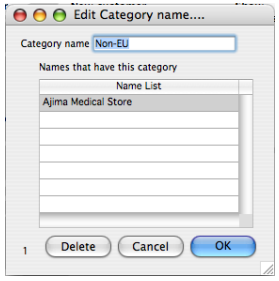
See “Merge two names....” on page 1214.for a description of this commandd. The same command is placed in both the supplier and customer menus for ease of use.

Show Categories

Selecting this option brings up this window:

Here you can add and edit categories for your customers. To add a new category, click ‘New category’. To edit an existing category name, double-click it in

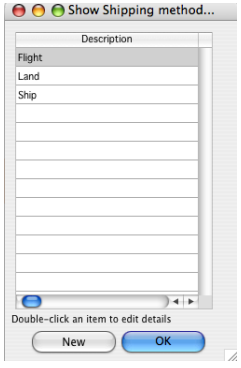
the list. Either action brings up this window:



In category name, add or edit the category name. A list of customers to whom this category has been assigned in shown underneath. If there are no assigned customers, your can click *Delete* to delete the category.

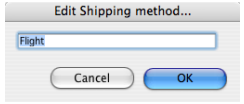
Show shipping methods

Choosing this menu item shows a window with a list of shipping methods.

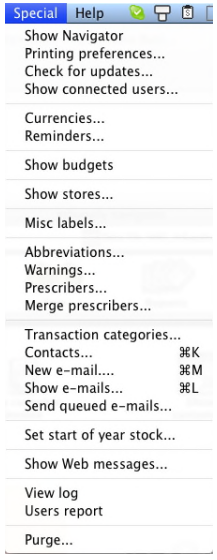


To enter a new method, click the New button.

To edit an existing method, double-click the item in the list. A window to enter or edit the name is shown.



The Special menu

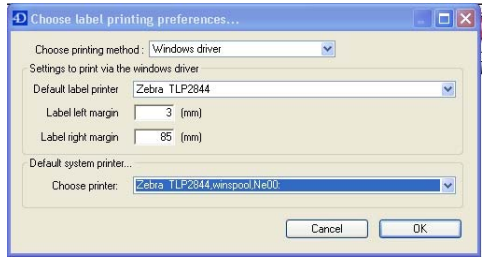


Show Navigator

If for any reason the mSupply Navigator is not visible, choose this option to show it again.

Printing preferences

Choosing this menu item shows the printing preferences window.



Here you can choose the printing method for printing labels. For label printing we strongly advise you use EPL printing rather than using the Windows printer driver as it is much more reliable.

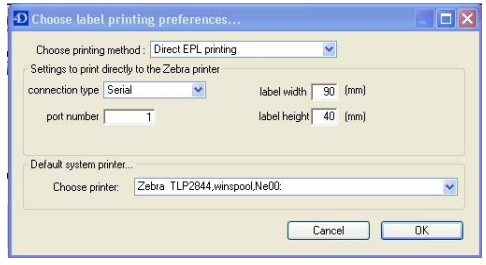
We now support Zebra Network print servers, allowing multiple mSupply client machines to connect to a single labe printer.

Windows printing options

Did we mention we advise you to use EPL printing?

If you insist on using the Windows printer driver, be aware you will need administrative privileges on the machine you are using, and will need to set up a custom paper size for the printer. Contact us for details.

You set the label left and right margin in millimetres.



EPL printing options

If you choose “Direct EPL printing” from the drop-down list, you are shown this window. You can choose between serial and TCP connections:

- Serial requires a standard serial port on your computer. Set the “port number” field to “1” if your serial port is COM1. Set it to “2” if it’s COM2.
- TCP requires you have a Zebra print server installed. Enter the i.p. address of the printer in 1.2.3.4 form.

For both methods, you set the width and height of the labels you are using in millimetres.

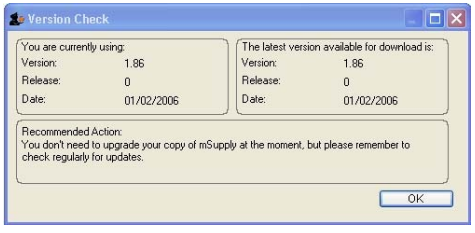
Default system printer

This drop-down list provides a quick way of changing the system printer (Windows only). It is simply a shortcut to the same functionality available by choosing Start > Control panels > printers and faxes and then right-clicking the printer you want to set as default, and choosing “set as default” - phew!

Check for updates...

Choosing this item 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.



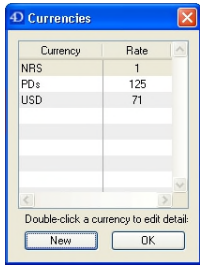
Show connected users

Note: Not applicable when running mSupply in single user mode

To display a list of users currently logged on to mSupply, select this option.The window below is displayed, and by selecting one or more users, a message typed into the *Message* box will immediately appear on the selected user(s) desktop when you click on the *Send* button. Such messages are not stored on the system.

Currencies...

Choosing *Currencies* opens a window with a list of currently entered currencies.



Buttons in the currency list window :

New

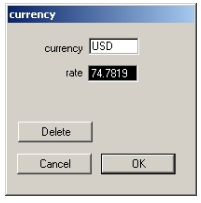
To add a new currency.

OK

When you are finished editing currencies.

Editing a currency entry:

Double click a currency to edit it. 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.

Buttons in the currency editing window :

Delete

Click to delete the currency. If the button is dimmed, the currency is in use by quotations, so you can not delete it..

Cancel

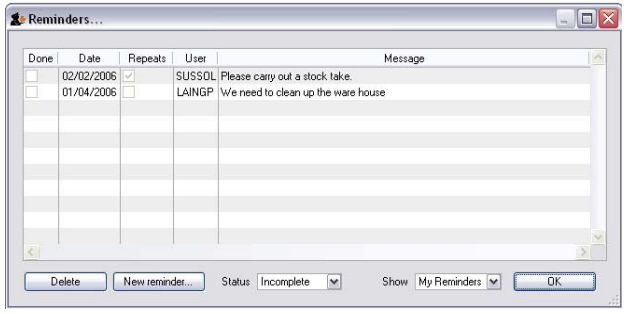
Click to exit the window without saving changes.

OK

Click this button when you are finished editing currencies.

Reminders...

The Reminders command shows reminders that are not yet completed.



To add a new reminder, click the “new reminder...” button at the bottom of the list.

To edit a reminder, double-click it in the list.

To delete a reminder, click on the reminder to delete, then click the “delete” button.

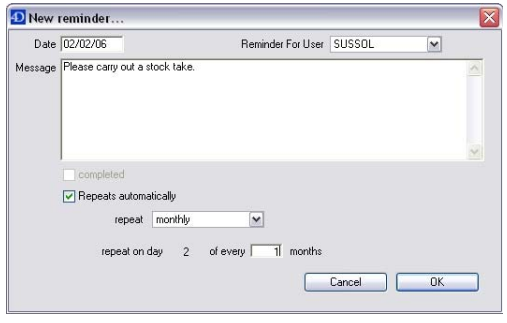
You can sort the list by clicking on the column headers. Click a second time to sort in the opposite direction.

Filtering the list

You can change the reminders displayed according to the status and whether the reminder is for you to complete or was created by you.

To show only complete or in-complete reminders, choose from the status drop-down list.

The Reminder details window

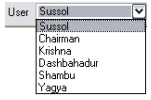


Date

The due date of the task

Reminder for User

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!



Note

The text of the reminder message

Completed

Check this box if the reminder is completed (but note that it won't usually show in the list once is is checked)

Repeats automatically

Once this box is checked, you will be shown options for the reminder to repeat daily, weekly or monthly.

Show budgets...

Activating the budget module

To use this feature, the *Activate budget module* on the *Invoices 1* tab in *Preferences* must be checked.

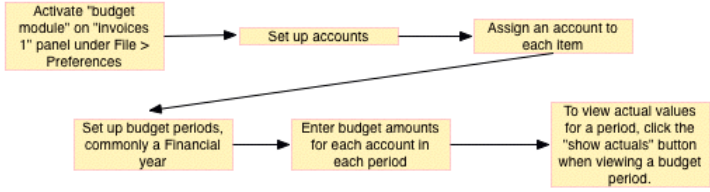
Budget Overview

You can define budget periods here. The periods you define can be any length you choose - months, quarters, years or whatever.

Once budget periods are set up, you can allocate each transaction to a budget period. The items on that transaction will have been assigned accounts, and you can then view budget reports based on expenditure or sales broken down by the accounts you have assigned to items.

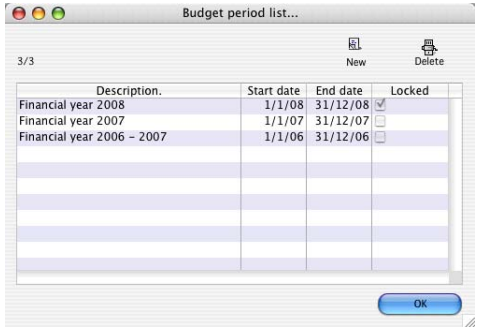
At the end of a budget period, that budget period may be locked so that no further entries may be made.

To use the budget feature, these are the steps to be taken:



Entering budget details

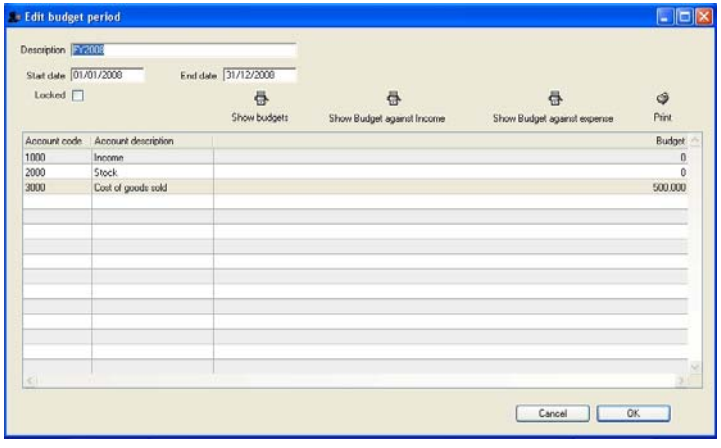
Choosing *Special* > *Show budgets* presents you withthe window as shown; note that the latest entry appears at the top of the list, with the oldest entry at the bottom.



Buttons in the budget period list window :

New

Clicking on the *New* button displays the window for entering details for the new budget period.



In the *Description* field, enter the name of the budget period - for example FY 2008. The first time you use this feature, the Start date field is set to 00/00/00, and you should enter the End date. On subsequent occasions, the Start date field will show the date one day later than the End date entered on the previous occasion; note that the Start date is non enterable. Enter the end date in the *End date* field.

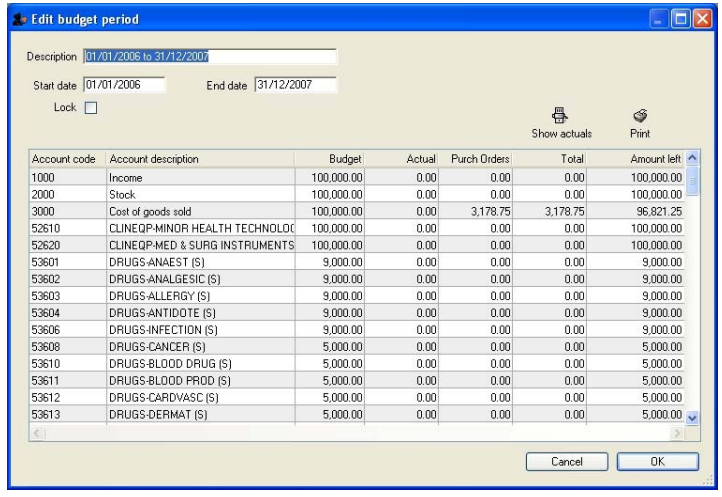
In *Account Description* column, a list of account names and code(s) will be displayed. To set budget figures, select the Account to which the budget applies by clicking on the line. Once selected, click on the figure in the *Budget* column of that line, and enter the budget figure.

Editing & Deleting budgets

Should you wish to edit a figure allocated to an account, double clicking on the appropriate line on the *Budget period list* brings up the *Budget edit* window; follow the procedure described in the previous paragraph, and edit or delete the amount, setting it to the revised figure or zero. The entire budget may be deleted from the *Budget period list*, but only when the amounts allocated to all accounts are zero. To delete a budget, select it on *Budget period list*, then click on *Delete* button.

Budget Report

Double clicking on the appropriate line on the *Budget period list* brings up the *Edit Budget period* window, then by clicking on the *Show actuals* icon, a more detailed window appears:



This window presents you with details of actual performance against budget, and lets you know at any time how much of the budget for each account has been spent, and how much remains.

OK

Any changes that you made on the *Budget period list* are saved when you click on *OK*.

Show stores

What is a "Store"?

In mSupply a "store" is a physical area where stock is held. When a user logs into mSupply, they can choose a particular store (hereafter "the current store"), and mSupply will then operate as if the stock in that store is the only stock available. Only stock from the current store will be available for dispensing, and reports will relate to stock in that store, and issues from and receipts

to that store.

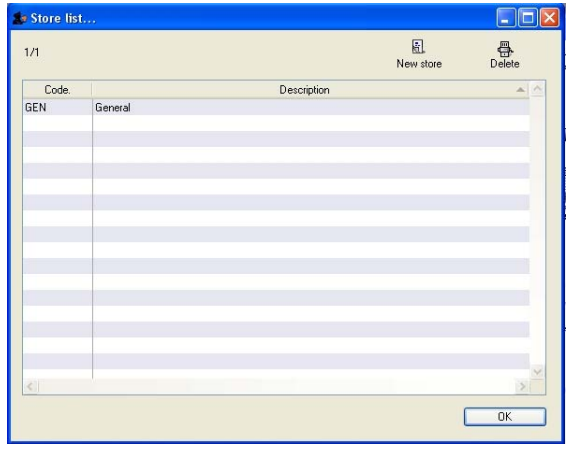
Most users of mSupply will only have a single store, and so will have no need of this functionality.

The following examples illustrate situations where you might want to run more than one store.

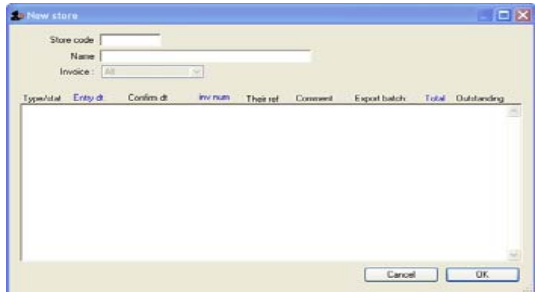
- A hospital pharmacy where you have two dispensing locations: an inpatient pharmacy and an outpatient pharmacy.
- A hospital pharmacy where the pharmacy store stock is treated separately to the dispensary stock. You would set up mSupply with a store called "Pharmacy store" and a store called "Dispensary". You would use the "transfer stock" function to move stock from pharmacy store to 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).

Note: In the above examples, when you log on, you would select the appropriate mode - see table:

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



When 'Show Stores' is selected from the *Special* menu , on first use the above window appears, with the single store having the default description 'General'. Users having responsibility for more than one store require to create the additional store(s), and should click on *New store* to show the window below, which allows entry of required details of the new store being created:.

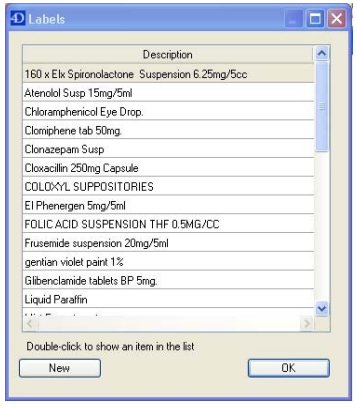


After having created a new store(s), the Stores list window will display all stores, and you may double click an entry to edit that store's details.

Note: You are not able to log on to a particular store from this window; its purposes are these:- to create a store, to display the created stores, and to edit or delete a store , deletion of a store being possible only when that store contains zero stock and there have been no transactions recorded.

Misc labels

Choosing this item shows a list of previously saved label formats.



Double-click an item in the list to edit/print that format, or click the New button to add a new format. The format details window looks like this:

Label name

This field will not print on the label- it is for you to identify the label. It is shown in the list of available formats when the Misc labels menu item is chosen.

Heading, Body, Footers

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.

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.

Print button

Clicking this button will print the number of labels specified in the *quantity to print* field to your label printer. If the print preview button is checked, you will be shown an on-screen preview of the label. Note that if you enter a large quantity and check the preview option, you will be shown a preview of each label!

Cancel button

Clicking Cancel will close the window without saving any changes you have made

Delete button

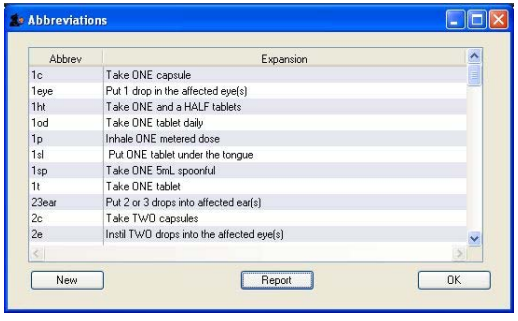
Clicking this button will delete the currently displayed format and return you to the list of available formats.

OK button

Clicking OK will save any changes you have made and close the window. (Note that the quantity to print is not saved- it is reset to 1 each time you open the window).

Abbreviations...

Abbreviations allow you to enter directions quickly and accurately when dispensing medicines.

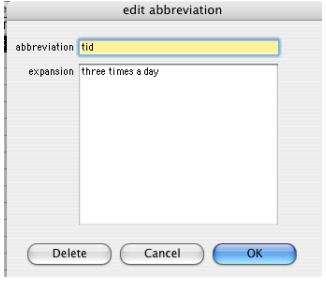


Double-click an abbreviation to edit it.

As usual, you can sort the list by clicking on the column headers

Click the "New" button to add a new abbreviation.

Click the report button to construct a simple report. on all abbrviations. This report can be previewed or printed.



Type an abbreviation and the text that it will expand to.

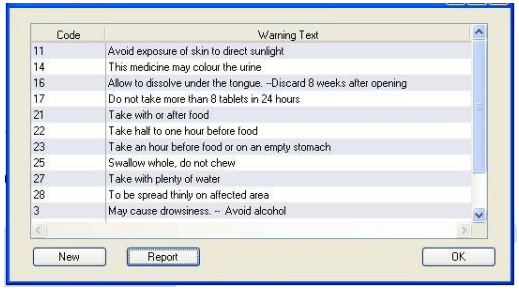
When you are issuing an item you can mix abbreviations and your own text to add common directions quickly.

Do not use actual words as your abbreviation, or else attempting to type the word will result in the expanded text appearing on your lablel!

Warnings...

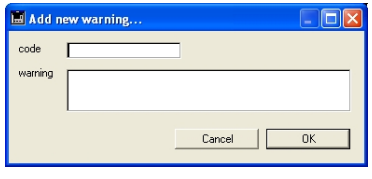
This menu item allows you to view and edit the standard list of warnings.

One this list is formed, you can apply one or more warnings to each item, and choose which warning will be automatically printed on labels.



Double-click a warning in the list to edit its details.

Click the "New" button to add a new warning.

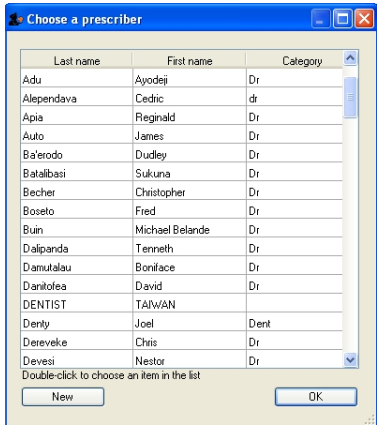


We suggest you use the standard set of warnings as specified by the pharmaceutical authorities in your country.

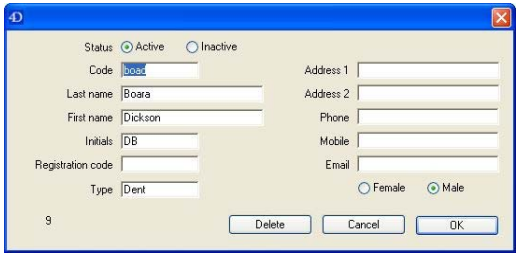
Prescribers...

We were going to title this section "Managing Prescibers" but we all know that's not possible ;-)

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 presciber. You can use the code quickly to look upthe prescriber when dispensing.

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.

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 Prescibers...

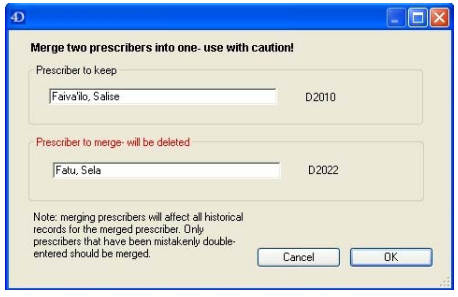
We suggest you might want to add a "Miscellanous Prescribers" item to the list, and use this if you have a lot of prescribers whose prescriptions you only dispense infrequently.

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

This menu item is used too merge two prescribers, where the same prescriber has accidentally 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.

Transaction categories

Categories allow you a way of grouping transactions together. Each type of transaction can have its own list of categories. For example customer invoices might have a category "normal" and "urgent". Inventory adjustements might have categories "expired", "damaged" and "stock take"

Click on “New” button to create a new category.

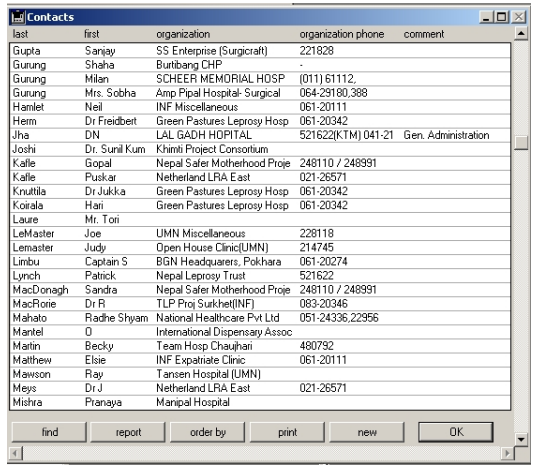
The categories can be added to customer, customer credit, supplier, supplier credit, repack, build, inventory adjustment while creating or editing transactions.

Once you have assigned categories they will show as a drop-down list when you enter a new invoice or transaction.

(In versions of mSupply prior to v1.8 categories were set in the preferences, and there were only categories for supplier and customer invoices).

Contacts...

This command displays a window where you can edit contacts.



last	first	organization	organization phone	comment
Gupta	Sanjay	SS Enterprise (Surgicraft)	221828	
Gurung	Shaha	Burtibang CHP	-	
Gurung	Milan	SCHEER MEMORIAL HOSP	(011) 61112,	
Gurung	Mrs. Sobha	Amp Pipal Hospital- Surgical	064-29180,388	
Hamlet	Neil	INF Miscellaneous	061-20111	
Herm	Dr Freidbert	Green Pastures Leprosy Hosp	061-20342	
Jha	DN	LAL GADH HOPITAL	521622(KTM) 041-21	Gen. Administration
Joshi	Dr. Sunil Kum	Khimti Project Consortium		
Kafle	Gopal	Nepal Safer Motherhood Proje	248110 / 248991	
Kafle	Puskar	Netherland LRA East	021-26571	
Knuttila	Dr Jukka	Green Pastures Leprosy Hosp	061-20342	
Koirala	Hari	Green Pastures Leprosy Hosp	061-20342	
Laure	Mr. Tori			
LeMaster	Joe	UMN Miscellaneous	228118	
Lemaster	Judy	Open House Clinic(UMN)	214745	
Limbu	Captain S	BGN Headquarers, Pokhara	061-20274	
Lynch	Patrick	Nepal Leprosy Trust	521622	
MacDonagh	Sandra	Nepal Safer Motherhood Proje	248110 / 248991	
MacRorie	Dr R	TLP Proj Surkhet(INF)	083-20346	
Mahato	Radhe Shyam	National Healthcare Pvt Ltd	051-24336,22956	
Mantel	O	International Dispensary Assoc		
Martin	Becky	Team Hosp Chaujhari	480792	
Matthew	Elsie	INF Expatriate Clinic	061-20111	
Mawson	Ray	Tansen Hospital (UMN)		
Meys	Dr J	Netherland LRA East	021-26571	
Mishra	Pranaya	Manipal Hospital		

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:

Query

Use to find the contacts you wish to report on or wish to produce a set of address labels for.

Report

presents the Quick report editor window. See the using the report editor chapter for more instructions.

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.

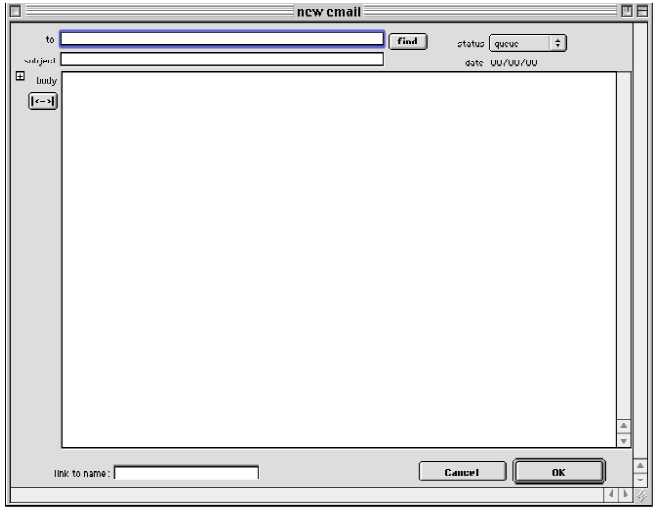
- If you choose *labels*, you will be shown the label editor, allowing you to print a set of address labels for the current list of contacts. Note that you can save a particular label layout and then use the "load" command in the label editor to restore your layout.

New

To edit a contact, double-click on the line you want to edit. You will be shown the contact details:

New e-mail...

Choosing this command results in you being shown a window like this:



The email window allows you to compose and then send an email from directly within mSupply.

The inbuilt email sending functions of *mSupply* allow you to:

- Send invoices to customers that they can print (using the "export HTML invoice" command)
- Send orders to suppliers (using either the "Email" or "Email pdf" menu item when editing an order)
- Send electronic invoices to customers that they can automatically import into their copies of mSupply.
- Send an email as you would using another email application. If you use mSupply, the advantage is that the email can be linked to the name, and easily viewed from the *Email* tab of the name details window.

To compose an email

- Enter the recipient email address in the *to* field. If you have email addresses entered for names in mSupply, type the start of the name, and click the *find* button to automatically insert the address. To enter more than one address, separate the addresses with commas.
- Enter a subject in the subject field

- If you want to enter addresses in the "CC" or "BCC" fields, or want to attach a document to the email, then click the small "plus" icon on the left to show those fields. (See below for how to attach documents). To enter more than one address in the "CC" or "BCC" fields, separate the addresses with commas.
- Type the text of your message.
- Click the *OK* button to queue your message.
- To send your message, click the *send* button in the message list window, or choose *Send queued mail...* from the *special* menu.

Notes:

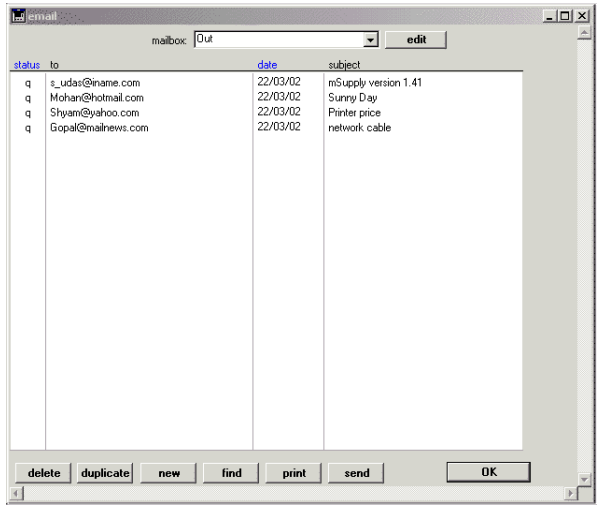
- Make sure you have set a return address and a mail server in the preferences.
- If you are using a dial-up connection, you must close the connection when you have finished sending.

Attachments

- *mSupply* allows you to attach documents to an email.
- To attach a document, simply click the "attach" button. You will be presented with the standard window to find a file.
- There is no limit to the number of attachments you can add to a email. (Well, actually it's a few thousand. Let us know if this isn't enough.)
- To delete an attachment, click the attachment in the list you want to delete, then click the *delete* button.

Show e-mails...

You will be requested to enter the number of days of mail to display. The default will display all mail for the last week.



Viewing a messages

To view a message from the list, double-click it.

To view a different mailbox, choose the name of mailbox from the list

Status

The status of a message will be one of the following:

- S - the message has been successfully sent. Once a message has been sent you can no longer edit it. To send the same message again, use the *duplicate* button to make a copy of the e-mail.
- Q - the message is queued, and will be sent next time e-mail is sent
- H - the message is on hold, and will not be sent.

You can click on the "status" and "date" column headers to sort messages by those columns.

To view a message, double-click it, and it will open in the message composition window.

Managing mailboxes

Click the *edit* button beside the drop-down list to show a list of mailboxes:

Buttons in the message list window:

Delete

To delete a message, click on it to highlight it (control-click (Mac: command-click) to select mulitple messages). You will be given a warning allowing you to change your mind!

Duplicate

A copy of the message you have highlighted will be made, and will open in the message composition window to allow you to edit it.

New

A new message will be created, and the message composition window will open, allowing you to edit it.

Find

The find window will open, allowing you to find messages. The results will be displayed in the list.

Print

The displayed list of messages will be printed.

Send queued e-mails...

Any queued e-mailed messages will be sent. If you have a dedicated network connection, the messages will be sent straight away. If you have a dial-up connection and you are not already connected to the internet, you will be shown the "connect to..." window to initiate a connection.

Note that if it takes a long time to establish a connection, *mSupply* may give an error. If you are experiencing problems, first establish the connection to your ISP, then choose *Special | send queued e-mail.*

Set start of year stock...

This command sets the start of year quantity for each item, and records the start date. The starting stock date and stock quantity are used when printing a ledger.

The idea is that you reset your starting stock on the first day of each new financial year. Then, at the end of the year, the item ledger will print the starting value, all transactions for the year, and your ending stock quantities.

Using this command does not change any stock-on-hand values or archive any transactions.

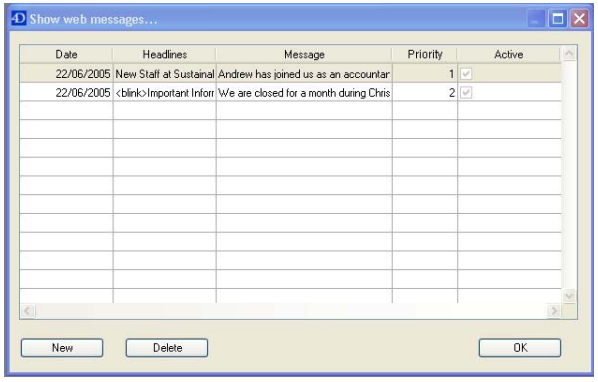
You are not required to use this command, but if you do not, you will not be able to archive transactions, and you will get very long item ledger printouts!

Show Web messages

If you are using the mSupply web server, web messages give you a way of giving information to your clients. For example, you might want to let them know about a change in packaging, a drug recall or that you will be closed next Tuesday for stock taking.

The messages you add will be shown in the customer's web browser after they have successfully logged in.

Choosing this menu item shows a list of messages

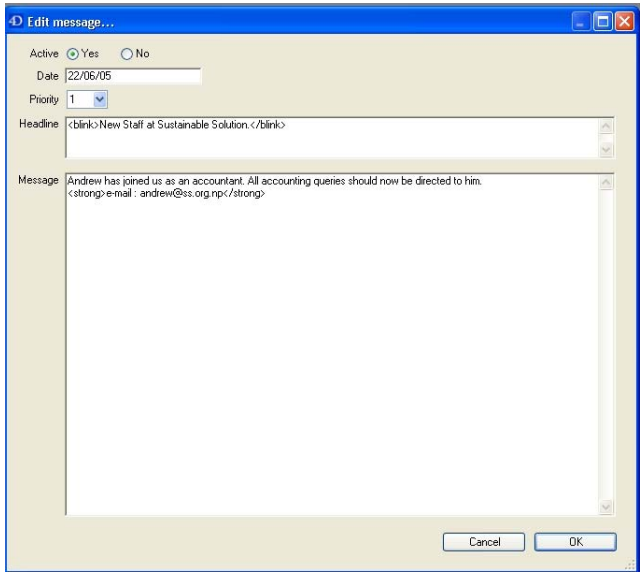


Double-click a message to edit it.

Delete button

Click on a message in the list, then click this button to delete it.

Click the *New* button to add a new message. The window to add or edit a message will be shown



Only messages with the "active" radio button checked will be displayed.

Priority

Choose a priorty from one to five. Messages are sorted by priority before they are displayed, so messages with a priority of "1" will display at the top of the list.

When a customer successfully logs on, they will see the headline message only, with a "more...." link, which will display the full message text.

Note that you can put HTML tags in the message headline and body.

For example, to make a message appear in bold, write it like this:

- Urgent request for assistance

To make a message blink:

- <blink>Blinking messages are very annoying</blink>

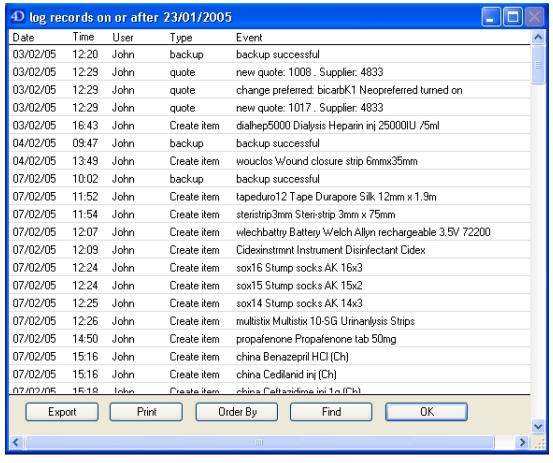
You can also use this facility to make complex newsletters with columns and links to other web pages etc.

View log

When you choose *view log* you will be asked how many days history to view (the default is 7 days)

This menu item can only be used by users in the "high access" group.

It displays a list of significant events, along with the date, the time and the user.



Date	Time	User	Type	Event
03/02/05	12:20	John	backup	backup successful
03/02/05	12:29	John	quote	new quote: 1008 . Supplier: 4833
03/02/05	12:29	John	quote	change preferred: bicarbK1 Neopreferred turned on
03/02/05	12:29	John	quote	new quote: 1017 . Supplier: 4833
03/02/05	16:43	John	Create item	dialhep5000 Dialysis Heparin inj 25000IU /5ml
04/02/05	09:47	John	backup	backup successful
04/02/05	13:49	John	Create item	wouclos Wound closure strip 6mmx35mm
07/02/05	10:02	John	backup	backup successful
07/02/05	11:52	John	Create item	tapeduro12 Tape Durapore Silk 12mm x 1.9m
07/02/05	11:54	John	Create item	steristrip3mm Steri-strip 3mm x 75mm
07/02/05	12:07	John	Create item	wlechbattry Battery Welch Allyn rechargeable 3.5V 72200
07/02/05	12:09	John	Create item	Cidexinstrmnt Instrument Disinfectant Cidex
07/02/05	12:24	John	Create item	sox16 Stump socks AK 16x3
07/02/05	12:24	John	Create item	sox15 Stump socks AK 15x2
07/02/05	12:25	John	Create item	sox14 Stump socks AK 14x3
07/02/05	12:26	John	Create item	multistix Multistix 10-SG Urinanlysis Strips
07/02/05	14:50	John	Create item	propafenone Propafenone tab 50mg
07/02/05	15:16	John	Create item	china Benazepril HCl (Ch)
07/02/05	15:16	John	Create item	china Cedilanid inj (Ch)

Buttons in the window:

- OK- exit the window
- Order by- sort the log
- Search- find particular records in the log.
- Export- allows you to export the log for use in another application

For further information see *Log* on page 149. for a complete description of which events are recorded in the log.

Note that double-clicking a log entry will bring up a small window with the full item details. You can not edit this information.

User's report

Choosing this menu item displays a report of the list of names of the users, their access group, active status, number of logins, last login date and last login time.

Purge...

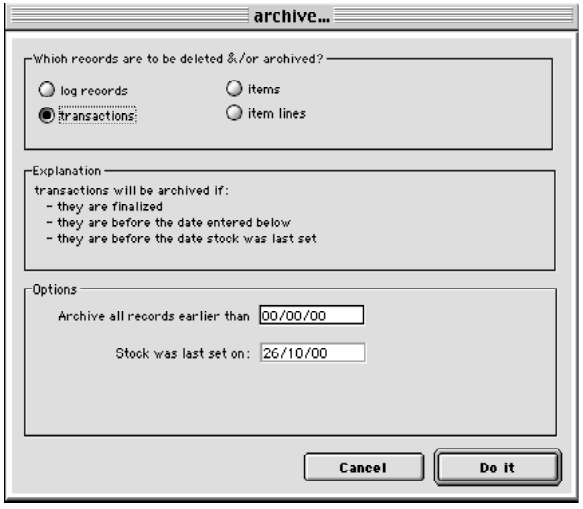
When you choose this menu item a dialog is displayed allowing archiving of certain tables- Transactions, Log, Items, Item lines (Stock).

We use the term "purge" to refer to removing information from the main database. There is no need to purge anything in order to keep mSupply running, however you may wish to do so in order to keep the data file to a more manageable size, or to gain a small speed advantage on older hardware.

As you enter more and more data into the system, the speed of the system will become slower, especially when doing procedures that require searching through lots of records, and backing up files will take longer.

The current limit in mSupply is 16 million records in each table (16 million names, 16 million transactions, etc). Once a data file approaches 2Gb in size it will need splitting. Contact Sustainable Solutions for more information if your data file is becoming very large.

If you want a record of the old information, the best thing to do is to do a backup of mSupply before you do the archive. You can then use the File > Restore command to access this backup copy at any time.



Purging transactions will also archive the transaction lines associated with that transaction.

You cannot purge any transaction:

- whose confirmation date is after the date the stock was last set.
- has a confirmation date within the last three months.
- status is not "fn" (finalized).

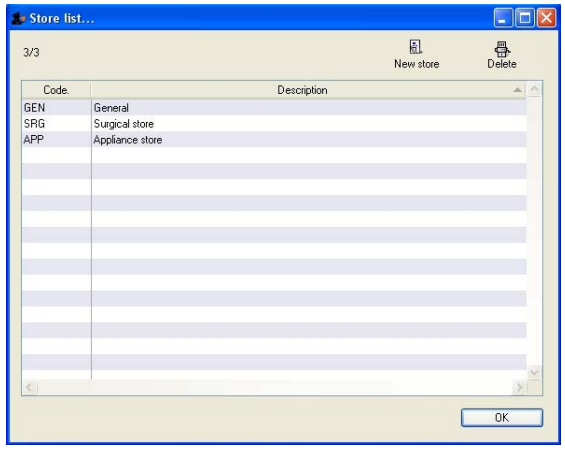
You cannot archive Items that have transactions or stock related to them.

You cannot archive item lines whose stock is not zero or that have transactions related to them, unless the transaction is finalized.

Show stores...

This window displays the list of available stores in the mSupply.

When you choose "*Show stores...*" you will be presented with the following window.

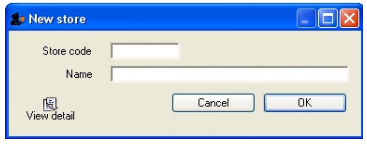


***

Buttons on the Store list ... window

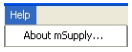
New Store : Using this button, you are able to create new store where you need to fill the "*Store code*" and "*Name*".

Clicking on "New store" button displays the wndow like the one below.



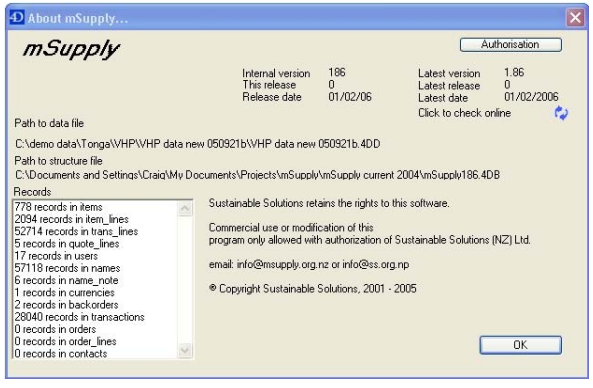
***

The Help Menu



About mSupply...

Choosing this item shows a window with information about the current mSupply version, and about the location and size of your data file.



You can click the little arrow icon to retrieve the current version number from the internet if you want to. (This will not download a new version- it will only tell you whether or not your version is up-to-date).

Authorisation

The *Authorisation* button is provided largely for developer's use, and is therefore not something you will need to worry about. It is there to help us solve client's problems. It is not recommended that you click it and start trying out authorisation codes!

Why is there no help option?

We haven't included a help file in mSupply to keep download sizes small, and because we think that this PDF help file is a thing of beauty and you ought to use it!

Miscellaneous Topics

End of Month tasks

We are presuming that you will finalize 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 finalized 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 finalized 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.

- Perform a stock take.
- Print out stock take sheets to record differences easily between actual stock and stock according to mSupply. See the stock take sheets section of the "Report menu" chapter.
- 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.
- 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 exported.)
- Finalize inventory adjustments. Use the Finalize inventory adjustments command to do this.
- 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.
- 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.
- 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.
- 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.

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

Printing notes

When printing you are usually presented with two dialog boxes (Windows). The first box is the "page setup" window. What this window looks like will depend on which printer you have chosen. The second box is the "print" window.

The "print" window has a check box that allows you to preview each page before printing. Buttons in the print preview window:

-  Print - Prints the current page
-  Stop - Stops the print preview. Useful to view a report without printing it.
-  Previous page (left arrow icon)- Move to the previous page of the print job
-  Next page - Move to the next page of the print job
-  Zoom - Magnify the view, or see the whole page (if the view is already magnified).

Note that once you have set the print preview to "on", the "print preview" check box will remain checked until you uncheck it or you quit mSupply.

Security of your data

If you maintain the mSupply password system carefully, your data is fairly 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

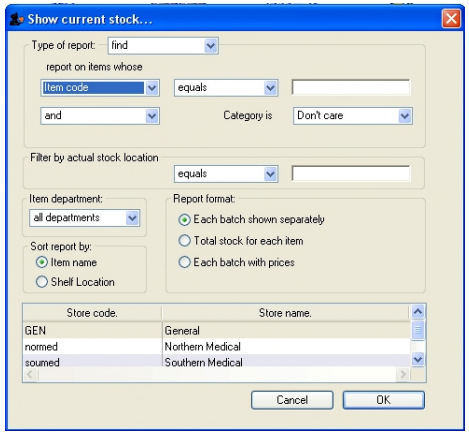
mSupply was initially designed to maintain data relating to a single store in each data file, and for many users, this is how mSupply continues to be used.

Version 2 (and later) now meets the requirements of organisations/institutions operating with more than one store. Normally you will log into a particular store when starting mSupply, and only see stock and transactions relating to that store. However, Level 1 users may login in *Supervisor mode.* For further information see *Store* on page 15. In this mode, users may now access data relating to more than one store - either selectively or cumulatively.

In Supervisor 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.

In this mode, all of the reports relating to stock will display an additional panel, as shown in the example of an organisation having four stores - General, Northern Medical, Southern Medical and Island Medical.

The store(s) 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 CMND (Mac) while clicking on the desired store(s).


Show current stock...
Type of report:
find
report on items whose
Item code
equals
and
Category is
Don't care
Filter by actual stock location
equals
Item department:
all departments
Report format:
Each batch shown separately
Total stock for each item
Each batch with prices
Sort report by:
Item name
Shelf Location
Store code.
Store name.
GEN
General
normed
Northern Medical
soumed
Southern Medical
Cancel
OK

Technical Notes

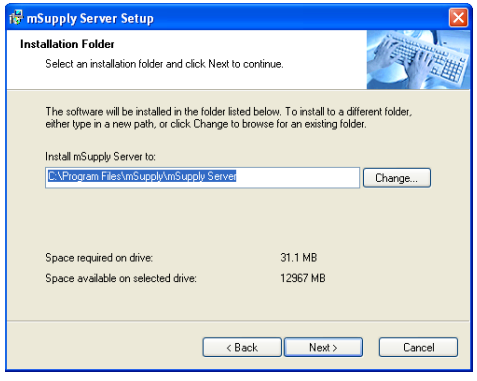
mSupply Client/Server installation

If you are using the client/server version of mSupply you will be supplied with a CD with 2 installers. One installer, mSupply_server_installer.exe is used to install the server software on a single server computer. The installer mSupply_client_installer.exe is used to install the client software on as many computers as you wish. You will be limited in how many clients can connect at any one time by the server licence you have purchased.

To run the installers, simply insert the mSupply CD, open Windows Explorer and double-click the installer file on the CD that you wish to run.

Installing mSupply server

Run the installer



What is installed where:

We strongly recommend you do not change the default installation directories, which are as follows:

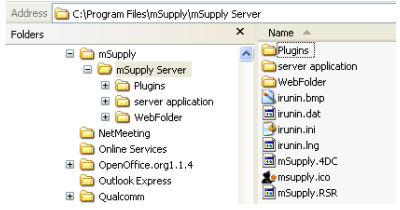
mSupply Server: c:\Program files\mSupply\mSupply Server

mSupply Client: c:\Program files\mSupply\mSupply Client

(The volume may have a name other that "C" depending on how your system is configured)

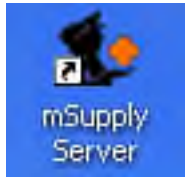
mSupply server installer also installs the following files and folders:

A folder called "Plugins" containing mSupply reports and plug-ins in the same folder as 4D server.exe

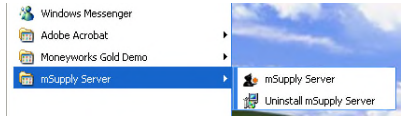


Starting the Server for the first time

The first time you start the server, double-click the "Start mSupply Server" icon on the desktop

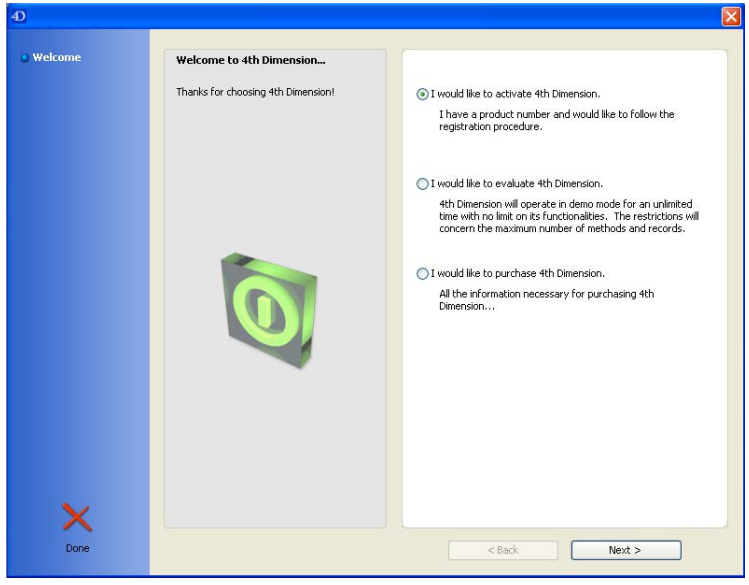


You can also start the server by choosing Start > mSupply Server > mSupply Server

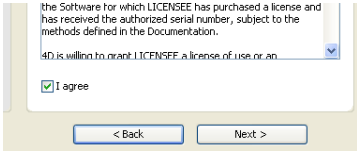


You will be shown a welcome window where you should choose the "I would like to activate 4th Dimension" radio button.

Then click "Next"

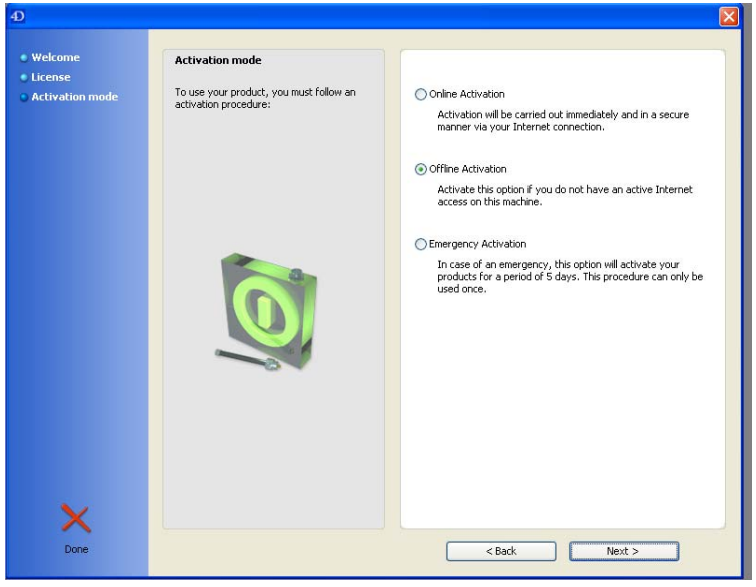


In the next window you should read the agreement.Click on the "I agree" check box, and then on the "Next" button"



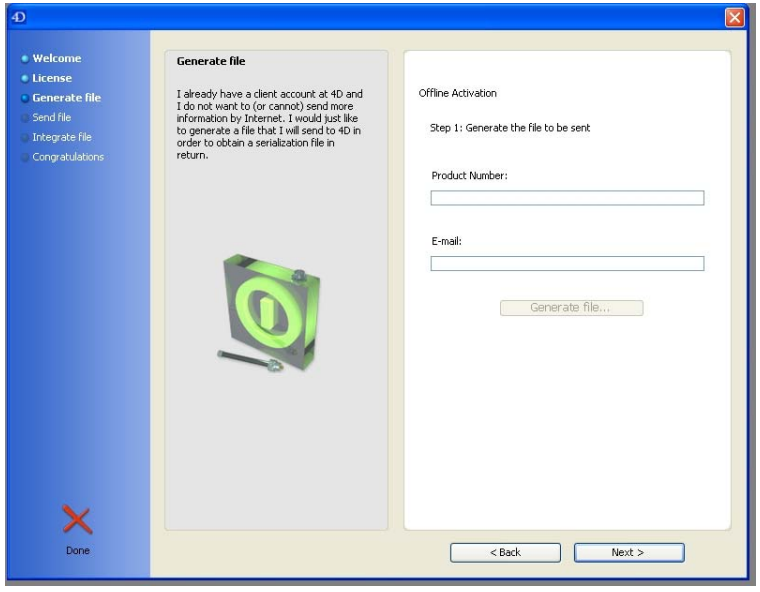
Then the activation mode window is shown.

Choose "Offline activation" then click "Next"

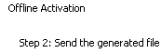


You will then be shown the window to generate a file.

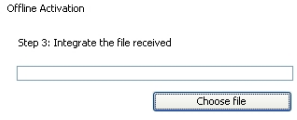
Do not enter information here- just click the "Next" button.



You will then be shown a window instructing you to send the generated file. Just click the "Next" button.

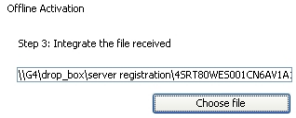


Then you will be shown a window where you are asked to integrate the file received.



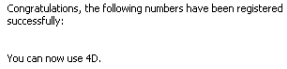
Click the "Choose File" button and choose the file sent to you by Sustainable Solutions.

Once you have chosen the file, it will show in the box in the window:

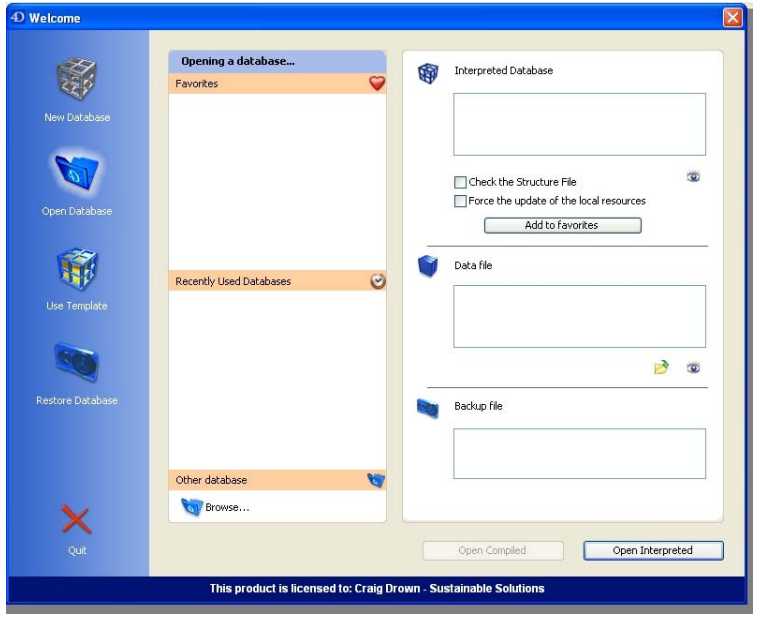


Then click the "Next" button.

You should then be shown a window with the following message:

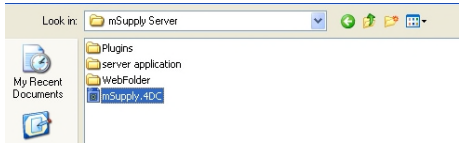


You will then be shown the following window with the "Open a database" tab selected.



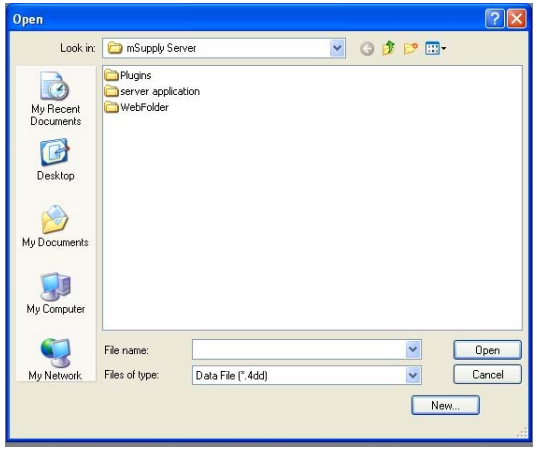
Click the "Browse" button. You will be shown an open/save window where you choose the program file. It is located in C:\Program Files\mSupply\mSup-

ply server\Progam\mSupply.4Dc

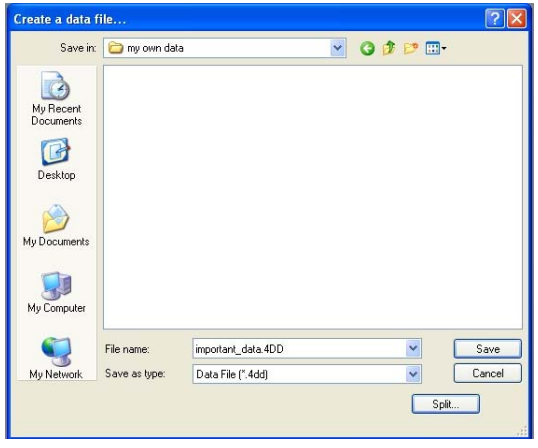


Click the "Open" button.

You will be shown a window where you can choose or create a new data file.

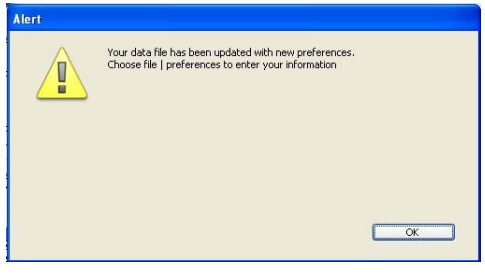


Click the "New" button to create a new data file. Another window will be shown where you can choose the location and name of your new data file.

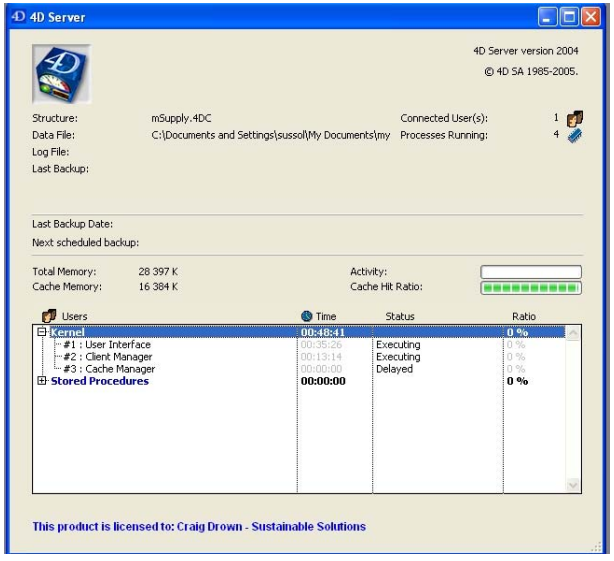


We suggest you create a folder called "mSupply data" inside your "My Documents" folder. You can create the data file anywhere you like, but make sure you have read/write access to the directory or there will be problems.

Once you have clicked the "save" button you will be shown a message stating that your data file has been updated with new preferences.



You will have to connect with the client software to configure the preferences for mSupply and to enter the mSupply registration number. You will then be shown the 4D server admin interface:



Congratulations!

If you get a Windows Security alert

If you are running WIndows XP with SP2 or later installed you may get this alert:

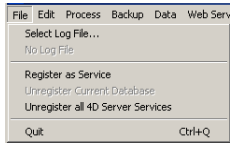
Make sure you click the “Unblock” button or the server will not function properly.

About the backup scheduler window

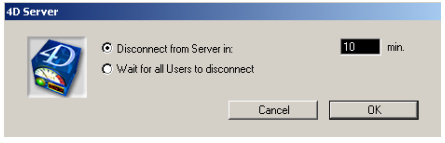
The new version based on 4D 2004 server has an integrated backup scheduler. Please request detailed documentation from Sustainable Solutions regarding its use.

Setting the server 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



Quit the Sertver admin window by clicking the close box on the top right (or choose File > Quit from the menus). You will then be shown a disconnect window:

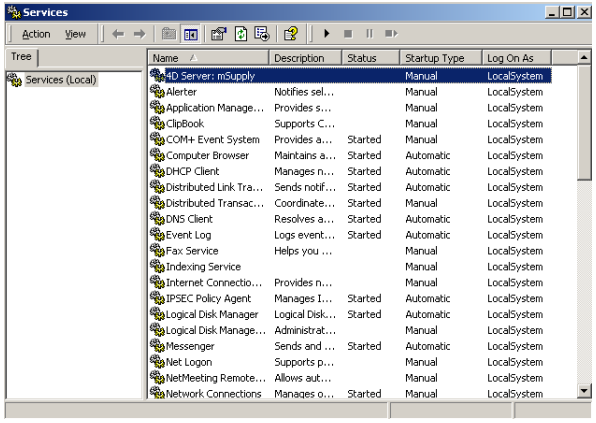


Type “0” into the box, and click “OK”. The server will quit.

Now open the services administrative interface by choosing Start > (Settings) > Control Panel > Administrative Tools > Services.

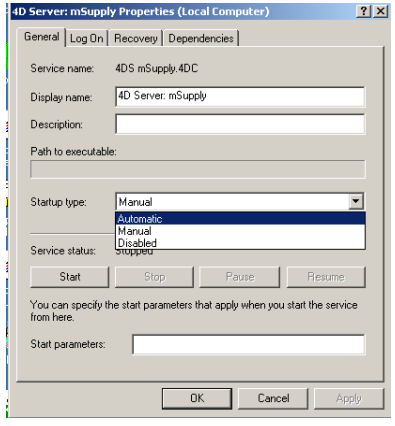
Right-click on the “Services” icon and choose Send to > Desktop (as shortcut). This will provide quick access this area in the future.

Double-click on “Services” in the list. You will be shown this window.

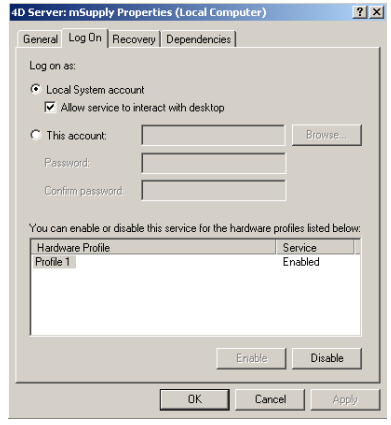


Double-click on 4DServer:mSupply - fortunately it is usually the first item in the list!

You will be shown the 4D service properties window. Change the "startup type" in the drop-down list to "automatic".



On the "Log On" tab, the settings should be shown below:



- Make sure "Log on as" is set to "local system account"
- Make sure "Allow service to interact with desktop" is checked.

Click "OK" to close the window.

You can now start the service by clicking the little "play" button (right facing triangle) on the toolbar with the 4D service highlighted.

From now on the 4D server will start automatically when the machine is turned on. There is no need to log-on to the machine.

On the desktop, we suggest you delete the "start mSupply server" shortcut, as this will not start the 4D server as a service, and should not be used.

Should you need to manually stop and start the server in future:

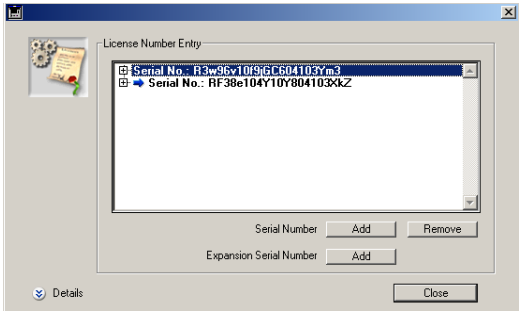
- To start, double-click the "Services" shortcut you made on the desktop, highlight the 4D server service, and click the "start" button (looks like a "Play" button on a VCR)
- To stop the server, make sure clients are not connected, then choose File > Quit on the server.

Next steps: install mSupply client then register mSupply.

Entering Extra 4D serial numbers

When you registered 4D server the licence allowed 2 concurrent connections. If you have purchased extra connections, you should enter the serial number(s) now.

Choose Help > Update licence. This window is shown:



Click the "Add" button to enter additional licences.

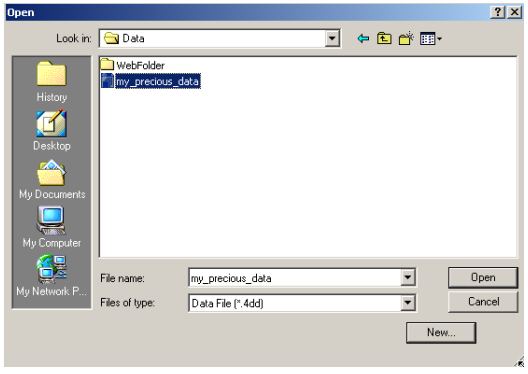
Creating a new data file or choosing a different data file

From this point there should be no need to revisit any of the about 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:



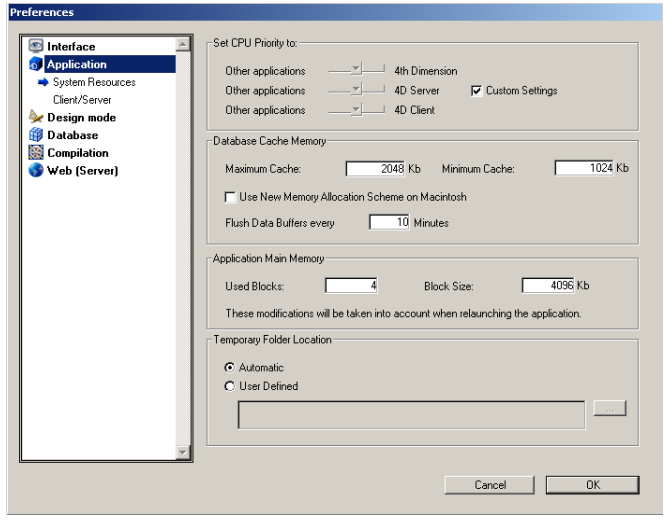
To create a new data file, click the "New" button.

To select an existing data file, navigate to the file's location then click the "Open" button.

Setting server memory settings

The most important settings you may want to change are the memory settings and the cache flush interval.

Choose Edit > Preferences. This window is shown:



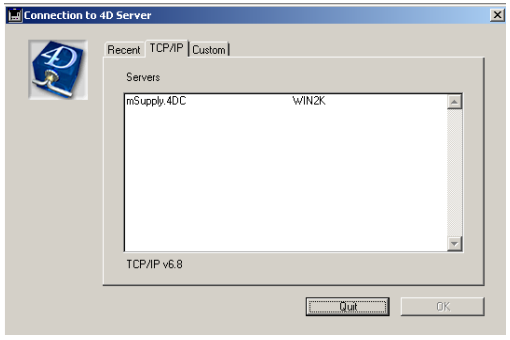
Click on the "Application" section in the left-hand list. Provided you have more than 256Mb of RAM installed, set the "Maximum cache" setting to half the physical RAM installed (eg. if you have 768Mb, set it to 384000 Kb). This cache memory is automatically integrated with the data stored in the data file, but provides much faster access times, significantly speeding up non-indexed queries and other procedures. The cache settings will have more effect in subsequent years once the system has a larger number of records to manipulate. In the first few months the performance differences will be negligible.

The "Flush Data Buffers every ...." setting determines how often the data on the hard disk is synchronized with the data in the cache. We recommend you set this to "2" minutes. (From the version based on the 4D 2004 engine we

intend to use the ability to run a log file that records all unsaved changes and allows automatic integration of the unsaved changes should there ever be a crash - e.g. in the event of a hardware failure or a sudden power outage)

Installing mSupply Client

To run the installer, insert the mSupply CD, open Windows Explorer and double-click the mSupply_client_installer.exe file on the CD. Once the installation is completed, double-click the "start mSupply Client" shortcut on your destop. The following window will appear:



The window lists available mSupply servers on your network. Click on the server you wish to connect to. Once you have connected successfully, the "Recent" tab will be shown first, and you can choose 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"

Firewalls and the like

To make it easy for you to connect, mSupply 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.

Registering mSupply

The procedure is described earlier in "Preferences" chapter of the mSupply manual. For further information see *The Register button* on page 141.

You will either have to phone or email the information to Sustainable Solutions to obtain a registration code.

Note that the 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.

mSupply preferences

Once registered, you may want sytematically to go through the mSupply preferences and choose appropriate setttings.

Saving your data file

At this point you should have a "clean" data file that is registered and is set up ready to use, but does not have other data in it.

mSupply client installer also installs the following files and folders:

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 othe types of) network(s).

Note that 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.

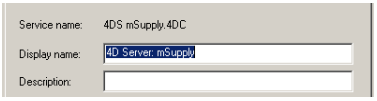
Note that the installers have been set up to overwrite existing files, so reinstalling the software will restore any potentially corrupted files to their original state. The installer will not overwrite your data files, unless you have been wise enough to name your data file "example data" and put it in the "example data" folder.

Graceful shutdown in the event of a power failure

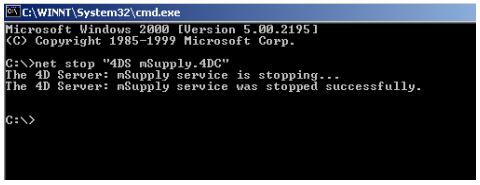
Your mSupply server should be attached to a UPS. The UPS should be fited with a control cable (serial, USB or network cable) that allows control software to detect a low power situation and shut down the server.

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)



You may wish to test your typing skills by opening a command prompt:



Export file formats

Export produces a tab-delimited text file (tabs between fields, returns between records).

Supplier invoice export file name is "supp_invoice_expt"

The field order is:

supplier code
transaction number
bill number
comment
date
sub-total
tax
total

Positive amounts reflect a supplier bill for stock supplied to you.

Negative amounts reflect a credit to the supplier.

Customer invoice export file name is "cust_invoice_expt"

The field order is: customer code, transaction number, comment, date, subtotal, tax, total.

Positive amounts reflect a customer invoice for stock supplied by you.

Negative amounts reflect a credit to a customer.

mSupply Server backup configuration

This information applies to 4D Server. If you are using mSupply in Single-user mode, the backup preferences are set using the menu File > Preferences.

Full database backup and restore functions are available, and it is not necessary to exit the database before performing a backup.

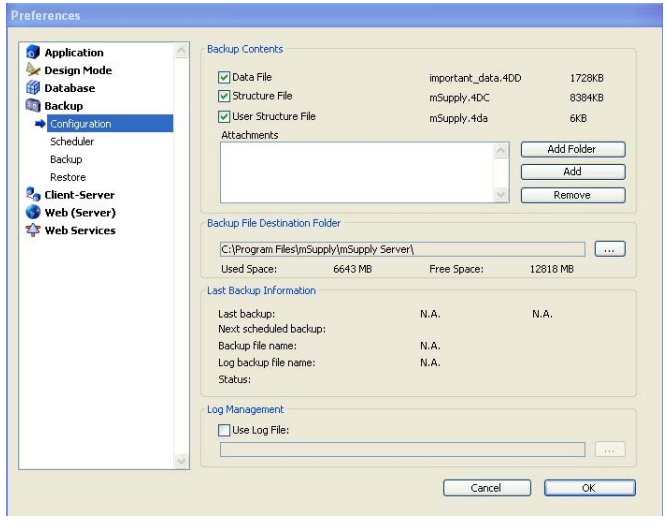
The files to be included in the backup are set in the application Preferences.

It is recommended that backups be performed automatically at regular intervals without user intervention.

Before performing a scheduled automatic backup, the required parameters should be set. Choose Edit > Preferences, then click on “Backup” in the left-hand pane. There are four sub-headings in the Backup preferences section.

Configuration options

Check the boxes adjacent to the files to be backed up ..... it is recommended that only the Data File box is checked.

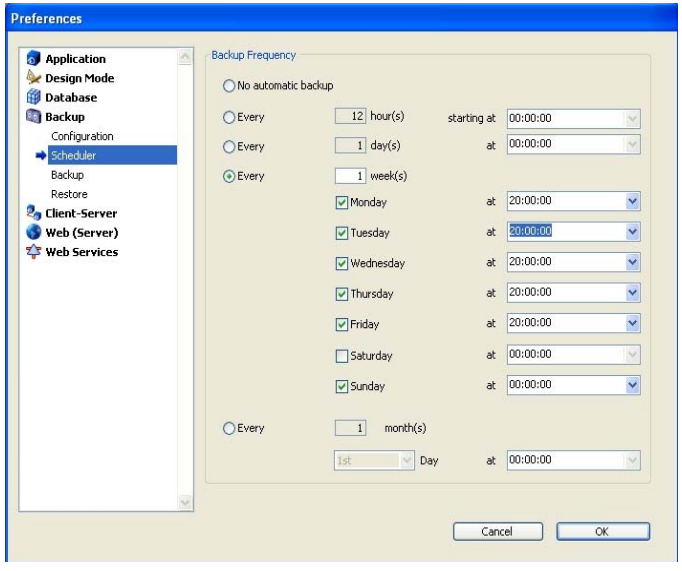


The Backup File Destination Folder should be on a different volume from the one containing your database, and not on a different partition of the same drive.

It is possible to use a log file to provide complete roll-back functionality in the event of a system problem. Please consult Sustainable Solutions before turning this option on.

Scheduler Options

The Scheduler option allows the frequency of the backups to be set - in the above example, backups are made daily except Saturdays at 20:00 . Note that if Saturdays had been included, the "Every day(s)" option would have been selected, and the figure "1" entered in the box.. Sustainable Solutions recommends daily backups.

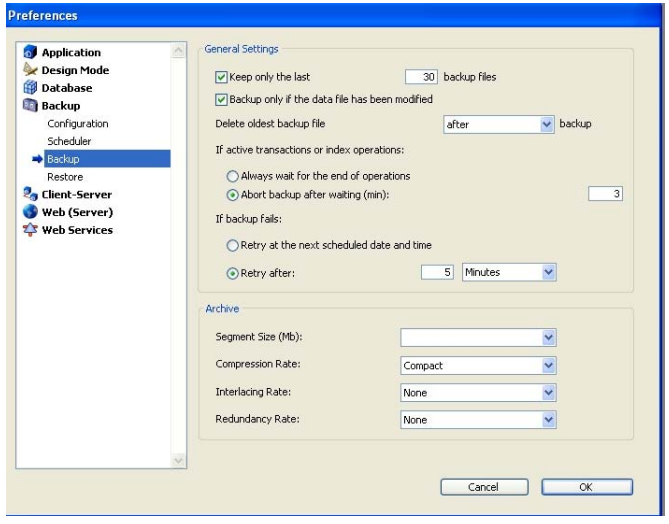


Backup options

The Backup options window (shown below) allows the user to specify the number of backup files to be kept, and whether to create a backup in the event of no changes having been made since the previous backup (you can leave this unchecked).

We reccomend you keep 30 backups.

The other available options are self explanatory, and the ones appropriate to the user's requirements should be selected.



Restore options

Do not set the automatic restore option for mSupply- if you should need to do a restore please contact Sustainable Solutions for help.

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 arrangementLocation

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: hold down the option key (Mac) or Alt key (Windows) 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.

If you are not sure which structure and data file you are currently using, choose about mSupply... from the help menu (Windows) or the apple menu (Mac)

Transaction Codes

Transaction type codes

mSupply uses a series of two letter codes to denote the different types of transactions it can handle.

Code	Meaning
ci	customer invoice (goods supplied to a customer)
sg	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)
rp	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

Transaction Status Codes

Transaction 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	finalized

For orders:

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, mSupply will not take account of suggested orders. Suggested orders can be deleted.
cn	The "stock on order value" for each item has been updated. Confirmed orders can also be "unconfirmed" if you cancel an order. Items and quantities can still be edited.
fn	The order has been received, a price calculation done, and the order has been turned into a "supplier invoice". The order is now finished with, and can be deleted.

For Supplier invoices

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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 been postponed. (This option is only available if "confirm supplier invoices automatically" is unchecked in the preferences). *Note: quitting mSupply by choosing the "quit" command from the file menu or click the application close box (Windows only) while you are entering a new supplier invoice will result in the invoice being saved with status "nw". To confirm the invoice, open it then click the OK button*
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 finalized , and can no longer be edited.

For Customer invoices

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 no longer "available" to issue to other customers. (i.e., the "available" amount for each item line has been reduced, but the "quantity" amount has not). Note that if "one step confirm" is checked in the preferences, then customer invoices move straight from being status “nw” to status “cn”
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 are added to the "backorder" file. The invoice can still be edited.
fn	The invoice has been finalized, and can no longer be edited

For Builds

nw	"new" 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	"finalized" - the build can no longer be editied

Field formats

The following tables list the main 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.

Abbreviation				
Field Name	Description	Type	Length	Indexed
abbreviation		Alpha	20	*
expansion		Text		

Account Code				
Field Name	Description	Type	Length	Indexed
key	ß	Long Integer		
code		Alpha	20	
description		Alpha	80	
account_type		Alpha		

Backorders				
Field Name	Description	Type	Length	Indexed
item_key		Alpha	8	*
quantity		Real		
key		Long Integer		
comment		Text		
name_key_customer		Alpha	8	*
order date		Date		
type		Alpha	3	*
item_name		Alpha	80	
name_key_supplier		Alpha	8	*
customer_transaction_key_order		Long Integer		
status		Alpha	3	*
customer_transaction_key		Long Integer		
order_line_key		Long Integer		
price		Real		
units		Alpha	20	
account_stock_key		Long Integer		
account_purchases_key		Long Integer		
account_income_key		Long Integer		
store_key		Long integer		

Bill of Materials				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
transaction_key		Long Integer		
item_key		Alpha	20	
item_name		Alpha	50	
spare_units_v180		Alpha	60	
line_number		Long Integer		
quantity		Real		
yeild		Real		
total_used		Real		
unit_key		Long Integer		

Bom Master				
Field Name	Description	Type	Length	Indexed
item_key		Alpha	8	*
ingredient_item_key		Alpha	8	*
quantity		Real		

units_key		Long Integer		
spare_units _v180		Alpha	60	
key		Long Integer		*
line_number		Long Integer		

Contacts

Field Name	Description	Type	Length	Indexed
name_key		Alpha	8	*
first		Alpha	20	
position		Alpha	30	
user1		boolean		
comment		Alpha	20	
last		Alpha	20	*

Currencies

Field Name	Description	Type	Length	Indexed
key		Alpha	20	*
rate		Real		
currency		Alpha	3	
is_home_currency		Bool-ean		

Drug Interaction

Field Name	Description	Type	Length	Indexed
key		Long Integer		
affected_group_key		Long Integer		
affecting_group_key		Long Integer		*
notes		Text		
alert_message		Text		
action		Alpha	2	
clinical_significance		Alpha	2	
quality_of_evidence		Alpha	2	
source_key		Long Integer		
author		Alpha	20	
date_modified		Date		

Drug Interaction Group

Field Name	Description	Type	Length	Indexed
key		Long Integer		*
name		Alpha	50	

E-Mail				
Field Name	Description	Type	Length	Indexed
key		Long Integer		
status		Alpha	2	
to		Text		
subject		Text		
body		Text		
date		Date		
name_key		Alpha	8	*
attachments		BLOB		
date_sent		Date		
time_sent		Time		
cc		Text		
bcc		Text		
mail_box_key		Long Integer		*

Items				
Field Name	Description	Type	Length	Indexed
key	Internal reference	Alpha	8	*
item_name	The name of the item	Alpha	80	*
include_on_price_list		Boolean		
opening_stock_this_year		Real		
default_pack_size	The size used for comparing quotes	Real		
minimum_stock	The least stock that must be maintained	Long Integer		
atc_category		Alpha	30	
report_quantity		Real		
stock_on_hand	The total stock on hand	Real		
supplier	A field you can use for defining groups of items to appear on purchase orders	Alpha	8	
flag	Used for quickly marking items for reporting purposes	Alpha	8	
ddd_value	The defined daily dose for the item	Alpha	8	
code	the item code	Alpha	18	*
prev_open_stock	The opening stock on the previous time the stock was set (usually the end of the financial year)	Real		
item_type	“gn” = general, “sv” = service, “cr” = cross reference	Alpha	3	
price_editable	can the price be edited at issue time?	boolean		
margin	the default margin for this item	Real		
default_price	the selling price for the item	Real		
ignore_for_orders	If true, this item will never be added to an order automatically	Boolean		
bonus_qualifying_amount		Long Integer		
bonus_quantity		Long Integer		
bonus_price_percentage		Long Integer		
department_key	the key of the department this item belongs to (internal)	Long Integer		*

stock_on_order	The quantity of stock on confirmed purchase orders	Real		
essential_drug_list	True if the item is on your essential drug list	Boolean		
spare_shelf_location		Alpha	20	
indic price		Real		
user field 1		Alpha	30	
hold_for_issue	If true, this item can not be added to customer invoices	Boolean		
builds_only	Only issue this item on builds	Boolean		
reference_bom_quantity	The quantity that the entered bill of materials will produce	Long Integer		
use_bill_of_materials	If true, automatically enter build lines based on the bill of materials	Boolean		
description	Long description of the item	Text		
hold_for_receive	If true, this item can not be received on supplier invoices	Boolean		
Message	Text that will be displayed in a windowhen this item is issued or received.	Text		
interaction_group_key		Long Integer		*
pack_to_one_on_recieve		Boolean		
cross_ref_item_key		Alpha	8	
shelf_location_bulk		Alpha	20	

user field 4		boolean		
backorder_quan		Real		
analysis		Real		
user field 2		Alpha	30	
user field 3		Alpha	30	
ddd factor		Real		
account_stock_key		Long Integer		
account_purchases_key		Long Integer		
account_income_key		Long Integer		
unit_key	The internal key of the units for this item	Long Integer		*
outer_pack_size		Long Integer		
category_key		Long Integer		*
ABC_category		Alpha		
warning_quantity		Long Integer		
user field 5		Real		
print_units_in_dis_labels		Boolean		

Items to Update				
Field Name	Description	Type	Length	Indexed
item_key		Alpha	8	
spare		Long Integer		

Item Category				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
Description		Alpha	60	
spare		Alpha	3	
summary_only		Boolean		

Item Department				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
department		Alpha	30	
issue		Boolean		

item_directions		
Field Name	Description	Field Properties
directions		Text
item_key		Alpha Indexed
key		Long Integer
priority		Long Integer

Item Lines				
Field Name	Description	Type	Length	Indexed
location	The physical location for this batch	Alpha	10	
item_key	The item key of the stock line	Alpha	8	*
pack_size		Real		
expiry_date	The expiry date of the line	Date		
batch	The batch number of the line	Alpha	14	
available	The number of packs available for issue	Real		
start_year_quan		Real		
cost price		Real		
sell price		Real		
hold		Boolean		
initial_quan		Real		
key		Long Integer		*
quantity	Total number of packs on hand	Real		*
name_key		Alpha	8	*

Item Note				
Field Name	Description	Type	Length	Indexed
item_key		Alpha	8	*
date		Date		
note		Text		
WhenToDisplay		Alpha	2	

Item Warning Link				
Field Name	Description	Type	Length	Indexed
key		Long Integer		
item_key	The item key for this warning	Alpha	8	*
warning_key	The key of the warning to be displayed	Long Integer		*
priority	True or False depending on the warning's priority	Boolean		

label		
Field Name	Description	Field Properties
body		Text
description		Alpha
footer_left_1		Text
footer_left_2		Text
footer_right_1		Text
footer_right_2		Text
heading		Text
key		Long Integer

Log				
Field Name	Description	Type	Length	Indexed
entry_date		Date		*
user		Alpha	10	
event		Alpha	80	
event type		Alpha	60	
time		Time		
source_key		Long Integer		*
source_type		Alpha	2	*

Mailbox				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
name		Alpha	50	

Names				
Field Name	Description	Type	Length	Indexed
key		Alpha	8	*
name		Alpha	80	
fax		Alpha	20	
phone		Alpha	22	
customer		Boolean		*
bill_address1		Alpha	50	
bill_address2		Alpha	50	
supplier		Boolean		*
charge code		Alpha	20	
margin		Real		
comment		Text		
currency_key		Alpha	20	
country		Alpha	20	
freightfac		Real		
email		Alpha	30	
Analysis		Alpha	30	
code		Alpha	20	
last		Alpha	30	*
first		Alpha	30	*
title		Alpha	5	
female		Boolean		
date_of_birth		Date		
overpayment		Rreal		
group_key		Long Integer		*
hold		Boolean		
ship_address1		Alpha	50	
ship_address2		Alpha	50	
url		Alpha	80	
barcode		Alpha	22	
postal_address1		Alpha	50	
postal_address2		Alpha	50	
category_key		Long Integer		*
sacho		BLOB		
web_id		Alpha	60	*
price_category		Alpha	2	

Name Category				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
name		Alpha	50	
type		Alpha	2	

Name Group				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
name		Alpha	40	

Name Note				
Field Name	Description	Type	Length	Indexed
note_type		Alpha	3	
entry_date		Date		
note		Text		
name_key		Alpha	8	*
key		Long Integer		
later_use3		Alpha	2	

leteruse3		Alpha	2	
spare8		Alpha	2	
spare9		Alpha	2	
spare10		Alpha	2	
spare11		Alpha	2	
spare12		Alpha	2	

Numbers				
Field Name	Description	Type	Length	Indexed
name		Alpha	30	*
value		Long Integer		

Number Re-use				
Field Name	Description	Type	Length	Indexed
name	Stores deleted serial numbers for reuse- not relevant to users	Alpha	30	
number_to_use		Long Integer		

permissions		
Field Name	Description	Field Properties
item_dept_key		Long Integer
name_group_key		Long Integer Indexed

Perchase_Orders				
Field Name	Description	Type	Length	Indexed
name_key		Alpha	8	*
key		Long Integer		*
creation_date		Date		
target days		Long Integer		
status		Alpha	5	
comment		Text		
currency_key		Alpha	20	
inv total		Real		
freight		Real		
local charges		Real		
curr rate		Real		
reference		Alpha	50	
lines		Long Integer		
requested_delivery_date		Date		
locked		Boolean		
actual_delivery_date		Date		
created_by		Long Integer		
last_edited_by		Long Integer		
Order_total		Real		
invoice_received_date		Date		
supplier_agent		Text		
delivery_method		Text		
authorizing_officer_1		Text		
authorizing_officer_2		Text		

freight_conditions		Text		
additional_instructions		Text		
total_foreign_currency_expected		Real		
total_local_currency_expected		Real		
agent_commission		Real		
document_charge		Real		
communications_charge		Real		
insurance_charge		real		
freight_charge		real		
po_sent_date		Date		
spare1		Long Integer		
spare2		Long Integer		
spare3		Long Integer		

Quote		
Field Name		Field Properties
key		Long Integer Indexed Unique
names_key		Alpha (8) Indexed
responded_date		Date
sent_date		Date
spare_field		Alpha (30)
tender_key		Long Integer Indexed

Purchase_Order_Lines				
Field Name	Description	Type	Length	Indexed
order_key		Long Integer		*
item_key		Alpha	8	*
quan_this_order		real		
packsize_ordered		real		
cost_from_invoice		real		
cost_local		real		
comment		Alpha	50	
batch		Alpha	10	
expiry		Date		
quan_original_order		real		
quan_adjusted_order		real		

quan_rec_to_date		real		
pack_size_received		real		
estmated_cost		real		
item_name		Alpha	80	
key		Long Integer		
pack_units		Alpha	5	
price_expected		real		
price_extension_expected		real		
supplier_code		Alpha	20	

Permissions

Field Name	Description	Type	Length	Indexed
name_group_key		Long Integer		*
item_dept_key		Long Integer		

Prefs

Field Name	Description	Type	Length	Indexed
item		Alpha	20	*
value		Alpha	60	

Pref Blob

Field Name	Description	Type	Length	Indexed
item		Alpha	40	*
type		Alpha	2	
blob		BLOB		
user_key		Long Integer		
network_id		Alpha	80	

Prescriber

Field Name	Description	Type	Length	Index
key		Long Integer		*
code		Alpha	20	*
name		Alpha	80	
initials		Alpha	10	

Quote_lines				
Field Name	Description	Type	Length	Index
edit_date		Date		
name_key		Alpha	8	*
price		Real		
preferred		Boolean		
pack_size		Real		
currency_key		Alpha	20	*
comment		Text		
net_cost		Real		
adj cost		Real		
item_key		Alpha	8	*
strip pack		Boolean		
supplier_code		Alpha	20	
supplier_bar_code		Alpha	50	
price_break_comment		Text		
price_break_quanity		Real		
price_break_discount		Real		
supplier_preferred_pack_size		Real		
Freight_comment		Text		
Freight_per_preferred_pack		Real		
lead_time_days		Long Integer		

Reminder				
Field Name	Description	Type	Length	Indexed
key		Long Integer		
due_date		Date		
repeat_has_been_generated		Boolean		
message_text		Text		
done		Boolean		
repeats_automatically		Boolean		
repeat_type		Long Integer		
repeat_interval		Long Integer		
user_key		Long Integer		*
repeat_day		Long Integer		

Report				
Field Name	Description	Type	Length	Indexed
report_name		Alpha	80	
report_blob		BLOB		
owner_key		Long Integer		
key		Long Integer		
last_updated		Date		

Ship Method				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
method		Alpha	80	

Tender

Field Name	Descrip-tion	Field Properties
comment		Text
conditions		Text
created_by_user_key		Long Integer Indexed
creation_date		Date
desc		Alpha (80)
due_date		Date
issue_date		Date
key		Long Integer Indexed Unique
status		Alpha (3)

Tender_lines		
Field Name	Descrip-tion	Field Proper-ties
comment		Text
conditions		Text
items_key		Alpha (8) Indexed
item_name		Alpha (80)
key		Long Integer Indexed Unique
pack_size		Real
quantity		Real
tender_key		Long Integer Indexed
units_key		Long Integer Indexed

Transactions

Field Name	Description	Type	Length	Indexed
name_key	The internal reference key of the name (customer/supplier) associated with the transaction (if any)	Alpha	8	*
key	The internal reference key given by mSupply (not usually visible to the user)	Long Integer		*
invoice_num	The invoice number given by mSupply	Long Integer		*
amount_outstanding		Real		
comment	The comment text entered by the user	Alpha	80	
entry date	The date the transaction was created	Date		
type	The transaction type. See the transaction codes chapter pg)	Alpha	3	*
status	A 2 letter code denoting the status of the transaction (See the chapter pg)	Alpha	3	*
total	The subtotal plus the tax amount (see below)	Real		
export batch	The batch number supplied by mSupply when the invoice was finalized.	Long Integer		
spare_category		Alpha	30	
their_ref	The reference supplied by the other party for the transaction	Alpha	10	

confirm_date	The date the invoice was confirmed	Date		*
service descrip	Description of any service items on the invoice	Alpha	60	
service price	The amount of any extra charges added to the invoice (or discount)	Real		
subtotal	Total of all price extensions plus the service price	Real		
tax	The tax amount of the invoice	Real		
user_key	The user id number of the user who created the invoice	Long Integer		*
pickslip_printed_date		Date		
prescriber_key		Long Integer		*
order_key		Long Integer		*
invoice_printed_date		Date		
ship_date		Date		
ship_method_key		Long Integer		*
ship_method_comment		Alpha	80	
waybill_number		Alpha	50	
number_of_cartons		Long Integer		
arrival_date_estimated		Date		
arrival_date_actual		Date		

responsible_officer_key		Long Integer		
mode_key		Long Integer		
category_key	The key of the category chosen for this invoice	Long Integer		*

Transaction Category

Field Name	Description	Type	Length	Indexed
key		Long Integer		*
category		Alpha	80	
type		Alpha	3	

Transaction Lines

Field Name	Description	Type	Length	Indexed
transaction_key	Key of the transaction to which it belongs	Long Integer		*
item_key	Key of the item to which it belongs	Alpha	8	*
batch		Alpha	20	
price_extension		Real		
note	Note or directions if a dispensary line	Text		
sell_price		Real		
expiry_date	The expiry date of this line on the invoice	Date		
cost_price		Real		
pack_size		Real		

quantity	Quantity issued (in number of packs)	Real		
box_number		Alpha	10	
item_line_key	The key of the item line (stock line) that the transaction line belongs to	Long Integer		*
line_number	The sequential line number on the invoice	Long Integer		
item_name	The item name (stored to give data integrity for historical transactions even if the related item name is later changed)	Alpha	50	
key		Long Integer		*
supp_trans_key_ns		Long Integer		*
order_line_key		Long Integer		

Transaction Notes				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
note		Text		

Units				
Field Name	Description	Type	Length	Indexed
key		Long Integer		*
units		Alpha	60	
comment		Text		

Users				
Field Name	Descriptionß	Type	Length	Indexed
key		Long Integer		*
name		Alpha	50	
startup_method		Alpha	50	
spare_must_be_field		Alpha	30	
nblogins		Long Integer		
lastlogin		Date		
group		Integer		
mode		Alpha	8	
qdump_offset_b		BLOB		
active		Boolean		
permissions		BLOB		
lasttime		Time		
initials		Alpha	4	
first_name		Alpha	50	
last_name		Alpha	50	
date_of_birth		Date		
address_1		Alpha	50	
address_2		Alpha	50	
e_mail		Alpha	50	
phone1		Alpha	50	
phone2		Alpha	50	
date_created		Date		
date_left		Date		
job_title		Alpha	50	
responsible_officer		Boolean		

Warning

Field Name	Descrip-tion	Type	Length	Indexed
key		Long Integer		*
code		Alpha	20	*
warning_text		Text		

Web Message				
Field Name	Descrip-tion	Type	Length	Indexed
key		Long Integer		*
active		Boolean		*
show_until_date		Date		
headline		Text		
message		Text		

Web Favourites				
Field Name	Descrip-tion	Type	Length	Indexed
name_key		Alpha	8	
Item_key		Alpha	8	
type		Alpha	3	

Changes in Earlier Versions

v.195 (5th February 2007)

New Features

- French translation of the interface elements complete (except for changes in this version)..
- Location management:
  - You can specify locations from a list, and define location volumes
  - You can define location types
  - Command to merge locations
  - Can set default volume for each item.
  - version 1.96 will have significant abilities to report on volumes used at each location..
- Purchase order display uses the great new list view- you can set columns, widths, sort orders and it is remembered next time you open the window.
- New reports (thanks to Andy):
  - Expiry date vs cover shows you how likely it is that lines in stock will be used before expiry.
  - Customer shortfall report shows how much of customer demand is being met.
- Packing slips can now be split into multiple sheets by shelf location. (See the Preferences chapter for more details).
- User transaction totals report can now be produced for a time range (e.g to see how many prescriptions were processed for a particular shift).
- Goods receipt printing now sorts correctly by line number.

Bug fixes

- A corrupted invoice form could cause a client crash if you shose “simple-good for dot matrix” for the customer invoice form in the preference
- The date filter was not working correctly for Report > Purchases
- Can now enter a quantity for number of items to report on in ABC analysis report.

v.194r3 (13th December 2006)

New Features

- Purchase Orders can be opened in directly in Excel.
- Label printing now supports Zebranet II print servers.
- Printing of labels handles different long text in item names and directions much better.
- Prescriber list now displays prescriber category
- Can filter transaction reports by prescriber name or category
- Packing slips can now be split into multiple sheets by shelf location. (See the Preferences chapter for more details).

- User transaction totals report can now be produced for a time range (e.g to see how many prescriptions were processed for a particular shift).

Bug fixes

- Item details stock view displays correctly after doing a "split" on a batch.
- Prescriber report now shows mean price correctly (was showing std deviation).

v.194r2 (1st November 2006)

New Features

- The item list view is much improved.
  - Users can choose which columns are viewed.
  - Users can add their own columns
  - The columns and their widths (as set by the user) are remembered when the window is closed, and restored when the window is opened.
  - The above settings are stored on a per-user basis, so each user get their own custom view.
- You can import item categories when importing items

Bug fixes

- The menus and user guide have been edited to clarify the difference between Item category and ATC category.
- The ATC category report now excludes items whose DDD factor is zero, runs much faster, and formats numbers consistently.
- Import of items now includes the ability to import Item category

v1.94r1 (28th September 2006)

New Features

- You can open a transaction from dispensary mode by double-clicking a line in the history tab when viewing patient details.
- Ability to specify an external email client on Windows for email purchase orders and tender documents (as opposed to using mSupply's internal email client)
- First stab at a French translation of the interface (just the menus and the item details window)

Bug fixes

- Double-clicking an email attachment now opens the attachement
- When viewing a transaction from the "other" mode to which it was entered, the right type of details window is used
- Store mode cusotmers can no longer be selected by the code in dispensary mode
- Order details window: Order menu is now working.

v1.94 (10th September 2006)

New Features

- Printing to Zebra printers now supports EPL printing, which bypasses the poxy Windows printer driver and allows the user to keep a "normal" printer as the default Windows printer for reports and the like, and at the same time print labels to the label printer.
- More settings for miscellaneous labels.
- Ability to duplicate miscellaneous labels
- Abilitty to print multiple labels of a dispensed item "on-the-fly"
- New cross-tab reports (like an Excell Pivot-table)
- Other new transaction reports:
  - Report items by transaction category
  - Report invoices by Address field (e.g. for getting regional distribution totals)

v1.92 (4th July 2006)

New features

- Anew Prescriber report
- Can now set transaction categories for prescriptions separately to customer invoices in store mode.
- New preference to force choice of a category for customer invoices in store mode.
- Can edit prescribers on the fly in dispensary mode

- Patient details update as soon as edited
- Support for any size dispensary label width and height.
- More user choices for handling duplicates when importing items
- Prescriber gender field now showing
- Any transaction report can now be run for dispensary mode, store mode or both.

v1.92 (4th July 2006)

New features

- The option to print purchase orders alphabetically has been added.
- Prescribers can be assigned active or inactive status.
- A purchase order printing section has been added to File > Preferences. Here, you can turn on/off the printing of signatures and other sections of Purchase orders.
- You can copy a supplier invoice to the clipboard, from where it can be pasted in Excel.
- Sell price categories have been made applicable to patients in Dispensary Mode.
- By double-clicking a purchase order line, then clicking the receipts tab, you can view the receipt transactions for that item by choosing an option from the drop-down list.

Bug fixes

- Item detail view: the Stock tab was not showing the supplier in the stock list.
- Copy/Paste was disabled for File>Preferences.
- Copy/Paste was disabled for Tenders window.

Changes

- Item slow movers Report uses days rather than months.

Price tab now does not show on Inventory Adjustment window.

v1.91 (12th June 2006)

New features

Note: These three additional features apply to Dispensary Mode only

- The option to create Customised identification codes and print them on labels has been added.
- The option to display the item category as the goods are being issued is now available.
- Units of issue may be printed on every label, on selected labels, or not at all, according to the option chosen.
- An extra user field for items has been added that can store a numerical value.

Bug fixes

- Modal windows now stay at the front (Windows only)
- Build line numbering was starting from zero, causing the first line to be hidden.
- Disabled price calculations for supplier credits.

Changes

- Internal changes to enable our French translator to localize text for menus and field labels.

v1.90r2 (9th May 2006)

Bug fixes

- Reorder report was giving wrong suggested quantity.

New features

- Added compression to backup options
- Bonus system disabled as no-one was using it!
- Manual purchase orders now make use of the any quotations present for that suppleir, even if they are not marked as *preferred*.

v1.90 (9th Mar 2006)

Bug fixes

- Under certain circumstances and with certain printer drivers, printing purchase orders could cause a PC to hang or restart. This issue has been fixed.
- Deleting purchase order lines. Under certain circumstances, a highlighted purchase order line could not be deleted. This issue has been fixed.
- Searching for suppliers via purchase orders. This search showed all suppliers. This issue has been fixed.
- Creating supplier invoices from goods receipts. Under certain circumstances, a placeholder line was mistakenly created. This issue has been fixed.
- On startup, mSupply now clears out it's temporary folder.
- Many other minor bug fixes.

New Features

- mSupply Navigator added. This window allows easy access to all the common mSupply functions and options, and takes the place of the splash screen.
- New goods receipting functionality added. This provides a more precise method of receiving goods and automatically creates supplier invoices. Multiple batches from one purchase order line can now be received separately, and excess goods can be received.
- mSupply can now import and export all names (suppliers, customers and manufacturers) and all stock items to and from text files.
- New report *'Suggest order quantities'* added. This report analyses your stock levels and suggests which items need ordering and how much.
- Tender management module improved to include automatic tender generation and purchase order creation. Internal tender report also added.

Changes

- Dispensary express mode has been removed. Dispensary full mode is now simply Dispensary mode.
- Reports *Item ledger* and *Item ledger date range* have been consolidated into a single report *Item ledger*.
- *ABC analysis report* and *Transactions report* have been improved.
- *Management summary* now prints in portrait not landscape.
- *Item list* report has been given added query options.
- *Item usage* reports form has been updated. You can now preview the approximate number of items to be included before running the full report.
- Goods received printing now gives more information.
- Purchase order forms have now been consolidated into two pages rather than three.
- Purchase order line form has been consolidated and reduced in size.
- mSupply will not longer check for the reports folder on startup. Reports are now saved internally.
- Unregistered copies now expire after 1800 transaction lines rather than a flat 3 months. If registration is expired, menu bars will no longer show up.
- Many more reports can now be opened in MS Excel or OpenOffice Calc..

v.186 (2nd Feb 2006)

Bug fixes

- Fixed bug with printing labels in dispensary mode
- Printing tender documents is now printing rather than creating PDF files.

New Features

- Automatic checking for new versions of mSupply.
- Log-in window nows shows the data file you are connecting to.
- Manufacturers can now be defined as a separate category from suppliers, and each incoming item have a manufacturer defined.
- Several reports now have an added "open in Excel" option
- In multi-user use, mSupply now remembers the Excel (Or Staroffice Calc) location for each user.

- Opening reports in Excel creates a temporary file and opens the report without any further user intervention. (Remember to save the report to the location of your choice before closing Excel if you want to keep it!)
- New names can be added directly from the names list window.
- Reminders now record the user who created each reminder. You can view and edit reminders created by you that others should action as well as reminders for you to action. The reminders list is now sortable and has resizable columns

Changes

- We now use the Win2PDF PDF creator on Windows. This results in faster and more reliable PDF creation. Please contact us for purchase of the driver.
- Macintosh PDF generation is now working reliably.
- Tenders: print all and email all buttons removed- you can get the same functionality by selecting all rows and click the *Print selected* or *Email selected* buttons.

v1.85r2 (13th January 2006)

Bug fixes

- When an invoice line created with a previous version of mSupply was edited, and there was another invoice with the same batch, the edited line did not correctly reflect the total of the two lines.
- When a placeholder line was deleted on confirmation of an invoice, the display was not being updated.
- The price extension was not always set to zero when placeholder lines were added.
- Adding of Ad Hoc items to a backorder is now more robust (done in a new process)
- When editing a transaction line, and changing it to a totally different line, stock totals were sometimes not updated correctly.
- Set start of year stock was wrongly rounding to integers rather than leaving as a real number.

Changes

- Item list windows are now centred on the screen rather than offset from the corner.
- Changes to placeholder lines recalculate subtotals (not immediately relevant, but we're thinking of the future ;-))

v1.85r1 (3rd January 2006)

Bug fixes

- OK & Next button now works for adding new customers and suppliers.
- Transport details on customer invoices now show new lines immediately rather than requiring an open/close of the invoice window.
- After printing a landscape report, some portrait reports were also being printed in landscape.
- Deleting a line on a bill of materials renumbers the line
- An error in the Mangement report was fixed (date_chooser_manage method)
- Splash screen fits the window better on startup.
- Quotes were not showing properly when viewed from the supplier details windows.
- Deleting a prescriber also updates the prescriber list immediately.
- Web server was not working as the mSupply installer was putting the HTML files in the wrong location.

v1.85 (29th December 2005)

Bug fixes

- Previously entered Quotes were not showing. New quotes were not properly enterable. This was a major problem. All users of v184 should upgrade.
- Selecting units for Tender lines produced an error if no units were defined.
- Some tender windows could be hidden behind other windows.

New features

- 2 Period transaction comparison report added. This report shows 2 user selected periods in columns, and uses item categories for the rows. Using dot notation for item categories allows the report to produced for different levels in a hierarchy.
- Item categories can now be defined as summary categories, which means they are for reporting only, and can't be assigned to an item.

v1.84 (13th December 2005)

Bug fixes

- Supplier margins were not being shown when liners where edited on a supplier invoice.
- Ad Hoc item can't be deleted
- First row was being ignored on names import even if boxed not checked on options
- Importing items and stock was no importing item name if "remove quotes" option was checked (oops!). and cancel button now being respected on warning dialogs, and setting of opening stock was ingnoring pack sizes other than 1.
- Packing slip print dates were not being saved.
- Fixed potential issue with repacks.
- When importing electronic invoices, the item name was not being saved in the transaction, although the import happened successfully.

New features

- Automatic distribution of quantity to be issued over multiple batches
- Editing of multiple batches to be issued can be done in the one window.
- Placeholder lines are coloured in red.
- Ad Hoc item lines are coloured blue.
- Service lines are coloured purple.
- Item categories can reordered by drag-and-drop, and the order is remembered when choosing a category for an item. Item categories can now be chosen when adding new items.
- Drag-and-drop renumbering of invoice lines
- Dispensary mode: there is now an option to set default directions for each item. The first default direction is applied automatically. Other default directions can be chosen when dispensing an item.
- New report shows items issued for each user.
- Flag field now added for Names as well as items.
- New report: User transaction totals.
- Added first, last, dob & gender to names import.
- Import_cust_supp now counts rows first, and shows a progress dialog
- More fields for prescriber information
- Patient codes can now be prefixed with a custom character(s).
- Repacking of transactions improved.
- The time of confirmation of transactions is now recorded. You can use this field to draw some very nicely graphs of hourly transaction loads. Ask Sustainable Solutions if you want to know how.
- Patient choice list now shows address & date of birth to help distinguish patients.
- Auto-capitalization of Patient and Prescriber names.
- Improvements to lookup of names to handle languages with apostrophes as the first character (i.e. Tongan!)
- Prescriber lookup now operates on both name and code, and can search prescribers using "last name comma first name". "U" and "D" keys now work for moving up and down the prescriber choice list as they do for names and items.
- Entering, saving and printing of miscellaneous labels to Zebra label printers.
- Can now merge prescribers.
- Default printing options can now be set for each transaction type.
- Complex find button added to Names > Find patient window.
- Patient ages now show two decimal places to enable more accurate ages for children less than 2 years old.

- Dispensary mode transactions warn if trying to save an invoice with no lines.
- Entry of dates when issuing and receiving stock is more flexible. e.g. entering “3/4” will work. This change also resolves an issue with the alert for invalid date formats not being modal on WIndows.
- New item warning if user tries to issue more than a certain quantity (set per item). This is helpful where people get confused between items whose pack size is whole units and items whose pack size is ml or gm.
- The method day_number_to_text can be used in custom reports to show the day as text (“Monday”, “Tuesday” etc) in reports. Contact us if you want to know how to do this
- Many more user permissions.

Changes you’re unlikely to care about

- The reporting options for items are now on their own tab.
- When deleting a confirmed order, the user is given the choice of re-using the order number.

v1.83 (13th September 2005)

Bug fixes

- Some report query options were not being applied.

New features

- Added a "flag" field to quickly mark multiple items for reporting.
- Backorders can be added and edited from the items tab
- Label printers can be set for each computer, and mSupply will automatically switch to the correct printer when printing labels.
- New report- graphical item history- shows a chart of stock on hand for each item, and calculates the number of days in the period of the report that the item was out of stock.

v.182r2 (30th August 2005)

Bug fixes

- Automatic backup for Mac & Windows can now be set.
- In preferences the buttons to choose files and folders were wrongly disabled.
- The margin on supplier invoices is now rounded to 2 decimal places for display.
- Cash payments and cash receipts now working.
- Printing item ledgers and stock from the item details window now working again.
- Some preference items were not being remembered when set by the user (broke in v181, now fixed)
- Client-server versions of mSupply now correctly show they are registered.

New features

- Added field "ABC category" for items.
- Restore backup command is now enabled.
- Item name length extended to 80 characters. Various windows expanded to show longer item names.
- Add a "valid until" (date) field for quotes from suppliers.

Version 1.82 r1 (1st August 2005)

New features

- Under Item, a field for the ABC category has been added.
- The backup facility has been improved, and the preferred location of the backup file may now be selected from within mSupply.
- File > restore is now functional in 4D.2004.2

Bug fixes

Two buttons were erroneosly being disabled.

Version 1.82 (27th July 2005)

New features

- Able to add supplier discount on individual order lines as well as on the entire invoice.
- Item category may be deleted if unused; this feature is available to group 1 and 2 users only.
- Improvement in local currency calculation under the “Prices” tab on the order.

Bug fixes

- Sub totals and totals on supplier invoices now being updated. This error appeared in ver.1.81
- On the purchase order form, when an item line is deleted, subtotals and discount are now recalculated.This error appeared in ver.1.81

- In Supplier>transactions, totals were not being recalculated when the cost price of an item line was changed. This error appeared in ver.1.81
- In Supplier>transactions, editing an item line failed to update stock or prices, leading to ledger errors.
  When entering items received, the first item line was not saved, although all subsequent lines were. This error appeared in ver.1.81
- In Manufacturing mode, the Build transaction ingredient costs were not being updated. This error appeared in ver.1.81

Version 1.81 (21st June 2005)

New features

- Using the web interface, customers can now:
- View their own orders/invoices in progress
- Place new orders that immediately show in mSupply for processing.
- Most lists now display in a new format where each column is resizable and sortable. Columns can also be moved to new locations.
- New robust automated backup procedures and backup scheduler
- HTML export of reports.
- Automatic opening of reports in Excel.
- Restoration of data from a backup.
- Improved transaction categories.
- Ability to place news and messages on the web interface.
- Improvements to Dispensary mode.
- Patient history view
- Edit patient details on the fly.

Version 1.70r1 (4th Feb 2005)

New features

- Logo can be saved and printed on invoices and purchase orders.
- Purchase Orders can be e-mailed as PDF attachments.
- Log printing of purchase orders.
- User permissions to control printing of duplicate pick slips and invoices.

Version 1.70 (3rd December 2004)

- This version only available in client server versions.

New features

- There is a new type of item - Ad Hoc items. These items can not be added directly to a customer invoice - but can be added to purchase orders. When a purchase order arrives, a customer invoice is automatically generated for the item.
- Cross-reference items are another type of item that do not have any stock, but rather "point" to a different item. When you choose a cross-reference item the item to which it pointsis substituted.
- Names and name codes can only be changed by users who have permission to do so.
- Postal address fields added to names.
- All name fields and address fields can now hold 50 characters.
- Names now have a separate category drop-down list. You can set name categories for suppliers and customers separately.
- Added accounts for items (that's "accounts" as is accounting codes). You can manage accounts using the menu Items > Show accounts. Each item can have accounts set for an asset account, an expense account and an income account.
- Expanded range of fields that can be imported for items and for names.
- New purchase order printing format.
- New goods received printing format.
- Pick slips now include item code (landscape mode)
- Customer invoices now include item code (landscape mode)
- Viewing a supplier now shows a tab with purchase orders for that supplier
- Item units are now stored in a table. Choose Item > Show units to view and add units.
- Purchase orders now store the item name at the time of the order.
- Purchase order access is divided by user permissions into those who can receive goods and those who can make invoices and enter/edit prices
- Purchase orders now display invoices created from that order in a separate tab.
- Supplier invoices now display the purchase order they were created from (or zero if they were not created from a purchase order).
- Supplier quotes can now store information including supplier outer pack, supplier bar codes, price breaks and freight details.
- Purchase orders can now have an expected price and units recorded for each item.
- Customer pick slips and invoices record the date they were printed. They give a warning if you try to print an invoice that has already been printed.
- Reports in the report manager can now be saved to a file on disk.

Bug fixes

- Fixed a potential bug in issuing items that are part of a restrcted group.
- Sometimes suppliers could show in lists that should only have displayed customers.
- Placeholder button when issuing items on invoices was not moving correctly for smallest window size.

Version 1.63 (22nd August 2004)

- Currently only available for multi-user clients
- Delete pref "default_currency" on update if it exists
- Printing of dispensary labels to Zebra label printers.
- Item warning have been added for cautionary & advisory labels.
- Presciber records have been added.
- Now compiled with 4D 2003.
- New reports editor.
- Reports are now stored with the data.

Version 1.62r1 (17 Aug 2004)

- Fixed a bug in display after opening single item selection
- Added a preference first batch even if multiple batches present
- Added "order by" button to items list
- Items list"- now grows to right of item name.
- Fixed "delete reminders" button reminders list.
- Fixed sort columns on reminders
- Fixed bug with items import- it was not working unless "strip" quotes was checked
- Fixed a bug with display of order lines
- When clicking on "new line" for orders, the item name field now gets the focus.
- Tab order on users "input" was naff.
- Fixed a bug when a new user edits an original order, the "Edited by" was not changed to the current one.
- The estimated costs in the orders was not updated properly
- Repacks weren't filling in the item name stored with transaction lines/
- Title was missing for most recent invoices display.
- Supplier credits with no stock are now handled properly
- If a customer invoice previously saved it was possible the totals could be incorrect.
- Fixed a bug with the find button on the item list window - wasn't loading record to allow editing when only one record was found..

Version 1.62 (9 June 2004)

- Improved display of order lines, especially when doing price calculations.
- Merging items takes better care of bill of materials
- There is now a preference option to allow mSupply to maintain a file that indicates if the data file is currently in use by a single-user copy of mSupply.
- A new management report was added to give a quick overview of the state of affairs of your organisation.
- Currencies are now more robust in their implementation (you won't see much change on the surface)
- Added display of estimated order costs to orders.
- New command to automatically update quotations from an order. The user has the option to update either only new lines or existing lines as well.
- The title of special invoices can now be set in the preferences.
- ABC analysis can now be generated for a date range, and for either one cusotmer or a range of customers (as well as the default setting which is for all customers).
- The OK & Next button is now functional when editing lines on builds.
- Several new transaction reports (including transactions by month, and sales totals for each name).
- Items can be deleted if they have no associated transactions or quotes.
- Improved importing of items and names.

Version 1.61r2 (April 2004)

- Improved and expanded import of items and stock. Changed item import methods to take extra fields (long description and department)
- Added a preference to store standard header & footer on reports
- Added preference to store customization code. This is used for making special versions of mSupply for special clients ;-)
- Changed ATC category label to simply "category" for items
- We now hide bonus fields in item"input" form if bonus system not activated in preferences.

- Add user permissions:
  - Can view pricing fields for items
  - Can view DDD fields for items
- Added several new report formats to the transaction report:
  - Total by name report
  - Added report for item by month
  - Added report for item totals by category
  - Transaction reports using categories updated
  - Added reports for item by date
- Enabled fields for choosing a name & item for all reports on transactions report options window
- Fixed a bug that could allow the total item stock to get out of sync with actual stock when editing lines on a customer invoice.
- A couple of reports were updated so the quantity column was showing [trans_lines]quan rather than (quan * pack size)
- Added “this year”, “this quarter and last quarter” as options for transactions report.
- Transaction_report now remembers last report done
- Added organisation name to order print out
- When using the item usage reportcan choose item or code
- Fixed a bug where item units were enterable when entering invoice item lines.
- When importing names the freight factor is set to 1
- Fixed delete button on the list editor - it would return an error if no line was selected.
- Shipping address is now hidden if a supplier.
- More options are available for choosing which items to generate an order for

Version 1.61r1 (March 2004)

- Fixed a bug where a supplier invoice could be finalized using the check box on the invoice entry window, but then the user could choose “later” for entering the stock into mSupply. Du-oh!
- Updated method "table_set_titles" to include more item fields in query editor
- The cursor is now correctly positioned when opening a build input window (was on page 0, so not automatically selected
- Cosmetic fixes to many windows to improve compatibility with OS X 10.3
- Added way to add all available quantity of an item line as the quantity used when issuing stock (hold down shift while double-clicking the line). This is especially useful for issuing manufacturing stock with amounts that run to several decimal places
- ABC analysis - include items in report option wasn’t working.
- When editing orders you can show all lines or only incomplete lines
- Added fields to orders for "entered_by" and "last_edited_by".
- Fixed spellings on transactions report window.
- Added "last year" as a date option when doing a transaction report.
- When an order is finalized, are now still be able to unlock it.
- Added three new user permissions
  - can enter inventory adjustments
  - can edit comments on finalized invoices
  - can edit item names, codes and units
- Fixed printing of repacks (OK button method) - was printing even if print turned off
- Now go to page 2 after adding new item to build on bn_add_edit_item_to_build on [transactions]"build"
- Builds now display the units of the item to be built, improving safety should the item’s units be changed at a later date.
- Added user fields 1 & 2 as search possibilities for items on the current stock report.
- Fixed order lines not showing when first view the orders tab for an item
- Increased [transactions] comment length to 50 characters.
- The name of item to be built is copied to the comment when adding a build item (only if comment is blank). This means the item displays in the list of builds
- When editing an order and “order” menu is displayed. There is a new menu choice “show invoices already made”, which lists supplier invoices created from the order.
- Added the option to query user field 1 or 2 when selecting items to include in the item usage report.
- Importing items and stock- you can now import batches, expiries, and the item’s long description

Version 1.61 (March 2004)

- Fixed a bug where new data files did not have inventory adjustment and repack names created (not a data issue- just helps display of these transaction types in lists). (1.61- all others below 1.6r1)
- Allow import of items to existing data files.
- Added more menu choices to dispensary full mode.
- Report > Stock on date- fixed a bug in the report generation.
- Report > Item usage- clarified the reporting options
- Order editing: the expected and actual delivery dates are now enterable by the user (thanks Andrea!)
- Order lines respect the font settings in the preferences.
- Fixed a potential issue with merging names (fortunately before anyone was injured!)

Version 1.6

Major Features

- A dispensary mode has been added, where you can issue to patients rather than organisations.
- Built in web server- you can access mSupply data from your web browser.
- Drug interactions. Be alerted to drug interactions with already dispensed medicines. Drug interaction information includes the affected group, and severity and clinical significance of the interaction and the quality of evidence. In a furture version of mSupply we hope to be able to automatically download up to date drug intereaction information from drugref.org's RPC server once it is complete. (See http://www.drugref.org)
- Reminders- a separate to-do list for each user which can automatically remind you of due tasks when you log on to mSupply. Reminders can be set to automatically repeat at certain intervals.
- HTML context-sensitive help. mSupply now has help that will display in a web browser and take you to the right place in the manual when you open it when using a particular part of mSupply. (The help is not included in the download version to keep the download to a reasonable size. You can download the PDF manual separately).
- Web services (client-server only). Not in demo version or single-user- the ability to query mSupply data from a range of web services aware applications (including SQL server, Oracle, Sybase, etc....).
- XML export (client-server only. Not in demo version or single-user). XML export allows extremely easy import of required data into other applications.
- New report editor (client-server only. Not in demo version or single-user). The new report editor includes the ability to do cross-tab reports, export reports to HTML, colour alternate rows, and lots more!

Other Features

- You can now make a customer invoice directly from a supplier invoice. This is useful for "charge through" invoices, where the supplier has supplied the goods directly to the client.
- You are now given the option to leave quotes in when importing items, as some people want to import "inch" signs!
- Field length for items has been increased to display the full name for long item names
- When you select an item for use on an invoice, it's tool tip now shows the text of the full item description.
- Pack sizes can now be real numbers (as opposed to integers)
- You can now exclude or include manufactured (built) lines from item usage calculations
- Shelf location for each batch is shown when issuing goods and in the item details stock tab.
- In dispensary mode, patient notes are shown when issuing medicines, and notes can be added, edited and deleted "on the fly".
- Adding items to a bill of materials has been made more user friendly.
- The item usage report can now be used to report on all items with less than a certain number of days stock on hand. This allows it to be used as a simple order template.
- A new preference has been added that allows automatically generated email orders to be sorted by item name.
- You can now double-click an transaction line in the ledger tab when viewing an item, and you will be shown the invoice that the line belongs to in a new window.

Bug fixes

- Item usage now displays properly (fixed 1.5r9 and later)

Changes in Version 1.5.0

Major Features

- Can now use a bill of materials when building items.
- Much expanded user permissions system. Many more access priveleges can be set on a per-user basis.
- Optional display of margin and gross profit for invoices.
- Each invoice line now stores the item name, so that historical information is retained, even if an item name is edited after an invoice has been finalized.

- Each batch of an item can have it's own shelf location specified when goods are being received.
- Can now lock orders to stop them being deleted.
- Can now resize order windows correctly.
- Orders can now be partially received, and receved in multiple consignments. More information is stored about the original order quantity etc, allowing reporting on supplier performance.
- Finding orders in mSupply is now easier.
- Orders now show the total quantity required rather than the quantity for a specific pack size. This allows multiple pack sizes to be received for the same order line.
- Names can now be put on hold, so they are not able to be used in a transaction.

Other Features

- Improved graphics for buttons on invoice forms (thanks to Cognito Software for the ideas and graphics!)
- OK & Next button now works when editing an invoice, so one can edit multiple lines on an invoice without returning to the invoice list.
- The main invoice list window now updates in the background when an item is being added or edited.
- The font can be chosen for invoice lists.
- Item notes can now be set to display when issuing or receiving the item.
- Automated backup while mSupply is running, along with a scheduler to specify when backups should run.
- Built items can now report the production yeild in relation to theoretical quantity on the bill of materials
- Expiring items report can now be sorted by value, name or expiry date.
- Total stock value report can now be generated for all items or just one department
- Preference to automatically renumber lines when a line is deleted.
- Backorder list now displays available stock
- A new button on invoices shows the profit (value and markup/margin) for a customer invoice.
- Printed transaction lists now display the total value of the transactions at the bottom.
- New Report type to print an item ledger between any two given dates. This allows a ledger to be printed for any historical period.
- Improved support for certain dot matrix printers that require line advance before printing.
- Shelf locations can be editied for each batch (if the user has permission to do so)
- New preference to determine whether or not placeholder lines are deleted when an invoice is confirmed.
- When repacking items mSupply now attempts to guess the price of the new pack size.
- Can now do custom reports on item notes.
- New progress windows more accurately show progress for long operations.
- Added a new report to the transaction reports: "total value for each item" to show the value supplied or received of each item over a date range.
- Added a new report to the transaction reports: "item usage broken down by cost centre" which shows the totals for each cost centre under each major item heading. (This report can be run for just a single item or group of items)
- Items can now have a long description field.
- A new tab for each item shows the orders for the item (both historical and current).
- Customers can now have a separate shipping and billing address
- A new report lists each user, their access level, last log-on time and date, and the number of log-ons for the user.

Bug fixes

- In Client/Server mode, deletion of placeholder lines when confirming an invoice could cause some items to not have their stock updated
- Fixed bug (also fixed in 1.43r5) where comment was not editable on supplier invoices, but service item fields & supplier ref were.
- Fixed a problem where export batch numbers could be skipped if the user cancelled the export.
- Certain build transactions could advesely affect ledger reports
- Ledger reports for items with fractional quantities would report an discrepancy when there was none.
- Deleting orders did not work properly in client-server mode.
- Custom reports can now be done with a query on the "hold" fields for items
- The calculated stock on hand figures for items (not the actual stock on hand of item lines) could get out of kilter with actual stock when items were deleted on supplier invoices (by entering a zero quanitity) or on customer invoices (using the "delete line" button)

Version 1.4.3

- Windows XP certified.
- Each customer or supplier can now be assigned to a group. There is no limit to the number of groups that can be created.
- Customer groups can be used as a way of creating a restricted access scheme for medicines. For example, you can specify that items whose department is "narcotic" can only be supplied to customers whose group is "central hospital" or "remote hospital"
- Transaction totals are now kept up to date in the background, so that even if a user quits by using the Windows close box, the correct transaction total is available. Without reopening the invoice.
- Dot matrix printers can be driven directly from mSupply, either to 10c m roll paper or A4 paper.
- Item stock import can now include batch numbers and expiry dates when setting up a new data file.
- Item name import is now more flexible, and handles nasty extra characters that Excel inserts more gracefully.
- Names can now be imported.
- Changing a user password from the user list now requires entering the password twice to save errors
- The password entry window has been redesigned. It now alerts the user if caps lock is on.
- User access to certain functions can now be set on a per-user basis.
- Invoices can be finalized as they are entered on a "per-invoice" basis if the user has permission to do so.
- Fixed a bug where processing a previous customer overpayment on a cash receipt would not remove the overpayment amount from the customer's record.
- Fixed a bug where finalizing a invoice might not record the amount as outstanding if one-step finalize was turned on in the preferences.
- Data file warns if there are no items in the file when you try to view items.
- New menu commands to open a different data file or to create a new data file.

Version 1.4.2

- A long standing bug where occasionally the selling price and invoice total were not calculated for lines on supplier invoices has been fixed.
- Supplier invoices and customer invoices now have a delete line button that will delete any line from an invoice (except finalized invoices, of course)
- Emails can now be stored in mailboxes, as well as being attached to suppliers or customers.
- Supplier invoices and Customer invoice windows now grow when the corner is dragged to show more lines. They also "remember" their position when a window is opened again on the same session.
- A new report has been included: "Item slow movers". This report lists items with more than a specified number of months stock on hand, which is very useful for managing inventories by allowing action to be taken to dispose of under-performing stock.
- Fixed a bug where a customer credit could have a margin added to it if a default margin had been entered for that customer (Don't ask us why someone would enter a margin for a customer!)
- Fixed some small bugs with the wrong alerts being displayed when a user cancelled attachment of emails
- Fixed a bug where ordering for one supplier was using the non-preferred quotes for that supplier rather than the preferred quotes.
- Added a dates drop-down list to the invoices tab of the name viewing window so that recent invoices for a name can quickly be shown rather than having to scroll to the bottom of a very long list.

version 1.4

- The ability to build products from ingredients. This is useful for pharmaceutical manufacturing, or any other organization that buys raw materials and sells a finished product.
- Supplier repacks now have their own transaction number
- Item stock is now always up to date (Or almost always- If another user is editing an item while you issue or receive stock for that item, the transaction will proceed, and mSupply will check every 60 seconds for the item to become available, and will then update the stock). Note that the stock for each item line is always correct.
- The find transaction window has been redesigned, as some users found the old window unclear (although it did allow for very fast entry. There is now a separate field to enter the number of recent invoices or the invoice number. If there is information in both fields, the invoice number field will be given priority. (This means that when searching for an invoice number, you don't need to clear the "number of recent transactions" field first.
- The is now an "export" command in the file menu. You can export information from almost any table. You can save export projects which define the fields you want to export, and quickly recall the projects from a popup menu.
- You can now specify the supplier invoice margin item-by-item, rather than only for each supplier. There is a new setting in the preferences to determine which value will be used if there is both an item and a supplier margin specified.

- Each transaction can have it's own category. The list of categories can be defined in the preferences. Supplier transactions and customer transactions have their own categories.
- Abbreviations: When entering directions for an item, any abbreviations entered will be expanded to the full text. The list of abbreviations and their expansion can be edited by the user.
- Custom labels can be sorted before printing.
- Item usage now also shows standard deviation as well as the mean for the months usage chosen
- A new "item usage" report enables a concise print out of usage history.
- Displaying item usage is now much faster.
- Generating orders has been sped up dramatically.
- Items can now be excluded from orders permanently.
- Forecasting support is improved by :
- A new report to show usage statistics for selected items.
- Orders can now use the last three years usage data to evaluate required quantities.
- Standard deviation as well as monthly usage mean is available for each item.
- A customer receipts module has been added. This uses an "open-item" system of accounting to record the exact amount outstanding on each invoice. (This module does not affect the functioning of mSupply if you do not turn it on in the preferences)
- New reports based on the account status of each customer:
- Debtors report lists all customers with outstanding balances
- Customer Statements prints a statement for each customer with an outstanding balance.
- A bonus stock system has been added. This allows issuing bonus stock to customers automatically, based on the bonus formula entered for each item.(This module does not affect the functioning of mSupply if you do not turn it on in the preferences)
- Passwords are now stored in the data file using 512 bit RSA encryption for added security.
- Export of finalized invoices is now optional. It is turned on or off on the "invoices 1" tab of the preferences.
- Each item can now be assigned to a department, allowing you to group items, and produce reports based on those groups.
- Items can now be held so they are only issued on builds, or they are not issued at all.
- Items lines (that is, batches) can now be held (quarantined) on a per-batch basis
- Invoice windows now remember their position, and open in the position they were closed in.
- Export of invoices and orders in HTML format that can be viewed by any web browser, most Word Processors and Spreadsheets.
- Automatic attachment of invoices to e-mails, either as an electronic invoice or as an HTML invoice.
- E-mails can now have attachments, CC and BCC addresses.

Version 1.3

- Version 1.3.2 & 1.3.3: bug fixes.
- Version 1.3.1: minor changes to the invoice layout, and some extra safety checks added when calculating tax rates.
- Most significantly, mSupply is now fully client-server capable. We expect mSupply will be able to handle 20 or 30 concurrent users with no problems. If anybody has a spare 70 or 80 computers they can lend, we'll be able to report on larger networks.
- Many interface improvements. For users, the most significant change is that the edit line buttons are gone from all windows. Now you simply double-click the line you want to edit.
- Multiple windows can now be opened at the same time. To do so, click on the splash screen picture (the supply man), and the menu will reappear, allowing you to start a new task.
- Greatly expanded reports menu
  - a menu in the transaction report window now lets you choose from several different styles of report
  - quotation reports by supplier or item
  - opening stock for the year (or closing stock for previous year- same thing!)
  - current stock valuation- previously mSupply only reported the total. Now you can print a list as well
- Report headers, footers and borders can now be set by the user
- There is an option to show recent purchases for an item when entering a supplier invoice
- Transaction notes- any invoice can have a note attached to it with up to 32,000 characters of text. The note will print on the bottom of the invoice.
- Supplier quotations can now be in any currency- not just the default currency for the supplier.
- There is a second address line on invoices for your information to be added.

- A new preference allows turning on or off the logging of new name creation.
- The previous year's item ledger can be printed. This means that new transactions can be entered without the need to save an end of year copy of mSupply just for printing the ledger.
- Each transaction no longer stores the name code and the charge code- the charge code is taken from the name at the time of export. This way you can edit charge codes and re-export if there is a problem.
- In the ledger tab of the item viewing window, there are two extra options-
  - to view all the transactions for a particular name (click on a transaction then choose this item to view all transactions from/to the same name as the one you clicked.
- to view all the transactions associated with a particular batch of stock.
- Holding down the shift key while clicking on a blue column header now sorts the column in the reverse (descending- 9>1, z>a) order.
- Email from within mSupply. We have added quick email functionality. This is just the start- watch this space...
- It is now possible to set the minimum stock level for each item (although there is no requirement to do so. See the manual for a fuller explantion). When generating an order, mSupply's own calculation method is used first, and if the result is still less than the minimum, the order quantity is increased.

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