

Retek[®] Point-of-Sale[™]

10.4

Receipt and Report Builder User Guide

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Internet (ROCS)	rocs.retek.com Retek's secure client Web site to update and view issues
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Phone	+1 612 587 5800
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- Functional and technical description of the problem (include business impact).
- Detailed step-by-step instructions to recreate.
- Exact error message received.
- Screen shots of each step you take.

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Introduction

Retek® Integrated Store Operations (ISO) - Object Library and Tools Receipt & Report Builder™ (Receipt & Report Builder) is a Java-based design program for visually customizing and building receipts. From content to design, Receipt & Report Builder allows you to format the content of receipts by dragging and dropping business object attributes into selected areas. By creating a sample of a transaction for which a receipt will be assigned to, you can graphically “program by example” the instructions that Receipt & Report Builder will use to format the transaction receipt. Also, you can store receipts in an electronic journal for auditing purposes. Receipt & Report Builder requires minimal programming knowledge to modify, create, and maintain receipt blueprints against sample transactions.

Before you begin using Receipt & Report Builder, you should be familiar with the following terms:

- **Receipt blueprints**—control the formatting and printing of receipts against transactions. A receipt blueprint can contain multiple receipt reports against a single transaction type. The receipt blueprint is the repository of instructions that Receipt & Report Builder will use to format a receipt.
- **Receipt reports**—are contained within receipt blueprints. Each receipt report is associated with the individual printed documents or receipts. A receipt report specifies instructions that apply to each printed receipt as a whole and is the container for the report sections or line groups.
- **Receipt line groups**—control the printing of iterating structure. Receipt line groups are used to separate header and footer information from a detail section of a receipt so the header and footer information is not repeated for each detail line. Receipt line groups contain receipt data elements.
- **Receipt data elements**—are the building blocks of a receipt. There are two kinds of receipt data elements: static (parts of the receipt that are printed as they appear in the receipt blueprint) and method (parts of the receipt that the information is extracted from a business object after a transaction is invoked).
- **Receipt sample data object (RDO)**—is the example transaction that is used to build a blueprint. There is no existing library or RDOs. RDOs are created real-time.
- **Receipts**—are the physical pieces of paper that print when a receipt report is invoked against a transaction.
- **Footers**—can be attached to a receipt blueprint. Footers consist of one footer line group and either single or multiple footer data elements.

For example, within the Receipt & Report Builder library of receipt blueprints, there is a receipt blueprint for a layaway transaction. The layaway receipt blueprint contains multiple receipt reports. Each receipt report represents a different type of receipt that will be printed after a layaway transaction is completed: customer, store, layaway box, and electronic journal. Each receipt report is made up of different receipt line groups that contain receipt data elements that dictate the information that appears on each receipt.

In order to modify a receipt blueprint, run the application and generate the appropriate transactions. When generating a transaction, you must include the information that pertains to the part of the receipt that you are modifying. For example, you decided to modify the information printed on a receipt for a payment using a Mastercard. First, you must generate a sales transaction using a Mastercard. Afterwards, use the generated RDO sample as the example when you modify that receipt blueprint.



Note: For performance reasons, by default, RDOs are not automatically generated. To automatically generate RDOs, modify the PRODUCE_RDO= tag in the JPOS_peripherals.cfg file.

Receipt & Report Builder has a library of over 50 receipt blueprints. The library of receipt blueprints serve as a design layout for receipts printed against every transaction in the system. You can modify and customize all receipt blueprints.

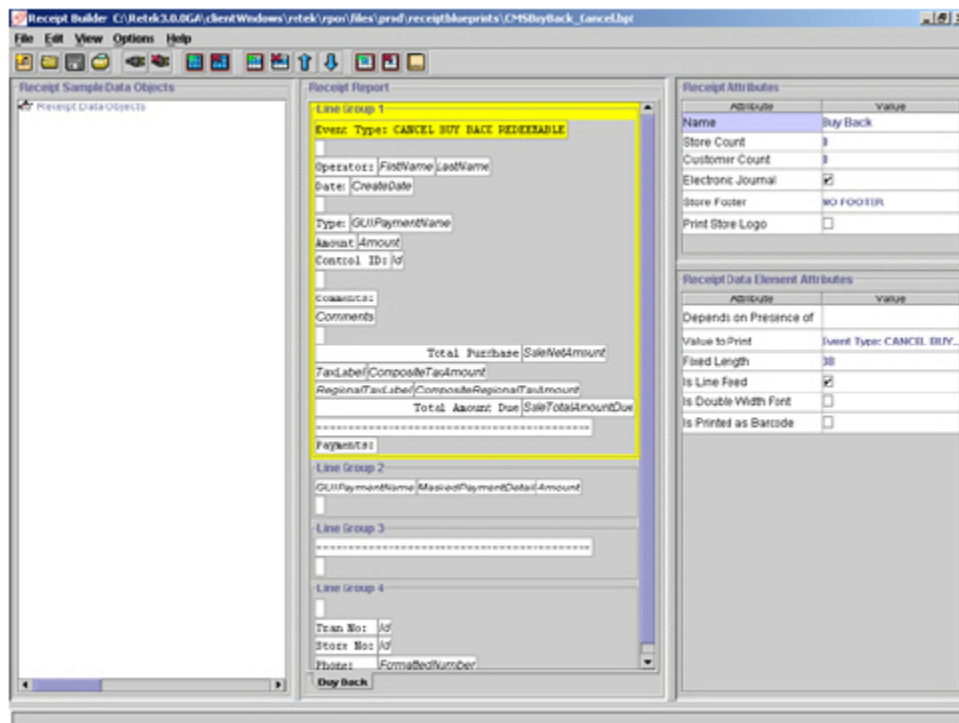


Note: Receipt blueprints have a .bpt extension and can be found in the \files\prod\receiptblueprints folder.

Receipt & report builder workspace

The **Receipt & Report Builder** workspace is a single window consisting of the following components:

- Menu bar
- Toolbar (with command buttons)
- Panes



Receipt & Report Builder workspace

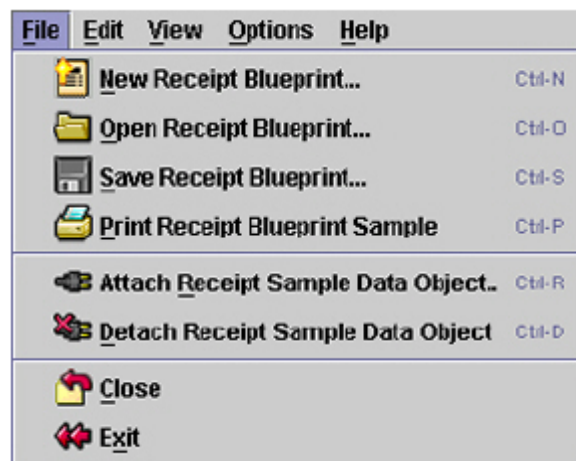
Receipt & report builder menus

Receipt & Report Builder contains the following menus:

- File
- Edit
- View
- Option
- Help

File menu

Using the **File** menu, you can create, save, open, and print a receipt blueprint. page 4 lists and describes the menu options on the **File** menu.



File menu

File Menu Options	
Menu Option	Description
New Receipt Blueprint*	Allows you to create a new receipt blueprint.
Open Receipt Blueprint*	Allows you to open an existing receipt blueprint.
Save Receipt Blueprint*	Allows you to save a receipt blueprint.
Print Receipt Blueprint Sample*	Allows you to print a sample of a receipt blueprint.
Attach Receipt Sample Data Object*	Allows you to open an RDO and attach it to a receipt blueprint.
Detach Receipt Sample Data	Allows you to detach an RDO from a receipt blueprint.

File Menu Options	
Menu Option	Description
Object*	
Close	Allows you to close an open receipt blueprint.
Exit	Allows you to exit Receipt & Report Builder.



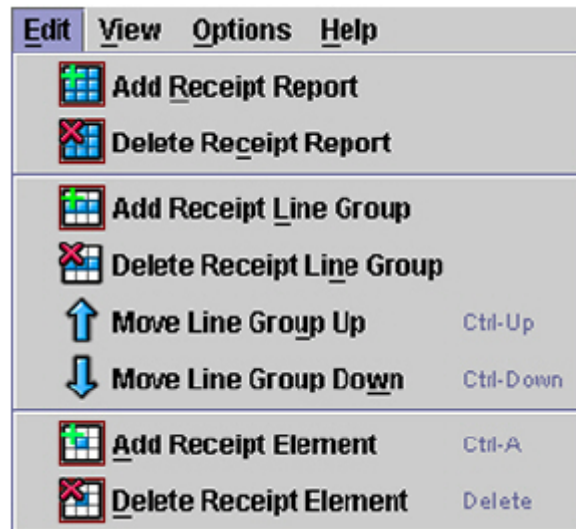
Note: Menu options marked with an asterisk (*) have corresponding command buttons available on the toolbar.



Note: The menu options will vary when working with footers.

Edit menu

Using the **Edit** menu, you can create and edit existing receipt blueprints. page 6 lists and describes the menu options on the **Edit** menu.



Edit menu

Edit Menu Options	
Menu Option	Description
Delete Receipt Report*	Allows you to delete a receipt report from a receipt.
Add Receipt Line Group*	Allows you to add a receipt line group to a receipt report.
Delete Receipt Line Group*	Allows you to delete a receipt line group from a receipt report.
Move Line Group Up*	Allows you to move a receipt line group up in the order of appearance on a receipt report.
Move Line Group Down*	Allows you to move a receipt line group down in the order of appearance on a receipt report.
Add Receipt Element*	Allows you to add receipt data elements to a receipt report.
Delete Receipt Element*	Allows you to delete receipt data elements to a receipt report.
Add Receipt Report*	Allows you to add a receipt report to a receipt.



Note: Menu options marked with an asterisk (*) have corresponding command buttons available on the toolbar.



Note: The menu options will vary when working with footers.

View menu



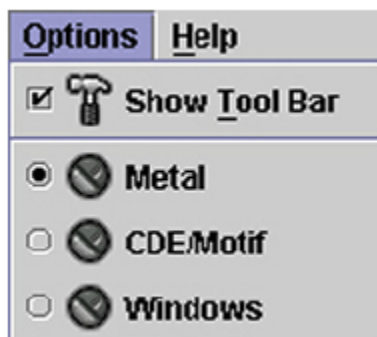
View menu

View Menu Options	
Menu Option	Description
Footers	Allows you to open the footer workspace.
Language (English, Spanish, and French)	Allows you to maintain multiple versions of a receipt blueprint based on language.



Note: The menu options will vary when working with footers.

Option menu

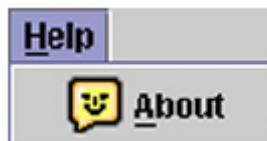


Option menu

Option Menu Options	
Menu Option	Description
Show Toolbar	Allows you to show and hide the toolbar.
Window Skins (Metal, CDE/Motif, and Windows)	Allows you to change the look and feel of the Receipt & Report Builder.

Help menu

The **Help** menu allows you to access online help topics and an online version of this user guide.



Help menu

Shortcut keys

Receipt & Report Builder allows you to invoke certain commands or functions using a combination of keyboard keys or keystroke combinations. The table below lists and describes the shortcut keys in Receipt & Report Builder.

Shortcut keys	
Action	Result
CTRL + N	Creates a new receipt blueprint.
CTRL + O	Opens an existing receipt blueprint.
CTRL + S	Saves the active receipt blueprint.
CTRL + P	Prints the active receipt blueprint.
CTRL + R	Attaches an RDO to a receipt blueprint.
CTRL + D	Detaches an RDO to a receipt blueprint.
CTRL + Up	Moves a receipt line group up one receipt line group.
CTRL + Down	Moves a receipt line group down one receipt line group.

Shortcut keys	
Action	Result
CTRL + A	Adds a receipt element to a receipt blueprint.
CTRL + C	Closes Receipt & Report Builder.
CTRL + X	Exits Receipt & Report Builder.
CTRL + F	Opens the Footer workspace.
Delete	Deletes a receipt data element from a receipt report.

Toolbar and command buttons

The Receipt & Report Builder toolbar contains command buttons that allow you to perform specific commands and functions with the press of a button.






Toolbar and command buttons




When opening Receipt & Report Builder, several command buttons on the toolbar are unavailable and appear dimmed. Only the **New Receipt Blueprint** and the **Open Receipt Blueprint** command buttons appear available when opening Receipt & Report Builder. To make the remaining command buttons available, you must either open or create a new receipt blueprint.



Note: To view the definition of a command button, hover the cursor over the button.

Receipt & Report Builder Command Buttons		
Command Button	Button	Description
New Receipt Blueprint		Allows you to create a new receipt blueprint.
Open Receipt Blueprint		Allows you to open an existing receipt blueprint.
Save Receipt Blueprint		Allows you to save a receipt blueprint.

Receipt & Report Builder Command Buttons		
Command Button	Button	Description
Print Receipt Blueprint		Allows you to print a receipt blueprint.
Attach Receipt Sample Data Object		Allows to you attach an RDO to a receipt blueprint.
Detach Receipt Sample Data Object		Allows you to detach an RDO from a receipt blueprint.
Add Receipt Report		Allows you to add a receipt report to a receipt.
Delete Receipt Report		Allows you to delete a receipt report from a receipt.
Add Receipt Line Group		Allows you to add a receipt line group to a receipt report.
Delete Receipt Line Group		Allows you to delete a receipt line group from a receipt report.
Move Receipt Line Group Up		Allows you to move a receipt line group up in the order of appearance on a receipt report.
Move Receipt Line Group Down		Allows you to move a receipt line group down in order of appearance on a receipt report.

Receipt & Report Builder Command Buttons		
Command Button	Button	Description
Add Receipt Element		Allows you to add a receipt element to a receipt report.
Delete Receipt Element		Allows you to delete a receipt element from a receipt report.
Footer		Allows you to open the Footer workspace and create and modify footers.

Panes

Panes are the working area of Receipt & Report Builder. Each pane graphically displays the layout and attributes of receipt blueprints, RDOs, and receipt data elements. Receipt & Report Builder consists of the following panes:

- **Receipt Report** pane—Displays the physical layout of the receipt element.
- **Receipt Attributes** pane—Displays receipt properties and attributes that you can modify.
- **Receipt Data Element Attributes** pane—Displays receipt data element values and attributes that you can modify.
- **Receipt Sample Data Objects** pane—Displays data fields that are available to print on a receipt.



Note: The **Report Footer** pane and the **Footer Data Element Attributes** pane are displayed in the **Footer** workspace.

Receipt report pane

The **Receipt Report** pane displays the layout and design of a receipt. Receipt reports are made up of receipt line groups and receipt data elements. The attributes of receipt data elements are displayed in the **Receipt Data Element Attributes** pane when a data element is selected.



Note: Method elements appear italicized in the **Receipt Data Element Attributes** pane.

Receipt Report

Line Group 1

CANCEL CANCEL CANCEL CANCEL CANCEL

BUY BACK REDEEMABLE

Operator: *FirstName* *LastName*

Date: *CreateDate*

Type: *GUIPaymentName* *Amount* *Amount*

Control ID: *Id*

Total Purchase *SaleNetAmount*

Tax *SaleTaxAmount*

Total Amount Due *SaleTotalAmountDue*

Payments:

Line Group 2

GUIPaymentName *Amount*

Line Group 3

Line Group 4

Tran No: *Id* Store No: *Id*

Phone: *Phone*

Id

Buy Back

Receipt Report pane

Receipt attributes pane

The **Receipt Attributes** pane displays the general properties and attributes of a receipt blueprint. The pane is tabular and divided into two columns—**Attribute** and **Value**.



Note: For more information on configurable receipt attributes, see “Defining Receipt Attributes”.

Receipt Attributes	
Attribute	Value
Name	Buy Back
Store Count	0
Customer Count	0
Electronic Journal	<input checked="" type="checkbox"/>
Store Footer	Expanded
Print Store Logo	<input checked="" type="checkbox"/>

Receipt Attributes pane

Receipt data element attributes pane

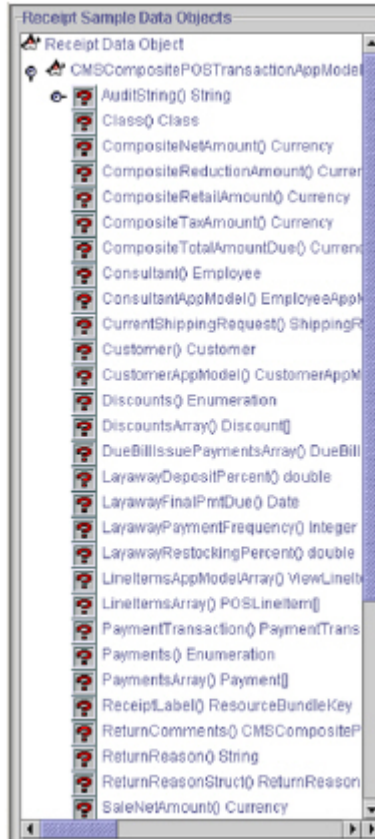
When receipt data elements in the **Receipt Report** pane are selected, their attributes are displayed in the **Receipt Data Element Attributes** pane. The pane is tabular and divided into two columns—**Attribute** and **Value**. Changes to receipt data element attributes are based on whether you select a static or method element.

Receipt Data Element Attributes	
Attribute	Value
Depends on Presence of	
Value to Print	CANCEL CANCEL CAN...
Fixed Length	39
Is Line Feed	<input checked="" type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>
Is Printed as Barcode	<input type="checkbox"/>

Receipt Data Element Attributes pane

Receipt sample data objects pane

The **Receipt Sample Data Object** pane displays data fields that are available for the user to print on a receipt. You can drag and drop an RDO from the **Receipt Sample Data Objects** pane into the receipt data element fields on the **Receipt Report** pane.



Receipt Sample Data Objects pane

Edit a receipt blueprint

Retek® Integrated Store Operations (ISO) - Object Library and Tools Receipt & Report Builder™ (Receipt & Report Builder) includes over 50 receipt blueprints and sample transactions for you to customize and modify. You can modify the receipt layout, add receipt line groups, attach or detach a receipt sample data object (RDO), and place fixed data elements by using the menu and toolbar selections.



Note: Receipt blueprints have a **.bpt** extension and can be found in the `\files\prod\receiptblueprints` folder.

Receipt & Report Builder has the following receipt blueprint editing features:

- Attaching an RDO to a receipt blueprint
- Detaching an RDO to a receipt blueprint
- Adding receipt line groups
- Deleting receipt line groups
- Moving receipt line groups
- Adding receipt data elements
- Deleting receipt data elements
- Defining the attributes of receipt data elements
- Defining receipt attributes

Open a receipt blueprint

Before you can begin customizing or modifying a receipt blueprint, you must first open a receipt blueprint from the receipt blueprint and sample transaction library.



Note: See **Appendix B** for a list of receipt blueprints and sample transactions that are included with Receipt & Report Builder.

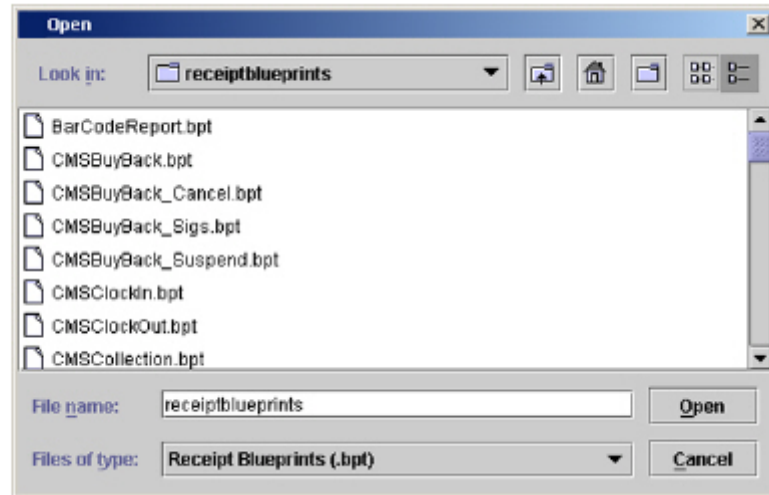
To open a receipt blueprint:

1. Select **File>Open Receipt Blueprint**.
OR
Click the **Open Receipt Blueprint** button.



OR

Press and hold **CTRL** and **O** (**CTRL+O**) at the same time. This is the shortcut key for opening a receipt blueprint. The **Open** dialog box is displayed.



2. Navigate to the receipt blueprint directory.



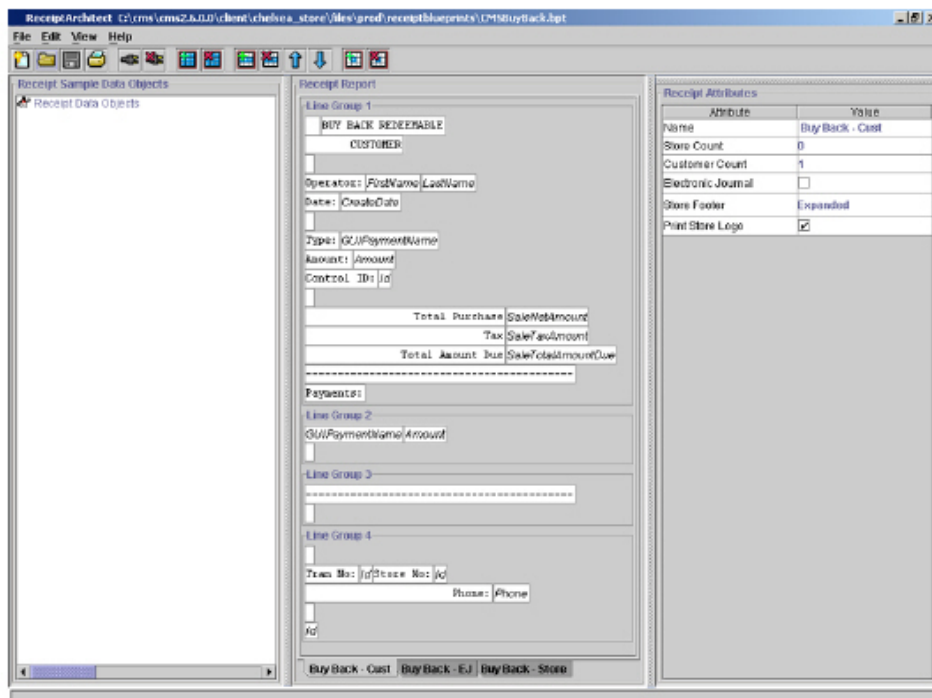
Note: The default path is \files\prod\receiptblueprints.

3. Select the appropriate receipt blueprint.



Note: Receipt blueprints have a **.bpt** extension.

4. In the **Open** dialog box, click the **Open** button. The attached RDO, receipt layout, and attributes of the selected receipt blueprint are displayed in the appropriate panes.



Print a receipt blueprint sample

While creating or modifying a receipt blueprint, you can print the receipt blueprint to view a hardcopy sample of the receipt blueprint. Printing a copy of the receipt blueprint allows you to compare the softcopy version of the receipt blueprint to a printed copy of the receipt.

To print a receipt blueprint sample:

- Select **File>Print Receipt Blueprint Sample**.
OR
Click the **Print Receipt Blueprint Sample** button.

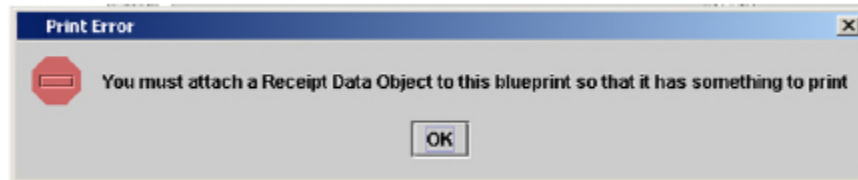


OR

Press and hold **CTRL** and **P** (**CTRL+P**) at the same time. This is the shortcut key for printing a receipt blueprint sample. A hardcopy sample of the selected receipt blueprint is printed to an attached printer.



Note: You must attach an RDO before printing a receipt blueprint. If you do not have an RDO attached to the receipt blueprint, the **Print Error** dialog box is displayed. To close the dialog box, click **OK**.



Attach and detach receipt sample data objects

The Retek® Point of Sale and Cash Management™ application overwrites an RDO (for example, comSCompositePOSTransaction.rdo) every time POS creates and completes a transaction. An RDO is similar to a serialized business object—it is an example to build a receipt against. An RDO is used as a sample to graphically instruct the application where to find the variable data elements for a receipt. In order to modify method elements in an existing receipt blueprint, you must attach an RDO to the receipt blueprint.



Note: A receipt data object is created after you complete a transaction.

Saving a receipt blueprint with an attached RDO is convenient for frequent modification of the receipt blueprint. However, it is best practice to detach the RDO before saving the receipt blueprint at the end of the day.



Note: You can explore a serialized business object by clicking on the tree nodes in the **Receipt Sample Data Object** pane.

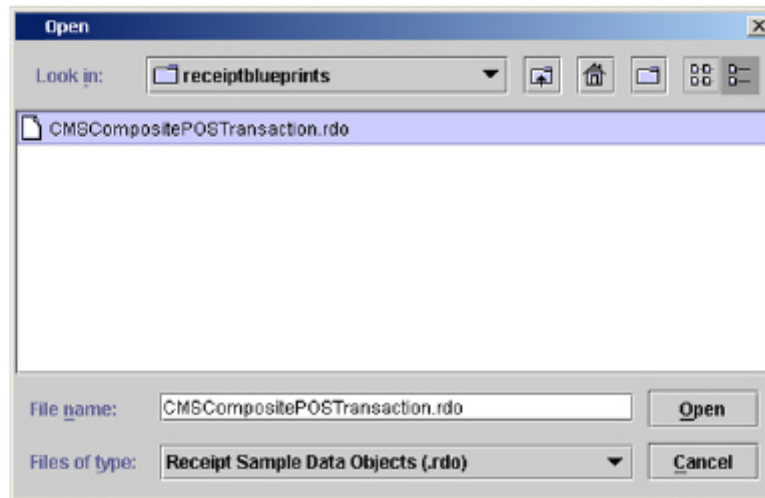
Attach a receipt sample data object

To attach an RDO to a receipt blueprint:

1. Open a receipt blueprint.
2. Select **File>Open Receipt Sample Data Object**.
OR
Click the **Open Receipt Sample Data Object** button.



The **Open** dialog box is displayed.

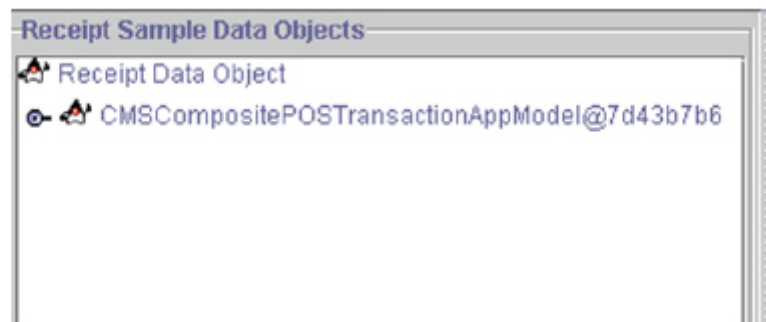


3. Navigate to the receipt blueprint directory.



Note: The default path is \files\prod\receiptblueprints.

4. Open the appropriate RDO. The selected RDO is displayed in the **Receipt Sample Data Object** pane.



Note: You must complete a transaction before you can create an RDO.



Note: Receipt sample data objects files have an **.rdo** extension.

5. After you find a method that returns the appropriate result, drag the method on an existing data element in the **Receipt Report** pane. The result of that method, defined in the instance of the object at run time, will be printed at that location.

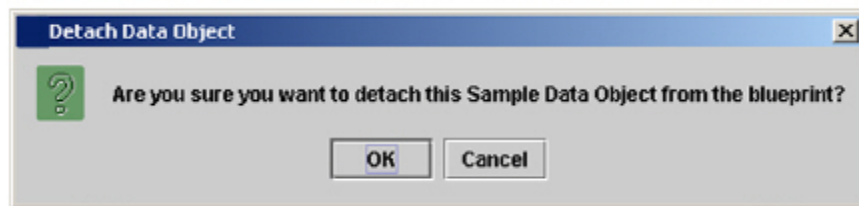
Detach a receipt sample data object

To detach an RDO:

1. Open a receipt blueprint.
2. Select **File>Detach Receipt Sample Data Object**.
OR
Click the **Detach Receipt Sample Data Object** button.



The **Detach Data Object** dialog box is displayed.



3. In the **Detach Data Object** dialog box, click **OK**. The selected RDO is removed from the **Receipt Sample Data Object** pane, and the RDO is detached from the receipt blueprint.

Receipt line groups

Receipt line groups control the printing of the iterating structure of a receipt. Receipt line groups are used to separate heading and footer information from a detail section of a receipt so that the heading and footer information is not repeated for each detail line. You can use multiple sets of receipt line groups for a single receipt blueprint.

Every data element in a receipt line group is printed for every occurrence of a repeating data element. For instance, if you have a data element whose value is derived from a method under an array (for example, price of a line item) each price in the array will be printed in turn until the array is exhausted. As each occurrence prints, any fixed elements in the receipt line group will also reprint.

Add receipt line groups

To add a receipt line group:

1. Open a receipt blueprint.
2. Select **Edit>Add Receipt Line Group**.
OR
Click the **Add Receipt Line Group** button.



The new receipt line group is displayed below the last receipt line group in the **Receipt Report** pane.

The screenshot shows a window titled "Receipt Report". Inside, there is a section labeled "Line Group 1" which is highlighted with a yellow background. Below this label, there is a text element placeholder represented by the text "<---Text Element--->".

3. If you want to add more receipt line groups, repeat step 2.

After adding a receipt line group, the **Receipt Attributes** pane allows you to add attributes to the receipt data elements. For more information on defining the attributes of a receipt, see “Defining Receipt Elements”.

Delete receipt line groups

To delete receipt line groups:

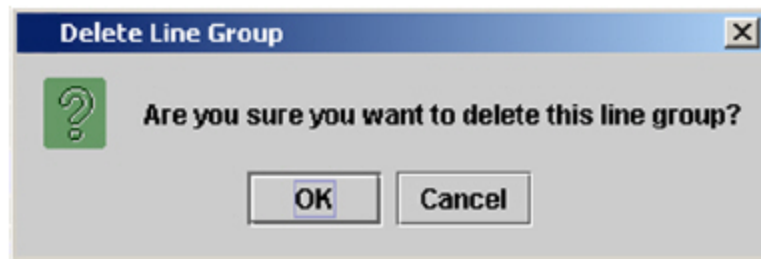
1. Open a receipt blueprint.
2. Select the receipt line group you wish to delete. The selected receipt line group is outlined in yellow.

The screenshot shows a window titled "Receipt Report" with a "Receipt Attributes" pane. The pane contains several line groups. "Line Group 1" is selected and outlined in yellow. It contains the following elements: "BUY BACK REDEEMABLE", "CUSTOMER", "Operator: FirstName LastName", "Date: CreateDate", "Type: GUIPaymentName", "Amount: Amount", "Control ID: id", "Total Purchase: SaleNetAmount", "Tax: SalesTaxAmount", and "Total Amount Due: SaleTotalAmountDue". Below this, there is a "Payments:" section. "Line Group 2" contains "GUIPaymentName Amount". "Line Group 3" is empty. "Line Group 4" contains "Tran No: id Store No: id" and "Phone: Phone". At the bottom, there are three buttons: "Buy Back - Cust", "Buy Back - EJ", and "Buy Back - Store".

3. Select **Edit>Delete Receipt Line Group**.
OR
Click the **Delete Receipt Line Group** button.



The **Delete Line Group** dialog box is displayed.



4. In the **Delete Line Group** dialog box, click **OK**. The selected receipt line group is no longer displayed in the **Receipt Report** pane.
5. If you want to delete more receipt line groups, repeat steps 2-4.

Reorder receipt line groups

Receipt & Report Builder allows you to graphically move receipt line groups up and down to reorder and customize the appearance of a receipt report.

Move a receipt line group up

To move a receipt line group up:

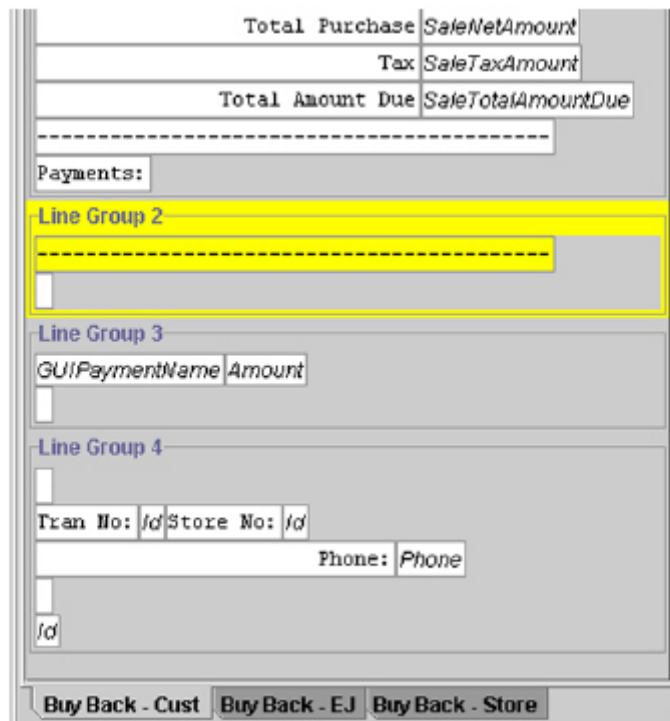
1. In the **Receipt Report** pane, select the receipt line group you want to move up. The selected receipt line group is outlined in yellow.

2. Select **Edit>Move Line Group Up**.
OR
Click the **Move Line Group Up** button



OR

Press and hold **CTRL** and **ARROW UP** (**CTRL+ARROW UP**) at the same time. This is the shortcut key for moving a receipt line group up. The selected receipt line group is moved up one receipt line group. Also, the receipt line group is renamed according to its position on the receipt layout. For example, the second receipt line group in a receipt report is named **Line Group 2**.



The screenshot displays a receipt layout with the following sections:

- Summary Section:** Contains fields for Total Purchase, Tax, and Total Amount Due, each with a corresponding SaleNetAmount, SaleTaxAmount, and SaleTotalAmountDue.
- Payments Section:** Labeled "Payments:", followed by a dashed line and a text input field.
- Line Group 2:** Highlighted in yellow, containing a dashed line and a text input field.
- Line Group 3:** Labeled "Line Group 3", containing a table with columns "GUIPaymentName" and "Amount", and a text input field.
- Line Group 4:** Labeled "Line Group 4", containing fields for Tran No, Store No, and Phone, each with a corresponding input field.
- Footer Section:** Contains three buttons: "Buy Back - Cust", "Buy Back - EJ", and "Buy Back - Store".

3. To move the selected receipt line group up another receipt line group, repeat step 2.

Move a receipt line group down

To move a receipt line group down:

1. In the **Receipt Report** pane, select the receipt line group you want to move down. The selected receipt line group is outlined in yellow.

The screenshot shows a receipt report interface. At the top, there are three rows of summary data: 'Total Purchase' with 'SaleNetAmount', 'Tax' with 'SaleTaxAmount', and 'Total Amount Due' with 'SaleTotalAmountDue'. Below this is a 'Payments:' section. Then, there are four 'Line Group' sections. 'Line Group 2' contains a 'GUIPaymentName' and 'Amount' field. 'Line Group 3' is highlighted with a yellow border and contains a dashed line. 'Line Group 4' contains 'Tran No: /d', 'Store No: /d', 'Phone: Phone', and a '/d' field. At the bottom, there are three buttons: 'Buy Back - Cust', 'Buy Back - EJ', and 'Buy Back - Store'.

2. Select **Edit>Move Line Group Down**.
OR
Click the **Move Line Group Down** button



OR

Press and hold **CTRL** and **ARROW DOWN** (**CTRL+ARROW DOWN**) at the same time. This is the shortcut key for moving a receipt line group down. The selected receipt line group is moved down one receipt line group. Also, the receipt line group is renamed according to its position on the receipt report. For example, the second receipt line group in a receipt report is named **Line Group 2**.

Total Purchase	<i>SaleNetAmount</i>
Tax	<i>SaleTaxAmount</i>
Total Amount Due	<i>SaleTotalAmountDue</i>

Payments:	
Line Group 2	
GUIPaymentName	Amount
Line Group 3	
Tran No: /d	Store No: /d
Phone: Phone	
/d	
Line Group 4	

Buy Back - Cust Buy Back - EJ Buy Back - Store	

- To move the selected receipt line group down another receipt line group, repeat step 2.

Add and delete receipt data elements

Receipt data elements are the building blocks of a receipt. There are two type of receipt data elements:

- Static elements**—Parts of the receipt that print as they appear on the **Receipt Report** pane. Headings are an example of a static element (for example, Total Amount Due).
- Method elements**—Parts of the receipt in which information is extracted from a business object, and they are displayed on the printed receipt. The appearance of a method element varies from what you see on the **Receipt Report** pane and what appears on the printed receipt. The information that is extracted from the business object is what appears on the printed receipt (for example, the monetary amount that represents the total amount the customer owes).



Note: In Receipt & Report Builder, method elements are italicized.

Receipt Report

Line Group 1

☐ BUY BACK REDEEMABLE

☐ CUSTOMER

Operator: *FirstName* *LastName*

Date: *CreateDate*

Type: *GUIPaymentName*

Amount: *Amount*

Control ID: */d*

Static element

Method element

Total Purchase	<i>SaleNetAmount</i>
Tax	<i>SaleTaxAmount</i>
Total Amount Due	<i>SaleTotalAmountDue</i>

Payments:

Receipt data elements are added to receipt line groups in the **Receipt Report** pane, and they are modified in the **Receipt Data Element Attributes** pane.

Add a receipt data element

To add a receipt data element:

1. Select the appropriate receipt line group. The selected receipt line group is outlined in yellow.

Receipt Report

Line Group 1

☐ BUY BACK REDEEMABLE

☐ CUSTOMER

Operator: *FirstName* *LastName*

Date: *CreateDate*

Type: *GUIPaymentName*

Amount: *Amount*

Control ID: */d*

Total Purchase	<i>SaleNetAmount</i>
Tax	<i>SaleTaxAmount</i>
Total Amount Due	<i>SaleTotalAmountDue</i>

Payments:



Note: If you are creating a new receipt blueprint, you will need to add receipt line groups before you can add receipt elements.

2. Select **Edit>Add Receipt Element**.

OR

Click the **Add Receipt Element** button.



OR

Press and hold **CTRL** and **A** (**CTRL+A**) at the same time. This is the shortcut key for adding a receipt element. The new receipt data element is added after the last receipt data element in the selected receipt line group.

The screenshot shows a 'Receipt Report' dialog box. Inside, there is a section titled 'Line Group 1' which is highlighted with a yellow border. Within this group, several data elements are listed: 'BUY BACK REDEEMABLE', 'CUSTOMER', 'Operator: FirstName LastName', 'Date: CreateDate', 'Type: GUIPaymentName', 'Amount: Amount', and 'Control ID: /d'. Below these, there are summary rows: 'Total Purchase SaleNetAmount', 'Tax SaleTaxAmount', and 'Total Amount Due SaleTotalAmountDue'. At the bottom of the group, there is a 'Payments:' section containing a yellow box with the text '<---Text Element--->'. An arrow points from the text 'Added receipt element' below to this yellow box.

Added receipt element



Note: If you have not selected a receipt line group, the **Indicate Line Group** dialog box is displayed. To close the dialog box, click **OK**.

The screenshot shows a dialog box titled 'Indicate Line Group'. It contains a red octagonal icon with a white 'X' and the text 'Please first click on the line group you would like to add an element to'. At the bottom right, there is an 'OK' button.

Reorder receipt data elements

After adding a receipt data element, you can reorder the receipt data element within the receipt line group by dragging and dropping the receipt data element in a different location in a receipt line group.

To reorder a receipt data element:

1. Select the appropriate receipt data element. The selected receipt data element is outlined in yellow.

The screenshot shows a 'Receipt Report' window. Inside, there is a 'Line Group 1' section. The elements within this group are:

- BUY BACK REDEEMABLE
- CUSTOMER
- Operator: FirstName LastName
- Date: CreateDate
- Type: GUIPaymentName
- Amount: Amount
- Control ID: /d
- Total Purchase SaleNetAmount
- Tax SaleTaxAmount
- Total Amount Due SaleTotalAmountDue
- Payments: <---Text Element--->

The 'Payments' element at the bottom is highlighted with a yellow border, indicating it is the selected element for reordering.

2. Drag the selected receipt data element to the desired location in the **Receipt Report** pane. A green field with an arrow is displayed to indicate where the selected receipt data element will be placed.

Receipt Report

Line Group 1

BUY BACK REDEEMABLE

----->>

Operator: *FirstName* *LastName*

Date: *CreateDate*

Type: *GUIPaymentName*

Amount: *Amount*

Control ID: *Id*

Total Purchase	<i>SaleNetAmount</i>
Tax	<i>SaleTaxAmount</i>
Total Amount Due	<i>SaleTotalAmountDue</i>

Payments: <---Text Element--->

- Drop the selected receipt data element in the desired location. The receipt data element is displayed in a new location.

Receipt Report

Line Group 1

BUY BACK REDEEMABLE

CUSTOMER <---Text Element--->

Operator: *FirstName* *LastName*

Date: *CreateDate*

Type: *GUIPaymentName*

Amount: *Amount*

Control ID: *Id*

Total Purchase	<i>SaleNetAmount</i>
Tax	<i>SaleTaxAmount</i>
Total Amount Due	<i>SaleTotalAmountDue</i>

Payments:



Note: Receipt elements can be dragged and dropped between different receipt line groups.

Delete a receipt data elements

To delete a receipt data element:

1. Select the appropriate receipt data element. The receipt data element is highlighted in yellow.

2. Select **Edit>Delete Receipt Element**.
OR
Click the **Delete Receipt Element** button.



OR

Click the **Delete** button. This is the shortcut key for deleting a receipt data element. The **Delete Element** dialog box is displayed.

3. In the **Delete Element** dialog box, click **OK**. The receipt data element is no longer displayed in the **Receipt Report** pane.

Receipt Report

Line Group 1

BUY BACK REDEEMABLE

CUSTOMER

Operator:

Date:

Type:

Amount:

Control ID:

Total Purchase

Tax

Total Amount Due

Payments:

Define receipt data element attributes

Receipt & Report Builder allows you to change the attributes of static receipt elements. Because method elements depend on information extracted from business elements, you cannot modify their attributes.

To define the attributes of a static element:

1. Select the static element you wish to change. The selected receipt data element is highlighted in yellow, and the attributes of the selected receipt data element are displayed in the **Receipt Data Element Attributes** pane.

Receipt Report

Line Group 1

BUY BACK REDEEMABLE

CUSTOMER

Operator:

Date:

Type:

Amount:

Control ID:

Total Purchase

Tax

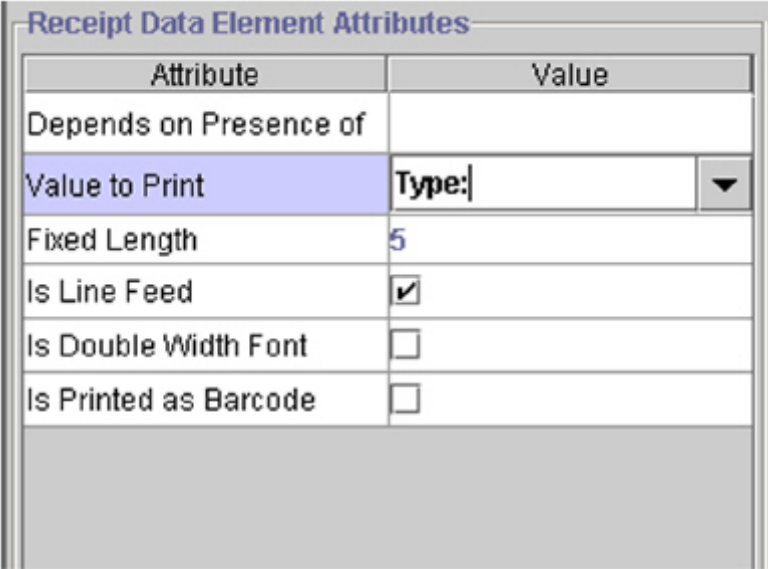
Total Amount Due

Payments:

Receipt Data Element Attributes

Attribute	Value
Depends on Presence of	
Value to Print	Type:
Fixed Length	5
Is Line Feed	<input checked="" type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>
Is Printed as Barcode	<input type="checkbox"/>

- In the **Receipt Data Element Attributes** pane, select the appropriate attribute. The attribute is highlighted in blue.

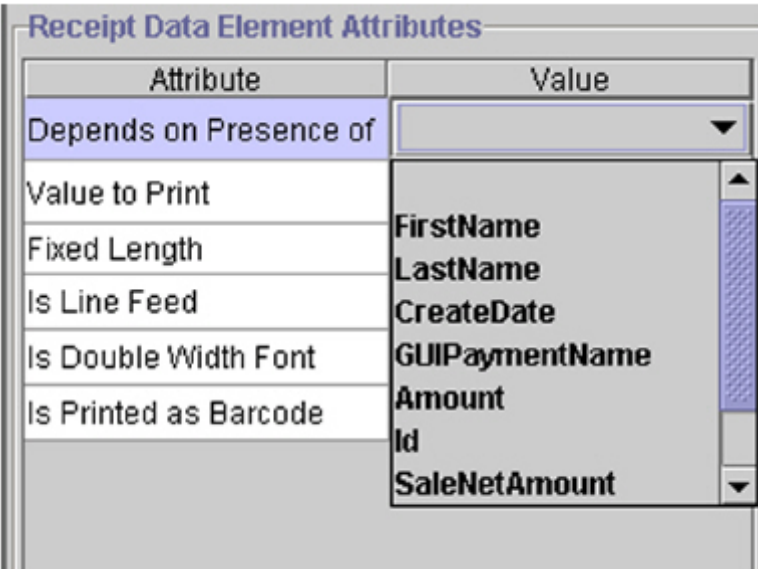


The screenshot shows the 'Receipt Data Element Attributes' pane. It contains a table with two columns: 'Attribute' and 'Value'. The 'Value to Print' attribute is highlighted in blue. The 'Value' field for 'Value to Print' is a text box containing 'Type:' followed by a drop-down arrow. Other attributes include 'Depends on Presence of', 'Fixed Length' (value: 5), 'Is Line Feed' (checked), 'Is Double Width Font' (unchecked), and 'Is Printed as Barcode' (unchecked).

Attribute	Value
Depends on Presence of	
Value to Print	Type: ▼
Fixed Length	5
Is Line Feed	<input checked="" type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>
Is Printed as Barcode	<input type="checkbox"/>



Note: To change the attribute of a receipt element in the **Depends on the Presence of** or the **Value to Print** fields, click the **Value** field and select a value from the drop-down list.



The screenshot shows the 'Receipt Data Element Attributes' pane. The 'Depends on Presence of' attribute is highlighted in blue. The 'Value' field for 'Depends on Presence of' is a drop-down menu showing a list of values: FirstName, LastName, CreateDate, GUIPaymentName, Amount, Id, and SaleNetAmount. Other attributes are visible but not highlighted.

Attribute	Value
Depends on Presence of	▼ FirstName LastName CreateDate GUIPaymentName Amount Id SaleNetAmount
Value to Print	
Fixed Length	
Is Line Feed	
Is Double Width Font	
Is Printed as Barcode	

- Define the new value for the element attributes.

Receipt Data Element Attributes	
Attribute	Value
Depends on Presence of	
Value to Print	Type of Payment ▼
Fixed Length	16
Is Line Feed	<input checked="" type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>
Is Printed as Barcode	<input type="checkbox"/>



Note: The new attribute or value of the selected receipt data element is displayed in the **Receipt Report** pane.

Receipt Report	
Line Group 1	
BUY BACK REDEEMABLE	
CUSTOMER	
Operator: <input type="text"/> <input type="text"/>	
Date: <input type="text"/>	
Type of payment: <input type="text"/>	
Amount: <input type="text"/>	
Control ID: <input type="text"/>	
Total Purchase <input type="text"/>	
Tax <input type="text"/>	
Total Amount Due <input type="text"/>	
Payments: <input type="text"/>	

Receipt Data Element Attributes	
Attribute	Value
Depends on Presence of	
Value to Print	Type of payment: ▼
Fixed Length	16
Is Line Feed	<input checked="" type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>
Is Printed as Barcode	<input type="checkbox"/>

Interpret receipt data element attributes

The table below lists receipt data element attributes, type of elements, how attribute values are defined, and the printed result of the defined attribute.

Receipt Data Element Attributes				
Attributes	Static Element	Method Element	Value	Description
Depends on Presence of	Yes		User supplied. Click in the value field to display a drop-down list of available values. Dependencies can include any method elements within the same receipt line group.	Prints the attribute if the dependency assigned to it is present.
Value to Print	Yes	Yes	User supplied. Enter the value for this attribute or select a value from the drop-down menu.	Prints the entered text or displayed value in the value field.
Fixed Length	Yes	Yes	System supplied for static elements. User supplied for method elements. Enter a fixed number of character spaces.	Prints only the fixed number of characters set by the user for an object element. For example, if you fix the length of a customer first name object to five, only the first five letters of the customer's first name will print.
Is Line Feed	Yes	Yes	User supplied. Select the check box to apply Is Line Feed as a value to the receipt data element.	Prints the selected receipt data element on the next line.
Is Double Width Font	Yes	Yes	User supplied. Select the check box to apply Is Double Width Font as a value to the receipt data element.	The selected receipt data element prints double the width of normal printed receipt data elements.
Is Printed as Barcode	Yes	Yes	User supplied. Select the check box to apply Is Printed as Barcode as a value to the receipt data element.	Prints the selected receipt data element as a barcode.

Receipt Data Element Attributes				
Attributes	Static Element	Method Element	Value	Description
Justified		Yes	User supplied. Select the value field to display a drop-down list of available values. Justified values include: left, center, and right.	Prints the selected receipt data element left, center, or right justified.
Is Preceded by Space		X	User supplied. Select the check box to apply Is Preceded by Space as a value to the receipt data element.	Prints a space before the selected element.
Object Navigation Path		Yes	System supplied.	Non-printable. Shows the object information.

The table below shows the additional values for the **DoubleValue** object element .

Values for the double value Object		
Attribute	Value	Result
Is Sign Reversed	User supplied. Select the check box to apply Is Sign Reversed to the receipt data element.	The numeric value is multiplied by -1.
Lead Format	User supplied. Enter the value.	Prints the Lead Format value in front of the number. For example, if you type \$, and the number returned by the object is 10, then \$10 is printed.
Trail Format	User supplied. Enter the value.	Prints the Trail Format value immediately after the number. For example, if you type \$, and the number returned is 10, then 10\$ is printed.
Lead Format if Neg	User supplied. Enter the value.	Prints the lead format for a negative number in front of the number. For example, if you type -\$, and the number returned is 10, then -\$10 is printed.
Trail Format if Neg	User supplied. Enter the value.	Prints the trail format for a negative number immediately after the number. For example, if you type -\$, and the number returned is 10, then 10-\$ is printed.

Values for the double value Object		
Attribute	Value	Result
Decimal Places Shown	User supplied. Enter a numeric value.	Prints the number with the decimal value assigned. For example if you type 3, and the number returned is 10.23475, then 10.234 is printed.
Is printed when zero	User supplied. Select the check box to assign Is printed when zero to the receipt data element.	If checked, prints the values returned as zero. If unchecked, does not print values returned as zero.

Define receipt attributes

Receipt attributes are those values assigned to a receipt. The available attributes are displayed in the **Receipt Attributes** pane.

Interpret Receipt Attributes

The table below lists receipt attributes, how the value of an attribute is defined, and the printed result of each attribute.

Status bar features		
Attribute	Value	Result
Name	User supplied. Enter the name of the receipt.	Non-printable. For your reference only.
Store Count	User supplied. Enter a numeric value.	Prints the defined number of receipts as store copies.
Customer Count	User supplied. Enter a numeric value.	Prints the defined number of receipts as customer copies.
Electronic Journal	User supplied. Check the check box to print a copy of the receipt to the electronic journal.	If selected, a copy of the receipt is printed to the electronic journal.
Store Footer	User supplied. Click in the value field to display a list of available footers. If there are no footers available, the NO FOOTERS value is displayed.	Prints the attached receipt footer.

Status bar features

Attribute	Value	Result
Print Store Logo	User supplied. Click to check the box and assign Print Store Logo as the value.	Prints the store logo if the box is checked.

Define a receipt name

To define the name of the receipt:

1. In the **Receipt Attributes** pane, select the **Name** value field. The selected row is highlighted in blue.

The screenshot shows a window titled "Receipt Attributes" containing a table with two columns: "Attribute" and "Value". The "Name" row is highlighted in blue. The other rows are: "Store Count" with value "0", "Customer Count" with value "1", "Electronic Journal" with an unchecked checkbox, "Store Footer" with value "None", and "Print Store Logo" with an unchecked checkbox.

Attribute	Value
Name	New Receipt Report
Store Count	0
Customer Count	1
Electronic Journal	<input type="checkbox"/>
Store Footer	None
Print Store Logo	<input type="checkbox"/>

2. Enter the receipt name and press the **Enter** key.

The screenshot shows the same "Receipt Attributes" window. The "Name" row is still highlighted in blue, but the value has been updated to "Return Item Receipt". The other rows remain the same as in the previous screenshot.

Attribute	Value
Name	Return Item Receipt
Store Count	0
Customer Count	1
Electronic Journal	<input type="checkbox"/>
Store Footer	None
Print Store Logo	<input type="checkbox"/>

Define the number of receipts printed to the store

To define the number of receipts printed to the store:

1. In the **Receipt Attributes** pane, select the **Store Count** value field.

Receipt Attributes	
Attribute	Value
Name	Return Item Receipt
Store Count	0
Customer Count	1
Electronic Journal	<input type="checkbox"/>
Store Footer	None
Print Store Logo	<input type="checkbox"/>

2. Enter the number of printed store copy receipts and press the **Enter** key.

Receipt Attributes	
Attribute	Value
Name	Return Item Receipt
Store Count	1
Customer Count	1
Electronic Journal	<input type="checkbox"/>
Store Footer	None
Print Store Logo	<input type="checkbox"/>



Note: The default value for the number of receipts printed to the store is zero.

Attach a footer to a receipt blueprint

Before you can attach a footer to a receipt blueprint, you must create footers. After you have created footers, you can attach any footer to a receipt blueprint.



Note: If there are no footers, the only available option is **No Footer**.

To add a footer to a receipt blueprint:

1. In the **Receipt Attributes** pane, select the **Store Footer** drop-down value field.

Attribute	Value
Name	New Receipt Report
Store Count	0
Customer Count	1
Electronic Journal	<input type="checkbox"/>
Store Footer	NO FOOTER ▼
Print Store Logo	NO FOOTER
	sample_footer
	sample2
	sales_transaction

2. Select a value from the drop-down list. The selected value is displayed in the **Store Footer** value field.

Attribute	Value
Name	New Receipt Report
Store Count	0
Customer Count	1
Electronic Journal	<input type="checkbox"/>
Store Footer	sales_transaction
Print Store Logo	<input checked="" type="checkbox"/>

Print receipts to an electronic journal

An electronic journal stores electronic copies of printed receipts. If the **Electronic Journal** option is checked, Receipt & Report Builder will send a copy of the printed receipt in the form of a text file to the electronic journal. You can access and view the text files in the POS application using the **Reports** option in the **Management Menu** window.

To print receipts to an electronic journal:

- In the **Receipt Attributes** pane, select the check box in the **Electronic Journal** value field.

Receipt Attributes	
Attribute	Value
Name	Return Item Receipt
Store Count	1
Customer Count	1
Electronic Journal	<input checked="" type="checkbox"/>
Store Footer	Expanded
Print Store Logo	<input type="checkbox"/>

Print a store logo on a receipt

Receipt & Report Builder allows you to print the company or store logo on the receipts. The location of the image file of the logo is stored in a configuration file so you do not have to specify the image file or the location of the image file to print the logo. By default, the logo is printed at the top of the receipt in the header area.

To print a store logo on a receipt:

- In the **Receipt Attributes** pane, click the checkbox in the **Print Store Logo** value field.

Receipt Attributes	
Attribute	Value
Name	Return Item Receipt
Store Count	1
Customer Count	1
Electronic Journal	<input checked="" type="checkbox"/>
Store Footer	Expanded
Print Store Logo	<input checked="" type="checkbox"/>

Save a modified receipt blueprint

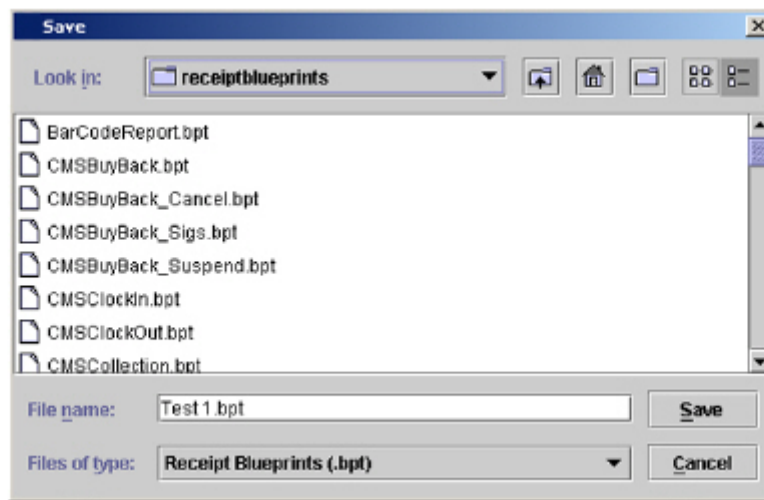
To save a modified receipt blueprint:

1. Select **File>Save Receipt Blueprint**.
OR
Click the **Save Receipt Blueprint** button.

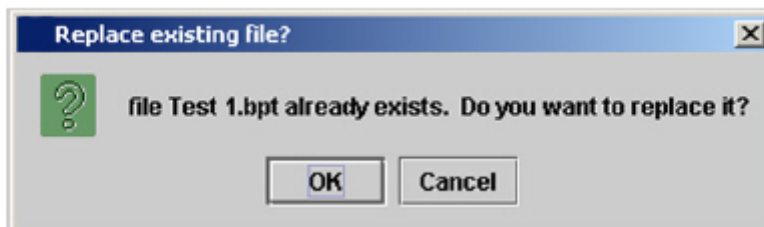


OR

Press and hold **CTRL** and **S** (**CTRL+S**) at the same time. This is the shortcut key for saving a receipt blueprint. The **Save** dialog box is displayed.



2. Click **Save**. The **Replace Existing File?** dialog box is displayed.



3. In the **Replace Existing File?** dialog box, click **OK**. The file is updated with the new version.



Note: If you do not want to replace the existing file with the updated file, click the **Cancel** button in the **Replace Existing File?** dialog box.

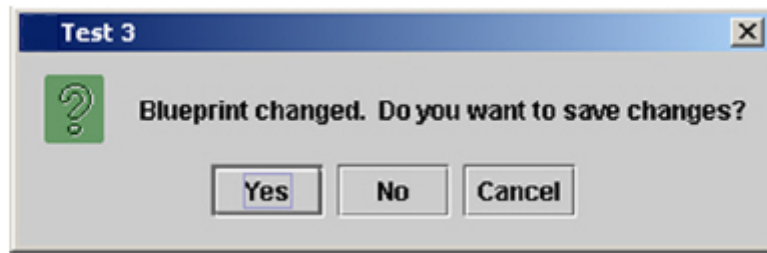
Close a receipt blueprint

To close a receipt blueprint:

1. Select **File>Close**.

OR

Press and hold **CRTL** and **C** (**CTRL+C**) at the same time. This is the shortcut key for closing a receipt blueprint. The **Save Changes** dialog box is displayed.



2. To save changes and close the receipt blueprint, click **Yes**.
OR
To close the receipt blueprint without saving changes, click **No**.
OR
To cancel closing the receipt blueprint, click the **Cancel** button.

Exiting receipt/report builder

To exit Receipt & Report Builder:

- Select **File>Exit**.

OR

Press and hold **CRTL** and **X** (**CTRL+X**) at the same time. This is the shortcut key for exiting Receipt & Report Builder. The Receipt & Report Builder application is closed.

Create a new receipt blueprint

Retek® Integrated Store Operations (ISO) - Object Library and Tools Receipt & Report Builder™ (Receipt & Report Builder) allows you to create receipt blueprints for the POS application based on transactional data. After saving a receipt blueprint, you can print receipts against the receipt blueprint. The following are steps to creating a new receipt:

1. Create a receipt blueprint.
2. Invoke the receipt.



Note: Before you begin creating a new receipt, see Appendix B for a library of receipt blueprints and sample transactions that comes with Receipt & Report Builder.

Create a new receipt blueprint



Note: Before you begin creating a new receipt blueprint, you may have to serialize a sample of the business object you wish to report against. For more information, see Appendix A, “Serializing a Business Object.”



Note: The Java code for a POS GUI window must be modified to allow a new receipt blueprint file name to be called at the appropriate window. If there is an existing receipt that prints at the desired window, it is recommended that you modify that receipt blueprint rather than create a new receipt blueprint.



Note: Receipt blueprints have a **.bpt** extension and can be found in the `\files\prod\receiptblueprints` folder.

To create a new receipt blueprint:

1. Select **File>New Receipt Blueprint**.
OR
Click the **New Receipt Blueprint** button.



The **Enter Blueprint Name** dialog box is displayed.

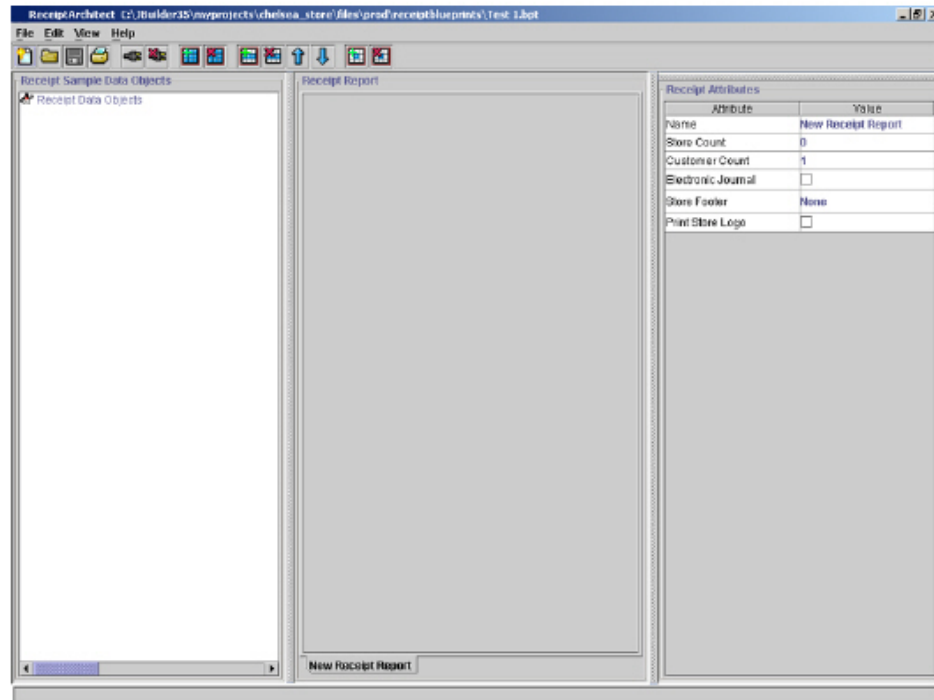


2. In the **Enter Blueprint Name** dialog box, enter the name of the receipt blueprint.

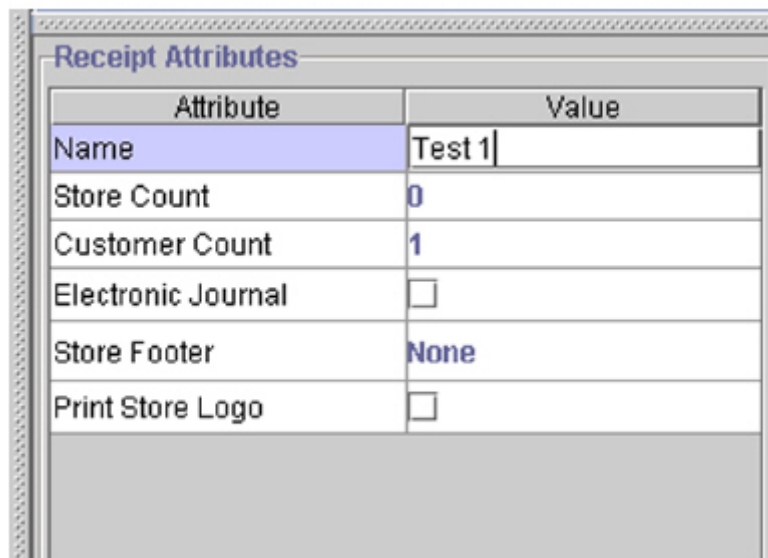


Note: Do not type the **.bpt** file extension to the filename. Receipt & Report Builder automatically attaches the **.bpt** file extension to the filename.

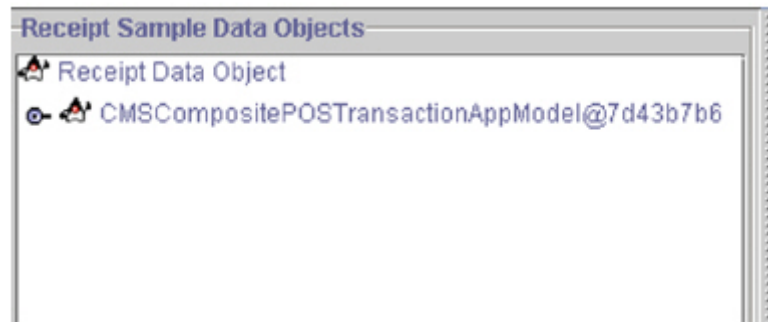
- Click **OK**. The appropriate panes are displayed.



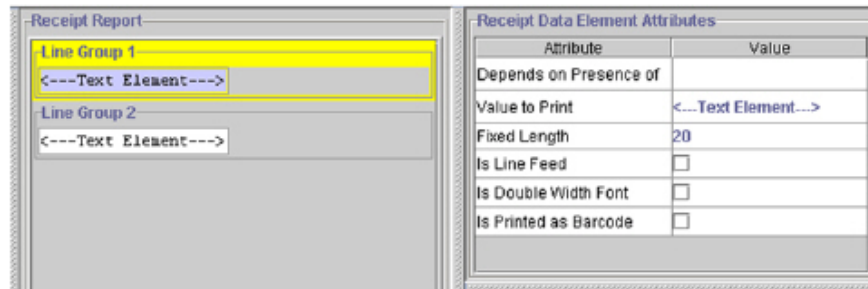
- In the **Receipt Attributes** pane, enter the receipt blueprint name.



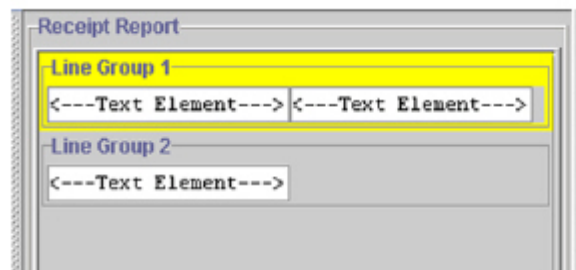
- Attach a receipt sample data object (RDO). The RDO is the business object you serialized before you created a receipt blueprint. The attached RDO is displayed in the **Receipt Sample Data Object** pane.



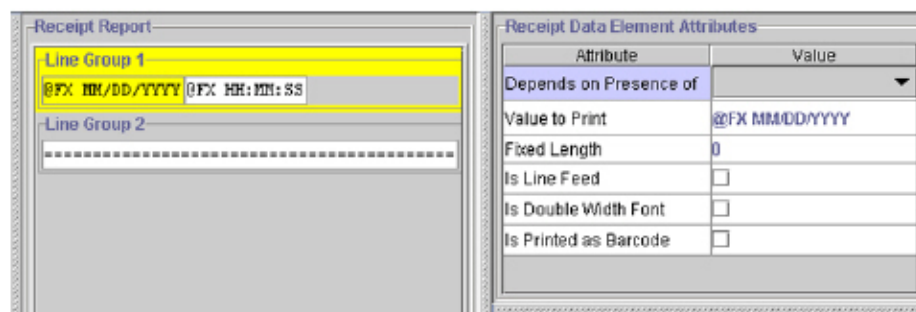
- Add the appropriate number of receipt line groups. Each added receipt line group contains one default static receipt element. The receipt line groups are displayed in the **Receipt Report** pane. After adding a receipt line group, the **Receipt Data Element Attributes** pane is displayed.



- In the line groups, add receipt data elements. The receipt data elements are displayed in the **Receipt Report** pane.



- Define the receipt element attributes.



9. Define the receipt attributes.
10. To print and review a copy of the receipt, select **File>Print Receipt Blueprint Sample**.
OR
Click the **Print Blueprint Sample** button.



OR

Press and hold **CRTL** and **P** (**CTRL+P**) at the same time. This is the shortcut key for printing a receipt blueprint sample.

11. To detach the RDO, select **File>Detach Receipt Sample Data Object**.
OR
Click the **Detach Receipt Sample Data Object** button



12. Save the receipt.
13. Define the name of the receipt in the **ReceiptBlueprintInventory** class.

Invoke the receipt

The final step to creating a new receipt is invoking the receipt within Receipt & Report Builder.

To invoke the receipt within the application:

1. Return to the section of the code where you want to print the receipt.
2. Remove the code that serializes the sample object.



Note: You may want to omit this step for performance reasons and perform it only when testing with receipts.

3. Instantiate a **ReceiptFactory** by passing the sample object as the first member of an array (the object you serialized in the beginning and the object you are reporting against).
The following is an example of the code for the receipt blueprint name:

```
Object[] arguments= {MyReportableObjectAppModel };  
ReceiptFactory receiptFactory=new ReceiptFactory (arguments,  
ReceiptBlueprintInventory.MyNewReceipt);
```

4. Localize the receipt so it prints in the appropriate language for the customer and the store.
The following is an example of the code:

```
ReceiptLocalSetter localeSetter=new RecieptLocaleSetter(store;customer);
```

5. Add new code that prints the receipt. The following is an example of the code:

```
receiptFactory.print(iReceiptAppManager);
```

Save a new receipt blueprint

To save a new receipt blueprint for the first time:

1. Select **File>Save Receipt Blueprint**.

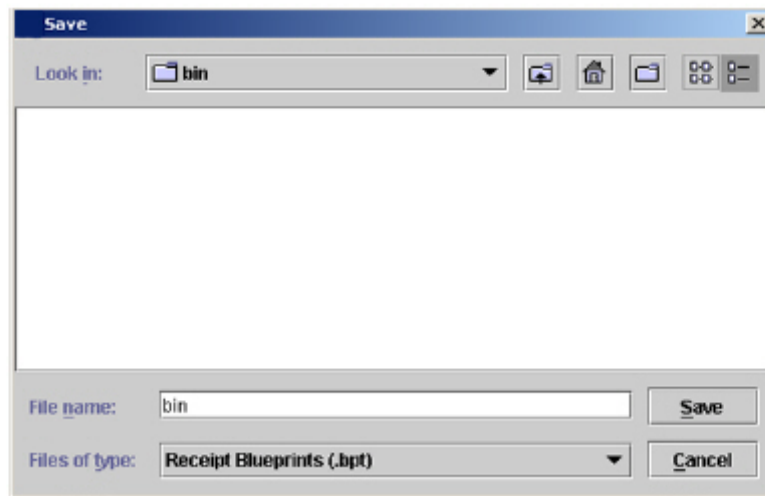
OR

Click the **Save Receipt Blueprint** button.

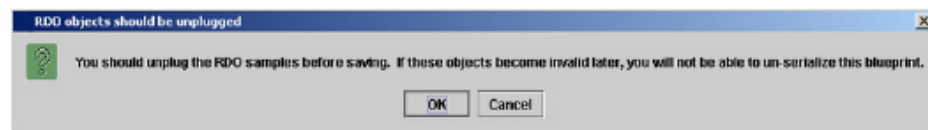


OR

Press and hold **CTRL** and **S** (**CTRL+S**) at the same time. This is the shortcut key to saving a receipt blueprint. The **Save** dialog box is displayed.



Note: If a receipt sample data object is attached to the receipt blueprint, the **RDO objects should be unplugged** dialog box is displayed. To continue saving the receipt blueprint without detaching the RDO, click **OK**.



2. Navigate to the appropriate directory.
3. In the **File Name** field, enter the receipt blueprint name.

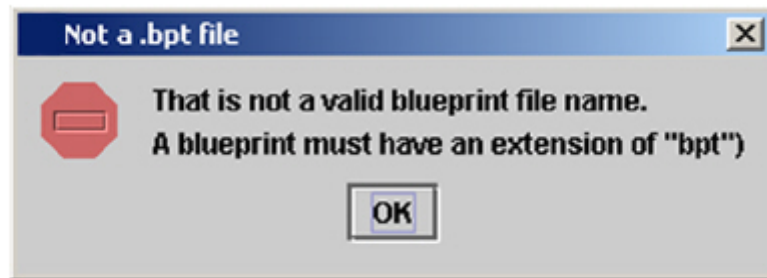


Note: When entering the receipt blueprint name, you must include a **.bpt** extension.

- Click **Save**. The receipt blueprint name is displayed in the window header.



Note: If you did not include the **.bpt** extension to the receipt blueprint name, the **Not a .bpt File** message box is displayed.



Clone a receipt report

Cloning a receipt report allows you to create multiple versions of a receipt report without having to recreate the entire receipt report each time. After cloning a receipt report, you can modify the receipt report to fit your business practices and needs.

Within a receipt blueprint, you can have multiple versions of a receipt report that either print or send to the electronic journal different information that is invoked by a transaction. For example, if a customer returns an item without exchange, a buy back transaction is required. The Java code for the POS GUI screen calls the **BuyBack.bpt** receipt blueprint. The buy back transaction invokes this receipt blueprint to print three copies of a receipt: customer, store, and electronic journal. After the buy back transaction is completed, the sales associate will hand the customer a copy of the receipt, a copy will remain for the store record, and a text copy of this receipt is sent to the electronic journal. Each copy of the receipt, whether printed or electronic, can contain either the same information or different information depending on the receipt report.

Clone a receipt report

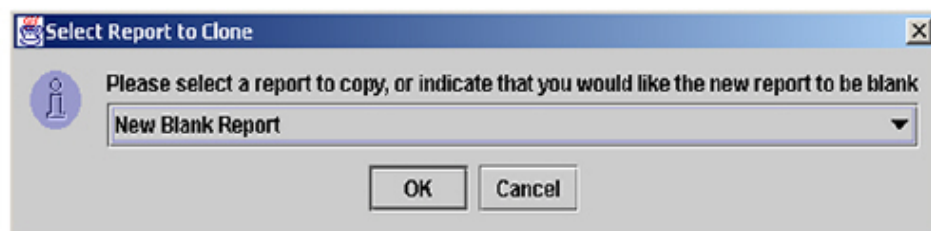
Cloning a receipt report allows you to create a multiple versions of a receipt report. If you a creating a new receipt blueprint, the cloning feature allows you to create a receipt report and then clone it if needed.

To clone a receipt report:

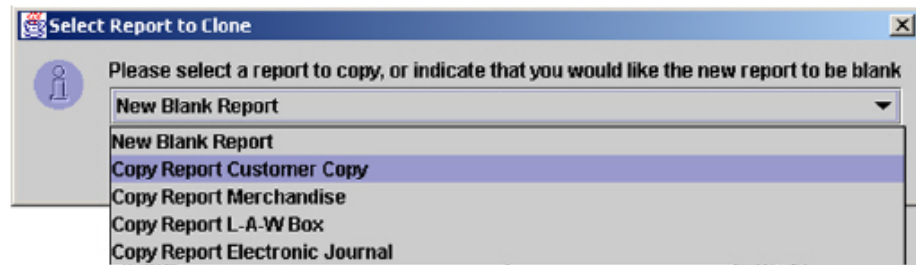
1. Open a receipt blueprint.
2. Select **Edit>Add Receipt Report**.
OR
Click the **Add Receipt Report** button.



The **Select Report to Clone** dialog box is displayed.

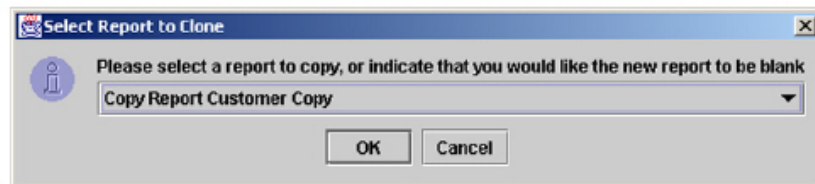


3. In the **Select Report to Clone** dialog box, click the drop-down menu.



Note: The drop-down menu includes all receipt reports within the selected receipt blueprint.

4. Select the appropriate receipt report.



5. Click **OK**. A copy of the selected receipt report is added to the receipt blueprint, and it becomes the active receipt report.



Note: The system provides a default name for the cloned receipt report. The default naming convention is **Receipt** (number of receipt layouts within the selected receipt blueprint). For example, **Layout.bpt** has four receipt layouts. If you clone one of the receipt reports, the cloned receipt report will be named **Receipt Layout5**.

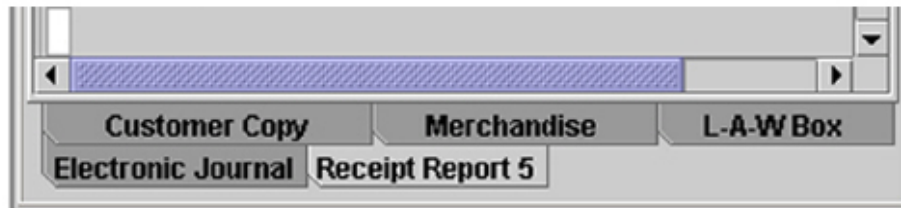
6. Modify the receipt report. For more information on modifying a receipt report, see Chapter 2, “Editing a Receipt Blueprint.”

Delete a receipt report

Within a receipt blueprint, you may find that you no longer need a receipt report. If this is the case, you can delete this receipt report from the receipt blueprint.

To delete a receipt report:

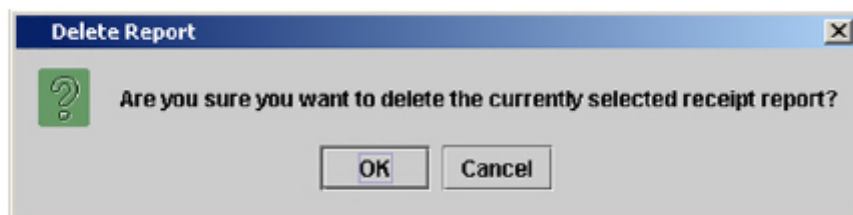
1. Open a receipt blueprint.
2. Select the appropriate receipt report.



3. Select **Edit>Delete Receipt Report**.
OR
Click the **Delete Receipt Report** button.



The **Delete Receipt Report** dialog box is displayed.



4. In the **Delete Receipt Report** dialog box, click **OK**. The selected receipt report is removed from the receipt blueprint.



Change the language of a receipt

Using the internationalization feature, Retek® Integrated Store Operations (ISO) - Object Library and Tools Receipt & Report Builder™ (Receipt & Report Builder) allows you to create receipts in multiple languages. This feature will translate all method receipt elements that return a message bundle key. However, you will have to modify the static receipt elements.



Note: Dates are not formatted to be location-specific. Future versions of Receipt & Report Builder will support this feature.

Receipt & Report Builder supports the following languages:

- English (United States)
- Spanish (Mexico)
- French (Canada)
- French (France)

To change the language of a receipt:

1. In the **Receipt Report** pane, select a receipt element in a receipt line group. The selected receipt data element is outlined in yellow.

Receipt Report

Line Group 1

BUY BACK REDEEMABLE

CUSTOMER

Operator:

Date:

Type:

Amount:

Control ID:

Total Purchase	<input type="text"/>
Tax	<input type="text"/>
Total Amount Due	<input type="text"/>

Payments:

2. Select the **View** menu and then select the appropriate language option. The the translation in the selected language is displayed for all static elements.



Note: If no translations for this receipt have been made, the **No_Foreign_Value** value is displayed in the **Value to Print** field.

Receipt Data Element Attributes	
Attribute	Value
Depends on Presence of	
Value to Print	NO_FOREIGN_VALUE
Fixed Length	5
Is Line Feed	<input checked="" type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>
Is Printed as Barcode	<input type="checkbox"/>

3. In the **Value to Print** field, translate the text that appears on the printed receipt and press the **Enter** key.

Receipt Data Element Attributes	
Attribute	Value
Depends on Presence of	
Value to Print	Fecha ▼
Fixed Length	5
Is Line Feed	<input checked="" type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>
Is Printed as Barcode	<input type="checkbox"/>

The receipt element field is updated in the **Receipt Report** pane to correspond with the translation.

Receipt Report

-Line Group 1-

BUY BACK REDEEMABLE	
CUSTOMER	
Operator:	FirstName LastName
Fecha	CreateDate
Type:	GUIPaymentName
Amount:	Amount
Control ID:	Id
Total Purchase	SaleNetAmount
Tax	SaleTaxAmount
Total Amount Due	SaleTotalAmountDue

Payments:	

- Continue translating the appropriate static elements.

Work with footers

The **Footer** option allows you to create and modify footers that are attached to receipt blueprints and appear on printed receipts. Footers are similar to receipt blueprints except footers do not have an object attached to them. The **Footer** option allows you to add and modify receipt line groups and data elements so you can tailor the contents of a footer that will appear at the bottom of a printed receipt.

Unlike receipt blueprints, Receipt & Report Builder does not a library of existing footers. You will have to create footers from scratch. You can attach a single footer to all receipt blueprints or tailor a footer for a specific receipt blueprint. Also, changes to a single footer will universally affect all receipt blueprints that the footer is attached to.



Note: Footers have an **.ftr** extension and can be found in the
\\files\\prod\\receiptblueprints directory.

To access the **Footer** workspace:

- If you are currently working with receipt blueprints, select **View>Footers**.
OR
Click the **Footers** button.

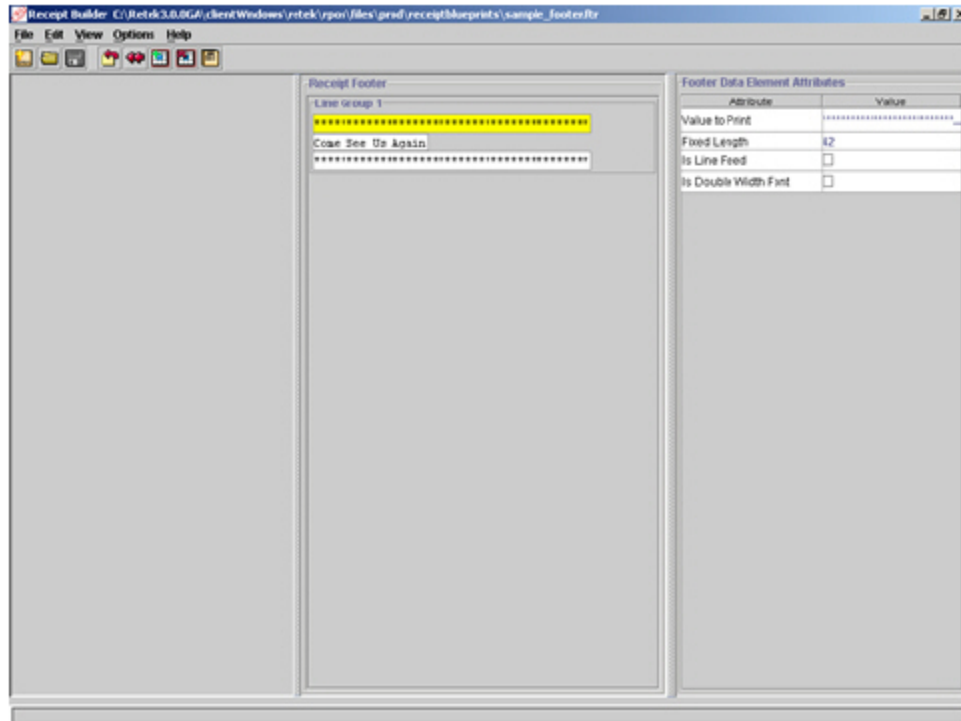


OR

Press and hold **CTRL** and **F** (**CTRL+F**) at the same time. This is the shortcut key for opening the **Footer** workspace.

Footer workspace

The Receipt & Report Builder workspace changes when you are working with footers. The menu options, toolbar, command buttons, and the panes all vary.



Footer workspace

Footer menus

While the menu names for receipt blueprints and footers are identical, some menu options are different. The following footer menus contain different menu options:

- File
- Edit
- View



Note: The **Option** menu and the **Help** menu for both receipt blueprints and footers contain the same menu options.

File menu

Using the **File** menu, you can create, save, and open footers.

File Menu Options	
Menu Option	Description
New Footer*	Allows you to create a new footer.
Open Footer*	Allows you to open an existing footer.
Save Footer*	Allows you to save a footer.

File Menu Options	
Menu Option	Description
Close	Allows you to close an open footer.
Exit	Allows you to exit Receipt & Report Builder.



Note: Menu options marked with an asterisk (*) have corresponding command buttons available on the toolbar.



File menu in Footer workspace

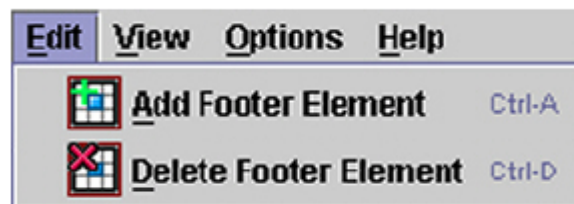
Edit menu

Using the **Edit** menu, you can create new and edit existing footers.

Edit Menu Options	
Menu Option	Description
Add Footer Element*	Allows you to add footer data elements to a footer.
Delete Footer Element*	Allows you to delete footer data elements to a footer.



Note: Menu options marked with an asterisk (*) have corresponding command buttons available on the toolbar.



Edit menu in Footer workspace

View menu

View Menu Options	
Menu Option	Description
Receipt Blueprints*	Allows you to open the footer workspace.
Language (English, Spanish, and French)	Allows you to maintain multiple versions of a receipt blueprint based on language.



View menu in Footer workspace

Toolbar and command buttons

The Receipt & Report Builder toolbar contains command buttons that allow you to perform specific commands and functions with the press of a button.



Toolbar and command buttons

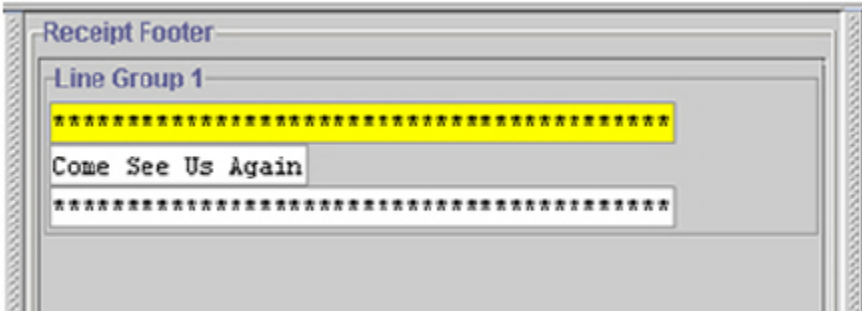
Panes

Panes are the working area of Receipt & Report Builder. Each pane graphically displays the layout and attributes of receipt blueprints, RDOs, and receipt data elements. Receipt & Report Builder consists of the following panes:

- **Receipt Footer** pane—Displays the physical layout of the footer.
- **Footer Data Element Attributes** pane—Displays footer data element values and attributes that you can modify.

Receipt footer pane

Receipt Footer pane displays the layout and design of a footer. A footer is made up of a footer line group and footer data elements. The attributes of receipt data elements are displayed in the **Footer Data Element Attributes** pane when a data element is selected.



Receipt Footer pane

Footer data element attributes pane

The **Receipt Data Element Attributes** pane displays the general properties and attributes of a footer. The pane is tabular and divided into two columns—**Attribute** and **Value**.

Footer Data Element Attributes	
Attribute	Value
Value to Print	*****
Fixed Length	42
Is Line Feed	<input type="checkbox"/>
Is Double Width Font	<input type="checkbox"/>

Footer Data Element Attributes pane

Create a new footer

Unlike receipt blueprints, Receipt & Report Builder does not have a library of existing footers. You must create all your receipt footers from scratch. After creating a footer, you can use the footer as a template for other footers.

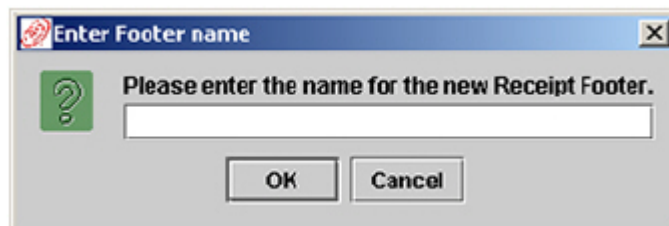
To create a new footer:

1. Open the **Footer** workspace.
2. Select **File>New Footer**.
OR
Click the **New Footer** button.



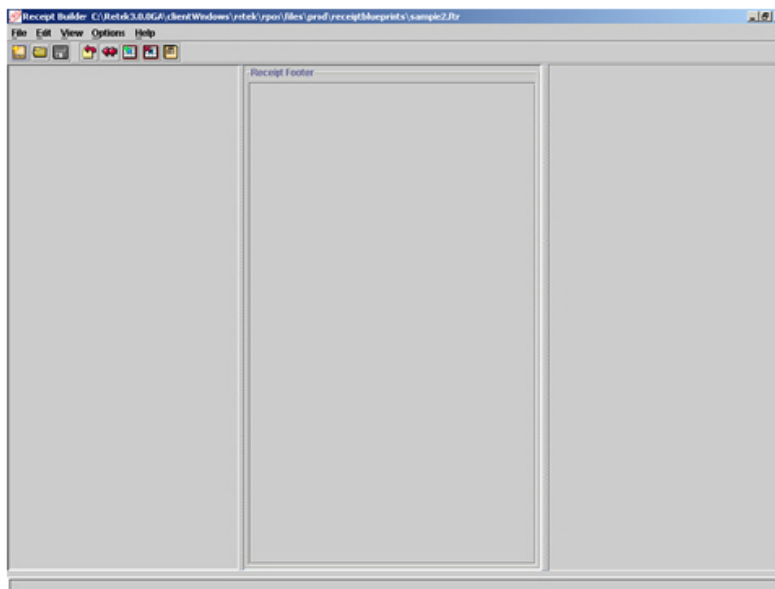
OR

Press and hold **CTRL** and **N** (**CTRL+N**) at the same time. This is the shortcut key for creating a new footer. The **Enter Footer Name** dialog box is displayed.



Note: Do not type the **.ftr** file extension to the filename. Receipt & Report Builder automatically attaches the **.ftr** file extension.

3. In the **Enter Footer Name** dialog box, enter the footer name and press the **Enter** key. The **Receipt Footer** pane is displayed.



4. Begin adding footer elements.
5. Save the footer.

Save a footer

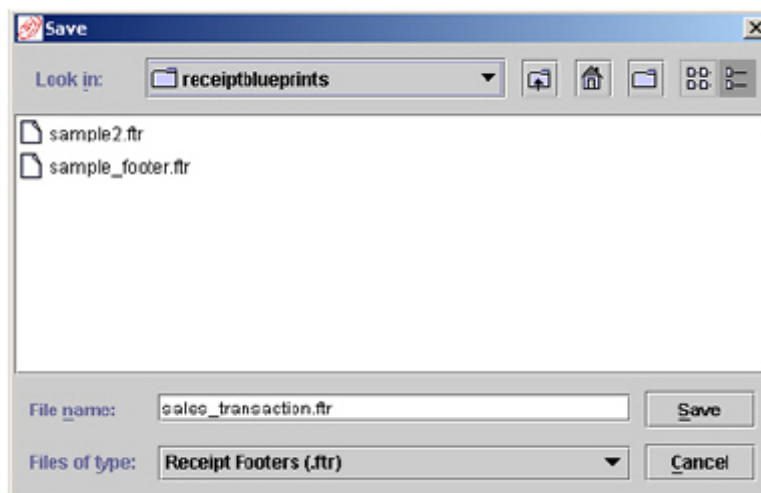
To save a new or modified footer:

1. Select **File>Save Footer**.
OR
Click the **Save Footer** button.



OR

Press and hold **CTRL** and **S** (**CTRL+S**) at the same time. This is the shortcut key for saving a footer. The **Save** dialog box is displayed.



2. In the **Save** dialog box, enter a file name in the **File Name** field.
OR
Click the **Save** button if the displayed file name is correct.



Note: Footers are saved in the \files\prod\receiptblueprints directory.

Footer data elements

Footer data elements are the building blocks of a footer that determine the content and appearance of a footer. Footers are made up of a single footer line group containing one or more footer data elements. Unlike receipt blueprints, a footer data element can only be a static element because there are no business objects attached to a footer.

Add a footer data element

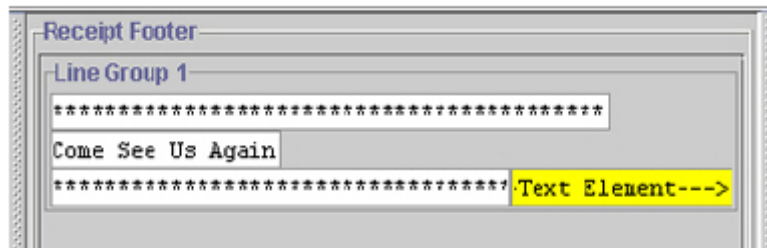
To add a footer data element:

- Select **Edit>Add Footer Element**.
OR
Click the **Add Footer Element** button.



OR

Press and hold **CRTL** and **A** (**CTRL+A**) at the same time. This is the shortcut key for adding a footer element. The new footer data element is added after the last footer data element in the footer line group.



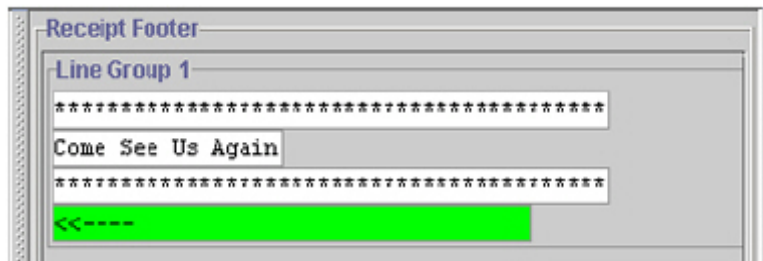
Note: You do not need to select the footer line group before adding a new footer data element. Footers contain only a single footer line group, and that is the default and active footer line group.

Reorder footer data elements

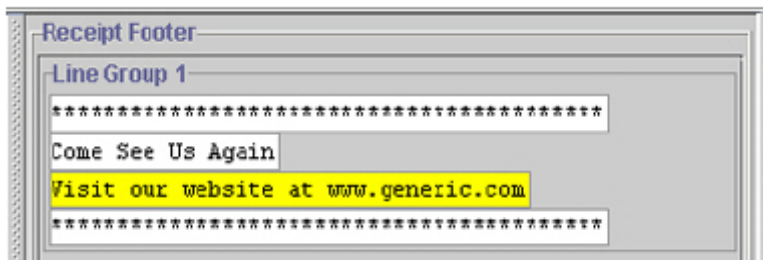
After adding a footer data element, you can reorder the footer data element within the footer line group by dragging and dropping the footer data element in a different location in a footer line group.

To reorder a receipt data element:

1. Select the appropriate footer data element. The selected footer data element is highlighted in yellow.
2. Drag the selected footer data element to the desired location in the **Receipt Footer** pane. A green field with an arrow is displayed to indicate where the selected receipt data element will be placed.



3. Drop the selected footer data element in the desired location. The footer data element is displayed in a new location.



Delete a footer data elements

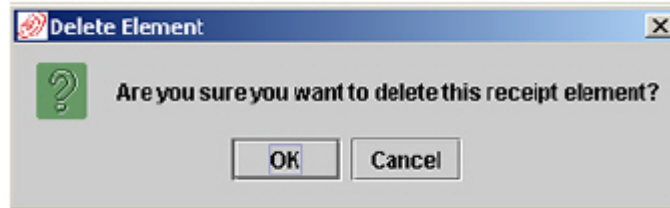
To delete a footer data element:

1. Select the appropriate footer data element. The footer data element is highlighted in yellow.
2. Select **Edit>Delete Footer Element**.
OR
Click the **Delete Footer Element** button.



OR

Click the **Delete** button. This is the shortcut key for deleting a receipt data element. The **Delete Element** dialog box is displayed.



3. In the **Delete Element** dialog box, click **OK**. The footer data element is no longer displayed in the **Receipt Footer** pane.

Define footer data element attributes

Receipt & Report Builder allows you to change the attributes of footer data elements.

To define the attributes of footer data elements:

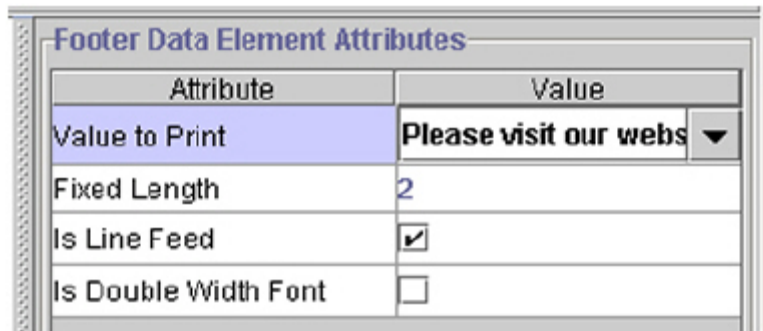
1. In the **Receipt Footer** pane, select the appropriate data element. The selected data element is highlighted in yellow, and the attributes of the selected data element are displayed in the **Footer Data Element Attributes** pane.



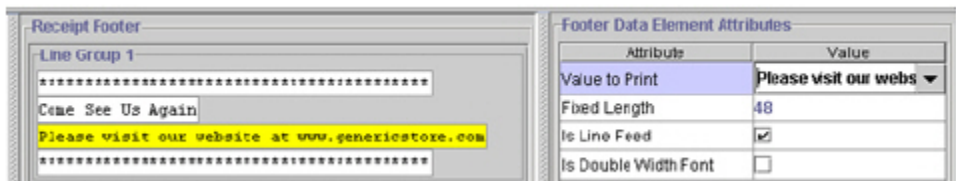
2. In the **Footer Data Element Attributes** pane, select the appropriate value.



Note: To change the **Value to Print** value, either click the **Value** field and select a value from the drop-down list or enter the appropriate value.



3. Define the new value for the element attributes. The new attribute or value of the selected footer data element is displayed in the **Receipt Footer** pane.



Interpret footer data elements

The table below lists the footer data element attributes, type of elements, how attribute values are defined, and the printed result of the defined value.

Footer Data Element Attributes		
Attributes	Value	Description
Value to Print	User supplied. Enter the value for this attribute.	Prints the text typed or displayed in the value field.
Fixed Length	System supplied for static elements. Enter a fixed number of character spaces.	Prints only the fixed number of characters set by the user for an object element. For example, if you fix the length of a <i>customer first name</i> object to five, only the first five letters of the customer's first name will print.
Is Line Feed	User supplied. Select the check box to apply Is Line Feed as a value to the receipt data element.	Prints the selected receipt data element on the next line.
Is Double Width Font	User supplied. Select the check box to apply Is Double Width Font as a value to the receipt data element.	The selected receipt data element prints double the width of normal printed receipt data elements.

Appendix A

Creating a serialized business object

The first step in creating a receipt is to serialize a sample of the business object you wish to report against. Serializing a sample of the business object may require working with appmodels. An appmodel is a decorator that provides getter methods for each complex object that you wish to pull data from so that a set of objects can be accessed under one main reference. Appmodels can also be used to provide getter methods that implement any additional intelligence that is not currently provided directly by Receipt & Report Builder. For example, if the sale is less than zero, you can provide a getter method to print “Refund” instead of “Sale.” For all sales greater than zero, the receipt will print as a “Sale.”

POS provides two sample receipt data objects (RDO's) in the `\files\config\receiptblueprints` directory, and these files have a file extension of **.rdo**. An RDO is automatically generated and stored by POS when a user completes a POS, end-of-day, or end-of-session transaction. POS provides the following serialized business objects:

- Composite POS Transaction
- Layaway Object
- End-of-Day Object

To serialize a sample of the business object you wish to report against:

1. If there are multiple business objects that you will make up the data printed on the receipt or if there are additional directly from the business objects themselves, wrap the objects in an appmodel.
2. To create the appmodel, use the object directly if your needs are simple.
OR
Add the following code at the point you want the receipt to be printed:

```
MyReportableObjectAppModel myAppModel=new
MyReportableObjectAppModel(theTransaction);
StringfileName="../../files/prod/receiptblueprints/" +
"MyNewReceiptSample"+"rdo";
try {
```

```
    ObjectStore objectstore=new ObjectStore(fileName);
```

```
    objectStore.write(myAppModel);
```



Note: For Receipt & Report Builder to recognize a file as a RDO, you must save file as a **.rdo** file.



Note: If you want the string to be translated into a different language before the receipt is printed, return a `ResourceBundleKey` object. A `ResourceBundleKey` is a marker wrapper that indicates the string will be translated by the `ReceiptFactory` based on the receipt's current locale preference when the receipt is printed.

3. To serialize the object, run a transaction to invoke the printing of a receipt.

Appendix B

Library of receipt blueprints and sample transactions

Library of Receipt blueprints and Sample Transactions	
Receipt Blueprint Name	Description
CMSBuyBack.bpt	Receipt or report for a buy-back transaction.
CMSBuyBack_Cancel.bpt	Receipt or report for a cancelled buy-back transaction.
CMSBuyBack_Sigs.bpt	Receipt or report for a buy-back transaction that requires a sig.
CMSBuyBack_Suspend.bpt	Receipt or report for a suspended buy-back transaction.
CMSCashierSessionEvent.bpt	Receipt or report for a start of cashier/sales associate session.
CMSClockIn.bpt	Receipt or report for an employee clock in.
CMSClockOut.bpt	Receipt or report for an employee clock out.
CMSCollection.bpt	Receipt or report for a paid-in transaction.
CMSCollection_Cancel.bpt	Receipt or report for a cancelled paid-in transaction.
CMSCollection_sigs.bpt	Receipt or report for a paid-in transaction that requires a sig.
CMSCollection_Suspend.bpt	Receipt or report for a suspended paid-in transaction.
CMSCompositePOSTransaction_MerchTag.bpt	Receipt or report for a damaged merchandise tag.
CMSCompositePOSTransaction_Sale.bpt	Receipt or report for a sales transaction.
CMSCompositePOSTransaction_Sale_Cancel.bpt	Receipt or report for a cancelled sales transaction.
CMSCompositePOSTransaction_Sale_Sigs.bpt	Receipt or report for a sales transaction that requires a sig.
CMSCompositePOSTransaction_Sale_Suspend.bpt	Receipt or report for a suspended sales transaction.

Library of Receipt blueprints and Sample Transactions	
Receipt Blueprint Name	Description
CMSCompositePOSTransaction_Shipping.bpt	Receipt or report for a shipping manifest.
CMSDueBillIssue.bpt	Receipt or report for issuing a due-bill transaction.
CMSEmployeeAccessFinger.bpt	Receipt or report for resetting the fingerprint detection.
CMSEmployeeAccessMod.bpt	Receipt or report for a change in an employee's access.
CMSEmployeeAccessNew.bpt	Receipt or report for authorizing a new employee's access.
CMSEmployeeAccessTerm.bpt	Receipt or report for terminating an employee's access.
CMSEmployeeResource.bpt	Receipt or report for modifying an employee's schedule resources.
CMSEmployeeSchedule.bpt	Receipt or report for modifying an employee's schedule.
CMSEODTotals.bpt	Receipt or report for the end-of-day totals.
CMSPGiftReceipt.bpt	Receipt or report for a gift certificate transaction.
CMSInvalidLogonAttempt.bpt	Receipt or report for a failed log-on.
CMSLayaway.bpt	Receipt or report for a layaway transaction.
CMSLayaway_Cancel.bpt	Receipt or report for a cancelled layaway transaction.
CMSLayaway_Sigs.bpt	Receipt or report for a layaway transaction that requires a sig.
CMSLayaway_Suspend.bpt	Receipt or report for a suspended a layaway transaction.
CMSLayawayOutstanding.bpt	Receipt or report for an outstanding layaway transaction.
CMSLayawayOverdue.bpt	Receipt or report for an overdue layaway transaction.

Library of Receipt blueprints and Sample Transactions	
Receipt Blueprint Name	Description
CMSLayawayPayment.bpt	Receipt or report for a layaway payment transaction.
CMSLayawayPayment_Cancel.bpt	Receipt or report for a cancelled layaway payment transaction.
CMSLayawayPayment_Sigs.bpt	Receipt or report for a layaway payment transaction that requires a sig.
CMSLayawayPayment_Suspend.bpt	Receipt or report for a suspended layaway payment transaction.
CMSLayawayRTS.bpt	Receipt or report for a layaway return-to-stock transaction.
CMSLayawayRTS_Cancel.bpt	Receipt or report for a cancelled layaway return-to-stock transaction.
CMSLayawayRTS_Suspend.bpt	Receipt or report for a suspended layaway return-to-stock transaction.
CMSNoSaleTransaction.bpt	Receipt or report for a no-sale transaction.
CMSPaidOut.bpt	Receipt or report for a paid-out transaction.
CMSPaidOut_Cancel.bpt	Receipt or report for a cancelled paid-out transaction.
CMSPaidOut_sigs.bpt	Receipt or report for a paid-out transaction that requires a sig.
CMSPaidOut_Suspend.bpt	Receipt or report for a suspended paid-out transaction.
CMSRecallParkedTxn.bpt	Receipt or report for recalling a suspended transaction.
CMSResendBrokenTxn.bpt	Receipt or report for a resent broken transaction.
CMSSessionEnd.bpt	Receipt or report for a end-of-session transaction.
CMSSessionStart.bpt	Receipt or report for a start-of-session transaction.
CMSStartOfDay.bpt	Receipt or report for a start-of-day transaction.

Library of Receipt blueprints and Sample Transactions	
Receipt Blueprint Name	Description
CMSSStoreInfo.bpt	Receipt or report for a store information transaction.
CMSTimecardAddInOut.bpt	Receipt or report for adding an in/out to a timecard.
CMSTimecardDelInOut.bpt	Receipt or report for deleting an in/out to a timecard.
CMSTimecardInsInOut.bpt	Receipt or report for inserting an in/out to a timecard.
CMSTimecardModInOut.bpt	Receipt or report for modifying an in/out to a timecard.
CMSTransferInComplete.bpt	Receipt or report for a complete transfer-in transaction.
CMSTransferInPartial.bpt	Receipt or report for a partial transfer-in transaction.
CMSTransferOut.bpt	Receipt or report for a transfer-out transaction.
CMSUpdateEmployeeFile.bpt	Receipt or report for downloading an employee file.
CMSUpdateItemFile.bpt	Receipt or report for downloading an item file.
CMSVoidTransaction.bpt	Receipt or report for a voided transaction.
PrinterTest.bpt	Receipt or report for testing a printer.
SpecialOrder.bpt	Receipt or report for a special-order transaction.