EASYST☺CK

1 INTRODUCTION

The EASYST☺CK file is a simple tool for managing medical stocks and recording stock movements. It allows to add stock to the inventory record, prepare picking tickets and packing lists and compile reports on stock movements.

This application allows to transfer data of stock movements electronically, by disk or by electronic attachment. This reduces the need for manually filling in stock records, especially packing lists.

The EASYST☺CK file can be used in conjunction with the MedIC☺S file. At the end of the month data on stock on hand and monthly demand can be easily copied from EASYST☺CK to MedIC☺S.

The main objective of designing this file was to make it as simple and user-friendly as possible. Macros where not used since this might have reduced the flexibility for the user. Moreover one of the main objectives was to make the file as transparent for the user as possible.

In order to make this manual as user-friendly as possible, the essential information on the application and its use is contained in only 10 pages in chapters 6-8. Detailed information on each column of the worksheet as well as explanations of the formulas can be found in the appendices. These are meant as a reference which can be consulted only if needed.

2 GETTING STARTED

Welcome to EASYST☺CK!

Before starting to study the file and the manual, the EASYST☺CK file needs to be copied onto the computer hard disk. The current inventory as well as data from the national standard list (inventory list) need to be inserted. This procedure is necessary only before using EASYST☺CK the first time. This manual assumes that a version of WINDOWS is used as an operating system on the computer and a compression tool (such as WinZip) is available.

Before starting to use EASYST☺CK the first time, the following steps must be followed:

- Copy the file EASYSTOCK.xls onto the hard disk.

- Open the EASYSTOCK.xls file.

- Save the file under a name of your choice (and keep the original as a backup).

- Switch to the "INVENTORY" worksheet.

- Enter the packing list number and entry date in column B and C as well as all item data into columns E through O for all batches of the stock. If no electronic records of the inventory is available, then the contents of the bin cards must be copied.

- Copy the national standard list from the MedIC☺S file into columns D through G of the "Stock on hand" worksheet.

- Enter data on the most common customers in the "Customers" worksheet.

- Save the file under its current name on the hard disk.

- Make a backup copy of the new file on a CD.

- Close the file.

- Switch off your computer.

Entering data from all batches will take much time if you do not have an electronic record already. However keep in mind that this (possibly time consuming) data entry is necessary only once when the file is used for the first time.

Whenever you want to use your EASYST☺CK file you can simply open it from your hard disk. But please make a backup copy on your computer every time you make any changes.

3 BASIC CONSIDERATIONS

Before explaining how to use EASYST☺CK this short chapter will give an overview of ideas behind the EASYST☺CK concept.

Computer

Since EASYST☺CK is a simple Excel spreadsheet, there is no need for any installation or modifying any setup. Most computer literate staff will be familiar with Excel and will therefore require little training.

Skills

The file is specifically designed for users who have only basic knowledge of Excel or other spreadsheet applications. Users who have never used a spreadsheet or Excel will be able to acquire the necessary skills quickly by individual training or by attending a computer course.

It is important to understand the "Sort" feature since the data in the "Inventory" worksheet can be completely mixed up if it is not used properly. Make sure you really understand the "Sort" feature before using it. An explanation will be given in this manual.

It is also important to be familiar with the different "Paste special" options especially the "Paste values".

Simplicity

Whenever data is entered in any of the worksheets all calculations are instantly updated. There is no need to run any macros.

Since all data is contained in one file there is no need of transferring data between different files for issuing picking tickets and statistics reporting. Transferring information to the MedIC☺S file is facilitated by presenting the necessary data in the same format as used in the MedIC☺S file. This allows to simply copy data without the need for any further manipulations.

All data from the current month is contained in a single (the most recent) EASYST☺CK file. Although every file contains only data on all transactions from one month, every file is self-contained. It contains a complete record of all transactions and is not linked to any other files.

Since all data is contained in one file a backup can easily be made by only one copy command.

Since there is only one file, changes can be made quickly without having to update a multitude of files.

All essential features for entering items, preparing picking tickets as well as statistics reporting are contained in one worksheet, the "INVENTORY" worksheet. The other worksheets are intended for printing the picking ticket, keeping a record of customer data and for presenting data in the MedIC☺S format.

Since all formulas in a column are identical they can be copied to amend errors or reverse accidental deletion.

Transparency

The file contains only basic mathematical formulas (plus, minus, multiplication, division, average, sum, if etc.) which can be understood with good knowledge of Excel or another spreadsheet application. Therefore the complete design is transparent and users can easily

follow the logic of calculations. The calculations for the "Proposal" (column AA) are quite intricate and require very good knowledge for understanding. However the function this formula fulfils is very obvious and easy to follow without understanding the formula.

No macros are used since it is not easy to follow their functions and accidental use might cause major problems. Some transfer of data between worksheets will have to be performed manually. This has the advantage that the user actually understands what is happening rather than initiating some automatic process without understanding its function.

Flexibility

Data can be entered any time in any worksheet and in any order. There is no need to follow a "protocol" in order to obtain correct calculations. Corrections can also be made any time. The drawback is that data can be accidentally deleted or changed.

Although the file was mainly designed for relieving the workload for managing a medical store, in principle the file can be used for any other category of goods.

For printing data any combination of columns can be chosen by simply hiding the columns which should not be printed. Therefore the content and layout of prints can be adapted to individual needs.

4 REQUIRED SKILLS

The file was designed to require only basic spreadsheet skills. However it does require knowledge of basic features. It is also vital to understand the "Sort" feature in order to realise the problems which can be caused if it is not used correctly.

Before acquainting oneself with the EASYST☺CK file users should make sure they have acquired all necessary skills listed below. Users who have never used any spreadsheet application or lack some of the listed skills should undergo some computer training before starting to use EASYST☺CK.

Required skills for using the file

- Switching on the computer.

- Starting Excel from the desk top.

- Opening an existing file (in Excel or from the Windows Explorer).

- Freezing panes.

- Switching between worksheets within the file.

- Entering data into a specific cell.

- Copying data from one cell or column to another.

- "Paste special", paste Values.

- Deleting data from a specific cell.

- Deleting rows from a worksheet.

- Hiding columns.

- Sorting a worksheet.

- Printing worksheets.

- Saving the file (onto the hard disk as well as on a computer disk).

- Saving a file under a different name ("save as").

- "Zipping" (compressing) and "unzipping" (decompressing) files.

- Closing a file.

- Switching off the computer.

<u>Sorting data</u>

Whenever goods arrive at the medical store, the item data needs to be entered into the "Inventory" worksheet. In order to avoid having to manually search for the correct position, entering an empty line and entering the data, the "Sort" function is used. The data is simply placed at the bottom of the current "Inventory" worksheet and then entered into the inventory worksheet buy using the "Sort" function.

Two aspects of the "Sort" function are vital. First the selected range for sorting. Before running a "Sort" the user has to define the range of the worksheet which needs to be sorted. This is done

by selecting the range (highlighting) either with the mouse or by pressing the "Shift" button and expanding the range with the cursor buttons and/or the "page down" button.

It is important to make sure that all rows and all columns in a row are selected. The selected range must start in the third row (just below the headers which do not need to be sorted) from column B until the last column on the right. It must also extend from the third row until the last row of the worksheet which contains formulas. It should include all empty rows which contain formulas (all rows with coloured columns). A provision was made to ensure that rows which are empty but contain formulas are not displayed at the top of the worksheet when sorting. This is the reason why "ZZZZ" appears in column D if no item code is entered in column E.

Two mistakes can occur. First that not all rows are selected. Consequently only the selected rows will be sorted. However no data will be mixed or lost. The selected range must simply be extended and the sort repeated.

The second mistake is more serious and can potentially lead to a complete loss of all data because it is randomly mixed. Before the "Inventory" worksheet is sorted it must be ensured, that all columns from column B until the last column on the right are highlighted. Otherwise only part of the worksheet will be sorted and some data will end up in the wrong row. Consequently some data in each row will be randomly allocated to another row.

To avoid this the entire worksheet should be ranged before sorting or at least whenever the sorting range has been changed for another purpose.

If after sorting the user notices that a mistake was made, the sort command can be "undone" by selecting the function from the "Edit" menu.

To be absolutely sure that the sort will be done correctly, simply range the worksheet from column B of the third row until the last column on the right and the last row of the worksheet containing formulas before sorting.

Pasting special "Values"

Pasting "Values" is needed for copying data within the "Inventory" worksheet as well as copying the content of the "Picking ticket" worksheet to the packing list template.

For pasting special "Values" select the cells you want to copy and give the copy command (or use CTRL+C). Then place the cursor in the first cell of a range to which you want to copy. Choose "Paste Special" form the "Edit" menu. Select "Values" and click OK.

If you have pasted the cell contents but forgotten to select "Values" chose "Undo" and try again.

5 GENERAL REMARKS

The EASYST☺CK file consists of four worksheets in a single file. All important calculations are made in the "Inventory" worksheet. The other worksheets are added for printing a picking ticket, storing customer data as well as for providing data in the format needed for MedIC☺S.

The "Inventory" worksheet will change with every stock entry and stock issue and contain all records of stock movements from the beginning of the current month.

You can use the search function for finding an item, item code, batch number or purchase reference (number) in the worksheet.

When deleting data either delete entire rows or selectively delete data only from visible cells with without formulas. If entire rows are selected and their contents deleted, the contents of hidden cells which contain important formulas will be deleted as well.

Some cells which contain a formula will display "®" if no data is entered in the row. This warns the user that the cell is not empty and its contents must not be deleted. If empty rows are inserted the missing "®" should alert the user that the formulas need to be copied from a row above or below to restore the worksheet functions.

Colours

The background of the first two rows of the "Inventory" as well as "Stock on hand" worksheet is yellow. This is intended to facilitate orientation. These rows are "frozen" and should be printed on the top of every page of a printout.

In order to facilitate orientation and use of the application some cells are colour coded. The basic rule is that data should be only entered or changed in cells where the text colour is blue. Black text colour indicates that the cell contains formulas and therefore no data needs to be entered. When using a black and white printer blue and black cells will not be distinguished. However the different colours have no relevance after data is entered into cells and colour prints are therefore not needed.

Protection of cells

All cells where no data needs to be entered are protected to avoid accidental deletion or damage of formulas.

If the worksheet is protected it is not possible to alter these cells. However it is possible to select cells and copy their contents without any problem. This protection can be removed selecting "Format", "Cells" and "Protection" and deselecting the option "Locked" without a password if necessary. It is not to limit the flexibility of the file for the user but simply to prevent accidental deletion of cells and damage to the file.

For all cells of the "Inventory" worksheet which contain formulas the protection feature has been selected. However this protection is only activated if the user selects "Tools", "Protection" and "Protect Sheet". The protection is not activated as a default because sorting is not possible in a protected worksheet. However the user can activate the protection after sorting the worksheet which is necessary only when goods are received. In this way accidental deletion of cells during preparation of picking tickets will be prevented. Before sorting the protection must then be deactivated. It is left to the user whether s/he wants to use this function or not.

Data formats

Whenever values or dates are entered it is vital to make sure that these entries are not made as a text. Note that if you enter text in a cell which should contain numbers or dates, cells with formulas using this data will display "ERR" since calculations cannot be made with text.

It is also important to make sure that dates are entered in the correct format. They must be entered as dates and not as text. Two digits for the day, month as well as year are set as a default. Otherwise sorting by FEFO will not be correct. Moreover cells with the expiry date in the picking ticket and packing list are formatted for dates and not for text.

However the display of dates depends on the user setup of the computer. If you encounter problems check the date settings in the "Regional Settings Properties" menu of the control panel. You may prefer to use "/" instead of a "." for separating day, month and year.

Please note that if text cells are left empty (for example the country of origin or manufacturer) then a "0" will appear on the respective cell of the picking ticket as well as packing list. To avoid this, either enter data in all cells or, if this information is not available, enter a ' in the cell. The cell will remain empty but the ' indicates that the cell is formatted for text and the respective cell in the picking ticket as well as packing list will remain blank.

Units of measure

The unit of measure for all items should be "EA" (Each). This is vital since different batches of the same item might come in different packing sizes. The only exception might be items which are measured in meters (for example some types of tubing) or kilograms.

Any currency can be used for financial calculations. However it is vital to make sure that only one currency is used consistently.

Set-up and layout

The name of the humanitarian organisation as well as the location of the medical store should be entered in cell E1 of the "Inventory" worksheet. This information will automatically appear in the "Stock on hand" worksheet as well.

The headers for the columns containing packing list and claim numbers which have blue text colour and cell J2 (Currency) can be changed. Otherwise captions in the first and second row should not be changed.

Data in the "Picking ticket" worksheet which remains the same on all documents can be entered as well as it will be the same for all picking tickets. For example name and location of the warehouse etc.

Standard list items and their codes can be copied from existing files or a standard item catalogue. The order of columns in the "Stock on hand" worksheet corresponds to format used in the MedIC☺S file.

1000 rows are formatted in the "Inventory" worksheet.

The "Inventory" worksheet is "open-ended" on purpose. The bottom of the table contains no formulas which have to be considered or could accidentally be deleted.

An important formula is hidden in column A but copied as a default until row number 1,000. The "Picking ticket" worksheet is formatted to consider the first 1,000 rows from the "Inventory" worksheet.

Before starting to use the file the first time the country standard list must be entered into "Stock on hand" worksheet. The list must correspond exactly with the MedIC☺S file.

6 ENTERING STOCK

Whenever goods arrive at the medical store with a packing list, the item data needs to be entered into "Inventory" worksheet of the EASYST☺CK. This will allow to update the current inventory as well as the total quantity per item held in stock.

Ideally the information on arriving goods will be available as an electronic record received by electronic mail. The goods data transfer file (Goods data.xls) can be used for this purpose.

If the item data is not provided in an electronic format, the data from the packing list will have to be entered manually. However the workload for reporting as well as issuing picking tickets and packing lists will still be reduced significantly since the data has to be entered only once.

The content of the packing list is copied below the last row containing item data to columns E ("Item code") through O (Purchase reference) of the "Inventory" worksheet.

The quantities which have arrived and are displayed in column H ("Quan.") must be copied to the next empty column of the "Stock entries (current month)" table. Make sure to move horizontally and copy the quantities in the same row. At the top of the column the packing list number should be entered in the header to create a reference of the record.

If several shipments of the same batch arrive at different times, further records can be created by entering the respective quantity in the same row but a separate column of the "Stock entries (current month)" table. The quantity in column H ("Quan.") must be corrected to represent the total sum of all consignments of this batch which have arrived. The "Entry date" will then refer only to the arrival of the first consignment. Alternatively the shipment can be entered separately.

Before resorting the inventory list the file should be saved. In case the sort goes wrong the file can be closed without saving, reopened and the sort repeated.

In order to update the inventory record and display it in proper order the "Sort" function is executed. The cursor is placed on cell B3 and the worksheet ranged from the third row of column B until row 1000 of the last column containing data. Then "Data" and "Sort" is selected and column D ("CAT"), column F ("ITEM DESCRIPTION IN ENGLISH") and column P ("SORT DATE") are selected in the menu before clicking "OK").

All items are now sorted according to their category, item description in alphabetical order and FEFO (earliest expiry date of an item on top) or, if no expiry date is entered, according to the date of entry into stock (FIFO). This ensures that for example dressing material without any expiry date is rotated.

There is no need to selectively copy and paste item data into their respective location.

The "ZZZZ" which appears in all empty rows of column D ensures that the empty rows remain at the bottom of the sorted table. It also indicates that the cell contains a formula and must not be deleted.

7 ISSUING STOCK

Whenever an order is received from a customer, a picking ticket must be issued for the warehouse.

As mentioned earlier, before this procedure the worksheet can be locked to prevent accidental deletion of formulas. However in this case the lock must be removed before the worksheet is sorted the next time.

It is recommended to position column F ("Item description in English") at the far left of the screen and freeze this column as well as the two first rows. This will allow to know what item is concerned when moving further to the right of the worksheet.

The columns V through Z should be positioned next to column F. The item which is required by the customer is then located in the worksheet either by scrolling to the respective position or by using the "Search" function.

In order to encourage and facilitate FEFO an arrow will appear in column V ("®") in the first row of every item. It indicates the batch with the earliest expiry date or earliest entry date which should therefore be picked first.

The total quantity requested for each item is entered into the row containing the first batch of the respective item in column W ("Compose"). These rows (containing the first batches according to FEFO or FIFO) are marked with an arrow ("®") in column V. The worksheet will consider the available quantities for each batch and propose the quantities for picking in column Y ("Proposal"). In case the quantity requested by the customer exceeds the available stock on hand the caption "MAX=[Maximum stock on hand]" will appear in column X. In this case the requested quantity in column W ("Compose") needs to be reduced to the number appearing in column X. However the quantities in the picking ticket will not exceed the available stock even if the customer orders more.

The next step is to copy the contents of column Y ("Proposal") to column Z ("Picking ticket"). It is important to paste special "Values".

The quantities entered in column Z ("Picking ticket") will automatically appear on the "Picking ticket" worksheet. This column should be reviewed and changes made if necessary. Note that only data in this column is linked to the "PICKING TICKET" worksheet not the data in the "Proposal" column.

The quantities displayed in column Z ("Picking ticket") will not yet affect calculation of stock levels since they might have to be changed during order picking.

Before printing the picking ticket all data from column W ("Compose") should be deleted. Make sure not to delete any data from column Y ("Proposal") since this will erase the formula. As soon as column W ("Compose") has been cleared, column Y ("Proposal") will also be cleared automatically. In case the formula in column Y ("Proposal") is accidentally deleted, simple copy the formula from any other cell of the same column into the cells where the formula was deleted.

The next step is to select the customer data in the "Customer" worksheet. To avoid having to manually enter customer data, the respective customer number is simply entered into cell A1. All data for the chosen customer will then appear on the picking ticket.

After switching to the "Picking ticket" worksheet the range needs to be selected for printing. The printing range depends on the number of items appearing on the picking ticket. The total

weight, volume and value (last row of the picking ticket) is not necessarily needed on the picking ticket.

The printout of the picking ticket is given to the warehouse for order picking and packing. During picking corrections might have to be made on item data or quantities. Also the parcel number as well as the weight and volume of parcels will be written on the picking ticket by the warehouse staff.

The corrected picking ticket with the additional information is the basis for preparing a packing list.

First the quantities entered in column Z ("Picking ticket") of the "Inventory" worksheet have to be updated if any corrections of the quantities were made during order picking. This is vital to ensure that the quantities on the inventory list correspond to physical stock levels.

The corrected quantities are then copied from column Z ("Picking ticket") to the next empty column of the "Stock issues (current month)" table. The packing list number of the consignment is entered into the second row of the respective column as a reference.

Only after the quantities have been entered into the "Stock issues (current month)" table the current inventory is updated in column S ("Stock on hand").

The next step is to open the packing list template (Packing list 001.xls) and save it under the name of the respective packing list.

The "Picking ticket" worksheet from EASYST☺CK is selected from column B through M and until the last row ("Comments", "Packed by" and "Signature") and copied to the packing list template (Packing list 001.xls) by using "Paste special" and "Values". The packing list template is blank but contains formats for the column width and row height. Any empty rows are now deleted. Please consider that the last rows with totals and ("Comments", "Packed by" and "Signature") should be kept.

Now the parcel numbers, weight and volume as well as comments can be entered without changing the template. The worksheet is then ranged and printed as the final packing list. While the data on the picking ticket in EASYST☺CK will change whenever a new picking ticket is prepared, the packing list will be a permanent record. It can be opened for modification or reprinted if necessary. However it is important never to make corrections on items or quantities only in the packing list since the stock balance in EASYST☺CK will no longer be correct.

8 REPORTING AND PREPARING A NEW FILE

At the end of the month all transactions (stock entries and issues) from the first to the last day of the current month will have been recorded.

Before preparing reports a complete physical stocktaking must be performed. The quantities from the physical stocktaking must be compared batch by batch. Any discrepancies must be consolidated by reviewing records and if necessary by issuing a claim report which accounts for these discrepancies. Any stock adjustments, which can be positive or negative, are recorded at the end of the "Inventory" worksheet.

For preparing a monthly report the "Inventory" worksheet is ranged from column E ("Item description") through column U ("[Value] Value") and printed it in landscape format. The first two rows will appear on every printed worksheet as a default.

The report can also be prepared in an electronic format and transmitted for further analysis. The EASYST☺CK file can be saved under a new name (for example "Monthly report 02/03" and all worksheets, except the "Inventory worksheet" removed. The file can then be zipped and copied to a disk or transmitted electronically.

After the reports have been prepared a file for the following month must be prepared.

The EASYST☺CK file must first be saved under a new name to preserve all data from the previous month. The current month is entered in cell E1 of the "Inventory" worksheet.

First all batches with zero stock on hand have to be removed. If the worksheet is protected, the protection must be removed. Note that if the stock level drops to zero during the reporting period this batch must be kept in the records until the end of the month for reporting purposes. The worksheet is ranged from the third row until the last row in which data appears. The worksheet is then sorted by column T ("Stock on hand") all batches of items with zero stock on hand will appear at the top. All rows where zero appears in column T are ranged and deleted. Then the remaining batches are ranged and sorted by column D ("CAT"), column F ("Item description") and column P ("Sort date").

Column T ("Stock on hand") is copied to column Q ("Stock [Date]") by pasting special "Values". The stock position from the last day of the month will be the starting stock position for the next month.

Then all data from the columns in the "Stock issue (current month)" table, "Stock entries (current month)" and "Stock adjustments" is deleted to make place for stock entries and issues for the current month.

9 LINKING EASYST☺CK WITH MedIC☺S

The "Stock on hand" worksheet was designed specifically to link EASYST☺CK with MedIC☺S.

If the stock position at the beginning of the month corresponds exactly to the physical stock and all stock entries and issues were recorded accurately, EASYST☺CK provides data on demand since the beginning of the month as well as the current stock on hand. Incidentally the expiry dates of the next expiring batch are displayed.

Columns G ("Stock on hand"), column I ("Demand current month") as well as column J ("Next expiry") are copied to the respective column of the MedIC☺S file. This will eliminate the need for entering all this data manually from stock records.

Columns B through F of the "Stock on hand" worksheet are not linked with the "Inventory" worksheet. Therefore items entered in the "Inventory" worksheet will not automatically appear in the "Stock on hand" worksheet. Rather the item data from the country standard list must be copied manually from the MedIC☺S file to the "Stock on hand" worksheet of the EASYST☺CK file.

If MedIC☺S is being used then the national standard list must exactly match the standard list in the "Stock on hand" worksheet. The "Stock on hand" worksheet provides data only on the items from the standard list and not all items which are currently held in stock.

This approach has been chosen for two reasons. First there might be a stockout on an item which is included in the country standard list and which is recorded in MedIC☺S. If this item is not contained in the "Inventory" worksheet of EASYST☺CK it would not appear in a summary report. However in MedIC☺S this item would be recorded but with a quantity of zero. Therefore these two records would not match and therefore columns could not be copied from one file to another.

Secondly there may be items in stock which are not included in the country standard list in MedIC☺S. Then the stock on hand as well as monthly demand will be needed for statistics reporting but are not relevant for MedIC☺S.

Therefore whenever the country standard list in MedIC☺S is changed, the complete list is copied to columns B through F of the "Stock on hand" worksheet of EASYST☺CK. Note that the format of the "Stock on hand" worksheet corresponds exactly to the format of the MedIC☺S file.

Whatever item is entered into a row in the "Stock on hand" worksheet, the formulas in columns G through J will search the "Inventory" worksheet and calculate the respective totals.

10 BACKUP

Throughout the procedure of entering data and printing the file should be saved frequently. In case some major error occurs (for example power failure, faulty sorting etc.) the file can be closed without saving and reopened. This way a minimum of entered data and time will be lost.

After every stock issue but especially after entering goods in the "Inventory" worksheet the file should be saved on the hard disk and a backup should be made.

10 BACKUP

11 BIN CARD

The Bincard.xls file is not connected directly to EASYST☺CK but it is a useful tool. It follows the same logic of avoiding to copy data manually over and over.

The bin card file consists of two worksheets.

The "DATA" worksheet contains a table into which item data from the electronic packing list can be entered into columns A through J starting in the third row.

Up to 50 line items can be entered. If more items arrive then the first 50 line items are copied, the bin cards printed and then the next line items are entered etc.

The packing list number as well as the entry date are entered manually into the first two columns and copied to all rows.

As soon as data is entered into the "DATA" worksheet, this data will appear in the appropriate cells of the "BIN CARD A5" as well as "BIN CARD A4" worksheet.

No further data needs to be entered in the respective bin card worksheets. The printing range in the bin card worksheet is selected according to the number of line items in the "DATA" worksheet and printed. Two bin cards fit on one A4 sized piece of paper. After printing the A4 sheets are cut in the middle.

The bin cards are taken to the warehouse where the inspection is performed. If the item data and quantities in the packing list correspond to the physical shipment, the bin card needs to be signed and attached to the batch before put-away. Otherwise corrections must be made on the bin card accordingly.

This bin card will save time, increase the accuracy of stock records and increase readability which in turn should increase the accuracy of packing lists.

12 CHECKLISTS

12.1 Checklist for entering stock

- Switch on the computer.

- Start Excel from the program manager.

- Open the current EASYST☺CK file.

- Open the file containing the packing list data.

- Select the range with the item data (excluding the header row).

- Choose the copy command.

- Close the packing list file.

- Switch to the "Inventory" worksheet of the EASYST☺CK file.

- Place the cursor in the first empty cell of column E ("Item code").

- Paste the contents from the packing list file. In order to maintain the background colour and borders select "Paste special" and "Values".

- Enter the packing list number in column B and the entry date in column C in the row of the first item which is being entered.

- Copy the packing list number and entry date to all items which have arrived in the same consignment.

- Copy the quantities of each batch to the next empty column of the "Stock entries (current month)" table.

- Enter the packing list number in the header (row 2) of this column.

- Range the "Inventory worksheet" from the third row of column B until the last row containing item data and the last row containing item data.

- Select "Data" and "Sort" and click "OK". Then select column D ("CAT"), column F ("ITEM DESCRIPTION") and column P ("Sort date") and click "OK".

- Save the file.

- Close the file.

- Make a backup.

- Exit Excel.

- Switch off the computer.

12.2 Checklist for issuing stock

- Switch on the computer.

- Start Excel from the program manager.

- Open the current EASYST☺CK file.

- Position column F ("Item description") to the left of the screen.

- Freeze column F ("Item description") and the two first rows.

- Position columns V through Z next to column F.

- Search for the item requested by scrolling down the "Inventory" worksheet.

- Enter the total ordered quantity in the first row of the respective item. This row is marked by a "®" in column V. Repeat this for any number of items to be picked.

- If a warning appears in column X "(MAX=[Maximum]!] then reduce the quantity to the displayed value and make sure the warning disappears.

- Copy the contents of column Y ("Proposal") to column Z ("Picking ticket") by using "Paste special" and pasting "Values".

- Check the quantities and make corrections if necessary.

- Delete all data from column W ("Compose").

- Switch to the "Customers" worksheet.

- Enter the number of the customer in cell A1.

- Switch to the "Picking ticket" worksheet.

- Range the worksheet from column A to column M and from the second row until the last row in which data appears.

- Print the picking ticket.

- Give the picking ticket to the warehouse for picking and packing.

- Check any corrections made on the picking ticket when it returns from the warehouse.

- If the quantities have changed, make sure to enter these corrections to column Z ("Picking ticket") of the "Inventory" worksheet.

- Copy the contents of column Z ("Picking ticket") to the next empty column of the "Stock issues (current month)" table.

- Enter the packing list number in the second row of the respective column.

- Open the packing list template and save it under a new name (preferably number it with the packing list number of the stock issue).

- Switch to the "Picking ticket" worksheet in EASYST☺CK.

- Select column A through M from the second row until the bottom of the last row.

- Switch to the packing list.

- Copy the contents from the "Picking ticket" worksheet of EASYST☺CK to the "Packing list" application. Use "Paste special" and paste "Values".

- Enter the parcel number, weight, volume, comments and any other data in the packing list.

- Remove any empty rows. Keep in mind that the totals in the last row are needed and should not be deleted.

- Save the packing list.

- Print the packing list.

- Optionally copy the contents from the packing list to the "Goods transfer" application.

- Close the packing list file.

- Switch to the "Inventory" worksheet of the EASYST☺CK file.

- Delete all data from column Z ("Picking ticket").

- Save the EASYST☺CK file.

- Make a backup copy.

- Close the file.

- Exit Excel.

- Switch off the computer.

12.3 Checklist for reporting and preparing a new file

- Switch on the computer.

- Start Excel from the program manager.

- Open the current EASYST☺CK file.

- Print columns E through T and give the printout to the storekeeper.

- Compare the stock on hand of every batch with the physical stock on hand and make corrections as necessary.

- Range columns E ("Item code") through column T ("[Value] Value") and from row 3 until the last row which contains item data. The first two rows will appear on every sheet as headers per default setting.

- Print the worksheet in landscape format and make a printout.

- Copy the EASYST☺CK file onto a storage media and attach it to the report.

- Save the file under a new name.

- Select all data in column T ("Stock on hand") and copy it to column Q ("Stock [Date]"). Use "Paste special" and "Values".

- Enter the date of the physical stocktaking in cell Q2.

- Delete all data from the columns of the "Stock issues (current month)", "Stock entries (current month)" as well as "Stock adjustments" tables.

- Sort the "Inventory" worksheet by column T ("Stock on hand").

- Delete all batches with zero stock which now appear on the top of the worksheet.

- Range the whole worksheet from column B until the last column in which data appears from the third row until the last row in which data appears.

- Sort the worksheet by column D ("CAT"), column F ("ITEM DESCRIPTION") and column P ("Sort date").

- Save the file.

- Make a backup copy.

- Exit Excel.
- Switch off the computer.

13 DETAILED EXPLANATION

13.1 "INVENTORY" worksheet

The "Inventory" worksheet is the main tool of the whole application. Stock is entered into inventory and picking tickets are prepared for stock is issued. This worksheet can also be used for reporting.

As a default 1,000 lines are configured. The worksheet allows for a maximum of 1,000 batches since the capacity of worksheets and its speed for recalculation are limited. More rows can be entered but they will not all appear on the picking ticket unless the parameters are changed.

Columns B through Z are essential for using the file. The remaining columns to the right are used for keeping record of incoming and outgoing consignments.

The first two rows contain the labels for the respective columns. The background is yellow to better distinguish them from the other rows. It is recommended to "Freeze panes" for these two rows. That way they will remain visible whatever row with item data is currently displayed.

Column A is hidden but needed for the lookup functions for the picking ticket. It must not be deleted.

Column D contains a formula which will display the first four characters of every item code from column D ("CAT"). This information is needed for sorting the inventory list and therefore this cell must not be deleted.

Columns E through O contain the item data per batch.

COLUMN A - "PICK"

This column is hidden and used as a link with the "Picking ticket" worksheet. A formula consecutively numbers the items (or batches) entered in column Z ("Picking ticket"). The number is used as a reference for the "Picking ticket" worksheet to selectively display item data only of items which have been selected for picking.

COLUMN B - "PACKING LIST"

This column is intended for entering the packing list reference (number) of arriving consignments. Data can be entered as a text string.

COLUMN C - "ENTRY DATE"

The date of entry of items into stock is entered in this column. By default the inventory list is sorted by FEFO, using the expiry date. However if items do not have expiry dates, alternatively the inventory list can be sorted by FIFO. It is important to enter the date as a numeric rather than a text string.

COLUMN D - "CAT"

Column C ("CAT") contains a formula which extracts the first four letters from the item code in column E ("ITEM CODE"). If more or less characters are used for defining the category, the formula can be changed accordingly.

This column contains a formula and must not be deleted. The category information is used for sorting the inventory list.

If the cell in column E is blank, "ZZZZ" will be displayed. This sign indicates that the cell contains a formula and should avoid accidental deletion. Moreover this sign ensures that empty lines are not displayed at the top of the "Inventory" worksheet when sorting.

COLUMN E - "ITEM CODE"

This column contains the item code for the respective item. The first character indicates the group, the following three characters the family and the remaining characters the specific item.

COLUMN F - "ITEM DESCRIPTION"

This columns contains the item description of every item in the language used at the medical store. It specifies every item as well as its presentation (strength, dosage form,, packaging etc.).

COLUMN G - "UOM"

This column contains unit of measure for every item. As far as possible "EA" (each) should be used for all items.

COLUMN H - "QUANT."

This column contains the quantities of the respective batches which arrived and which were printed on the packing list.

The quantity in this column must be copied to an empty column of the "Stock entries (current month) column. It is important to make sure that all quantities are entered in the same UOM.

COLUMN I - "UNIT PRICE"

This column contains the value of one unit of each item as printed on the packing list of the arriving consignment.

Note that every batch is assigned the value per unit of measure individually since the value even of the same item may differ when purchased at different times or from different suppliers.

All calculations (total stock value, value of line in the packing list) are based on this value and not on average or indicative prices.

COLUMN J - "CURRENCY"

This column contains the value of the whole batch as printed on the packing list of the arriving consignment.

Note that the header of this column has a blue text colour. The currency used at the respective medical store should be entered in this column. This currency will then appear on the picking ticket and the packing list as well as in the "Stock on hand" worksheet.

COLUMN K - "BATCH NUMBER"

The batch number is printed on the packing list of the arriving consignment. This information is valuable for batch tracing. If a specific batch in the medical store needs to identified, it can be found using the "Find" function. Then them same row is checked in all columns of the "Stock issues (current month)" table to see whether this batch has been distributed.

COLUMN L - "EXPIRY DATE"

This column contains the expiry date of every batch which is printed on the packing list of the arriving consignment. It is important to enter the date as a numeric value and not as a text string. Otherwise sorting according to FEFO will not be possible.

This column is used for sorting the inventory list, first by category, then alphabetically by item description and in chronological order of the expiry date.

COLUMN M - "MANUFACTURER"

This column contains the name of the manufacturer which appears on the packing list of the arriving consignment.

COLUMN N - "ORIGIN"

This column contains the country of origin of every item or batch.

COLUMN O - "PURCHASE REFERENCE"

This column contains the purchase reference (number) of each batch. It is printed on the packing list of the arriving consignment and will appear on the picking ticket and packing list whenever goods are issued.

COLUMN P - "SORT DATE"

This column is needed for sorting the "Inventory" worksheet. Excel allows to sort a table only by three different columns at a time. This column therefore combines information from the expiry date and the entry date. If an expiry date is available it is displayed as this is the priority for sorting. If no expiry date is available, the entry date will be displayed. This way the worksheet is automatically sorted by FEFO or if no expiry date is available by FIFO.

Note that for any item only expiry dates or entry dates should be entered.

COLUMN Q - "STOCK [DATE]"

This column contains the quantities held in stock on the last day of the previous month and must correspond to the physical stocktaking performed on the last day of the previous month.

The blue text colour indicates that the quantities of each batch must be entered and are not the result of calculations.

At the end of the month, the stock on hand (column T) can be copied into column Q (paste special "Values") provided that the quantities have been checked and correspond to physical stock levels.

The date in the second row (cell Q2) must be updated with the date of the last physical stocktaking every month.

COLUMN R - "TOTAL ENTRIES"

The column contains the quantities of every batch which were entered into stock since the beginning of the month. It is the sum of the quantities in the "Stock entries (current month)" table.

COLUMN S - "TOTAL ISSUES"

This column contains the sum the quantities from the "Stock issues (current month)" table.

COLUMN T - "ON HAND STOCK"

This column calculates the current stock balance. It adds all stock entries to the inventory at the beginning of the month (column Q), subtracts all stock issues and adds all stock adjustments, which can be negative or positive. Note that if stock adjustments are made these do not appear either in the stock entry (column R) nor stock issue column (column S).

The stock on hand is updated whenever stock movements are recorded.

If the stock on hand at the beginning of the month corresponded to the physical stock and all movements were recorded correctly then the stock on hand at the end of the month will correspond to the physical stocktaking at the end of the month.

COLUMN U - "[Value] VALUE"

The value of the stock on hand of every batch is displayed in this column. It is calculated by multiplying the unit value with the stock on hand.

COLUMN V - "®"

This column facilitates preparing picking tickets. The first batch according to FEFO (or FIFO) is indicated by an "®". The quantities ordered by customers should only be entered in column W ("Compose") in rows in which this sign appears.

If quantities are entered into other rows then the proposed quantities will not be correct.

COLUMN W - "COMPOSE"

This column is used for preparing picking tickets. The total requested quantities for each item are entered in the first row of every item.

It is the basis for calculating the quantities which need to be picked from every batch.

COLUMN X - "WARNING"

This column gives a warning whenever the quantity entered into column W ("Compose") exceeds the stock on hand of this item.

If the quantity entered in column W ("Compose") is equal or less than the total quantity of stock on hand, the cell remains blank.

If the quantity entered in column W ("Compose") is larger than the total stock on hand then the warning "MAX=[Maximum]!" appears in this column. The quantity entered in column W must then be reduced to a number equal or less than the indicated maximum. If the warning is disregarded, the total quantities in column Y ("Proposal") will be equal to the available stock on hand, not to the quantity entered into column W.

COLUMN Y - "PROPOSAL"

After entering the total quantity of every item requested by the customer in column W ("Compose") this column will make a proposal what quantities should be picked from each batch.

The calculations follow strict FEFO procedures or FIFO if no expiry date but an entry date is given. Before selecting any quantity from the second batch the whole first batch is proposed for order picking and so forth.

This feature only works if the quantity requested by the customer is entered into the first row (according to FEFO) of all batches of an item which is indicated by an "®".

This feature is central to EASYST☺CK. It eliminates the need for manual calculations of the appropriate quantities which should be picked from each batch.

COLUMN Z - "PICKING TICKET"

This column is empty but contains the vital link to the "Picking ticket" worksheet. Any quantities entered into this column will appear in the respective cells of the picking ticket.

The contents of column Y ("Proposal") is copied to this column (paste special "Values"). However the quantities can be modified at any time and will immediately change on the picking ticket.

COLUMNS AA through AT - "STOCK ISSUES (CURRENT MONTH)"

These columns contain the complete record of all packing lists (stock issues) of the current month. The recorded quantities correspond to the quantities of the actual packing lists rather then the picking tickets which might be modified during order picking.

Every column corresponds to one packing list. The packing list number is entered into the second row of the respective column.

As a default twenty columns are foreseen. However any number of columns can be added if more packing list are issued.

COLUMN AU - "TOTAL"

This column calculates the sum of stock issues for every batch for the current month.

Note that the stock issues relating to stock adjustments are not included. Especially for forecasting demand in MedIC☺S it is important not to consider losses through expiry, damage or theft since this would falsely increase forecasts.

COLUMN AV through BG - "STOCK ENTRIES (CURRENT MONTH)"

These columns contain the complete record of all packing lists (stock entries) of the current month. The recorded quantities correspond to the quantities of the packing lists of consignments which have arrived since the beginning of the month.

If a claim report is made (for example because goods are damaged or the physical quantities do not correspond to the packing list), the quantities from the packing list must be entered and a claim report filled in. If only the quantities which actually arrived are entered, this will cause a discrepancy in the reporting.

COLUMN BH - "TOTAL"

This column calculates the total quantities in the "Stock entries (current month)" table.

COLUMN BI through BM - "STOCK ADJUSTMENTS"

This table contains a record of all claim reports for damaged, lost or stolen items as well as items "found in stock", resulting from previous counting errors.

In case of a loss the entered quantities should be negative. If items are "found in stock" then the entered quantities should be positive.

COLUMN BN - "TOTAL"

This column calculates the total quantities in the "STOCK ADJUSTMENTS" table.

This column allows to report claims separately and avoids distortion of the total number of stock entries and stock issues. The stock adjustment is used to calculate the current stock on hand.

13.2 "PICKING TICKET" worksheet

This worksheet essentially contains a picking ticket template.

No data should be entered directly into this worksheet unless it should appear on all picking tickets, for example the warehouse name and location. Data can only be entered in the second row.

It is vital to enter all quantities in column Z ("Picking ticket") of the "Inventory" worksheet rather than in the "Picking ticket" worksheet. If changes or corrections are made directly in the

picking ticket or on the packing list, the records for stock movements as well as the stock on hand at the end of the month will not be correct.

Except for the second row and the order reference (cell L5), all data is automatically transferred from the "Inventory" worksheet or the "Customer" worksheet.

COLUMN A

Column A is hidden but contains important data for linking the "PICKING TICKET" worksheet to the "INVENTORY" worksheet and must therefore not be deleted.

13.3 "CUSTOMERS " worksheet

This worksheet allows to record customer data which is frequently used. By selecting a number the customer data is automatically transferred to the picking ticket.

Up to 20 customers with their respective data can be entered.

COLUMN A

This column is protected and contains the row number. The number of the customer which should appear on the picking ticket is entered into cell A1.

COLUMN B

This column contains the consignee (name of the customer). Any text can be entered into this cell.

COLUMN C

This column contains the delivery address of the customer.

COLUMN D

This column contains the city/town of the consignee.

COLUMN E

This columns contains the country of the consignee.

13.4 "STOCK ON HAND" worksheet

This worksheet shows the inventory list item by item, regardless of the number of batches per item. The quantities of all batches with the same item code in the "Inventory" worksheet are added. However only items previously entered into columns B through F are considered.

Columns A through F correspond to the order used in the MedIC☺S file. This allows to copy the entire country standard list en bloc without the need for copying several columns separately.

It is important to note that the item data must be physically entered into this worksheet and item codes and descriptions are not transferred from the "Inventory" worksheet. For items which are not entered in the "Stock on hand" worksheet no data will be displayed even if this item is included in the "Inventory" worksheet.

It is recommended to copy all item data from the respective country standard list into this worksheet.

This worksheet allows to review the current stock position regardless of the breakdown by batch. The stock on hand, demand of the current month as well as the expiry date of the next batch according to FEFO are displayed.

COLUMN A - "CAT"

Column A ("CAT") contains a formula which extracts the first four letters from the item code in column D ("Item code") for the first item of the respective category.

This column contains a formula and must not be deleted. The category information facilitates locating an item in the country standard list.

COLUMN B - "ST"

This column ("ST") contains special information concerning storage and/or transport of medical items. Useful information is for example:

DG Dangerous goods. These items need a special and therefore expensive packing for shipping.

C1 Strictly controlled substances.

C2 Specific rules might exist for import of these substances. Please check local regulations.

CC Cold chain item requires cold transport and storage.

Any appropriate classification may be entered into this column.

COLUMN C - "IS"

This column ("IS") denotes items which are permanently kept in stock at a higher level and therefore are available with a shorter lead time. All other items will have to be purchased or ordered from higher level with the respective delays.

COLUMN D - "ITEM CODE"

This column contains the standard coding used in the humanitarian agency. For example the MsF coding may be used where the first character indicates the group, the following three characters the family and the remaining characters the specific item. Any other item coding may be used instead.

COLUMN F - "ITEM DESCRIPTION"

This columns contains the item description according to the standard item catalogue used within the humanitarian agency. It specifies every item as well as its dosage form and strength. For medical supplies and equipment further information (disposable, sterile etc.) may be added.

Any items which are permanently kept in stock (equipment, spare parts, instruments etc.) can be added below the national standard list. All added items should have a detailed item description (size, weight, colour etc.).

All items from the national standard list should be sorted first by their category and alphabetically within their respective category. This will allow to quickly locate any item in the inventory list.

COLUMN F - "UOM"

This column contains the. As far as possible "EA" (Each) should be used. However for selected items other UOMs such as meter, litre or kilogram may be appropriate.

COLUMN G - "STOCK ON HAND"

This column contains the total quantities in stock of every item regardless of the different batches.

Note that the criteria for adding quantities of individual batches is the item code and not the item description. The "On hand stock" (column S) from the "Inventory" worksheet is added for items with the same item code.

This column can be copied to the MedIC☺S instead of copying the data from stock records.

COLUMN H - "[Value] [Currency]"

This column calculates the total value of the stock on hand for the items from the standard list.

This value is updated whenever stock is entered or issued.

COLUMN I - "DEMAND / Current month"

This column displays the total quantities issued since the beginning of the month for every item regardless of the batch.

At the end of the month this value will correspond to the monthly demand of the current month. This column can be copied to the respective column of the MedIC☺S file.

COLUMN J - "NEXT EXPIRY"

This column displays the expiry date of the batch of each item which will expire next.

This column can be copied to the MedIC☺S file for the expiry date calculations.

14 EXPLANATION OF FORMULAS

14.1 "INVENTORY" worksheet

COLUMN A - "Pick"

=COUNT($Z$3..$Z$1000)

The formula (only in cell A2) counts the number of values (non-blank cells) in column Z ("Picking ticket").

=IF(Z4="","",COUNT($Z$3:$Z4))

The formula remains blank if the cell in the same row of column Z is blank. A blank cell means that this batch is not designated for order picking and does not appear on the picking ticket.

If the cell in the same row of column Z is not blank, then the number of entries from the top of column Z is counted. This results in a consecutive numbering of all batches which are designated for order picking. This value is needed for the lookup function of the "Picking ticket" worksheet.

COLUMN D

=IF(E3="","ZZZZ",LEFT(E3,4))

The formula returns the first four letters of the item code (column E) provided that the cell in column E is not blank.

This data is needed for sorting the inventory list.

COLUMN P - "SORT DATE"

=IF(L3="",IF(C3="","",C3),L3)

The first checks whether an expiry date is entered. If not, then it checks whether an entry date is entered in column C. If an entry date is entered and no expiry date is entered, then the entry date is displayed. If an expiry date is entered, the expiry date is displayed regardless of whether an entry date is entered or not.

COLUMN R - "TOTAL ENTRIES"

=IF(E3="","®",BH3)

The formula first checks whether the cell in column E of the same row is empty. If this is the case, then "®" is displayed. This indicates when a formula in this column is automatically deleted. If the cell is blank rather than "®", then the formula has been deleted and must be replaced.

If cell E3 is not blank then the total from the "Stock entries (current month)" is displayed.

COLUMN S - "TOTAL ISSUES"

=IF(E583="","®",AU583)

If no item code is entered in column E ("Item code") the cell remains blank. Otherwise the total quantity of stock issues from column AU is displayed.

COLUMN T - "ON HAND STOCK"

=IF(E583="","®",Q583+BH583+BN583-AU583)

If no item code is entered in column E ("Item code") the cell remains blank. Otherwise the stock on hand for every batch is calculated by adding all stock entries (column BH) as well as

stock adjustments (column BN) to the inventory at the beginning of the month (column Q) and subtracting all stock issues (column AU).

COLUMN U - "[VALUE] VALUE"

=IF(E583="",0,I583*T583)

If no item code is entered in column E ("Item code") the cell remains blank. The value of stock on hand for every batch is calculated by multiplying the stock on hand (column T) with the unit value in column I.

COLUMN V - "®"

=IF(E583="","",IF(E582<>E583,"®",""))

If no item code is entered in column E ("Item code") the cell remains blank. If the item code in the respective row differs from the item code above, then a "®" is displayed. If all items are sorted by their item description (and therefore by their item code) then whenever the item code changes from one row to the next, this row must contain the first batch of an item.

This arrow indicates that this batch is the first to expiry and must be picked first according to FEFO (or FIFO).

COLUMN X - "WARNING"

=IF(W583="","",IF(SUMIF(E$3:E1726,E583,W$3:W1726)<=SUMIF(E582:E$1000,E583,T582:T$1000),"",CONCATENATE("MAX=",SUMIF(E582:E$1000,E583,T582:T$1000),"!")))

This column will display a warning if the quantity entered in column V ("Compose") exceeds the current stock on hand. The warning will only be displayed in the row of the first batch according to FEFO. This is only the case in rows in which an arrow appears in column U ("®").

If the cell in column W ("Compose") is empty, this cell remains blank. Otherwise the quantities of all batches in column T ("On hand stock") with the same item code are added. If the quantity entered in column W ("Compose") exceeds the current stock on hand, the caption "MAX=[Maximum]!" appears. Otherwise the cell remains blank.

A blank cell indicates that the chosen quantity is equal or less to the current stock on hand.

COLUMN Y - "PROPOSAL"

=IF(E583="","",IF(SUMIF(E$2:E583,E583,W$2:W583)=0,"",IF(SUMIF(E$2:E583,E583,W$2:W583)<=SUMIF(E$2:E582,E583,T$2:T582),"",IF(SUMIF(E$2:E583,E583,W$2:W583)>SUMIF(E$2:E583,E583,T$2:T583),IF(T583=0,"",T583),IF(T583=0,T583,SUMIF(E$2:E583,E583,W$2:W583)-SUMIF(E$2:E582,E583,T$2:T582))))))

If no item code is entered in column E ("Item code") the cell remains blank.

Then the formula checks whether the quantity in column W ("Compose") is smaller then the sum of all batches with the same item code above this row. If this is the case, then picking only from batches in previous rows is sufficient to fill the requested order quantity in column W.

If this is not the case then some of the batch in this row needs to be added to the proposal for picking. The formula then calculates whether picking any quantity from this batch will complete the order. If this is the case then the respective quantity is calculated by subtracting the quantities from previous columns from the ordered quantity.

If this is not the case, then picking from this batch alone will not be sufficient and a quantity from the next batch (row below) will be necessary. In this case the formula ensures that only the maximum stock on hand of this batch is proposed for order picking.

COLUMN AU - "TOTAL"

=SUM(AA583:AT583)

The formula adds the quantities of each batch issued from stock in different packing lists.

Since columns can be added in this table, the cell references might change.

COLUMN BH - "TOTAL"

=SUM(AV583:BG583)

The formula adds the quantities of each batch entered into stock during the current month.

Since columns can be added in this table, the cell references might change.

COLUMN BN

=SUM(BI583:BM583)

The formula adds the quantities of each batch for which a stock adjustment has been made. Stock adjustments can be positive or negative.

Since columns can be added in this table, the cell references might change.

14.2 "PICKING TICKET" worksheet

COLUMN A

=VLOOKUP(Customers!$A$1,Customers!$A$2:$E$59,2,FALSE)

This formula is only contained in cell A6. It looks up the content of column B in the row chosen in cell A1 of the "Customer" worksheet.

COLUMN B

=SUM(B9:B208)

This formula is only contained in the last row. The total weight is calculated from the entries in column B.

COLUMN C

=SUM(B9:B208)

This formula is only contained in the last row. The total volume is calculated from the entries in column B.

COLUMN D

=VLOOKUP(Customers!$A$1,Customers!$A$2:$E$59,3,FALSE)

This formula is only contained in cell D6. It looks up the content of column C in the row chosen in cell A1 of the "Customer" worksheet.

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,6))

This formula is contained in all other cells of column D. It first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column F ("Item description") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN E

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,5))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column E ("ITEM CODE") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN F

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,7))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column G ("UOM") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN G

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,26))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column Z ("Picking ticket") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN H

=VLOOKUP(Customers!$A$1,Customers!$A$2:$E$59,4,FALSE)

This formula is only contained in cell H6. It looks up the content of column D in the row chosen in cell A1 of the "Customer" worksheet.

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,11))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column K ("BATCH NUMBER") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN I

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,12))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column L ("EXPIRY DATE") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN J

=VLOOKUP(Customers!$A$1,Customers!$A$2:$E$59,5,FALSE)

This formula is only contained in cell J6. It looks up the content of column E in the row chosen in cell A1 of the "Customer" worksheet.

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,13))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column M ("MANUFACTURER") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN K

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,14))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column N ("ORIGIN") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN L

=IF(Inventory!$A$2<ROWS(A$9:A9),"",VLOOKUP(ROWS(A$9:A9),Inventory!$A$3:$AC$1000,15))

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column O ("PURCHASE REFERENCE") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet.

COLUMN M

=Inventory!$J$2

This formula is only contained in cell M8. The currency entered in cell J2 of the "Inventory" worksheet is displayed.

=IF(Inventory!$A$2<ROWS(B$9:B9),"",VLOOKUP(ROWS(B$9:B9),Inventory!$A$3:$AC$1000,9)* G9)

The formula first checks if the row number is larger than the number of items and batches selected for the picking ticket (cell A2 of the "Inventory" worksheet). If this is the case, the cell remains blank.

If not, then the content of column I ("UNIT PRICE") from the "Inventory" worksheet is looked up for the next item selected in column Z ("Picking ticket") of the "Inventory" worksheet and multiplied with the quantity in column G to calculate the total value of this line item.

=SUM(B9:B208)

This formula is only contained in the last row. The total value is calculated from the entries in column B.

14.3 "CUSTOMERS " worksheet

This worksheet contains no formulas.

14.4 "STOCK ON HAND " worksheet

COLUMN A

=IF(D4="","",IF(D3="",LEFT(D4,4),IF(LEFT(D3,4)=LEFT(D4,4),"",LEFT(D4,4))))

The formula extracts the first four letters from the item code in column D ("ITEM CODE") for the first item of the respective category.

COLUMN G

=SUMIF(Inventory!E$2:E$1000,D4,Inventory!T$2:T$1000)

Total stock on hand of an item (regardless of batches) is calculated by adding the quantities in column S ("On hand stock") of the "Inventory" worksheet for all items with the same item code.

COLUMN H

=SUMIF(Inventory!E$2:E$1000,D4,Inventory!U$2:U$1000)

The total value of stock on hand of an item (regardless of batches) is calculated by adding the quantities in column U ("[Vallue] Value") of the "Inventory" worksheet for all items with the same item code.

COLUMN I

=SUMIF(Inventory!E$2:E$1000,D5,Inventory!S$2:S$1000)

The monthly demand of an item (regardless of batches) from the beginning of the month until the current date is calculated by adding the quantities in column S ("Total issues") of the "Inventory" worksheet for all items with the same item code.

Note that only stock issues to customers but no stock adjustments are considered.

COLUMN J

=VLOOKUP(D4,Inventory!$E$2:$L$1000,8,FALSE)

The expiry date of the batch of the respective item with the earliest expiry date is selected from column L ("Expiry date") of the "Inventory" worksheet. The lookup function will simply select the batch the comes first in the list (starting from the top) which must be the earliest expiry date, provided that the worksheet is also sorted by the expiry date.