StreamServe

Persuasion ™

StreamServe Persuasion SP5 PageOUT

User Guide

Rev A

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About PageOUT

The StreamServer can produce page oriented output, and send this output together with driver information to some kind of print device. The driver information and output destination is specified in the output connector configuration, and the contents, structure, and layout of the output is configured using the PageOUT tool.

Page setup

Before you configure the output, you must make sure that the page setup in the PageOUT tool conforms to the page setup in the receiving print device. See *Page setup in the PageOUT tool* on page 9.

Output configuration

The actual output configuration consists of a number of tasks: selecting which fields to pick from the input data, adding new text segments, formatting text, etc. See *Configuring page formatted output* on page 19.

Preview

You do not have to export and run the whole StreamServe Project each time you want to check how changes in the PageOUT configuration affects the output. Instead you can preview the output from the PageOUT tool. See *Previewing output* on page 64.

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About PageOUT

Page setup in the PageOUT tool

Page types

You can create different types of pages, where each type has its own layout. See *Page types* on page 9.

Grid lines and margins

You can configure the grid lines and margins displayed on the PageOUT sheet. See *Grid lines and margins* on page 15.

Page format

You must adapt the size and orientation of the PageOUT sheet to the size and orientation of the actual print-out. See *Page format* on page 16.

Page offset

Some printers will automatically offset the output. You can adjust the page offset accordingly in the PageOUT tool. See *Page offset* on page 17.

Page types

You can create different types of pages, where each type has its own layout. Each page type (except the types Before and After) will contain the same frames, including blocks and fields. If you add a frame to one page type, it will automatically be added to all the others. The size, position, and shape of the frames can however be different on the different page types.

Body page

This is the default page type. The output can contain zero or more pages of this type. A Body page can be preceded by a First page and followed by a Last page, if required. You cannot delete this page type.

Single page

This type can be used in the output if there is room for all data on one single page. A Single page cannot be preceded by a First page or followed by a Body or Last page.

First page

This type can be used if you want to have a first page with a specific layout followed by one or more pages with different layouts. A First page can be followed by one or more Body pages, and one Last page, if required.

Last page

This type can be used if you want to have a last page with a specific layout preceded by one or more pages with different layouts. A Last page can be preceded by one or more Body pages, and one First page, if required. There is an option to always add a Last page to the output. See *Always adding a Last page to the output* on page 13.

Before and After pages

There are two special types of pages that you can add to the beginning or end of the output document. These page types are called Before and After. If you define a Before or After page, it will always be added to the output – unless you use the scripting function *Skip* to explicitly remove it from the output. Before and After pages cannot contain frames.

You can create one or more Before pages, and one or more After pages in the PageOUT configuration, if required. These types of pages will be added to the output in the same order as they are specified in the PageOUT tool. See *Before and After pages* on page 11.

Examples

The following examples illustrate how the different page types will be used when generating an invoice with logo, address information, etc. at the top, one frame with recurring data, and a payment slip. The PageOUT configuration contains a Single, a First, a Body, and a Last page.

Example 1   *Single page*

The Single page is large enough for the data. Consequently, the Single page will be used in the output.

Example 2   *First page and Last page*

Neither the Single, nor the First page is large enough for the data. But the First page together with the Last page is large enough. Consequently, one First and one Last page will be used in the output.

Example 3   *First page, Body page, and Last page*

One First and one Last page is not large enough for the data. But one First page, together with one Body and one Last page is large enough. Consequently, one First, one Body, and one Last page will be used in the output.
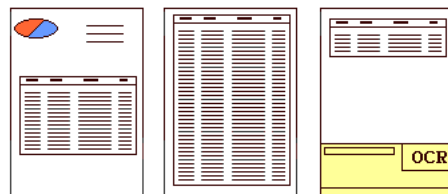
Adding page types

By default, there is one Body page in the PageOUT configuration. You cannot remove this page type. To this default configuration you can add a Single, a First, a Last and any number of Before and After page types. Each new page type will have its own tab in the Process view.

1   In the Process view, right-click the root node and select **New Page**. The Select Page Type dialog box opens.

2   Select the page type and click **OK**. A new page is added to the PageOUT configuration.

Before and After pages

You can use Before and After pages for different purposes. You can, for example, use a Before page as a cover sheet. You can create as many Before and After pages as you like. The pages will be added to the output in the same order as you create them in the PageOUT tool. Note that Before and After pages cannot contain frames.

Renaming a page

All Before and After pages initially have the default name Other. To change the name you must:

1 Select the tab for the page you want to rename.

2 In the Process view, select the name in the root node and enter a new name.

Disabling a page

The page will by default be added to the output. To disable the page from the output you must:

1 Select the tab for the page you want to disable.

2 In the Process view, right-click the root node and select **Edit Script**. The Script editor opens.

3 Enter the following Before script: Skip();

Using variables

You can use variables below the root node in the Message view, and variables created by before Message or before Process scripts. For example, you can use these variables together with the *Skip* function to select different Before pages.

Dynamic number of Before and After pages

You can create a dynamic number of Before and After pages by using the scripting function *NewPage* in a Before script attached to an object on a page.

Example 4   *Before script attached to a dummy field*

```
OutputLXFJobResource(num($jobid),"statementattach",num($cnt));
$cnt++;
if (num($cnt)<=num($attpages))
    newpage();
```

How the StreamServer determines which page type to use

Which page types to include in the output depends on the amount of recurring data, and on the size of the frames on each page type. The StreamServer fills the frames on the different page types in a specific order until all data has been added to the output. To get the desired output, for example a First and a Body page, you must understand how the StreamServer determines when to use a specific page type.

Testing order

The StreamServer normally uses the following order to test if the data fits in the frames of the different page types:

```
Single => First => Last => Body
```

If a page type is not defined, no testing will be performed for that type.

The resulting output

1   If all data fits into a Single page, only this page type is generated and the StreamServer proceeds to the next Process. The output is a Single page.

2   If the data does not fit in a Single page, the server tests if it fits into a First page. If it does, a First page is generated, then the StreamServer proceeds to the next Process. The output is a First page.

3   If the data does not fit in a First page, the StreamServer fills the First page and then tests if the remaining data fits in a Last page. If it does, a Last page is generated, then the StreamServer proceeds to the next Process. The output is a First page and a Last page.

4   If the data does not fit in a Last page, a Body page is generated. If all data fits in the Body page, the StreamServer proceeds to the next Process. The output is a First page and a Body page.

5   If the data does not fit in a Body page, the StreamServer fills the Body page, and tests if the remaining data fits in a Last page. If it does, a Last page is generated, then the StreamServer proceeds to the next Process. The output is a First page, a Body page, and a Last page.

6   If the data does not fit in a Last page, steps *4* and *5* are repeated until there is no remaining data. Depending on the amount of data, the output can be either a First page, one or more Body pages, and a Last page, or it can be a First page and one or more Body pages.

Avoiding getting only a last page

To avoid getting only a Last page in the output, you should always include a Single page type in the PageOUT configuration. If you do not, the StreamServer will use a different order than when a Single page is included:

```
Last => First => Body
```

This means that if all data fits on the Last page, the output will only include a Last page. If you include a Single page with a reasonably large frame there will always be a Single page or a First page before the Last page in the output.

Always adding a Last page to the output

The Last page may contain information that must be included in the output. If the amount of recurring data in the output fits into a First page or a First page and one or more Body pages, a Last page will not be generated by default. You can change this default behavior to make sure that a Last page is always generated.

Note: If the data fits into a Single page, no Last page will be generated.

To enable "always Last page output"

1   Select **File** > **Page Setup**. The Page Setup dialog box opens.

    2 On the Other tab, select **Always output** and click **OK**.

Grid lines and margins

Grid settings

You can configure the grid lines on the PageOUT sheet. These settings apply to all pages/page types you have defined.

1 Select **Format** > **Guide Settings**. The Guides Settings dialog box opens.

2 On the Grid tab, specify the grid settings and click **OK**. See *Guides Settings dialog box* on page 100.

Margins

You can have the top, right, bottom, and left margins displayed on the PageOUT sheet. These margins are for guidance only.

1 Select **Format** > **Guide Settings**. The Guide Settings dialog box opens.

2 Select the **Borders** tab and specify the margins (in millimeters).

3 Select **Show borders** and click **OK**.

Note: You cannot specify different margins for different page types in the same PageOUT configuration.

Page format

You must adapt the size and orientation of the PageOUT sheet to the size and orientation of the actual print-out as specified with the device driver settings. Output devices that have no driver options for page size and orientation (e.g. the PDF driver) will inherit the size and layout of the PageOUT sheet.

To configure the page size and orientation

1 Select **File** > **Page Setup**. The Page Setup dialog box opens.

2 On the Paper Size tab, specify the page format settings and click **OK**. See *Page Setup dialog box* on page 98.

Different settings for different page types

If the output device has no driver settings for size and orientation, you can use different settings for different page types in the same PageOUT configuration. For example, if the output format is PDF, you can have different page size and orientation for First and Body pages. If the output device has driver settings for size and orientation, you cannot do this – the driver settings will override the settings for the PageOUT sheet, and you can only have one device driver configuration per Process output.

PreformatIN scenario

PreformatIN generates a number of variables when processing an input document. The following auto generated variables reflect the page properties of the input document:

- $pageorientation – The page orientation of the current page (Portrait or Landscape).

- $pagemedia – The page media of the current page (A4, Letter, etc.).

- $pagewidth – The page width (mm) of the current page.

- $pageheight – The page height (mm) of the current page.

In this scenario, a PDF file is received via a PDFIN filter and PreformatIN, and the output is generated by a PageOUT Process and a File output connector with a PDF driver. The input document contains a mix of Portrait and Landscape pages.

By default, the PageOUT Process uses the static page properties configured on the Paper Size tab in the Page Setup dialog box (**File** > **Page Setup**). This means the PDF output would contain either Portrait or Landscape pages – not a mix of both.

To enable both Portrait and Landscape pages in the output, the Page Setup option **Enable width variable** in PageOUT is selected, and the variable value is set to pagewidth. The option **Enable height variable** is also selected, and the variable value is set to pageheight.

When a page is processed in PageOUT, the width and height is retrieved from the $pagewith and $pageheight variables of the corresponding input page. This means the output now contains the same mix of Landscape and Portrait pages as the input document.

Page offset

Some printers will automatically offset the output. You can adjust the page offset accordingly in the PageOUT tool. The offset will be applied on the printed output page, and will not be visible on the PageOUT sheet.

Note: You must adjust the offset for every page type in the PageOUT configuration.

To adjust the offset of the output page

1 Select **File** > **Page Setup**. The Page Setup – Body dialog box opens.

2 Select the **Other** tab.

3 In the Margins area, specify the offset settings and click **OK**. See *Page Setup dialog box* on page 98.

Configuring page formatted output

You use the PageOUT tool to configure the contents and structure of page formatted output from the StreamServer. With the PageOUT tool, you can configure the following:

- Overlays

  You can add overlays with logotypes, labels, frames, etc. See *Overlays* on page 34 and *Overlay management* on page 49.

- Frames for recurring data

  You must define areas for recurring data. You do this by drawing frames on the PageOUT sheet. When the StreamServer processes data, and a frame is filled with data, a new page will be generated in the output. See *Frames* on page 25.

- Blocks

  Recurring data is defined as fields within blocks in the Event configuration. The block and field configuration defined in the Event tool are available in a separate Message view in the PageOUT tool. In the PageOUT tool, you drag the blocks from the Message view, and drop them in the appropriate frame on the PageOUT sheet. See *Blocks* on page 25.

- Fields

  All fields are defined in the Event configuration. In the PageOUT tool, you drag the fields from the Message view, and drop them where they belong – at root level or in the appropriate block. When you have added the fields, you can change the font, convert text to barcodes, create hyperlinks, etc. See *Fields* on page 26.

- Additional text segments

  You can add additional text segments. You can, for example, add page numbering functions, time and date stamps, and static text. When you have added the text segments, you can change the font etc. See *Text objects* on page 27 and *Advanced text* on page 29.

- Free blocks

  You can add free blocks that you use to, for example, add text before and after a page break. See *Free blocks* on page 26.

- Graphics

  You can add images, rectangles, lines, and charts. See *Images* on page 31, *Lines and rectangles* on page 33, and *Charts* on page 67.

- RFID inlays

  You can configure RFID inlays to use with label printers. See *RFID inlays* on page 36.

- Position and size of objects

  You can move, stretch, resize, etc. all objects. See *Positioning and resizing objects* on page 39.

- Page breaks

  When a frame is filled with data, a new page will be generated. For each block, you can define where you want to have the page break. See *Defining page breaks* on page 54.

- Sort criteria for blocks

  For each block defined in the PageOUT tool, you can specify one or more sort keys. When the StreamServer processes the data, it will sort the blocks according to the sort keys. See *Sorting* on page 57.

- Output format for fields and variables

  You can specify which format to use for the output from fields and variables. See *Output format for fields and variables* on page 53.

Automatic configuration (PageIN and PreformatIN only)

You can let the PageOUT tool automatically pick all frames, blocks, and fields defined in a PageIN or PreformatIN Event, and add them to the PageOUT configuration. See *Applying a PageIN/PreformatIN page layout* on page 38.

Previewing the output

You do not have to export and run the whole StreamServe Project each time you want to check how changes in the PageOUT configuration affects the output. Instead, you can preview the output from the PageOUT tool. See *Previewing output* on page 64.

Example: configuring page formatted output

In this example you have the Message configuration in *Example 5* and want the StreamServer to generate output according to *Example 6*.

Example 5   *Message configuration*
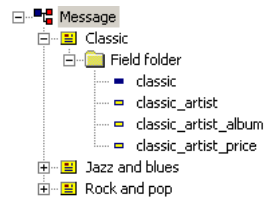
Example 6   *Sample output*

Add an overlay

The logotype, header "Billy's Music Ltd.", background color, and table lines are all implemented as an LXF overlay. In this example, you have already created and added the overlay Music.lxf to the resource set.

1   Right-click the PageOUT sheet and select **Add Overlay**. The Add Overlays dialog box opens.

2   In the Overlays list, check **Music.lxf** and click **OK**. The overlay is added to the PageOUT sheet.

Draw the area for recurring data

The table in the overlay is where you want to have the recurring data from the blocks Classic, Jazz and blues, and Rock and pop.

1 Select **Insert** > **Frame** and draw the frame around the table.

2 Rename the frame to Artists.

Add the blocks

1 In the Process view, select the frame **Artists**.

2 Drag the **Classic** block from the Message view to the frame on the PageOUT sheet.

3 Drag the **Jazz and blues** block from the Message view to the frame.

4 Drag the **Rock and pop** block from the Message view to the frame.

Add and configure the fields

The steps below describe how to add the fields classic_artist, classic_artist_album, and classic_artist_price to the Classic block. The same steps apply to the other blocks.

1 In the Process view, select the Classic block.

2 Drag the fields **classic_artist**, **classic_artist_album**, and **classic_artist_price** from the Message view to the frame on the PageOUT sheet.

3 In the Process view, right-click the field **classic_artist** and select **Position**. The Position dialog box opens.

4 Set **X** to 5.6 and **Y** to 6.0 and click **OK**.

5 Repeat steps 3 and 4 for the other fields and change **X** to 72.0 and 134.0 for the field **classic_artist_album** and **classic_artist_price** respectively.

6 On the PageOUT sheet, multi-select the fields in the Classic block, and use the toolbar to set the font to Arial-12pt-Red-Bold.

Add free blocks

This example includes the following free blocks:

- **Label**. This block is the table header. It contains the column labels Artist, Album and Price.

- **Label_Classic**. This block is the header for the Classic block. It contains the label Classic music.

- **Label_Jazz**. This block is the header for the Jazz and blues block. It contains the label Jazz and Blues.

- **Label_Rock**. This block is the header for the Rock and pop block. It contains the label Rock and Pop.

Add the Label block

The steps below describe how to add the Label free block to the frame. The same steps apply to the other free blocks.

1 In the Process view, right-click the frame and select **Add Free Block**. The free block is added to the frame.

2 Rename the free block to `Label`.

Add text labels to the free blocks

The steps below describe how to add text labels to the `Label_Classic` free block. The same steps apply to the other free blocks.

1 In the Process view, select the `Label_Classic` free block.

2 Select **Insert** > **Static Text**.

3 On the sheet, click the position where you want to insert the text. The Edit Text dialog box opens.

4 Enter `Classic music` and click **OK**.

5 Right-click the text label and select **Position**. The Position dialog box opens.

6 Set **X** to `5.6` and **Y** to `6.0` and click **OK**.

7 Select the field, and use the toolbar to set the font to Arial-12pt-Bold.

Adjust the block height

The steps below describe how to adjust the block height for the `Classic` block. The same steps apply to the other blocks – including the free blocks.

1 In the Process view, right-click the `Classic` block and select **Block Properties**. The Output Block Properties dialog box opens.

2 In the **After** field, enter `0.9` and click **OK**.

Call the free blocks

Call the Label block

This free block should be inserted as the first line in the frame.

1 In the Process view, right-click the frame and select **Frame Properties**. The Frame Properties dialog box opens.

2 In the **Before Frame** and **After** (overflow) fields, enter `Label` and click **OK**.

Call the Label_Classic block

This free block should be inserted before the first instance of the `Classic` block. It should also be inserted as the first line after a page break.

The steps below describe how to call the `Label_Classic` free block from the `Classic` block. The same steps apply to the other blocks.

1 In the Process view, right-click the `Classic` block and select **Block Properties**. The Output Block Properties dialog box opens.

2 In the **Before first instance** and **After** (overflow) fields, enter `Label_Classic` and click **OK**.

Specify sort keys for the blocks

Data is already sorted according to the sort keys specified in the Event configuration: `Classic` => `Jazz and Blues` => `Rock and Pop`. In the PageOUT configuration we specify two sort keys:

- The primary sort key instructs the StreamServer to sort data by Artist in ascending alphabetical order.

- The secondary sort key instructs the StreamServer to sort data by Album in ascending alphabetical order.

The steps below describe how to specify sort keys for the `Classic` block. The same steps apply to the other blocks.

1 In the Process view, right-click the `Classic` block and select **Block Properties**. The Output Block Properties dialog box opens.

2 In the **Criteria** field, enter `"Artist":"SA" "Album":"SA"` and click **OK**.

Adding and configuring objects – basics

Frames

Frames define areas for blocks with recurring data on the PageOUT sheet. You must first draw one or more frames, and then add the blocks to the frames.

To add a frame

1   Select **Insert** > **Frame** and draw the frame on the PageOUT sheet.

2   Rename the frame.

To configure a frame

In the Process view, right-click the frame and select the appropriate shortcut menu command. See *Frame* on page 95.

See also

- *Positioning and resizing objects* on page 39
- *Invoking free blocks* on page 51

Blocks

There is one block for each group of recurring data. All blocks available in the PageOUT tool have been created in the corresponding Event. In the PageOUT tool, you drop the blocks in one or more frames on the sheet.

To add a block

1   In the Process view, select the frame.

2   Drag the block from the Message view to the frame on the sheet.

To configure a block

In the Process view, right-click the block and select the appropriate shortcut menu command. See *Block* on page 96.

See also

- *Invoking free blocks* on page 51
- *Defining page breaks* on page 54
- *Sorting* on page 57
- *Unlinked blocks and fields* on page 65

Fields

All fields have been created in the Event tool. In the PageOUT tool, you drop the fields on the sheet at either root level or in a block.

A field contains text where the whole text segment has the same size, font, color, etc.

To add a field

1 In the Process view, select the top node or the appropriate block.

2 Drag the field from the Message view to the sheet.

To configure a field

In the Process view, right-click the field and select the appropriate shortcut menu command. See *Text objects* on page 93.

See also

* *Positioning and resizing objects* on page 39

* *Using barcodes* on page 41

* *Creating hyperlinks* on page 43

* *Output format for fields and variables* on page 53

* *Unlinked blocks and fields* on page 65

Free blocks

Ordinary blocks are defined in the Event configuration. A free block is defined in the PageOUT tool, and can be edited the same way as ordinary blocks. You can use a free block to, for example, add text before and after a page break. A free block can be invoked using the *CallBlock* scripting function or by frame and block properties.

To add a free block at root level

1 In the Process view, select the top node.

2 Select **Insert** > **Free Block** and draw the block on the PageOUT sheet.

3 Give the block a unique name.

To add a free block to a frame

1 In the Process view, right-click the frame and select **Add Free Block**. The free block is added to the frame.

2 Give the block a unique name.

To configure a free block

In the Process view, right-click the free block and select the appropriate shortcut menu command. See *Free Block* on page 96.

See also

Invoking free blocks on page 51

Text objects

Text objects contain text where the whole text segment has the same size, font, color, etc. You can add the following text object types to the PageOUT configuration:

- Field. Described separately in *Fields* on page 26.
- Static Text
- Variable
- Page Number
- Page of Pages
- Pages
- Date
- Time

Static Text

You can use this object to add text segments to the sheet. You can include variables, identified by a $-prefix, in the text.

To add a Static Text object

1 In the Process view, select the top node or the appropriate block.

2 Select **Insert** > **Static Text**.

3 On the sheet, click the position where you want to insert the text. The Edit Text dialog box opens.

4 Enter the text and click **OK**.

To configure a Static Text object

In the Process view, right-click the Static Text object and select the appropriate shortcut menu command. See *Text objects* on page 93.

See also

- *Positioning and resizing objects* on page 39
- *Using barcodes* on page 41
- *Creating hyperlinks* on page 43
- *Output format for fields and variables* on page 53
- *Language handling* on page 59

Variable

You can add text to the output using variables. If the variable is created in the corresponding Event, you can drag the variable from the Message view to the PageOUT sheet. If the variable is created using scripts, you must enter the variable manually. When you add a variable, you must make sure that it is available when it is used in the Process. For example, a variable defined within a block is only available when the corresponding block is being processed.

To add a Variable object

1   In the Process view, select the top node or the appropriate block.

2   Select **Insert** > **Variable**.

3   On the sheet, click the position where you want to insert the text. The Edit Variable dialog box opens.

4   Enter the name of the variable, without the $-prefix, and click **OK**.

To drag a Variable object from the Message view

1   In the Process view, select the top node or the appropriate block.

2   Drag the variable from the Message view to the sheet.

To configure a Variable object

In the Process view, right-click the Variable object and select the appropriate shortcut menu command. See *Text objects* on page 93.

See also

•   *Positioning and resizing objects* on page 39

•   *Using barcodes* on page 41

•   *Creating hyperlinks* on page 43

•   *Output format for fields and variables* on page 53

Page numbering

You can add automatic page numbering functions to the PageOUT sheet. There are three page numbering functions:

•   **Page**. Generates the number of the current page.

•   **Page of pages**. Generates the number of the current page, and the total number of pages in the output document. For example, 7 (98).

•   **Pages**. Generates the total number of pages in the output document.

To add page numbering objects

1   In the Process view, select the top node or the appropriate block.

2   Select **Insert** > **Page Number** | **Page of Pages** | **Pages**.

3   On the sheet, click the position where you want to insert the page number.

To configure a Page numbering object

In the Process view, right-click the page numbering object and select the appropriate shortcut menu command. See *Text objects* on page 93.

See also

- *Positioning and resizing objects* on page 39
- *Output format for fields and variables* on page 53

Date and time stamps

You can add automatic date and time functions to the PageOUT sheet. These functions generate the date and time when the output is created.

To add a date or time stamp

1 In the Process view, select the top node or the appropriate block.

2 Select **Insert** > **Date** | **Time**.

3 On the sheet, click the position where you want to insert the stamp.

To configure a date or time stamp

In the Process view, right-click the date or time stamp object and select the appropriate shortcut menu command. See *Text objects* on page 93.

See also

- *Positioning and resizing objects* on page 39
- *Output format for fields and variables* on page 53

Advanced text

Advanced Text enables you to enter text with different fonts, color and size for different words in the text segment. You can include variables ($-prefix) in the text.

To add Advanced Text areas

1 In the Process view, select the top node or the appropriate block.

2 Select **Insert** > **Advanced Text**.

3 On the sheet, draw the boundaries for the text area and enter the text.

To configure an Advanced Text area

Right-click the advanced text area, and select the appropriate shortcut menu command. See *Advanced Text* on page 94.

To configure a text segment in an Advanced Text area

1 Select a text segment.
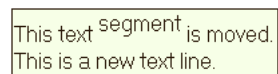
2 Right-click the advanced text area, and select the appropriate shortcut menu command. See *Advanced Text* on page 94.

See also

- *Moving a text segment (vertical shift)* on page 30
- *Specifying font properties for text segments* on page 30
- *Specifying a fixed width for empty text variables* on page 30
- *Cropping, wrapping and vertical alignment of an Advanced Text* on page 31
- *Positioning and resizing objects* on page 39
- *Hyphenating text* on page 31

Moving a text segment (vertical shift)

You can shift text segments up or down.

This text segment is moved.
This is a new text line.

To specify vertical shift of a text segment

1 Select the text segment.

2 Right-click the advanced text area, and select **Vertical shift**. The Vertical Shift dialog box opens.

3 Specify the vertical shift. See *Vertical Shift dialog box* on page 112.

Specifying font properties for text segments

1 Select the text segment.

2 Right-click the advanced text area, and select **Font**. The Font dialog box opens.

3 Specify the font properties. See *Font dialog box* on page 105.

Specifying a fixed width for empty text variables

For each variable in the Advanced Text area, you can specify a fixed width (points) that will be applied if the variable is empty in runtime.

To specify a fixed width

1 Select the variable (text segment).

2 Right-click the advanced text area, and select **Alias attributes**. The Text Alias dialog box opens.

3 Specify the fixed width.

Cropping, wrapping and vertical alignment of an Advanced Text

You can configure how to handle cropping, vertical alignment, and wrapping of text in an Advanced Text area.

1 Right-click the Advanced Text area and select **Properties**. The Advanced Text Properties dialog box opens.

2 Specify the settings. See *Advanced Text Properties dialog box* on page 109.

Hyphenating text

1 Double-click the Advanced Text area and select the text to hyphenate.

2 Right-click and select **Language**. The Language dialog box opens.

3 Specify the settings. See *Language dialog box* on page 106.

Note: The language selected for hyphenation is independent from the language selected from the PageOUT menu bar.

Hyphenation exceptions

You can define exceptions to the general hyphenation rules for the selected language. Foreign language words and proper names, for example, are not covered by these rules. You define exceptions in an exception file.

You must create one exception file per language and save it in the export directory. The file must have the extension .udct and be named according to the list of languages stated in the document talo_h_lib.pdf. This document is included in the installation CD.

Images

You can add images (image resources as well as external image files) to the PageOUT sheet.

In this section

- *Using image resources* on page 31
- *Using image files* on page 32
- *Dynamic selection of images* on page 33

Using image resources

This type of image is the best choice if you want to add a static image, but if you want to use variables to determine which image to include in the output, you must use image files instead.

To be able to use image resources, these resources must be available in a resource set connected to the Message that includes the PageOUT Process. An image resource is added in its original size to the PageOUT sheet.

To add an image resource

1 In the Process view, select the top node or the appropriate block.

2 Select **Insert** > **Picture**. The Select Image dialog box opens.

3 Select **Select Resource** and click **OK**. The Select Resource dialog box opens.

4 Select the image resource and click **OK**. The Insert Message Field dialog box opens.

5 Keep the default settings and click **OK**. The image is added to the upper left corner of the PageOUT sheet.

6 Drag the image to the appropriate position on the sheet.

7 Resize the image if needed.

To configure an image

In the Process view, right-click the image object and select the appropriate shortcut menu command. See *Picture* on page 97.

See also

- *Using image files* on page 32
- *Dynamic selection of images* on page 33
- *Positioning and resizing objects* on page 39

Using image files

You can add any external image file to the PageOUT sheet. When you add this type of image, you must specify the path to the image.

The image added to the PageOUT sheet in this case is only an empty container for the image file, which means the actual image is not displayed on the sheet. The width and height of the image container is not determined by the image you want to add. This means you must specify the width and height manually – either by using static values or variables.

To add an image file – static selection

1 In the Process view, select the top node or the appropriate block.

2 Select **Insert** > **Picture**. The Select Image dialog box opens.

3 Select **File name**, enter the path to the image, and click **OK**. The Insert Message Field dialog box opens.

4 Keep the default settings and click **OK**. An image container is added to the upper left corner of the PageOUT sheet.

5 Right-click the image container and select **Position**. The Position dialog box opens.

6 Specify a static **Width** and **Height** for the image, or click **Variables** and specify variables for the **Width** and **Height**.

7   Drag the image to the appropriate position on the sheet.

To configure an image

In the Process view, right-click the image object and select the appropriate shortcut menu command. See *Picture* on page 97.

See also

- *Using image resources* on page 31
- *Dynamic selection of images* on page 33
- *Positioning and resizing objects* on page 39

Dynamic selection of images

You can use scripting to dynamically determine which image to include in the output. This can be used for image files only, but not for image resources.

To add an image file – variable selection

1   In the Process view, select the top node or the appropriate block.

2   Select **Insert** > **Picture**. The Select Image dialog box opens.

3   Select **File name**, enter the image selection variable, and click **OK**. The Insert Message Field dialog box opens.

4   Keep the default settings and click **OK**. An image container is added to the upper left corner of the PageOUT sheet.

5   Right-click the image container and select **Position**. The Position dialog box opens.

6   Specify a static **Width** and **Height** for the image, or click **Variables** and specify variables for the **Width** and **Height**.

7   Drag the image to the appropriate position on the sheet.

To configure an image

In the Process view, right-click the image object and select the appropriate shortcut menu command. See *Picture* on page 97.

See also

- *Using image resources* on page 31
- *Using image files* on page 32
- *Positioning and resizing objects* on page 39

Lines and rectangles

You can draw lines and rectangles on the PageOUT sheet.

To add a line or rectangle

1   In the Process view, select the top node or the appropriate block

2   Select **Insert** > **Line** | **Rectangle**.

3   On the sheet, draw the line or rectangle.

To configure a a line | rectangle

In the Process view, right-click the line or rectangle object and select the appropriate shortcut menu command. See *Rectangle and Line* on page 97.

See also

Positioning and resizing objects on page 39

Overlays

An overlay is a preprinted form with static information that you can add to any PageOUT configuration. You can create overlays with logotypes, labels, frames, etc.

Overlays in different file formats can be used, see:

- *Overlays – LXF type* on page 34.
- *Overlays – Printer type* on page 35.
- *Overlays – TIFF type* on page 35.

To configure an overlay

In the Process view, right-click the overlay and select the appropriate shortcut menu command. See *Overlay* on page 97.

See also

Overlay management on page 49.

Overlays – LXF type

To create an overlay

1   Right-click the PageOUT sheet and select **New Overlay**. The Overlay Editor opens.

2   Create the overlay (see the *Overlay Editor* documentation). The overlay is added to a resource set connected to the Message.

3   In the resource set, rename the overlay resource.

You can also create the overlay starting from the resource set. See the *Design Center* documentation for information on how to create resources.

To add an overlay

The overlay must be added to a resource set connected to the Message.

1 Right-click the PageOUT sheet and select **Add Overlay**. The Add Overlays dialog box opens.

2 In the **Overlays list**, check the overlay you want to add and click **OK**. The overlay is added to the PageOUT sheet.

Overlays – Printer type

You can create printer overlays with corresponding preview files for the PageOUT tool. The printer overlay is a PRN, PCL, or PS file sent separately to the printer, and the preview file can be any type of image file (EMF, WMF, JPEG, etc.).

To create an overlay

Any application that can save output as `*.prn`, `*.pcl` or `*.ps` can be used as an editor for printer overlays. If you want to preview the overlay in the PageOUT tool, you must also save the printer overlay as `*.emf`, `*.wmf`, `*.gif`, etc.

You must import the overlay and preview files to a resource set connected to the Message.

To add an overlay

The overlay must be added to a resource set connected to the Message.

1 Right-click the PageOUT sheet and select **Add Overlay**. The Add Overlays dialog box opens.

2 Click **Browse**. The Select Resource dialog box opens.

3 Browse to, and select, the printer overlay resource. The PageOUT tool prompts you to select a preview file.

4 Click **Yes**. The Select Resource dialog box opens.

5 Browse to, and select, the preview resource. The preview overlay is added to the PageOUT sheet.

Overlays – TIFF type

Use an application that can save output in TIFF format to create the overlay. You can not create and edit TIFF overlays with the StreamServe tools.

You must add the overlay to a resource set connected to the Message.

To add an overlay

The overlay must be added to a resource set connected to the Message.

1 Right-click the PageOUT sheet and select **Add Overlay**. The Add Overlays dialog box opens.

2 In the **Overlays list**, check the overlay you want to add and click **OK**. The overlay is automatically added to the PageOUT sheet.

Charts

You can add bar charts, pie charts, and line charts to the PageOUT sheet.

See *Charts* on page 67 for details.

RFID inlays

Radio Frequency Identification (RFID) tags are used for automatic identification of individual items. You can mark the positions of RFID inlay chips and configure the inlays in the PageOUT tool.

Inserted RFID inlays are visualized in the PageOUT tool to assist during label design. They are not printed in the output document. The reason why inlays are visualized is that objects placed on the leading and trailing edges of the inlay, or at the sides of the inlay, can not be scanned and are not printed, see figure below.
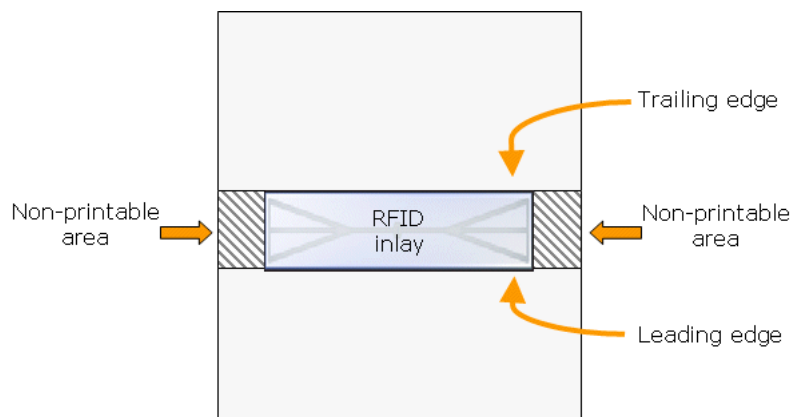
Figure 1   Label with RFID inlay

To mark the position of an RFID inlay

1   In the Process view, select the top node or the appropriate block

2   Select **Insert** > **RFID**, alternatively click the **Insert RFID** icon.

3   On the sheet, draw a rectangle to mark the position of the RFID inlay.

To configure an RFID inlay

In the Process view, right-click the RFID object and select the appropriate shortcut menu command.

See also

- *RFID Properties dialog box* on page 118.

The figure below shows a sample print command file and how data is retrieved from the values entered as RFID properties in the PageOUT tool.

```
<?xml version="1.0" encoding ="iso-8859-1"?>
<Command xmlns:xsi=http://wwww.w3.org/2001/XMLSchema-instance
xsi:noNamespaceSchemaLocation="Command.xsd">
  <WriteTagData readerID="Writer_Device">
     <Item>
        <FieldList format="C:LABEL.PL" jobName=Writer_Device
            20040929165746" quantity="1">
          <Field name="EPC">3074024220403B8000000008</Field>
          <Field name="EPC_TYPE">SGTIN-96</Field>
          <Field name="EPC_URN">urn:autpid:tag:sgtin-96:3.5.0037000.065774.8</Fiel
          <Field name="PRODUCT">SGPROD</Field>
          <Field name="PRODUCT_DESCRIPTION">SDN Test product</Field>
        </FieldList>
```

Figure 2   Sample print command file

Applying a PageIN/PreformatIN page layout

You can let the PageOUT tool automatically pick all frames, blocks, and fields defined in a PageIN or PreformatIN Event, and add them to the PageOUT configuration.

1 Select **Tools** > **Apply Page Layout**. The Apply Page Layout dialog box opens.

2 Keep the default settings and click **OK**. The PageOUT tool automatically creates the frames and adds all blocks – including fields – to the frames.

Positioning and resizing objects

Moving objects

You can use standard methods (point-click-move) to move an object. You can also specify the coordinates for the upper left corner of the object.

To move an object using coordinates

1 Right-click the object and select **Position**. The Position dialog box opens.

2 Specify the horizontal (**X**) and vertical (**Y**) coordinates, or click **Variables** and specify the same using variables. See *Position dialog box* on page 102.

Resizing objects

You can use standard methods (point-click-stretch) to expand or shrink an object. You can also specify the coordinates for the width and height of the object. If you use coordinates to resize a text object, you must first disable the `Autosize` option.

To specify width and height using coordinates

1 Right-click the object and select **Position**. The Position dialog box opens.

2 Specify the **Width** and **Height**, or click **Variables** and specify the same using variables. See *Position dialog box* on page 102.

To revert to the original size

Right-click the object and select **Size to Content**.

Aligning objects

You can align two or more objects. This applies to all objects on the PageOUT sheet. Text objects are aligned with respect to the anchoring position, and all other objects (including advanced text) with respect to the object border.

To align objects

1 On the sheet, select the objects.

2 Select **Format** > **Align Objects** > **Left** | **Right** | **Top** | **Bottom**.

Managing overlapping objects

If you have overlapping objects on the PageOUT sheet, you can decide which objects to bring to the front, and which to send to the back.

To move an object to the front or to the back

1 On the sheet, select the object.

2 Select **Format** > **Bring To Front** | **Send To Back**.

To move an object one level

1 On the sheet, select the object.

2 Click the **Bring Forward** or **Send Backward** toolbar button.

Using barcodes

You can add barcodes to the PageOUT sheet. The barcode data is either retrieved from the input data via a Field object, or added as a Static Text object. The composition of the barcode data, and allowed characters, depends on the type of barcode you intend to use.

The barcode field (Field or Static Text object) contains the barcode data as a string of characters. To create the actual barcode symbology, you must enable barcodes for the field, and select the appropriate barcode type.

To barcode enable a field

1   Right-click the barcode field and select **Barcode**. The Barcode dialog box opens.

2   Select **Enable barcodes**.

3   From the **Barcode types** drop-down list, select the appropriate barcode type.

4   Edit the settings. See the corresponding barcode specification for information.

5   Click **OK**.

Specification of barcode symbology

The specification of a barcode symbology includes the encoding of the single characters of the barcode data, the start and stop markers, the size of the quiet zone required before and after the barcode, and the computation of a checksum.

When output is delivered using PCL, Postscript, PDF, and AFP drivers, StreamServer creates the barcode symbology.

When output is delivered using label printer drivers, the label printer creates the barcode symbology. In this case, StreamServer delivers the information to be included in the barcode, the coordinates where to add the barcode, and the type of barcode to use.

Resizing barcodes

The width and height of the barcode in the output document depends on the specified barcode properties. There are a number of one-dimensional barcodes, where you can resize the height directly on the PageOUT sheet. For information whether the height is fixed or can be resized, see the corresponding barcode specification.

If you have upgraded a Project from Persuasion SP2, SP3, or SP4, the height of these barcodes may not be correctly displayed in the PageOUT tool. To display them correctly, see *To display barcodes correctly in design-time for upgraded Projects* on page 42.

In the Design Center platform export configuration, the argument `-alternativebarcode` will be automatically set for Projects upgraded from SP2, SP3, or SP4. This means the output will by default be correct, independently of this PageOUT tool setting.

To display barcodes correctly in design-time for upgraded Projects

1 Select **Tools** > **Options**.

2 In the **Barcode style** drop-down list, select **Alternative style**.

Creating hyperlinks

If you are using the PDF, RTF, or HTTP driver to produce output, you can create hyperlinks for text strings from Field and Static Text objects.

To create hyperlinks

1   Right-click the text object and select **Hyperlink**. The Hyperlink dialog box opens.

2   Edit the settings and click **OK**. See *Hyperlink dialog box* on page 104.

Importing external texts

You can import texts from external sources to your output documents. For example, personalized marketing messages. Either you create texts in the StreamStudio Composer, or use texts available in lookup tables or variables. If you use an array variable, all variable values are inserted one after another.

In the Advanced Text area, you define from where to retrieve the external texts.

To import texts created in StreamStudio Composer

See the *Composer User Guide* for information.

To import texts from lookup tables or variables

1   Right-click in the Advanced Text area and select **Properties**.

2   Select the **Import Text** tab.

3   Configure the settings.

Defining bookmarks

You define bookmarks to simplify navigation in PDF and AFP documents. In the PDF viewer, the generated bookmarks are listed on the bookmarks tab. In the AFP viewer, they are displayed as Tag Logical Elements (TLE) on page level.

You can define bookmarks for a page and any object on the page, except for Overlays. Bookmarks defined for pages and objects are displayed as nodes in the Process view.
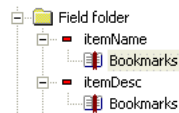
In the Advanced Text object you can define bookmarks for specific text segments. These bookmarks are indicated by markers in the text, and are not displayed in the Process view.

You can use variables and scripting to retrieve input data for the Advanced Text object. If the input contains bookmark definitions, the corresponding bookmarks are generated in the output.

To define a bookmark

1 Right-click the object and select **Bookmarks**. The Bookmarks dialog box opens.

2 Click **Add new bookmark** (the plus sign) to add the new bookmark.

3 Edit the settings and click **OK**. See *Bookmarks dialog box* on page 107.

To edit a bookmark

1 In the Process view, right-click the bookmark and select **Edit**.

2 Edit the settings and click **OK**. See *Bookmarks dialog box* on page 107.

To define bookmarks within an Advanced Text object

1 In the Advanced Text area, select a text segment or place the cursor where the bookmark should be defined.

2 Right-click and select **Bookmarks**. The Bookmarks dialog box opens.

3 Click **Add new bookmark** (the plus sign) to add the new bookmark.

4 Edit the settings and click **OK**. See *Bookmarks dialog box* on page 107.

Organizing bookmarks

To show the relationship between data in the PDF document, you can group related bookmarks under parent bookmarks. Use the bookmark Level property to build the bookmark hierarchy, see *Example: Grouping bookmarks* on page 46.

When you build the hierarchy, be aware that the bookmarks are generated in the same order as the data is processed. The bookmark Level property must be consistent with that order:

• A level 1 bookmark must be followed by a level 1 or level 2 bookmark.

• A level 2 bookmark must be followed by a level 1, 2 or level 3 bookmark. This pattern continues throughout all bookmark levels.

To display identical bookmarks in the output, enable the Repeat identical bookmark property, see .

Example: Grouping bookmarks

The following example shows how to use the Level property to group bookmarks in the bookmark hierarchy. The input contains the following data:

Manufacturer	Model
Volvo	S80
Volvo	S80
Volvo	XC90
Toyota	Corolla
Toyota	Prius
Volvo	S80

In this example, one bookmark is generated per row in the input data, except for the second row where the bookmark is identical to the first row's bookmark. The bookmark hierarchy in the PDF viewer will look like this:

1 In the Event tool, define variables for the Manufacturer and Model items ($manufacturer and $model).

2 In the PageOUT tool, select the Manufacturer item and define a bookmark with the following settings:

Name	Value	Level	Format	Repeat identical bookmarks
Manufacturer	$manufacturer	1	%1 - %2	Not selected

3 Select the Model item and define a bookmark with the following settings:

Name	Value	Level	Format	Repeat identical bookmarks
Model	$model	2	%1 - %2	Not selected

Example: Displaying identical bookmarks

The following example shows the effect of selecting the Repeat identical bookmarks property. The input contains the following data (the same as in *Example: Grouping bookmarks* on page 46):

Manufacturer	Model
Volvo	S80
Volvo	S80
Volvo	XC90
Toyota	Corolla
Toyota	Prius
Volvo	S80

In this example, one bookmark is generated per row in the input data, including an identical bookmark for row two. The bookmark hierarchy in the PDF viewer will look like this:

1 In the Event tool, define variables for the Manufacturer and Model items ($manufacturer and $model).

2 In the PageOUT tool, select the Manufacturer item and define a bookmark with the following settings:

Name	Value	Level	Format	Repeat identical bookmarks
Manufacturer	$manufacturer	1	%1 - %2	Not selected

3 Select the Model item and define a bookmark with the following settings:

Name	Value	Level	Format	Repeat identical bookmarks
Model	$model	2	%1 - %2	Enabled

Overlay management

An overlay is a preprinted form with static information that you can add to any PageOUT configuration. You can create overlays with logotypes, labels, frames, etc.

The following types of overlays can be used:

- LXF Overlays, see *Overlays – LXF type* on page 34.
- Printer overlays, see *Overlays – Printer type* on page 35.
- TIFF overlays, see *Overlays – TIFF type* on page 35.

Dynamic selection of overlays

If you add one or more overlays to a page type in a PageOUT configuration, these overlays will be the default overlays included in the output. For each overlay, you can use aliases to dynamically select alternative overlays.

Prerequisites

All overlays must be included in the same resource set as the default overlay.

To specify overlay aliases

1   In the Process view, right-click the overlay and select **Properties**. The Overlays dialog box opens.

2   Specify the **Alias** settings and click **OK**. See *Overlays dialog box* on page 116.

Offsetting overlays

If you want to adjust the offset of an overlay, you must enable this in the PageOUT tool. Then you use the *SetXoffs* and *SetYoffs* scripting functions to define the offset, see the *Scripting reference*.

To enable offset adjustment

1   In the Process view, right-click the overlay and select **Properties**. The Overlays dialog box opens.

2   Select **Offset adjustment**.

Printing overlays on the reverse side of a sheet

If you want to print static information on the reverse side of a sheet, you can add a verso overlay. Note that the verso overlay is the only information that will be printed on the reverse side.

Prerequisites

• The printer must be able to handle duplex printing.

• The driver option `duplex` must be set at either Job Begin or Document Begin.

To add a verso overlay

1 Add the overlay to the PageOUT configuration.

2 In the Process view, right-click the overlay and select **Properties**. The Overlays dialog box opens.

3 Select **Verso**.

Multi-page overlays

You can add multi-page overlays in LXF and TIFF formats to the PageOUT configuration. All overlay pages can be used in the output, or you can select specific overlay pages when you configure the PageOUT sheet. For example, if you have a PageOUT configuration with the page types First, Body and Last you can select which overlay page to use on each page.

You can use variables and scripting, for example the *CallProc* scripting function, to dynamically select or suppress overlay pages. See the *Scripting reference*.

The total number of overlay pages is displayed in the title bar of the Overlays dialog. Use the *OverlayGetNumPages* scripting function to dynamically count the pages, see the *Scripting reference*.

To select pages from a multi-page overlay

1 In the **Process** view, select the PageOUT sheet where you want to add the overlay and right-click **Overlays**.

2 Select **Add overlay**.

3 Select the multi-page overlay.

4 In the **Process** view, right-click the overlay and select **Properties**.

5 Select **Page number** for the overlay page that you want to use on the sheet.

Invoking free blocks

Ordinary blocks are defined in the Event. A free block is defined in the PageOUT tool, and can be edited the same way as ordinary blocks. You can use a free block to, for example, add text before and after a page break. A free block can be invoked using the *CallBlock* scripting function or by frame and block properties.

See also *Free blocks* on page 26.

Invoking using block and frame properties

You can use block and frame properties to invoke a free block.
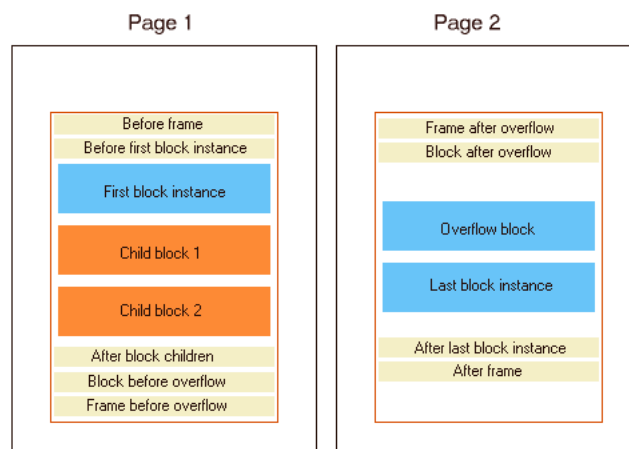
Frame properties – invoke a free block...	
Before frame	Before all blocks in the frame.
After frame	After all blocks in the frame.
Before overflow	At the bottom of the frame on the current page before a page break.
After overflow	At the top of the frame on the following page after a page break.

Block properties – invoke a free block...	
Before first instance	Before the first instance of a block.
After last instance	After the last instance of a block.
After block children	After the last instance of any block children. If the block has no children, the free block will be invoked after each instance of the main block.

Block properties – invoke a free block...	
Before overflow	At the bottom of the frame on the current page before a page break.
After overflow	At the top of the frame on the following page after a page break.

To invoke a free block using block properties

1 In the Process view, right-click the block and select **Block Properties**. The Output Block Properties dialog box opens.

2 On the General Settings tab, in the appropriate **Free blocks** field, enter the name of the free block to invoke.

To invoke a free block using frame properties

1 In the Process view, right-click the frame and select **Frame Properties**. The Frame Properties dialog box opens.

2 In the appropriate **Free blocks** field, enter the name of the free block to invoke.

Invoking using the CallBlock scripting function

Free blocks can also be invoked using the scripting function *CallBlock*. For example, you can create a Before script on a block that dynamically selects which free block to insert. See the *Scripting reference*.

Output format for fields and variables

In the Event tool, you can configure fields and variables to handle numeric or date formatted data. Which format to use is determined by the input data. In the PageOUT tool, you can specify which format to use for the output from the corresponding field or variable. You can use the same format as specified in the Event tool, or you can select a new format.

For example, if the input is `02/08/12`, and you want to change this to `08.12.02` in the output, you must first specify the format `yy/mm/dd` in the Event tool. Then specify the new output format, `mm.dd.yy`, in the PageOUT tool.

Format tables

Numeric and date formats are made available through format tables. Before you specify any formats, you must add a format table to a resource set connected to the Message. You can import `Formats.txt` from

`<StreamServe installation>\Applications\StreamServer\<version>\Tools\Samples`

to the resource set.

The first time you specify a format, a resource selection dialog box opens. In this dialog box you must browse to and select the format table you want to use. This table will be selected by default the next time you specify a format for any of the fields or variables in the PageOUT configuration.

To select a new numeric | date format for a field or variable

1   Right-click the object and select **Format**. The Formats dialog box opens.

2   Select the **Numeric** | **Date** category.

3   Double-click the new **Format**.

To add a new format

In the Formats dialog box, in the **Format** field, enter the new format and click **Add**. You can also add new formats directly to the format table resource. See *Formats dialog box* on page 108

Defining page breaks

For each block, you can define where to generate a page break when an instance of a block causes a frame overflow.

Comments

- If the block has **Use line** enabled, the two last modes will behave as for the **Break between blocks** mode.

- The following types of free blocks can generate page breaks: before first instance, after last instance, and blocks invoked by the `callblock` scripting function.

- If you are using a PageIN Event, you must select Event Order **Repeating** when you configure the Event settings in the Message window.

- The StreamServer must run licensed if you use the modes **Break between blocks**, **Break between fields**, and **Break between lines in fields**. Only the **Default** mode works if you run the StreamServer in demo mode.

To define page breaks

1 In the Process view, right-click the block and select **Block Properties**. The Output Block Properties dialog opens.

2 On the **Frame Overflow** tab, select page break mode. See *Frame Overflow tab* on page 116.

Widow and orphan rows

When you select the page break mode **Break between lines in a field**, you also enable the property **Overflow zone boundary**.
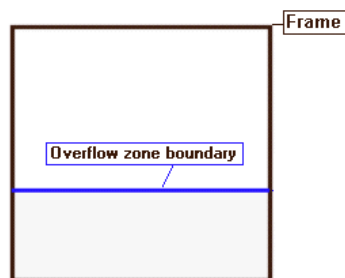
The window between the Overflow zone boundary and the bottom of the frame determines how many lines to move to the next page, and prevents the StreamServer from generating widow and orphan lines in the output.

If you want to break between lines in a field between different page types, you must select the **Suppress frame overflow zone synchronization** option on the page type where the text overflows to, see *Page Setup dialog box* on page 98.

To move the Overflow zone boundary

1 In the Process view, right-click the frame and select **Frame Properties**. The Frame Properties dialog opens.

2 In the **Overflow zone boundary** field, specify the distance (in grid units) from the top of the frame. You can also use a variable to determine the distance.

Examples

Example 7 *Paragraph begins below the Overflow zone boundary*

A paragraph begins below the Overflow zone boundary, and generates an overflow.

Dewa rette sapoila delle ganza kallo.
Asra serdu frets grep.¶
Sepasga sempru indigs, derre yttere
fraganza exatiu grello, erege frekoli
pamana garulli. Nella segre dazza cal
damago gerre safto.
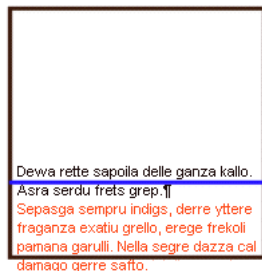
The entire paragraph (red text) is moved to the next page.

Example 8 *Less than four lines in a paragraph*

A paragraph contains three lines and generates an overflow. The paragraph does not begin below the Overflow zone boundary.

Dewa rette sapoila delle ganza kallo.
Asra serdu frets grep.¶
Sepasga sempru indigs, derre yttere
fraganza exatiu grello, erege frekoli
pamana garulli. Nella segre dazza cal.
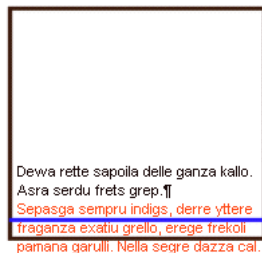
The entire paragraph (red text) is moved to the next page.

Example 9   *Four lines or more in a paragraph*

A paragraph contains four lines and generates an overflow. The paragraph does not begin below the Overflow zone boundary.

Dewa rette sapoila delle ganza kallo.
Asra serdu frets grep.¶
Sepasga sempru indigs, derre yttere
fraganza exatiu grello, erege frekoli
pamana garulli. Nella segre dazza cal
damago gerre safto.
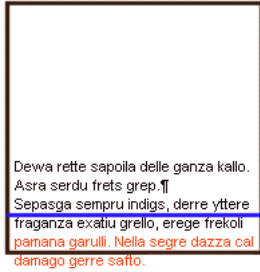
The two last lines (red text) are moved to the next page, i.e. there will be at least two lines on each page.

Sorting

You can use sort keys to specify the order in which block data is added to the output. If no sort keys are used, data is added in the same order as specified in the Event configuration, i.e. in the same order as in the Message.

To specify sort keys for a block

1 In the Process view, right-click the block and select **Block Properties**. The Output Block Properties dialog box opens.

2 In the **Criteria** field, edit the sort criteria and click **OK**.

Syntax

`"<field>":"<type><order>"`

For example:

`"customer_name":"SA"`

`<type>` is either `S` (alpha-numeric) or `N` (numeric)

`<order>` is either `A` (ascending) or `D` (descending)

Multiple sort keys

Multiple sort keys are separated with spaces. Data is sorted according to the first key. Block instances that equally fulfill the first sort are sorted according to the next key, and so on.

Example 10   *Sort keys for the fields name and age*

Mirroring page layouts

You can use variables in input data to mirror the positions of objects, and the alignment of text within text objects, according to the figure below.
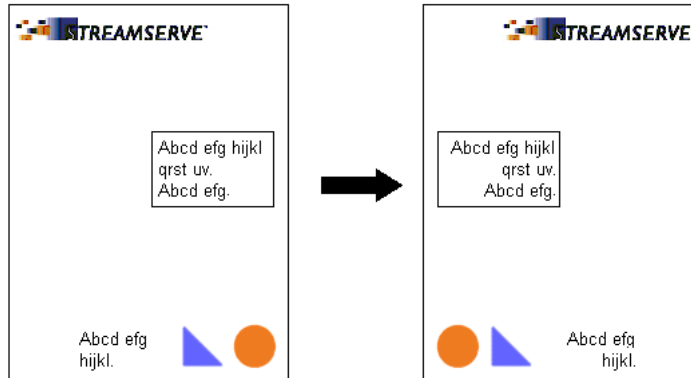
Disabling mirroring of an object

All objects are by default mirror enabled. If you want to mirror enable the Process as a whole, and there are some objects you do not want to mirror, you can disable mirroring for those objects:

1 Right-click the object and select **Position**. The Position dialog box opens.

2 Uncheck the **Mirror** option and click **OK**.

Keeping the text alignment in a text object

You can select to keep the original text alignment (not applicable to Advanced Text) when mirroring the object layout. The wrapping option for the text object must be either Clip or Wrap.

1 Right-click the object and select **Alignment**. The Alignment dialog box opens.

2 Select **Keep alignment**.

To enable mirroring of the Process output

1 In the Runtime configuration, right-click the PageOUT Process and select **Settings**. The Runtime Process Settings dialog box opens.

2 On the General tab, specify the mirror settings and click **OK**.

Mirror settings	
Mirror PageOUT	Select to enable mirroring.
Mirror variable	Enter the mirror variable. If the variable returns 1, the layout will be mirrored, and if it returns 0 the layout will not be mirrored. If no variable is specified, the layout will always be mirrored.

Language handling

A StreamServer application can deliver documents in different languages. If, for example, the input consists of invoices in several languages, all these invoices can be managed by the same PageOUT Process.

Code page issues

To be able to handle several languages in the same Project, you must use a code page that applies to all languages in the input.

Input data

The input data is mapped to fields in the Event, and the fields are added to the PageOUT Process. The contents of each field is retrieved from the input, which means you can use the same fields irrespective of the language.

Text labels

In the PageOUT tool, you can add text labels to the output. When you create the labels, you enter the text in the "default language". This means you must be able to change the text labels dynamically with respect to the language in the input data. For example, if the "default language" is english, and the language in the input data is german, you must dynamically change the text labels to german. To be able to do this, you must use a language file. See *Language files* on page 60.

Language files

A language file is a table resource that must be available to the PageOUT Process via a resource set connected to the Message. The language file contains the following columns:

- **Label ID** – A unique ID for each label.
- **Language code** – The language code for the label. These language codes will be used in a before Process script to dynamically select language.
- **Label text** – The label text for the corresponding language code.

```
//!CodePage UTF8!
7696c1fe-e8b2-4404-a4a1-130b0b802b6d    EN    Invoice
0982a31a-826d-4df5-b916-25ffb07c011e    EN    Invoice number
7a255d5d-74bb-4402-9b92-5e5507009fc9    EN    Invoice date
c6975a58-b975-426b-b2b0-71b597684eb9    EN    Payment due date
931eaaa9-8931-4467-b420-deb98da01670    EN    Amount to pay


7696c1fe-e8b2-4404-a4a1-130b0b802b6d    SV    Faktura
0982a31a-826d-4df5-b916-25ffb07c011e    SV    Fakturanummer
7a255d5d-74bb-4402-9b92-5e5507009fc9    SV    Fakturadatum
c6975a58-b975-426b-b2b0-71b597684eb9    SV    Förfallodag
931eaaa9-8931-4467-b420-deb98da01670    SV    Att betala
```

Figure 3   Language file with Label ID, language code, and label text columns.

The language file example above contains entries for five labels (five english entries and five swedish entries). Note that the label IDs are the same for both languages.

Creating language files

When you create a language file, you start by creating an empty table resource. You create this resource in a resource set connected to the PageOUT Process you want to configure. Then you export the label entries (label ID, language code, and label text of the default language) from the PageOUT tool to the language file. Finally you copy-paste all label entries in the language file, and change the language code and label text of the new entries.

Setting the default language code

Before you export the label entries from the PageOUT tool, you must set the default language code. You can use any code that is unique for the language. For example EN for english or SV for swedish.

To set the default language code

1 Open the PageOUT tool.

2 Select **Tools** > **Options**. The Options dialog box opens.

3 In the **Language code** field, enter the language code and click **OK**.

Setting the label IDs

Before you export the label entries from the PageOUT tool, you must set the label IDs for all labels.

To set the label ID for a label

1 In the PageOUT Process browser, right-click the label and select **Set ID**. The Edit Label ID dialog box opens.

2 Click **Generate ID** and **OK**.

Note: The Generate ID function ensures that all label IDs are unique. You can also manually enter your own IDs, but you must make sure all IDs are unique.

Exporting the label entries to the language file

When you have specified the default language code and all label IDs, you can export the label entries to the language file.

To export the label entries

1 Select **Tools** > **Export Language File**. The resource browser opens.

2 Browse to, and double-click, the language file resource.

Adding new language entries to the language file

The language file only contains the label entries of the default language after the export from PageOUT. You must add label entries for other languages manually to the language file.

To add new label entries to the language file

1 Open the table file in the resource editor.

2 Copy all default language entries, and paste them to the language file.

3 Edit the language code and label texts of the new entries.

Note: You must not change the label IDs.

Previewing the labels in the PageOUT tool

You can preview the labels in the PageOUT tool. To do this, you specify the language to preview, and load the language file in the PageOUT tool.

To preview the labels

1   Select **Tools** > **Options**. The Options dialog box opens.

2   In the **Language code** field, enter the language code of the language to preview and click **OK**.

3   Select **Tools** > **Load Language File**. The resource browser opens.

4   Browse to, and double-click, the language file resource. The labels changes to the text entries that corresponds to the selected language code.

Using language files

To be able to use language files, you must set the startup argument `-langfile`. You must also create a before Process script that uses field reference or variable values in the input data, and the language codes in the language file, to dynamically select the appropriate label texts.

Setting the -langfile startup argument

The startup argument `-langfile` instructs the StreamServer application to use language files, and specifies the path to the language file.

The path to the language file is normally `..\data\tables\<languagefile>`, where `<languagefile>` is the name of the language file resource you created in Design Center. This means the exported language file is deployed to `..\data\tables` relative to the StreamServer application's working directory.

You can also extract the language file resource to any directory, and use the absolute path to this directory when you set the `-langfile` argument.

To set the -langfile startup argument

1   In the Design Center Project browser, double-click the appropriate physical Platform layer node. The selected layer is activated in the Platform view.

2   Right-click the Platform view and select **Configure Export**. The Configure Platform Export dialog box opens.

3   Check the **-langfile** argument and enter the path to the language file, for example:

    ..\data\tables\langfile

4   Click **OK**.

Creating the before Process script

The language codes in the language file are used as keys to dynamically select the appropriate label texts. To be able to use these keys, you must create a before Process script. This script must include the following:

- A field reference or variable that contains a unique language identifier, for example a country code.

- The script function setLanguage.

Example 11   *Before Process script*

```
switch(&countryCode)
{
    case "USA":
        setLanguage("EN");
    break;
    case "Sverige":
        setLanguage("SV");
    break;
    default:
        setLanguage("EN");
}
```

Previewing output

You do not have to export and run the whole StreamServe Project each time you want to check how changes in the PageOUT configuration affects the output. You can instead preview the output from the PageOUT tool.

Input samples

Before you run the preview, you must create an input data sample that you add to a resource set available to the PageOUT tool.

To configure preview options

1   Select **Tools** > **Preview Options**. The Preview Paths dialog box opens.

2   Enter the preview settings and click **OK**. In most cases it is sufficient to specify the input sample resource and enter `-demo` as additional startup argument. See *Preview Paths dialog box* on page 101 for a full description of the settings.

To preview the output

Select **Tools** > **Preview**. The output page is displayed in the Document preview pane.

Unlinked blocks and fields

If a field or block is removed from the Event configuration, the corresponding fields in the PageOUT configuration are not removed. Instead the links are broken.

Exporting data from unlinked fields

You can configure unlinked fields to be exported as variables, static text, or not at all. You can select **Tools** > **Default Unlinked Export** and set export options that apply to all unlinked fields. You can also set the export settings separately for each unlinked field by right-clicking the field and selecting **Unlinked Export**.

See *Set Unlinked Field Properties dialog box* on page 100.

Deleting unlinked objects

You can delete the unlinked objects separately. You can also select **Tools** > **Delete all Unlinked Objects** to delete all unlinked objects at the same time.

Charts

You can add bar charts, pie charts, and line charts to the PageOUT sheet.

The items presented in a chart consist of value pairs – a Label (for example, an article) and a Value (for example, the number of articles sold). A chart can be based on a fixed or a variable number of value pairs. For example, if you create a chart based on fields defined in a block, you may not know how many value pairs the chart will include.

Variable number of value pairs

To create a chart based on a variable number of value pairs, you use a pair of arrays, one with Labels and the other with Values. You first define variables for the Labels and the Values, and then you create the arrays.

You define the variables in the Event tool. How to create the arrays depends on the type of Event used. If you use a PageIN or PreformatIN Event, you must create a script in the PageOUT Process that generates the arrays. If you use a StreamIN or XMLIN Event, you can select a block property in the Event tool to create arrays automatically.

Note: You can also create charts based on value pairs other than from an Event. For example, you can create a chart based on value pairs stored in a database. You first fetch the variables from the database, and then you create a script in the PageOUT Process to generate the arrays.

Example: Fixed number of items from a PageIN Event

In this example, you create a chart for three types of articles showing the name of the article (Label), and the number of articles sold (Value) during a month.

Assigning variables in the Event

This example uses a PageIN Event containing fields with article names, and fields with the number of articles sold.

Assign a variable to each name field and each amount field.

Adding variables to the Process

In the Chart Properties dialog box, add a new item for each article, and enter the **Value** and **Label** variables.

Example: Variable number of items from a PageIN Event

In this example, you create a chart for different types of articles showing the name of the article (Label), and the number of articles sold (Value) during a month.

The article items are defined in a block in the PageIN tool, which means you cannot tell how many items to include in the chart. You must therefore create a script that generates an array for the values, and another array for the labels.

Assigning variables in the Event

This example uses a PageIN Event containing the block Articles. This block has one field for the article name, and one field for the number of articles sold.

Assign a variable to the name field (`$label_article`), and another variable to the amount field (`$value_article`).

Creating arrays in the Process

Add the following script to the Articles block in the PageOUT Process:

```
$arr_label_article[$i]=$label_article;
$arr_value_article[$i]=$value_article;
$i++;
```

The script generates one array for the values, and one array for the labels.

Making sure that the arrays contain all required values

Before the chart is generated, you must make sure that the arrays contain all required values. How you do this will depend on what data you want to include in the chart. In this example, you first insert the chart in a free block inserted directly on the PageOUT sheet. You then call the free block after the frame that includes the Articles block.

Adding variables to the Process

Add a new item in the Chart Properties dialog box. Select the **Array** option, and enter the **Value** (`$arr_value_article`) and **Label** (`$arr_label_article`) variables.

Example: Variable number of items from a StreamIN Event

In this example, you create a chart for different types of articles showing the name of the article (Label), and the number of articles sold (Value) during a month.

The article items are defined in a block in the StreamIN tool, which means you cannot tell how many items to include in the chart. By enabling the array function for the block, the arrays are automatically created for the data.

Assigning variables in the Event

This example uses a StreamIN Event containing the block Articles.

Select **Array type** = **Yes** when defining the properties for the Articles block.

The Articles block has one field for the article name, and one field for the number of articles sold. Assign a variable to the name field ($label_article), and another variable to the amount field ($value_article).

Making sure that the arrays contain all required values

Before the chart is generated, you must make sure that the arrays contain all required values. How you do this will depend on what data you want to include in the chart. In this example, you first insert the chart in a free block inserted directly on the PageOUT sheet. You then call the free block after the frame that includes the Articles block.

Adding variables to the Process

Add a new item in the Chart Properties dialog box. Select the **Array** option, and enter the **Value** ($value_article) and **Label** ($label_article) variables.

Adding and editing charts

You can add charts directly to the PageOUT sheet, to a frame, or to a free block.

To add a chart

1   In the Process view, select the object to which you want to add the chart.

2   Click the **Chart** toolbar button.

3   Outline the area on the PageOUT sheet where you want to insert the chart. The Chart Properties dialog box opens.

4   Configure the chart.

5   Click **OK**.

To edit a chart

1   Double-click the chart. The Chart Properties dialog box opens.

2   Edit the chart.

3   Click **OK**.

Selecting chart types

In the Chart Properties dialog box, from the Chart type list, select one of the following chart types:

•   Bar chart

•   Line chart

•   Pie chart

Defining chart borders

You can create a border to surround the chart.

To set the border width

In the Chart Properties dialog box, in Lines area, in the Width text box, enter the border width (in millimeters).

To set the border color

In the Chart Properties dialog box, in Lines area, select a color from the Color list, or select a custom color by clicking **Palette**.

Labelling charts

You can add a label to the chart.

To add a label

In the Chart Properties dialog box, in the Label box, enter a name for the label.

To select font for the label

In the Chart Properties dialog box, click **Set font** and select font, style, size, color etc.

To position the label

In the Chart Properties dialog box, in the Label position area, select **Upper** or **Lower**. The label is positioned above or below the chart.

Adding chart items

You must add all items you want to use in the chart to the table at the bottom of the Chart Properties dialog box. If the input is an array, you add the array as a single item. If the input is not an array, you add a new row for each item.

Prerequisites

Before you add items to a bar or a line chart, you must select **Chart items** from the View list.

To add an item

In the Chart Properties dialog box, click the **New** button. An item is added to the Chart items table. For information on how to configure the value and label, see:

- *Defining bar chart values and labels* on page 80.

- *Defining line chart values and labels* on page 82.

- *Defining pie chart values and labels* on page 85.

To enable array input to the chart

If you use arrays as input to the chart, you must select the **Array** option.

Array	Value	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline
☑	$arr_Y_value	$arr_label	0	Center	Center		0.10

To combine two or more series of data in the same chart, you can add several table rows with arrays.

Array	Value	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline
☑	$arr_Y_value	$arr_label	0	Center	Center		0.10
☑	$arr_Y2_value	$arr_2_label	0	Center	Center		0.10

Rotating labels

You can rotate the labels in bar and line charts.

To rotate a label

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Rotate** cell.

2 Enter the rotation angle (0-360 degrees counter-clockwise).

Array	Value	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline	
☑	$arr_Y_value	$arr_label	0	Center	Center		0.10	

Aligning labels

You can align the position of labels in bar and line charts. Use the following columns in the Chart items table in the Chart Properties dialog box:

- **Horizontal pos** sets the horizontal position for the label:
  - Left
  - Center
  - Right
- **Vertical pos** sets the vertical position for the label:
  - Top
  - Center
  - Bottom

To align labels

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Horizontal pos** or **Vertical pos** cell.

2 Select an option from the list.

Array	Value	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline	
☑	$arr_Y_value	$arr_label	0	Center	Center		0.10	

Specifying label fonts

You can specify which font to use for labels attached to chart items, support lines, and X/Y-axes.

To specify label fonts

1 For bar charts and line charts, select the item in the table (Chart items, Support lines, or X/Y-axis) in the Chart Properties dialog box.

2 Click **Set font** right above the table.

3 Enter the font settings.

4 Click **OK**.

Specifying label formats

You can specify which format to use for labels attached to chart items, support lines and X/Y-axes. You can, for example, change the format for support line labels from 10 to 10.0, from 10.0 to 10,00 etc.

For information about the Formats dialog box and data formats, see *Output format for fields and variables* on page 53.

To specify label formats

1 For bar charts and line charts, select the item in the table (Chart items, Support lines, or X/Y-axis) in the Chart Properties dialog box.

2 Click **Format**. The Formats dialog box opens.

3 From the Category list, select the type of formatting. The available formats are displayed.

4 Select the new format.

5 Click **OK**.

Defining logical graph coordinates

The area that you outline when you insert a chart determines the physical dimensions of the chart.

You use logical graph coordinates to translate the absolute units of the physical area (in millimeters) to relative units. This enables you to adjust the chart to the input data.

For more information, see:

• *Defining coordinates for bar charts* on page 78.

• *Defining coordinates for line charts* on page 81.

• *Defining coordinates for pie charts* on page 84.

Creating support lines

You can create support lines in bar and line charts.

1 In the Chart Properties dialog box, from the View list, select **Support lines**.

2 Click the **New** button.

3 In the Support lines table, configure the support lines by double-clicking the corresponding cell and entering a value. For support line properties, see *Support line properties* on page 128.

Creating X-axes

You can create one or more X-axes in bar and line charts.

To create an X-axis

1 In the Chart Properties dialog box, from the View list, select **X-axis**.

2 Click the **New** button.

3 In the X-axis table, configure the X-axis by double-clicking the corresponding cell and entering a value. For X-axis properties, see *X-axis properties* on page 129.

Creating Y-axes

You can create one or more Y-axes in bar and line charts.

To create a Y-axis

1 In the Chart Properties dialog box, from the View list, select **Y-axis**.

2 Click the **New** button.

3 In the Y-axis table, configure the Y-axis by double-clicking the corresponding cell and entering a value. For Y-axis properties, see *Y-axis properties* on page 131.

Defining bar, pie slice, and line segment colors

You can select which color to use for bars, pie slices, and line segments in a chart.

For non-array elements, you can select a specific color for each chart item. For array elements, you can define a color interval that will be applied to the chart items.

Selecting colors for non-array elements

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Fill** cell.

2 Select a color from the list.

Array	Value	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline
☐	10	A	0	Center	Center		0.10

Selecting colors for array elements

You define the color settings for arrays on the **Array Options** tab in the Chart Properties dialog box. If you do not define any color settings, gray scale shading will be used.

To select a single color for all chart items
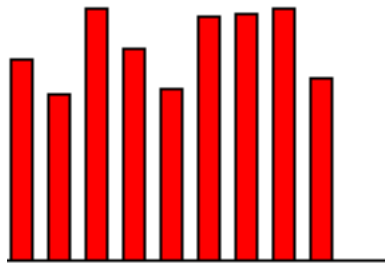
Figure 4   Output using a single color and no shading

1   Click the **Array Options** tab.

2   Clear **Automatic color shading**.

3   Click the **New** button. A new color item is added to the list.

4   Double-click the color item and edit the color.

To select multiple colors for the chart items

You can use multiple colors for chart items. The first color you define is used for the first item, the second color is used for the next item etc. When all colors have been applied, the first color is used for the next item etc.
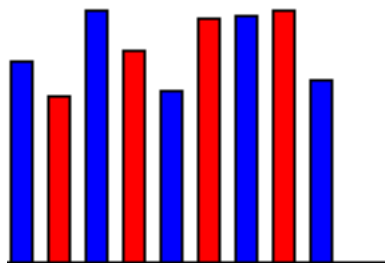
Figure 5   Output using two colors and no shading

1   Click the **Array Options** tab.

2   Clear **Automatic color shading**.

3   Click the **New** button. A new color item is added to the list.

4   Double-click the color item and edit the color.

5   Repeat steps *3* and *4* for each new color you want to add.

To enable automatic color shading

You can enable automatic shading of the colors you have added to the list. You use a shading offset value to define how much the shade will change between iterations – the lower the value, the smaller the change, and more shades are available.

If you use a single color, this color is used for the first item. The color is then gradually shaded, until no more shades are available. Then the original color is applied again.
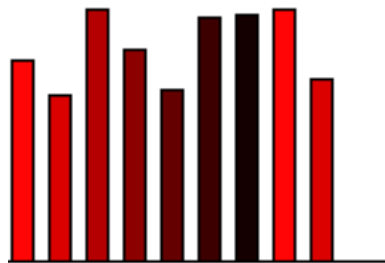
Figure 6   Output using a single color and automatic color shading

If you use two or more colors, each of the original colors are applied in the order in which they appear in the list. Then shades of the original colors are applied in the same order.
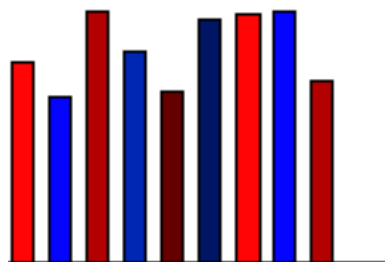
Figure 7   Output using two colors and automatic color shading

1   Click the **Array Options** tab.

2   Select **Automatic color shading**.

3   Enter a **Shading offset** value.

Bar chart specifics

This section covers the following topics:

- *Defining coordinates for bar charts* on page 78.
- *Defining margins, bar width, and bar gap* on page 79.
- *Defining bar chart values and labels* on page 80.
- *Defining line widths of bar borders* on page 80.

Defining coordinates for bar charts

The logical graph coordinates (Y-axis) are used to adjust the input data to the physical dimensions of the chart on the PageOUT sheet, so that the bars are kept within the chart.

Make sure that the interval you set for the Y-axis covers the interval between the lowest and highest values in the input data. Also make sure that the interval is not too large. The following examples illustrate how you can set the interval for the Y-axis:

- If the input data ranges from -50 to 50, set the interval for the Y-axis between -60 and 60.
- If the input data ranges from 0.2 to 0.5, set the interval for the Y-axis between 0.1 and 0.6.

You use the logical graph coordinates (X-axis) to define margins, bar width, and bar gap in relative units. See *Defining margins, bar width, and bar gap* on page 79.

To define the logical graph coordinates - basic mode

In basic mode, you define the logical graph coordinates along the Y-axis. The logical graph coordinates along the X-axis span from 0 to 100 and cannot be changed.

1 In the Chart Properties dialog box, enter the largest y-value in **Max value**.

2 Enter the lowest y-value in **Min value**.

To define the logical graph coordinates - advanced mode

In advanced mode, you define the logical graph coordinates both along the Y- and X-axes.

1 In the Chart Properties dialog box, select **Advanced options**.

2 Enter the largest y-value in **Y high**.

3 Enter the lowest y-value in **Y low**.

4 Enter the largest x-value in **X high**.

5 Enter the lowest x-value in **X low**.

To draw bars from the lowest y-value

By default, bars are drawn from Y-value 0. If you want to create a more differentiated chart, you can draw the bars from the lowest Y-value (Min value or Y low) instead.
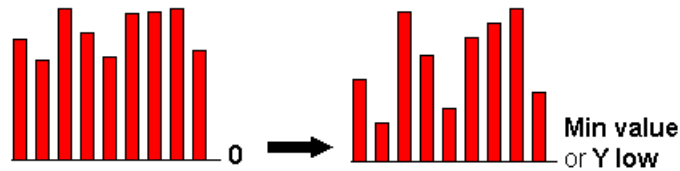
Figure 8   Drawing bars from lowest y-value

1   In the Chart Properties dialog box, enter the lowest Y-value in **Min value** or **Y low**.

2   Select **Draw from min value**.

Defining margins, bar width, and bar gap

In the Chart Properties dialog box, use the following fields to define margins, bar width, and bar gap:

Left margin	The distance between the first bar and the left side of the chart.
Right margin	The distance between the last bar and the right side of the chart.
Bar width	The width of each bar.
Bar gap	The distance between two bars.

If the **Absolute** option is selected, the units are in millimeters. Otherwise the units are relative to the logical graph X-axis.

Example 12   Relative units

In this example, the bar width is set to 10 units. The table below shows the bar width (% of X-axis) for three different X-axis settings.

Span (X-axis)	Units total (X-axis)	Bar width (% of X-axis)
0...100	100-0=100	10/100=10%
0...50	100-50=50	10/50=20%
-10...50	50+10=60	10/60=16.7%

Defining bar chart values and labels

You must define a value and a label for each bar in the bar chart. Use the following columns in the Chart items table:

- **Value** is the height of the bar and is retrieved from the input data.

- **Label** is the label of the bar and is retrieved from the input data.

To define values and labels

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Value** or **Label** cell.

2 Enter the value.

Array	Value	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline	
☑	$arr_Y_value	$arr_label	0	Center	Center		0.10	

Defining line widths of bar borders

You can define the line width of the bar border.

To define the line width

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Outline** cell.

2 Enter the value (in millimeters).

Array	Value	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline	
☑	$arr_Y_value	$arr_label	0	Center	Center		0.10	

Line chart specifics

This section covers the following topics:

- *Defining coordinates for line charts* on page 81.
- *Defining line chart values and labels* on page 82.
- *Defining line widths of line graphs* on page 82.
- *Defining line styles for line graph* on page 82.
- *Connecting lines in line graphs* on page 83.

Defining coordinates for line charts

The logical graph coordinates (X- and Y-axis) are used to adjust the input data to the physical dimensions of the chart on the PageOUT sheet, so that the line graph is kept within the chart.

Make sure that the intervals you set for the X- and Y-axis cover the interval between the lowest and highest values in the input data. Also make sure that the interval is not too large. The following examples illustrate how you can set the interval for the X- and Y-axes:

- If the input data ranges from 0 to 1000 in the X-dimension, and from -50 to 50 in the Y-dimension, set the interval for the X-axis between 0 and 1100, and for the Y-axis between -60 and 60.
- If the input data ranges from 0 to 100 in the X-dimension, and from 0.2 to 0.5 in the Y-dimension, set the interval for the X-axis between 0 and 110, and for the Y-axis between 0.1 and 0.6.

To define logical graph coordinates - basic mode

In basic mode, you define logical graph coordinates along the Y-axis. The logical graph coordinates along the X-axis span from 0 to 100 and cannot be changed.

1 In the Chart Properties dialog box, enter the largest y-value in **Max value**.

2 Enter the lowest y-value in **Min value**.

To define logical graph coordinates - advanced mode

In advanced mode, you define logical graph coordinates both along the Y- and X-axes.

1 In the Chart Properties dialog box, select **Advanced options**.

2 Enter the largest Y-value in **Y high**.

3 Enter the lowest Y-value in **Y low**.

4 Enter the largest X-value in **X high**.

5 Enter the lowest X-value in **X low**.

Defining line chart values and labels

You must define an X/Y-value and a label for each input data item in the line chart. Lines are drawn between the value pairs.

Use the following columns in the Chart items table:

- **Value** is the Y-coordinate and is retrieved from the input data.
- **X** is the X-coordinate and is retrieved from the input data.
- **Label** is the label of the item and is retrieved from the input data.

To define values and labels

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Value** or **X** or **Label** cell.

2 Enter the value.

Array	Value	X	Label	Rotate	Horizontal pos	Vertical pos	Outline
☑	$arr_Y_value	$X	$arr_label	0	Center	Center	0.10

Defining line widths of line graphs

You can define the line width of line graph.

To define the line width

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Outline** cell.

2 Enter a value (in millimeters).

Array	Value	X	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline	Line style
☑	$arr_Y_value	0	$arr_label	0	Center	Center		0.10	—

Defining line styles for line graph

You can specify a line style for the line graph.

To select line style

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Line style** cell.

2 Select a line style from the list.

Array	Value	X	Label	Rotate	Horizontal pos	Vertical pos	Fill	Outline	Line style
☑	$arr_Y_value	0	$arr_label	0	Center	Center		0.10	

Connecting lines in line graphs

You can use a dot or a square to connect lines.

The following applies when you specify the size:

- **Dot** – The **Size** value is multiplied by half of the line width (Outline value) to give the diameter of the dot.

- **Square** – The **Size** value is multiplied by half of the line width (Outline value) to give the side of the square.

To connect lines

1 In the Chart Properties dialog box, select **Connect lines width**.

2 Select **Dot** or **Square**.

3 In the Size box, enter the size of the dot or square.

Pie chart specifics

This section covers the following topics:

- *Defining coordinates for pie charts* on page 84.
- *Defining pie chart center* on page 84.
- *Changing pie chart angles, rotations, and heights* on page 85.
- *Defining pie chart values and labels* on page 85.
- *Emphasizing slices in pie charts* on page 86.
- *Defining line widths of pie contours* on page 87.
- *Arranging pie slice labels* on page 87.

Defining coordinates for pie charts

You use the logical graph coordinates to position the pie chart center, and define pie chart radius. See *Defining pie chart center* on page 84 and *Defining pie chart radius* on page 85.

To define logical graph coordinates - basic mode

In basic mode, you define the logical graph coordinates along the Y-axis. The logical graph coordinates along the X-axis span from 0 to 100 and cannot be changed.

1   In the Chart Properties dialog box, enter the largest Y-value in **Max value**.

2   Enter the lowest Y-value in **Min value**.

To define logical graph coordinates - advanced mode

In advanced mode, you define the logical graph coordinates both along the Y- and X-axes.

1   In the Chart Properties dialog box, select **Advanced options**.

2   Enter the largest Y-value in **Y high**.

3   Enter the lowest Y-value in **Y low**.

4   Enter the largest X-value in **X high**.

5   Enter the lowest X-value in **X low**.

Defining pie chart center

You use the X and Y coordinates in the **X** and **Y** fields, in the Chart Properties dialog box, to define the position of the pie chart center. The center of the chart is positioned relative to the logical graph coordinates.

Example

If you set the logical graph coordinates to span from 0 to 100 long for both the X- and Y-axes, and set the **X** and **Y** values to 50, the pie chart will be positioned in the center of the chart.

Defining pie chart radius

You set the radius in the **Radius** field in the Chart Properties dialog box. The radius is defined relative to the logical graph coordinates.

Defining pie chart values and labels

You must define a value and a label for each slice in the pie chart. Use the following columns in the Chart items table in the Chart Properties dialog box:

- **Value** is the size of the slice and is retrieved from the input data.

- **Label** is the label of the slice and is retrieved from the input data that.

To define values and labels

1 In the Chart items table, double-click the **Value** or **Label** cell.

2 Enter the value.

Array	Value	Label	Fill	Burst	
☑	$arr_Y_value	$arr_label	▉	True	

Changing pie chart angles, rotations, and heights

You define the settings below in the Chart Properties dialog box.

To define the view angle

You define the view angle in the **View angle** field. You can enter a value between 0 and 1.

Angle = 1   Angle = 0.5   Angle = 0

To rotate a pie chart

You can rotate the pie chart by entering a value (in degrees) in the **Start angle** field.

Angle = 0 degrees   Angle = 45 degrees   Angle = 90 degrees

To define the pie chart height

You define the height of the pie chart in the **Height** field. The height is defined relative to the logical graph coordinates.

Height = 0   Height = 5   Height = 10

To draw the pie chart counter-clockwise

By default, the pie chart is drawn clockwise. You can draw the pie chart counter-clockwise by selecting **Draw counter-clockwise**.

Clockwise   Counter-clockwise
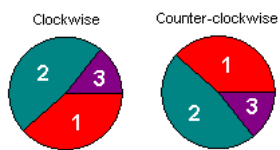
Emphasizing slices in pie charts

You can emphasize a slice in the pie chart.

To emphasize a pie slice

1 In the Chart Properties dialog box, in the Chart items table, double-click the **Burst** cell.

2 Select **True** from the list.

Array	Value	Label	Fill	Burst	
☑	$arr_Y_value	$arr_label		True	

Defining line widths of pie contours

You can set the width of the contours in the pie chart by entering a value (in millimeters) in the **Line width** field in the Chart Properties dialog box.

Arranging pie slice labels

By default, the slice labels are attached to the pie slices. You can organize the labels in columns to the left and right of the pie chart, with lines from a pie slice to the corresponding label. You do this by selecting **Burst labels** in the Chart Properties dialog box.
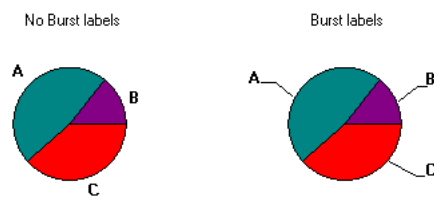
Layers of charts

You can create layers of charts by adding overlapping charts.

You define the border, labels, support lines etc. for the first chart. Then select the **Transparent** option for the overlapping charts. This option removes everything but the actual data (bars, pies, and lines).

You can use this feature for different purposes, for example, to combine two bar charts, with a left margin offset, to simulate 3-D effects.

Note: If you want to combine two or more series of data and display them in the same chart, you should use several arrays in the same chart. See *Adding chart items* on page 72.

PageOUT tool GUI reference

Main window

The main window contains three views:

- Message view
  This is the Message structure created in the corresponding Event tool. You drag blocks and fields from this view to the PageOUT sheet.

- PageOUT sheet
  This is where you position the objects – blocks, fields, static text, graphics, etc. – that you want to include in the PageOUT configuration. You can edit the objects on the PageOUT sheet, or you can edit the corresponding nodes in the Process view.

- Process view
  This view displays the PageOUT configuration as nodes in a tree structure. You can edit the nodes in this view, or you can edit the corresponding objects on the PageOUT sheet.

File menu

New	Clear the existing PageOUT configuration and start with a new Process view.
Open	Open an existing PageOUT configuration. The PageOUT configuration must have been saved as a `*.dur` file.
Save	Save the PageOUT configuration as data embedded in the corresponding Message file in the Design Center Project.
Save As	Save the PageOUT configuration as a separate `*.dur` file.
Page Setup	Open the Page Setup – Body dialog box and edit the page setup for the PageOUT sheet. See *Page Setup dialog box* on page 98.
Print	Print the PageOUT sheets in the current PageOUT configuration.
Recent File	Open recent `*.dur` files.
Exit	Exit the PageOUT tool.

Edit menu

Find — Find objects in the Message view, Process view, and PageOUT sheet.

Add Overlay — Add an existing overlay to the PageOUT configuration. See *Add Overlays dialog box* on page 99.

New Overlay — Create a new overlay and add it to the PageOUT configuration. See the *Overlay Editor* documentation.

View menu

Toolbars — Show/hide different toolbars.

Browsers — Show/hide the Message view and Process view.

Grid — Show/hide the grid.

Rulers — Show/hide the rulers.

All layers — Show all data from all blocks in a frame.

Field Sample Data on Sheet — Display field sample data and not field names on the PageOUT sheet.

Zoom — Zoom the PageOUT sheet.

Toggle View Mode — The View Mode determines the display names for the fields in the Message view and Process view. You can toggle between the following modes:

- Label
- Description
- Sample content

Toggle Operation Nodes — Show/hide operation nodes. Operation nodes can include scripts and sort key definitions.

Insert menu

Insert objects on the sheet. Note that you must select the appropriate node – root or specific block – in the Process view before you add the object to the sheet.

Static Text — Add a new plain text segment. See also *Text objects* on page 93.

Variable — Add a new variable. See also *Text objects* on page 93.

Advanced Text	Add a new advanced text segment. See also *Advanced Text* on page 94.
Frame	Draw a frame. See also *Frame* on page 95.
Free Block	Add a free block to a frame or at root level. See also *Free Block* on page 96.
Overlay	Add an overlay to the PageOUT configuration. See also *Overlay* on page 97.
Picture	Add a picture. See also *Picture* on page 97.
Rectangle	Draw a rectangle. See also *Rectangle and Line* on page 97.
Line	Draw a line. See also *Rectangle and Line* on page 97.
Page Number	Add a Page Number function that generates the number of the current page. See also *Text objects* on page 93.
Page of Pages	Add a Page of Pages function that generates the number of the current page and the total number of pages in the output document. See also *Text objects* on page 93.
Pages	Add a Pages function that generates the total number of pages in the output document. See also *Text objects* on page 93.
Date	Add a Date function that generates the date when the output was created. See also *Text objects* on page 93.
Time	Add a Time function that generates the time when the output was created. See also *Text objects* on page 93.

Format menu

Align Objects	Align two or more objects. Text objects are aligned with respect to the anchoring position, and all other objects (including advanced text) with respect to the object border.
Bring to Front	Bring the selected object to the front.
Send to Back	Move the selected object to the back.
Guide Settings	See *Guides Settings dialog box* on page 100.

Tools menu

Selection Tool	Activate select mode and deactivate any of the insert modes (insert rectangle, static text, etc.). In select mode, you can move the objects on the sheet.
Import Event	Applicable only when using the PageOUT tool as a standalone application. Imports an Event configuration.
Apply Page Layout	Pick all frames, blocks, and fields defined in a PageIN or PreformatIN Event and add them to the PageOUT configuration. The PageOUT tool will automatically create the frames and add all blocks – including fields – to the frames.
Apply Layout Template	Browse to and select a page layout template.
Load Language File	Browse to and select a language file. The original text is replaced by the translated text.
Set Language ID	Select a Static Text object and generate a unique identifier for the text. See *Edit Label ID dialog box* on page 104.
Export Language File	Exports all language IDs defined in the current configuration to a language file in an available resource set.
Link Objects	Link all unlinked fields and blocks. Unlinked blocks and fields in the Process view are linked to blocks and fields with the same name in the Message view.
Unlink Object	Manually cut the link between a selected field in the Process view, and the corresponding field in the Message view.
Default Unlinked Export	Set export options that apply to all unlinked fields. See *Set Unlinked Field Properties dialog box* on page 100.
Delete all Unlinked Objects	Delete all unlinked objects at the same time.
Preview	Preview the output. You must first set the preview options below.
Preview Options	Set the preview options. See *Preview Paths dialog box* on page 101.
Export	Preview the export from the PageOUT tool.
Options	See *Options dialog box* on page 101.

Objects

The objects described below are the objects you can configure in the Process view or on the PageOUT sheet.

Text objects

Applicable to:

- Field
- Static Text
- Variable
- Page Number
- Page of Pages
- Pages
- Date
- Time

Shortcut menu commands	
Position	Position the object and specify whether or not to wrap text. See *Position dialog box* on page 102.
Rotate	Rotate the object. See *Rotation dialog box* on page 103.
Barcode	Convert the text to barcodes. See *Barcode dialog box* on page 103.
Edit Script	Open the script editor where you can edit a before or after script.
Hyperlink	Create a hyperlink for the text. See *Hyperlink dialog box* on page 104.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Set ID	Only applicable to Static Text. Generate a unique identifier for the text. See *Edit Label ID dialog box* on page 104.
Alignment	Specify the anchoring position for the object. See *Alignment dialog box* on page 105.
Font	Specify the font for the text. See *Font dialog box* on page 105.
Format	Used to select numeric or date format. See *Output format for fields and variables* on page 53.
Properties	Specify line spacing for the text. See *Properties dialog box* on page 109.

Shortcut menu commands	
Size to content	Applicable only if the wrap option is set to Autosize.
	If you have expanded or shrunken an object, use this option to revert to the original size.
Unlink	Applicable only to Field objects.
	Unlink the field from the corresponding field in the Event configuration.
Unlinked Export	Applicable only to unlinked Field objects.
	Open the Set Unlinked Field Properties dialog box and specify what to export from the unlinked field. See *Set Unlinked Field Properties dialog box* on page 100.

Advanced Text

Shortcut menu commands	
Paragraph	Available if you first select one or more characters in the text area.
	Specify the options for a paragraph selected in the text area. See *Paragraph dialog box* on page 111.
Vertical shift	Available if you first select one or more characters in the text area.
	Open the Vertical Shift dialog box where you can move text segments up/down relative to the text on the same line. See *Vertical Shift dialog box* on page 112.
Font	Available if you first select one or more characters in the text area.
	Open the Font dialog box, where you can specify the font properties for the selected text segment. See *Font dialog box* on page 105.
Language	Open the Language dialog box, where you can specify whether to use hyphenation on selected language. See *Language dialog box* on page 106.
Alias attributes	Available if you first select a variable in the text area.
	Open the Text Alias dialog box where you can specify a fixed width (points) that will be applied if the variable is empty at runtime.
Position	Position the object. See *Position dialog box* on page 102.

Shortcut menu commands	
Edit Script	Open the script editor where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Properties	Open the Advanced Text Properties dialog box where you can configure how to handle cropping, vertical alignment, and wrapping of text. See *Advanced Text Properties dialog box* on page 109.

Frame

Shortcut menu commands	
Position	Position the object. See *Position dialog box* on page 102.
Edit Script	Open the script editor, where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Add Free Block	Add a free block to the frame. See *Free Block* on page 96.
Block Properties	Edit the properties for the active block. The active block is the block displayed in the frame on the PageOUT sheet. See *Output Block Properties dialog box* on page 115.
Unlink	Unlink the active block and all its fields from the corresponding block and fields in the Event configuration.
Drawing Properties	Specify drawing properties for the frame. For example, line color, fill color, and rounded corners. See *Drawing Properties dialog box* on page 118.
Frame Properties	Edit frame specific properties. See *Frame Properties dialog box* on page 113.

Block

Shortcut menu commands	
Edit Script	Open the script editor where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Unlink	Unlink the block and all its fields from the corresponding block and fields in the Event configuration.
Block Properties	Edit the properties for the block. See *Output Block Properties dialog box* on page 115.

Free Block

Shortcut menu commands	
Position	Only applicable to free blocks outside frames. Position the object. See *Position dialog box* on page 102.
Edit Script	Open the script editor where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Block Properties	Only applicable to free blocks in frames. Edit the properties for the free block. See *Output Block Properties dialog box* on page 115.
Properties	Only applicable to free blocks outside frames. Specify drawing properties for the free block. For example, line color, fill color, and rounded corners. See *Drawing Properties dialog box* on page 118.

Overlay

Shortcut menu commands	
Edit	Only applicable to LXF overlays. Edit the overlay in the Overlay Editor. See the *Overlay Editor* documentation.
Refresh	Obsolete option. The overlay is reloaded when the resource is updated.
Properties	Open the Overlays dialog box. See *Overlays dialog box* on page 116.

Picture

Shortcut menu commands	
Position	Position the object. See *Position dialog box* on page 102.
Edit Script	Open the script editor where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Select	Select an alternative image. See *Select Image dialog box* on page 117.
Size to Content	Revert to the original size of the image.

Rectangle and Line

Add lines and rectangles to the PageOUT sheet.

Shortcut menu commands	
Position	Position the object. See *Position dialog box* on page 102.
Edit Script	Open the script editor where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Properties	Open the Drawing Properties dialog box. See *Drawing Properties dialog box* on page 118.

Charts

Shortcut menu commands	
Position	Position the object. See *Position dialog box* on page 102.
Edit Script	Open the script editor where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Properties	Open the Chart Properties dialog box. See *Charts* on page 121.

RFID

Shortcut menu commands	
Position	Position the object. See *Position dialog box* on page 102.
Rotate	Rotate the object. See *Rotation dialog box* on page 103.
Edit Script	Open the script editor where you can edit a before or after script.
Bookmarks	Define a bookmark for the object. See *Bookmarks dialog box* on page 107.
Properties	Open the RFID Properties dialog box. See *RFID Properties dialog box* on page 118.

Dialog boxes

Page Setup dialog box

Paper Size tab settings	
Format	Select a standard format or specify a custom width and height.
Width	Width of the PageOUT sheet. You can select **Enable width variable** and let a variable determine the width. Enter the variable without the $-prefix.

Paper Size tab settings	
Height	Height of the PageOUT sheet. You can select **Enable height variable** and let a variable determine the height. Enter the variable without the $-prefix.
Orientation	Portrait or Landscape.
Printers	If you want to print the PageOUT sheet layout, select which printer to use.

Other tab settings	
X/Y offset	Some printers will automatically offset the output. You can use these settings to adjust the page offset accordingly in the PageOUT tool. The offset will be applied on the printed output page and will not be visible on the PageOUT sheet.
	X offset – The horizontal offset (in millimeters) from the upper-left corner of the PageOUT sheet.
	Y offset – The vertical offset (in millimeters) from the upper-left corner of the PageOUT sheet.
Always output	Applicable only to the page type Last. use this option to make sure that a Last page is always generated.
	Note: If the data fits into a Single page, no Last page will be generated.
Priority	N/A
Suppress frame overflow zone synchronization	Disables the frame overflow zone synchronization between frames in different page types. For example, selecting this option on a Body page type, and a frame is edited in a First page type, the values set in **Overflow zone boundary** will not be changed in the body page frame. See *Frame Properties dialog box* on page 113.

Add Overlays dialog box

Settings	
Overlay list	A list of all LXF overlays available to the PageOUT tool. When an overlay is added to the PageOUT tool, it is removed from this list.

Settings	
Add print file	If you want to use a PRN, PCL, or PS file as an overlay, use this button to browse to the corresponding resource.

Guides Settings dialog box

Grid tab settings	
Origin	Horizontal and vertical origin of the grid. The origin is defined relative to the upper-left corner of the PageOUT sheet.
Frequency	Number of horizontal and vertical grid lines per unit.
Snap to grid	Select to snap objects to the grid.
Show Grid	Select whether or not to display the vertical and horizontal grid lines.
Minimum pixels	The minimum grid line width. The actual width depends on the screen resolution and zooming. If the actual width is less than the minimum width, the grid lines will not be visible on screen.

Borders tab settings	
Left, Top, Right, Bottom	The top, right, bottom, and left borders. These borders are for guidance only. **Note:** You cannot specify different borders for different page types in the same PageOUT configuration.
Show borders	Select whether or not to display the borders on the PageOUT sheet.

Set Unlinked Field Properties dialog box

Settings	
Do not export	Do not export the field.
Export as variable	Export the field as a variable. Do not use white spaces in the variable name. Do not enter the $-prefix.
Export as static text	Select to export the Label, Description, Sample Data, or a custom Text.

Preview Paths dialog box

Settings	
StreamServer	Path to the executable (`strsloader.exe`) that creates the preview. This path is set up automatically when you install the Design Center software.
Platform	The Platform you are using.
InConnector	The input connector that receives the input data.
Grab (In) File	A sample file to use as input for the preview.
Additional server arguments	All the startup arguments `strsloader.exe` needs to create the preview, for example `-demo`. All startup arguments specified for the Project, and that may influence the preview, must be specified here.

Options dialog box

Settings	
Init path	Path to the `init` directory.
Language code	The default language code, for example `eng`.
Default	Default font and alignment (anchoring position) settings for classes of fields. The classes `Label`, `Dynamic`, and `Header` are assigned to fields in the Event tool. The settings are applied to all existing and new fields of the class. By specifying the `Other` class, you can assign settings for new text, such as static text, advanced text, page numbering, etc. Already inserted text is not automatically updated.
Resources	Select whether or not you want the PageOUT tool to send out warnings when a resource is reloaded or deleted.
Barcode style	For Projects upgraded from Persuasion SP2, SP3, or SP4, you may have to set this option to Alternative style to get a correct representation of the barcodes in the tool. **Note:** Runtime rendering of the output is not affected by this setting.

Position dialog box

Settings	
Position	Use coordinates to specify the position and size of the object. The units are determined by the Frequency settings for the grid. The origin for objects added to blocks is by default the top left corner of the frame. The origin for objects outside frames is determined by the Origin settings for the grid. See *Guides Settings dialog box* on page 100.
	X/Y – X/Y-coordinate for the upper left corner of the object.
	Width/Height – Width/Height of the object.
Export as absolute	Only applicable to objects added to blocks. The origin for these objects are by default the top left corner of the frame.
	If you select Export as absolute, the origin will be a static value determined by the Origin settings for the grid.
Enable mirroring	Enable/disable mirroring of the object.
	Mirroring for the Project is enabled in the Runtime configuration. Mirroring applies to all mirroring enabled objects. See *Mirroring page layouts* on page 58.
Wrapping	Options for how to conform the text to the width and height of text area.
	Clip – The width and height of the text area is static. If the text does not fit into the text area, it will be cropped.
	Wrap – The width and height of the text area is static. If the text is wider than the width, it will be wrapped. If there are more lines of text than there is room, the text will be cropped.
	Autosize – Default option. Adjust the width and height of the text area to the size of the text. The text will never be cropped with this option.
	Keep leading spaces inside text – Select to keep leading spaces. For example, if the text extends over two lines, the second line can start with a space.
Variables	Use variables to determine the position and size of the text area.

Rotation dialog box

Rotate the object using a fixed or custom angle.

Barcode dialog box

Settings	
Enable barcodes	Enable barcodes for the selected field.
Barcode types	Only types where StreamServer creates the barcode symbology are displayed by default. The Show all option enables the use of specific label printer barcodes, where text and formatting information is sent separately to the label printer.
Property/Value list	See the corresponding barcode specification for information.

Comments

Code 128
The StreamServer will automatically calculate and use the most advantageous subset, which will result in the shortest barcode. You can include the FNC4 character in your barcode by inserting the hexadecimal value <F4> in the string to be encoded. The FNC4 character is normally used to facilitate Extended Code 128.

EAN 128
The StreamServer can handle EAN128 barcodes containing data fields of variable length. The variable length must be indicated by the data field separator FNC1. To include FNC1 in the text, you must use the hexadecimal code <F1>.

Maxicode
When using the Maxicode barcode with Printronix and Intermec DP driver, the barcode fields must be separated by hexadecimal code <D1>. For example:

```
856501234<1D>844<1D>002<1D>Test
```

where:

- 856501234 – Postal Code (9 digit numeric for US or 6 digit alphanumeric for Canada)
- 844 – Country Code (3 digit numeric)
- 002 – Class of Service (3 digit numeric)
- Test – secondary message.

Hyperlink dialog box

Settings	
Enable hyperlink	Enable the use of hyperlinks in PDF, RTF, and HTML driver produced output.
Address	The hyperlink URL.
Screen Tip	Optional tip displayed on mouse over. Works only if the viewer application supports this functionality.
Alias	Use aliases to dynamically select alternative addresses and screen tips. See *Dynamic selection using aliases* in the *Design Center* documentation for information about aliases.

Address lookup table syntax

<key>   <address>

Example 13   *Address lookup table*

```
SWE    http://www.abs.se/
FIN    http://www.abs.fi/
```

Screen tip lookup table syntax

<key>   <tip>

Example 14   *Screen tip lookup table*

```
SWE    Välkommen
FIN    Tervetuloa
```
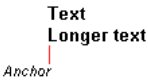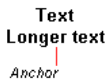
Edit Label ID dialog box

Used for specifying unique IDs for text strings used in language files.

Settings	
Text	Displays the text string.
ID	Enter an ID manually, or click Generate ID and let the PageOUT tool generate an ID.

Alignment dialog box

The anchoring position for text fields is, by default, the base position for the first character. If the text is not static, the length of the text will grow from left to right. You can change the anchoring position to either center or right.

Settings	
Left	Left positioned anchor – the text will grow from left to right. Text Longer text *Anchor*
Right	Right positioned anchor – the text will grow from right to left. Text Longer text *Anchor*
Centered	Center positioned anchor – the text will grow from the center and out. Text Longer text *Anchor*
Variable	Let a variable determine the position. The variable must return either `Left`, `Right` or `Center` (case sensitive).
Keep alignment	Keep the original alignment of the text when mirroring the object layout.

Font dialog box

Edit the font according to standard Windows procedures.

Aliases

Use aliases to dynamically select font, font size, color, and background color. See *Dynamic selection using aliases* in the *Design Center* documentation for information about aliases. You can use scripting and lookup table alias for fonts, but only scripting alias for font size, color, and background color. The following scripting functions are used to define fonts and colors:

- Font – *SetFontProperties*
- Color and background color – *RGBcolor*

Font lookup table syntax

<key>   <font>

where *<font>* corresponds to the font name in the driver files.

Example 15   *Font lookup table*

```
SWE    Arial_Black
ENG    Arial_Narrow
```

Language dialog box

Settings	
Language	Select language.
Use hyphenation	Enable hyphenation for selected language.
Alias	Use aliases to dynamically select language and whether to use hyphenation. See *Dynamic selection using aliases* in the *Design Center* documentation for information about aliases.

Language lookup table syntax

<key>   <language_code>

where *<language_code>* is the text string after the semicolon in the Language drop-down list.

Example 16   *Language lookup table*

```
USA    en-US
UK     en-GB
```

Hyphenation lookup table syntax

<key>   <hyphenate>

where *<hyphenate>* is either YES or NO.

Example 17   *Hyphenation lookup table*

```
USA    YES
UK     NO
```

Bookmarks dialog box

Define a bookmark for the selected object. Note that bookmarks are only applicable for PDF and AFP output.

Settings	PDF	AFP
Bookmarks	Displays all bookmarks defined for the selected object.	Same as PDF.
Name	Enter a bookmark name.	Enter a bookmark name. When left empty, Bookmark is used by default in AFP output.
Value	Enter a bookmark value.	Same as PDF.
Level	Specify the level of the bookmark in the output bookmark hierarchy. Level 1 is parent level. See *Organizing bookmarks* on page 45.	N/A
Repeat identical bookmarks	Enable/disable consecutive identical bookmarks at the same level in the output bookmark list. See *Organizing bookmarks* on page 45.	Same as PDF.
Format	Specify how to display the bookmark in the output. Use one of the predefined formats, or enter any separator character. For example, to use the & character, enter %1 & %2 **%1** – Represents the **Name**. **%2** – Represents the **Value**. The **Format** column in the **Bookmarks** list displays a preview.	N/A
Style	Specify the style of the bookmark.	N/A
Color	Specify the color of the bookmark.	N/A
Alias	Use aliases to dynamically define the bookmark properties. See *Dynamic selection using aliases* in the *Design Center* documentation for information about aliases.	Same as PDF.

Formats dialog box

Settings	
Category	**General** – Data will be handled as a regular string of characters.
	Numeric – Data will be handled as numeric data. This category must have been specified for the field or variable in the Event configuration.
	Date – Data will be handled as date formatted data. This category must have been specified for the field or variable in the Event configuration.
Format	Select an existing format or add a new format. Do not use the Numeric formats k and d. They should be used in the Event configuration only.
Select Resource	Browse to and select an alternative format resource.

Numeric format description	
Z	If the value of a leading or trailing digit is zero, the digit is replaced by a space, " ".
B	If the value of a leading or trailing digit is zero, the digit is removed.
9	The digit is always displayed.
#	A digit on either side of a decimal separator, or the last sign if no decimal separator exists. The digit is always displayed, except if the field value is zero (0 or 0.0 or similar).
Example	`Z ZZZ ZZZ ZZ#,##`

Date format description	
d	Day
m	Month
y	Year
Example	`dd/mm/yyyy`

Properties dialog box

Settings	
Auto	Keep the default line spacing suggested by the PageOUT tool.
Custom	Specify a custom line spacing. The custom line spacing will not be visible on the PageOUT sheet.
Line spacing	Line spacing (in points).
Variable	Use a variable to determine the line spacing. The variable must return a line spacing (in points).

Advanced Text Properties dialog box

Height Modes tab

The text area you draw on the PageOUT sheet, is not the same used in the output. When you add text to a block, you have four options for how to conform the height of text area to the actual output.

Settings	
Default height	Adjusts the height of the text area to the size of the text. The text will never be cropped using this option.
Fixed height	The height of the text area is exactly the same height as defined in the PageOUT tool. If the text does not fit, it will be cropped.
Maximum height	Behaves like the Default height option until the height of the text area equals the height defined in the PageOUT tool. If more text is added to the output, it will be cropped.
Minimum height	Behaves like the Fixed height option until the maximum height is reached. If more text is added to the output, the height of the text area will grow. The text will never be cropped using this option.

When the text is added on root level (not in frames), the Maximum height mode equals the Fixed height mode, and the Minimum height mode equals the Default height mode.

Alignment tab

Specify the vertical alignment of the text in an Advanced Text area.

Settings	
Top	Start text at the top of the Advanced Text area.
Center	Center text in the Advanced Text area. Text moves toward the top and bottom as you add new text.
Bottom	Places text at the bottom of the Advanced Text area. Text moves toward the top of the Advanced Text area as you add new text.

Wrapping tab

Specify how to wrap text lines in an Advanced Text area.

Settings	
Wrapping mode	**Word Wrap** – Wrap text inside the Advanced Text area. **None** – Disable wrapping of text.
Scaling	**None** – Keep original font size. **Scale to Fit** – The text will be scaled, up or down, so that the longest line of text will fit into the Advanced Text area.

Example 18   *Wrapping mode=Word Wrap and Scaling=None*

Wrapping mode is set to **Word Wrap** and Scaling is set to **None**.

Less is more if more is more
or less too much.

Example 19   *Wrapping mode=None and Scaling=None*

Wrapping mode is set to **None** and Scaling is set to **None**.

Less is more if more is more or less too much.

Example 20   Wrapping mode=None and Scaling=Scale to Fit

Wrapping mode is set to **None** and Scaling is set to **Scale to Fit**.

Less is more if more is more or less too much.
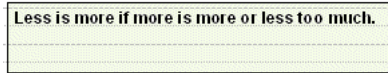
Import Text tab

Specify from where external texts are imported. The imported texts replace the text in the Advanced Text area.

Settings	
Get text from StreamStudio Composer	Select to make the Advanced Text area available for texts created in the StreamStudio Composer.
Area name	Enter the name of the text area that should be available in the StreamStudio Composer.
Alias	Not applicable if you use the Advanced Text area for texts created in the StreamStudio Composer. Use aliases to dynamically replace the text in the area. If you use an array variable, all variable values are inserted one after another. See *Dynamic selection using aliases* in the *Design Center* documentation for information about aliases.

Paragraph dialog box

Specify text indentation, paragraph spacing, line spacing and text alignment.
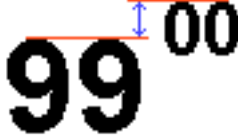
Settings	
Text indentation	Left and Right indentation for the paragraph. **First line adjustment** – An adjustment of the Left indentation for the first line in the paragraph. You can enter a positive or a negative value.
Paragraph spacing	Spacing before and after the paragraph.

Settings	
Line spacing	**Auto** – Use the default line spacing.
	Fixed – Enter a fixed line spacing.
	Relative – Enter a relative line spacing. The value will be multiplied by the current font height. If a text line includes multiple font sizes, the highest value will be used as font height. If a text line includes a vertical shift, the absolute value of vertical shift is added to current font height.
Text alignment	Left, center, or right align the paragraph.
	Justified – Distribute the text evenly between the right and left margins. Lines terminated with CR+LF and the last line of a paragraph are excluded from justification. The last line of a paragraph is aligned according to the selection Left, Center, and Right.
Collapse empty paragraph at runtime	A paragraph that only contains variable data can be empty at runtime. Select this option if you want to remove the empty space, caused by the empty paragraph, from the output.
Exclude paragraph from scaling	Disables the Scale to fit option (Wrapping tab in the Advanced Text properties dialog box) for the selected paragraph.

Vertical Shift dialog box

Specify how to move a text segment up/down relative to the text on the same line.

Settings	
Vertical shift	Number of points to move the selected text segment.

Settings	
Relative to	**Baseline** – The vertical shift is the distance between the base of the moved text segment and the base of the text. **Cap line** – The vertical shift is the distance between the top of the moved text segment and the top of the highest character.

Frame Properties dialog box

Settings	
Free blocks	Enter the names of the free blocks you want to add. **Before frame** – Add a free block before all blocks in the frame. **After frame** – Add a free block after all blocks in the frame. **Before overflow** – Add a free block at the bottom of the frame, on the current page before a page break. **After overflow** – Add a free block at the top of the frame, on the following page after a page break.
Priority level	The StreamServer processes frames in the order in which they appear in the Process view, from top to bottom. You can change the processing order by using drag-and-drop, or by assigning priority levels (0, 1, etc.) to the frames. The frame with the lowest value will be processed first. Frames with the same priority will be processed according to the order in the Process browser.

Settings	
Overflow zone boundary	Enabled when any of the blocks have the page break mode set to Break between lines in a field.
	The Overflow zone boundary and the bottom of the frame create a window that determines how many lines to move to the next page after a page break. See *Widow and orphan rows* on page 54.
	Specify the distance (in grid units) from the top of the frame. You can also let a variable determine the distance.
	Note: To let these values change depending on if a corresponding frame is modified in another page type, you must enable **Suppress frame overflow zone synchronization**, see *Page Setup dialog box* on page 98.
Retain frame data	Retain frame data from the previous page.
	When a frame is filled, a new page is triggered. New data will be added to the frame on the new page until the frame is filled, and so on. If the PageOUT configuration contains two or more frames, one frame will cause the page break, and the rest of the frames will most likely not be filled. By default, no data from the previous page will be retained in any of the frames after a page break.
Ignore frame boundaries	Do not crop text that extends outside the vertical frame borders.

Output Block Properties dialog box

General tab

Settings	
Spacing	**Before** – Spacing (in millimeters) above the block.
	After – Spacing (in millimeters) below the block.
	Line – Fixed block height (in millimeters). To enable this option, you must select **Use line**.
	Note: By selecting **Use line** you disable the page break modes `Break between fields` and `Break between lines in fields`.
	Keep lines together – If the frame is not big enough for the block and its associated free blocks, the blocks are moved to the next page. This setting is ignored if the frame on the next page is too small.
	Only applicable if Frame Overflow is set to **Default**, and when using a StreamIN or XMLIN event with parent blocks. The child blocks inherit this setting from the parent block.
Indentation	**Top –** Top indentation (in millimeters, counted downwards using a negative value) of the block.
	Left – Left indentation (in millimeters) of the block.
Free blocks	Enter the names of the free blocks you want to add.
	Before first instance – Add a free block before the first instance of this block.
	After last instance – Add a free block after the last instance of this block.
	Before overflow – Add a free block at the bottom of the frame, on the current page, before a page break.
	After overflow – Add a free block at the top of the frame, on the following page, after a page break.
	After block children – Add a free block after the last instance of any block children. If the block has no children, the free block will be invoked after each instance of the main block.
Sort	Use sort keys to specify the order in which block data is added to the output, see *Sorting* on page 57.

Frame Overflow tab

Settings	
Default	Move the block, and all associated free blocks, to the next page after a page break. **Note:** Not applicable if it is the first block in the frame.
Break between blocks	Similar to the Default option. The difference is that the page break can separate blocks and free blocks.
Break between fields	The page break can occur between fields in blocks and free blocks. If the block has Use line enabled, this mode will behave like the Break between blocks mode.
Break between lines in fields	The page break can occur between lines within a field. This mode will not work if the field is rotated. If the block has Use line enabled, this mode will behave like the Break between blocks mode.

See *Defining page breaks* on page 54 for more information.

Overlays dialog box

Settings	
Alias	Use aliases to dynamically select alternative overlays. See *Dynamic selection using aliases* in the *Design Center* documentation for information about aliases.
Offset adjustment	Enable offset adjustment of an overlay. Use the *SetXoffs* and *SetYoffs* scripting functions to define the offset, see the *Scripting reference*.
Verso	Make this overlay a verso overlay. If you want to print static information on the reverse side of a sheet, you can add a verso overlay. Note that the verso overlay is the only information that will be printed on the reverse side.
Page number	Only applicable for LXF and TIFF overlays. Select a page from the multi-page overlay.
Suppress overlay	Select to suppress the overlay.

Settings	
Variable	Use a variable to dynamically:
	• select pages from the multi-page overlay. Only applicable for LXF and TIFF overlays.
	• suppress the overlay.
Preview Resource	Not applicable to LXF and TIFF overlays.
	Browse to and select a preview resource for the printer overlay. The preview resource will be displayed on the PageOUT sheet.

Overlay lookup table syntax

```
"<Event>.<Process>.<number>.<key>"    <Overlay>
```

where *<number>* refers to the sequential order of the overlays in the Process view.
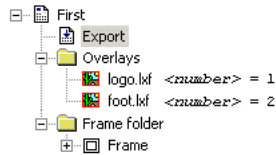
Example 21   *Overlay lookup table*

```
"In.Out.1.SWE"    logoSWE.lxf

"In.Out.1.ENG"    logoENG.lxf

"In.Out.1.FIN"    logoFIN.prn

"In.Out.2.SWE"    footSWE.lxf

"In.Out.2.ENG"    footENG.lxf

"In.Out.2.FIN"    footFIN.prn
```

Select Image dialog box

In this dialog box you specify images to add to the PageOUT sheet. You can add image resources as well as external image files.

You can select a static image that always will be used. You can also create a script that selects the image dynamically (not applicable to image resources).

Settings	
Select Resource	Click **OK** and browse to the image resource.

Settings	
File name	The path to an image (static image selection) or a variable (dynamic image selection).

Drawing Properties dialog box

Lines tab settings	
Colors	Line or border color.
Variable	Color variable defined using the scripting function *RGBcolor*. See the *Scripting reference*.
Width	Width (millimeters) of the line or border.

Fill tab settings	
Colors	Color or pattern of the rectangle area.
Variable	Color variable defined using the scripting function *RGBcolor*. See the *Scripting reference*.

Corners tab settings	
Sharp corners	Draw a rectangle with sharp corners.
Round corners	Draw a rectangle with rounded corners. Use **Radius** to specify the radius of the corners.

Frame tab settings	
Snap to content	Select if you want to conform the size of the frame to the contents of the frame.

RFID Properties dialog box

The available memory size is dependent on chip memory and the number of partitions. When you enter static values in the fields, your are assisted with information regarding allowed values in the remaining fields. Red colored information indicates memory overflow.

Different fields are available in the dialog box depending on selected air protocol and EPC encoding format.

Using variables

Variables can be used in all fields. You can also enter a variable in the **Encoding format** drop-down list.

Settings

Settings	
Air protocol or tag type	Protocol that determines how RFID tags and RFID printers communicates. Available options are: • EPC Class 1 version 1 • EPC Class 1 Generation 2 • ISO18000-6b
Tag data / Use EPC tag encoding	If selected, EPC identification scheme is used to identify objects via RFID tags.
Encoding format	Only available when **Use EPC tag encoding** is selected. For a list of available EPC formats and arguments, see *EPC encoding formats and arguments* on page 120.
Data format	This option is not available if EPC tag encoding is used. Available options are: • HEX 64 and 96 bit • ASCII 64 and 96 bit. • NUM 64 and 96 bit. **Intermec** • HEX – Hexadecimal string. Values 0-9 and a-f are allowed. Hex characters must be entered in pairs. • ASCII – 8-bit ASCII string. • NUM – Integer. 0 to 2147483647 is allowed. Always uses 4 bytes to represent data, unless a field smaller has been defined, and the number fits in that field. Not allowed in Class1 tag
ID	Only available when EPC Class 1 version 1 is used without EPC tag encoding.
EPC data	Only available if EPC Class 1 Generation 2 or ISO18000-6b is used without EPC tag encoding.
User	Only available if EPC Class 1 Generation 2 is used without EPC tag encoding.

Security settings

Security settings	
Kill password	This options is available if EPC Class 1 version 1 or EPC Class 1 Generation 2 is used. • For EPC Class 1 version 1 is one byte HEX passwords allowed. • For EPC Class 1 Generation 2 is four bytes HEX passwords allowed.
Access/lock password	This options is available if EPC Class 1 Generation 2 is used. Four bytes HEX passwords are allowed.
Tag protect/lock enabled	This options is available if EPC Class 1 version 1 or ISO19000-6b is used.
Permanent lock	This options is available if EPC Class 1 Generation 2 is used.

EPC encoding formats and arguments

Only available when EPC tag encoding is selected. EPC encoding formats are predefined according to the EPC specification *EPC Generation 1 Tag Data Standards Version 1.1* (EPC Global TDS). See: http://www.epcglobalna.org/StandardsDevelopment/EPCglobalStandards/tabid/185/Default.aspx

• SGTIN-96 – Filter value, Partition, Company prefix (Index), Item reference, Serial number

• SGTIN-64 – Filter value, Company prefix (Index), Item reference, Serial number

• SSCC-96 – Filter value, Partition, Company prefix (Index), Serial reference

• SSCC-64 – Filter value, Company prefix (Index), Serial reference

• SGLN-96 – Filter value, Partition, Company prefix (Index), Location reference, Serial number

• SGLN-64 – Filter value, Company prefix (Index), Location reference, Serial number

• GRAI-96 – Filter value, Partition, Company prefix (Index), Asset type, Serial number

• GRAI-64 – Filter value, Company prefix (Index), Asset type, Serial number

• GIAI-96 – Filter value, Partition, Company prefix (Index), Individual asset ref

• GIAI-64 – Filter value, Company prefix (Index), Individual asset ref

• GID-96 – General manager number, Object class, Serial number

• USDOD-96 – Filter value, Government managed ID, Serial number

• USDOD-64 – Filter value, Government managed ID, Serial number

Charts

This section describes buttons, fields, etc. in the dialog boxes used to manage charts. The following topics are covered:

Orientation

In the PageOUT tool, click the **Chart** toolbar button. Outline the area on the PageOUT sheet where you want to insert the chart.

Chart features

Settings	
Advanced options	Select to enable advanced chart options to be set.
Transparent	Select to insert the chart without border, support lines, X-axis, etc. Use this option, for example, to combine two charts, with a left margin offset, to simulate 3-D effects.
Label	The label/caption of the chart.
Set font	Click to set a font for the chart label.
Lines/Width	The line width (in millimeters) of the border around the chart.
Lines/Color	The color of the border around the chart.
Palette	Click to select colors other than those supplied by default.

Settings	
Label position	The position of the label, above (**Upper**) or below (**Lower**) the chart.
Chart type	The chart type (Bar, Pie, or Line).
Interval (Basic mode)	The interval for the chart height. The chart width is automatically set to span from 0 to 100.
Logical graph coordinates (Advanced mode)	The coordinates for the chart area.
Set font	Click to set a font for the label.
Format	Click to specify a format for the label.
New	Click to add a row to the table.
Delete	Click to remove the selected row from the table.
Move Up	Click to move the selected row one step up in the table.
Move Down	Click to move the selected row one step down in the table.

Color settings for arrays

Settings	
Automatic color shading	Select to enable automatic color shading.
Shading offset	A shading offset value. The lower the value, the smaller the change, and more shades are available
Color	All colors to be used by the array elements. Double-click the color item to edit the color settings.
New	Click to add a color item to the Color list.
Delete	Click to remove the selected color item from the Color list.
Move Up	Click to move the selected color item one step up in the Color list.
Move Down	Click to move the selected color item one step down in the Color list.

Bar chart reference

Settings	
View	Select which type of data to view and edit in the table at the bottom of the dialog box.
Left margin	The distance between the first bar and the left side of the chart.
Right margin	The distance between the last bar and the right side of the chart.
Bar width	The width of each bar.
Bar gap	The distance between two bars.
Draw from min value	Select to create a differentiated chart where the X-axis is moved to the lowest Y-value (**Y low** or **Min value**).
Absolute	Select to set the units (millimeters). Otherwise the units are related to the logical graph X-axis.
Use item color (Applicable to arrays only)	*Used in previous versions of PageOUT. Applicable only if you do not define color settings for arrays.* If selected, all bars will have the color specified in the Fill column. If cleared, the bars will be printed in gray scale.

Chart items

When you select **Chart items** from the View list, you can edit properties for the appearance of the bars.

Settings	
Array	Select if the input data comes in the form of an array.
Value	A fixed value or variable that corresponds to the input data value. This value determines the height of the corresponding bar.
Label	A fixed value or variable that corresponds to the input data value. This value determines the label attached to the corresponding bar.
Rotate	The rotation angle (in degrees) of the label.

Settings	
Horizontal pos	The horizontal position of the label. There are three fixed positions: • Left • Center • Right
Vertical pos	The vertical position of the label. There are three fixed positions: • Top • Center • Bottom
Fill	The color to fill the bar with. If Array is selected, you define these color settings on the Array options tab.
Outline	The line width (in millimeters) of the bar border.

Support Lines

When you select **Support Lines** from the View list, you can edit properties for the appearance of the support lines. These properties are the same for bar charts and line charts, and are described in *Support line properties* on page 128.

X-axis

When you select **X-axis** from the View list, you can edit properties for the appearance of the X-axis. These properties are the same for bar charts and line charts, and are described in *X-axis properties* on page 129.

Y-axis

When you select **Y-axis** from the View list, you can edit properties for the appearance of the Y-axis. These properties are the same for bar charts and line charts, and are described in *Y-axis properties* on page 131.

Line chart reference

Settings	
Connect lines with	Select to use a dot or a square to connect lines.
	• **Dot** – The **Size** value is multiplied by half of the line width (Outline value) to give the diameter of the dot.
	• **Square** – The **Size** value is multiplied by half of the line width (Outline value) to give the side of the square.
View	Select which type of data to view and edit in the table at the bottom of the dialog box.

Chart items

When you select **Chart items** from the View list, you can edit properties for the appearance of the bars.

Settings	
Array	Select if the input data comes in the form of an array.
Value	A fixed value or variable that corresponds to the input data Y-coordinate.
X	A fixed value or variable that corresponds to the input data X-coordinate.
Label	A fixed value or variable that corresponds to the input data that is to be displayed as a label.
Rotate	The rotation angle (in degrees) of the label.
Horizontal pos	The horizontal position of the label. There are three fixed positions: • Left • Center • Right
Vertical pos	The vertical position of the label. There are three fixed positions: • Top • Center • Bottom

Settings	
Fill	The color of the line segment.
	If Array is selected, you define these color settings on the Array options tab.
Outline	The line width (in millimeters) of the line segment, starting at the coordinates for the current item, and ending at the coordinates for the next item.
Line style	The line style of the line segment, starting at the coordinates for the current item, and ending at the coordinates for the next item.

Support Lines

When you select **Support Lines** from the View list, you can edit properties for the appearance of the support lines. These properties are the same for bar charts and line charts, and are described in *Support line properties* on page 128.

X-axis

When you select **X-axis** from the View list, you can edit properties for the appearance of the X-axis. These properties are the same for bar charts and line charts, and are described in *X-axis properties* on page 129.

Y-axis

When you select **Y-axis** from the View list, you can edit properties for the appearance of the Y-axis. These properties are the same for bar charts and line charts, and are described in *Y-axis properties* on page 131.

Pie chart reference

Settings	
Draw counter-clockwise	Select to draw the pie chart counter-clockwise.
Line width	The width (in millimeters) of the contours in the pie chart.
X and Y	Positions the center of the pie chart relative to the logical graph coordinates. You define the position by setting the X and Y coordinates in the **X** and **Y** fields respectively.

Settings	
Height	The pie chart thickness. The thickness is set relative to the logical graph coordinates.
Radius	The pie radius. The pie radius is set relative to the logical graph coordinates.
View angle	The view angle. You can enter a value between 0 and 1.
Start angle	The rotation of the pie chart (in degrees).
Use item color (Applicable to arrays only)	*Used in previous versions of PageOUT. Applicable only if you do not define color settings for arrays.* If selected, all bars will have the color specified in the Fill column. If cleared, the bars will be printed in gray scale.
Burst labels	Select to organize the labels in columns to the left and right of the pie chart, with lines from each pie slice to the corresponding label.
Array	Select if the input data comes in the form of an array. **Note:** If you select this option, you cannot have more than one pie in the table.

Settings	
Value	A fixed value or variable that corresponds to the input data value. This value determines the size of the corresponding slice.
Label	A fixed value or variable that corresponds to the input data value. This value determines the label attached to the corresponding slice.
Fill	The color to fill the slice with. If Array is selected, you define these color settings on the Array options tab.
Burst	Select **True** to separate the slice from the pie.

Support line properties

Settings	
First	The Y-coordinate for the first support line to be drawn. This value relates to the logical graph coordinates.
Last	The Y-coordinate for the last support line to be drawn. This value relates to the logical graph coordinates.
Length	The length of the support lines. This value relates to the logical graph coordinates.
Distance	The distance between the support lines and, consequently, the number of support lines to be drawn. This value relates to the logical graph coordinates.
Horizontal pos	The Y-coordinate is displayed as a label at the end of each support line. `Horizontal pos` is the horizontal position (fine tuning) of the label. There are three fixed positions: • Left • Center • Right

Settings	
Vertical pos	The Y-coordinate is displayed as a label at the end of each support line. Vertical pos is the vertical position (fine tuning) of the label. There are three fixed positions: • Top • Center • Bottom
Placement	The Y-coordinate is displayed as a label at the end of each support line. Set this value to Left or Right to have the label positioned to the left or right end of the support lines.
Outline	The line width (in millimeters) of the support lines.
Line style	The line type (solid, dashed, etc.) for the support lines.
Set font	Click to set the font for labels attached to the support lines.
Format	Click to select the format for labels attached to the support lines.
New	Click to add a row to the table.
Delete	Click to remove the selected row from the table.
Move Up	Click to move the selected row one step up in the table.
Move Down	Click to move the selected row one step down in the table.

X-axis properties

Settings	
Text	Select to attach labels to the X-axis. If you have one single X-axis, this option is selected by default and cannot be deselected. If you have several X-axes, this option must be selected for one of the axes.
Start	The X-coordinate where you want the X-axis to start. This value relates to the logical graph coordinates.
End	The X-coordinate where you want the X-axis to end. This value relates to the logical graph coordinates.

Settings	
Y	The Y-coordinate where the X-axis intersects the Y-axis. This value relates to the logical graph coordinates.
	Only available in advanced mode. In basic mode, the X-axis intersects the Y-axis at the 0 (zero) coordinate.
Label	The label text you want to use for the X-axis.
Horizontal pos	The horizontal position (fine tuning) of the X-axis label. There are three fixed positions: • Left • Center • Right
Vertical pos	The vertical position (fine tuning) of the X-axis label. There are three fixed positions: • Top • Center • Bottom
Placement	The alignment of the X-axis label relative to the end points of the X-axis. There are two fixed positions: • Left • Right
Outline	The line width (in millimeters) of the axis.
Set font	Click to set the font for the X-axis label.
Format	Click to select the format for the X-axis label.
New	Click to add a row to the table.
Delete	Click to remove the selected row from the table.
Move Up	Click to move the selected row one step up in the table.
Move Down	Click to move the selected row one step down in the table.

Y-axis properties

Settings	
Start	The Y-coordinate where you want the Y-axis to start. This value relates to the logical graph coordinates.
End	The Y-coordinate where you want the Y-axis to end. This value relates to the logical graph coordinates.
X	The X-coordinate where the Y-axis intersects the X-axis. This value relates to the logical graph coordinates. Only available in advanced mode. In basic mode the Y-axis intersects the X-axis at the 0 (zero) coordinate.
Label	The label text you want to use for the Y-axis.
Horizontal pos	The horizontal position (fine tuning) of the Y-axis label. There are three fixed positions: • Left • Center • Right
Vertical pos	The vertical position (fine tuning) of the Y-axis label. There are three fixed positions: • Top • Center • Bottom
Placement	The alignment of the Y-axis label relative to the end points of the Y-axis. There are two fixed positions: • Left • Right
Outline	The line width (in millimeters) of the axis.
Set font	Click to set the font for the Y-axis label.
Format	Click to select the format for the Y-axis label.
New	Click to add a row to the table.
Delete	Click to remove the selected row from the table.
Move Up	Click to move the selected row one step up in the table.
Move Down	Click to move the selected row one step down in the table.