

Oracle® Retail MICROS Retail-J

Shelf Edge Labels

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Note: The rebranding for the latest version of this documentation set is in development as part of post MICROS acquisition activities. References to former MICROS product names may exist throughout this existing documentation set.

1.0 Shelf-Edge Labels

Shelf Edge Label, or simply Label refers to the actual label which is to be printed for each product.

Using a Retail-J maintenance application, Shelf Edge Label Maintenance, details about each Label can be configured. Each piece of information (e.g. Product Code, Price and so on) printed on a particular Label is known as a Label Field, and Shelf Edge Label Maintenance allows the user to configure all the Label Fields of that particular label, such as what the field is, its position on the label, and its size and font properties.

A Shelf Edge Label Sheet refers to a sheet of paper on which labels are printed.

Shelf Edge Label Sheet Maintenance allows you to configure details about the Label Sheet, such as how many labels will be printed for each row and each column on the sheet. Multiple Shelf Edge Labels can be printed on the same Shelf Edge Label Sheet.

Before the labels are printed, a Label Print List (or simply Print List) is created. This can be created either manually using a Retail-J maintenance application, or automatically by a scheduled background process. The Print List contains a list of products for which labels are required to be printed. Before submitting the Print List for the labels to be generated, you are able to modify the number of labels required for each product. The Print List specifies the appropriate Shelf Edge Label to use. A Print List can be of one of the following types:

- Product Sets (where, instead of for products, the labels are required for a specified list of Product Sets)
- By Date (where all products modified since a particular date are included)
- Product List (where a list of products is either manually entered or calculated by the automatic process)
- Price Change (where all products contained in a particular Price Change are included)

Whether the Print List is manually or automatically generated, a user opens the Print List, reviews the products, modifies the quantities if required, and then select an option to generate the labels. The labels are generated as PDF files, which can then either be printed or saved for printing later or for sending downstream if generated at Head Office. The printing functionality is also available at the POS.

Automatic Label Creation Process is a Retail-J Process which can be scheduled to run as per other processes, and will submit a job in a similar way to the Day end Process. The main task of this process is to automatically generate a Label Print List, based on trigger criteria configured in the process itself. For example, it may be required that a new label is printed for a product if its price has changed, or its description has changed.

2.0 Shelf Edge Label Sheet Maintenance

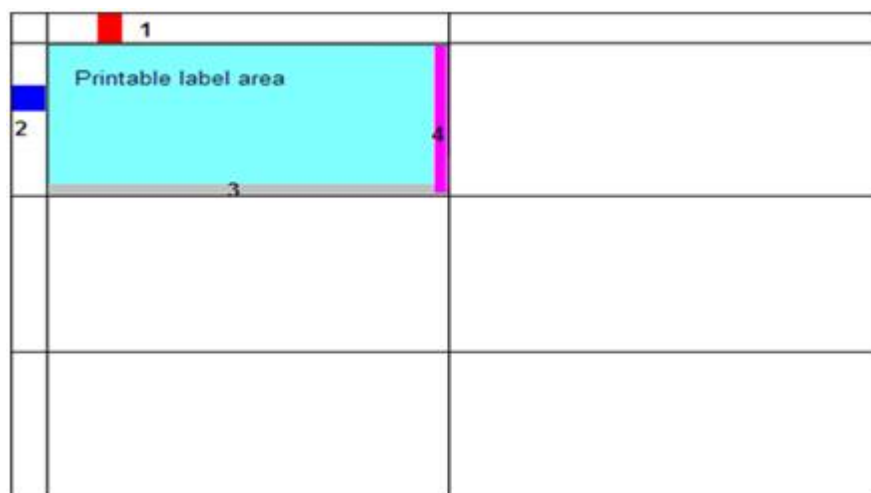
A Shelf Edge Label Sheet represents a sheet of labels to be printed. It defines details about the sheet as a whole, rather than individual labels.

A Shelf Edge Label Sheet has the following properties:

Property Name	Type	Description
Label Sheet ID	String	Identifier for the Label Sheet
Description	String	Locale-specific description for the Label Sheet
Number of Labels Across	Integer	Number of Rows of Labels on the Sheet
Number of Labels Down	Integer	Number of Columns of Labels on the Sheet
Left Margin	Float	Horizontal distance from left edge of page to first label (specified in millimetres) – can be zero
Top Margin	Float	Vertical distance from top of page to first label (specified in millimetres) – can be zero
Label Width	Float	The width of a single label (specified in millimetres) – zero not allowed
Label Height	Float	The height of a single label (specified in millimetres) – zero not allowed

All fields which are specified in millimetres are validated to ensure that they are entered to a maximum of one decimal place; an error will be shown otherwise.

The following diagram explains more clearly how each of these measurements is used:



1 – Top Margin

2 – Left Margin

3 – Label Width











4 – Label Height

Example screen shots are shown below.

Shelf Edge Label Sheet Maintenance

Shelf Edge Label Sheet Maintenance allows you to view, edit, create and remove Shelf Edge Label Sheets.

All existing Shelf Edge Label Sheets are shown below.



Options	ID	Description
  	1	A4 Glasgow 5 x 12
  	2	A4 Glasgow 7 x 15
  	3	A4 General
		

SelectShelfEdgeLabelSheet.jsp – this screen will list all configured Shelf Edge Label Sheets.

Shelf Edge Label Sheet Maintenance

You are editing shelf edge label sheet: 1

Field	Value
ID	<input type="text" value="1"/>
Locale	<input type="text" value="English (United Kingdom)"/>
Description	<input type="text" value="A4 Glasgow 5 x 12"/>
Number of Labels Across	<input type="text" value="5"/>
Number of Labels Down	<input type="text" value="12"/>
Left Margin (mm)	<input type="text" value="3.4"/>
Top Margin (mm)	<input type="text" value="2.2"/>
Label Width (mm)	<input type="text" value="50.0"/>
Label Height (mm)	<input type="text" value="22.5"/>

EditShelfEdgeLabelSheet.jsp – this screen allows you to configure details of a particular Shelf Edge Label Sheet.

3.0 Shelf Edge Label Maintenance

A Shelf Edge Label represents an individual label to be printed. It defines details about the label. It is independent of the Label Sheet defined in the previous section.

A Shelf Edge Label has the following properties:

Property Name	Type	Description
Label ID	String	Identifier for the Label
Description	String	Locale-specific description for the Label

Default Font Name	String	The default font to use for this Label (this can be overridden for each individual Label Field)
Shelf Edge Label Sheet	String	The ID of the Shelf Edge Label Sheet to use for this Label
Label Fields	List	List of Label Fields (see Label Field Maintenance)

3.1 Label Fields

A Label Field represents an individual field to be printed on a label and has the following properties.

These properties are available for all Field Types:

Property Name	Type	Description
Field Type	String	Identifier for the type of Field (selectable from a pre-defined list of Field Types, see list later)
Visible	Checkbox	A flag to indicate whether this field should be printed on the Label or not; this will be ticked by default, but can be manually unticked if desired.
Description	String	A description which can be entered for the Field Type, which will be especially useful if a Label contains more than one Label Field with the same Field Type (e.g. two prices, "WAS" price and "NOW" price)
X Position	Float	X co-ordinate for start of field (specified in mm)
Y Position	Float	Y co-ordinate for start of field (specified in mm) – note that the PDF expects field co-ordinates to be defined from the bottom left corner of the field, and therefore the Y co-ordinate should specify the bottom of the field rather than the top
Alignment	Integer	Integer representing the Alignment for this Field: 0 = Left, i.e. starts at the specified X Position; 1 = Right, i.e. ends at the specified X Position; 2 = Centred, i.e. centred at the specified X Position
Font Name	String	The name of the Font to be used for this Field, this comes from a predefined list of standard, bold and italic fonts which are supported by the PDF printing (if set to blank, then the Default Font Name specified in the Label will be used)
Font Size	Integer	The size of the Font to be used for this Field
Colour	Colour	The colour in which this field should be printed (selectable from a colour picker; if not set then default is black) – does not apply for Barcode Field Types

These properties are only available for certain Field Types, as indicated:

Locale	Locale	A selectable list of locales for this field (only applies where the Field Type needs a selected locale (e.g. "Product Description"))
Price Type	Integer	The type of price which the label field is for (only applies where the Field Type is to do with a price) – see below for definitions of valid price types
Price Percentage	Percentage	The percentage of the Current Price to calculate for this field (only applies where the Field Type is "Percentage of Price")
Product Attribute	Attribute	The Product Attribute for which the Attribute Name or Value is required (only applies where the Field Type is "Product Attribute Name" or "Product Attribute Value")

Image Path for True Value	String	The path to an image that should be displayed to indicate a Product Attribute value of "True" (only applies where the Field Type is "Product Attribute Value" and the Product Attribute is a Boolean type)
Image Path for False Value	String	The path to an image that should be displayed to indicate a Product Attribute value of "False" (only applies where the Field Type is "Product Attribute Value" and the Product Attribute is a Boolean type)
Free Text	String	The text to be displayed for this field (only applies where the Field Type is "Free Text")
Barcode Type	Integer	The type of barcode to print (only applies where the Field Type is a Barcode type) – see below for a list of supported barcode types
Bar Height	Float	The height of the barcode (only applies where the Field Type is a Barcode type)
Bar Width	Float	The width of the barcode (only applies where the Field Type is a Barcode type)
Extended Code	Boolean	A flag to indicate whether the barcode should print the extended code (only applies where the Field Type is a Barcode type and the Barcode Type is Code 3 of 9)
Generate Checksum	Boolean	A flag to indicate whether to generate a checksum before printing the barcode number (only applies where the Field Type is a Barcode type and the Barcode Type is not EAN 8 or EAN 13)
Print Number Underneath	Boolean	A flag to indicate whether to print the barcode number underneath the barcode (only applies where the Field Type is a Barcode type)
Print Start/Stop Character	Boolean	A flag to indicate whether to print a start/stop character either side of the barcode (only applies where the Field Type is a Barcode type and the Barcode Type is Code 3 of 9)
Print Guard Bars	Boolean	A flag to indicate whether the barcode should include guard bars (only applies where the Field Type is a Barcode type and the Barcode Type is EAN 8 or EAN 13)
Box Length	Float	Only applies where the Field Type is "Empty Box" or "Solid Box" and defines the length of the box
Box Height	Float	Only applies where the Field Type is "Empty Box" or "Solid Box" and defines the height of the box
Border Width	Float	Only applies where the Field Type is "Empty Box" and defines the width of the box border
Date Format	Integer	The Date Format to apply (only applies where the Field Type is a Date field) – see below for definitions
Custom Date Pattern	String	A custom Date Pattern to apply (only applies where the Field Type is a Date field and the Date Format is set to Custom) e.g. "add-MM-yyyy"
User Entered Text Identifier	String	A unique identifier for this User Entered Text field so that the label printing code can distinguish between multiple User Entered Text fields on the same label (only applies where the Field Type is "User Entered Text") – will be validated to ensure it is unique across all Label Fields for this label.
Maximum User Entered Text Length	Integer	The maximum length allowed for the User Entered Text, with the default value of 0 indicating no maximum length (only applies where the Field Type is "User Entered Text")

Price Types:

- The Current Price is defined as the current selling price of the product (i.e. what it would sell for at the POS now)
- The Previous Price is defined as the last price that the product was sold at (could be from a price change or just a past dated product price)
- The Previous Price is defined as the last price that the product was sold at (could be from a price change or just a past dated product price)
- The Base Price is defined as the most current price which is not part of a Price Change the last price that the product was sold at (could be from a price change or just a past dated product price)
- The Price Management Price (only applicable when the Label Print List is a "Price Change" type), is defined as the new price configured in the Price Change
- The Price Management Base Price (only applicable when the Label Print List is a "Price Change" type), is the Base Price as defined above, but should only be printed if it is less than the Price Management Price
- The Price Saving is defined as follows. For a Label Print List which is a "Price Change" type, it is the difference between the Price Management Price and the Base Price, if the Price Management Price is less than the Base Price; otherwise it is zero. For all other Label Print Lists, it is the difference between the Current Price and the Previous Price, if the Current Price is less than the Previous Price; otherwise it is zero.
- Product Set Price is defined as the sum of the current selling price of all products included in a Product Set multiplied by the product quantity (only applies if printing a Product Set Label)

Barcode Types:

- 1 – EAN 8
- 2 – EAN 13
- 3 – Code 128
- 4 – Interleaved 2 of 5
- 5 – Code 3 of 9

Data Formats

- 0 – Short Date
- 1 – Short Date/Time
- 2 – Medium Date
- 3 – Medium Date/Time
- 4 – Long Date
- 5 – Long Date/Time
- 6 – Custom – in this case the "Custom Date Pattern" field will be used


3.2 Editing Label Fields

Example screen shots are shown below.

Shelf Edge Label Maintenance

Shelf Edge Label Maintenance allows you to view, edit, create and remove Shelf Edge Labels.

All existing Shelf Edge Labels are shown below.






















Options	ID	Description
   	1	Default Label
   	2	GNC Glasgow
   	3	Barcode Only
		

SelectShelfEdgeLabel.jsp – this screen lists all configured Shelf Edge Labels.

Shelf Edge Label Maintenance

You are editing shelf edge label: 2

Field	Value
ID	2
Locale	English (United Kingdom) ▼
Description	GNC Glasgow
Default Font Name	Helvetica ▼
Shelf Edge Label Sheet	A4 Glasgow 5 x 12 ▼


Label Fields			
Options	Field	Description	X/Y Position
  	Product ID	Product ID	1, 10
  	Product Description	Dutch Description	1, 16
  	Product Description	French Description	1, 22
  	Formatted Price	Price	20, 16
  	Product Barcode	Barcode	20, 30
	Currency Symbol 		
Generate Test Label			
  			



EditShelfEdgeLabel.jsp – this screen allows you to configure details of a particular Shelf Edge Label by adding Label Fields to it.

The description and the X/Y position of each added Label Field is shown on this screen for convenience. An option to generate a test label is available as shown; this prompts for a location ID and a product and then generates and opens a PDF containing one label using the supplied configuration, so that you can quickly see what the resulting label would look like. The icon at the bottom allows you to configure the form using Flash, this screen is shown below (EditLabelLayout.jsp).

Shelf Edge Label Maintenance

You are editing field: Formatted Price

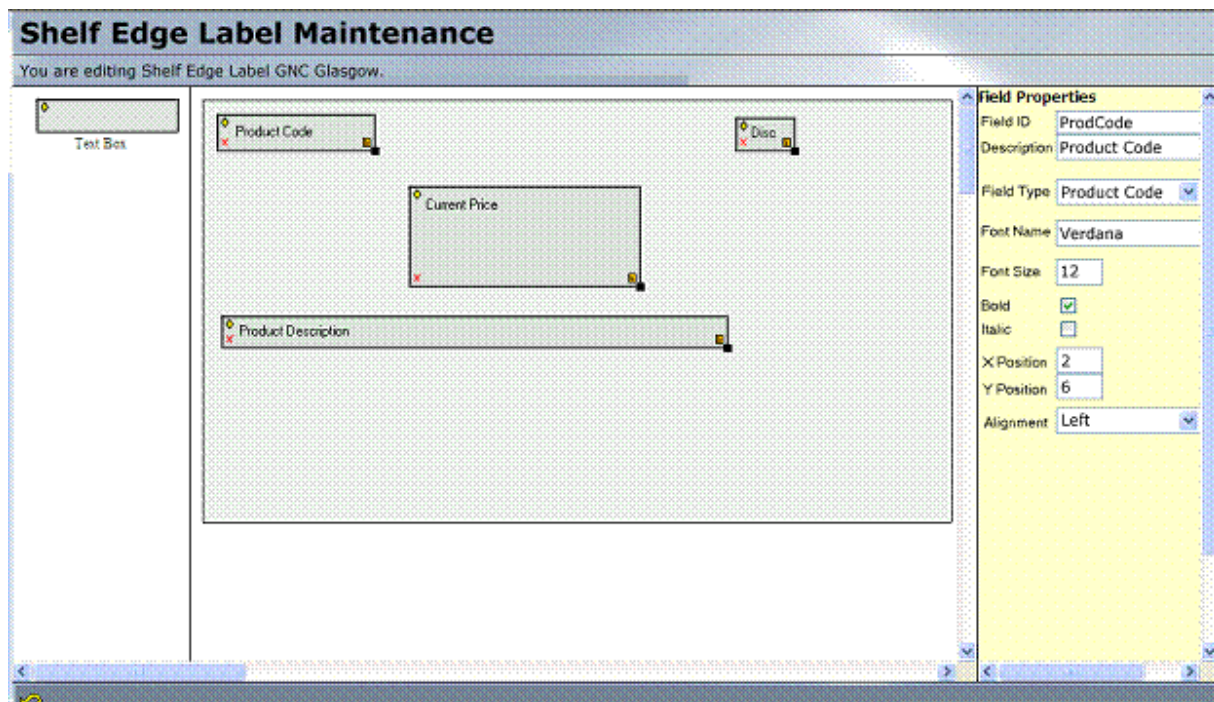
Field	Value
Field Type	Formatted Price
Visible	<input checked="" type="checkbox"/>
Description	Price
X Position	20
Y Position	16
Alignment	Left
Font Name	Times Bold Italic
Font Size	12
Colour	FF0000 
Price Type	Current

EditLabelType.jsp – this screen allows you to configure the properties of a particular Label Field once it has been added to the Shelf Edge Label. In this example, the “Price Type” field is shown because this is a “Price” related field. If this was a “Product Description” field, for example, then the Price Type would not be shown, but a “Locale” field would be shown so that a locale could be selected for the description. Similarly, if this was a “Free Text” field, then a “Text” field would be shown.

3.3 Editing Label Fields using “Flash” Designer

As well as the above screen, there is an option to design the label using a screen which makes use of the Flash platform. This is similar to the Form Definition Maintenance screen which allows you to design forms and re-position fields on them. An example of this screen is shown below (EditLabelLayout.jsp).



Fields can be added to the form by dragging the Text Box shown in the top left into the main part of the screen.

The yellow diamond in the top left of a field can be used to drag the field to the required location. This will automatically update the X Position and Y Position.

The red cross in the bottom left of a field can be used to remove the field from the label.

The yellow square on the right of a field can be used to set the field's properties. The properties are shown on the right of the screen. In this case, the properties for the "Product Code" field are being set.

The resulting label might then look something like this:



3.4 Field Types

The following Field Types are available for a Label Field.

Field Type	Description
Product ID	Product ID of the product
Product Description	Product Description (in the Locale specified in the Label Field)
Product Long Description	Product Long Description (in the Locale specified in the Label Field)
Product Information	Product Information (in the Locale specified in the Label Field)
Product Barcode	Product ID represented as a barcode
Selling Code	Selling Code of the product (if there are multiple selling codes, just use the first one found)
Selling Code Barcode	Selling Code of the product represented as a barcode (if there are multiple selling codes, just use the first one found)
Price	The price specified by Price Type in the Label Field, unformatted (e.g. "5.99")
Formatted Price	The price specified by Price Type in the Label Field, formatted according to the store's currency and locale (e.g. "£5.99")
Per Item Price	The price specified by Price Type in the Label Field divided by the Pack Quantity, unformatted (e.g. "0.15")
Formatted Per Item Price	The price specified by Price Type in the Label Field divided by the Pack Quantity, formatted according to the store's currency and locale (e.g. "£0.15")
Price Major Unit	The value of the major currency unit of the price specified by Price Type in the Label Field (e.g. for a price of £6.99, the Price Major Unit would be 6)
Price Minor Units	The value of the minor currency units of the price specified by Price Type in the Label Field (e.g. for a price of £6.99, the Price Minor Unit would be 99)
Currency Symbol	The currency symbol for the price specified by Price Type in the Label Field
Decimal Separator	The decimal separator for the price specified by Price Type in the Label Field
Percentage of Price	A fixed percentage of the price specified by Price Type in the Label Field (using the percentage specified in the Label field)
Product Pack Size	The Pack Size configured for the product
Product Size Unit	The Size Unit configured for the product
Product Height	The Height configured for the product
Product Length	The Length configured for the product
Product Width	The Width configured for the product
Product Weight Unit	The Weight Unit configured for the product
Product Weight	The Weight configured for the product
Product Pack Quantity	The Pack Quantity configured for the product
Product Attribute Name	The name of the Product Attribute specified by the Attribute field (in the Locale specified in the Label Field)
Product Attribute Value	The value of the Product Attribute specified by the Attribute field
Free Text	Free Text which can be configured for this Field Type
User Entered Text	Free Text which is entered by the user at the time the Label Print List is generated (maximum length is specified by the Maximum User Entered Text Length in the Label Field)

Price Management Free Text	Free Text which can be configured for this Field Type by the user – but it should only be printed for “Price Change” Label Print Lists
Loyalty Points	The currently applicable loyalty points for the product
Product Set ID	The Product Set ID (if printing a Product Set Label)
Product Set Barcode	The Product Set ID represented as a barcode (if printing a Product Set Label)
Product Set Description	The Product Set Description (if printing a Product Set Label), in the Locale specified in the Label Field
Product Set Information	The Product Set Information (if printing a Product Set Label), in the Locale specified in the Label Field
Product Set Quantity	The total quantity of products in the Product Set (if printing a Product Set Label), note that this is the total quantity of all products and not the number of products
Print Date	The current date, formatted according to the Date Format in the Label Field
Price Start Date	The Start Date of the Price Change (if this is for a price change), formatted according to the Date Format in the Label Field
Price End Date	The End Date of the Price Change (if this is for a price change), formatted according to the Date Format in the Label Field
Location ID	The ID of the Location this label is being printed for
Empty Box	This will print an empty box, with the Length and Height defined by the Box Length and Box Height properties defined in the Label Field, and with the width of the border of the box defined by the Border Width property of the Label Field
Solid Box	This will print a solid box, with the Length and Height defined by the Box Length and Box Height properties defined in the Label Field

4.0 Location Maintenance

There is a sub-page in Location Maintenance for Shelf Edge Label Options containing a field called “Applicable Shelf Edge Labels”. You can add and remove configured Shelf Edge Labels to/from this list.

There is also a field called “Automatic Shelf Edge Label”. This is a drop down list, from which you can select one of the configured Shelf Edge Labels. If no Automatic Shelf Edge Label is configured for a particular Location, this indicates that Location does not print Shelf Edge Labels and should therefore be excluded by the Automatic Label Creation Process.



Location Maintenance

You are editing the Shelf Edge Label options for store Southampton.

Applicable Shelf Edge Labels

GNC Glasgow

General

Gold Card

Automatic Shelf Edge Label

General

General

GNC Glasgow

Gold Card

Gold Card Glasgow

Superstore

5.0 Product Maintenance

In Product Maintenance, the Edit Product Dimensions screen shows “kg” as an additional selectable Weight Unit, as well as “g”, and so on.

Product Maintenance

You are editing the Product Dimensions for product ID: 1, default description: Baked Beans Today

Field	Value
Measurements	
Size Unit	<div></div>
Height	<div>0</div>
Length	<div>0</div>
Width	<div>0</div>
Weights	
Weight Unit	<div><div>kg</div><div>g</div><div>mg</div><div>lb</div><div>oz</div></div>
Weight	<div></div>

The field, “Pack Quantity”, is required in the Edit Product Dimensions screen. This represents the number of items in the pack (e.g. 32 tablets in a packet of paracetamol) so that this information can be printed on the label. This field is validated as an integer.

Product Maintenance

You are editing the Product Dimensions for product ID: 1, default description: Baked Beans Today

Field	Value
Measurements	
Size Unit	<input type="text"/>
Height	<input type="text" value="0"/>
Length	<input type="text" value="0"/>
Width	<input type="text" value="0"/>
Weights	
Weight Unit	<input type="text"/>
Weight	<input type="text" value="0"/>
Units	
Pack Quantity	<input type="text" value="32"/>

The flag, “Print Shelf Edge Label”, on the main product details page, indicates whether the product can be printed on a Shelf Edge Label. The flag defaults to ticked.

Force Multi Channel Order Basket	<input type="checkbox"/>
Dispatch Only	<input type="checkbox"/>
Home Delivery Only	<input type="checkbox"/>
Allow Home Delivery	<input checked="" type="checkbox"/>
Start Date	<input type="text"/> (dd/mm/yy)
End Date	<input type="text" value="30/12/69"/> (dd/mm/yy)
Allow For Loan	<input type="checkbox"/>
Allow As Option	<input type="checkbox"/>
Brand	<input type="text"/>
Range	<input type="text"/>
Tax Group ID	<input type="text"/>
Item Packages	<input type="text" value="1"/>
Adverse Reaction Product	<input type="checkbox"/>
Print Shelf Edge Label	<input checked="" type="checkbox"/>
Perishable Details	
Perishable	<input type="checkbox"/>
Shelf Life	<input type="text" value="0"/>
Order Details	

6.0 Store Specific Product Maintenance Changes

The field, “Print Shelf Edge Label” on the Store Specific Product Maintenance screen can be set independently of the same flag on the main Product screen as detailed above. If the Store Product details record exists for a product, then the value of its “Print Shelf Edge Label” flag will override the one in the main product details.

There is also a field “Default Number of Shelf Edge Labels”. This indicates how many labels should be printed by default for that product in a particular store, although this quantity can be changed at the time the labels are printed.

Both fields are shown in the screen shot below.

Store Specific Product Maintenance

You are editing the store specific product for UK Store.

Field	Value
Product ID	12300151
Product Description	UK LEDIKANT SAMNY
Store ID	1
Store Name	UK Store
Status	Active

Field	Store Product	Product
Minimum Stock Level	0	0
Maximum Stock Level	0	0
Number of Weeks Cover (weeks)	1	1
Average Sales Period (weeks)	1	1
Slow Movers Period (weeks)	1	1
Must stock	<input type="checkbox"/>	<input type="checkbox"/>
Allow Replenishment	<input type="checkbox"/>	<input type="checkbox"/>
Stock Location Reference		
Stock Location Pick Printer Group	-	
Prompt for Customs Number	<input type="checkbox"/>	<input type="checkbox"/>
Prompt for Issue Date	<input type="checkbox"/>	<input type="checkbox"/>
Prompt for Place of Import	<input type="checkbox"/>	<input type="checkbox"/>
Print Shelf Edge Label	<input type="checkbox"/>	<input type="checkbox"/>
Default Number of Shelf Edge Labels		



7.0 Price Management Changes

A “Print Shelf Edge Labels” flag is included for Price Changes. This determines whether a Label Print List should be generated for that Price Change by the Automatic Label Creation Process. This flag defaults to ticked.

Price Management

The following details apply to price change 000002 created on 29/06/12 11:48

Field	Value
Price Change ID	000002
Description	Test
Notes	Some notes
Status	Submitted
Creation Date	29/06/12 11:48
Start Date	29/06/12 00:00 (dd/mm/yy hh:mm)
End Date	(dd/mm/yy hh:mm)
Currency	UK Sterling
Trading Region	
Departure Zone	
Destination Zone	
Local	<input checked="" type="checkbox"/>
Print Shelf Edge Labels	<input checked="" type="checkbox"/>
View Applicable Locations	→
View Items	→
View Price Matrix	→

7.1 Attribute Maintenance Changes

Product Attribute Names are printed on Shelf Edge Labels. The Name of a Product Attribute is held as a locale-specific String, so that it is possible for the name to be stored differently for different locales, and hence printed as such on the labels.

Attribute Maintenance

You are editing Attribute: 2

Field	Value
ID	2
Locale	English (United Kingdom)
Description	Colour
Type	String
Searchable	<input type="checkbox"/>

Options	Value
<input type="checkbox"/>	Blue
<input type="checkbox"/>	Green
<input type="checkbox"/>	Red
<input type="button" value="+"/>	

7.2 Manual Label Creation

There are two ways for shelf edge labels to be generated: manually by a user, and automatically by a background process. Both of these result in a list of products (known as a Label Print List) being created, which must then be manually selected to be printed.

The maintenance application, "Label Print Lists", shows all existing Label Print Lists, whether manually or automatically created, as well as allowing you to create new manual lists.

7.2.1 Select Label Print List

The screen for the selection of Print Lists looks like this:

Label Print Lists

Label Print Lists allows you to review and print existing Label Print Lists, and to create manual Label Print Lists.

Select a location:	Type	Store	Name		UK Store
Status	{All}				
Label Type	General				
Start Date	12/03/12				
End Date	13/03/12				
Apply Filter					

All Label Print Lists which meet the criteria are listed below.

Options	Print List ID	Status	Label Type	List Type	Creation Method	Creation Date
	LPL00010001	New	General	Product List	Ad Hoc	12/03/12
	LPL00010002	Printed	General	Price Change	Scheduled	12/03/12
Create a new Label Print List →						

The following columns are shown:

- Options (see below)
- Print List ID (unique ID identifying the Print List)
- Status (current status of the Print List)
- Label Type (the Shelf Edge Label the list will be printed on)
- List Type (one of the five available list types)
- Creation Method ("Ad Hoc" or "Scheduled" – if the Print List was generated by the Automatic Label Creation Process then this will say "Scheduled", whereas if it was created manually using the maintenance application then it will say "Ad hoc")
- Creation Date

In the Options column, five icons are available, depending on the status of the Print List and roles granted to the current user:

- View – this will show the Label Print List in view mode
- Edit – this will show the Label Print List in edit mode, so that products can be selected and the labels can be printed
- Remove – this will show a confirmation screen and then delete the Label Print List
- Copy – this will perform standard RJ copy functionality and, on prompting you for a new ID, create a new Label Print List from an existing one
- Print – this will automatically generate the labels, without you having to edit the Print List and select the products/quantities to be printed and will thus default to printing all products in the Print List, with the quantity defaulting to the "Default Number of Shelf Edge Labels" field from the Store Product details or 1 if this is not available

All these options are individually role-controlled. In addition, there is an extra role to allow a user to reprint a Print List which has already been printed once.

7.2.2 View/Edit Label Print List

If you select the option “Create a new Label Print List”, then a new Label Print List is created, with Creation Method set to “Ad Hoc” (as opposed to “Scheduled”). You are then taken to the Edit Label Print List screen. The same screen is shown when editing or viewing an existing Label Print List (although obviously all fields are disabled if viewing a Print List).

The header part of the screen looks this:

Label Print Lists

The following details apply to Label Print List LPL00010001 created on 12/03/12 16:38.

Field	Value
Print List ID	LPL00010001
Creation Date	12/03/12 16:38
Status	New
Label Type	General
Check Available Stock	<input checked="" type="checkbox"/>
List Type	Product List

The Print List ID is generated automatically and is made up of:

- A fixed 3 character prefix – “LPL”
- The 4 digit store code – e.g. “0001” – this will come from the Location record
- A 4 digit incrementing number – e.g. “0001” – this number is unique per store, and the next number to use will be stored in the Transaction Counters table, as per standard RJ behaviour

The Creation Date shows the date/time that the Print List was created, and is not editable.

The Status is initially “New”, and changes to “Printed” once the labels have been generated. The field is not editable.

The user is able to select the Label Type from all Shelf Edge Labels configured for the current store. The “Check Available Stock” flag can be ticked to indicate that only products whose Available stock level is greater than zero should have labels printed. This check is performed during the generation of the Print List.

This screen allows you to decide which products need to be included in the label print. This is done via the “List Type” option, which can be set to either “Product List”, “CSV Import”, “By Date”, “Price Change” or “Product Sets”. Each of these options is explained in more detail below.

However, if this is an automatically generated Label Print List (i.e. created by the Automatic Label Creation Process), then this screen is bypassed when you select the View or Edit option for this Print List, and you are taken directly to the View Item List screen.

7.2.2.1 “Product List” List Type

If you select “Product List” as the List Type, then the following screen is shown and you are able to add Included/Excluded Merchandise Management Groups, Included/Excluded Products and Included/

Excluded Product Attributes in order to build up the list of products for the Print List. The product list is generated based on these criteria, once you select the View Item List option.

Label Print Lists

The following details apply to Label Print List LPL00010001 created on 12/03/12 16:38.

Field	Value
Print List ID	LPL00010001
Creation Date	12/03/12 16:38
Status	New
Label Type	General
Check Available Stock	<input checked="" type="checkbox"/>
List Type	Product List

Included Merchandise Management Groups

Excluded Merchandise Management Groups

Included Products

Excluded Products



Included Attributes

Excluded Attributes

View Item List

Label Print Lists

The following details apply to Label Print List LPL00010001 created on 12/03/12 16:38.

Field	Value
Print List ID	LPL00010001
Creation Date	12/03/12 16:38
Status	New
Label Type	General
Check Available Stock	<input checked="" type="checkbox"/>
List Type	CSV Import
Import CSV	→
View Item List	→
 	

If you select “Import CSV”, then the application will try to find the file LabelPrintList.csv in the folder <ORG_HOME>/<ORG_ID>/LabelPrintList/Import (where <ORG_HOME> is the Organisation’s Home folder and <ORG_ID> is the Organisation ID). This is consistent with other areas of the RJ application such as Goods In. The format of each line is the product ID and a quantity, separated by a comma. If a line contains only a product ID without a quantity, then this is accepted, with the quantity defaulting to 1 for that product.

If the file does not exist then an error message is displayed; otherwise the file is read and the Item List is generated as the file is read in, for each product ID and, optionally, quantity. If a product being read from the file doesn’t exist in the database then it will be ignored. Once the import is complete, then you are taken to the View Item List screen.

7.2.2.3 “By Date” List Type

If you select “By Date” as the List Type, then the following screen is shown instead, so that you can enter a date/time.

Label Print Lists

The following details apply to Label Print List LPL00010001 created on 12/03/12 16:38.

Field	Value
Print List ID	LPL00010001
Creation Date	12/03/12 16:38
Status	New
Label Type	General
Check Available Stock	<input checked="" type="checkbox"/>
List Type	By Date
Enter Date	01/03/12 00:00
View Item List	→
 	

This option includes all products which have been updated since the entered date/time, or whose price has been updated since the entered date/time.

7.2.2.4 “Price Change” List Type

If you select “Price Change” as the List Type, then the following screen is shown instead, so that you can select a Price Change from a drop-down list. Only Price Changes where the End Date is in the future (or where the End Date is blank) is shown in the list. Selecting a Price Change will include all products in that Price Change.

Label Print Lists

The following details apply to Label Print List LPL00010001 created on 12/03/12 16:38.

Field	Value
Print List ID	LPL00010001
Creation Date	12/03/12 16:38
Status	New
Label Type	General
Check Available Stock	<input checked="" type="checkbox"/>
List Type	Price Change
Select Price Change	1125291 - 25% Promotion
View Item List	




 



7.2.2.5 “Product Sets” List Type

If you select “Product Sets” as the List Type, then the following screen is shown instead, so that you can enter Product Sets instead of products.

Label Print Lists

The following details apply to Label Print List LPL00010001 created on 12/03/12 16:38.

Field	Value
Print List ID	LPL00010001
Creation Date	12/03/12 16:38
Status	New
Label Type	General
Check Available Stock	<input checked="" type="checkbox"/>
List Type	Product Sets
Included Product Sets	<div>   <input type="text"/> </div>
View Item List	

This option allows you to enter a list of Included Product Sets (rather than products) and is used to print labels containing information about Product Sets. To add a Product Set ID to the included list, the ID can either be entered manually or you can press the Product Set search icon to search for Product Sets to include.

Many of the Field Types described apply to products rather than product sets. Therefore if this is a "Product Sets" List Type then any fields which aren't applicable to product sets are ignored on the label.

7.2.3 View Item List



Once you have selected the List Type and selected/entered any additional criteria, at this point the Print List can be saved for editing again later if required. Or if the "View Item List" option is selected, then the list of items is generated based on the List Type and any additional criteria selected, and the Item List screen is shown with the list of products to be included in the label print – this is known as the "Item List". This screen will automatically be shown if you edit an automatically created ("Scheduled") Print List. The "View Item List" option will not be available if the Print List is being shown in view mode.

Note that when the list of products is generated, if the "Check Available Stock" flag was ticked on the previous screen, then the Available stock level is checked for each product as it is added to the Print List, and if found to be zero or less then the product will not be added.

If this Print List is for a "Product List", "By Date" or "Price Change" List Type, then the products is grouped by department and sequenced by product ID within each department:

Label Print Lists



Please select the items to be printed for Label Print List LPL00010001 created on 12/03/12 16:38.

Selected	Product ID	Description	Quantity
Department 1010 - Jewellery			
<input checked="" type="checkbox"/>	10100000	JEFF BANKS WATCH	<input type="text" value="3"/>
<input checked="" type="checkbox"/>	10100231	DIAMOND BRACELET	<input type="text" value="1"/>
Department 2050 - Mens' Shirts			
<input checked="" type="checkbox"/>	20501003	BEN SHERMAN - BLUE XS	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	20501004	BEN SHERMAN - BLUE S	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	20501005	BEN SHERMAN - BLUE M	<input type="text" value="1"/>
<input type="checkbox"/>	20501006	BEN SHERMAN - BLUE L	<input type="text" value=""/>
<input checked="" type="checkbox"/>	20501007	BEN SHERMAN - BLUE XL	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	20501010	BEN SHERMAN - GREEN M	<input type="text" value="1"/>
Select All	→		
Unselect All	→		
Generate Labels	→		
Refresh Item List	→		
Return to Print Lists	→		
 			

However, In the case of a "Product Sets" List Type, department grouping is not applicable, so the screen will show an ungrouped list of Product Sets and their descriptions:

Label Print Lists



Please select the product sets to be printed for Label Print List LPL00010001 created on 12/03/12 16:38.

Selected	Product ID	Description	Quantity
<input checked="" type="checkbox"/>	10400045	EKT FIESTA /2	<input type="text" value="3"/>
<input checked="" type="checkbox"/>	10400082	EKT MG FIEST/2	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	10400140	EKT.SANNE	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	10700396	VITR. BART2-D/2	<input type="text" value="1"/>
Select All	→		
Unselect All	→		
Generate Labels	→		
Refresh Item List	→		
Return to Print Lists	→		
 			

In the case of a “CSV Import” List Type, it is imperative that the order in which the items were read in is preserved, and the labels printed in the same order, therefore in this case the list of items is ungrouped and shown in the order they were imported:

Label Print Lists

Please select the items to be printed for Label Print List LPL00010001 created on 12/03/12 16:38.

Selected	Product ID	Description	Quantity
<input checked="" type="checkbox"/>	20501003	BEN SHERMAN - BLUE XS	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	10100000	JEFF BANKS WATCH	<input type="text" value="3"/>
<input checked="" type="checkbox"/>	20501004	BEN SHERMAN - BLUE S	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	20501005	BEN SHERMAN - BLUE M	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	20501007	BEN SHERMAN - BLUE XL	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	20501006	BEN SHERMAN - BLUE L	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	10100231	DIAMOND BRACELET	<input type="text" value="1"/>
<input checked="" type="checkbox"/>	20501010	BEN SHERMAN - GREEN M	<input type="text" value="1"/>
Select All	→		
Unselect All	→		
Generate Labels	→		
Refresh Item List	→		
Return to Print Lists	→		
 			

“Select All” and “Unselect All” options is available so that all products can be selected or unselected.

The quantity field against each product dictates the number of labels to be printed for that product. In the case of List Types “Product List”, “By Date” or “Price Change”, the quantity field is auto-filled from the “Default Number of Shelf Edge Labels” field from the Store Product details. If this record is not available then the quantity will default to 1. In the case of a “Product Sets” List Type, there is no applicable Store Product Details record, so the quantity will default to 1. In the case of the “CSV Import” List Type, the quantity is set to the quantity read in from the Import File. If no quantity was imported for a particular product, then the quantity will default to the above mentioned Store Product details field, or 1 if the Store Product record is not available.

In all cases, you are manually able to adjust the quantity for each product if additional labels are required. If the quantity is set to zero for a particular product or the product is unticked then a label will not be printed for that product.

If the “Selected” flag is unticked for a particular product, then its quantity is cleared and will not be editable.

The “Refresh Item List” will clear the Item List and generate it again from the criteria selected in the previous screen, overwriting any changes the user has made. This will also enable the criteria to be changed in the previous screen. However, if this is done, then the Item List will not be generated again unless the “Refresh Item List” option is selected.

The “Return to Print Lists” will return to the main Select Label Print List screen without you having to go back to the intermediate screen. Any changes made to the Print List are saved.

Additionally, if the applicable Shelf Edge Label for this Print List contains any “User Entered Text” Field Types, then for each such field, a text box is shown, in which you can enter some text, up to the maximum length specified by the “User Entered Text Length” property, as shown below, to be printed on the label. Each text box is preceded by the Description of the Label Field.

Label Print Lists

Please select the items to be printed for Label Print List LFL00010001 created on 12/03/12 16:38.

Options	Product ID	Description	Quantity
Department 1010 - Jewellery			
<input checked="" type="checkbox"/>	10100000	JEFF BANKS WATCH	3
<input checked="" type="checkbox"/>	10100231	DIAMOND BRACELET	1
Department 2050 - Mens' Shirts			
<input checked="" type="checkbox"/>	20501003	BEN SHERMAN - BLUE XS	1
<input checked="" type="checkbox"/>	20501004	BEN SHERMAN - BLUE S	1
<input checked="" type="checkbox"/>	20501005	BEN SHERMAN - BLUE M	1
<input checked="" type="checkbox"/>	20501006	BEN SHERMAN - BLUE L	1
<input checked="" type="checkbox"/>	20501007	BEN SHERMAN - BLUE XL	1
<input checked="" type="checkbox"/>	20501010	BEN SHERMAN - GREEN M	1
Select All	→		
Unselect All	→		
Store Reference	<input type="text" value="2865"/>		
Generate Labels	→		

Once the user has made their selection, they will need to select the “Generate Labels” option. This will create the labels as a PDF file, by using the configuration options selected in Label Field Maintenance and taking into account the number of labels requested per product in the above screen. As per other RJ stock applications, this will then bring up an option to either open the PDF file or download it to a specific location. It is then up to the user to print the PDF to the relevant printer.

After the PDF file has been generated, the Status of the Label Print List will change to “Printed” and it will no longer be editable. The RJ application will remain in the View Print List screen.

7.3 Automatic Label Creation Process


This process is an automated way of generating a Label Print List with all the required products, based on specific criteria. This process can be run at Estate Manager or store level.

The Process Configuration for this process contains the standard process config options, plus Start Time and End Time, and some additional parameters to configure how a label print should be triggered for a particular product:

Process Config Maintenance

You are editing configuration for process Automatic Label Creation Process, device ALL.TIP.501

Field	Value
Process ID	AutomaticLabelCreationProce
Device ID	ALL.TIP.501
Cluster Node	
Enabled	<input checked="" type="checkbox"/>
Auto Start	<input checked="" type="checkbox"/>
Start Time	00:00
End Time	00:00
Check Available Stock	<input checked="" type="checkbox"/>

Trigger Criteria	
Price	Any Change
Loyalty Points	Not Applicable
	<div>Not Applicable</div> <div>Upwards Change</div> <div>Downwards Change</div> <div>Any Change</div>

Initially, “Price” and “Loyalty Points” are supported as possible trigger options for printing a Shelf Edge Label. For each of these trigger options, you are able to select from a drop-down list containing four entries:

- Not Applicable – this option is not required as a trigger option
- Upwards Change – the label print is triggered only if the price/loyalty points increases
- Downwards Change – the label print is triggered only if the price/loyalty points decreases
- Any Change – the label print is triggered if there is any change in price/loyalty points

Additionally, a flag, “Check Available Stock”, is available to tick. This indicates that only products which have a positive Available stock level should have a label printed, as described in the above section. The value of this flag is carried through to the Label Print List.

A supporting database table, ProductLabelTriggerValues, is used, with the following schema definition:

- Product_ID (String)
- Location_Type (numeric)
- Location_ID (String)
- Trigger_Field (String)
- Current_Trigger_Value (String)

The Trigger Field is a String value of either “Price” or “LoyaltyPoints” (although other fields may be added in future). This table will record the current value of each of these properties for each product on the system which has the “Print Shelf Edge Label” flag ticked (if a Store Product details record exists for the product at this location then the flag is checked in that record, otherwise it is checked in the standard product record). The format of the Current_Trigger_Value is defined internally by the application (e.g. a price of £5.99 may be recorded internally as 599).

The location type and location ID are needed because the price or loyalty points (or any future field) could differ per product per store.

When the Label Creation Process is started, either manually or automatically, if it is within the Start and

End times defined for the process, then the process will create and submit a new type of Job, a "Label Creation Job". This job will perform the necessary work to generate the Label Print Lists. The status of the Job can be viewed in Job Maintenance, as per other Jobs.

When the Job is submitted, its first task is to check which locations it needs to process. If the job is running at estate manager, it will process all locations, if it is running at a store it will use the current location only. For each of these location(s), create an empty Label Print List, ready for population. The Label Type of the Label Print List is the Label Type configured as the "Automatic Shelf Edge Label" for the applicable location, as this is what determines which type of label should be printed for that store. If no "Automatic Shelf Edge Label" is selected for a particular store, then no Label Print List is generated for that store.

Next, the Job will iterate through all products at all locations which have the "Print Shelf Edge Label" flag ticked (if a Store Product details record exists for the product at this location then the flag is checked in that record, otherwise it is checked in the standard product record), and also where the database Row_Updated column is later than the last time the process ran, to make the query as efficient as possible. For each of these products, a check is performed for each of the configured trigger fields, to determine whether the current value of the field has changed against the value recorded in the ProductLabelTriggerValues table. If it is determined that the value has changed then an entry for the product is added to the Label Print List as a type of Included Product. Additionally, the Current Trigger Value column in the ProductLabelTriggerValues table is updated with the new value, to ensure that a label for this product isn't printed again the next time the process runs (unless the value changes again).

The exception to this is that if it is a change in price which would trigger the label print, and the new price is part of a Price Change, then before adding the product to the Print List, we need to check whether a Print List has already been generated for that Price Change (as described in the next paragraph) and, if so, then don't add the product to the Print List. In this case, the trigger value still needs to be updated.

Once all products have been checked, the next task is to determine whether there are any outstanding Price Changes which require labels to be printed. It is assumed that labels for products which are part of a Price Change will want to be printed before the Price Change is due to take effect (as, otherwise the label is created due to the trigger value change discussed above). Therefore, the Job will consider only future Price Changes (i.e. where the Start Date is in the future), and for each one found, it will check whether there is already a Print List generated for it. It will know this because the Price Change ID is recorded in the Label Print List. If one is not found, then a new Label Print List of List Type "Price Change" is generated, with the Price Change ID set in the appropriate field. The products contained in the Price Change will then be added to this Print List.

The Job will then end and its status is set to Completed.

Label Print Lists is propagated down to the relevant stores if created at the EM and an application alert is raised to the store to indicate that the Print List has been received.

7.4 Roles

An appropriate set of roles, consistent with other areas of Retail-J, is created for all the functionality described here.

7.5 Purging

As well as the option for the user to be able to manually delete a Label Print List from the main screen, the Print Lists will also be automatically purged. The purge age is configurable in the Location Profile as per other entities.