PUBLIC

SAP BusinessObjects Business Intelligence platform

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BI Workspaces User Guide

THE BEST RUN

Content

1 Welcome to SAP BusinessObjects BI workspaces

1.1 About this document

This document provides information and procedures for using SAP BusinessObjects Business Intelligence (BI) workspaces. BI Workspaces is a web application that is integrated to function within the BI launch pad application that provides the interface for working with objects in SAP BusinessObjects BI platform. Crystal reports, BI Workspaces, Web Intelligence documents, and Lumira documents are deployed and integrated in BI launch pad as plug-in components from BI platform. This document explains types of BI Workspaces, how to create BI Workspaces, and modules linking between data sources using BI Workspaces.

1.2 Who should read this document?

This document is intended for business report creators, professional report creators, and BI Workspace administrators working on BI platform and BI Workspaces applications on the Microsoft Windows and Unix operating system.

Familiarity with report generation, types of data sources, methods of content linking for deeper data analysis, and performance statistics is essential.

1.3 Overview

BI Workspaces helps you manage, understand, monitor, and track business activities and performances. Management of corporate BI Workspaces allow organizations to gain insight from underlying analysis and alter business rules as conditions change. BI Workspaces provides consistent, up-to-date means for monitoring critical business areas and tab-based navigation and page creation for all users. You can build applications quickly, without programming, and customize existing applications with a point-and-click assembly.

Use BI Workspaces to perform the following tasks:

- Assemble your application by selecting modular components and dropping them onto the desired pages
- Select a template from a catalog of predefined module templates
- Apply the reusable prebuilt module templates to a broad range of business scenarios

BI Workspaces has a simple web interface that lets you define the look and feel of the content. You can easily incorporate existing content in applications, such as Crystal reports, Web Intelligence documents, Lumira documents. Users can create their own application views with appropriate rights.

For information about configuration, summary, and tracing details, refer to the *SAP BusinessObjects Business Intelligence Platform Administrator Guide*, *SAP BusinessObjects Business Intelligence Platform 4.3 Installation*

Guide, *SAP BusinessObjects Business Intelligence platform 4.3 Deployment Planning Guide*, and *SAP BusinessObjects Business Intelligence Platform User Guide.*

2 Working with BI workspaces

2.1 Getting Started

A BI Workspace allows you to organize and display different BI platform data sources, such as Web Intelligence documents, Lumira documents, Hyperlinks, Crystal reports in a single view. You can analyze and manage complex data effectively, and share the information across organizations. BI Workspaces provides high visibility of your organizational goals and enables you to monitor your organization's performance and growth. BI Workspaces provides a single view of all the elements of a business that you want to track on a daily basis. It also provides communication capabilities for enabling page components and exchange information.

You can build your own portfolio of reports and categories and create one or more BI Workspaces and display them as needed.

BI Workspaces can contain the following types of objects:

- Modules
- Web Intelligence documents
- Lumira documents
- Crystal reports
- Adobe PDF documents
- Microsoft Excel spreadsheets
- Microsoft Word documents
- Text files
- Rich text format (RTF) files
- Microsoft PowerPoint presentations
- Hyperlinks

You can store your BI Workspaces under Folders. There are two types of Folders:

- `Public Folders`: The BI Workspaces saved in the folder named *Public Folders* contains BI Workspaces and modules created for public viewing. These BI Workspaces can be accessed and viewed by users with appropriate rights.
- `My Folders`: BI Workspaces saved in the folder named *My Folders* contains both BI Workspaces and modules created for personal viewing unlike Public folders. They store information about modules whose parameters can be extended and modified personally.

  > **i Note**
  >
  > A BI Workspace, whether saved in `Public Folders` or `My Folders` can contain one or more tabs and subtabs.

  - For example, you can create a BI Workspace that contains a web site, a Crystal report, or a Web Intelligence document that you frequently access. You can store it in one of the BI Workspace folders and set it as your default view, or click its link in the navigation panel.
- Assign `Categories`: You can assign categories to the BI Workspaces saved under `Public Folders` or `My Folders`.

2.2 Creating a BI Workspace

A BI Workspace can contain useful, informative, and motivating content based on analyzed data that help in defining strategies. BI Workspaces can be created or edited only inside BI launch pad.

Prerequisites:

Gather the following information to create a BI Workspace, :

- Analyze your audience to determine the information they need.
- A list of information that you want the BI Workspace to transmit. (If there is a lot of information, consider creating tabs.)
- Modules that can include Web Intelligence reports, Lumira documents, or Crystal reports.
- A rough sketch of how you want to organize modules in the BI Workspace tabs and sub tabs.
- A list of data security issues such as:
  - What data is appropriate for your audience?
  - How much detail do you want them to see?

To create a BI Workspace, do the following:

1. Logon to BI Launch pad
2. Click *Applications* > *BI Workspace* .
3. The *New Workspace* page appears.

   Under *Select a template*, you can select a template.

   Under *Recent Workspaces*, you can open a recently viewed/edited workspace.

   Click *All Workspaces* to browse through the available workspaces.
4. Select a desired template for your workspace from the available templates.

   You can see a *Preview* of your workspace.
5. Provide a *Name*, *Keywords*, and *Description* for the workspace.
6. Click *Create*.

   Your new BI Workspace is created and displayed on the screen.

   Click the (Save) icon to save your workspace.
7. Select either *Save* or *Save As* to select a location for the workspace.

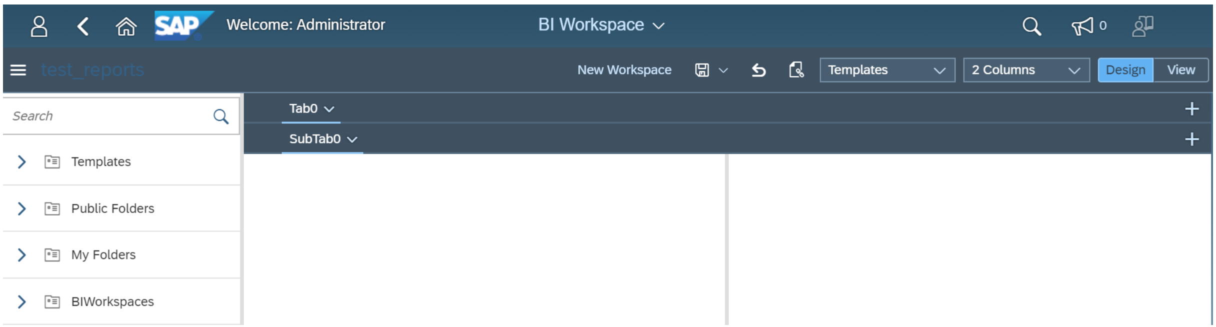
   The *Save BI Workspace* dialog box is displayed.
8. You can save the workspace in either *Public Folders* or *My Folders*, and assign categories such as *Personal Categories* and *Corporate Categories*.
9. Click *Save*.

   You get a toast message that the *Workspace created successfully...*.

2.3 BI Workspace Designer

The Fiori BI Workspace offers enriched and simplified features in the SAP BusinessObjects Business Intelligence Platform 4.3.

Once the desired BI Workspace is created in the BI Launchpad, it opens in the BI Workspace designer page.



The BI Workspace designer page displays the following:

Field	Description
New Workspace	Create a new BI Workspace.
Module Library	The module library in the left hand side of the page comprises of: • *Templates* • *Public Folders* • *My Folders* • *BIWorkspaces*.
Tab0	You can click the + (Add) icon to add tabs to your BI Workspace.
SubTab0	You can click the + (Add) icon to add sub tabs to your BI Workspace.
Save and *Save As*	You can click the (Save) icon to apply and save the latest changes you made to the BI Workspace in the *Public Folders* or *My Folders*.
Revert Changes	You can click the (Revert) icon to revert the changes done on your BI Workspace.
Content Linking	You can click the (Link Content) icon to link modules to your BI Workspace.
Layout dropdown	You can select one of the three layout options from the layout dropdown for your BI Workspace: • *Templates* • *Column Layout* • *Free Form*
Design button	When you open a BI Workspace in a designer page or modify, the *Design* mode is selected by default.
View button	You can preview your BI Workspace in the *View* mode.

2.3.1 Module Library in BI Workspace

The Module Library represented by the ☰ (Side Navigation Toggle) icon provides the following options:

- *Templates* contains module templates that you can customize to display the following:
  - *Navigation List*
  - *Text module*
  - *Viewer*
- *Public Folders* contains all the documents, reports, and BI Workspaces.
- *My Folders* provides a list of documents, reports, and BI Workspaces in *My Folders*.
- *BI Workspaces* contains all existing modules and a list of BI Workspaces available by user rights. Users can add documents or reports from another workspace to the currently open workspace.

> → Tip
>
> To show or hide the Module Library, click the ☰ (Side Navigation Toggle) icon in the BI Workspace.

2.3.1.1 Module Library search

You can use the search box at the top of the Module Library to search for any document in the SAP BusinessObjects Business Intelligence platform by typing the keyword and clicking the 🔍 (Search) icon. The results are displayed below the Module Library. To clear the results, click the ⊗ icons.

The search filters all documents whose names match the keyword. However, it does not provide any metadata search.

2.3.1.2 Using a Navigation List on a BI Workspace tab

The *Navigation List* module, used with the Viewer module, maximizes the space on a BI Workspace tab by serving as an active table of contents. Multiple content presentation styles are available for *Navigation List(s)*.

1. In the BI Workspace edit mode, open the module library.
2. From the *Templates* category, drag *Navigation List* to the BI Workspace layout area.
3. From the *Templates* category, drag *Viewer* to the BI Workspace layout area, and resize the viewer if necessary.
4. Press and hold `Ctrl` and drag a module from any folder in the module library to the navigation list.

   When you select an item in the navigation list, it appears in the Viewer module.
5. Click the ✎ (*Edit Report Settings*) icon on the navigation list toolbar to *Rename*, *Select Viewer*, and *Advanced options*.
6. Click *Rename* to rename the *Navigation List*, and click *OK*.
7. Click *Select Viewer* to select the *Viewer for the Navigation List*, and click *OK*.
8. Click *Advanced options* to get further more options for your *Navigation List* such as:

a. Select the *Navigation List*, and click the (Add folder) icon to *Create folder*.
b. Click the (Delete) icon to delete the selected navigation list.
c. Click the dropdown icons to move the navigation list up and down.
d. Click *OK* to save your selection.

2.4 Renaming a BI Workspace

1. Locate the BI Workspace that you want to rename.
2. Right-click the BI Workspace and select *Properties*.
   The BI Workspace *Properties* dialog box appears.
3. On the *General Properties* page, in the *Title* box, enter a new name for the BI Workspace.
4. Click *Save*.
   The BI Workspace is saved with the new name.

2.5 Modifying a BI Workspace

You can also modify a selected BI Workspace through (More) options. (give a caf action icon here).

1. To open a BI workspace, double-click through the BI Workspace saved in the *Public Folders* or *My Folders*, or browse the categories or *Documents*.
   The selected BI Workspace opens.
2. Click *Edit BI Workspace*.

   > i Note
   >
   > You must have appropriate edit rights (assigned by the administrator) to edit BI Workspaces in the CMC. If you edit a BI Workspace saved in a public folder, the changes are visible to everyone. If you edit a BI Workspace saved in a personal category, the changes are visible only to you.

   The edit BI Workspace toolbar and Module Library handle appears.
3. In the Module Library, you can select and drag the module objects to the layout area, resize, and fit them to the preferred BI Workspace design.
   Modules that you drag and drop from the Module Library to a BI Workspace are stored as embedded objects in that BI Workspace.
4. Add *Tabs* or *Subtabs* to the BI Workspace.

   > i Note
   >
   > It is mandatory for a BI Workspace to have atleast one tab and sub tab. If your BI Workspace has only one tab or a sub tab, and you try to delete it, a message pops up saying *Please keep at least one tab* or *Please keep at least one subtab*.

2.5.1 Adding Tabs and Subtabs to BI Workspaces

Creating *Tabs* and *Subtabs* in a BI Workspace enables you to organize content.

1. Open the desired BI Workspace.
2. Click *Edit BI Workspace*.
   The BI Workspace opens in edit mode.
3. To create a *Tab* in your BI Workspace, click the + (Add) icon in the corresponding tab bar. To create a *Subtab* in the BI Workspace, click the + (Add) icon in the corresponding subtab bar.
4. Click *Save*.
5. Click the *View* button to preview the BI Workspace.

2.5.2 Renaming a BI Workspace Tab or Subtab

1. From the BI Workspace, select the tab or subtab to rename.
2. Click the dropdown next to the tab or subtab title.
3. From the menu, select *Rename*.
   Rename dialog box appears.
4. Type the new name, and click *OK*.
   The tab or subtab is saved with the new name.
5. Click *Save* to save the modified BI Workspace.

2.5.3 Moving BI Workspace Tabs and Subtabs

In a BI Workspace, you can drag the tab or subtab to a new position. To move the tab or subtab, perform the following steps:

1. Hover on the tab /subtab you want to move, and its dropdown is displayed.
2. Click *Move*, and select the place you want to move the tab /subtab.

> **i Note**
>
> You can move the tab or sub tab to either first, previous, next, or last positions. The tab or subtab is placed in the new location on the BI Workspace toolbar.

2.5.4 Scrolling BI Workspace Tabs and Subtabs

At times, more tabs and subtabs are in a BI Workspace than can be displayed. To view tabs that are not displayed, scroll.

In the BI Workspace, perform the following actions to scroll through the tabs and sub tabs:

- Click the > (*Scroll Forward*) icon to scroll the tabs and subtabs to a forward position.
- Click the < (*Scroll Back*) icon to scroll the tabs and subtabs backward.
- Click the ⌄ (dropdown) icon to view the *Opened Tabs*.

2.5.5 Set as Default in a BI Workspace.

In a given BI Workspace, you can set a specific tab or a sub tab as a default tab or sub tab.

To set a tab or a sub tab as default, perform the following steps:

1. Hover on the tab or the sub tab you want to set as default.

   Then dropdown beside the tab or sub tab is displayed.
2. Click the dropdown and select *Set as Default*.
3. Click the (Save) icon to save the modification done.

   A toast message is displayed: Workspace updated successfully...

   > **i Note**
   >
   > - When you open the BI Workspace, it takes you to the tab that you set as default.
   > - When you set a specific sub tab of a given tab as default, the default sub tab is displayed for that particulat tab.

2.5.6 Deleting BI Workspace Tab or SubTab

You can delete the tabs and subtabs that you created in a BI Workspace stored in either the public folders and folders.

1. In a BI Workspace, select the *Tab* or *SubTab* to delete.
2. Click the dropdown beside the tab, and select *Delete*.

   A delete confirmation message window displays, for example:
   - Do you want to delete the tab:Tab2?
   - Do you want to delete the subtab:fdsfsdf?
3. Select *Tab* or *SubTab*, and click *OK*.

2.5.7 Adding Security to BI Workspaces

BI Workspaces saved in public folders share vital information across a large community or with specific groups of people. These BI Workspaces can be used for information-sharing. With public BI Workspaces, you can set additional security options that cannot be shared with a group of people for business confidentiality.

You set security rules for BI Workspaces in the BI platform Central Management Console (CMC). You can set the security in two ways:

- At the folder level: BI Workspaces are stored in BI launch pad `Public Folders`. Administrators can limit access to a folder in the folder's access settings or in account settings in the CMC for individual users or user groups.
- Via user rights: Only users with specific edit rights can edit BI Workspaces. For information about setting rights for BI Workspaces, see the *SAP BusinessObjects Business Intelligence Platform Administrator Guide.*

1. In the BI platform CMC, expand the list of BI Workspaces in the *My Folders* area, and select a BI Workspace.
2. Right-click the BI Workspace, and select *User Security*.
   The *User Security* window appears.
3. Click *Add Principals*.
   The *Add Principals* window appears showing the available users and groups.
4. Select a user in the *Available users/groups* list, and click the > arrow to move the user to the *Selected users/groups* list.
5. Click *Add and Assign Security*.
   The *Assign Security* window appears showing the available access levels.
6. Select access rights in the *Available Access Levels* area, and click the > arrow to add it to the *Assigned Access Levels* list:

Right	Description
Full Control	Grants full access
Full Control (Owner)	Grants full access rights and ownership to the object
Schedule	Grants view rights for objects and view-on-demand content
View	Grants view rights for objects
View On Demand	Grants view rights for objects and view-on-demand content

7. Click *Apply*, and click *OK*.
   The *User Security* window appears displaying the selected access level on the *Add Principals* page.
8. Click *Close*.

   > **i Note**
   >
   > When you select a view access level, the *Edit BI workspace* button becomes unavailable.

2.5.8 Modifying the layout in a BI Workspace

When you select the *Templates* layout, the *Select Layout* dropdown is displayed.You can modify the layout of tabs and subtabs created in BI Workspaces saved in *My Folders* or *Public Folders*.

In the BI Workspace that you are editing, select the layout style:

- To place objects on a BI Workspace without using a layout format, select the *Free Form* layout.
- To use a predefined layout, select the *Templates* layout and the ⌄ (*Select Layout*) dropdown icon is displayed.
- To construct a column-structured BI Workspace, select the *Column* layout.

> **i Note**
>
> When you change the layout of a BI Workspace that contains modules, the modules are rearranged to fit the new layout mode.

2.5.8.1 Working with a BI Workspace in Templates layout

The *Templates* layout mode provides layout formats for BI Workspace objects. Switching to *Templates* mode from another mode affects BI Workspaces in the following manner:

- When you switch from *Free Form* mode, if BI Workspace objects are not in any particular order, they are placed in adjacent columns. When you select a template, the BI Workspace objects are moved to fit rows and columns in the template.
- If you switch from *Columns* mode and select a template, the BI Workspace objects shift to fit the cells in the template.
- If you have more objects than available placeholders in the selected predefined template, extra modules are appended to the bottom of the BI Workspace.
- Empty spots can occur when you switch to a template or between templates. Rearrange modules as necessary.

1. In the BI Workspace, select *Templates* in the *Layout* dropdown list.

   The *Select Layout* dropdown list is displayed next to the *Templates* layout.
2. You can *Choose Template* from the *Select Layout* dropdown options.
3. Add your modules, and click the (Save) icon.

2.5.8.2 Working with a BI Workspace in Column layout

The *Column Layout* mode enables you to add, remove, and resize columns. You can drag each column in the layout to resize them, which enhances viewing and usability of BI Workspaces.

1. In the BI Workspace, select *Column Layout* in the *Layout* dropdown list.

   The *Add Column* and *Delete Column* icons appear next to the *Column Layout*.
2. Use the following controls to define your layout:

Option	Description
(+) *Add Column*	Adds columns to the layout
(−) *Delete Column*	Deletes columns from the layout
Column splitter	Resizes the layout and columns accordingly. You can adjust the columns in two ways: ○ Click and drag the column splitter accordingly ○ Click the column splitter, and use the arrow keys to move it accordingly

2.5.8.3 Working with a BI Workspace in Free Form layout

The *Free Form* layout mode enables you to place objects on a BI Workspace tab or subtab, without using a layout format.

1. In the BI Workspace edit mode, select *Free Form* in the *Layout* list.

   You can drag and drop the modules in the Workspace.
2. Click *Save* to save the BI Workspace.

2.5.9 Editing Legacy BI Workspace

Legacy BI Workspaces are workspaces created in the older versions of BI such as BI 4.2.

To edit a legacy BI Workspace, you can export the workspace from BI 4.2, and import it to BI 4.3 through LCM BIAR files. The imported BI Workspaces are available in the folder you have saved them in.

1. To edit any legacy BI Worskspace, click the ••• icon.

   The selected BI Workspace opens in the designer page, where the unsupported modules are shown as *Module is not supported*.
2. Click *Save* to save the workspace.

   While editing the legacy BI Workspace, when you click *Save*, a *Confirmation* message is displayed informing you *Unsupported modules will be deleted and cannot be recovered back. Do you want to proceed? For more details, please refer the BI Workspace guide.*.
3. Click *OK*.

   A toast message is displayed *Workspace Updated Successfully...*

> **i Note**
>
> You can also do a *Save As*, wherein the existing BI Workspace is not modified, and you are allowed to save the workspace in the folder of your choice.
>
> This is to retain the old BI Workspace, and exclude the unsupported modules in the newly saved BI Workspace.
>
> You can also edit a BI Workspace in the *View* mode. You can see an *Edit* button on the top right hand side of the screen.
>
> Click the *Edit* button to open the BI Workspace in the designer page, and follow the same steps as above.
>
> For more information on unsupported modules in BI 4.3, refer to List of unsupported modules in BI 4.3 [page 15].

2.5.9.1 List of unsupported modules in BI 4.3

Certain modules are unsupported or removed in 4.3 BI Workspace.

- The unsupported modules in 4.3 BI Workspace are:
  - Creating Module (Analytics)
  - Print Preview and Print
  - Content linking
  - Editing 4.2 content linked workspace
  - Xcelsius document
- In *Create* mode, the unsupported modules under *Document Explorer* are:
  - Corporate lists
  - Personal lists
  - Inbox
  - Query Panel
- In *Create* mode, the unsupported modules under *BI Launch pad modules* are:
  - Collaboration Feed
  - My Alerts
  - My Applications
  - My Inbox
  - My Recently Run Documents
  - My Recently Viewed Documents
  - SAP StreamWork Feed
- In *Create* mode, the unsupported modules under *Templates* are:
  - Group
  - Navigation List
  - Text Module
  - Viewer
  - Web Page Module
- The removed modules in 4.3 BI Workspace are:
  - Scale Width
  - Scale Height
  - Help within legacy BI Workspace panel

2.6 Deleting a BI Workspace

Since BI Workspaces may contain vital information for corporate purposes, check with stakeholders before deleting a workspace.

1. In the *Folders* tile in BI launch pad, locate the *Public Folders* or *My Folders* that contains the BI Workspace.
2. Select the workspace, and click the ••• icon.
3. Click *Delete*.

> **i Note**
>
> The *Delete* dialog box opens. A warning message appears: *This will delete the file. Do you want to proceed?*.

4. Click *Ok*.

3 Working with modules

3.1 Creating and configuring modules

3.1.1 Working with modules

You can modify modules to display the type of information that you want to analyze and view. You can perform the following actions on modules embedded in a BI workspace page:

- Add modules to a BI workspace
- Configure the display of Crystal reports
- Configure the display of Web Intelligence documents
- Link modules and documents

3.1.2 Configuring the display of Crystal reports

To configure display settings for Crystal reports in BI Workspaces, click *Edit* on the module toolbar. On the *Contents* tab of the *Edit Contents* dialog box, you can configure the following options:

Category	Option	Description
Document to View	*Document list*	Displays the folder tree that you browse to locate reports
	Viewer	Displays report content in the viewer
Retrieve this Document	*From the source folder only*	Where to find the data source for the displayed document
	By first checking the Inbox and if no copy exists, retrieving it from the source folder	
	From the Inbox only	
Display Mode	*Part view*	Displays only the first part of the report in the default viewer This option applies to reports that have report parts configured and defined in Crystal Reports. For more information, see information about the Report Part viewer in the *SAP Crystal Reports 2020 User's Guide*.
	Page view	Displays the entire report in the default viewer

Category	Option	Description
Zoom Level	*%*	Sets the zoom percentage (25%, 50%, or 100%) For more information, see information about zooming in and out on a map in the *SAP Crystal Reports 2020 User's Guide*.
	Custom	Sets a custom zoom percentage
Report Content	*On demand*	Refreshes report data each time the report opens
	Latest instance	Shows report data from the latest instance in BI platform
	Latest instance by user	Shows report data from the latest instance in BI platform for the user you specify in the *User Name* box
Report Parts to Display	*Default report part*	Displays the report part that you defined in the Report Part viewer
	Selected report part	Displays the report part that you select. Set the following options in the *Report Options* dialog box for the report. • *Object Name*: Name of the report object to use as the destination object • *Data Context*: Data context to use in the destination object

For information about report parts and the Report Part viewer, see the Crystal Reports documentation.

3.1.3 Configuring the display of Web Intelligence documents

To determine how Web Intelligence documents appear in BI Workspaces, after dragging a document to a BI Workspace, configure the following options:

- To select part of a Web Intelligence document, right-click the part and select *Select this report part*. Only the part you selected appears. Click *Edit* to edit the document.
- To deselect part of a Web Intelligence document, right-click the part and select *Unselect this report part*. The entire document appears.

To configure display settings for Web Intelligence documents in BI Workspaces, click *Edit* on the module toolbar. On the *Contents* tab of the *Edit Contents* dialog box, you can configure the following options:

Category	Option	Description
Document to View	*Document list*	Displays the folder tree that you browse to locate documents
	Viewer	Displays document content in the viewer

Category	Option	Description
Retrieve this Document	*From the source folder*	Where to find the data source for the displayed document
	Inbox firs, then source folder	
	From the inbox	
Report Content	*On demand*	Refreshes document data each time the document opens
	Latest instance	Shows document data from the latest instance in BI platform
	Latest instance by user	Shows document data from the latest instance in BI platform for the user you specify in the *User Name* box
Display Mode	*Full report*	Displays the document with a toolbar. For information about the toolbar options, see the Web Intelligence documentation.
	Compact mode	Display the document with options determined by the user's rights and with a toolbar. This saves space in the workspace.
	Report part	Displays the selected document part. The part ID appears in the text box; you can use the ID in other applications.

3.1.4 Linking modules and documents

You can add links to modules and documents to enable access to and sharing of information between modules or documents.

Linking modules that use Web Intelligence documents and Crystal reports

You can link modules and include prompt parameters in the links. Adding prompt parameters dynamically generates the data that appears on the target module or document, according to values displayed on the first module. You can link a single module and document or multiple modules and documents.

3.2 Content Linking

Content linking is the connection of two or more components through the Interportlet Communication Framework. BI Workspace components use this framework to transfer data between documents and modules. Only the Web Intelligence documents can be used as source modules for content linking.

You can view data in the source module and link the data to the following target modules in a BI workspace:

- Crystal reports, as target modules
- Web Intelligence documents, as source and target modules
  When Web Intelligence is defined as the source module, the dynamic values pass through the content linking framework to prompts / filters in Crystal reports and Web Intelligence documents.

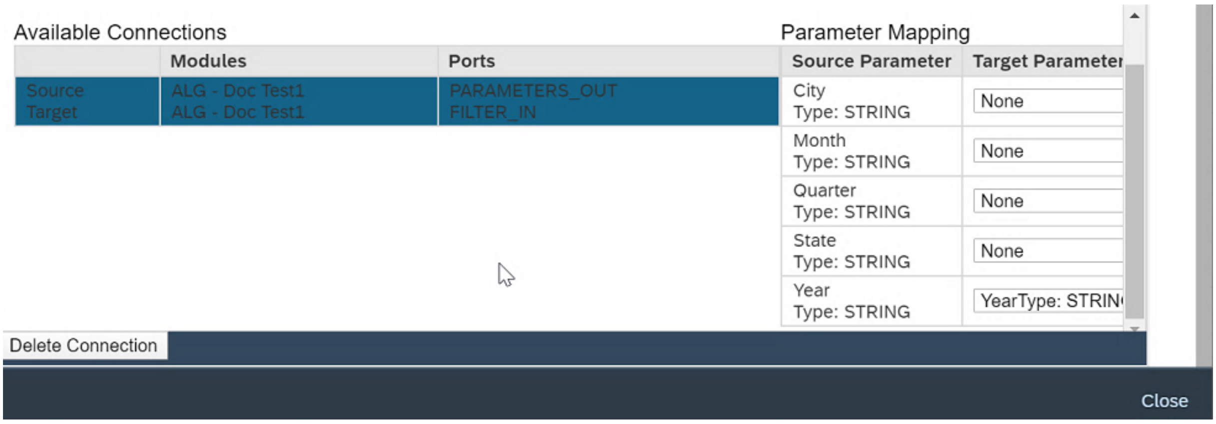
> **i Note**
>
> Content linking is not supported for Design Studio and Lumira documents.

Content linking enables you to use dynamic module linking at a granular level providing control over the information sent.

Select a list of parameters to display in the source and target modules in the BI Workspace *Link Content* layout.

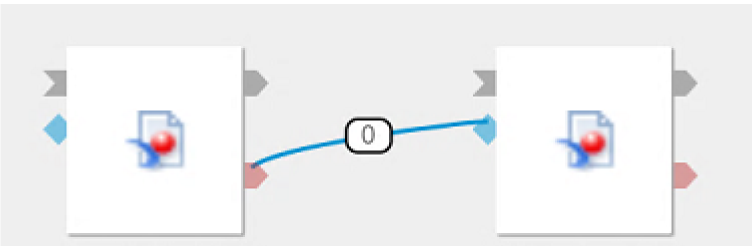
To configure content linking in a BI Workspace, click the content linking icon on the BI Workspace toolbar.

For each source parameter displayed, you can choose the corresponding target parameter to send the data.



For specific parameters triggered at run-time in the source module, the BI Workspace determines the parameter to display, retrieves their values, and passes the values to target modules based on its granular linking.

To preview parameters (prompts and filters) for linking, set the user interface to selectively link or unlink components. Visual indicators identify the components that are linked.



3.2.1 Linking Module Content

Before you can perform content linking with Web Intelligence modules, you must set Web Intelligence preferences in BI Launch pad to show *Web* options.

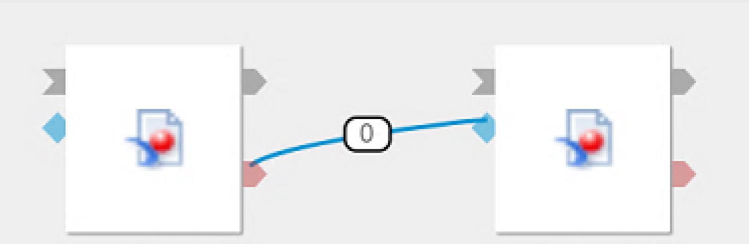
You can configure dynamic communication between Web Intelligence documents and Crystal reports modules on the same BI Workspace tab or subtab. At runtime, the source module sends information to the target module or modules as parameter values. The parameter values provide input to prompts / filter in Web Intelligence documents and Crystal reports.

To facilitate dynamic communication between Web Intelligence modules and other target modules, use the External Interface Connection component. You can select values in the *parameters* area, and the information is sent from source modules to target modules and then inserted as prompt / filter values.

1. From the module library, drag the source module to the BI Workspace layout.
2. Drag one or more target modules (Crystal reports or Web Intelligence documents) to the BI Workspace layout.
3. On the BI Workspace toolbar, click the  (*Content Linking*) icon.
   The *Link Content* dialog box appears, displaying potential source and target modules. A table lists the source and target modules and the associated source and target parameters. A dotted line indicates linked modules, however, you must map parameters before the connection is configured.

   i Note

   The reports selected for linking are displayed as boxes in the *Link Content* dialog box, and the report type icon is shown inside the box. Each report contains tiny ports through which the connection is done.

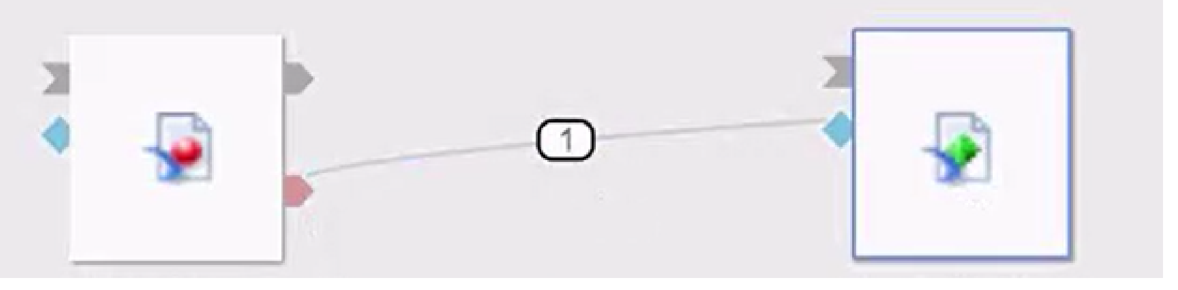
   A report has ports based on parameters prompts / filters a report can accept. The ports for a given report is based on the type of report. For example: A Webi report has both IN and OUT_ports, whereas a CR report has only IN_ports.

   When a report is selected in the *Link Content* layout, as per the parameters defined for that report, the available ports in it are displayed. If the parameters are not defined for a report, the ports are not seen. You can see the following ports in a report:
   - OUT_Ports
     - *LEGACY_OUT*
     - *PARAMETER_OUT*
   - IN_Ports
     - *LEGACY_IN*
     - *FILTER_IN*

> **i Note**
>
> The Legacy port of one report can connect to the legacy port of another report, but it cannot connect to any other ports in a given report.

4. In the *Parameter Mapping* table, select a source parameter in the *Source Parameter* column.
5. Select a target parameter in the *Target Parameter* column.
   The parameters are paired, and the modules are linked. Other content linking connections are represented by the following color indicators for the ports:
   - FILTER_IN: Blue
   - PARAMETER_OUT: Red
   - LEGACY_IN and LEGACY_OUT: Grey

   An OUT_port is always connected with an IN_port. A list of all the possible connections is displayed in the *Link Content* layout. The connections happen over dimensions and not on measures which are usually numerical values. The target module do not have any OUT_ports.

   
6. The *Target Parameter* defines the number of connections to be established between reports.

   > **i Note**
   >
   > When the connection is established, it is represented by a solid blue color line. This line otherwise is grey in color when the connection not selected.
   >
   > When a connection is configured, the connection count between the reports is displayed in the *Link Content* layout.
7. Click *Close*.
8. In the designer page, when you select the value in the first report, the corresponding value in the second report gets updated.

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