

Best Practices Design Studio Export

SAP Design Studio offers a lot of flexibility to create analysis applications. At the same time, scenarios to export such an application can be plenty and very complex.

This is why our Export documentation is quite extensive.

This Best Practice Guide shall give you several hints how to design your Design Studio application in order to enable export in the best and most efficient way to PowerPoint, Word, PDF and Excel. We describe the export of the current view (referred to as “Online Export”), as well as the automatic export of different views of the application (referred to as “Booklet Export”).

We start with general export concepts that you should keep in mind when designing an application, and then give special advice for each of the export formats PowerPoint, Word, PDF and Excel. We will finish with a “Tips & Tricks” section, which informs you about the most important configuration parameters and how to perform updates.

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General application design

Component Visibility

When you use the Visibility property or the setVisible method to hide components, they disappear completely from the application: They are not only hidden but not rendered at all. This means that they cannot be shown in the Export document.

If you want to export these hidden components, we recommend using the CSS class „openbihidden“ instead of the Visibility property. This way the component is still rendered but its visibility is set to false.

You can set the CSS class of a component via the following scripts (XXX stands for the name of the component):

```
XXX.setCSSClass("openbihidden");
```

And to show the component again:

```
XXX.setCSSClass("");
```

The components can still be shown in the Export document, as the export process automatically eliminates the openbihidden class

Of course you can also combine the openbihidden class with any other custom CSS class that you already set for the component. Simply separate the classes with a space (e.g. “openbihidden myClass”).

If you use tab strips or page books and you want to export hidden pages, you have to use the “Booklet Export”. See section 5 of the User Manual for details on how to implement this scenario.

General application layout

Following the templates provided by SAP, we recommend defining Export applications as follows:

1) Panels to group application components:

The use of panels simplifies the selection of a group of components for the export document. The individual positions do not have to be defined again!

- a) Create one panel, which shall include the content of the analysis application (e.g.. PANEL_BODY or PANEL_CONENT). If the application contains multiple views – either toggled via visibility, page books or tab strips, each view should be contained in its own PANEL_CONTENT_XXX.
- b) Create a second panel PANEL_HEADER to show header information such as title, logo, user information, filters etc. (see points 2 and 3 of this list). The panel defines the positioning of the header elements and can be reused in the export document.

Navigation elements such as dropdown boxes, links, icons or buttons, which are usually displayed as part of the header on the frontend but shall not be exported, shall NOT be included in this panel.

- c) Optionally create a panel PANEL_FOOTER for information that shall be displayed in the footer of the online application and in the footer of the Export document.
- d) When exporting with a master template (see «Export to ...» sections), you select the components for the Export document via the Visible Components property. In this case, group components, which shall be explicitly excluded from the export, in one panel PANEL_EXPORT_EXCLUDE_xxx. This simplifies the deletion of components from the Export document via the Visible Components parameter.

2) Add two text fields to show filters in the export:

- a) FILTER_INFO:
Reference this component in the master templates for Online Exports by writing %FILTER_INFO%:VALUE. They can be used to display current filters of the application. If you want to use the WYSIWYG PDF export (see «Export to PDF» section), make sure the text field is included and correctly positioned in the PANEL_HEADER panel (see point 1 of this list).
- b) FILTER_INFO_xxx:
Reference this component in the master templates for Booklet Exports by writing %FILTER_INFO_xxx%:VALUE. xxx shall be replaced by the application name. This way you can display specific filters of all applications in the export document.

Fill these text fields via scripts with the filters that are currently applied to the application. Hide them via CSS class "openbihidden" (see «Component Visibility») so they are only visible in the Export document.

3) Additional (optional) components in the PANEL_HEADER panel:

- a) TEXT_TITLE:
The title of the application.
Can be referenced in Export templates by writing %TEXT_TITLE%:VALUE.
- b) TEXT_USER:
User information.
Can be referenced in Export templates by writing %TEXT_USER%:VALUE.

Applications with „auto“ width

If you are using dynamic layouts with “auto” widths, make sure ALL components of the dashboard are scaled with “auto”. Check the resulting layout by reducing the browser window size – no scrollbars should appear at any time.

Reason:

The export analyses the HTML to find the largest elements. If some elements have an absolute width, they define the width of the document. Other auto scaled elements can be scaled to small in consequence.

Exporting big tables

For performance reasons, SAP Design Studio only renders a few visible rows. If you want to export the full Crosstab without scrollbars, you have to use an Export template and

- a) ... if less than 10000 rows are contained: Change the CROSSTAB setting to 9999 rows:

| | |
|------------------------------------|--|
| ▲ Optimization for Low Data Volume | |
| Pixel-Based Scrolling | <input checked="" type="checkbox"/> true |
| Row Limit | <input type="text" value="9999"/> |
| Column Limit | <input type="text" value="9999"/> |

- b) ... use the „openbi Export Table” component:

| | |
|--|--|
| ▲ Data Binding | |
| Data Source | <input type="text" value="DS_2"/> |
| Data Selection | <input type="text"/> |
| ▲ Display | |
| CSS Class | <input type="text"/> |
| Display Repeated Texts | <input checked="" type="checkbox"/> true |
| Units and Scaling Factors | <input type="text" value="Display Units in Data Cells"/> |
| Conditional Formatting | <input checked="" type="checkbox"/> false |
| Name of the crosstab to be replaced by | <input type="text" value="CROSSTAB_MR03"/> |

The openbi Export Table must be connected to a CROSSTAB and must reference the same data source. Visibility properties for the Export Table are defined independently from the CROSSTAB parameters:

- If the CROSSTAB displays „conditional formatting”, this property must be explicitly activated also for the Export Table
- „Display repeated texts”, display of units and scaling etc. can be set differently for the application (via the CROSSTAB settings) and for the export document (via the Export Table settings).

If you use multiple languages

The language for time and date placeholders of the Export document, as well as regional settings for the Excel Export are derived from the browser language by default. You can overwrite this via the Export Language property.

If you need multi language support for Export templates, you can create individual templates for each language, upload them to the server and toggle between them via scripting:

```
OPENBI_EXPORT.setPptTemplate("myTemplate_EN.pptx");
```

If you use doBackgroundProcessing

If data sources are loaded via the doBackgroundProcessing script of the Design Studio application and you set up the Booklet Export, you must add additional scripts (marked in red). Otherwise the export may process the result of the BO platform too early and the Export document may not show all contents of the analysis application.

1) onStartup:

```
EXPORT_DUMMY.showLoadingState();  
APPLICATION.doBackgroundProcessing ();
```

2) onBackgroundProcessing:

```
DS_1.loadDataSource();  
EXPORT_DUMMY.hideLoadingState();
```

Instead of EXPORT_DUMMY you may use any component of the application that is set to Visibility true. If you do not want this component to be shown to the end user, use CSS class „openbihidden“ (see «Component Visibility»).

These scripts tell the export service to wait with the generation of the Export document until the «Loading State» of the referenced component is hidden.

Export to PowerPoint

You can export to PowerPoint in two ways:

1) Using a Master Template

recommended for simple Online Exports

- Define one generic master template with company logo, corporate design and generic placeholder %CONTENT%:SCALESIZE
- Include placeholder %FILTER_INFO%:VALUE to display filters of the application
- Select export relevant components using the Visual Components property
- Each component will be exported on a separate slide

2) Using a specific Export Template (see section 3.2 of the User Manual)

recommended for Booklet Exports and sophisticated requirements

- Define a special PowerPoint template with company logo, corporate design
- Each component is explicitly included via its own placeholder
- Placeholders can be freely arranged – multiple placeholders on one slide are possible
- This specific template is uploaded to the server and referenced via property “Template Filename”

Examples for export templates are contained in the Documentation package on the website. Instructions on how to create an Export Template for PowerPoint can be found below:

Using a Master Template

The following steps are necessary to create a Master Template for the export (see section 3.1 of the User Manual for details):

1. Create the master template like the following one:



- a) Create a blank PowerPoint document with your corporate master.
- b) Add generic placeholders as plain texts wherever you like:
 - For Export date and time: %EXECUTION_DATE% and %EXECUTION_TIME%

- For title, filter and user info: The component names %TEXT_TITLE%:VALUE, %FILTER_INFO%:VALUE and %TEXT_USER%:VALUE
- c) Add a text box on one slide and write %CONTENT%:SCALESIZE into it. This slide will be copied for each element of the Visual Components list.
2. Store the PowerPoint presentation as master_template.pptx in export_resources subfolder of the Export service installation
 3. Set property “One Component by Slide” to “true”
 4. Define the components to be included via property “Visual Components” in the PowerPoint group. Make sure “Excluded” is set to false for all entries.

| Component Name | Excluded |
|------------------------|----------|
| OPENBIEXPORTTABLE_MR03 | false |
| CROSTAB_MR03 | false |
| TEXT_TITLE | false |
| FILTER_INFO | false |
| TEXT_USER | false |

All components will be exported on separate slides, unless an explicit placeholder has been defined for the component (e.g. the case for TEXT_TITLE or FILTER_INFO). The slide of master_template.pptx, which contains the %CONTENT% placeholder, acts as a template for these slides.

OPENBIEXPORTTABLE_MR03 has a very special role: As an Export Table it renders those rows of CROSTAB_MR03, which are hidden by default by the scroll bars (see “Exporting big tables” in “General application design”). The Export Table must be referenced specifically, so its contents are displayed in the Export Document.

Using a Specific Template

The following steps are necessary to create a specific Export Template for the export (see section 3.2 of the User Manual for details). In this example, we create a template for a Booklet Export.

1. Create a PowerPoint presentation like the following one:



- a) Add generic placeholders as plain texts wherever you like:
 - For Export date and time: %EXECUTION_DATE% and %EXECUTION_TIME%
 - For title and user info: The component names %TEXT_TITLE%:VALUE, and %TEXT_USER%:VALUE
 - b) Add one or more text boxes on those slides where you want to include components from the Design Studio application(s). Write the name of the component surrounded by % and the suffix :SCALESIZE into it (e.g. %CHART_1%:SCALESIZE). You can also use the suffixes :TEXT, :VALUE etc. (see section 3.2 of the User Manual).
 - c) Add filter information via %FILTER_INFO_xxx%:VALUE.
2. Store the PowerPoint presentation in export_resources subfolder of the Export service installation
 3. Write the name of the file into the “Template Filename” property of PowerPoint group.

All components will be exported exactly to the slides, on which they were referenced by the placeholder.

Export Options for Components

There are different suffixes available to control how a component replaces the placeholder. Textual components such as title, filter, etc – even the CROSSTAB – can be exported either as images or texts. The following table shows just a few possible placeholders – consult the User Manual for special requirements).

| SUFFIX | DESCRIPTION |
|------------|---|
| :SCALESIZE | Element is rendered as an image, which fits into the placeholder (either width or height is taken as maximum) |
| :WIDTH | Element is rendered as an image with the same width as the placeholder. The height is scaled accordingly. |
| :HEIGHT | Element is rendered as an image with the same height as the placeholder. The width is scaled accordingly. |
| :VALUE | Value of the component is shown as a text. Formatting is taken from the Export Template |
| :TEXT | Value of the component is shown as a text. The formatting is also taken over from the component. |

Export to Excel

You can export to Excel in two ways:

1) Using a Master Template

recommended for simple Online Exports

- Define one generic master template with company logo, corporate design and generic placeholder %CONTENT%
- Include placeholder %FILTER_INFO%:VALUE to display filters of the application
- Select export relevant components using the Visual Components property
- Each component will be exported on a separate worksheet

2) Using a specific Export Template (see section 3.2 of the User Manual)

recommended for Booklet Exports and sophisticated requirements

- Define a special Excel template with company logo, corporate design
- Each component is explicitly included via its own placeholder
- Placeholders can be freely arranged – multiple placeholders on one sheet are possible
- This specific template is uploaded to the server and referenced via property “Template Filename”

Examples for export templates are contained in the Documentation package on the website. Instructions on how to create an Export Template for Excel can be found below:

Using a Master Template

The following steps are necessary to create a Master Template for the export (see section 3.1 of the User Manual for details):

1. Create the master template like the following one:

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | %TEXT_TITLE%:TEXT | | | | | | | | | | |
| 2 | %FILTER_INFO%:VALUE | | | | | | | | | | |
| 3 | %TEXT_USER%:VALUE | | | | | | | | | | |
| 4 | %EXECUTION_DATE_SHORT% - %EXECUTION_TIME_SHORT% | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | %CONTENT% | | | | | | | | | | |
| 7 | | | | | | | | | | | |



- a) Create a header area (e.g. with a white background)
- b) Include the company logo (via Insert → Pictures in Excel)
- c) Add generic placeholders as plain texts wherever you like:
 - For Export date and time: %EXECUTION_DATE% and %EXECUTION_TIME%
 - For title, filter and user info: The component names %TEXT_TITLE%:VALUE, %FILTER_INFO%:VALUE and %TEXT_USER%:VALUE
- d) Write %CONTENT% into one cell. The worksheet containing this placeholder will be copied for each element of the Visual Components list.

2. Store the Excel file as master_template.xlsx in export_resources subfolder of the Export service installation
5. Define the components to be included via property “Visual Components” in the Excel group. Make sure “Excluded” is set to false for all entries.

| Component Name | Excluded |
|------------------------|----------|
| OPENBIEXPORTTABLE_MR03 | false |
| CROSTAB_MR03 | false |
| TEXT_TITLE | false |
| FILTER_INFO | false |
| TEXT_USER | false |

All components will be exported on separate worksheets, unless an explicit placeholder has been defined for the component (e.g. the case for TEXT_TITLE or FILTER_INFO). The worksheet of master_template.xlsx, which contains the %CONTENT% placeholder, acts as a template for these worksheets. Text and table components are automatically exported as editable text, all other components as images.

OPENBIEXPORTTABLE_MR03 has a very special role: As an Export Table it renders those rows of CROSTAB_MR03, which are hidden by default by the scroll bars (see “Exporting big tables” in “General application design”). The Export Table must be referenced specifically, so its contents are displayed in the Export Document.

E

Using a Specific Template

The following steps are necessary to create a specific Export Template for the export (see section 3.2 of the User Manual for details). In this example, we create a template for a Booklet Export.

1. Create an Excel file like the following one:

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | %TEXT_TITLE%:TEXT | | | | | | | | | | |
| 2 | %FILTER_INFO%:VALUE | | | | | | | | | | |
| 3 | %TEXT_USER%:VALUE | | | | | | | | | | |
| 4 | %EXECUTION_DATE_SHORT% - %EXECUTION_TIME_SHORT% | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | %CONTENT% | | | | | | | | | | |
| 7 | | | | | | | | | | | |

- a) Add generic placeholders as plain texts wherever you like:
 - For Export date and time: %EXECUTION_DATE% and %EXECUTION_TIME%
 - For title and user info: The component names %TEXT_TITLE%:VALUE, and %TEXT_USER%:VALUE
- b) Add one or more text boxes on those slides where you want to include components from the Design Studio application(s). Write the name of the components, which you want to export from the Design Studio application(s), into the cells of the worksheets. Surrounded the name by % (e.g. %CHART_1%). You can also explicitly define the width of images and use switches for the table export (see section 3.2 of the User Manual).

c) Add filter information via %FILTER_INFO_xxx%:VALUE.

2. Store the Excel file in export_resources subfolder of the Export service installation

3. Write the name of the file into the "Template Filename" property of Excel group.

All components will be exported exactly to the cells, in which they were referenced by the placeholder.

Export to Word

You can export to Word in two ways:

1) Using a Master Template

recommended for simple Online Exports

- Define one generic master template with company logo, corporate design, table of contents and generic placeholder %CONTENT%
- Include placeholder %FILTER_INFO%:VALUE to display filters of the application
- Select export relevant components using the Visual Components property
- Each component will be exported one after another

2) Using a specific Export Template (see section 3.2 of the User Manual)

recommended for Booklet Exports and sophisticated requirements

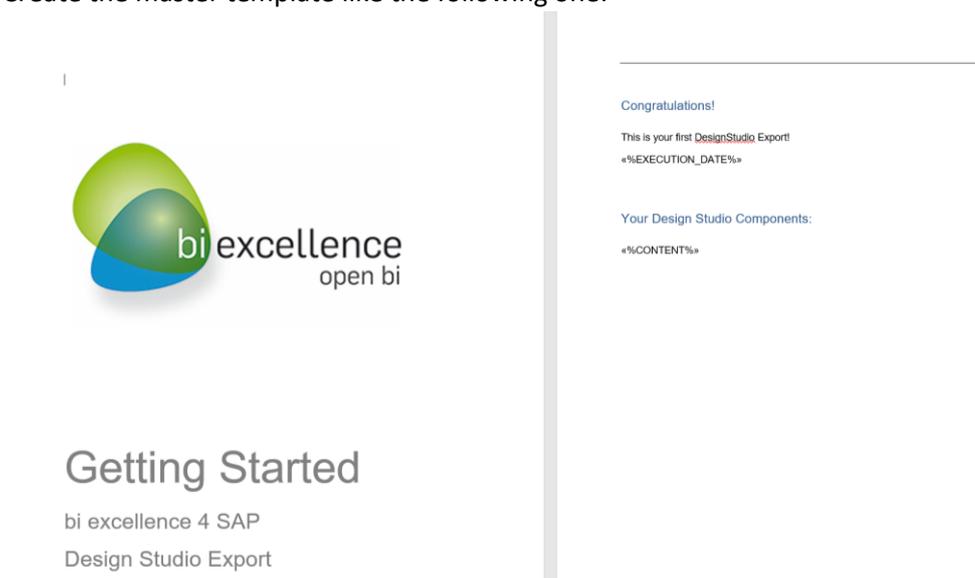
- Define a special Word template with title page, TOC, chapter headings and texts
- Each component is explicitly included via its own placeholder
- Placeholders can be freely arranged – placeholders can be placed in headers, footers, table cells etc.
- This specific template is uploaded to the server and referenced via property “Template Filename”

Examples for export templates are contained in the Documentation package on the website. Instructions on how to create an Export Template for Word can be found below:

Using a Master Template

The following steps are necessary to create a Master Template for the export (see section 3.1 of the User Manual for details):

1. Create the master template like the following one:



- a) Create a new Word document according to your corporate guidelines
 - b) Add generic placeholders as “Merge Fields” wherever you like:
 - For Export date or time, write %EXECUTION_DATE% or %EXECUTION_TIME% into the field name
 - For title, filter or user info, write the component name %TEXT_TITLE%:VALUE, %FILTER_INFO%:VALUE or %TEXT_USER%:VALUE into the field name
 - c) Add another “Merge Field” and write %CONTENT% into it. All elements of the Visual Components list will be placed here one after another, each scaled to fit either the width or the height of the current page.
2. Store the Word document as master_template.docx in export_resources subfolder of the Export service installation
 3. Define the components to be included via property “Visual Components” in the Word group. Make sure “Excluded” is set to false for all entries.

| Component Name | Excluded |
|------------------------|----------|
| OPENBIEXPORTTABLE_MR03 | false |
| CROSSTAB_MR03 | false |
| TEXT_TITLE | false |
| FILTER_INFO | false |
| TEXT_USER | false |

All components will be one after another, unless an explicit placeholder has been defined for the component (e.g. the case for TEXT_TITLE or FILTER_INFO).

OPENBIEXPORTTABLE_MR03 has a very special role: As an Export Table it renders those rows of CROSSTAB_MR03, which are hidden by default by the scroll bars (see “Exporting big tables” in “General application design”). The Export Table must be referenced specifically, so its contents are displayed in the Export Document.

Using a Specific Template

The following steps are necessary to create a specific Export Template for the export (see section 3.2 of the User Manual for details). In this example, we create a template for a Booklet Export.

1. Create a Word document like the following one:



Getting Started

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Design Studio Export

Congratulations!

This is your first DesignStudio Export!
«%EXECUTION_DATE%»

Your Design Studio Components:

«%CONTENT%»

- a) Add generic placeholders as “Merge Fields” wherever you like:
 - For Export date or time, write %EXECUTION_DATE% or %EXECUTION_TIME% into the field name
 - For title or user info, write the component name %TEXT_TITLE%:VALUE or %TEXT_USER%:VALUE into the field name
- b) Add “Merge Fields” where you want to include components from the Design Studio application(s). Write the name of the component into the field name, surrounded by % (e.g. %CHART_1%).
You can also use the suffixes :TEXT, :VALUE or :WIDTH[npx] if you want to control the width of the element in Word explicitly (see section 3.2 of the User Manual).
- c) Add filter information via “Merge Field” %FILTER_INFO_xxx%:VALUE.

2. Store the Word document in export_resources subfolder of the Export service installation

3. Write the name of the file into the “Template Filename” property of Word group.

All components will be exported exactly to those positions, where they were referenced by the placeholder.

Export Options for Components

There are different suffixes available to control how a component replaces the placeholder. Textual components such as title, filter, etc – even the CROSSTAB – can be exported either as images or texts. The following table shows just a few possible placeholders – consult the User Manual for special requirements).

| SUFFIX | DESCRIPTION |
|--------|--|
| :VALUE | Component is rendered as an image that fits the page width Value of the component is shown as a text. Formatting is taken from the Export Template |
| :TEXT | Value of the component is shown as a text. The formatting is also taken over from the component. |

Export to PDF

You can export to PDF in three ways:

- 1) Keeping the online layout in WYSIWYG export
recommended for One Pagers without huge tables
 - The layout is kept
 - Components can be excluded via the Visible Components property
 - Headers and footers can be freely defined

- 2) Using a Section Template (see section 3.2 of the User Manual)
recommended for dashboards with huge tables or special export layout requirement
 - Rearrange components for the export
 - Use HTML layouting to create enhanced layouts
 - Headers and footers can be freely defined
 - Create individual sections in the PDF document

- 3) Using a Word or PowerPoint Template (see section 3.2 of the User Manual)
recommended for Booklet Exports and sophisticated requirements
 - Define a special Word or PowerPoint template with title page, TOC, chapter headings and texts
 - Each component is explicitly included via its own placeholder
 - Placeholders can be freely arranged – placeholders can be placed in headers, footers, table cells etc.
 - This specific template is uploaded to the server and referenced via property “Template Filename”

Examples for export templates are contained in the Documentation package on the website. Instructions for PDF export settings can be found below:

Creating a WYSIWYG Export

The WYSIWYG Export keeps the layout of the application, as it is shown on the users’ screens when they start the export.

The following property values are recommended in this scenario. The definition of header and footer HTML is not needed, if your application has been designed following the concepts in “General application design”. In this case, the header of the application (containing logo, title, filters, user information etc) is reused. The footer of the application is reused as the footer of the PDF document.

| PARAMETER | VALUE | DESCRIPTION |
|--|-------|---|
| PAGE BORDERS TOP, BOTTOM, LEFT, RIGHT | 10 | Sets the page borders of the PDF document. As the header and footer of the application is reused, we do not have to reserve any space for a PDF header or footer. |

| | | |
|---------------------------|--------------------------|--|
| FOOTER HML | | The footer of the application is reused. |
| HEADER HML | | The header of the application is reused. |
| VISIBLE COMPONENTS | PANEL_EXPORT_EXCLUDE_xxx | Specifies those components, which shall not be shown in the export. As we collected all components, which shall be hidden in the PDF document, in the PANEL_EXPORT_EXCLUDE panel, we only have to name this component. Make sure „Excluded“ is always set to „true“. |

Using a Section Template

Long or wide tables are usually shown with a scroll bar in the online application. This scrollbar should be deleted in the PDF document, and instead the complete table should be exported. As with the WYSIWYG Export scroll bars and layouts remain unchanged, you have to define a Section Template in this case.

| PARAMETER | VALUE | DESCRIPTION |
|--|------------------------------|---|
| PAGE BORDERS TOP, BOTTOM, LEFT, RIGHT | 50,50,20,20 | The default values can be kept. In the contrast to the WYSIWYG Export, the headers and footers shall be repeated on each page. This is why some space has to be reserved on top and bottom of the page. |
| PAGE SECTION TEMPLATE | | Each row in the Page Section Array creates a new section in the PDF document. A section always starts on a blank page. |
| - FOOTER HML | Page %PAGE% of %PAGES% pages | Defines the footer of the section. This definition results in “Page 1 of 3 pages”. |
| - HEADER HML | %PANEL_HEADER% | Defines the header of the section. As we defined the header of the application in the panel PANEL_HEADER, we can simply reuse and place this panel in the PDF header. |
| - CONTENT | %CROSSTAB_1%:TEXT | Table CROSSTAB_1 of the application is exported on multiple pages. The header is automatically repeated on each page. Wide tables can be split automatically via the %CROSSTAB_1%:TEXT[auto] notation. |

Of course, you can also maintain multiple page sections if you want to export different components on different pages. Headers and footers can be defined explicitly for each section.

Using HTML notation, e.g. tables and formatting tags, you can also create enhanced layouts.

Using a Word or PowerPoint Template

To generate highest quality PDF documents very fast and efficiently, you can simply use a Word or PowerPoint document as an Export Template. For instructions on how to create such a template, please refer to “Export to Word” and “Export to PowerPoint” respectively.

Upload the template to the server and write the name of the file into the “Template Filename” property of PDF group.

As a consequence, in fact a Word or PowerPoint export is being performed. The generated document is then not saved as a Microsoft Office document, but directly into PDF format.

Administration of the Export Service

On the following pages, we will discuss the recommended server settings – configuration parameters and Connection Templates, which are used for the Booklet generation. We will also describe the tasks that have to be performed if you update the export solution.

Export Templates are centrally stored in folder C:\OPENBI\export_resources – see parameter RESOURCE_DIRECTORY below.

The Export Traces (export logs and export temp files) are centrally stored in folder C:\OPENBI\export_temp – see parameter TEMP_DIRECTORY below.

If you are using Load Balancing (recommended in export scenarios with heavy load), you should always keep the parameters of the different Export Nodes in sync.

We recommend installing separate instances of the Export service for productive usage and development / quality assurance!

Load Balancing

If you are combining Online Exports and Booklet Exports, we recommend setting up load balancing as follows. Load Balancing has to be licensed separately.

| PORT | DESCRIPTION | INSTALLATION DIRECTORY |
|--------------------|---|------------------------|
| 9091 / 9092 / 9093 | Dedicated Server for Online Exports | C:\OPENBI_DEDICATED |
| 9191 / 9192 / 9193 | Load Balancing Node for Booklet Exports | C:\OPENBI |
| X091 / X092 / X093 | Export Node X For Load Balancing | C:\OPENBI_X |

Create as many Export Nodes X as you need for your scenario. Replace “X” with a number from 1 to 9. For details on how to setup Load Balancing, see section 1.2.5 of the User Manual).

Configuration Parameters

The following general parameters shall be defined for each Export Node via the openbi Configurator:

| PARAMETER | VALUE | DESCRIPTION |
|-------------|-------------|--|
| SMTP_SERVER | server name | Exchange Server, which shall send the export mails |

| | | |
|---------------------------|--|---|
| RESOURCE_DIRECTORY | C:\OPENBI\export_resources | <p>Directory, in which you upload the Export Templates.</p> <p>We recommend using one central folder for all export nodes.</p> |
| EXPORT_ENGINE | GECKO | The Export Service uses the GECKO engine by Firefox for document generation. |
| EXPORT_NODES | http://localhost:1091 ; http://localhost:2091 ; http://localhost:3091 ; http://localhost:4091 ; http://localhost:5091 ; http://localhost:6091 | <p>To be maintained only on the Load Balancing Node!</p> <p>Used to connect the single Export Nodes to the Load Balancer</p> |

The following parameters have to be defined to enable tracing:

| PARAMETER | VALUE | DESCRIPTION |
|-----------------------|--|--|
| EXPORT_TRACE | ERRORS (Dedicated and Export Nodes) BASIC (Load Balancer) | <p>Only real errors are logged on the Export nodes. The Load Balancer shows all messages, e.g. how exports are routed to the Export nodes. This simplifies the trace analysis.</p> <p>These logs are written to the trace file, but also shown in the «Console» window, which can be accessed in the Configurator via “Settings” → “Server Status”.</p> <p>No Export Temp files are written into the trace folder.</p> <p>If bi excellence support requests a trace file, set this parameter to ALL. With this setting, all trace messages are logged and also the Export Temp files are generated.</p> |
| TRACE | X | Only if this parameter is set to “X”, the trace file is stored in the folder specified via TRACE_PATH. The parameter EXPORT_TRACE defines the granularity. |
| TEMP_DIRECTORY | C:\OPENBI\export_temp | <p>Folder, into which the Export Temp files are stored, in case EXPORT_TRACE is set to ALL.</p> <p>We recommend using one central folder for all export nodes.</p> |

TRACE_PATH

C:\OPENBI\export_temp\
trace_node_XXX.txt

File, into which the trace log is written, if parameter TRACE is set to X.

We recommend using one central folder for all export nodes and to create a separate trace file for each node (XXX).

The following parameters have to be defined to enable Booklet exports:

| PARAMETER | VALUE | DESCRIPTION |
|-----------------------------|-----------|---|
| EXPORT_TIMEOUT | 1.200.000 | <p>Corresponds to 1200 seconds or 20 minutes.</p> <p>The maximum period of time, which the Export Service waits for an http response from the BO server when executing a URL during Booklet export.</p> <p>If no response or no valid response is returned, a TIMEOUT occurs and the Export Service tries to perform the request again</p> <p>If the application needs a long time to load and this parameter is set too low, the application will not occur in the Export document!</p> |
| EXPORT_WAITTIME | 3.000 | <p>Corresponds to 3 seconds.</p> <p>The fixed period of time, which the Export Service waits until the result has been received from the BO server. Even if the application has been fully loaded, custom scripts or animations can run afterwards.</p> <p>If you do not set this parameter, components may not be rendered completely or correctly in the Export document.</p> <p>For performance optimization you should try out lower and higher values for this parameter!</p> |
| EXPORT_PROCESSES | 1 | <p>Iterations (single URL calls) of a single Booklet generation are performed one after another. This setting prevents an overload on the BO server!</p> <p>For performance optimization you should try to raise this parameter to 2 or 3!</p> |
| EXPORT_PROCESSES_MAX | 1 | <p>Booklet generations are performed one after another. A second Export request is queued.</p> |

Connection Templates for Booklet Exports

Connection Templates allow the Export Service to connect to the BO server. You should maintain a connection to the productive BO server on the productive Export Service. On the development / quality assurance Export Service, you can create two Connection Templates for the two BO servers.

If you use load balancing, you have to create the Connection Templates on all Export Nodes in the same way. Only the USERNAME should be different, to assure optimal performance on the BO server. You so not have to create the Connection Templates on the Load Balancing Node.

The parameter CMS_URL must correspond to the URL, which is used to run the Design Studio application in the browser.

For more information, see section 1.2.4 of the User Manual.

The screenshot shows the 'Einstellungen' (Settings) window in SAP Design Studio. The left sidebar contains a tree view with 'Verbindungsvorlagen' (Connection Templates) selected. The main area displays a table of existing templates and a configuration form for a selected template named 'PRD'.

| Name | Beschreibung | Typ | Auf user interface verstecken |
|------|--------------|--------|-------------------------------------|
| DEV | Development | SAP_BO | <input checked="" type="checkbox"/> |
| PRD | Production | SAP_BO | <input checked="" type="checkbox"/> |

Name: PRD
Beschreibung: Production
Auf user interface verstecken:

| Name | Wert | Typ | Ist mitgeliefert |
|-----------|------------|----------|-------------------------------------|
| CMS_URL | [REDACTED] | STRING | <input checked="" type="checkbox"/> |
| USERNAME | DS_EXPORT2 | STRING | <input checked="" type="checkbox"/> |
| PASSWORD | •••••••• | PASSWORD | <input checked="" type="checkbox"/> |
| AUTH_MODE | secSAPR3 | STRING | <input checked="" type="checkbox"/> |

Updates

Once you update SAP Design Studio, we recommend updating the Export Service and Component versions as well. Also you should update if you need a newly developed function or bugfix.

In all other cases, you should stay with the running version!

How to update the Design Studio / Lumira Designer Export Component:



biExport 4 SAP Design Studio Component 2.1

26.07.2017

SAP Design Studio
Export Extension Component
for Design Studio 16 & Lumira
2.0

[Download zip file.](#)

1. Log in to www.biexcellence.com/downloads. Select group „SAP Design Studio“
2. Download the SAP Design Studio Component
3. In Design Studio, go to “Tools” → “Install Extension to Design Studio”
4. Select the ZIP file that you just downloaded from the web site. Design Studio indicates that the component is already installed and only allows to “Cancel”.
5. Go to „Help“ → „About..:“ and click on „Installation Details“
6. Select the biExport component and click on „Udate“
7. Go to „Tools“ → „Platform Extensions“
8. Select all biExport components on the left side and click on „Install on Platform“
9. Depending on the BO platform version, you might need to restart the Design Studio platform service

How to update the biExport openbi Plugin:



biExport 4 SAP Design Studio open bi Plugin 2.1

26.07.2017

SAP Design Studio
open bi Plugin to support
Export from SAP Design Studio
16 & Lumira 2.0

[Download zip file.](#)

1. Log in to www.biexcellence.com/downloads. Select group „SAP Design Studio“
2. Download the biExport openbi Plugin Installer
3. Run the executable and select the plugins that you want to replace.
4. Start all services

How to update the OPENBI Server:



1. Log in to www.biexcellence.com/downloads. Select group „BI Software “
2. Download the OPENBI Repository Server
3. Stop all Export Services
4. Copy the C:\OPENBI_DEDICATED folder to C:\OPENBI_BACKUP
5. Deinstall the OPENBI Server (**Note: This only deinstalls the files in the C:\OPENBI_DEDICATED folder!**)
6. Execute the OPENBI Setup to C:\OPENBI\DEDICATED
7. *Load Balancing only:* Copy and replace the folders C:\OPENBI_DEDICATED and C:\OPENBI_x – select „replace all files“!
8. Start all services
9. Check if a newer version of the Configurator is available. If yes, run the new setup.