

hand**Point***Retail*



handPoint Retail 4.0
Designer – Reference Guide

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2 About this Manual

This Manual is designed to comprehensively cover all individual features of handPoint Retail. While treating each programmable parameter and explaining it in the context of related parameters and settings, the **Getting Started guide** introduces more hands-on examples of how the application operates in a larger context of a fully operational retail environment. This part of the user documentation, on the other hand is intended to be used as look-up and reference guide if you want or need to make extensive changes to the templates in order to allow effective implementation; or if you want to build their own projects and jobs from scratch and want to have a comprehensive understanding of every individual feature and its functionality in the larger context of the entire application.

3 System Requirements

A PC running Windows NT/2000/XP and a barcode enabled handheld device running Pocket PC 2000 or 2002.

4 handPoint Retail Architecture

handPoint Retail is a modular application based on individual inter-connectable building blocks called modules, some of which have several subtypes of their own. All the six different module types sport their own, independently configurable, settings. The configured modules can then be connected to a multitude of different jobs to be activated. The job modules, moreover, are the only active modules and, apart from determining which other modules are connected to them, comprise a multitude of configurable parameters that determine the fields displayed on the handheld and therefore also the data generated for the output file. This data is generated from barcode scans and data-entry (into referred to fields) by the user of the handheld. All files, uploaded and downloaded from the handheld, are CSV (Comma Separated Value) based, hence allowing easy implementation into existing information systems environments.

5 Projects & Modules

Projects are the entities that contain a selected number of configured and interacting modules. In theory, there is no limit to modules for each project. However, apart from the job modules, all modules are dormant. They will only be activated if they are linked to one or more job modules. All designed modules are saved within a project.

5.1 Masters

Within a Master module, you can adapt and copy the format of the pre-existing data. Having determined and defined the format, the files as well as the relevant format and processing information will be uploaded onto the handheld. This streamlining action is required for the displayed information and the generated output files to make sense in the context of the pre-existing environment.

You can define the individual handPoint Retail master modules according to the pre-existing back-end file environment. The only prerequisite is the existence of two files, one containing numeral barcode-information and corresponding products IDs (to which no additional master fields are to be added), the other contains the product IDs, the product name, and every other

user definable master field that contains product related information as in the back-end product database.

5.1.1 Create a new master module

- In the interface's left window, highlight the **Masters** folder in the tree structure.
- Tap the **Insert** key on your keyboard or perform a right-click, or click on the **Add module** toolbar icon to direct-trigger the **Add module** dialogue window.
- Enter a name for this Module in the **Module Name** box.
- Leave both **Module type** and **Module subtype** in their current default settings. (No matter how the Add module dialogue window is triggered, Module Type and Module subtype will always feature the default settings of the currently highlighted module in the tree-folder structure).

Proceed to configure the format of the pre-existing file system to this master Module by generating, naming, and defining the master fields.

- Click the **plus** sign next to **Masters** in order to reveal the newly generated module.
- Highlight the new module icon, and a new module settings screen will be displayed in the interface's right window.

5.1.2 File Options

- **Upload files:** The user selects from four options concerning the upload of the master files from server to the handheld.
 - **Always:** The active master module files will be uploaded onto the handheld every time a HotSync® operation is performed.
 - **Only when empty:** The active master module will be uploaded onto the handheld during a HotSync® operation only if the same master module is not already present on the handheld.
 - **Debug:** Ideal for initial stages of adaptation. This will allow the use to: delete the currently present master files, not repeat the uploading process, or cancel a HotSync operation in progress. The dialogue box appears on top of the HotSync status box.
 - **Prompt:** Upon performing a HotSync® operation, the handheld user will be prompted whether the active master module is to be uploaded onto the client. The dialogue box is displayed in front of the HotSync window during that process.

The selection made at this point should be influenced by the size of the included index and product files of the active master module as well as the frequency with which the above files are likely to be altered. If the files in the master module are excessively large and speed being an important factor in the user's operations, the wisest were to select: **Only when empty**, (i.e. the file is only uploaded upon initial synchronisation when there is no master module on the handheld) or **Prompt** (i.e. the user is prompted to answer whether the master will be uploaded. If a master is already in place, it will be replaced with the new one.) **Always** is a valid option if regular changes or additions are made to the files in the master modules. **Debug**, as suggested, is a worthwhile option to choose at the time one is adapting handPoint Retail to its new environment. In case there are formatting difficulties, or other problems, upon synchronisation, it allows the user to take appropriate action.

5.1.3 File Paths

Index File:

- Place the cursor onto the **Index file** box and right-click with your mouse.
- Select and click on **Path** to trigger browse dialogue window.

- Browse and select, or enter file name and location, for the CSV-formatted file containing the numerical product barcodes and their, semi-colon separated, corresponding product IDs.

Product File:

- Repeat the action above but now select the corresponding CSV-formatted file containing two default fields, Product IDs and corresponding product descriptions; as well as other, user-definable, master fields.

5.1.4 Wireless Product Look-up

- **ID from Barcode Action:** here you specify which wireless action to use to look up the product ID from the barcode.
- **Product from ID Action:** here you specify which wireless action to use to look up the whole product record from the product ID.
- **Wireless priority:** Sets the priority between local and remote product lookup.
 - **Only local:** No wireless lookup is done.
 - **Only Remote:** Only wireless lookup is done.
 - **First Remote Then Local:** The master on the handheld is used if the product is not found in the wireless lookup.
 - **First Local then Remote:** A wireless lookup is done if the product is not found in the master on the handheld.

5.1.5 Master Outputs

- **Allow linking.** If this box is checked: Upon scanning a barcode that does not match any of the codes in the index file, the user of the handheld is presented with the option to link the scanned barcode to an existing product ID – selectable from the product list on the handheld. For the remainder of the session the barcode will be used in conjunction with the selected product ID.
- **Linked items file:** Into this input area enter a name for the file that will be generated and stored in the default output folder. This file will contain the information from the **Allow linking** operation. Note that although the link is maintained for the duration of the work-session, upon resynchronisation however, the user is advised to update the back-end system with this newly generated information.

5.1.6 Create New Field

- **New Field Name:** Enter a name into this box that adequately describes or defines the nature of the variable featured in the third field of each line of the product file.
- Select from 3 **master field types** to determine the format of the variable that can be displayed or computed later in any of the jobs using selected information from the master module:
 - Text
 - Integer
 - Float
- Proceed to click the **New Field** bar below to actually generate the field.
- Repeat the above procedure for all remaining fields. The generated fields are subsequently featured in the dropdown list in the right-hand pane of the Interface.

NOTE: The nameable fields do not include fields 0 and 1, and the created fields correspond to the (semicolon separated) fields in the assigned product file. Remember, no additional fields can be created for index files.

- If you want to remove an already generated field, highlight the name in the dropdown list and click on the **Delete Field** bar.

5.2 Jobs

In the Jobs modules you name, define, and configure the actual on-site inventory management or mobile sales jobs. You determines from which modules the jobs and their relevant output files are to draw supplementary information; and you determine and configure the fields that appear on the handheld's screen that either display information or require data input which is then saved in the generated output file. A job module is the most important module because that is where you select all the collaborative modules and formats and defines the fields that will be generated in the output file. It is beneficial to define those fields according to commonly used standards if the generated information is to be processed further. So these are the active modules without which all other modules remain idle and dormant.

5.2.1 Create a new job

- Highlight the **Jobs** folder.
- Tap the Insert key on keyboard, or perform right-click with your mouse, or click on the **Add new** module toolbar icon to direct-trigger **Add Module** dialogue window.
- Enter job name in **Module Name** box, and leave **Module type** in default setting.

Select between two module subtypes:

- **Add job:** Every individual operation generates a new separate line in the CSV output file.
- **Overriding job:** process operations that implies that the scanning of an already generated line within the output file will be overwritten with the new information.

5.2.2 Job Settings

- **Hidden.** If this box is checked, the user of the handheld cannot directly access this job by selecting it from a list of available jobs.
- **Master.** From dropdown list, select an existing master module meant to operate in conjunction with this job.
- **Job Comments.** From dropdown list, select an existing job-comment module meant to operate in conjunction with this job.
- **Product comments.** From dropdown list, select an existing product-comment module meant to operate in conjunction with this job.
- **Actions.** From dropdown list, select an existing action module meant to operate in conjunction with this job.
- **Checklist.** From dropdown list, select an existing extra handling module meant to operate in conjunction with this job.
- **Output filename.** Enter a name for the output file that contains the information generated from the specified job operations. The file will be stored in the default handPoint/Retail 4/Output folder.

5.2.2.1 Supplementary features for Override Jobs

- **On-Screen Notification text.** Enter a message text that will notify the handheld user that the user is about to override a previously generated line in a pre-existing file.

5.2.3 Create New Field

- **New Field Name.** Enter an appropriate name for the field. This will be the first field in the output CSV file.
- **New Field Type.** Select the format/form defining the nature of the data to be inputted and stored in the active field:
 - Text
 - Barcode
 - Integer
 - Float
 - Date
 - Read-only text
 - Time
 - Script
 - Comment field
- Click the **New Field** bar to create the field, which, subsequently, will be listed in the dropdown list on the right side of the page.
- If you want to delete an already activated field, select and highlight the field to be deleted from the dropdown list and click on the delete bar.

5.2.4 Active field settings (for all different field types)

At this point the different specification and configuration possibilities for the different field types will be treated. There are slight differences as to what is enabled within the different field types. The basic features are the same and the additional options will be assessed individually. The generated fields can be selected from the dropdown list, and, upon selection, the appropriate pane will be displayed below.

5.2.4.1 Text

Note that the features listed under text are available to all different field types, yet some might be disabled, by default, for some types. Other field types do however have additional features that will be individually listed under the appropriate heading.

- **Hidden.** This field will not be displayed on the handheld.
- **Suffix.** Any value entered here will be displayed after the generated data in the output file.
- **Page Number.** The numeral entered determines the page on which this field will appear on the handheld. By default, up to three fields can be displayed simultaneously on the handheld screens. The value entered here does not affect the output file in any way. The page counting starts at 0.
- **Freeze.** The scanned or entered value for this field will be “frozen” until a new value for the same field is scanned or entered. This is a useful feature if the user would want to “freeze” that value while he or she were to record data for later fields. The frozen value does not need to be re-entered and is automatically reproduced for every line in the output file. Master look-up cannot be enabled if Freeze is enabled.
- **Master Look-up.** If this box is checked, the process for this field will locate the value, of a selected master field column, in the Product file of the master module.
- **Master Field Selector.** From a dropdown list, select one of the fields. This value (0-n) determines the fields taken from the product file for this field and process. Freeze cannot be enabled if Master Look-up is enabled.
- **Auto Number-pad.** If the box is checked for this field, after scanning the barcode, a calculator automatically pops up on the handheld screen – simplifying immediate numeral data entry. Cannot be selected if Auto Buttons is enabled.

- **Auto Buttons.** If the box is checked, scripting is enabled. Can only be enabled if Auto Calculator is disabled. The Script entered here operates in relation to the buttons here below.
- **Script:** Enter the script that is to define the operation and the displayed information in the Auto-Buttons screen.
- **Button one text:** Enter text that will be displayed on the (on-screen) button, determining and defining an operation in relation to the script.
- **Button one Default Value:** Currently, the only action that can be selected is a Print Action from an Action module. The Print value is 1 and the Skip value is 0.
- **Button two text:** Enter the text that will be displayed on this button, determining an operation in relation to the entered script.
- **Button two Default Value:** Same as for button one, the only currently attachable action is a Print action from an Action module. The Print value is 1 and the Skip value is 0.
- **Mandatory.** Value entry for the field is mandatory, i.e. if no value is entered the job cannot be finished, and no output field generated, nor can another job be initiated.
- **Default Value:** You can enter a value that will always be displayed (but can be changed) for this field.

5.2.4.2 Barcode

- No additional settings.

5.2.4.3 Integer

- No additional settings.

5.2.4.4 Float

- **Use limit:** If the entered value for this field exceeds a limit the user of the handheld is notified to that effect.
- **Max difference (%):** Enter a value defining the limit margin. The float value for the margin is calculated (both +/-) from the value extracted from the master file with the barcode scan.
- **Number of displayed decimals:** Enter the number of decimals allowed for the float value.

5.2.4.5 Date

- **Date Format:**
 - DDMMYY (default)
 - DDMMYYYY
 - DD.MM.YY
 - DD.MM.YYYY
 - YYMMDD
 - YMMDD
 - DD/MM/YYYY
 - YYYY-MM-DD
- **Set as current date:** The current date, extracted from the handheld, will be displayed in a designated field on the handheld's screen.

5.2.4.6 Read-only text

- No additional settings.

5.2.4.7 Time

- **Time Format:** Defines the format in which time is either entered or displayed and subsequently saved into the output file.
 - 24HR
 - 12HR
 - HHMM
 - HH:MM
 - HHMMSS
- **Set as current time:** The current time, extracted from the handheld, will be displayed in a designated field on the handheld's screen.

5.2.4.8 Script

- **Mandatory:** Disabled.
- **Freeze:** Disabled.

5.2.4.9 Comment Field

- No additional settings.

5.3 Job Comments

One Job Comment can be assigned to each individual job. Users can select between two different Job comment module types for each different Job Comment type. The job comments are then displayed at the beginning of a job and the comment that is selected will be attached to all the output information from that job. Once the job in question has been finished or exited, the respective job comments will be disabled until this same job is re-accessed, and the job comments will be displayed again before entering the job.

5.3.1 Create a new Job Comments Module

- Highlight the **Job Comments** folder in the tree structure
- Tap the **Insert** key on your keyboard, perform right-click, or click on Add new module toolbar icon to trigger the **Add module** dialogue window.
- Enter a name in the **Module Name** box, do not change the **Module type** and proceed to select from the two **Job Comments** subtypes, Job comments list or Job comments list with fields.
- To configure the modules that you have created, highlight the active module in the tree structure to trigger the module configuration page.

5.3.2 Job Comments list

Job comments list is a simple list of comments that is displayed at the beginning of a job it is assigned to. The comment that is selected will be added to every line of output from this job.

5.3.2.1 File Options

- Select from the following **Upload file** options:

- Only when empty
- Always
- Debug
- Prompt
- **Right-click** and browse for, or enter the name of, the input file that will be uploaded onto the handheld and that, subsequently, will be attached to the generated output information of the Job that this Job comment modulates.
- By default, **Enable User field** checkbox is not selected.
- If **Enable User field** is selected it creates a field that allows a username to be entered at the start of a job on the handheld.

5.3.3 Job Comments list with fields

Job Comment list with fields allows the creation of additional fields and those can be accessed by the user of the handheld and displayed on the handheld prior to the actual triggering of the screen (with the created fields) for the selected job. The gathered data generated from that data-entry will be attached to all the output information generated for this job.

5.3.3.1 File Options

- Select from the file upload options:
 - Only when empty
 - Always
 - Debug
 - Prompt
- Right-click to browse for, or enter the name of, the input file that will be uploaded onto the handheld and that, subsequently, will be attached to the generated output information of the process that his Process comment modulates.
- By default, **Enable User field** checkbox is not selected.
- If **Enable User field** is selected it creates a field that allows a username to be entered at the start of a job on the handheld.
- By default, **Enable Searchfield** checkbox is not selected.
- If selected, in **Searchfield number** box, enter the number of the field (in the uploaded Job file) you want to see displayed on the handheld. (Column 0 in **Enable Searchfield** corresponds to column 3 three in actual CSV file).

5.3.3.2 Create New Field

- **New Field Name:** Enter a name appropriately describing the field (Column 0 in Searchfield corresponds to column 3 three in the actual job comments file.)
- Select from the following field types:
 - Text
 - Integer
 - Float
- Click the **New Field** bar and the named field will be listed in the dropdown list on the right side of the page.

5.3.3.3 Active Fields

- Dropdown list displays active fields. If you want to remove and delete an active field, highlight it in the list and click on the Delete bar in the left control pane.

5.4 Product Comments

Product comments is a further module that can be assigned to any active job module, and data from the Product Comment CSV file will be attached to the output information generated by the job. The CSV file will contain a number and a text string. The user selects the appropriate text on the handheld and the corresponding number is saved into the output file for that job.

5.4.1 Create a new Product Comments file

- Highlight the **Product Comments** folder in the tree view.
- Tap the **insert** key on your keyboard, or perform right-click with your mouse, or click on **Add new** module toolbar icon to trigger the Add module dialogue window.
- Enter a name in the **Module Name** box. Both **Module type** and **Module subtype** are in their default settings and there are no additional module types to choose from.
- Highlight the created module in order to display the module configuration window.
- **Upload file:** Select from the upload options below, how to manage the upload operation of the product comment file.
 - Always
 - Only when empty
 - Debug
 - Prompt
- **Prompt wait time (sec):** Enter time, in seconds, on how long a prompt dialogue box will be displayed. In case no option is selected within this definable time frame, the option, on which the focus is, will be executed.
- **Input file name:** Performing a right-click with your mouse allows you to browse for and select the appropriate CSV file, containing IDs (saved into output file) and their respective descriptions (displayed on the handheld's screen) that a user can subsequently attach as supplementary information to a scanned product.
- **Mandatory:** If ticked, upon scanning a product, the user of the handheld will automatically be presented with a list of descriptions from which a selection must be made.

Upon configuring the jobs and their respective output files, you will be able to select the product comment modules that are to co-operate with the Jobs. If a Product comment module is assigned to a specific job, the user of the handheld, after scanning a specific item and entered data into any number of existing fields, can access a screen where the product comments file is displayed and can select one of the options that is displayed.

5.5 Extra Handling

The Extra Handling module is devised for further actions and processes that can be added and worked in conjunction with created jobs. The Extra-handling module types include interactive Checklists based on CSV product ID files displayed on the handheld and removed from the checklist once the item has been scanned (handy for order picking).

5.5.1 Checklist

The checklist can be associated with any job. The checklist that you want to associate with a specific job is selected in standard job options. When this job is executed the Checklist can be accessed and displayed on the handheld. Items on the checklist are uploaded from a CSV file (containing product id and product description) and once the corresponding item has been scanned it is removed from the checklist. The default format of the first two fields is the same as for the product file, i.e. Product ID plus product description.

- **Upload file:** Choose how often you want to upload the checklist.

- **Input file name:** Right-click to browse for, or enter the name of, the file to be uploaded containing the checklist.
- **Fixed Order:** If fixed order is checked, the user is required to scan the checklist in the correct order, but if unchecked, the user can scan the checklist in no particular order.

5.6 Action

The Action module is devised for communication with the outside world through the serial port or through a network. You can use them to print the output of a product, or to look up product information over a local network or over the Internet.

5.6.1 Creating a new Action Module

- Highlight the **Action** folder.
- Tap the Insert key on keyboard, or perform right-click with your mouse, or click on the **Add new** module toolbar icon to direct-trigger **Add Module** dialogue window.
- Enter job name in **Module Name** box, and leave **Module type** in default setting.

Select between two module subtypes:

- **Serial Action:** Allows communication through a serial port.
- **Wireless Action:** Allows communication through a network.

5.6.2 Common Action Options

- **Action Type.** Specifies if the action is a serial action or a wireless action. It is possible to change the type of the action after it is created.
- **Send String from File.** Check this box to read the send string from file.
- **Filename.** The name of the file, from which to read the string or script to send, if **Send String from File** is selected.
- **Send String.** The string or script to send if **Send String from File** is not selected.
- **Wait for Answer.** Check this box to make Retail wait for an answer after sending. If **Wait for answer** is selected and no answer is received, an error message will be shown. This option is used for remote product look up.
- **Keep Connection Alive.** Check this box to make Retail keep the connection open during an entire job. Otherwise the connection is closed after each transmission and opened again before the

5.6.2.1 Wireless Specific Options

- **URI.** This is the universal resource identifier for a network connection, on the form protocol://host:port.

Currently only **ipraw** is supported as **protocol**. The **host** can be either the name of a host (for example "localhost" or "www.thecandyshop.com") or a decimal-dotted IP address (for example "128.0.0.1"). The **port** is simply the number of the port to connect to on the remote host.

5.6.3 Setting up a Remote Product Lookup

The product lookup is done in two steps:

- Finding the product ID from the barcode
- Finding the entire product record from the product ID.

First you must create two wireless actions, one for each step in the product lookup.

- Set the URI to "ipraw://[host]:[port]".
- Check the box **Wait for answer**.
- Clear the box **Keep connection alive**, unless your lookup server can handle two simultaneous connections to the specified port(s). The sample lookup server program provided with Retail 4 use port 10000 and cannot handle two simultaneous connections.
- Set the send string to whatever your product server requires, with the barcode and product ID replaced by "<INPUT>". See the Scripting Language chapter for further details. For the sample lookup server provided with Retail 4, use the send string "barcode=<INPUT>" in the **ID from Barcode Action** and "prodid=<INPUT>" in the **Product from ID Action**.

Then you must set-up the Master to use the wireless actions for remote product lookup.

- Select one of the wireless actions in the list box **ID from Barcode Action** and the other wireless action in **Product from ID Action**.
- Choose **Only Remote** in **Wireless Priority** to use only the wireless lookup, or choose **First Remote then Local** to use the master on the handheld as a backup if the wireless lookup fails. Remember to specify an index file and product file if you choose any other alternative than **Only Remote**.

The rest is the same as in any other job, you have to choose the master in the job that you want to use it in, and specify any fields that you want to fill out from the master.

Note that you can have one master with only remote product lookup, that you use in some jobs, and another master with only local product lookup that you use in other jobs, and any combination of remote and local product lookup.

5.6.4 Setting up a Print Job

Start by creating an action. If you want to print on a printer connected to the serial port of your device, you create a **Serial Action**. If you want to print on a network printer connected to the local area network, or over the internet, you create a **Wireless Action**.

- Write the string you want to send to the printer in the Send String edit box, or check the **Send String from File** checkbox and specify what file to use in the **Filename** field. Retail 4 script commands can be used in the send string, and it may also contain binary data, in any format suitable for your printer.
- Clear the **Wait for Answer** checkbox.
- Check the **Keep Connection Alive** checkbox if you want to hold the connection open during the entire job, otherwise clear it.
- If you use a network printer, Set the **URI** to "ipraw://[host]:[port]".

Select the action in the Actions dropdown list in the job where you want to use it. The action will be carried out each time you save a product (after you press OK in the **Normal View** on the handheld), taking data from the current product when evaluating the script commands in the **Send String**.

6 Menu & Toolbar

6.1 File

- **New:** Generates new project. If another project is currently running, you are prompted to save the current project, as no two projects can be open at the same time.

- **Open:** Opens a browse dialogue window whence you select and open already existing projects. Default location is the project folder in the programfiles\handPoint\Retail 4 root on the active PC, unless otherwise configured during the installation.
- **Close:** Closes the current project.
- **Save:** Saves current project under its current name. If it is a new project a Save As window is triggered where you can enter a name for the project.
- **Save As:** You can click on Save As in order to name or rename the currently active/open project.
- **The names of up to four “current” projects:** The names of up to four of the most recently saved projects will be listed here. In case there are less than four projects there will be less than four projects listed.
- **Exit:** Closes the application. If any changes have been made to the currently active project, the user will be prompted to save the current project before exiting the application.

6.2 Commands

6.2.1 Add module

- Triggers **Add module** dialogue box where the user enters the name and selects the parent module as well as the module type.

6.2.2 Configure Language

- Language Table Dialogue Box.
 - Current default language is English. Other languages include German and French.
 - Create. A new Text Table Dialogue box is generated and can be customized according to your own needs and requirements.
 - Edit. Enter the table and customise the current blank settings according to your own needs and requirements.
 - Delete. Deletes a Language table.

6.2.3 Client Settings

6.2.3.1 Barcode Settings

Barcode Setting contains a list of industry standard barcodes. As a default all barcode types are selected for decoding but you can deselect the barcodes you will not be using. Each barcode type has an **Advanced Settings** button where you can select and change the various barcode scanning options for each barcode type.

6.2.3.2 Advanced UPC-EAN Settings

- **Supplementals.** Here you can select in what fashion the scanner is to handle supplements to the barcodes.
 - Ignore supplementals: Barcodes that have supplemental characters are decoded, and the supplemental characters are ignored.
 - Decode supplementals: Supplemental characters are decoded.
 - Autodiscriminate supplementals: Barcodes that don't have supplemental characters are not decoded.

6.2.3.2.1 Barcode type: UPC-A

- **Enable.** Enables this type of Barcode.
- **Preamble.** Selects whether lead-in characters are being transmitted alongside the scanned code.
 - No preamble: no such preamble is selected.
 - System character: Preamble is made up of a determined System Character
 - System character and country code: Preamble is made up of a System Character made up of a country code.
- **Tx Checkdigit**
 - Transmit check digit. Check digit is transmitted with the rest of the barcode.
 - Do not transmit check digit. Check digit is not transmitted with the rest of the barcode.

6.2.3.2.2 Barcode type: UPC-E0

- **Convert to UPC-A.** Conversions take place before the decoded data is transmitted into the application.
- **Enable.** Enables this type of Barcode.
- **Preamble.** Selects whether lead-in characters are being transmitted alongside the scanned code.
 - No preamble: no such preamble is selected.
 - System character: Preamble is made up of a determined System Character
 - System character and country code: Preamble is made up of a System Character made up of a country code.
- **Tx Checkdigit**
 - Transmit check digit. Check digit is transmitted with the rest of the barcode.
 - Do not transmit check digit. Check digit is not transmitted with the rest of the barcode.

6.2.3.2.3 Barcode type: UPC-E1

- **Convert to UPC-A.** Conversions take place before the decoded data is transmitted into the application.
- **Enable.** Enables this type of Barcode.
- **Preamble.** Selects whether lead-in characters are being transmitted alongside the scanned code.
 - No preamble: no such preamble is selected.
 - System character: Preamble is made up of a determined System Character
 - System character and country code: Preamble is made up of a System Character made up of a country code.
- **Tx Checkdigit**
 - Transmit check digit. Check digit is transmitted with the rest of the barcode.
 - Do not transmit check digit. Check digit is not transmitted with the rest of the barcode.

6.2.3.2.4 Barcode type: EAN-8

- **Convert to EAN-13.** Conversions take place before the decoded data is transmitted into the application.
- **Enable.** Enables this type of Barcode.

6.2.3.2.5 Barcode type: EAN-13

- **Enable.** Enables this type of Barcode.

6.2.3.2.6 Barcode type: **Bookland**

- **Enable.** Enables this type of Barcode.

6.2.3.2.7 Barcode type: **Coupon**

- **Enable.** Enables this type of Barcode.

6.2.3.3 Advanced Code128 settings

6.2.3.3.1 Barcode type: **Code 128**

- **Enable.** Enables this type of Barcode.

6.2.3.3.2 Barcode type: **EAN-128**

- **Enable.** Enables this type of Barcode.

6.2.3.3.3 Barcode type: **ISBT-128**

- **Enable.** Enables this type of Barcode.

6.2.3.4 Advanced Code 39 Settings

6.2.3.4.1 Barcode type: **Code39**

- **Code 32 prefix.**
- **Convert to CODE 32.**
- **Enable.** Enables this type of Barcode.
- **Full ASCII**
- **Length Type**
 - Any length.
 - One discrete length. Only barcodes of a specific length are decoded. Others will be ignores.
 - Two discrete lengths. Only barcodes of two specific lengths are decoded. Others are ignored. Length within range.
- **Max Length.** Maximum barcode length. Barcodes of this type that are longer will be ignored.
- **Min Length.** Minimum barcode length. Barcodes of this type that are shorter will be ignored.
- **Tx Checkdigit**
 - Transmit check digit. Check digit is transmitted with the rest of the barcode.
 - Do not transmit check digit. Check digit is not transmitted with the rest of the barcode.
- **Verify check digit.**

6.2.3.4.2 Barcode type: **Trioptic39**

- **Enable.** Enables this type of Barcode.

6.2.3.5 Advanced Code93 Settings

- **Enable.** Enables this type of Barcode.
- **Length Type**
 - Any length.
 - One discrete length. Only barcodes of a specific length are decoded. Others will be ignored.
 - Two discrete lengths. Only barcodes of two specific lengths are decoded. Others are ignored. Length within range.
- **Max Length.** Maximum barcode length. Barcodes of this type that are longer will be ignored.
- **Min Length.** Minimum barcode length. Barcodes of this type that are shorter will be ignored.

6.2.3.6 Advanced I2OF5 Settings

- **Convert to EAN13.** Conversions take place before the decoded data is transmitted into the application.
- **Enable.** Enables this type of Barcode.
- **Length Type**
 - Any length.
 - One discrete length. Only barcodes of a specific length are decoded. Others will be ignored.
 - Two discrete lengths. Only barcodes of two specific lengths are decoded. Others are ignored. Length within range.
- **Max Length.** Maximum barcode length. Barcodes of this type that are longer will be ignored.
- **Min Length.** Minimum barcode length. Barcodes of this type that are shorter will be ignored.

6.2.3.7 Advanced D2OF5 Settings

- **Enable.** Enables this type of Barcode.
- **Length Type**
 - Any length.
 - One discrete length. Only barcodes of a specific length are decoded. Others will be ignored.
 - Two discrete lengths. Only barcodes of two specific lengths are decoded. Others are ignored.
 - Length within range.
- **Max Length.** Maximum barcode length. Barcodes of this type that are longer will be ignored.
- **Min Length.** Minimum barcode length. Barcodes of this type that are shorter will be ignored.
- **Tx Checkdigit**
 - Transmit check digit. Check digit is transmitted with the rest of the barcode.
 - Do not transmit check digit. Check digit is not transmitted with the rest of the barcode.
- **Verify I2OF5 check digit**
 - No check digit
 - USS check digit. Whether the check digit is to be calculated for USS symbols/codes.
 - OPCC check digit

6.2.3.8 Advanced Codabar Settings

- **CLSI E diting**
- **NOTISE diting**
- **Enable.** Enables this type of Barcode.
- **Length Type**
 - Any length.
 - One discrete length. Only barcodes of a specific length are decoded. Others will be ignores.
 - Two discrete lengths. Only barcodes of two specific lengths are decoded. Others are ignored. Length within range.
- **Max Length.** Maximum barcode length. Barcodes of this type that are longer will be ignored.
- **Min Length.** Minimum barcode length. Barcodes of this type that are shorter will be ignored.

6.2.3.9 Advanced Msi Plessey Settings

- **MSI Checkdigits.** Check-digits are calculated from all other digits in the number and are used to ensure that the bar code has been correctly scanned or that the number is correctly composed.
 - One check digit.
 - Two check digits.
- **MSI Checkdigit Algorithm.**
 - First check digit mod 10, second digit mod 11.
 - Both digits mod 10.
- **Enable.** Enables this type of Barcode.
- **Length Type**
 - Any length.
 - One discrete length. Only barcodes of a specific length are decoded. Others will be ignores.
 - Two discrete lengths. Only barcodes of two specific lengths are decoded. Others are ignored.
 - Length within range.
- **Max Length.** Maximum barcode length. Barcodes of this type that are longer will be ignored.
- **Min Length.** Minimum barcode length. Barcodes of this type that are shorter will be ignored.
- **Tx Checkdigit.**
 - Transmit check digit. Check digit is transmitted with the rest of the barcode.
 - Do not transmit check digit. Check digit is not transmitted with the rest of the barcode.





6.3 Tools

6.3.1 Server Options

Selecting Server Options triggers an independent Server Option application that was also installed when the Designer was installed. This is an independent application that allows handPoint Retail to independently control the number of handheld devices used in conjunction with the Designer. An appropriate licence key that will be prompted at the starting of this application controls the number of devices.

The devices that are named and managed here have to have the same name as the actual devices that will be used in conjunction with this project.

- **New Device:** Creates a new device.
- **Edit User:** Edit currently highlighted device.

- **Delete Device:** Deletes the current, highlighted device.
- **Close:** Closes Server Options application.
 - **Name:** Enter name of the device(s) to be used in conjunction with the application.
 - **Project File:** Enter the file and pathname of the project that you want to upload onto the handheld(s). Alternatively, click  button and locate the file.
 - **Output Directory:** You can change the default path and directory of the engendered output files, specified in the processes. Alternatively, click  button and indicate a folder and location of your choice.
 - **Execute file before Sync:** Enter the file and pathname of a bat file to be executed before a Sync operation. Alternatively, click  button and locate the file. Especially useful in terms of communication with other environments when you want to import files into the right retail folders.
 - **Execute file after Sync:** Enter the file and pathname of a bat file to be executed after a Sync operation. This is useful to automat the export of Retail generated output files into other environments. Alternatively, click  button and locate the file.
 - **Language:** Choose which language will be used on the device.
 - **OK:** New Device or changes made to existing device are accepted and saved.
 - **Cancel:** The data entered in the fields above is deleted, no changes are stored and the user will have to press one of the four buttons below (explained above) to do initiate a different action.





6.4 View

- **Toolbar:** If checked, the toolbar with its icon will be displayed below the menu-bar.
- **Status bar:** If checked, the status bar, at the bottom of the screen just above the windows taskbar, is to be displayed.
- **Split:** By selecting Split the vertical bar, that splits the tree structure pane from the module configuration pane, is activated; and, by using the mouse, the user can relocate this bar to the right or left in order enhance the view he has of the individual panes if necessary.

6.5 Help

- **Tip of the Day:** If selected the user can trigger a Tip of the Day dialogue box. This dialogue box automatically shows on start-up, unless deselected after initial start up, and reminds the user of some of the power features of handPoint Retail to make it easier for you to work with the application.
- **About handPoint Retail:** Triggers a dialogue box that displays the application's version number and copyright information.

6.6 Toolbar

-  : This icon launches a new project. If a project is currently active/open the user is prompted to save that project before new project can be launched.
-  : This icon opens a browse dialogue window whence you select and open already existing projects. Default location is the project folder in the programfiles\handPoint\Retail 4 root on the active PC, unless otherwise configured during the installation.
-  : This icon saves current project under its current name. If it is a new project a Save As window is triggered where the user will enter a name for the project
-  : This icon launches a new Add module dialogue window.

7 The Scripting Language

The Scripting Language used in handPoint Retail is quite easy and requires no advanced programming skills. The scripts are used to generate and display dynamic information that is processed within a single job, making use of already scanned or entered data for that same jobs in previous fields, that is before the Script is run. Thus, in scripting you can enter the name of a prior field and ask for some mathematical information with one of the Calculations scripts and have it display a value based on that operation. Or as is the case with the auto-buttons, the information thus displayed will then lead the user to take further decisions based on what the script has generated and displayed.

The Scripts are used in conjunction with the Auto buttons screens as a default but the jobs and the scripts can also be run as independent fields within a job. The scripts are also used in the Store & Send modules within Extra-handling.

The general syntax of the handPoint Retail script is on the form:

<...>, <...=...> or <.. <...> <...> >

The scripts can be logically divided into 5 types: Date and Time, Lookup, Logic, Calculation and Store and Send. Each type and its syntax will be described in detail and examples of scripts will be given.

7.1 Date and Time

There are several scripts available to show date and time. These scripts can be used everywhere in Retail (in Auto buttons and script fields) and are not limited to specific types of jobs or module types. The scripts show the current date or the current time in a format you select. Note that you can only use formats that are supported or the scripts will not work.

Dateformat

The Date format script is <DATEFORMAT=Date Format that is supported> such as <DATEFORMAT=DD.MM.YYYY>. This will set the Date format according to the format string (DD.MM.YYYY), and any subsequent <DATE> scripts will output the date in the given format, e.g. 17.06.2002.

Supported Date Formats	How a real date will look
DDMMYY	170602
DDMMYYYY	17062002
DD.MM.YY	17.06.02
DD.MM.YYYY	17.06.2002
YYMMDD	020617
YYYY-MM-DD	2002-06-17

Timeformat

The Time format script is <TIMEFORMAT=Time Format that is supported> such as <TIMEFORMAT=24hr>. This will set the Time format according to the format string (24hr), and any subsequent <TIME> scripts will output the time in the given format, e.g. 20:15:00.

Supported Time Formats	How real time will look
24hr, which produces hh:mm:ss	20:15:00
12hr which produces hh:mm:ss am/pm	08:15:00 pm
HHMM, which produces hhmm	2015

Date

The <DATE> script shows the current date in the format that was set with the <DATEFORMAT> script.

Example: <DATEFORMAT= YYYY-MM-DD><DATE> will show the current date like this: 2002-06-17

Time

The <TIME> script shows the current date in the format that was set with the <TIMEFORMAT> script.

Example: <TIMEFORMAT= 24hr><TIME> will show the current time like this: 20:15:00.

Timestamp

<TIMESTAMP> is a script that is used to output the current date and time. The <TIMESTAMP> format is: YYYY-MM-DD hh:mm:ss, which will for example produce 2002-06-17 14:27:46.

Filestamp

<FILESTAMP> is a script that can be used to output the current date and time, in a format that can be used as a filename. The <FILESTAMP> format is: YYYYMMDDhhmmss, which will for example produce 20020617142746.

7.2 Lookup

Lookup scripts are available in Auto buttons and in script fields of the job modules.

Lookup fields are used to look up specific values. <PROD=> scripts use values from the current job. <PRE=> uses values from a job comments file that is attached to the current job. Note that if you want to use the value of another field in the script for the auto buttons, it is important that that value is generated prior to the field containing the auto buttons screen.

Lookup scripts

<INPUT> - gives you the barcode that was scanned.

<PROD=DESC> - gives you the description of the product, e.g. whole-wheat bread.

<PROD=PRODID> - gives you the product number.

<PROD=Field Name>- for example <PROD=Price> will give you the price of the current product, provided that you have created a field containing that info, and called it "Price".

<PRE=Field name in Job comments> - gives you a value from a field in a job comments file.

7.3 Logic

Logic scripts can be used to process information based on the values of certain expressions. If the evaluated expression (the first expression) has a value of 0 the script will show the outcome of the second expression if the value is not 0. If both the first and the second expression have a value of 0 the third one will be shown.

Logic script

<IF<Expression>?<Expression>:<Expression>>

7.4 Calculations

Calculation scripts are used to calculate values from information from different fields. The basic arithmetic functions adding, multiplying, subtracting and dividing can be used.

Calculation scripts

```
<MUL<Lookup script><Lookup script>>  
<DIV<Lookup script><Lookup script>>  
<ADD<Lookup script><Lookup script>>  
<SUB<Lookup script><Lookup script>>
```

Example

<MUL<PROD=Price><PROD=Quantity>> - this multiplies the price and the quantity of the current product.

Limitations of calculation scripts

Unfortunately, the calculation scripts cannot handle numeric values. For example, if Price contains the price of a product, excluding a VAT of 25%, one would expect that the script <MUL<PROD=Price><1.25>> would produce the price including VAT. This script however, is illegal since 1.25 is not a legal lookup script.

To achieve the desired result it is necessary to define a field in the job, with a default value identical to the numeric value that is desired. In the above example, one could create a hidden field called "VAT Multiplier", with a default value of 1.25, and to get the price, including VAT, one would use <MUL<PROD=Price><Prod=VAT Multiplier>

8 Glossary

We have included this glossary in order to make some of this manual easier to understand especially in as far as there might be confusion or misunderstanding of some of the terminology used in this application.

Project – Project refers to the HPR file. It is the saving entity of handPoint Retail and is actually the thing that is opened, closed and saved in the menu bar. One project can contain as many jobs as any user would want to create, however different projects for different environments might have jobs that will not be using a majority of the dormant modules together.

Module – The Modules are the building blocks of the application. There are either dormant modules or active one's. All dormant modules can be activated within the job module, i.e. the actual processing module.

Module type – There are six different module types, Job Comments, Masters, Jobs, Product Comments, Filters, and Extra Handling.

Module subtype – Three of the modules have subtypes, determining more accurate specifications for the modules in question. Subtypes are available for Process Comments, Jobs, and Filters.

Job – Jobs are the only active module types. Here the actual onsite retail actions are designed. The modules that are to work in connection with the jobs are designated, the input fields and actions are determined and the job creates the output files with workable information to be implemented into the back end system.

Job Comment – Job comment handles uploaded files that pop up before a job is commenced. In the eventual file generation, the comment will be added prior to every line in the output file for every scanned item.

Masters – Is the module that contains both product and index files, i.e. the inventory information obtained from the back-end system files.

Product Comment – Similar to the Process Comment, this module contains an uploadable CSV formatted list that can be accessed and the data entry performed will be added only to this line in the generated output file.

Filters – This module has three subtypes that perform filter actions within a job or routing actions between jobs.

Extra-handling – Includes several extra-handling routines that did not fit under any other modules. The features are: Print, Store & Send and Checklist.

Task – Task is sometimes used so as not to create confusion with Job. Task is used to designate the actual onsite physical task undertaken by the mobile professional. In this task several modules interact, but the main ingredient is always a job module.

User – In this Manual the User designates the administrator, i.e. the person or entities that are using the server side interface to design, adapt and dispatch jobs to the handhelds.

User of the handheld – the mobile professional, i.e. the person or entities that use the handhelds with the assigned onsite tasks.

Handheld – The actual handheld device. Palm OS and other manufacturers have created this neologism. They have turned an adjective into a noun, and for matter of convenience we have adapted this word in our documentation.

Field – In the context of this application, field refers to both the input fields on the screen of the handheld as well as the semi colon separated data fields in both the output and input CSV files used in conjunction with the application. Yet, when fields refer to the data-entry fields on the handheld they automatically refer to the fields in the corresponding output file; however, this need not apply in the opposite case, i.e. a field in the CSV file need not have its counterpart on the handheld screen.

Fixed Order – When using a checklist, checking this option requires the user to go through a checklist in a specific order, namely the order it appears in, in the CSV file.