Oracle® Fusion Middleware
User's Guide for Oracle Business Intelligence Publisher
12c (12.2.1.2.0)
E77721-02

December 2016
Explains how to view, schedule, deliver, publish, and share reports created in Oracle Business Intelligence Publisher.
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Preface

Welcome to Release 12c (12.2.1.2.0) of the User’s Guide for Oracle Business Intelligence Publisher.

Audience

This document is intended for report consumers who will be viewing and scheduling reports in Oracle BI Publisher.

Related Documentation and Other Resources

See the Oracle Business Intelligence documentation library for a list of related Oracle Business Intelligence documents.

In addition:

• Go to the Oracle Learning Library for Oracle Business Intelligence-related online training resources.

• Go to the Product Information Center Support note (Article ID 1338762.1) on My Oracle Support at https://support.oracle.com.

Conventions

The following text conventions are used in this document:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>boldface</td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td>italic</td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td>monospace</td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
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</table>
New Features for Oracle BI Publisher Users

The Preface describes changes to Oracle BI Publisher report viewing and scheduling features for Oracle Business Intelligence Publisher 12c (12.2.1.1).

New Features and Changes for Release 12c (12.2.1.1.0)
This section gives you the details of new features and changes that have been added for this release.

New Features and Changes for Release 12c (12.2.1.1.0)
BI Publisher has no new features that affect report viewing and scheduling for Release 12c (12.2.1.1.0).

New Features and Changes for Release 12c (12.2.1)
In Release 12c (12.2.1), the look and feel of the user interface is refreshed. You will notice new icons and some changes to the presentation of features on the Home page.
Introduction to Using Oracle Business Intelligence Publisher

This chapter introduces Oracle BI Publisher for report consumers and describes the features specific to viewing and scheduling reports.

This chapter includes the following section:

• Overview of Oracle Business Intelligence Publisher
• Tasks for Report Consumers
• System Requirements and Certification

Overview of Oracle Business Intelligence Publisher

Oracle Business Intelligence (BI) Publisher is an enterprise reporting solution for authoring, managing, and delivering all your highly formatted documents, such as operational reports, electronic funds transfer documents, government PDF forms, shipping labels, checks, sales and marketing letters, and much more.

User’s Guide for Oracle Business Intelligence Publisher describes how report consumers use BI Publisher to view and schedule reports. See the other guides that are listed in the table for information about using the product for other business roles.

<table>
<thead>
<tr>
<th>Role</th>
<th>Sample Tasks</th>
<th>Guide</th>
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<tr>
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<tr>
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<tr>
<td></td>
<td>application programming interfaces</td>
<td></td>
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<tr>
<td>Data Model developer</td>
<td>Fetching and structuring the data to use in reports</td>
<td>Data Modeling Guide for Oracle Business Intelligence Publisher</td>
</tr>
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<td></td>
<td>Designing layouts</td>
<td>Business Intelligence Publisher</td>
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</table>

Tasks for Report Consumers

Use the User’s Guide for Oracle Business Intelligence Publisher to know how report consumers use BI Publisher to view and schedule reports.

A report consumer performs the following tasks:
• Run and view reports in real-time from the BI Publisher catalog.

• Schedule reports to run at selected intervals and to various destinations such as printer, fax, or e-mail.

• View report history.

The tasks that are available to you depend on the permission that is assigned to you by your administrator.

The topics in this book that describe performing report consumer tasks are:

• Browsing the Catalog
• Navigating to the Schedule Report Job Page
• Creating a Bursting Job
• About the Manage Report Jobs Page
• Viewing Report Job History and Saved Output

System Requirements and Certification

Refer to the system requirements and certification documentation for information about hardware and software requirements, platforms, databases, and other information. Both of these documents are available on Oracle Technology Network (OTN).

The system requirements document covers information such as hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches:


The certification document covers supported installation types, platforms, operating systems, databases, JDKs, and third-party products:

Getting Started

This chapter describes the basic features of the BI Publisher application including setting preferences, navigating the catalog, and accessing task menus.

This chapter includes the following sections:

- Accessing Oracle Business Intelligence Publisher
- Setting My Account Preferences and Viewing My Groups
- About the Home Page
- About the Catalog
- About the Global Header
- Searching the Catalog

Note:
If your implementation of BI Publisher is integrated with Oracle Business Intelligence Enterprise Edition (BI EE), you access BI Publisher through the Oracle BI EE application. For information on the BI Publisher features in the Oracle BI EE interface, see Introduction to Oracle BI Enterprise Edition in User’s Guide for Oracle Business Intelligence Enterprise Edition.

Accessing Oracle Business Intelligence Publisher

You can access Oracle Business Intelligence Publisher by logging in with credentials or as a guest.

You can access BI Publisher in the following ways:

- Logging in with Credentials
- Logging in as Guest

Logging in with Credentials

You can get started with BI Publisher application by logging in with your credentials following these steps.

1. Navigate to the URL provided by your administrator, for example, http://example.com:9704/xmlpserver.
2. Select the language that you prefer for log in page. Your language selection only remains in effect for the current session of BI Publisher. The next time you log into BI Publisher, the original default language is displayed.

The log in page language selection does not take effect on any other pages in BI Publisher. For more information on setting the overall BI Publisher UI Language, see Setting General Preferences.

If your implementation of BI Publisher is integrated with Oracle Business Intelligence Enterprise Edition, you cannot modify the language selection on the log in page.

3. Enter your credentials to sign in to BI Publisher.

4. Click **Sign In**. See Accessibility Mode.

- To set user preferences, see Setting My Account Preferences and Viewing My Groups.
- To browse the catalog, see Browsing the Catalog.
- To schedule reports, see Navigating to the Schedule Report Job Page.

**Logging in as Guest**

If your administrator has enabled guest access, then a Guest button displays on the Login page.

A guest user does not require credentials and has privileges only to view reports available in the folder set up for guest access.

1. Select the language you prefer for the user interface.
2. Click Guest.

**Setting My Account Preferences and Viewing My Groups**

Use the My Account dialog to set your account preferences, change password, and view your groups.

Use the My Account dialog to:

- Set general preferences
- Change your password
- View assigned roles

**Note:**

Your preferences may be inherited from another Oracle product. If this is true for your work environment, you cannot update your preferences from within BI Publisher. If you are not sure where to update your preferences, ask your administrator.

When BI Publisher is integrated with Oracle Business Intelligence Enterprise Edition (BI EE), the Report Locale, UI Language, and Time Zone user preferences are set in the Oracle BI EE application. See Setting Preferences in *User’s Guide for Oracle Business Intelligence Enterprise Edition*. When you update your BI Publisher preferences in Oracle BI EE, you must start a new BI Publisher HTTP session for these to take effect in the BI Publisher interface.

**Editing Account Preferences**

Navigate to the My Account dialog from the global header and follow these steps to edit your account preferences.

1. In the global header, click your user name displayed after **Signed In As** and then select **My Account**.

The image shows the My Account dialog.
Setting General Preferences

Use the My Account dialog to set general preferences and the options on the General tab.

Use the General tab to set the following options:

- **Report Locale**
- **UI Language**
- **Time Zone**
- **Accessibility Mode**

**Note:**
The Email Addresses field is reserved for future use and is not functional in this release.

**Report Locale**

A locale is a language and territory combination, for example, English (United States) or French (Canada).

BI Publisher uses the report locale selection to determine the following:

- The translation to apply to a report layout.
- The number, date, and currency formatting to apply to the report data.

If a particular report does not have a translation for the selected locale, BI Publisher applies a locale fallback logic to select the most appropriate layout available. See Locale Selection Logic in Report Designer’s Guide for Oracle Business Intelligence Publisher.

BI Publisher applies localized number, date, and currency formatting independently of the layout translation.
UI Language
The UI language is the language in which the user interface displays, and you select languages that are available for your installation.

If your implementation of BI Publisher is integrated with Oracle Business Intelligence Enterprise Edition, you cannot change the UI language here. See Setting Preferences in User’s Guide for Oracle Business Intelligence Enterprise Edition.

Time Zone
Reports display the time according to the time zone preference selected here.
You can override this setting when creating a scheduled report job, see Creating Report Jobs. The time displayed on the user interface and reflected in report processing times is governed by the BI Publisher server time zone.
The Administrator can override your individual time zone setting so that all reports or some reports use the same system time zone setting instead.

Accessibility Mode
Setting Accessibility mode to On enables the accessibility features for users who interact with BI Publisher using the keyboard only.
When Accessibility Mode is enabled, the following features are available:

• Tables on user interface pages display check boxes to enable multi-row selection and subsequent action.

• Assistive technology provides access to menus.

• Skip to content is enabled.

When tabbing into the main page of the application, the first item you tab to is a special field that states Skip to content. When you press the Enter key with focus on an item, the focus skips over the header links to the main body of the page. For example, if you are on the Home page and you tab to Skip to content, and then press Enter, the cursor advances to the Create region with the focus on Report. The focus skips over Search, Help, Sign Out, and other links in the global header.

• The create report process flow limits the options presented to require the selection of a data model as the first step in the process.

• The Administration link is not displayed.

Changing Your Password
Use the Password tab to change your password.
If your account password settings are inherited from another application, then you cannot update your password here.

• On the My Account tab, click the Password to change your password.

Viewing Your User Groups
Your user groups are the application roles to which you are assigned.
Click the My Groups tab to view a list of the application roles to which you are assigned. You cannot modify this list.
About the Home Page

The BI Publisher Home page provides an intuitive, task-based entry into Oracle BI Publisher's functions.

The Home page is divided into sections that enable you to quickly begin a specific task, locate an object, or access documentation.

The image shows the Oracle BI Publisher Home page.

The Home page consists of the following sections:

- **Create**
- **Jobs or Browse/Manage**
- **Download BI Publisher Desktop Tools**
- **Recent**
- **Favorites**

Create

The Create section provides links to initiate creation tasks, such as create report, create report job and create data model.

In the Create section, click **More** to access options not shown. Oracle BI Publisher populates this list based on the permissions or roles you have.

For more information on each task, see the documents that are listed in the Lists of Tasks and Documents table.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Report</td>
<td>Creating and Editing Reports in Report Designer’s Guide for Oracle Business</td>
</tr>
<tr>
<td></td>
<td>Intelligence Publisher</td>
</tr>
</tbody>
</table>

2-6 User’s Guide for Oracle Business Intelligence Publisher
### Tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Report Job</td>
<td><a href="#">Creating Report Jobs</a></td>
</tr>
<tr>
<td>Create Data Model</td>
<td><a href="#">Using the Data Model Editor in Data Modeling Guide for Oracle Business Intelligence Publisher</a></td>
</tr>
<tr>
<td>Create Style</td>
<td><a href="#">Creating and Implementing Style Templates in Report Designer’s Guide for Oracle Business Intelligence Publisher</a></td>
</tr>
<tr>
<td>Template</td>
<td><a href="#">Understanding Subtemplates in Report Designer’s Guide for Oracle Business Intelligence Publisher</a></td>
</tr>
</tbody>
</table>

### Jobs or Browse/Manage

Use the Browse/Manage region from the Home page to quickly begin a specific task by accessing catalog folders, report jobs, and report job history links.

The **Jobs** section of the Oracle BI Enterprise Edition Home page provides access to the Report Jobs and the Report Jobs History pages, where you can view and manage scheduled, running, and completed report jobs.

### Download BI Publisher Desktop Tools

You can download the BI Publisher desktop tools from the Oracle BI Enterprise Edition Home page or from the BI Publisher Home page.

- **From the Oracle BI Enterprise Edition Home page:**
  
  The **Download BI Desktop Tools** list displays from the Oracle BI Enterprise Edition Homepage and contains additional products that you can download and install. If you are designing BI Publisher RTF or Excel templates, select the Template Builder for Word, which downloads the BI Publisher Desktop installer.

- **From the BI Publisher Home page:**
  
  Click **Help** and then select **Download BI Publisher Tools**.

**BI Publisher Desktop includes:**

- Template Builder for Microsoft Word
- Template Builder for Microsoft Excel
- Template Viewer
This add-in for Microsoft Word facilitates the design of RTF templates. See Creating RTF Templates Using the Template Builder for Word in Report Designer’s Guide for Oracle Business Intelligence Publisher.

The Template Builder for Excel is included in the Template Builder for Word installation. The Template Builder for Excel is an add-in for Microsoft Excel that facilitates the design of Excel Templates. See Creating Excel Templates in Report Designer’s Guide for Oracle Business Intelligence Publisher.

The Template Viewer enables the testing of most template types from your desktop.

Oracle SQL Developer is a free and fully supported graphical tool for database development. With SQL Developer, you can browse database objects, run SQL statements and SQL scripts, and edit and debug PL/SQL statements. You can also run any number of provided reports, as well as create and save your own. SQL Developer enhances productivity and simplifies your database development tasks.

Recent

The Recent section contains the reports and other objects that you have recently viewed, created, or updated.

You can take actions on these objects directly from the Recent region; for example, you can open, edit, schedule, and view jobs or job history for a report.

Note:

When BI Publisher is integrated with Oracle BI Enterprise Edition, this region is updated only when the BI Publisher objects are accessed from the Oracle BI EE interface.

Favorites

The Favorites region enables you to create your own list of objects for quick access.

From the Favorites region you can view, schedule, configure, or edit the objects that you place there provided you have proper permissions. There are several ways to add objects to the Favorites region:

- Locate the object in the catalog, click the More link, and then click Add to Favorites.
- From the Report Viewer, click the Actions menu, and then click Add to Favorites.
- Use the Manage link on the Home page to add reports.

To add and delete reports from the Favorites region using the Manage link:

Click the Manage link to open the Favorites area for editing.

To add a report to Favorites:

1. Select the report in the Catalog pane.
2. Drag the report to the Favorites region.

To delete an object from Favorites:

1. Locate the item and click the More link.
2. Click Remove.

About the Catalog

The catalog stores the BI Publisher objects, such as reports, data models, and style templates.

Use the catalog to locate objects and perform tasks specific to those objects.

The following image shows the Oracle BI Publisher.

Use the Catalog page to locate objects in the catalog and perform tasks specific to those objects. The objects and options that are available to you are determined by your system privileges and the permissions assigned to individual folders and objects.

You can use the Catalog page to perform more specialized tasks such as:

- Setting object-level permissions
- Downloading and uploading objects
- Exporting and importing catalog translations

For more information about the functions that you can perform in the catalog, see Overview of the BI Publisher Folders.

Browsing the Catalog

Browsing the catalog enables you to view the contents of a folder.

Use the Folders pane of the Catalog page to display and navigate the content of personal, My Folders, and shared folders that all users can access. Select a folder to view its contents in the display area.

About the Global Header

Using the BI Publisher Global header, you can quickly begin a task or locate a specific object.

Many of the options that are available from the global header are also available within the Home page.

The image shows the BI Publisher Global header.
The global header is always displayed when you are working in BI Publisher. When you are viewing a report or working within one of the task editors, you can use the global header to quickly begin a new task, search the catalog, access product documentation, or view a different object.

The **Signed In As** menu enables you to access the My Account dialog, where you can specify your preferences. For more information, see Setting My Account Preferences and Viewing My Groups.

If you are logged in as an administrator, the **Administration** link is displayed in the global header to enable access to the Administration page, see About the Administration Page in Administrator’s Guide for Oracle Business Intelligence Publisher.

### Searching the Catalog

Use the global header search feature to quickly locate an object by type and name from anywhere in the catalog.

From the **Search** menu, select the object type and enter all or part of the object's name in the search field. Click the **Search** button to display the results that match your criteria.

From the results page you can select and perform an action on an object from the results, filter the search results, or start a new search.

**Note:**

When using BI Publisher as part of Oracle BI Enterprise Edition, ensure that your Administrator has configured BI Publisher to use the BI Search Fields; otherwise BI Publisher reports do not show up in the search results. See Configuring BI Publisher to use the Oracle BI EE Catalog in Administrator’s Guide for Oracle Business Intelligence Publisher.
This chapter describes viewing reports in BI Publisher, including interacting with report components, viewing alternative layouts and changing output options.

This chapter includes the following sections:

- Viewing a Report
- Using the Report Viewer Options

### Viewing a Report

All reports reside in the catalog. The Oracle BI Publisher Home page displays recently viewed reports and your favorite reports for quick access.

You can view a report in your web browser using the report viewer based on the report properties. Depending on the report properties and your user permissions, you can select and view different layouts, interact directly with displayed data, change the output type, or send the report to someone else.

The Catalog displays two main reports folders:

- **Shared Folders** contains the reports and folders you have been granted access to based on your role.
- **My Folders** contains the reports and folders you have created.

The Open action runs the report using the options set in the report definition.

Some reports are not configured for online viewing. For these reports, the Open link does not display. Select Schedule to schedule a report job. For more information, see Navigating to the Schedule Report Job Page.

Some reports require selecting parameter values before running the report. If the report does not immediately display data, then select values for the displayed parameters and click **Apply**.

1. Navigate to the report.
2. Select and open a folder, and then do one of the following:
   - Click the report name.
   - Click the Open link for the report.

### Using the Report Viewer Options

Use the illustrated Report Viewer to understand the different options that are available to you.

The image shows the report viewer.
Following are the options available in the report viewer. Not all options are available for all reports. See each section for more details:

- **Parameters**
- **Layouts**
- **View Report and Choose Other Output Types**
- **Actions**

**Parameters**

Reports that enable parameter value input present the parameter selection prompts in the report viewer. The presentation of the prompts varies according to the report configuration. Parameters can be presented on the top of the report viewing area, to the left side of the report viewing area, as a pop-up dialog, or as prompts on the page before the report is displayed.

The parameter prompts can be hidden or displayed by clicking the **Parameters** action button in the upper right area of the report viewer.

Some reports include an **Apply** button that you must click to re-display the report after making parameter selections. If there is no **Apply** button, the report is regenerated automatically after you make a new value selection. The display of the **Apply** button is a parameter property setting. For information about setting this property, see Configuring Parameter Settings for the Report in Report Designer’s Guide for Oracle Business Intelligence Publisher.

Parameter prompts may be one of the following types:

- A list from which you can make a selection.

  A list may be displayed as a menu or all values of the list may be displayed in a series. Some lists support multiple selections. A multi-select list displays a check box next to each item. Click the box to select the item. Click the box again to deselect the item.
Lists with many values support search. Click **Search** at the bottom of the scroll list to open the **Search** dialog. See [The Parameter Search Dialog](#).

- A text box into which you can type a value, as shown in the following figure. Separate multiple values with a comma.

- A date editor that launches a calendar from which to select the date.

*Figure 3-1  Date Editor*
The Parameter Search Dialog
To search for a parameter value in a list, click Search at the bottom of the parameter scroll list to launch the Search dialog.

Enter a search string and then choose whether the value you are looking for starts with, ends with, or contains the entered string.

You can use % and _ as wild cards in your search string:

- % Allows you to match any string of any length, including zero length.
- _ Allows you to match on a single character.

For parameters that support multiple value selections, the Search dialog includes a shuttle interface to select multiple returned values.

Flexfield Parameter Dialog
Use the Flexfield Parameter dialog to enter values for the flexfield segments.

This type of parameter applies to Oracle E-Business Suite only. Flexfield parameters display the identifier.

The image shows the Flexfield Parameter Identifier in the Report Viewer.

Click the flexfield parameter identifier to open the parameter entry dialog. Enter values for the flexfield segments in the dialog, as shown in the Flexfield Parameter dialog figure.
Layouts

You can view the same report in different layouts by clicking on the particular report layout tab such as Salary by Department, Salary by Manager, and Breakdown by Office tabs.

When multiple layouts are available, they are displayed as separate tabs in the Report Viewer page. To view the report displayed in a different layout, click its tab. The different layouts could have different output types enabled.

Each tab shows a different layout of the same data

View Report and Choose Other Output Types

The View Report list contains other output types that are available for this report. When you select an option from the menu, the output automatically renders either in the browser or in a spawned application.
Possible output options are:

- **Interactive** - This output is only available for layouts designed using BI Publisher’s Layout Editor. Interactive output enables pop-up chart value displays, navigable and filterable tables, and other interactive features for a report.

- **HTML** - (Hypertext Markup Language) formats the report for browser viewing.

- **PDF** - (Portable Document Format) formats the report as PDF and opens the report in Adobe Acrobat reader. This output type is optimized for printing.

- **RTF** - (Rich Text Format) is a format used by word processing applications. If you have a word processing application installed, such as Microsoft Word or OpenOffice.org, then you are prompted to open the application for viewing.

- **Word** - (.docx) generates a Microsoft Word document in the .docx format.

- **Excel (mhtml)** - Select this output type to view the report in Excel if you have Microsoft Excel 2003. This option generates an MHTML format file that can be opened in Excel 2003 or later. This option supports embedded images, such as charts and logos.

- **Excel (html)** - Select this output type only if you are running the earlier versions of Microsoft Excel 2000 or 2002. This option generates HTML that can be opened in Excel. It does not support embedded images.

- **Excel (*.xlsx)** - Select this option to generate the report in Excel.xlsx (Excel XML format). If you have Excel 2007 or later installed, this option provides the best preservation of layout and formatting.
Note:

For output format Excel 2007, that uses the xlsx file extension, BI Publisher does not apply any formatting for number and date. BI Publisher saves the formatting mask and the actual value (date or number) into the XLSX output file. The formatting is handled by Microsoft Excel. For example:

- If the Microsoft Windows Region and Language of the client computer is set to English (United States), then the numbers and dates are formatted in en-US locale in the Excel 2007 output file.

- If the Microsoft Windows Region and Language of the client computer is set to French (France), then the numbers and dates in the same Excel 2007 output file are formatted in fr-FR locale.

- **PowerPoint (mhtml)** - Select this output type to generate a PowerPoint file compatible with Microsoft PowerPoint 2003. Note that Microsoft PowerPoint 2010 does not support this output type. Choose PowerPoint (*.pptx) instead.

- **PowerPoint (*.pptx)** - Select this output type to generate a PowerPoint file in Microsoft Office Open XML format. This output type is supported for versions of Microsoft PowerPoint 2007 and later.

- **MHTML** - (Mime HyperText Markup Language) format enables you to save a Web page and its resources as a single MHTML file (.mht), in which all images and linked files are saved as a single entity. Use this option to send or save HTML output and retain the embedded images and stylesheet formatting.

- **PDF/A** - is an archiving standard to support reports that require long-term preservation. PDF/A is a specialized subset of the PDF standard that prohibits elements that may interfere with the preservation of the file as a self-contained document.

- **PDF/X** - is for reports that require formatting for pre-press graphics exchange. PDF/X is a specialized subset of the PDF standard that streamlines documents for high-quality print production output and restricts content that does not serve the print production, such as signatures, comments, and embedded multimedia.

- **Zipped PDFs** - This option is only available for reports that have been designed to enable zipped PDF output. BI Publisher generates a zip file containing the report PDF output and index files. For more information on designing a report to generate a zipped PDF, see Generating Zipped PDF Output in Report Designer’s Guide for Oracle Business Intelligence Publisher.

- **FO Formatted XML** - generates an XML file with the XSL-FO information.

- **Data (XML)** - displays the report XML data.

Note:

For Safari browser users, the Safari browser renders XML as text. To view the XML generated by the data engine as XML, right-click inside the frame displaying the data and then click **View Frame Source**. This is a display issue only. The data is saved properly if you choose to export the data.
• **Data (CSV)** - displays the data in comma separated value format. The data must be in a simple `<rowset>`/<row> structure.

• **Flash** - displays output for templates designed using Adobe Flash. You must have the Adobe Flash Player Plug-in installed for your Web browser.

**Actions**

The Actions menu provides more commands and operation that you can perform on the report.

The options that are available to you depend on your user privileges and properties set for the report.

The image shows the Actions menu.

You can use the following menu options:

• **Add to My Favorite** adds this report to your My Favorites list on your Home page.

• **Edit Report** enables you to update the report definition. For example, you can add or create new layouts, update the report properties, or change the default parameter values. See Editing Reports in Report Designer’s Guide for Oracle Business Intelligence Publisher.

• **Edit Layout** enables you to update the layout you are viewing. When the layout was created using the BI Publisher Layout Editor, the Layout Editor launches in the browser, see Creating BI Publisher Layout Templates in Report Designer’s Guide for Oracle Business Intelligence Publisher. If the layout is based on another supported template type such as RTF, PDF, or Excel then you are prompted to save the template file. You can then open it in the appropriate application.
• **Export** exports the report to the default application for the output type you select, for example, Adobe Acrobat for PDF output or Microsoft Excel for Excel output.

• **Send** enables you to schedule the report for immediate delivery to an e-mail address, printer, or other destination.

The **Send** action launches the Schedule Report Job page where you can select the output, destination, and notification options.

---

**Note:** You cannot send a report in Interactive mode. You must select a different output type such as PDF or HTML from the **View Report** list, and then click **Send**.

---

• **Schedule** creates a job to run and distribute the report. See **Navigating to the Schedule Report Job Page**.

• **Jobs** enables you to view and manage currently scheduled jobs for this report. See **About the Manage Report Jobs Page**.

• **Job History** enables you to view completed and running report jobs. See **Viewing Report Job History and Saved Output**.

• **Republish from History** enables you to select a previously scheduled, completed job and specific output for viewing in the report viewer.

• **Share Report Link** enables you to generate a link that you can copy and reuse, based on the report that you are currently viewing. When you select an option, a dialog displays the URL to the report. You can control what the URL displays as follows:

  - **Current Page** displays the current page as shown.
  
  - **No Header** displays the current report without the BI Publisher logo, tabs, or navigation path.
  
  - **No Parameters** displays the current report without the header or any parameter selections. The **Actions**, **Export**, and **View Report** menus are still available.
  
  - **Document Only** displays the URL to the current report document only. No other page information or options are displayed.

---

**Note:**

**Share Report Link** is a report property that can be disabled. For more information on setting this and other report properties, see Configuring Report Properties in **Report Designer’s Guide for Oracle Business Intelligence Publisher**.
Creating Report Jobs chapter describes how to use the BI Publisher scheduler to create and monitor report jobs. Report jobs can be scheduled to run at defined intervals and to be delivered to multiple destinations.

This chapter includes the following sections:

- Navigating to the Schedule Report Job Page
- Setting General Options
- Setting Output Options
- Defining the Schedule for a Job
- Configuring Notifications
- Submitting and Monitoring a Job
- Creating a Job from an Existing Job
- Creating a Bursting Job
- Advanced Topics
- Running Diagnostics for a Report

Navigating to the Schedule Report Job Page

Use any of these ways to navigate to the Schedule Report Job page.

Use the Schedule Report Job page to schedule a report job.

Navigate to the Schedule Report Job page in any of the following ways:

1. Do one of the following:
   - From the Home page, under Create, select Report Job.
   - From the Catalog, navigate to the report you want to schedule, then select the Schedule link.
   - From the Report Viewer, click Actions and then click Schedule.

2. Use the Schedule Report Job tabs to define the options for your report job.

Setting General Options

Use the General tab to enter the general information in the table for a report job.
The **General** tab is shown in the figure below:

Enter the following general information for the report job:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report</td>
<td>If you accessed the Schedule page from the report, this field displays the report path and name. If you accessed the Schedule page from the Create region or the global header, click <strong>Choose</strong> to browse for and select the report to schedule.</td>
</tr>
<tr>
<td>Parameters</td>
<td>Any parameters defined for the report are displayed. Enter the values for this job. For parameters that allow text entry, separate multiple values with a comma. For date parameters, you can use an expression to increment the date for each run. For more information, see <a href="#">Incrementing Date Parameters</a>.</td>
</tr>
</tbody>
</table>

### Setting Output Options

The **Output** tab has two regions: **Output** and **Destination**. Each scheduled job can have multiple output files with distinct characteristics. Each output file can have multiple destinations.

The **Output** tab is shown in the following figure.

The options are described in the Output Tab Options table.
### Option Description

**Use Bursting Definition to Determine Output and Delivery**
Enable this option to use the report bursting definition for output and delivery. Once selected, all other fields on this page are disabled for selection. This option is only available when bursting is enabled for the report. For more information on report bursting, see [Creating a Bursting Job](#).

**Make Output Public**
Enable this option to make this job output available to all users with permission to access this report. Users with access can view the report from the Report Job History page.

**Save Data for Republishing**
Enable this option to save the XML data that is generated for this job. Access the saved data from the Report Job History page (see [Viewing Report Job History and Saved Output](#)) where you can republish it, selecting a new layout and output options.

### Adding Outputs

Use the Output table fields that are described in this table to add outputs to the job. The Output Table enables you to create multiple report documents for one or more layouts using a combination of output format, locale, time zone, and calendar.

The following table describes the fields in the Output table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter a name for this output.</td>
</tr>
<tr>
<td>Layout</td>
<td>Select the layout to apply to this output.</td>
</tr>
<tr>
<td>Format</td>
<td>Select the document output format. Output format is the type of document that is generated, for example, PDF, HTML, or Excel. The options available here are specified in the report definition.</td>
</tr>
<tr>
<td>Locale</td>
<td>Select the language-territory combination for this report output. This field defaults to the Report Locale defined in the user Preferences, see <a href="#">Setting My Account Preferences and Viewing My Groups</a>. If the layout does not have an available translation for the selected locale, BI Publisher applies a locale fallback logic to select the layout. See Locale Selection Logic in <a href="#">Report Designer’s Guide for Oracle Business Intelligence Publisher</a>. The appropriate number and date formatting are applied independently of the template translation.</td>
</tr>
<tr>
<td>Timezone</td>
<td>Select the time zone to use for this report output. The time zone defaults to the time zone defined in the user Preferences, see <a href="#">Setting My Account Preferences and Viewing My Groups</a>.</td>
</tr>
<tr>
<td>Calendar</td>
<td>Select the calendar to use for this output.</td>
</tr>
</tbody>
</table>
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save Output</td>
<td>Select this box to save the report output. You must select this option to view your report from the Report Job History page.</td>
</tr>
</tbody>
</table>

1. From an existing report in the Report Viewer, select **Actions**, and then select **Schedule**.
2. In Schedule Report Job, click the Output tab.
3. In the Output tab, click the + to add an output.
4. In **Name**, type a name for the output.
5. Select the options to use from the **Layout, Format, Locale, Timezone, and Calendar** lists.
6. Click **Save Output**.

### Adding Destination Types to Report Output

Use these steps to enter delivery details in the report’s Destination region and to deliver a report to multiple destinations.

Delivery servers are set up in the Administration page. See Setting Up Delivery Destinations in *Administrator’s Guide for Oracle Business Intelligence Publisher*.

See **Viewing Report Job History and Saved Output**.

1. From an existing report in the Report Viewer, select **Actions**, and then select **Schedule**.
2. In Schedule Report Job, click the Output tab.
3. In the Output tab, open Destinations, and from the **Destination Type** list, choose a destination type.
   
   Only those destination types set up by your administrator are displayed in the **Destination Type** list.
4. For each destination, from the **Output** list, select the documents to send to the destination.
5. Click **Add Destination** to deliver a report document to multiple destinations.
   
   See **Report Output Destination Types** and **Content Server Destination Type Properties**.
6. Select **Save Output** to view the output from the Report Job History page.

### Report Output Destination Types

Use these details to select and define destination types for your report’s output in the Schedule Report Job page.

Only the destination types configured by the administrator are available for selection. You can add multiple destinations for the report’s output.
<table>
<thead>
<tr>
<th>Destination Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>Enter multiple email addresses separated by a comma. Enter any Message text to include with the report. To format the message text, you can use HTML 4 elements such as fonts, lists, table cells, hyperlinks, and embedded GIF images.</td>
</tr>
<tr>
<td>Printer</td>
<td>Select the Printer Group and the Printer, enter the Number of copies, and select Single sided or Double sided, the printer must support duplex printing for this option to take effect. Optionally select the printer Default Tray from which to print the report, and the Print Range pages.</td>
</tr>
<tr>
<td>Fax</td>
<td>Select the Fax Server to deliver the report and enter the Fax Number to which to send the report.</td>
</tr>
</tbody>
</table>
| FTP              | When you select the FTP, you must enter a valid Username and Password credentials. Specify the following properties:  
  • Remote Directory  
    (Required) Enter the delivery directory location, for example, `/pub/`.  
    To deliver the document to the user's home directory, enter `. (period).  
  • Remote File Name  
    (Required) Enter the file name for BI Publisher to assign to the delivery document on the remote server, for example, `myreport.pdf`.  
    You must include the file extension in the name, for example, `.pdf`.  
    To assign a file name dynamically using a date expression, see Defining a Destination File Name Dynamically Using a Date Expression.  
  • Select Use Secure FTP to send the output using the Secure FTP protocol. |
<table>
<thead>
<tr>
<th>Destination Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Folder</td>
<td>After selecting Web Folder, enter valid Username and Password credentials.</td>
</tr>
<tr>
<td></td>
<td><strong>Remote Directory</strong> - enter the directory to which to deliver the document, for example, /pub/. If a value is not entered, then the document is delivered to the login directory.</td>
</tr>
<tr>
<td></td>
<td><strong>Remote File Name</strong> - enter the file name for BI Publisher to assign to the delivery document on the remote server, for example, myreport.pdf.</td>
</tr>
<tr>
<td></td>
<td>To assign a file name dynamically using a date expression, see Defining a Destination File Name Dynamically Using a Date Expression.</td>
</tr>
<tr>
<td>Content Server</td>
<td>Select Content Server to limit access to the report on the content server, assign a Security Group and Account to the report. Oracle BI Publisher retrieves the Security Group and Account values from the Administrator specified content server.</td>
</tr>
<tr>
<td></td>
<td>See Content Server Destination Type Properties.</td>
</tr>
<tr>
<td>Document Cloud Services</td>
<td>Select the ODCS Server and the destination Folder Name.</td>
</tr>
</tbody>
</table>

### Content Server Destination Type Properties

Content Server is one of the destination types to deliver your report document. Use the information in this table to enter appropriate values in the fields.

Select the content server where you want the report delivered. The following table lists the Content Server properties.

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Group</td>
<td><em>(Optional)</em> Select the WebContent Server security group to assign to the report.</td>
</tr>
<tr>
<td>Account</td>
<td><em>(Optional)</em> Select an Account within the Security Group to assign to the report. You can enter values for the following required metadata fields. If you do not enter values for these fields, Oracle BI Publisher assigns the values from the default report information.</td>
</tr>
</tbody>
</table>
When you can configure an embedded parameterized BI Publisher report to display online, the parameters display the appropriate values from an analysis or a direct connection to a subject area. When you schedule a an embedded parameterized BI Publisher report, the parameters from the analysis are not passed to the report. As a result, the report displays default values of the parameters used in the analysis. For a direct connection with a scheduled report, the parameters are passed and the values are displayed correctly in the report.

### Defining the Schedule for a Job

Use these steps to define a report job execution schedule for a specific report.

1. From the Oracle BI Publisher Home page, under Create, select **Report Job**.
2. In Schedule Report Job, on the General tab, click search next to the **Report** field.
3. In Open, navigate to and select the report, and then click **Open**.
4. In Schedule Report Job, click the Schedule tab.
5. In the **Frequency** list, select the option to use for this report.
6. Complete the options for the specified frequency.
7. Click **Submit**.
8. (Optional) In Submit, in the **Report Job Name** field, type a name, and click **OK**.
Defining a Recurrence Pattern

In the Schedule Report Job page’s Schedule tab, define when the report is run from these recurrence pattern options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Defines when to execute the report job using the scheduler from the Frequency list.</td>
</tr>
<tr>
<td>Run Now</td>
<td>The Run Now option depends on the selection made from the Frequency options.</td>
</tr>
</tbody>
</table>

**Once**

Define a recurrence pattern and select **Once** option to execute the report job using the scheduler.

Select **Run Now** or use the date selector to enter the specific **Start** date and time.

**Hourly/Minute**

Select hours or minutes as a recurrence pattern option when you schedule a job using the Schedule tab to define when to execute the report job.

**Every** - Select Hour(s) or Minute(s) and enter the appropriate integer value for the increment.

**Start** - Use the date selector to enter the date and time to start running this job.

**End** - (optional) Use the date selector to enter an end date and time for this job.

**Daily**

One of the options to define a recurrence pattern is to use daily option.

**Every** - Enter the increment in days, for example, to run the report every day enter 1, or to run the report every other day, enter 2.

**Start** - Use the date selector to enter the date and time to start running this job. The time selected determines when (hour of the day) the job is executed each day that it runs.

**End** - (Optional) Use the date selector to enter an end date and time for this job.

**Weekly**

You can define a recurrence pattern selecting the weekly option, where you can run the report on a specific day of a week.

**Every** - Enter the increment in weeks and select the desired day or days of the week. For example, to run the report every Tuesday and Thursday, enter 1, and then select Tuesday and Thursday. To run the report every other Wednesday, enter 2, and select Wednesday.

**Start** - Use the date selector to enter the date and time to start running this job. The time selected determines the time that the job is executed for each run.

**End** - (optional) Use the date selector to enter an end date for this job.
Monthly
Define a recurrence pattern and select the monthly option to execute the report job monthly using the scheduler.

Every - Select each month that the job executes.

On - Select either a day of the week, for example, 1st Monday of every month; or select a specific day of the month, for example, 15.

Start - Use the date selector to enter the date and time to start running this job. The time selected determines the time that the job is executed for each run.

End - (Optional) Use the date selector to enter an end date for this job.

Annually
Use this annual recurrence pattern option to enter the increment in years.

Every
Enter the increment in years that the job executes.

On
Select either a day and a month, for example, Day 1 of January, or select a day of the week of the month, for example, First Monday of January.

Start
Use the date selector to enter the date and time to start running this job. The time selected determines the time that the job is executed for each run.

End
(Optional) Use the date selector to enter an end date for this job.

Specific Dates
When you define a recurrence pattern, you can also opt a specific date to run a job.

Add Date - Use the date selector to enter the specific date and time to run the job. Add multiple specific dates as needed.

Enabling a Schedule Trigger
A schedule trigger tests for a condition. If the condition returns a result, the specified job executes.

If the trigger condition is not met, the job instance is skipped. You can also set up a repeat schedule for the trigger to keep checking for the condition. If the condition is not met, you can set the time interval, in minutes, to wait before the trigger is executed again.

You could use a schedule trigger when:

- A report job should only run after the successful completion of an extract, transfer, and load process.

- Account management wants a report triggered if any of the receipts from the previous day exceed a specified amount.

- Human resources needs a report only when new hires entered the system in the previous week.
Triggers are set up in the data model and then they are available for selection from the Schedules tab. You can associate a schedule trigger that is defined in any data model. A report runs even if trigger in not defined in the report’s data model. One trigger per report job is supported.

For more information about setting up schedule triggers in a data model, see Adding Event Triggers in Data Modeling Guide for Oracle Business Intelligence Publisher.

1. Select Use Trigger.

2. (Optional) Set the Retry Limit value to specify the maximum number of times to execute the schedule trigger to check for the condition. The default value is 1 and only positive integer values are allowed in this field.

3. (Optional) Set the Pause Time value to specify the number of minutes to wait before re-executing the schedule trigger. If the Retry Limit value is set to a value greater than 1, this field is enabled. Only positive integer values are allowed in this field.

**Note:**

The retry limit and pause time should not exceed the recurrence schedule time interval.

If the condition returns false when the maximum number of attempts is reached, then the job status is displayed as Skipped.

4. Select the Data Model that defines the schedule trigger. When the data model is selected, the Trigger list displays the schedule triggers defined in the data model.

5. Select the trigger from the list.

6. If the schedule trigger includes parameters, select values as appropriate.

The Schedule Trigger Enabled for a Report Job figure shows a schedule trigger with one parameter enabled for a report job.

**Configuring Notifications**

You can configure email and HTTP notifications.
A notification is a message that a job has finished processing. Oracle BI Publisher supports the following notification statuses:

- Report completed
- Report completed with warnings
- Report failed
- Report skipped

Configure the delivery email servers and HTTP servers in the Administration Delivery Configuration page, see Setting Up Delivery Destinations in *Administrator’s Guide for Oracle Business Intelligence Publisher*.

### Adding Notifications

Follow these steps to configure notifications for a job using the **Notification** tab.

**Enabling Email Notifications**

Follow the step to enable an email notification as a part of configuring notifications for a job.

Select the report completion statuses for which to send the notification, and enter a comma-separated list of addresses.

**HTTP**

Use the Notification tab to configure notifications for a job and you have the option to notify by HTTP, giving the HTTP Server name.
1. Select the report completion statuses for which to send the notification.

2. Select the server to which to send the HTTP notification.

3. Enter the user name and password for the server, if required.

Submitting and Monitoring a Job

Use the Submit Job dialog to review the confirmation details of the job.

1. Select **Submit** to invoke the Submit Job dialog with confirmation details for you to review.

2. Enter a name for this job and click **Submit**.

3. (Optional) On the global header, click **Open** and then click **Report Jobs** to suspend, edit, or delete a job.
   
   See About the Manage Report Jobs Page.

4. (Optional) On the global header, click **Open** and then click **Report Job History** to monitor a running job or to see the results.
   
   See Viewing Report Job History and Saved Output.

Creating a Job from an Existing Job

Follow these steps to create a job from an existing job in the Manage Report Jobs page.

To edit jobs in the Manage Report Jobs page, see Editing Jobs.

1. From the Oracle BI Publisher Home page, under **Browse/Manage**, click **Report Jobs**.

2. In Manage Report Jobs select filter criteria to find the existing job.

3. In the results table, click **Edit** to open the job for editing.

4. Enter the details for the new job definition. When finished, click **Submit as New**.
5. Enter a name for the new job and click **Submit As**.

### Creating a Bursting Job

Bursting is the splitting of the report data into multiple blocks based on a key field in the data and then applying specific parameters for the layout and delivery for each block of data.

For example, a customer invoice report can be burst to deliver each customer’s invoice to their own email address. A bursting definition for a report is set up in the report’s data model. See Adding a Bursting Definition to Your Data Model in *Data Modeling Guide for Oracle Business Intelligence Publisher*.

If the report has been enabled for bursting, the **Use Bursting Definition to Determine Output & Delivery Destination** box on the **Output** tab is enabled. If you select this option, the Output and Destination options for the job are disabled because output and destination details are supplied by the bursting definition.


### Advanced Topics

Use these topics to increment date parameters and to define a destination file name dynamically.

This section includes the following topics:

- Incrementing Date Parameters
- Defining a Destination File Name Dynamically Using a Date Expression

### Incrementing Date Parameters

If the scheduled report includes date parameters, when you enter the values for the dates for the schedule, you cannot change the date values. Every time a scheduled instance of the report is run, the same date parameters are used.
If changing the date parameters is required for each run, you can enter an expression in the date parameter field of the scheduler to calculate the date each time the report job executes.

For example, if you create a schedule for a report that runs every Monday to capture data from the previous week, you need to update the date parameters for the report to increment to the first and last days of the previous week.

Enter one of the following functions using the syntax shown to calculate the appropriate date at the scheduled runtime for the report:

- \( \text{\$SYSDATE()\$} \) - current date, the system date of the server on which BI Publisher is running.
- \( \text{\$FIRST_DAY_OF_MONTH()\$} \) - first day of the current month
- \( \text{\$LAST_DAY_OF_MONTH()\$} \) - last day of the current month
- \( \text{\$FIRST_DAY_OF_YEAR()\$} \) - first day of the current year
- \( \text{\$LAST_DAY_OF_YEAR()\$} \) - last day of the current year

The date function calls in the parameter values are not evaluated until the report job is executed by the Scheduler.

You can also enter expressions using the plus sign (+) and minus sign (-) to add or subtract days as follows:

- \( \text{\$SYSDATE()+1\$} \)
- \( \text{\$SYSDATE()-7\$} \)

For this example, to capture data from the previous week, each time the schedule runs, enter the following in the report's date parameter fields:

- Date From: \( \text{\$SYSDATE()-7\$} \)
- Date To: \( \text{\$SYSDATE()-1\$} \)

**Note:**

You can set up the date functions as default parameter values in the data model. In this case, every time a user views the report from the report viewer, the date parameter is calculated according to the expression supplied for the default value. See Adding Parameters and Lists of Values in Data Modeling Guide for Oracle Business Intelligence Publisher.

---

**Defining a Destination File Name Dynamically Using a Date Expression**

When entering the remote file name for a Web folder or FTP destination, you can enter a date expression to have BI Publisher dynamically include a date expression in the file name. The date is set at runtime, using the server time zone.

These expressions are described in the following table.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%y</td>
<td>Displays the year in four digits: Example: 2011</td>
</tr>
</tbody>
</table>
### Expression Description

<table>
<thead>
<tr>
<th>Expression</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%m</td>
<td>Displays the month in two digits: 01-12 (where 01 = January)</td>
</tr>
<tr>
<td>%d</td>
<td>Displays the date in two digits: 01-31</td>
</tr>
<tr>
<td>%H</td>
<td>Displays the hour in two digits based on 24-hour day: 00-24</td>
</tr>
<tr>
<td>%M</td>
<td>Displays the minute in two digits: 00 - 59</td>
</tr>
<tr>
<td>%S</td>
<td>Displays the number of seconds in two digits: 00 - 59</td>
</tr>
<tr>
<td>%l</td>
<td>Displays milliseconds in three digits: 000 - 999</td>
</tr>
</tbody>
</table>

### Examples

Use these steps to create a file name that appends a date and a file name that prefixes a date and appends a time.

To create a file name that appends the day, month, and year such as:

```text
myfile_01_11_2010.pdf
```

Enter the following:

```text
myfile_%d_%m_%y.pdf
```

To create a file name that prefixes the day, month, and year and appends the hour and minute such as:

```text
01_01_2010_myfile_22_57.pdf
```

Enter the following:

```text
%d_%m_%y_myfile_%H_%M.pdf
```

If the file name includes an undefined expression such as `my_file_%a%b%c.pdf`, the file is created as named `my_file_%a%b%c.pdf`.

### Running Diagnostics for a Report

If you have the Administrator or Develop Data Model role, you also have access to the Diagnostics tab on the Scheduler. Use the options on the Diagnostics tab to get performance and memory usage information about the report.

Oracle recommends that you use these options to tune your queries before moving them into a production environment. See SQL Query Tuning in Data Modeling Guide for Oracle Business Intelligence Publisher.

2. Select the report to schedule then click the Diagnostics tab.

   **Note:**

   You must have BI Administrator or BI Data Model Developer privileges to access the Diagnostics tab.

3. Select Enable SQL Explain Plan and Enable Data Engine Diagnostic.
4. Submit the report.

5. When the report finishes, go to the Report History page.

   From the Home page, under Browse/Manage, select Report Job History.

6. Select your report to view the details. Under Output & Delivery click Diagnostic Log to download the explain plan output.
Viewing and Managing Report Jobs

This chapter describes how to view and manage report jobs submitted to the BI Publisher scheduler.

This chapter includes the following topics:

• About the Manage Report Jobs Page
• Viewing Jobs for a Specific Report
• Searching for Report Jobs
• Setting the Time Zone for Viewing Jobs
• Viewing Job Details
• Pausing Jobs
• Resuming Jobs
• Deleting Jobs
• Editing Jobs
• Refreshing the Manage Report Jobs Page

About the Manage Report Jobs Page

The Manage Report Jobs page displays information about future scheduled and recurring report jobs and enables you to take actions on these jobs.

You can access this page and then search for the report jobs to manage; or, you can access this page from the context of a specific report.

To search for jobs to manage, navigate to this page in one of the following ways:

• On the Home page, select Browse/Manage, then Report Jobs.
• On the global header, click Open, and then click Report Jobs.

To access this page from the context of a specific report perform one of the following:

• From the catalog, navigate to the report in the catalog and then click Jobs.
• From the Report Viewer page, click Actions and then click Jobs.

The following image shows the Manage Report Jobs page:
Use the Manage Report Jobs page to:

- View future scheduled and recurring jobs for your private, shared, and public reports.
- Select the time zone to in which to view the job times displayed.
- Refresh the display page to display recently submitted jobs.
- Link to report history to view the output of completed job runs.
- Edit a report job.
- Delete a report job.
- Suspend/Resume a report job.
- View the job details.

**Viewing Jobs for a Specific Report**

If you navigated to Manage Report Jobs from the context of a specific report, the jobs for that report are automatically displayed in the table with the default filters applied. Following are the default filters applied:

- **Report Name** - the name of the report from which you launched the Manage Report Jobs page
- **Owner** - equals your user ID
- **Scope** - equals All (public and private jobs)
- **Status** - equals All (active and suspended jobs)

Use the following procedure to further filter the results.
Searching for Report Jobs

Use these steps to search for report jobs. The Report Jobs table displays the status and the information about each status.

1. Enter values for the Filter criteria to search for a specific job or group of jobs.

2. Click Search. The jobs that meet the filter criteria are displayed in the Report Jobs table.

The table displays general information about the job as well as the status.
Sort the table by a particular column by clicking the column heading and selecting the up arrow or down arrow for ascending or descending.

Possible status values are:

- **Active** - the job runs when the schedule event occurs.
- **Paused** - the job is suspended. The report job does not run again until it has been resumed. Paused jobs are displayed when searching for Suspended jobs using the filter criteria.

Setting the Time Zone for Viewing Jobs

You can select the time zone for viewing the job start and end times.

1. Select the time zone from the list.

2. Click the Refresh button. The Report Jobs table refreshes and displays job start and end times in the selected time zone.

Viewing Job Details

Use these steps to view the details of a job.

1. Click the Report Job Name to view a detail page for the job.

2. To view delivery information for each output, click the expand icon next to the output name.

3. Click Return to return to the Manage Report Jobs page.

Pausing Jobs

The Manage Report Jobs page enables you to take actions on the jobs. You can access this page and then search for the report jobs to change the status to Pause.

1. Select the job by clicking anywhere in the table row that lists the job information.

   Do not click the job name link. You can select multiple jobs by pressing `Ctrl` + `Shift` and then clicking the additional rows. Deselect a row by clicking it again.

2. Click the Pause button.

Resuming Jobs

Use these steps to change the status of the job to active.
Deleting Jobs

Use these steps to delete a job.

1. Select the job by clicking anywhere in the table row that lists the job information.

   You can select multiple jobs by clicking additional rows.

2. Click the Delete button.

Editing Jobs

Use these steps to edit a job using the Edit icon from the Manage Report Jobs page.

1. In the Manage Report Jobs page, do one of the following:

   • Click the Edit icon for the job in the results table.

   • Click the Report Job Name to view the detail page for the job and then click the Edit icon next to the job name.

2. Edit the job details using the General, Output, Schedule, and Notification tabs.

3. Click Update Job to save your changes to this job or, to save the edited job as a new job, click Submit as New and enter a name for the new job.

Refreshing the Manage Report Jobs Page

Follow the step to refresh the Manage Report Jobs page.
• To refresh the Manage Report Jobs page, click the Refresh button at the top of the page.
Viewing and Managing Report History

This chapter describes the BI Publisher job history features including republishing data from history, sending the job output to new destinations, and getting error information on report jobs that did not complete successfully.

This chapter includes the following sections:

- Viewing Report Job History and Saved Output
- Viewing Job History for a Specific Report
- Searching for Report Job History
- Viewing Details of a Job History
- Downloading Data from a Report Job
- Republishing a Report from History
- Sending an Output to a New Destination
- Monitoring Running Jobs
- Canceling a Running Job
- Getting Error and Warning Information for Reports
- Deleting a Job History
- Refreshing the Report Job History Page

Viewing Report Job History and Saved Output

The Report Job History page displays information about running and completed report jobs. You can access this page and then search for the report job history; or, you can access this page from the context of a specific report.

To search for job history, navigate to this page in one of the following ways:

- From the Home page, under Browse/Manage click Report Job History.
- On the global header, click Open, and then click Report Job History.

To access this page from the context of a specific report perform one of the following:

- From the Catalog: Navigate to the report in the catalog and then click Job History.
- From the Report Viewer, click Actions and then click Job History.

The image shows the Report Job History page.
Use the **Report Job History** page to:

- View the status and details of running and completed report jobs.
- Cancel a running job.
- Monitor a running job.
- View job submission details.
- Download or view the XML data produced from the report, if you selected **Save Data** for the report.
- Download or view the report document, if you selected **Save output**.
- Republish the report data using other formats or templates, if you selected **Save Data** for the report.
- Delete report jobs from history.

### Viewing Job History for a Specific Report

If you navigated to the Report Job History page from the context of a specific report, then the jobs for that report are automatically displayed in this table with the default filters applied.

Following are the default filters:

- **Report Path** - equals the path to the report from which you launched the Report Jobs History page
- **Start Processing** - equals to or later than one week ago
- **Owner** - equals your user ID
- **Scope** - equals All Histories includes all of the possible values for scope are Public and Private job histories.
• Status - equals All includes all of the possible values for status are Success, Failed, Running, Has output errors, Canceled, Cancelling, Has delivery errors, and Skipped.

Use the following procedure to further filter the results.

**Searching for Report Job History**

Use the steps to search for a report job history by entering values in the filter criteria.

1. Enter values for the Filter criteria to search for a specific job history or group of completed report jobs. You can filter the results based on the following:

   • Report Job Name - the name assigned to the job when it was submitted.
   • Report Path - the path to the report. If the report resides under Shared Folders, do not include Shared Folders in the path. If the report resides under My Folders, the first node is (~) and your user name. For example, if you are logged in as Administrator and the report resides under My Folders/Operational Reports, enter ~Administrator/Operational Reports.
   • Schedule Context - reserved for future use.
   • Start Processing - the date and time at or after which the request started processing.
   • End Processing - the date and time at or before which the request ended processing.
   • Status - can equal one of the following statuses:
     – Success - the job completed without errors
     – Failed - the job failed
     – Running - the job is currently running
     – Has output errors - the job completed, but with errors
     – Cancelled - the job was cancelled
     – Cancelling - the job is in the process of being cancelled
     – Delivery has error - the job cannot be delivered
     – Skipped - the job was skipped
     For more information on error statuses, see Getting Error and Warning Information for Reports.
   • Owner - the user ID of the user who submitted the job.
   • Scope - Public or Private.

2. Click Search. The jobs that meet the filter criteria are displayed in the Report Job Histories table.

The table initially displays 33 matching records. This number is displayed in the upper right corner of the table. Move the vertical scroll bar down to the lowest point to fetch 33 more records. The number displayed in the upper right corner updates to inform you of the number of records that have been fetched so far. You
can continue fetching more records to the table in increments of 33 by moving the scroll bar down. You can sort the table by a particular column by clicking the column heading and selecting the up arrow or down arrow for ascending or descending.

**Viewing Details of a Job History**

Follow the steps to view the details of a job history.

1. Click the Report Job Name to view a detail page for the job.

2. To view delivery information for each output, click the expand icon next to the output name.

3. Click Return to return to the Report Job History page.

**Description of the illustration xdo11g_hist_det_out.gif**

This figure shows the delivery information.

**Downloading Data from a Report Job**

Follow these steps to view the details of the job, download the XML data, and save the file to your preferred location.
For the data to be available, the **Save Data for Republishing** option must be enabled when the job is created. For information on setting this option, see [Setting Output Options](#).

1. Click the **Report Job Name** to view the detail page for the job.

2. From the **Output & Delivery** region, click the **XML Data** download button.

3. When prompted, select the location to save the file.

**Republishing a Report from History**

Use these steps to republish a report from history.

You must enable the **Save Data for Republishing** option when the job is created to make the data available for republishing.

For information on setting this option, see [Setting Output Options](#).

1. Click the **Report Job Name** to view the detail page for the job.

2. From the **Output & Delivery** region, click **Republish**. This launches the **Report Viewer**.

3. From the **Report Viewer** you can now apply a new layout, choose a different output type or export the report. Because you are using data the retrieved from the previous report run, any parameters are not updatable.

4. To return to the Report Job History page, click the **Actions** menu and select **Return**.

**Sending an Output to a New Destination**

Follow these steps to send an output to a new destination. For the output to be available from the history table, the **Save Output** option must be enabled when the job is created.

For more information on setting this option, see [Setting Output Options](#).

---

**Note:**

The send functionality does not create any history nor does it save the delivery status. It simply sends the output to the destination selected.

---

1. Click the **Report Job Name** to view the detail page for the job.

2. From the **Output & Delivery** region, locate the output that you want to send to a new destination and click **Send**. This launches the **Send** dialog.

   The image shows the **Send** page.
3. Select the delivery type and click **Add Destination**. Enter the appropriate fields for your delivery type.

4. When finished adding destinations, click **Submit**.

**Monitoring Running Jobs**

While a job is in running status, you can monitor the stages of the report processing.

To view the status of a job in running status, rest your cursor over the **Running** status indicator in the Report Job Histories table. The status displays with the instance ID of the cluster instance handling the processing.
The table below lists the processing stages of a job.

<table>
<thead>
<tr>
<th>Processing Stage</th>
<th>Substages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Processor</td>
<td>Sending to Job Queue&lt;br&gt;In job queue&lt;br&gt;In job processor&lt;br&gt;Job processor completed&lt;br&gt;Job processor caused exception</td>
</tr>
<tr>
<td>Data Fetching</td>
<td>Fetching XML Data&lt;br&gt;XML Data Fetched&lt;br&gt;Before calling data model pre-trigger&lt;br&gt;After calling data model pre-trigger&lt;br&gt;Before calling data model post-trigger&lt;br&gt;After calling data model post-trigger</td>
</tr>
<tr>
<td>Fetching Bursting Control File (for bursting jobs only)</td>
<td>Fetching bursting control&lt;br&gt;XML Bursting control xml fetched</td>
</tr>
<tr>
<td>Data Processor</td>
<td>In data processor&lt;br&gt;Parsing control file (applies only to bursting jobs)&lt;br&gt;Control file parsed (applies only to bursting jobs)&lt;br&gt;Cutting data based on split key (applies only to bursting jobs)&lt;br&gt;Data cutting completed (applies only to bursting jobs)&lt;br&gt;Total sub-jobs (applies only to bursting jobs)&lt;br&gt;Data processor completed</td>
</tr>
<tr>
<td>Report Processor</td>
<td>In report processor&lt;br&gt;Rendering report document&lt;br&gt;Report document rendering completed&lt;br&gt;Report processor completed&lt;br&gt;Error rendering report document</td>
</tr>
<tr>
<td>Delivery Processor</td>
<td>In &lt;delivery&gt; processor&lt;br&gt;Delivering to &lt;delivery&gt; processor&lt;br&gt;Document delivered to &lt;delivery&gt; server&lt;br&gt;&lt;Delivery&gt; processor completed</td>
</tr>
</tbody>
</table>

The valid values for `<delivery>` are email, fax, File, FTP, Print, WebDAV, or Document Cloud Services, depending on the destinations selected for the report.

Once the job reaches this stage, outputs can be viewed as they are completed by clicking the Report Job Name.
Canceling a Running Job

Use these steps to cancel a running job.

1. Click anywhere within the table row for the report job to select it (except the job name link). You can select multiple jobs by pressing Ctrl + Shift and then clicking the additional rows. Deselect a row by clicking it again.

You can only cancel a job that has the status, Running.

2. Click the Cancel Running Jobs icon at the top of the table,

The image shows the Report Job Histories page with a cursor pointing to the cancel icon.

3. Click OK in the confirmation message.

Getting Error and Warning Information for Reports

If a report job fails or completes with warnings, you can view the message by resting the cursor over the error or warning status indicator in the results table.

The image shows a sample message.

For more complete diagnostic information on errors or warnings, you can view the diagnostic log files for the job in Oracle Fusion Middleware Control.

See Viewing Log Messages in Administrator’s Guide for Oracle Business Intelligence Publisher.

Deleting a Job History

Use these steps to delete a job history.
1. Click anywhere within the table row for the report job to select it.
   You can select multiple rows.

2. Click the **Delete** icon at the top of the table.

3. Click **OK** on the Confirmation dialog.

**Refreshing the Report Job History Page**

Follow the step to refresh the Report Job History page.

- To refresh the Report Job History page, click the **Refresh** button at the top of the page.
Managing Reports

This chapter describes how to manage the report components in the BI Publisher folders. It includes setting permissions, downloading and uploading reports and folders, and moving report components in the catalog.

This chapter includes the following sections:

- Overview of the BI Publisher Folders
- Reporting Components Stored in the Catalog
- Creating a Folder or Subfolder
- Performing Tasks on Catalog Objects
- Downloading and Uploading Catalog Objects
- Understanding the Impact of Taking Actions on Objects Referenced by Reports
- Exporting and Importing Catalog Translation Files

Overview of the BI Publisher Folders

The Oracle BI Publisher folders store the reports, data models, and style templates, that you create using Oracle BI Publisher.

You and every other user have their own personal folders, My Folders. Reports in personal folders can only be accessed by the user who created and saved the content into the folder. You can add subfolders to My Folders to organize the content in the way that is most logical to you.

Note:

The information in this chapter applies to installations of BI Publisher that are not integrated with the Oracle Business Intelligence Enterprise Edition. For information about the integrated Oracle BI Presentation catalog, see User’s Guide for Oracle Business Intelligence Enterprise Edition.

You can also save reports in shared folders where other users or groups can access them. User permissions determine which folders are available to which users. Permissions are assigned at the object-level and determine who can view, edit, and schedule reports within that folder. Your administrator creates and maintains the shared folder structure.

Reporting Components Stored in the Catalog

Each reporting component has an identifying icon and lists the creation and modification information. Next to each item is a list of actions you can take.
The following reporting components are shown in the catalog:

- Folders
- Reports
- Data Models
- Style Templates
- Sub Templates

See Performing Tasks on Catalog Objects.

Creating a Folder or Subfolder

Use this procedure to create a subfolder within your My Folder or, if you have the required permissions, create a shared system folder.

1. Navigate to the desired location in the Folders pane.
2. On the Catalog toolbar, click New and select Folder.
3. In New Folder, enter the folder name and enter a description (optional).
4. Click Create.

Performing Tasks on Catalog Objects

You can perform tasks such as edit, copy, paste, rename, download, and set permission on catalog objects.

You can perform tasks on objects in multiple ways such as:

- By using the links next to the object.
- By using the catalog toolbar.
- By selecting the object and choosing the task from the Tasks region.

The image shows the Catalog page.
Performing Tasks on Catalog Objects

Your access to these actions depends on the permissions granted to you by your administrator.

Task options include the following:

- **Edit** - opens the object in the appropriate editor or builder.

- **Copy** - duplicates a folder or object. To paste the object in a different folder, navigate to the folder location and click Paste to place the copied item in the desired folder. To paste a copy of the item into the same folder, click Paste. The copied object is renamed with the prefix Copy_of_.

  **Note:** You can only paste one Copy_of_item in the same location. Update the name before pasting additional copies of the same object.

- **Cut** - cuts the item from the current location. To paste the object in a different folder, navigate to the folder location and click Paste to place the item in the desired folder.

- **Delete** - removes a folder or object from the catalog.

- **Download** - creates an archive file of the object that you can save to a selected location. See Downloading and Uploading Catalog Objects.

- **Rename** - renames a folder or object.

- **Permissions** - sets object-level permissions. See About Catalog Permissions in Administrator’s Guide for Oracle Business Intelligence Publisher.

- **Customize** - use this option only when your enterprise has implemented a customized process that includes the use of the Custom folder. See About Customizing Reports in Report Designer’s Guide for Oracle Business Intelligence Publisher.
Folders also include the following tasks:

- **Expand** - displays the folder contents.
- **Paste** - pastes a cut or copied object into the selected folder.
- **Upload** - uploads an archived object to the folder. See [Downloading and Uploading Catalog Objects](#).
- **Properties** - enables update of the folder description.

### Downloading and Uploading Catalog Objects

The download feature of the BI Publisher catalog enables you to bundle and download multi-component objects such as reports in an archive file. You can then use the upload feature to unarchive the data to another location in the catalog.

This process enables you to transfer objects across environments. For example, you can use this feature to transfer BI Publisher objects from a development environment to a production environment.

Extensions for Archived Objects table lists the file extensions that BI Publisher assigns to each type of archived object when downloaded.

<table>
<thead>
<tr>
<th>Catalog Object</th>
<th>Extension Assigned to Downloaded Files</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Model</td>
<td>.xdmz</td>
</tr>
<tr>
<td>Folder</td>
<td>.xdrz</td>
</tr>
<tr>
<td>Report</td>
<td>.xdoz</td>
</tr>
<tr>
<td>Style Template</td>
<td>.xssz</td>
</tr>
<tr>
<td>Subtemplate</td>
<td>.xsbz</td>
</tr>
</tbody>
</table>

If BI Publisher is integrated with the Oracle Business Intelligence Enterprise Edition, then use the archive and unarchive features of the Oracle BI Presentation Catalog to perform this function. See Managing Objects in the Oracle BI Presentation Catalog in [User’s Guide for Oracle Business Intelligence Enterprise Edition](#).

### Understanding the Impact of Taking Actions on Objects Referenced by Reports

When you move, cut, rename, or delete a Data Model, a Sub Template, or a Style Template that is used as a resource for a report, the references to the resource are broken and the report cannot run as expected.

For example, if you have a report that was created with a data model that resides in a folder called *My Data Models*, and you move the data model to another folder, the report cannot run because the report definition is expecting to find the data model in the *My Data Models* folder.

If moving a resource object is unavoidable, then you must edit each report that references the object to refer to the object in its new location.
Exporting and Importing Catalog Translation Files

Export and import catalog translation files function enables administrators to export an XLIFF file that contains the translation strings.

For users with administrator privileges, the catalog toolbar includes the Export XLIFF and Import XLIFF function.

This function enables administrators to export an XLIFF file that contains the translation strings the selected catalog object or group of objects. The XLIFF strings can then be translated to the desired target language. After the XLIFF file is translated, the administrator can import the XLIFF file back to the catalog and assign it the appropriate locale.

See Adding Translations for the BI Publisher Catalog and Reports in *Administrator’s Guide for Oracle Business Intelligence Publisher*. 
This appendix provides information about how to use Oracle BI Publisher accessibility features for report consumers.

This appendix includes the following sections:

- What are Accessibility Features?
- Changing to Accessibility Mode
- Accessibility Support in the BI Publisher User Interface
- Accessibility Support in BI Publisher Report Output
- Keyboard Shortcuts

**What are Accessibility Features?**

The accessibility features in BI Publisher aim to make the aspects of navigating and using the product easier for persons with disabilities and for the aging population.

The accessibility features support the use of standards-based assistive-technology hardware and software such as Freedom Scientific JAWS or Microsoft Narrator.

The accessibility features are grouped into these general categories:

- Features used by third-party assistive-technology products. These features center on providing a user interface that consists of standard HTML elements that can be easily interpreted by third-party assistive technology products.
- Accessibility mode, as described in Changing to Accessibility Mode.
- Keyboard shortcuts that make it easier to navigate content for users with limited or no ability to use a mouse.
  
  See Keyboard Shortcuts.
- Content design capabilities that make it possible for content creators to create content that supports users with accessibility needs.
  
  See Designing for Accessibility in Report Designer’s Guide for Oracle Business Intelligence Publisher.

**Changing to Accessibility Mode**

Accessibility mode in BI Publisher makes the rendering of the user interface more compatible with screen readers while allowing only that functionality that is supported for users with disabilities to be visible.

1. Press Tab multiple times to navigate through the global header until the focus is on your user name in the Signed In As area.
2. Press Enter, then Tab to highlight the My Account link.

3. Press Enter to display the My Account dialog.

4. Press Tab to navigate through the fields on the General tab until you reach the Accessibility Mode options.

5. Use the arrow keys to select the On option.

6. Press Enter to save your changes and close the dialog.

7. Refresh the page to see it displayed in accessibility mode.

**Accessibility Support in the BI Publisher User Interface**

Alternative navigation tools, such as keystrokes, enable users to navigate BI Publisher and work with reports in accessibility mode.

The following list provides information on accessibility mode:

- The Home page does not contain links for accessing the Administration page or for performing most editing functions.
- Graphs and map views are not displayed but are instead converted to one or more annotated tables.
- Tables and pivot tables are rendered with appropriate internal annotations to enable screen readers to describe the contents of cells.

**Note:** Refer to your assistive-technology documentation for all applicable table navigation shortcuts.

- You cannot use the mouse to modify the layout of a table or pivot table.

By default, Oracle BI Publisher does not use accessibility mode. Each user can decide whether to enable accessibility mode during sign in as described in Signing In Using Keystrokes or after sign in by using the following procedure.

**Signing In Using Keystrokes**

Use this procedure to sign in to BI Publisher using keystrokes rather than the mouse.

1. In a browser, display the Sign In page for BI Publisher.

2. To change the language that BI Publisher uses for the Sign In page, press Tab to place the insertion point in the Language field and use the arrow keys to select the desired language. The insertion point is then placed in the User ID field.

3. Enter the ID and press Tab to place the insertion point in the Password field.

4. Enter the password.

5. To render BI Publisher content in a browser in a way that facilitates the use of a screen reader, press the spacebar to select the Accessibility Mode box.

6. Press Shift+Tab twice to place the insertion point on the Sign In button, then press Enter to activate the Sign In button.
Navigating the Home Page

If you display the Home page after signing in to BI Publisher or by navigating from another location in BI Publisher, you must press CTRL+ALT+G to place the focus on the Skip to Content link in the upper-left corner of the Home page.

1. Sign in to BI Publisher, as described in Signing In Using Keystrokes.

2. Press CTRL+ALT+G to display the Skip to Content link in the upper-left corner of the Home page.

3. Press one of the following keys:
   • ENTER on this link to navigate to the default starting location on the Home page, which is the first link in the upper-left corner under the global header.
   • TAB to navigate to the first element in focus on the global header.

4. Continue to press TAB to navigate through the elements on the Home page.

Navigating Multiple Rows in Tables

When accessibility mode is turned on, each table row contains a Select check box to assist you in working with multiple rows in a table.

For example, you can use the Select check boxes on the Report Job Histories page to select multiple report jobs for deletion.

If you position the cursor in the Select check box in a row, you can also use the Up/Down keys to navigate between table rows.

Accessibility Support in BI Publisher Report Output

BI Publisher report output renders accessibility support to HTML generated from RTF or layout editor-based reports.

Reports with accessibility design features include the following HTML report properties:

• Document title.
• Alternative text property to describe images such as charts.
• Table summary property to summarize table content.
• Header level property to specify the order in which the table header rows are read in accessibility mode.

See Designing for Accessibility in Report Designer’s Guide for Oracle Business Intelligence Publisher.

Keyboard Shortcuts

Oracle BI EE and BI Publisher support standard keyboard shortcuts. The table lists the shortcuts and the actions.

Both Oracle BI EE and BI Publisher support standard keyboard shortcuts that are used in many software applications. In addition, both components offer shortcuts to perform tasks that are specific to those components. The general keystrokes table describes general keyboard shortcuts for use with Oracle BI EE and BI Publisher.

<table>
<thead>
<tr>
<th>Keyboard Shortcut</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTRL+ALT+G</td>
<td>Navigates to the first focusable element in the global header, which is the Skip to Content link. This link enables you to bypass the options available in the global header and move to the features available in the main part of the Home page.</td>
</tr>
<tr>
<td>TAB</td>
<td>Navigates to the next focusable element.</td>
</tr>
<tr>
<td>SHIFT + TAB</td>
<td>Navigates to the previous focusable element.</td>
</tr>
<tr>
<td>Down Arrow</td>
<td>Navigates to the next menu option.</td>
</tr>
<tr>
<td>Up Arrow</td>
<td>Navigates to the previous menu option.</td>
</tr>
<tr>
<td>ENTER</td>
<td>Triggers the activity, when the focus is on a link, an image, or a button with an associated URL or activity.</td>
</tr>
<tr>
<td>Esc</td>
<td>Closes the menu that has the focus.</td>
</tr>
</tbody>
</table>

The table below describes keyboard shortcuts for navigating reports in BI Publisher.

<table>
<thead>
<tr>
<th>Keyboard Shortcut</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALT + Up or Down Arrow</td>
<td>Opens drop-down and combo boxes.</td>
</tr>
<tr>
<td>CTRL + Up or Down Arrow</td>
<td>Shows the next or previous item in a combo box.</td>
</tr>
</tbody>
</table>

**Note:**

If you use Freedom Scientific JAWS or other screen reader programs, then you must first disable the virtual PC cursor before using the keystroke combinations to navigate the report. You must enable the virtual PC cursor at other times, including during navigation within table objects on a report.