StreamServe™ Persuasion™

StreamServe Persuasion SP5 Sheet Layout

User Guide

Rev A

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StreamServe Web Site
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Contents

About sheet layout

You can use the Sheet Layout editor to create a sheet layout that defines the layout of logical pages onto physical sheets. The layout can include both text and images.

To define a layout of pages onto sheets, you must:

- Create a sheet layout. See *Creating a sheet layout resource* on page 10.
- Select the sheet layout for the output connector. See *Selecting sheet layout* on page 13.

Note: You can not use the HTML output connector when post-processing documents. To create HTML output, use a File output connector and the HTML driver.

Scenario

In the scenario for sorting and bundling of documents, the set of documents that was retrieved from the Post-processor repository was split up in two files bound for separate mailing machines. See *Sorting and bundling* documentation.

The post-processing continues with the following:

- A sheet layout is defined to:
  - Print the retrieved documents in duplex format onto the sheets.
  - Print fold marks to prepare for folding of the sheets to fit into C5 envelopes.

Sheet Layout terms

Sheet layout

You can specify where and how the document pages are printed on sheets, for example duplex, landscape, or booklet mode.

You can use variables for the presentation, orientation, and margins settings. For example, you can use simplex for the first sheet of a document, and duplex for the rest. To use a variable for a specific property, select the property to activate the Alias frame for this property.

Media

You can specify the type of paper to use, where to retrieve new sheets, and where to put the printed sheets.

You can use variables for all Media settings. For example, you can use a separate type of paper for the first sheet in a document. To use a variable for a specific property, select the property to activate the Alias frame for this property.

Image

You can add an image on two levels:

- To the whole sheet.

  See *Adding an image to a sheet* on page 10.
- To a specific partition. You must configure a partition before you can add an image to the partition.

  See *Adding an image to a partition* on page 10.

Overlay

You can add an overlay to a sheet.

See *Placing an overlay on a sheet* on page 10.

If you want to add an overlay to a page according to a condition, for example if the page is the first one in the envelope, you can use the *InsertOverlay* script function.

Example 1 *InsertOverlay script*

```
if (isFirstPageInEnvelope())
{insertOverlay("overlay1", 0, 0)
```

To add a post-processing script, see *StreamServe Document sorting and bundling* documentation.

Repeat

You can print signatures from several documents on a single sheet, or repeat the signature vertically or horizontally. You can also repeat the entire sheet. Repeating signatures is useful when, for example, printing business cards.

Signature

You can specify how the sheet is divided in partitions, by specifying the number of rows and columns.

Partition

A partition is a section of the signature that contains one page. You can add and configure the partitions in a signature.

Note: Make sure the size of the logical page fits the partition size.

You can:

- Add partitions automatically according to the signature definition.

  See *Specifying partitions automatically* on page 10.

- Add a single partition.

  See *Specifying a partition* on page 11.

Page order

You can define in which order the pages will be printed into the partitions, by defining a sequence order expression for the pages.

See *Defining page order expression* on page 11.

Fold marks

Fold marks display where the border between rows in a signature is located, and they indicate where the sheet is supposed to be folded.

In the Fold marks tables, you can double-click a cell or click F2 when a row is selected to start editing.

Horizontal fold marks are printed outside the left and right edges of the signature, between the rows that you specify.

Vertical fold marks are printed outside the top and bottom edges of the signature, between the columns that you specify.

You can specify the default values used for fold mark length, width, and distance.

See *Specifying fold mark default values* on page 11.

Gutters

The gutter is the area between two rows or columns of partitions in a signature. The gutter allows the logical pages that are printed on the partitions to be easily visible when the sheet is folded.

In the Gutters tables, you can double-click a cell or click F2 when a row is selected to start editing.

The horizontal gutter is the empty area between two rows of partitions in a signature.

The vertical gutter is the empty area between two columns of partitions in a signature.

Measurement unit

You can change the measurement unit used for the length and distance parameters, which you can configure in the Sheet Layout editor.

See *Specifying measurement unit* on page 10

Side-by-side printing

You can configure the output connector to print the sheet layout you defined in the Sheet Layout resource on a larger sheet. For example, if you defined your sheet layout on A4 media, you can print two of these sheet layouts side by side on an A3 sheet. To do this you must specify to print the pages side by side in the Page Order definition for the partitions, see *Configuring Side-by-side printing* on page 12.

For an example of side-by-side printing, see *Sheet layout examples* on page 15.

Lookup table

You can use lookup tables for the parameters that you can use variables with.

See the *Design Center* documentation.

Example 2 *Example of a look-up table entry*

```
//Codepage UTF8!
//variable value substitution
1   Simplex
2   Duplex
3   Tumble
```

This means that if you use a lookup for the Presentation alias, and a `$var` variable is defined for it:

- Presentation is simplex for `$var=1`
- Presentation is duplex for `$var=2`
- Presentation is duplex tumble for `$var=3`

Configuring sheet layout

To configure the sheet layout of logical pages, you must

- create a sheet layout resource using the Sheet Layout editor.
  See *Creating a sheet layout resource* on page 10.
- select the sheet layout resource to use it in the Project.
  See *Selecting sheet layout* on page 13.

Creating a sheet layout resource

1. Right-click the resource set and select **New Resource** > **Sheet Layout**.
2. Double-click on the sheet layout resource to open the Sheet Layout editor.
3. Edit the values in the different sheet layout categories. See *Sheet layout editor GUI reference* on page 17.

Specifying measurement unit

1. In the Sheet Layout editor, select **Tools** > **Options**. The Options window opens.
2. Select the distance unit and click **OK**.

Adding an image to a sheet

1. In the Sheet Layout editor, select **Sheet Layout** in the Category tree.
2. From the **Sheet Layout** menu, select **Add Image**.
3. Edit the values for the image.

Adding an image to a partition

1. In the Sheet Layout editor, select **Partition** in the Category tree.
2. From the Sheet Layout menu, select **Add Image**.
3. Edit the values for the image.

Placing an overlay on a sheet

1. In the Sheet Layout editor, select **Sheet Layout** in the Category tree.
2. From the Sheet Layout menu > **Add Form Overlay**.
3. Edit the values for the overlay.

Specifying partitions automatically

1. In the Sheet Layout editor, select **Signature** in the Category tree.
2. Configure a signature, either an N-up definition or a custom rows and columns definition.
3. From the Sheet Layout menu, select **Auto Add Partitions**. Partitions are added according to your signature definition.
4. Edit the values for the partitions.

Specifying a partition

1. In the Sheet Layout editor, select **Signature** in the Category tree.
2. From the Sheet Layout menu, select **Add Partition**.
3. Edit the values for the partition.

Specifying fold mark default values

1. In the Sheet Layout editor, select **Tools** > **Options**. The Options window opens.
2. Edit the Fold marks defaults values and click **OK**.

Defining page order expression

Every page in a document has a unique sequence number beginning with `1`.

To create an expression that represents this sequence number, you can use integers, `+`, `-`, `*`, `/`, `(`, `)`, and the following variables:

- `s` – the sheet number where the logical page is to be printed.
- `n` – the total number of logical pages to be printed.

The variable `n` is retrieved from the lowest of the following values:

- The number of logical pages in the document.
- The **MaxSheets** parameter specified in the **Sheet Layout** category.

Examples of page orders

Example 3 *Booklet*

The number of pages is eight, so 2 sheets are printed.

1st partition (front left): `n+2-2*s`

1st sheet: The page printed on the front left partition is 8+2-2*1=8

2nd sheet: The page printed on the front left partition is 8+2-2*2=6

2nd partition (front right): `2*s-1`

1st sheet: The page printed on the front right partition is 2*1-1=1

2nd sheet: The page printed on the front right partition is 2*2-1=3

3rd partition (back left): `2*s`

1st sheet: The page printed on the back left partition is 2*1=2

2nd sheet: The page printed on the back left partition is 2*2=4

4th partition (back right): `n+1-2*s`

1st sheet: The page printed on the back right partition is 8+1-2*1=7

2nd sheet: The page printed on the back right partition is 8+1-2*2=5

Example 4 *Cut normal order*

1st partition (front left): `2*s-1`

2nd partition (front right): `2*s-1+n/2`

3rd partition (back left): `2*s+n/2`

4th partition (back right): `2*s`

Example 5 *Cut reverse order*

1st partition (front left): `n+2-2*s`

2nd partition (front right): `n/2+2-2*s`

3rd partition (back left): `n/2+1-2*s`

4th partition (back right): `n+1-2*s`

Configuring Side-by-side printing

1. In the Runtime window, open the connector settings for the output connector to be used.
2. Select the **Side by Side** tab and browse to the sheet layout resource that you have created.
3. Select the partition on which to place the pages. You can specify a partition number or a partition name that you have defined in the Sheet Layout editor. A name must be specified within apostrophes, that is `'<partition_name>'`. Default is **Next** (if none is selected).
4. Click **OK**.

Selecting sheet layout

You must configure an output connector to use a sheet layout that you have created. You can configure the output connector at Job begin, Document begin, Process begin, or Page begin. However, we recommend you to configure the connector at Job begin, unless you want to specify a specific document, Process or Page.

Note: The priority order when selecting a sheet layout is Page, Process, Document and then Job. For example, if you specify different sheet layouts on Page begin and Document begin, the sheet layout on Page begin is used for the selected pages within the document.

To select a sheet layout

1. In the Runtime window, open the connector settings for the output connector.
2. Select the **Sheet Layout** tab and browse to the sheet layout resource that you have created.
3. If you have not defined a Page order, you can select the partition on which to place the pages. You can specify a partition number or a partition name that you have defined in the Sheet Layout editor. A name must be specified within apostrophes, that is `'<partition_name>'`. Default is **Next** (if none is selected).
4. Optionally, you can specify the partition in which the first page of the job, Document or Process is printed. You can specify a partition number or a partition name that you have defined in the Sheet Layout editor. A name must be specified within apostrophes, that is `'<partition_name>'`. Default is **Next** (if none is selected).
5. Click **OK**.

Importing a sheet layout

1. In the Resource Set window, double-click on the sheet layout resource to open it in the Sheet Layout editor.
2. Select **File** > **Import from XML**.
3. Browse to the sheet layout file you want to import and click **Open**.

Sheet layout examples

Example 6 *To print business cards (example)*

In this example, business cards are printed onto 10 sheets with 20 business cards on each sheet. The business card page defined in the Process tool has a size that allows 20 business cards to be printed onto an A4 page.

1. Create a new sheet layout, see *Creating a sheet layout resource* on page 10.
2. In the Category tree, select **Repeat**.
3. In the upper Repeat frame, select **Stack**.
4. In the upper Count box, enter `10`.
5. In the intermediate Repeat frame, select **Horizontal**.
6. In the intermediate Action list box, select **Duplicate**.
7. In the intermediate Count box, enter `4`.
8. In the lower Action list box, select **Duplicate**.
9. In the lower Count box, Enter `5`.
10. Save the sheet layout.
11. Configure an output connector to use this sheet layout, see *Selecting sheet layout* on page 13.

Example 7 *To print side-by-side*

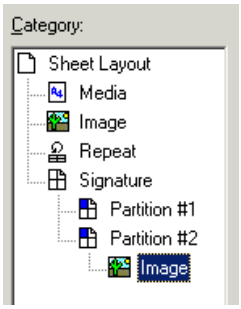
1. Create a new sheet layout, see *Creating a sheet layout resource* on page 10.
2. Configure an output connector to use this sheet layout, see *Selecting sheet layout* on page 13.
3. Create another sheet layout, see *Creating a sheet layout resource* on page 10.
4. In the Category tree, select **Sheet Layout**.
5. In the Page Order frame, select **Cut Normal Order**. The Layout Presentation is automatically set to Duplex, or Duplex tumble, depending on the Layout Orientation that you have specified.

   Note: Make sure the Media size is twice the Media size of the sheet layout selected on the Sheet Layout tab.
6. Save the sheet layout.

7 Configure an output connector to use side-by-side printing, see *Configuring Side-by-side printing* on page 12.

Sheet layout editor GUI reference

There are several categories where you can define the sheet layout.



Categories

Sheet layout

Sheet layout settings		Variable values
Presentation	**Duplex Tumble** means to turn the page on the short side.	`Simplex`, `Duplex`, `Tumble`
Orientation	The orientation of the sheet.	`Portrait`, `Landscape`
Margins (mm)	**Top** – The size of the margin from the top of the sheet to the signature. **Bottom** – The size of the margin from the bottom of the sheet to the signature. **Left** – The size of the margin from the left side of the sheet to the signature. The margin is defined when the sheet is front side up. Therefore, on the back side, this margin is on the right side. **Right** – The size of the margin from the right side of the sheet to the signature. The margin is defined when the sheet is front side up. Therefore, on the back side, this margin is on the left side.	Values must be in points.

Sheet layout settings		Variable values
Page order	**None** – No page order is defined. The partition order specified at Job begin, Document begin, Process begin, or Page Begin is used for the imposition of the pages. **Booklet** – The pages are positioned for booklet printing. Only 2-up signature is supported. See *Signature* on page 22. **Cut Normal Order** – Starting with the first page, the first half of the total number of pages is positioned on the left side of the sheets, and the second half on the right side of the sheets. **Cut Reverse Order** – Starting with the last page, the first half of the total number of pages is positioned on the left side of the sheets, and the second half on the right side of the sheets. **Custom Order** – The pages are positioned according to the Page Order option specified for a specific partition, see *Partition* on page 23.	N/A
Max no of sheets	If you want the Page Order option that you have specified to be applied to less pages than the total number of pages in the document, you must specify the maximum number of sheets that can be used for the pages in the document. This can be useful, for example, if a cutting machine can only handle a limited number of sheets.	N/A

Sheet layout settings		Variable values
Keep documents together	**No** – Each document starts on a new sheet. **Yes** – A document is printed on the sheet directly after the previous document. **Front Column** – The first page of each document is printed on the top partition in the column to the right of the previous column on the front side. **Front Row** – The first page of each document is printed on the left partition in the row below the previous row on the front side. **Front Cell** – The first page of each document is printed on a partition on the next row or column on the front side. **Signature** – The first page of each document is printed on the next signature. This can be useful when you are repeating signatures, see *Repeat* on page 22.	N/A

Media

Media settings		Variable values
Paper size	The paper size. If you select **Custom**, you must specify **Width** and **Height**.	`A4`, `Letter`, `Tabloid`, `Ledger`, `Legal`, `Executive`, `A3`, `A5`
Width (mm)	The width of the paper in millimeters.	The value must be in points.
Height (mm)	The height of the paper in millimeters. The height must be greater than the width, as the media is defined as portrait layout.	The value must be in points.

Media settings		Variable values
Type	The type of paper, for example transparency or drilled. The string must comply with the output format definition. See your output format manual for available definitions.	A string
Color	The paper color. The string must comply with the output format definition. See your output format manual for available definitions.	A string
Weight (g/m^2)	The weight of the paper in grams per square meter.	A string
Gutter change (mm)	The increase in gutter size for every new sheet. This is used to compensate for the media thickness when the sheets are put together and folded, for example when booklets are used. See *Horizontal gutters* on page 24.	The value must be in points.
Input tray	The input tray name.	A string
Output bin	The output bin name.	A string

Image

Image settings for a sheet		Variable values
Name	The image file name as specified in the resource set. You can use a variable for the image name. For example, you can use customized images depending on the customer ID.	A string
Horizontal position (mm)	The horizontal position on the sheet. Left is `0`.	The value must be in points.
Vertical position (mm)	The vertical position on the sheet. Top is `0`.	The value must be in points.

Image settings for a sheet		Variable values
Sheet side	The side of the sheet where the image will be located.	`Front`, `Back`, `Both`

Image settings for a partition	
Name	The image file name as specified in the resource set. You can use a variable for the image name. For example, you can use customized images depending on the customer ID.
Horizontal position (mm)	The horizontal position on the partition or sheet. Left is 0.
Vertical position (mm)	The vertical position on the partition or sheet. Top is 0.
Position from partition origin	The horizontal and vertical positions are relative to the partition origin (top left corner of the partition), instead of the sheet origin.

Overlay

Form overlay settings for a sheet layout		Variable values
Name	The overlay name as specified in the resource set. You can use a variable for the overlay name. For example, you can use customized overlays depending on the customer ID.	A string
Horizontal position (mm)	The horizontal position. Left is `0`.	The value must be in points.
Vertical position (mm)	The vertical position. Top is `0`.	The value must be in points.
Sheet side	The side(s) of the sheet where to print the form overlay.	`Front`, `Back`, `Both`

Repeat

Repeat settings	
Repeat	The direction in which the signature is repeated. If you specify **Stack**, the whole sheet is repeated. Within the stack repetition, you can repeat the signature vertically and horizontally.
Reverse	Reverse the direction of repeating. By default, repeating vertically is from top to bottom of the sheet, and repeating horizontally is from left to right.
Action	**Duplicate** – The contents of the signature is duplicated in the next signature. **Increment** – The next pages of the document are printed in the next signature.
Count	The number of times the signature is repeated.
Spacing (mm)	The distance between signatures, when repeated vertically or horizontally.

Signature

Signature settings	
N-up definition	Predefined signatures allow you to configure the sheet to contain up to four partitions on each side.
Rows and column definition	You can define a custom signature by specifying the number of rows and columns for both back and front sides.
Set size	**Width (mm)** – the horizontal size of the signature. **Height (mm)** – the vertical size of the signature.
Same partitions on both sides	The partitions defined for the signature are applied to both sides of the sheet.

Partition

Partition settings	
Partition name	The partition name. You can use the name when you select a partition and a sheet layout resource on the runtime settings, see *Selecting sheet layout* on page 13.
Constant	**True** – Does not allow logical pages to be printed on this partition. **False** – Allows logical pages to be printed on this partition.
Cell	The row and column number of the partition being defined. Top left corner is `1,1`.
Coord (mm)	The X and Y position of the partition on the sheet. Top left corner is `0,0`.
Sheet side	The side of the sheet where the partition is located.
Rotate	The counter-clockwise rotation of the page, the form overlay, and the image, that will be printed in this partition. The **Auto** option rotates the page, the form overlay, and the image to best fit the partition. For example, if a page with landscape orientation is to be printed in a portrait partition, the page is rotated to fit in the partition.
Center small pages	If the logical page is smaller than the partition, the page is centered in the partition. If not selected, the page is positioned in the upper left corner of the partition.
Page order	A mathematical expression that represents the sequence number of the page to be printed in this partition. See *Defining page order expression* on page 11.

Horizontal fold marks

Horizontal fold marks settings	
Begin row	Specifies the row in the signature above which the first fold mark is printed. Enter `0` to start at the top.
End row	Specifies the row in the signature under which the last fold mark is printed.

Horizontal fold marks settings	
Distance	The distance between the signature and the closest edge of the mark.
Length	The length of the fold mark.
Width	The width of the fold mark.
Automatically add fold marks	Click to automatically add horizontal fold marks to every place where it is possible, that is on the horizontal limit between rows in the signatures, as well as above the first row and under the last row.

Vertical fold marks

Vertical fold marks settings	
Begin col	Specifies the column in the signature to the left of which the first fold mark is printed. Enter 0 to start at the top.
End col	Specifies the column in the signature to the right of which the last fold mark is printed.
Distance	The distance between the signature and the closest edge of the fold mark.
Length	The length of the fold mark.
Width	The width of the fold mark.
Automatically add fold marks	Click to automatically add vertical fold marks to every place where it is possible, that is on the vertical limit between columns in the signatures, as well as to the left of the first column and to the right of the last column.

Horizontal gutters

Horizontal gutters settings	
Begin row	The upper row in the signature, under which the horizontal gutter is located. Top row = `1`.
End row	The lower row in the signature, above which the horizontal gutter is located.

Horizontal gutters settings	
Distance	The size of the gutter. If you leave this empty, the size is calculated from the **Gutter change** value. See *Media* on page 19.

Vertical gutters

Vertical gutters settings	
Begin col	The left column in the signature to the right of which the vertical gutter is located. Left column = 1.
End col	The right column in the signature to the left of which the vertical gutter is located.
Distance	The size of the gutter. If you leave this empty, the size is calculated from the **Gutter change** value that you can specify in the **Media** settings.