OnBase® Foundation EP5

Reporting Dashboards

Reference Guide

Includes:

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User Guide

Copyright

Document Name .... Reporting Dashboards

Department/Group .... Documentation

Revision Number .... Foundation EP5

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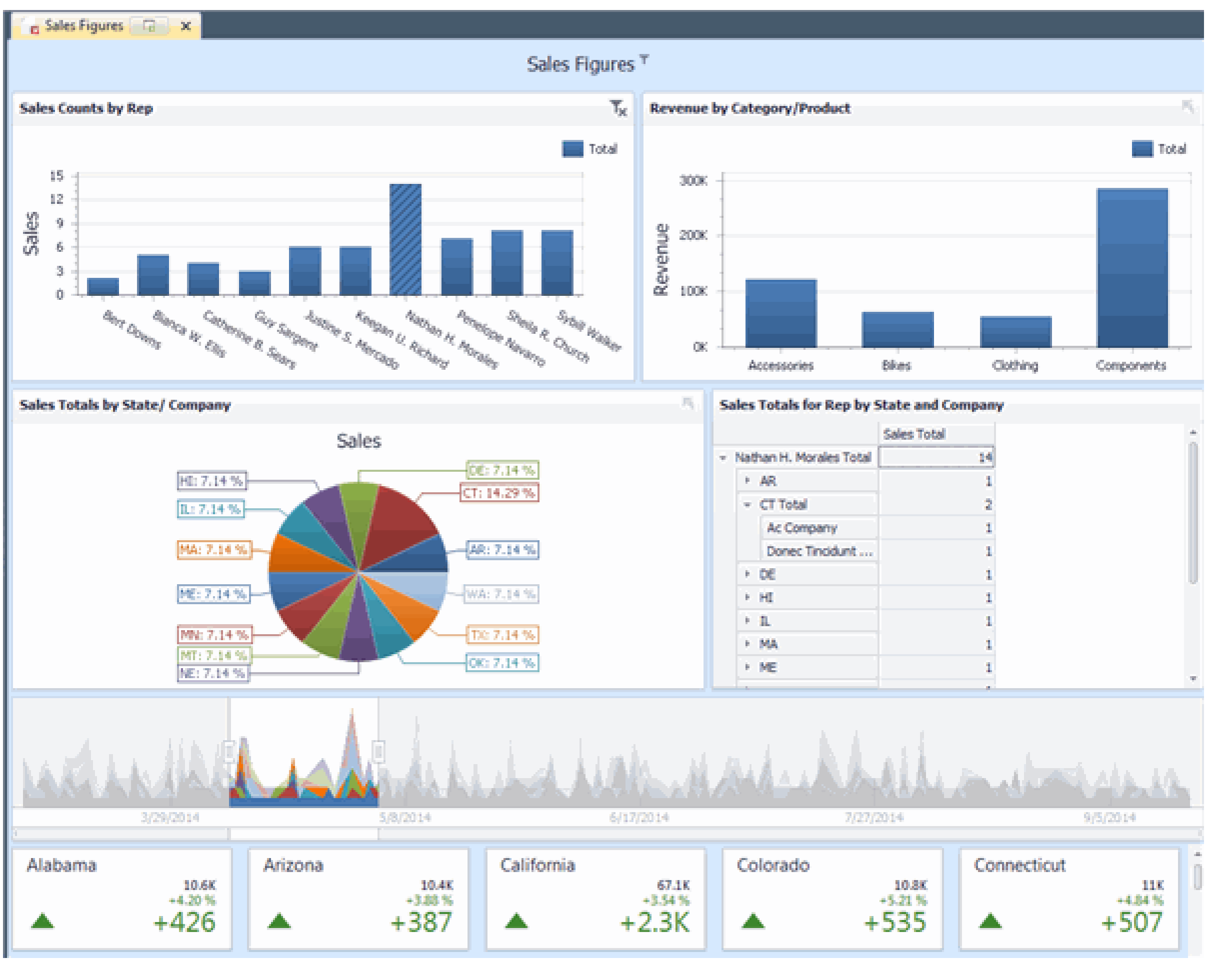
Reporting Dashboards is used to graphically display data returned from a configured data provider as a dashboard, or display data as easily categorized and sorted reports. Dashboards can contain multiple dashboard items including basic pie, chart, and bar graphs, or more advanced displays such as gauges, pivot tables, and maps, all of which allow users to quickly identify relevant information and trends surrounding the data managed by the data provider.

Multiple dashboard items can be displayed in a single dashboard, and the dashboard can be configured to allow the elements of one dashboard item to update the information displayed in other dashboard items, allowing for a dynamic, real-time view of measurements surrounding stored data.



How it Works

Data providers return data from a data source to be displayed in a dashboard or report. New dashboards and reports cannot be used unless at least one data provider is added to it. The Create Data Provider Wizard is used to create new data providers.

Data returned for a dashboard is displayed in an easy-to-configure graphical interface that can contain dynamic and interactive dashboard items. Dashboard items, parameters, display options, and interactivity are all configured using the dashboard designer. Data returned for a report is displayed using select columns that can be used to categorize and sort data, providing specific insight into the information being presented.

Full Reporting Dashboards functionality is only available in the OnBase Unity Client. Dashboards can also be viewed in the OnBase Web Client with limited functionality.

Dashboards and reports can also be accessed from web browsers, including mobile web browsers, using the optional Reporting Dashboards Web Viewer. The Reporting Dashboards Web Viewer allows access to dashboards and reports for users who do not have access to the OnBase Web Client or Unity Client.

Applications

Anyone who needs interactive, real-time reporting surrounding data contained in an OnBase system will benefit from Reporting Dashboards.

Sales managers, process managers, and executives who require detailed and dynamic views of their business data can, through an interactive graphical display, immediately view that data and how it relates to other meaningful data, allowing them to make decisions based on it more quickly, or generate moment-in-time snapshots of data for historical purposes.

Licensing

Reporting Dashboards requires the **Reporting Dashboards** database license.

Additional licensing may be required to display dashboards that include data from other OnBase modules, such as Workflow.

Additional Data Provider Types

The **Custom SQL Query** and **Document Query** data provider types are available to all systems with Reporting Dashboards. Additional data provider types are available depending on additional licensing. Details on configuring license-specific data providers are available in the module reference guides for those licenses.

The following modules also have data provider types available for use with Reporting Dashboards:

- Plan Review
- Report Capture

- Workflow
- WorkView
- Document Knowledge Transfer & Compliance

Tip: WorkView data can also be displayed using **Custom SQL Query** reports in Reporting Dashboards. For best results, WorkView applications should make use of filters that are configured with the **Enable reportable view** setting. With this configuration, the column names in the SQL view are defined by the administrator and will be easier to configure for dashboards. For more information on configuring WorkView applications, see the **WorkView** module reference guide.

For details on configuring license-specific data provider types, see the module reference guide for that module.

Reporting Dashboards

Installation Guide

Foundation EP5

Reporting Dashboards functionality is included with the OnBase Application Server and Unity Client, as long as the required licensing has been obtained. Reporting Dashboards functionality is accessed through the Unity Client.

Dashboards can also be accessed from Web browsers, including mobile Web browsers, using the optional Reporting Dashboards Web Viewer. This allows access to dashboards for users who may not have access to the Unity Client. See Reporting Web Viewer on page 341.

Requirements

The hardware and software requirements for Reporting Dashboards are the same as those for the Unity Client. Additional licensing is required to use Reporting Dashboards.

The following sections outline requirement information specific to Reporting Dashboards in OnBase Foundation EP5.

General Requirements

For general requirement information that applies to Reporting Dashboards and other modules, see the sections on the following topics in the **Installation Requirements** manual:

- Microsoft .NET Framework Requirements
- Microsoft Visual C++ Requirements
- Operating System Requirements
- Database Requirements
- Server and Core Services Requirements
- Miscellaneous Requirements

Licensing

Reporting Dashboards requires the **Reporting Dashboards** database license.

Upgrade Considerations

The following upgrade considerations have been compiled by OnBase subject matter experts. These upgrade considerations are general and applicable to most OnBase solutions and network environments and should be considered each time an upgrade is performed.

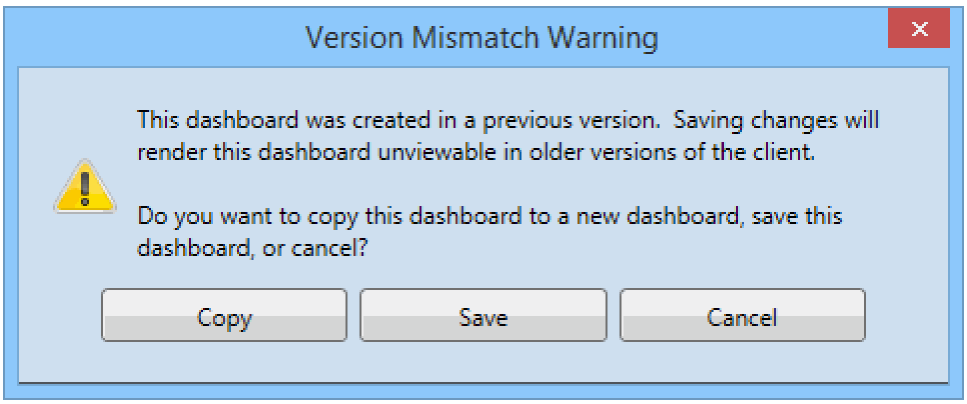
Carefully consider the impact of making any changes, including those listed below, prior to implementing them in a production environment.

For additional general information about upgrading OnBase, refer to the Upgrade Guidelines reference manual, and visit the Hyland Community at: https://www.hyland.com/community.

The following information is specific to Reporting Dashboards.

Incremental Parallel Upgrade Considerations — Dashboards created or modified in the upgraded version of OnBase may not be accessible by earlier versions of OnBase. To ensure access to existing dashboards by all clients during an incremental parallel upgrade, make a copy of the existing dashboard before modifying it. Older clients can still access the older, unmodified dashboard and upgraded clients can access the newer, modified dashboard.

If you are editing a dashboard designed in a previous version of OnBase, you may be prompted with the **Version Mismatch Warning** to upgrade the dashboard when you save your changes.



- **Copy:** The updated dashboard is saved as a new dashboard that is a copy of the old dashboard. Both dashboards are still accessible to users, but only the copied version will reflect your changes.
- **Save:** The updated dashboard is saved but is no longer accessible by clients older than the client used to saved it. For example, if you save the updated dashboard using OnBase 16, it will no longer be accessible to users with Unity Client version 15 or lower.
- **Cancel:** Do not save the changes to the dashboard and do not copy the dashboard to a new version.

Installation

Reporting Dashboards is accessed through the Unity Client. The Unity Client requires a functioning OnBase Application Server.

Dashboards can also be accessed from web browsers, including mobile web browsers, using the optional Reporting Dashboards Web Viewer.

- For complete instructions on installing the Unity Client, see the **Unity Client** module reference guide.
- For complete instructions on installing the OnBase Application Server, see the **Application Server** module reference guide.
- For complete instructions on installing the Reporting Dashboards Web Viewer, see Reporting Web Viewer on page 341.

Configuring a Reporting Data Source

Reporting Dashboards requires a specific Reporting Data Source to be configured to properly store and display dashboards, reports, and data providers. To configure this Data Source, first configure a new Reporting Data Source connection string. For information on how to create connection strings, see the **Application Server** module reference guide. Several additional steps must be taken to properly configure the Reporting Data Source before using the Reporting Dashboards including:

- Configuring a Read-Only User Account on page 7
- Adding a Reporting Data Source in Configuration on page 7

Configuring a Read-Only User Account

When creating a connection string for the Reporting Data Source, it is recommended that a read-only user account be used as part of the connection string. Using a read-only account ensures that the database cannot be altered when using Reporting Dashboards. To create this account, use the Populate Read-Only User option in the Web Application Management Console when creating the Reporting Data Source connection string. A default account is populated for the connection string. This account can be edited to custom values. For more information on creating a data string, see the **Application Server** module reference guide.

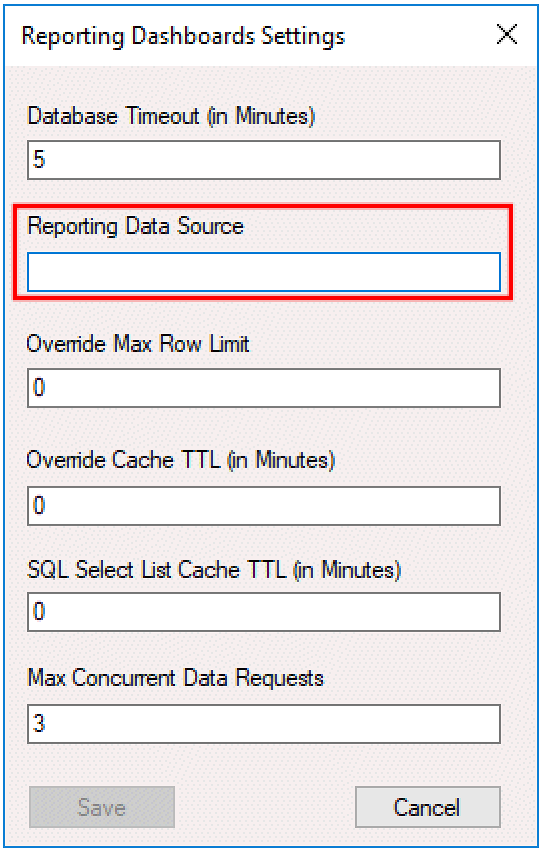
Adding a Reporting Data Source in Configuration

Reporting Dashboards requires a specific Reporting Data Source to be adding in Configuration to properly store and display dashboards, reports, and data providers.

Note: Reporting Dashboards will not properly function without a Reporting Data Source configured.

To add a created Reporting Data Source:

1. In Configuration, select **Utils | Reporting Dashboards Settings**. The **Reporting Dashboards Settings** dialog box is displayed.



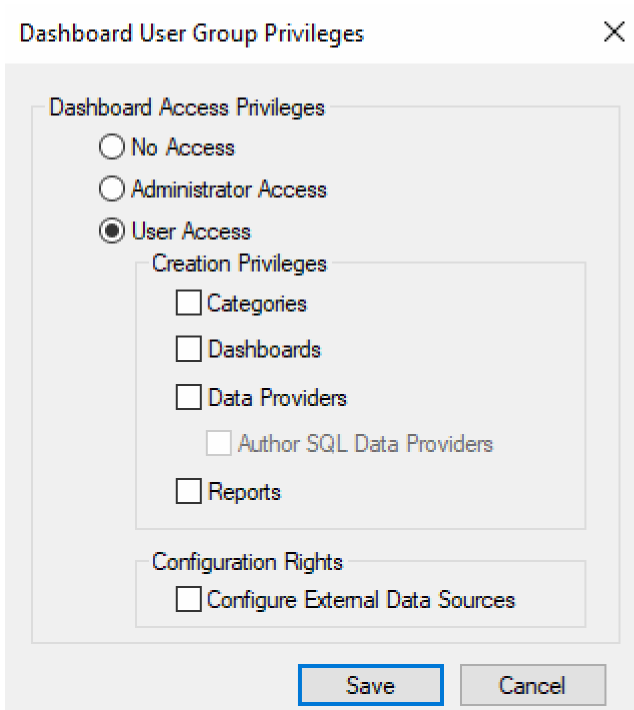
2. Enter the name of your data source in the **Reporting Data Source** field. The name should match the name of a connection string configured for your Application Server. For more information on connection strings, see the **Application Server** module reference guide.
3. Click **Save**. The **Reporting Dashboards Settings** dialog box closes.

User Group Privileges

To use Reporting Dashboards, the user must be a member of a User Group with the appropriate privileges. Privileges for Reporting Dashboards are set in the OnBase Configuration module. To set privileges for Reporting Dashboards:

1. Launch the OnBase Configuration module.
2. Select **User Groups / Rights** from the **Users** menu. The **User Groups & Rights** dialog box is displayed.
3. Select the User Group to assign privileges to from the **User Group Name** list.

4. Click the **Reporting Dashboards** button. The **Dashboard User Group Privileges** dialog box is displayed.



5. Select the level of access to give the User Group:
   - **No Access:** Members of the User Group cannot access any Reporting Dashboards functionality. This is the default setting for all User Groups.
   - **Administrator Access:** Members of the User Group can view, create, and configure dashboards, data providers, and categories. They also have access to the **Admin Tools** under Administration, which include purge functionality. Only users with Administrator Access can set the refresh rate of a dashboard or make a dashboard public.
   - **User Access:** Members of the User Group can view dashboards they have been assigned to or that have been shared with them.
6. If you selected **User Access**, select the additional **Creation Privileges** the User Group should have.

Creation Privilege	Description
Categories	Members of the User Group can create and configure custom categories, which are used to organize dashboards and reports into groups of related dashboards and reports.

Creation Privilege	Description
Dashboards	Members of the User Group can create and configure custom dashboards. **Note:** To create a functioning dashboard, it must be assigned to at least one data provider. If no data providers exist or the user is not assigned to any data providers, a functioning dashboard cannot be created.
Data Providers	Members of the User Group can create and configure data providers that do not require custom SQL queries. Data providers are assigned to dashboards or reports and are used to retrieve the data required for the dashboard or report. If you select **Data Providers**, the **Author SQL Data Providers** option is enabled. If this option is also selected, members of the User Group can also configure data providers that require custom SQL queries. **Note:** Members of a User Group without the **Author SQL Data Providers** privilege enabled are unable to create copies of any dashboard, report, or data providers that use custom SQL queries. **Caution:** SQL statements should only be edited or written by certified database administrators. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly. Queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.
Reports	Members of the User Group can create and configure custom reports. **Note:** To create a functioning report, it must be assigned to at least one data provider. If no data providers exist or the user is not assigned to any data providers, a functioning report cannot be created.

7. If you selected **User Access**, select the additional **Configuration Rights** the User Group should have.
   - **Configure External Data Sources:** Members of the User Group can configure external databases for use with Reporting Dashboards.

Note: External databases can only be used with the **Custom SQL Query** data provider.

8. Click **Save** to assign the selected privileges.

Tip: See also, User Access to Configuration and Administration on page 178.

Configuration Settings

Unity Client Configuration File Settings

The Unity Client configuration file contains several settings that relate to Reporting Dashboards. Settings in the Unity Client configuration file allow you to enable the **Copy Hyperlink** and **Send To | Clipboard (as Shortcut)** options.

In order to enable the **Copy Hyperlink** and **Send To | Clipboard (as Shortcut)** options, the Unity Client configuration file may need to be updated.

To enable hyperlink/shortcut copying:

1. Locate the **obunity.exe.config** file. This file is at the same location as the Unity Client executable.
2. Open the file in a plain-text editor, such as Notepad. Do not open the config file in a binary-text editor, such as Microsoft Word. Binary-text editors can introduce invalid characters to the configuration file that can cause unexpected errors when users access the Unity Client.

Note: When Windows UAC is enabled, the plain-text editor must be launched with elevated administrator privileges in order to enable the config file to be edited. To enable editing, right-click the text editor executable or a shortcut to it and select **Run as administrator**.

3. Locate the **emailLinkAs** key under the **appSettings** element and change the value of the **value** attribute to one of the following:
   - **upop** or **upop-file**: If the dashboard is only going to be accessed directly from the link using the Unity Client. For complete details on configuring Unity Pop (upop or upop-file) links, see the **Unity Client** module reference guide.
   - **weblink**: If the dashboard is going to be accessed directly from the link using a Web browser, including mobile Web browsers. This type of link requires the optional Reporting Dashboards Web Viewer (see Reporting Web Viewer on page 341).
4. Save and close the configuration file.

Web Client Configuration File Settings

The dashboard viewer in the OnBase Web Client can be configured to change the display theme and allow for data exports from dashboards. Web Client configuration can be done by directly editing the web.config file of the Web Client.

To configure the dashboard viewer in the Web Client:

1. Locate the **web.config** file for the Web Server. In a default installation, the web.config file is located at **C:\inetpub\wwwroot\AppNet**.
2. Open the web.config file in a plain-text editor, such as Notepad. Do not open the config file in a binary-text editor, such as Microsoft Word. Binary-text editors can introduce invalid characters to the configuration file that can cause unexpected errors when users attempt to use the Web Client.

Note: If Windows UAC is enabled, the plain-text editor must be launched with elevated administrator privileges in order to edit the config file. To enable editing, right-click the text editor executable or a shortcut to it and select **Run as administrator**.

3. Locate the **Hyland.Web.DashboardViewer** element in the web.config file and change the items in the following table to reflect your configuration settings.

Web.Config Element	Description and Settings
useTheme	Set the color theme used to display dashboards to either **dark** or **light**.
enableExportDashboard	Set this option to **true** to allow users accessing dashboards to export dashboards as either images or PDF files. Set it to **false** to disable exporting.
enableExportDashboardItems	Set this option to **true** to allow users accessing dashboards to export specific dashboard items within a dashboard as either images or PDF files. Set it to **false** to disable exporting dashboard items. **Note:** If **enableExportDashboard** is set to **false**, the ability to export dashboard items is also disabled even if **enableExportDashboardItems** is set to **true**.

4. Save and close the web.config file.

Note: Changes to the configuration of the Web Client may require an IIS reset to take effect.

Language Limitations

The Web Client version of Reporting Dashboards, including the Reporting Web Viewer, currently do not support any languages that read right to left. Any data presented in these languages will not display properly in the Web Client or in the Reporting Web Viewer.

Troubleshooting

Several performance-related settings for Reporting Dashboards are available in the Configuration module. See Changing Reporting Dashboards Settings on page 325.

Error messages for Reporting Dashboards are logged to the **Error** tab of the Diagnostics Console. Troubleshooting information is logged to the Diagnostics Console when the following settings are enabled:

- General logging is enabled with the **reportServiceTraceLevel** setting or the **hylandTracing** setting in the Web.config file of the Application Server.
- Session-based logging is enabled with the **reportServiceSessionTraceLevel** setting in the Unity Client configuration file.

The following element must be added to the **appSettings** element of the Web.config file for the Application Server:

```
<add key="reportServiceTraceLevel" value="0"/>
```

Elements for the Unity Client configuration file must be added under the **appSettings** element:

```
<add key="reportServiceSessionTraceLevel" value="0"/>
```

The possible values for the **reportServiceTraceLevel**, **reportServiceSessionTraceLevel**, and **hylandTracing** settings are:

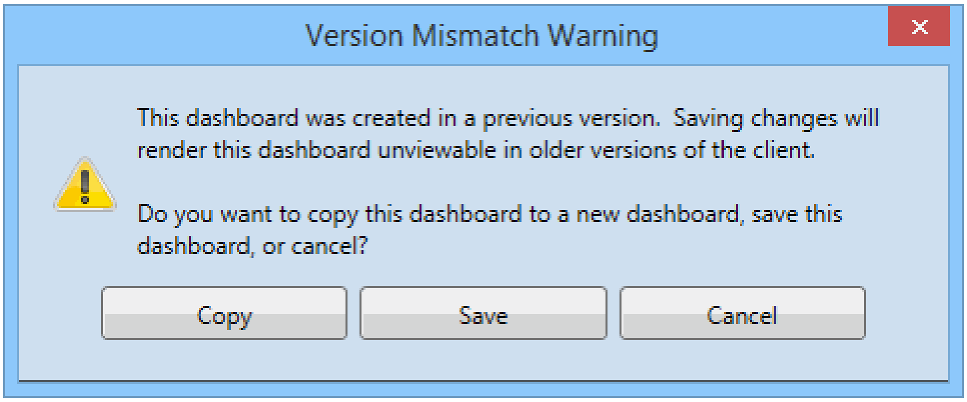
Value	Tracing Type	Description
0	**Trace**	Most verbose logs. May contain sensitive application data and should never be used in a production environment.
1	**Debug**	Logs that are used for interactive investigation during development.
2	**Information**	Logs that track the general flow of the application.
3	**Warning**	Logs that highlight an abnormal or unexpected event in the application flow.
4	**Error**	Logs that highlight when the current flow of execution is stopped due to a failure.
5	**Critical**	Logs that describe an unrecoverable application or system crash, or a catastrophic failure that requires immediate attention.
6	**None**	Use this setting to limit logs as much as possible.

If the **reportServiceTraceLevel** and **reportServiceSessionTraceLevel** values are not supplied, the settings for logging routes in the App Server Web.config are used.

For details on enabling these settings, see the corresponding module reference guides or contact your first line of support. For details on using the Diagnostics Console, see the **Diagnostics Service and Diagnostics Console** module reference guide.

Version Mismatch Warning

If you are editing a dashboard designed in a previous version of OnBase, you may be prompted with the **Version Mismatch Warning** to upgrade the dashboard when you save your changes.



- **Copy:** The updated dashboard is saved as a new dashboard that is a copy of the old dashboard. Both dashboards are still accessible to users, but only the copied version will reflect your changes.
- **Save:** The updated dashboard is saved but is no longer accessible by clients older than the client used to saved it. For example, if you save the updated dashboard using OnBase 16, it will no longer be accessible to users with Unity Client version 15 or lower.
- **Cancel:** Do not save the changes to the dashboard and do not copy the dashboard to a new version.

Contacting Support

When contacting your solution provider, please provide the following information:

- The OnBase module where the issue was encountered.
- The OnBase version and build.
- The type and version of the connected database, such as Microsoft SQL Server 2014 or Oracle 12c, and any Service Pack that has been installed.
- The operating system that the workstation is running on, such as Windows 10 or Windows Server 2012 R2, and any Service Pack that has been installed. Check the supported operating systems for this module to ensure that the operating system is supported.
- The name and version of any application related to the issue.
- The version of Internet Explorer and any Service Pack that has been installed, if applicable.
- A complete description of the problem, including actions leading up to the issue.
- Screenshots of any error messages.

Supplied with the above information, your solution provider can better assist you in correcting the issue.

Reporting Dashboards Installation

The Reporting Dashboards is a tool used to design dashboard using a web browser. The Reporting Dashboards must be installed separately from Reporting Dashboards.

Installation of the Reporting Dashboards requires several steps, including:

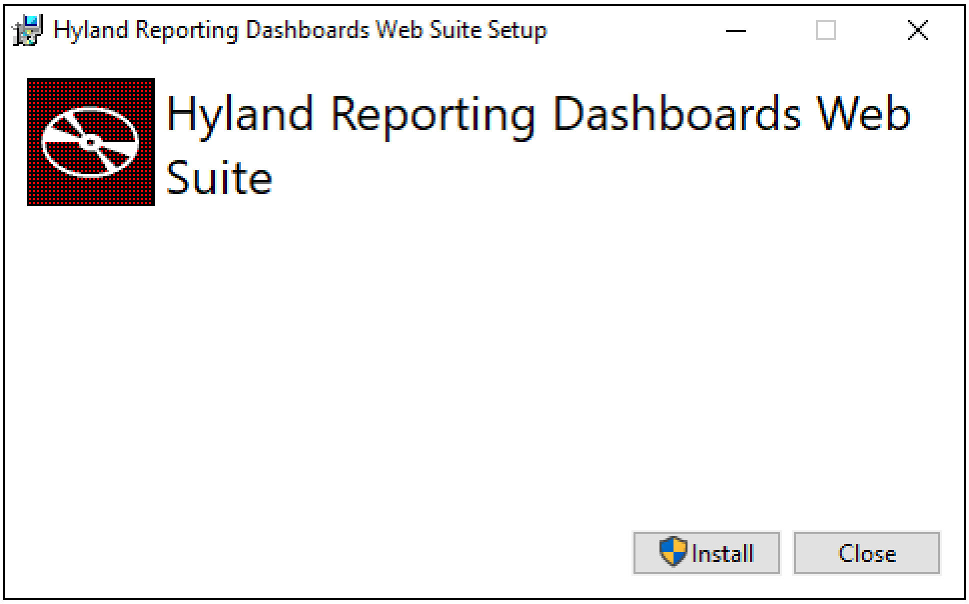
- Installing and configuring of the **API Server**, including the Temp File Service. For information on this installation, see the **API Server** module reference guide.
- Installing and configuring the Application Server. For more information on this installation, see the **Application Server** module reference guide.
- Installing and configuring the **Web Server**. For more information on this installation, see the **Web Server** module reference guide.
- Installing the Reporting Dashboards on page 16
- Configuring the appsettings.json File on page 22

Installing the Reporting Dashboards

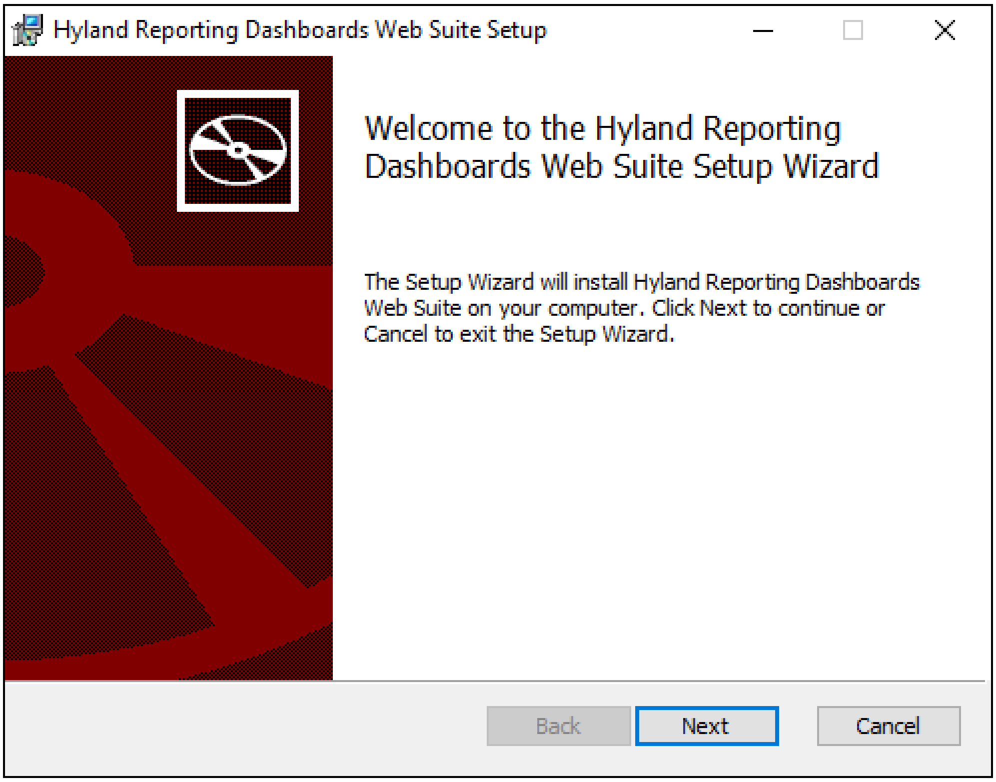
Once all specified servers have been installed and configured, the Reporting Dashboards can be installed. The installation files can be downloaded from Community or provided by your first line of support. The files are provided as a .zip file that should be extracted on your system before installation.

To install the Reporting Dashboards once the installation files have been extracted from the .zip:

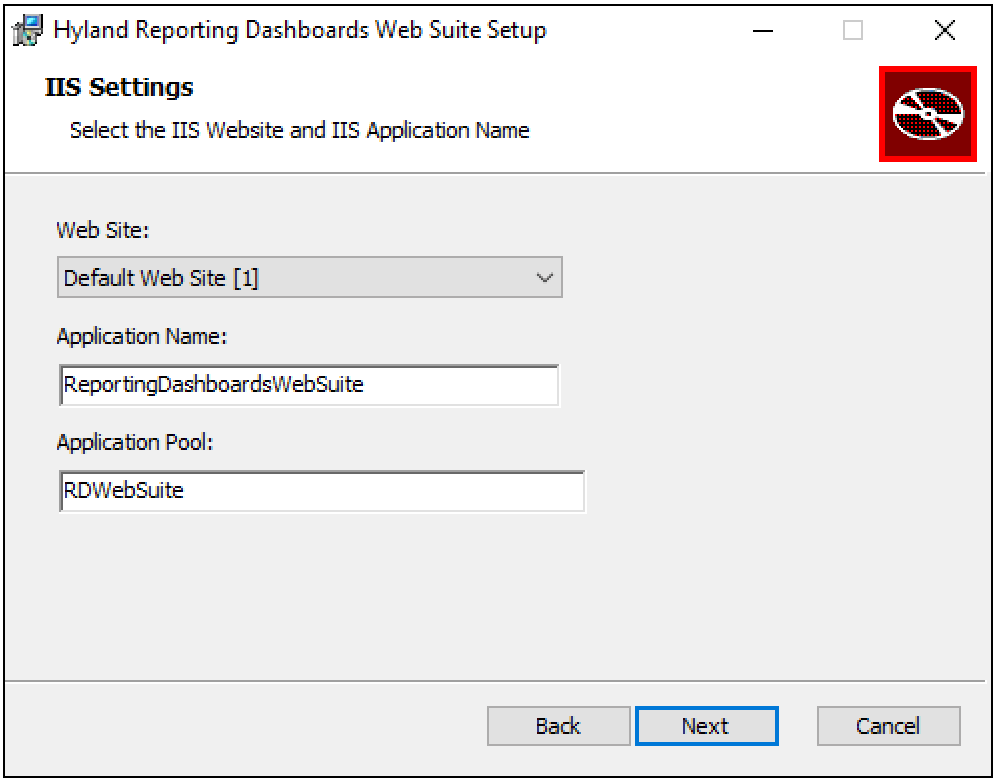
1. Right-click **Hyland.ReportingDashboards.Web.Suite.Setup.exe** and select **Run as Administrator**. The **Hyland Reporting Dashboards Setup** window is displayed.



2. Click **Install**. The **Welcome to the Hyland Reporting Dashboards Suite Setup Wizard** window is displayed.

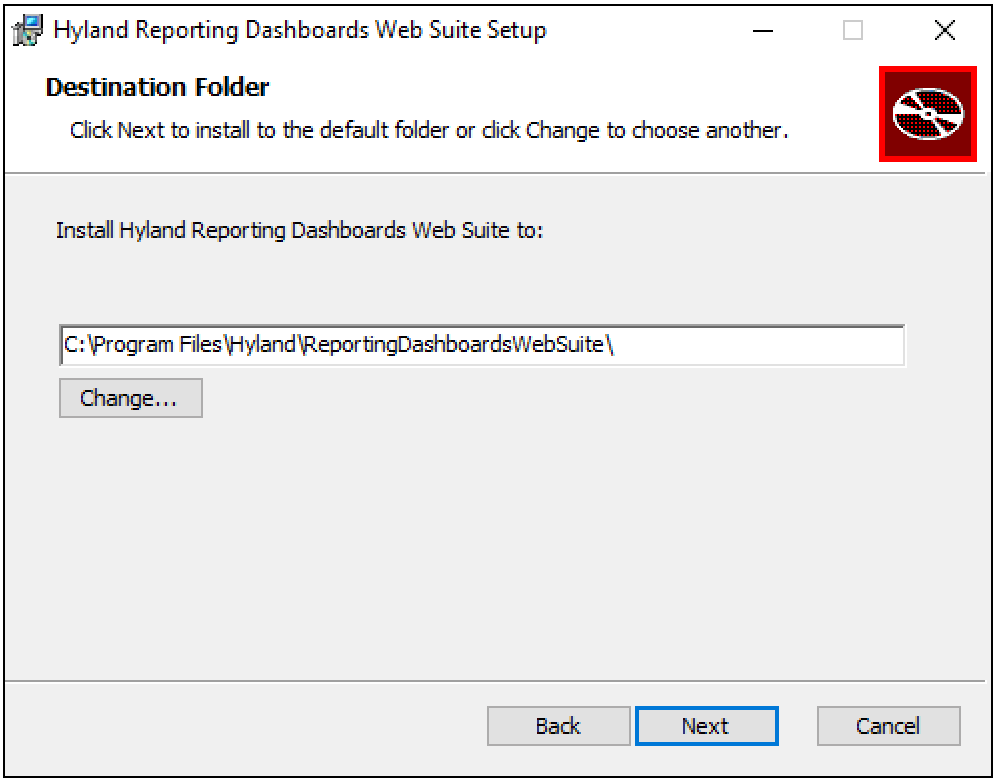


3. Click **Next**. The **IIS Settings** window is displayed.



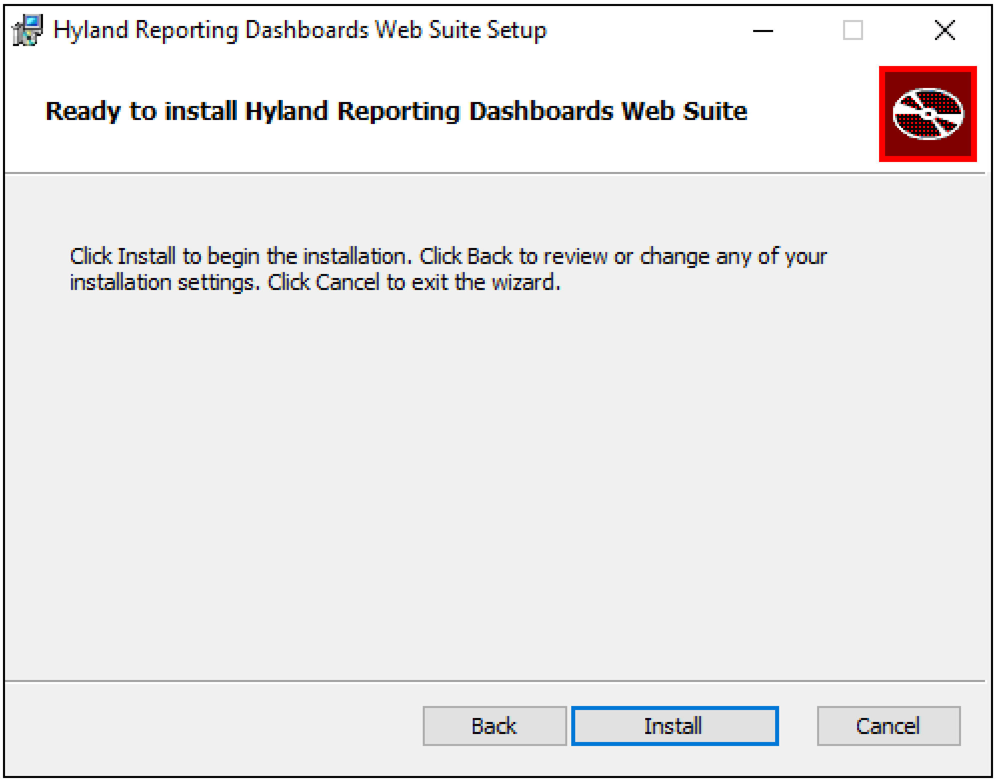
4. Select the web site for the Reporting Dashboards from the **Web Site:** drop down list.
5. Enter the name of the Reporting Dashboards application into the **Application Name:** field. By default, this value is set to "ReportingDashboardsWebSuite".
6. Enter the name of the application pool into the **Application Pool:** field. By default, this value is set to "RDWebSuite".

7. Click **Next**. The **Destination Folder** window is displayed.

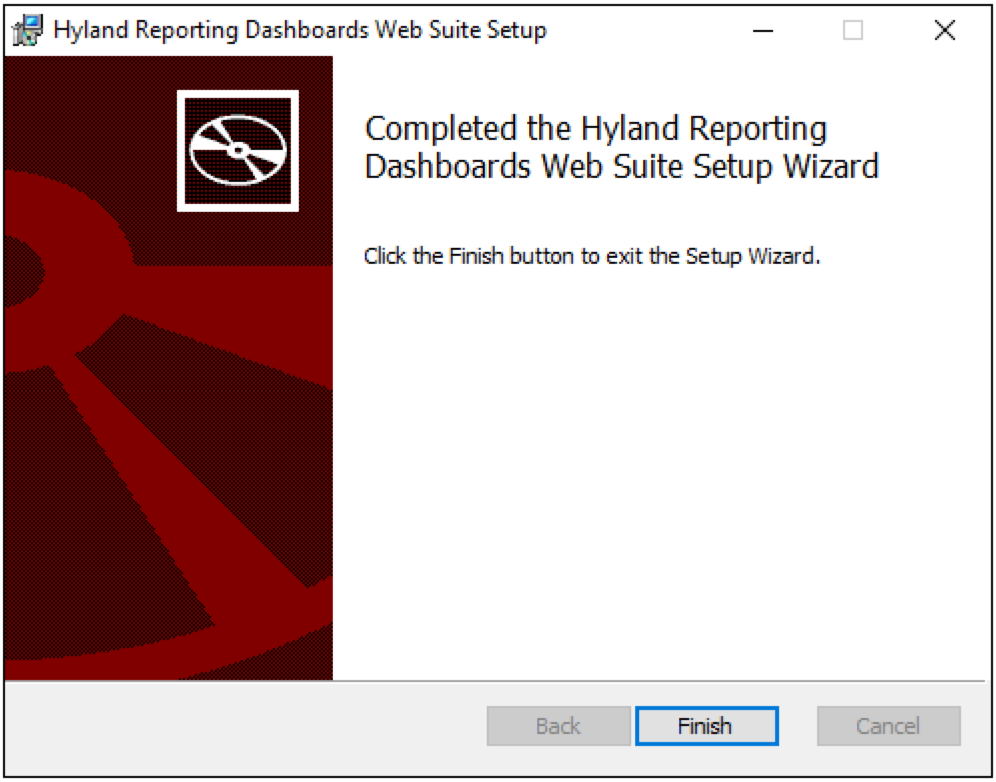


8. Enter the directory location to install the Combined Viewer to in the **Install Hyland Reporting Dashboards to:** field or click **Change** to select a different folder. By default, this value is set to "C:\Program Files\Hyland\ReportingDashboardsWebSuite\".

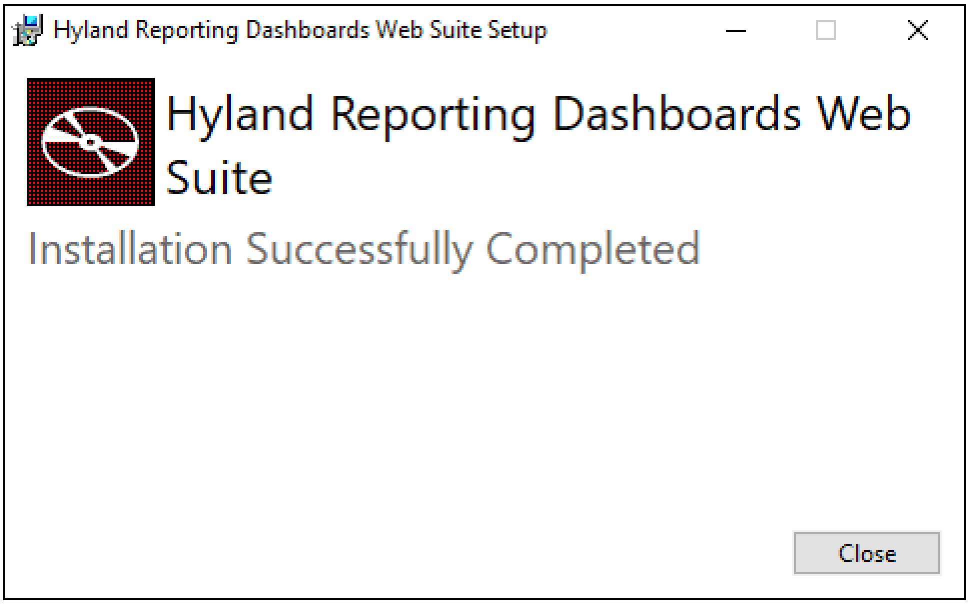
9. Click **Next**. The **Ready to install Reporting Dashboards** window is displayed.



10. Click **Install** to finalize the settings and being the installation.Once the installation is complete, the **Completed the Reporting Dashboards Setup Wizard** window is displayed.



11. Click **Finish** to close the window. The **Hyland Reporting Dashboards** window is updated to state that installation has been completed.



12. Click **Close**. The **Hyland Reporting Dashboards** window is closed.

Configuring the appsettings.json File

Once the Reporting Dashboards is installed, the appsettings.json file must be edited to properly connect the Reporting Dashboards to the API Server. The appsettings.json file is located in the **config** folder of the Reporting Dashboards installation location. By default, this location is **..Program Files\Hyland\ReportingDashboardsWebSuite**.

To edit the **appsettings.json** file:

1. Open appsettings.json using a text editor, such as Notepad.
2. Locate the **authConfig** element in the **hyShell** element.
3. Update the values of the following attributes:

Attribute	Description
issuer	The URL of the previously configured IdP server, including **/idp**.
scope	The scope of the IdP server, defined in the idpconfig.json file for that server. You must include both "**openid**" and "**offline_access**" in the scope. For example, at minimum, this value should be set to "**open id offline_access**".
clientId	The client ID defined in the idpconfig.json file for that server.
idp-tenant	The tenant defined in the idpconfig.json file for that server.
redirectUri	The URL to redirect authenticated users to. Set the value to the root URL to which the Reporting Dashboards is deployed and add **/view/authentication-confirmation.** **Note:** The value for **redirectUri** also needs to be set in the idpconfig.json file.
postLogoutRedirectUri	The URL to redirect unauthenticated and logged out users to. Set the value to the root URL to which the Reporting Dashboards is deployed and add **/view/unauthenticated.** **Note:** The value for **postLogoutRedirectUri** also needs to be set in the idpconfig.json file.
apiServerUrl	The UPRL of the API server, including the port.

4. Save the changes to the appsettings.json file.
5. Close the text editor.

After completing the editing of the appsettings.json file, you must perform an IIS reset for the changes to take effect.

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Dashboard Maintenance and Design

Reporting Dashboards functionality is available in the Unity Client. To access Reporting Dashboards, launch the Unity Client and click the **Dashboards** button on the **Home** ribbon:

If you have access to any dashboards, your default dashboard is displayed. For using dashboards, see Unity Client Usage on page 377.

If there are no dashboards available to you, the **Create Dashboard Wizard** dialog box is automatically displayed. See Creating New Dashboards on page 26.

Dashboard Maintenance Overview

Dashboards are used to display data returned from a configured data provider. The graphical dashboard items of a dashboard allow users to quickly identify relevant information and trends surrounding the data managed by the data provider.

Dashboards can be added, configured, and designed from both the **Gallery** and **Administration** areas.

Note: New dashboards cannot be used unless at least one data provider is added to it. Data providers are configured in the **Administration** area of Reporting Dashboards. Contact your system administrator for information on creating and configuring data providers.

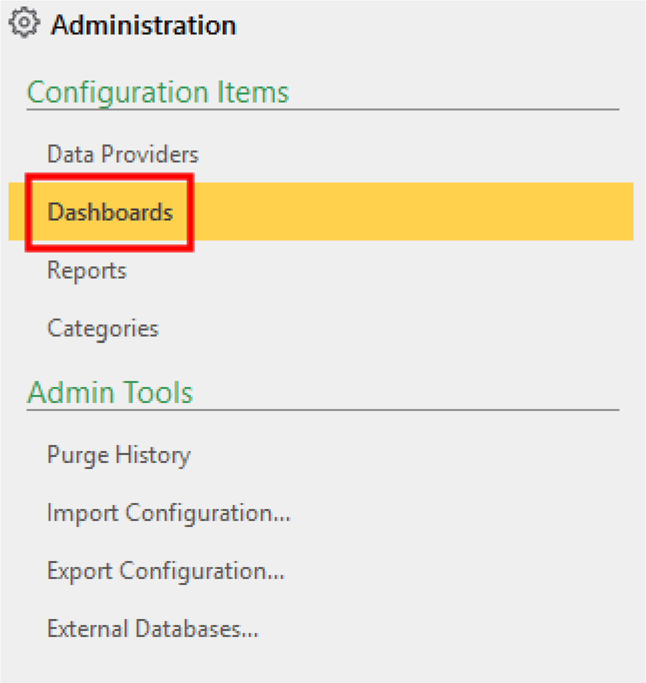
The Gallery is displayed by default when you first access Reporting Dashboards. If the Gallery is not displayed, click **Gallery** at the bottom of the left pane in to display it:

To access Dashboard Administration from the **Administration** area:

1. Click **Administration** at the bottom of the left pane:

   The **Data Provider Administration** area is displayed.

2. Click **Dashboards** under **Configuration Items**:



   The **Dashboard Administration** ribbon is displayed and the main pane lists the existing dashboards, which can be configured.

See:

- Creating New Dashboards on page 26
- Changing Existing Dashboards on page 35
- Using the Dashboard Designer on page 54

Creating New Dashboards

The Create Dashboard Wizard is used to create new dashboards. After clicking the **Reporting** button on the **Home** ribbon of the Unity Client, if there are no dashboards available to you, the **Create Dashboard Wizard** dialog box is automatically displayed.

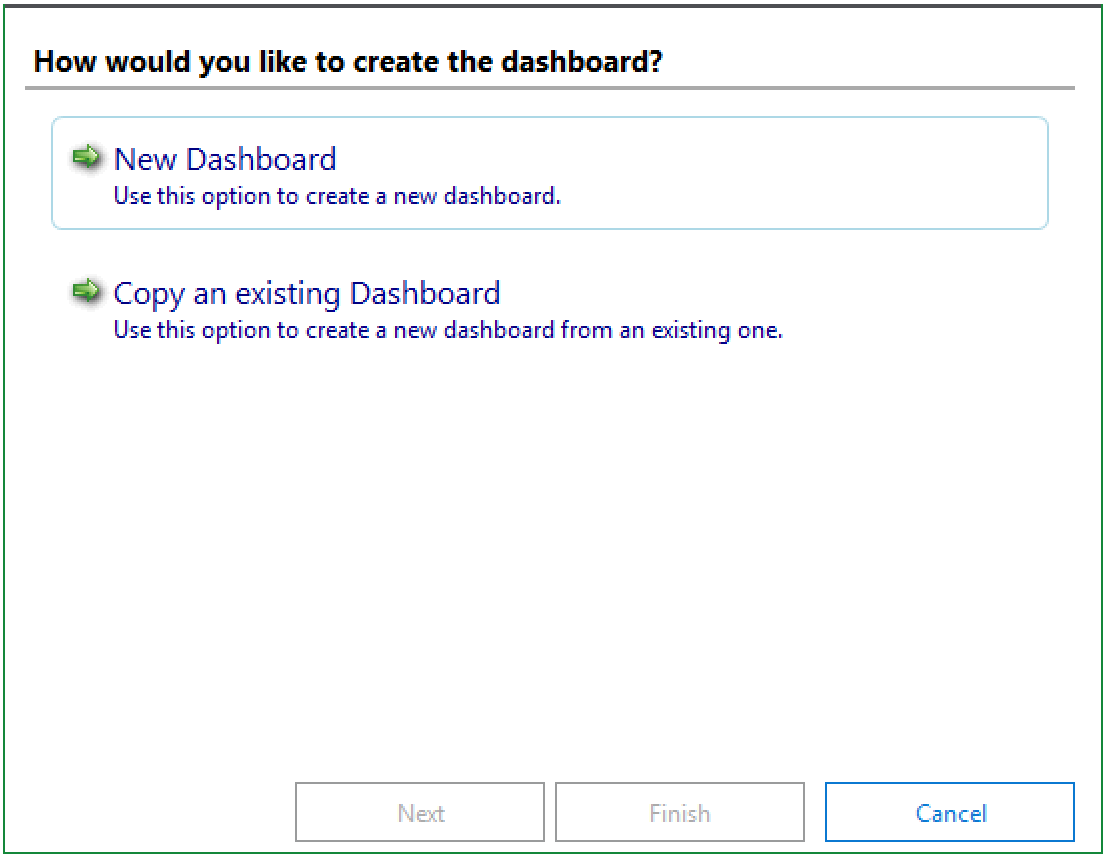
Note: New dashboards cannot be used unless at least one data provider is added to it. Data providers are configured in the **Administration** area of Reporting Dashboards. See, Data Provider Administration on page 183.

To create a new dashboard:

1. Click **Create New Dashboard** on the **Item Viewer** or **Dashboard Administration** ribbon:

Right-click anywhere in the **Gallery** pane (on the left side of the Gallery) and select **New Dashboard** from the right-click menu:

2. At the **How would you like to create the dashboard?** page:
   - Click **New Dashboard** to create a completely new dashboard.
   - Click **Copy an existing Dashboard** to use an existing dashboard as the template for a new dashboard. The process is the same as creating a completely new dashboard except the options are pre-configured with the information from the dashboard that was copied. The pre-configured options can be changed or edited to reflect the requirements of the new dashboard, unless otherwise noted.

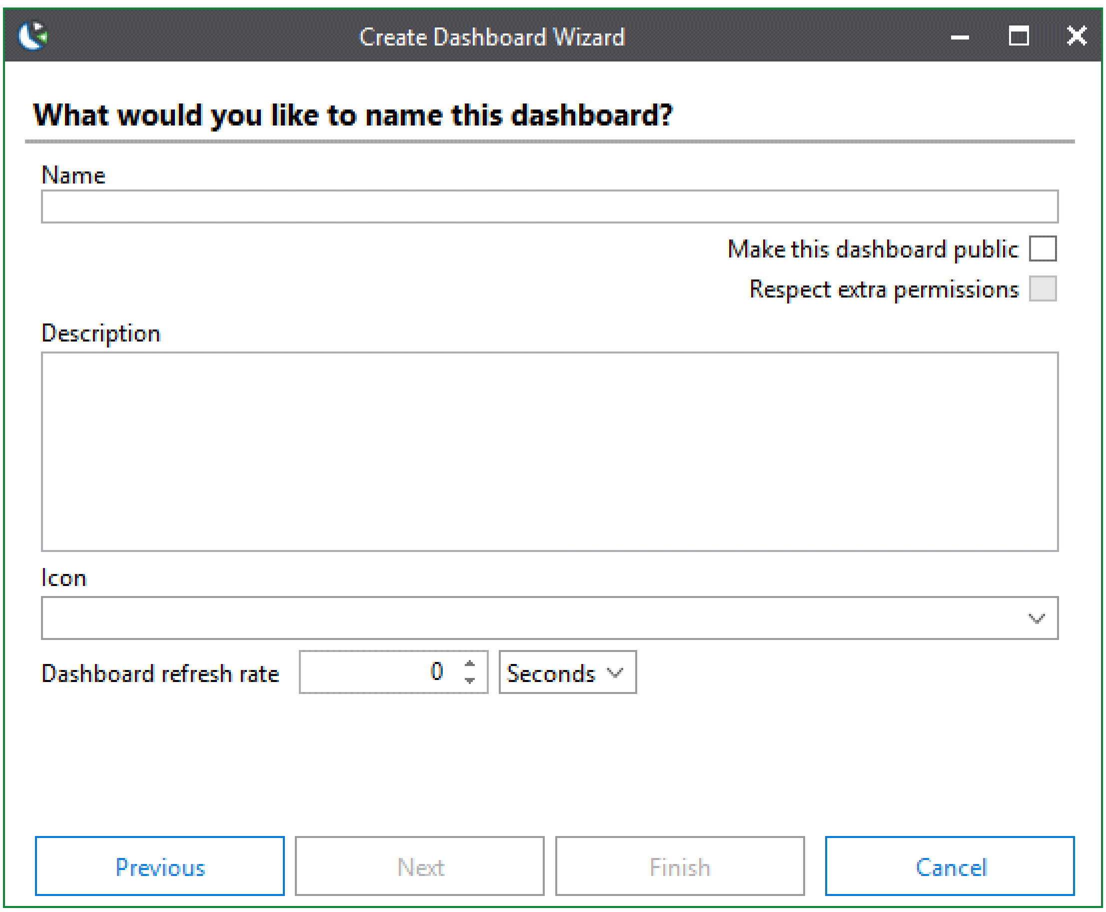


3. If you clicked **New Dashboard**, the **What would you like to name this dashboard?** page is displayed.

   If you clicked **Copy an existing Dashboard**, the **Select the dashboard to copy from** page is displayed. You can search for a dashboard to copy by typing the name of the dashboard into the **Search** bar in this page. Select the dashboard to copy, then click **Next**. You are prompted to create a copy of the data provider associated with the dashboard you are copying.

   - If you click **Yes**, you are directed to the Create a Data Provider wizard. For more information on this, see Creating New Data Providers on page 184.
   - Once you have completed this or if you selected **No**, the **What would you like to name this dashboard?** page is displayed.

Note: When a dashboard is copied, the options in the remaining pages are pre-configured with the information from the dashboard that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new dashboard.



4. Type a name for the dashboard in the **Name** field. The name must be unique compared to other dashboards created by the same user, but may share a name with dashboards created by other users. The name should logically describe the kind of data returned by the dashboard.

5. Select **Make this dashboard public** to allow the dashboard to be used by all other users. If this option is deselected, the dashboard is only available to you and the specific users you grant access to.

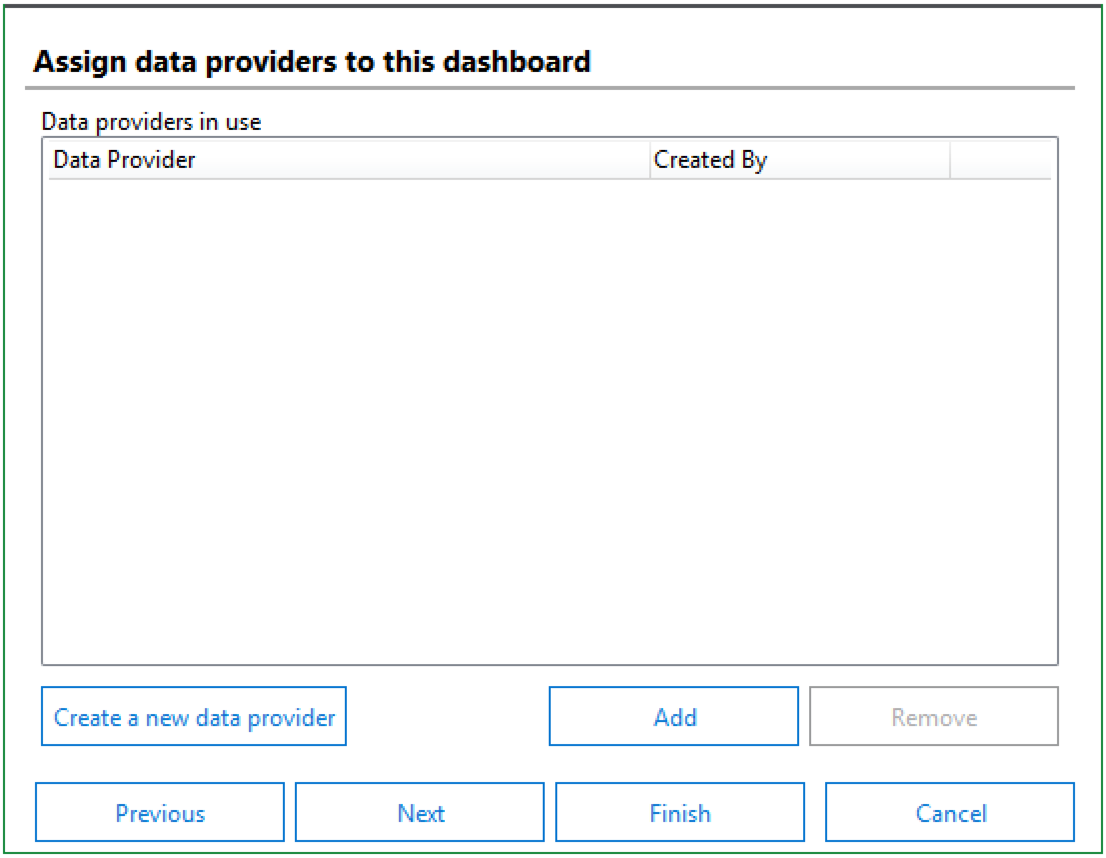
Note: Only members of User Groups with the **Administrator Access** privilege can make a dashboard public.

Note: A public dashboard can not have the same name as any other public report or dashboard. A non-public dashboard can not have the same name as any public or non-public report or dashboard. You will be prompted if you need to change the name of the dashboard to meet these requirements.

6. If **Make this dashboard public** is selected, the **Respect extra permissions** option is enabled. Select this option to allow a public dashboard owner to assign users and User Groups the permission to share or export dashboard data.
7. Type a brief description of the dashboard in the **Description** field. The description should briefly explain what the intended purpose of the dashboard is and what type of data a user can expect to see in it.
8. Select an icon for the dashboard from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find dashboards more easily if there are multiple dashboards available.
9. Select the unit of time measurement from the drop-down select menu and enter the number of seconds, minutes, or hours between automatic refreshes of the dashboard display in the **Dashboard refresh rate** field. You can also use the arrows on the right side of the field to increase or decrease the value in increments of five.

Note: Only members of User Groups with the **Administrator Access** privilege can set the refresh rate of a dashboard.

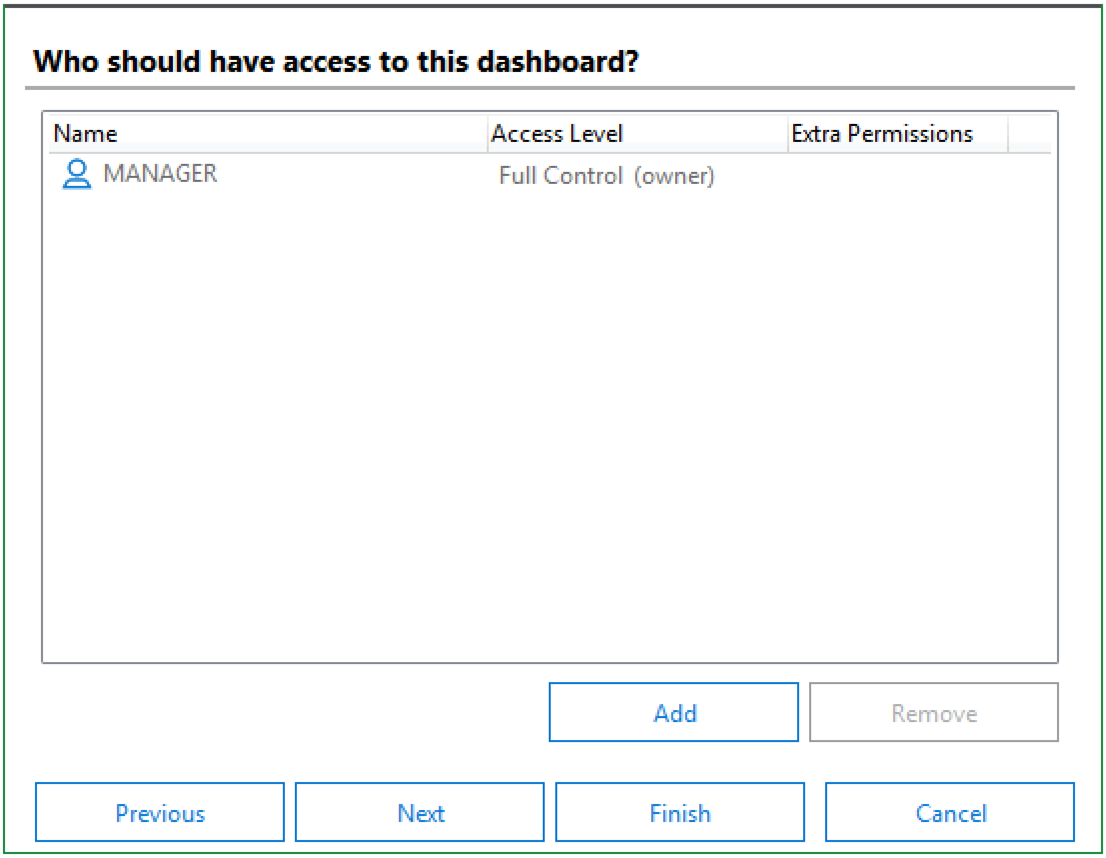
10. Click **Next**. The **Assign data providers to this dashboard** page is displayed.



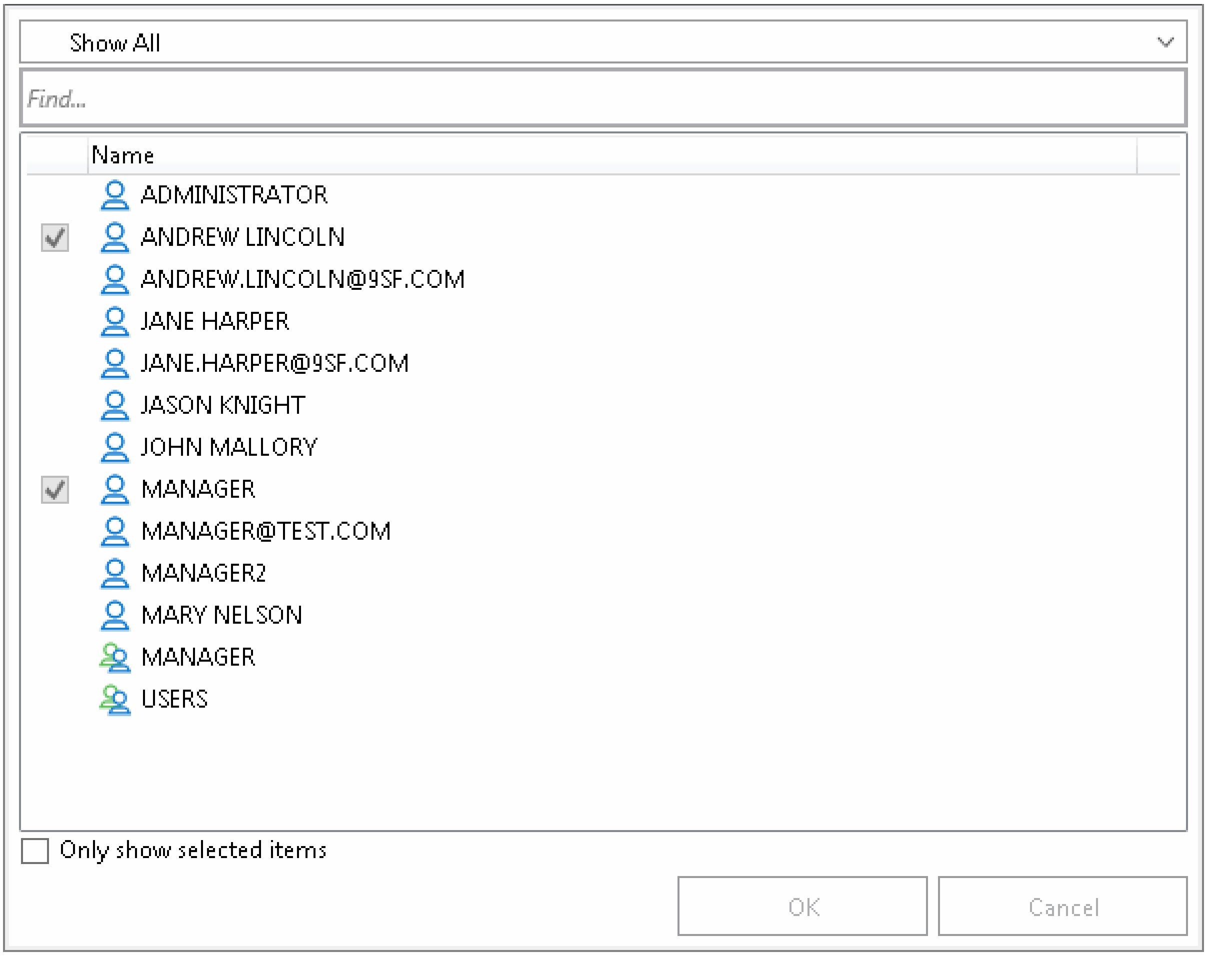
11. To add a data provider to the dashboard, click **Add** to select from previously configured data providers. Data providers can also be added later.

    To create and add a new data provider, click **Create a new data provider**. See, Data Provider Administration on page 183.

12. Click **Next**. The **Who would you like to have access to this dashboard?** page is displayed.

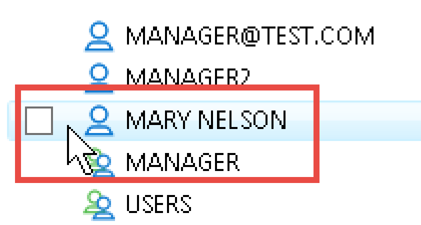


13. To grant access to a new user, click **Add**. The **Select Users** page is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

14. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



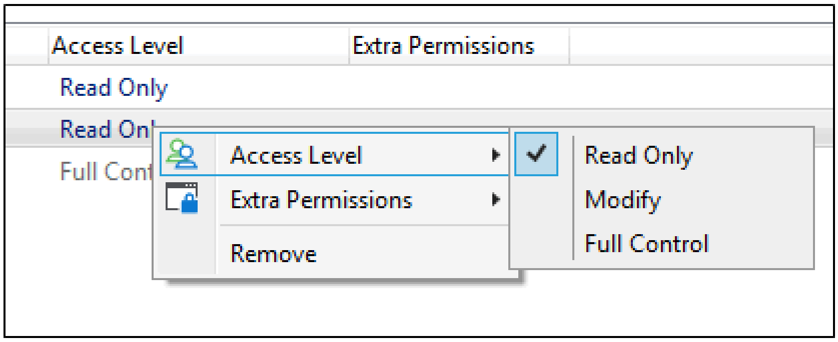
To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

15. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

16. To change a user's access level, right-click the user's name and select one of the **Access Level** options.

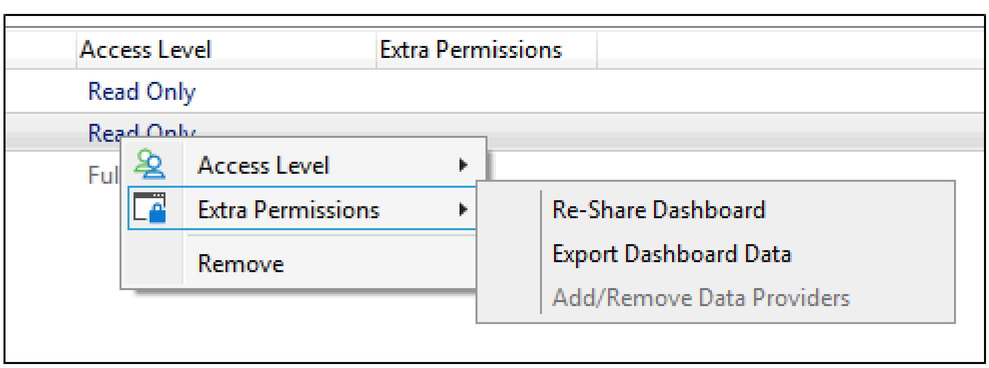


- **Read Only:** The user can view the dashboard but cannot change or delete the dashboard.
- **Modify:** The user can view and modify the dashboard but cannot delete it.
- **Full Control:** The can view, modify, and delete the dashboard.

Note: The owner is the user who created the dashboard. Access cannot be changed for the owner.

17. To change a user's extra permissions, right-click the user's name and select one of the **Extra Permissions** options.

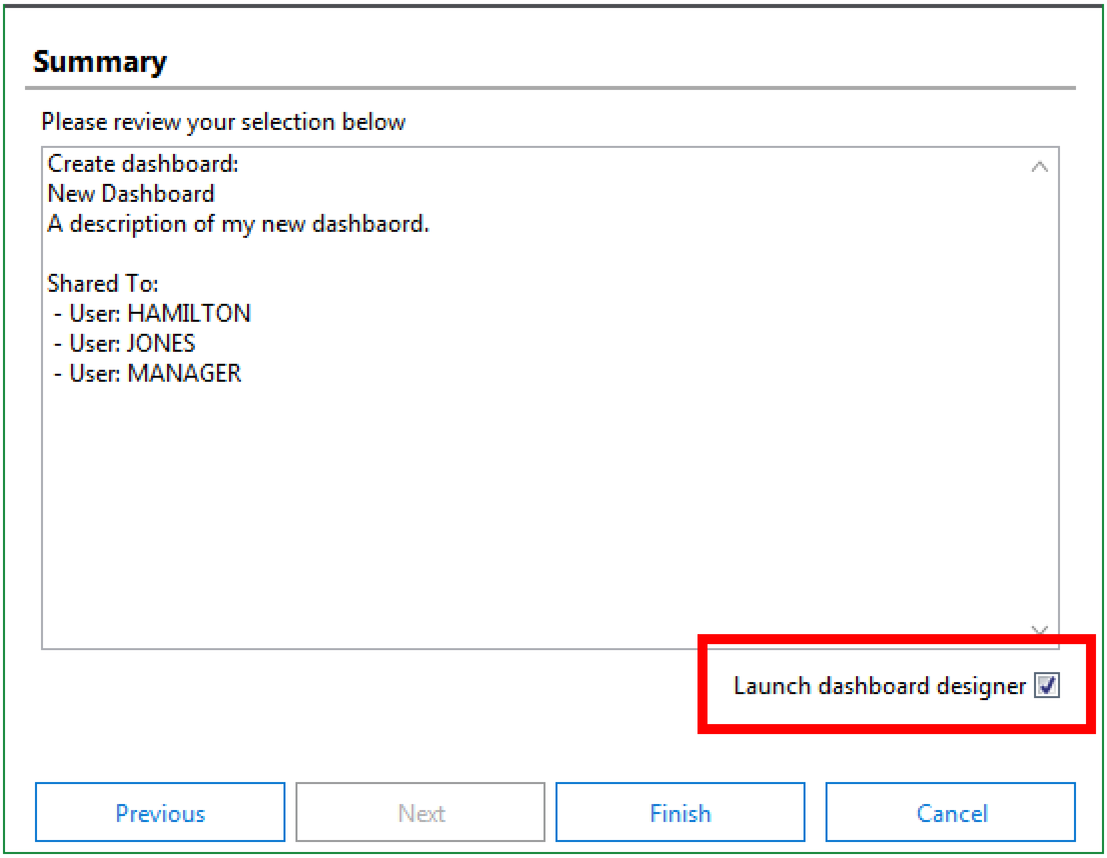
Note: If the user has **Full Control** access, all extra permissions are included by default and cannot be removed.



- **Re-Share Dashboard:** The user can share the dashboard with other users.

- **Export Dashboard Data:** The user can export the data that was used to create the dashboard.
- **Add/Remove Data Providers:** The user can change the data providers used to retrieve data for the dashboard. This permission is only available to change if the user has **Modify** access.

18. To remove a user, right-click the right-click the user's name in the **Who should have access to this dashboard?** page and select **Remove**. You are not prompted to confirm this action.
19. Click **Next**. The **Summary** page is displayed.
20. Confirm that the dashboard is configured correctly. If not, click **Previous** to return to previous dialog boxes and make changes.
21. Select **Launch dashboard designer** to automatically launch the dashboard designer for the new dashboard. The dashboard must be configured in the designer before it can be used.



22. Click **Finish** after confirming the dashboard settings.

If **Launch dashboard designer** is selected, the dashboard designer is launched. Continue with the instructions under Using the Dashboard Designer on page 54.

If **Launch dashboard designer** is not selected, the dashboard requires further configuration in the dashboard designer before it can be used. See Using the Dashboard Designer on page 54.

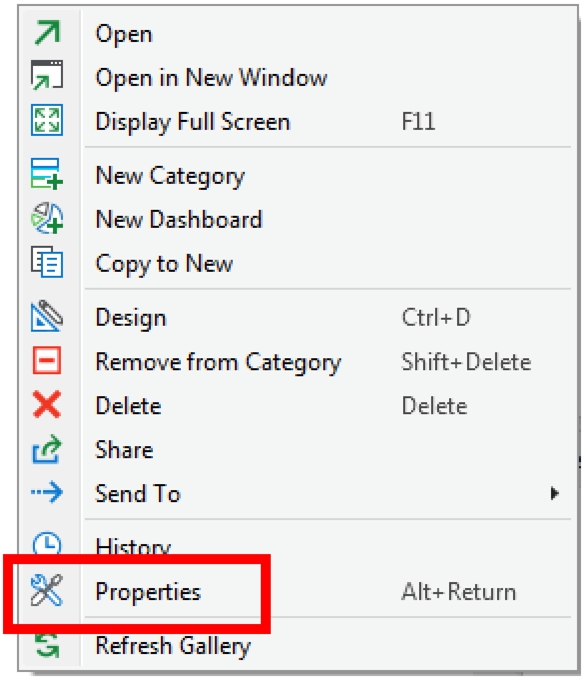
Note: If the dashboard was created by copying an existing dashboard, other properties of the dashboard configuration that were copied may also need to be updated. See Changing Existing Dashboards on page 35.

Changing Existing Dashboards

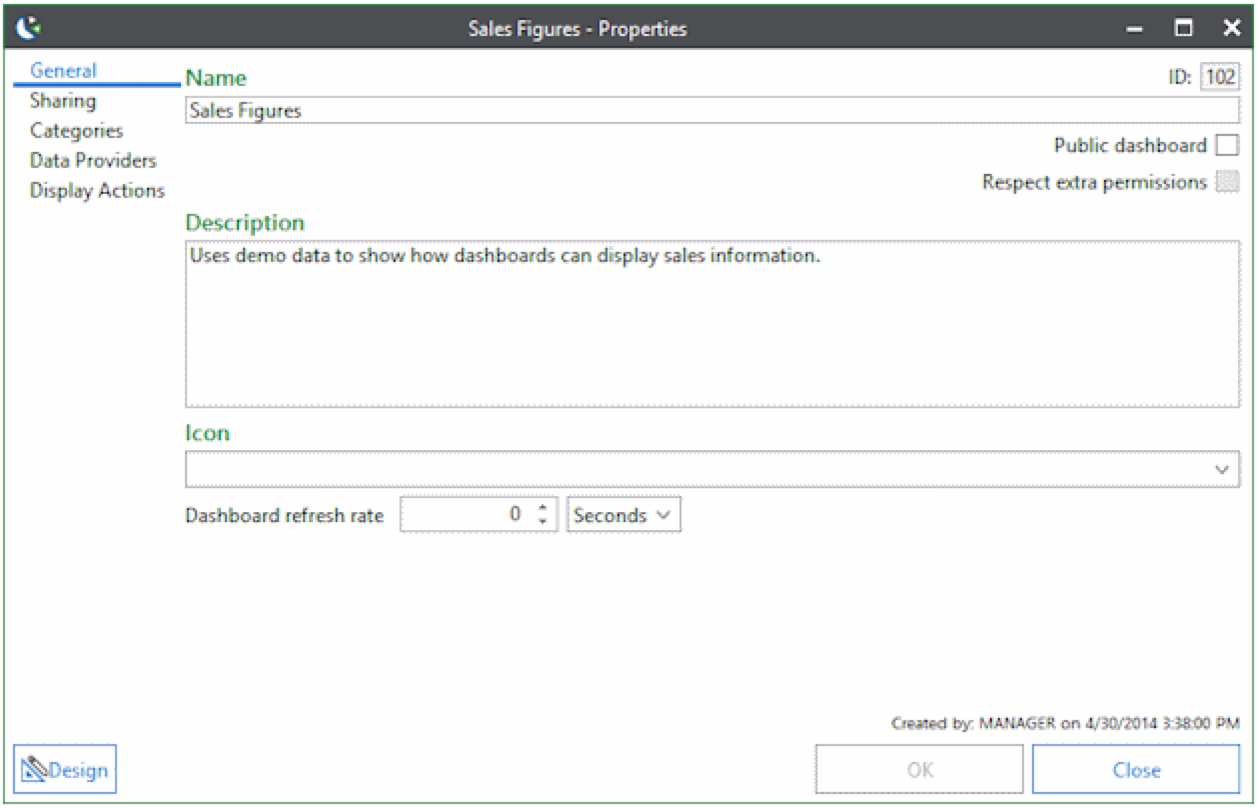
The dashboard properties that can be changed include the name, description, icon, refresh rate, user access, categories, and data providers. They can be changed through the **Properties** dialog box.

To access the properties of a dashboard, select the dashboard to change in the **Gallery** pane on the left of the Item Viewer and click **Properties** in the **Dashboard** ribbon group:

You can also right click the name of the dashboard to change in the **Gallery** pane on the left of the Item Viewer and select **Properties** from the right-click menu:



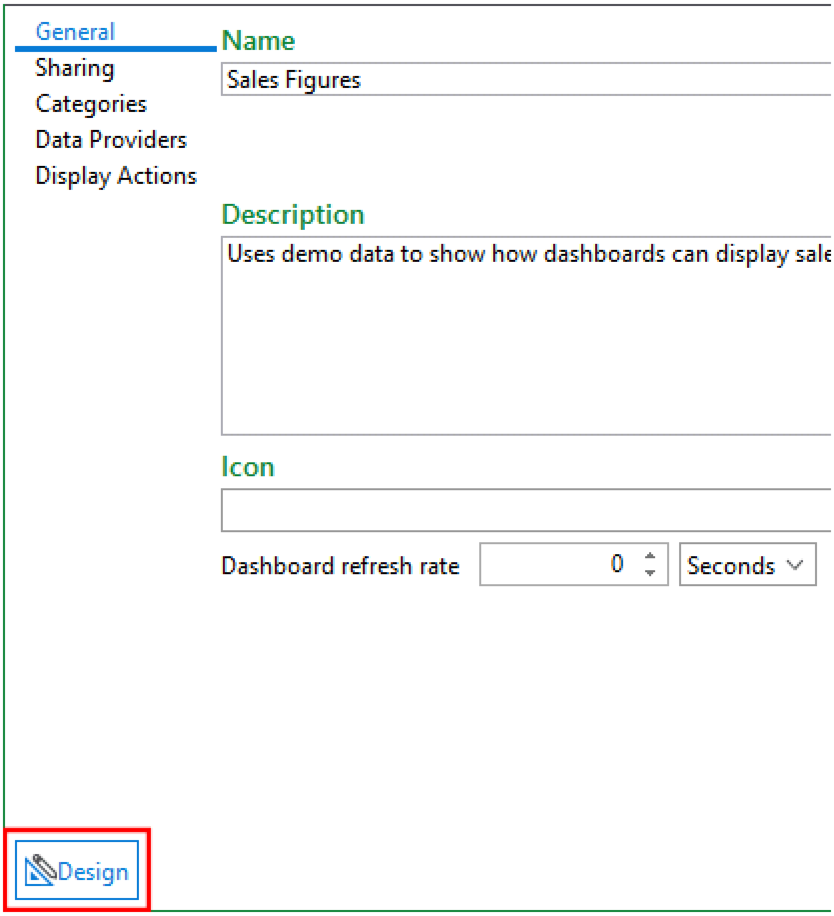
The **Properties** dialog box is displayed:



The Properties dialog box is divided into the following areas:

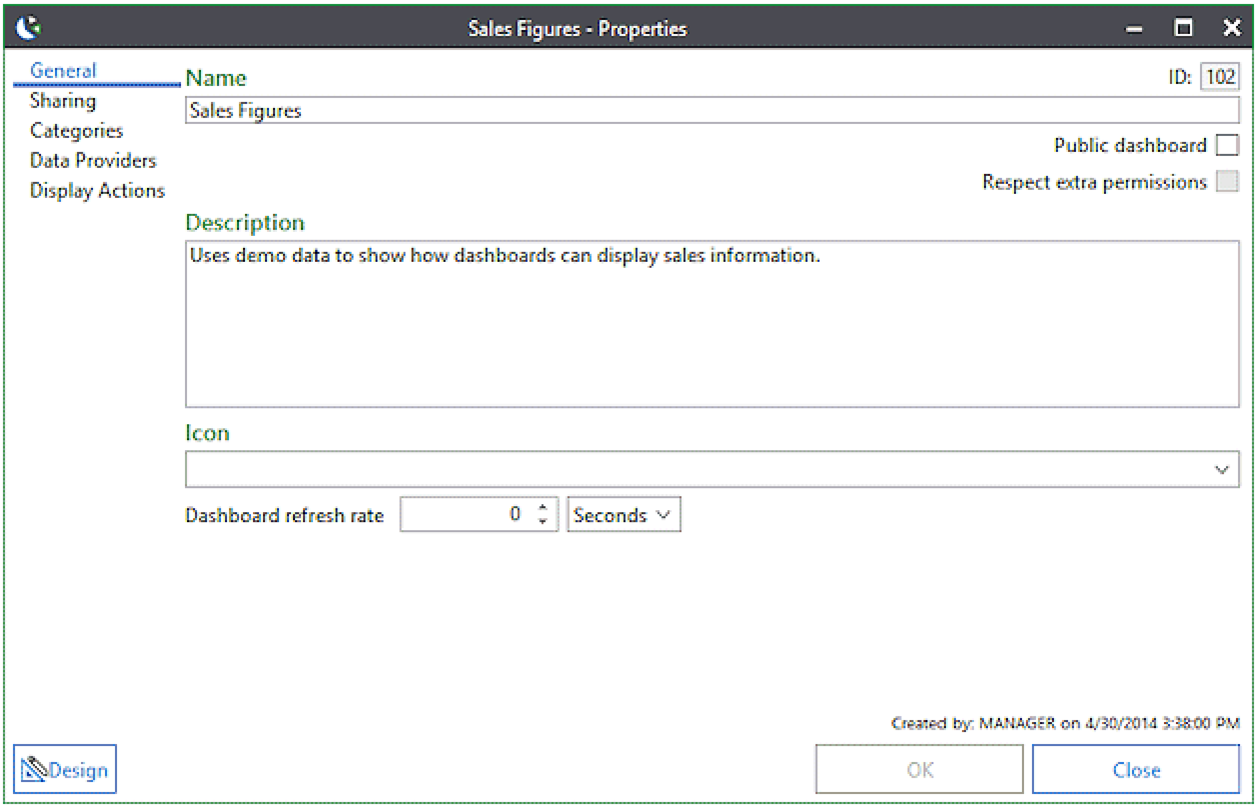
- **General:** Change the name, description, icon, and refresh rate of the dashboard. See General on page 38.
- **Sharing:** Change user access to the dashboard. See Sharing on page 39.
- **Categories:** Change the categories of a dashboard. See Categories on page 45.
- **Display Actions:** Change the display actions of the dashboard, or reconfigure existing display actions. See Display Actions on page 48.
- **Data Providers:** Change the data providers of a dashboard. See Data Providers on page 52.

You can also access the Dashboard Designer from the Properties dialog box by clicking the **Design** button at the bottom left of the dialog box. See Using the Dashboard Designer on page 54.



General

The **General** tab of the **Properties** dialog box allows you to change the name, description, icon, and refresh rate of the dashboard. The **ID** field in the upper-right corner is a read-only field that displays the ID number assigned to the dashboard by the system.



To change the general properties of a dashboard:

1. Update the name of the dashboard in the **Name** field. The name should be unique and allow the dashboard to be easily distinguished from other dashboards.
2. Make a dashboard public by selecting the **Public dashboard** option.

Note: When a dashboard is made public, previously configured sharing settings, except for dashboard owner, are removed.

Note: When the **Public dashboard** option is changed, the dashboard may need to be renamed. A public dashboard can not have the same name as any other public dashboard or report. A non-public dashboard can not have the same name as any public or non-public dashboard or report. You will be prompted if you need to change the name of the dashboard to meet these requirements.

3. If **Public dashboard** is selected, the **Respect extra permissions** option is enabled. Select this option to allow a public dashboard owner to assign users and User Groups the permission to share or export dashboard data.

4. Update the brief description of the dashboard in the **Description** field. The description should briefly explain what the intended purpose of the dashboard is and what type of data a user can expect to see in it.
5. Select an icon for the dashboard from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find dashboards more easily if there are multiple dashboards available.
6. Select the unit of time measurement from the drop-down select menu and enter the number of seconds, minutes, or hours between automatic refreshes of the dashboard display in the Dashboard refresh rate field. You can also use the arrows on the right side of the field to increase or decrease the value in increments of five.

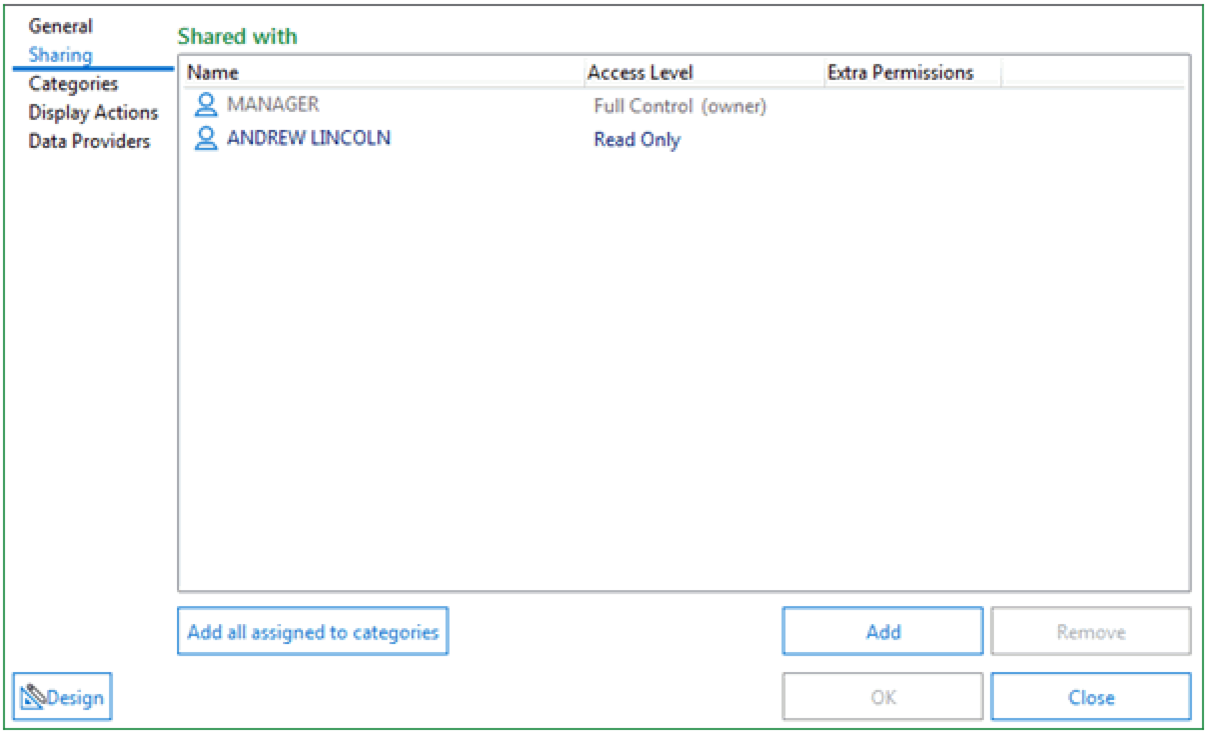
Note: Only members of User Groups with the **Administrator Access** privilege can set the refresh rate of a dashboard.

7. If you have completed all the changes to the dashboard properties that you intend to make, click **Save**. The changes are saved and the Properties dialog box is closed.

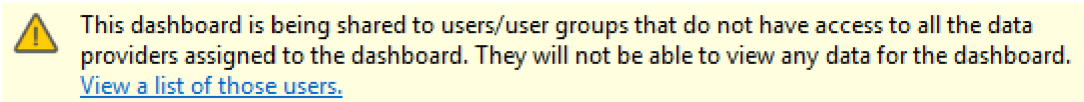
   If you intend to make changes to other Properties, click the corresponding tab and make those changes first before clicking **Save**.

Sharing

The Sharing tab of the Properties dialog box is available to users who have the necessary rights to share the dashboard. It allows you to change user access to the dashboard. Users and User Groups given access to the dashboard can use the dashboard at the access level assigned.



If the dashboard is currently being shared with users or user groups that do not have access to all of the data providers assigned to the dashboard, a yellow warning banner is displayed along the top of the **Choose people to share this dashboard with** dialog box.



Click the underlined word **here** to display a list of the users and user groups that do not have access to certain data providers. From this list, you can grant access to these users and user groups by clicking the check box near their name. Click **OK** to close the list. To add users and user groups to data providers, see Changing the Properties of Existing Data Providers on page 247.

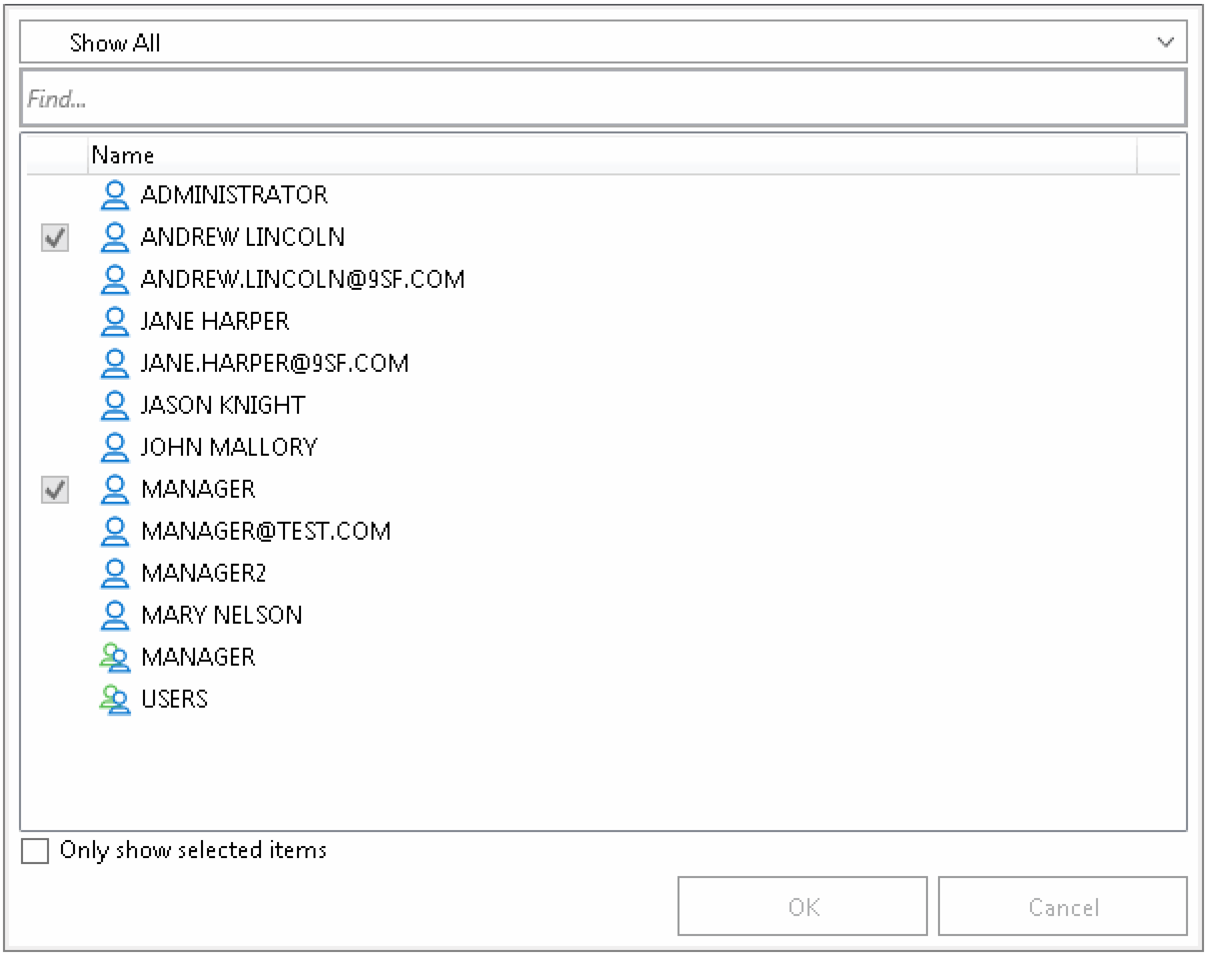
To add or remove users or change the access levels for users or user groups, see:

- Adding Users or User Groups to the Dashboard on page 41
- Changing User Access Levels and Extra Permissions on page 43
- Bulk Adding Users or User Groups to the Categories of the Dashboard on page 44

Adding Users or User Groups to the Dashboard

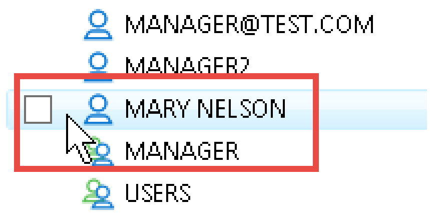
To add a user or User Group to the dashboard:

1. Click **Add** from the **Sharing** tab. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

2. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



   To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

3. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

4. To remove users or user groups, select the users or User Groups to remove in the **Share With** list and click **Remove**. You are not prompted to confirm this action.

Note: Access for the user account that created the dashboard cannot be removed or changed. The dashboard creator always has the full access to the dashboard.

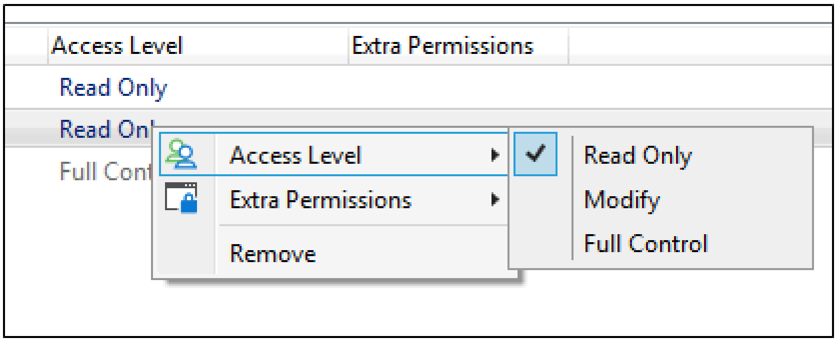
5. If you have completed all the changes to the dashboard properties that you intend to make, click **Save**. The changes are saved and the Properties dialog box is closed.

   If you intend to make changes to other Properties, click the corresponding tab and make those changes first before clicking **Save**.

Changing User Access Levels and Extra Permissions

To change the access levels and extra permissions of users and User Groups:

1. To change a user or User Group's access level, right-click the user or User Group's name and select one of the **Access Level** options.

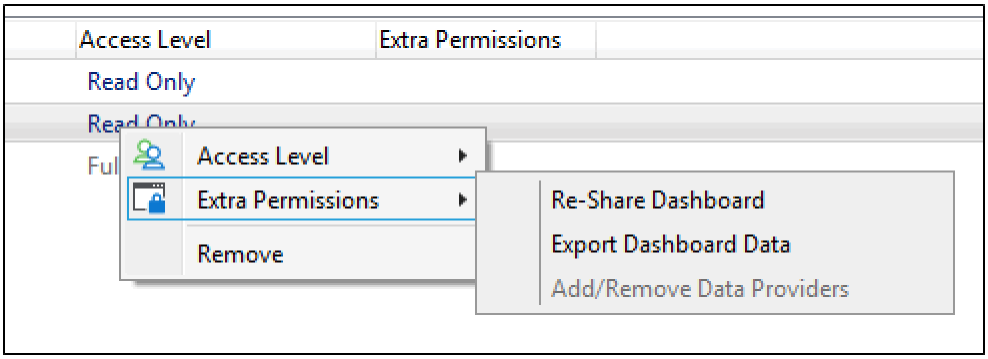


Access Level	Description
Read Only	The user or User Group can view the dashboard or report but cannot change or delete it
Modify	The user or User Group can view and modify the dashboard or report but cannot delete it.
Full Control	The user or User Group can view, modify, and delete the dashboard or report.

Note: The owner is the user who created the dashboard or report. Access cannot be changed for the owner.

2. To change a user's extra permissions, right-click the user's name and select one of the **Extra Permissions** options.

Note: If the user has **Full Control** access, all extra permissions are included by default and cannot be removed.



Extra Permissions	Description
Re-Share Dashboard **Re-Share Report**	The user can share the dashboard or report with other users.
Export Dashboard Data **Export Report Data**	The user can export the data that was used to create the dashboard or report.
Add/Remove Data Providers	The user can change the data providers used to retrieve data for the dashboard or report. This permission is only available to change if the user has **Modify** access.

3. Click **Share** to save your changes and close the dialog box.

Bulk Adding Users or User Groups to the Categories of the Dashboard

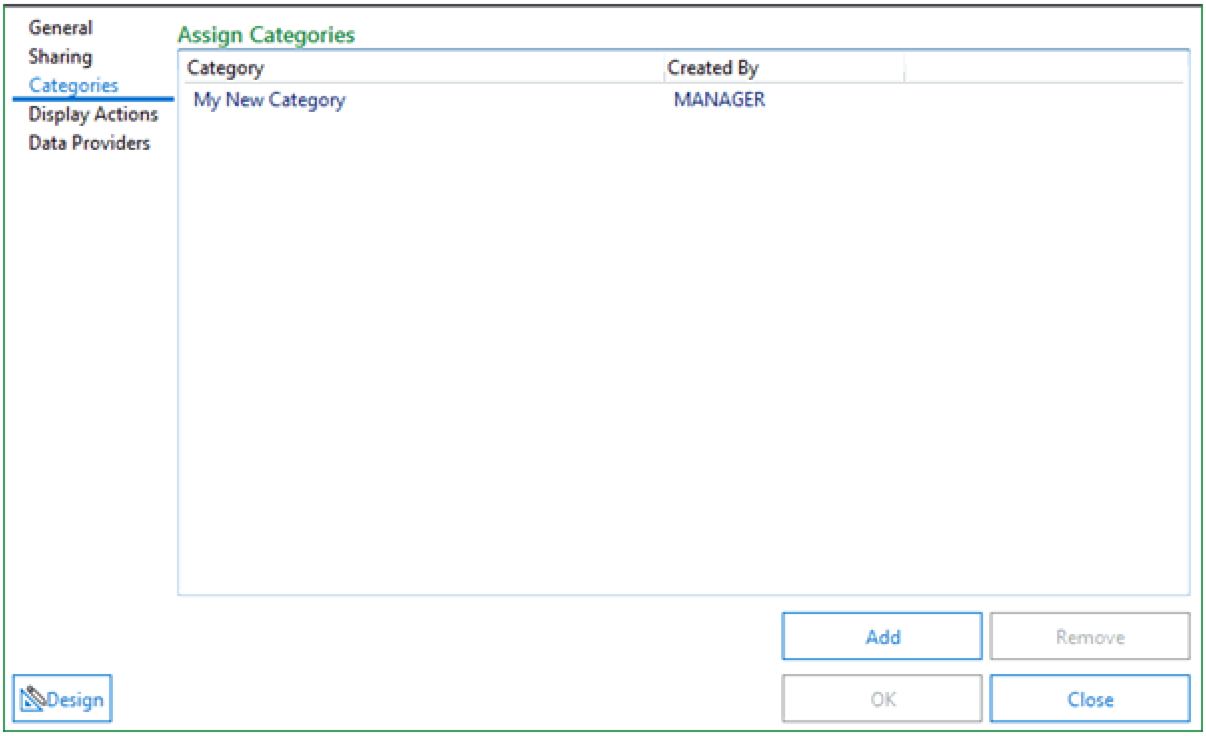
To bulk add the users and User Groups with access to the dashboard to the categories assigned to the dashboard:

1. Select the users or User Groups to add to all categories in the **Share With** list of the **Sharing** tab.
2. Click **Add all assigned to Categories**.
3. If you have completed all the changes to the dashboard properties that you intend to make, click **Save**. The changes are saved and the Properties dialog box is closed.

   If you intend to make changes to other Properties, click the corresponding tab and make those changes first before clicking **Save**.

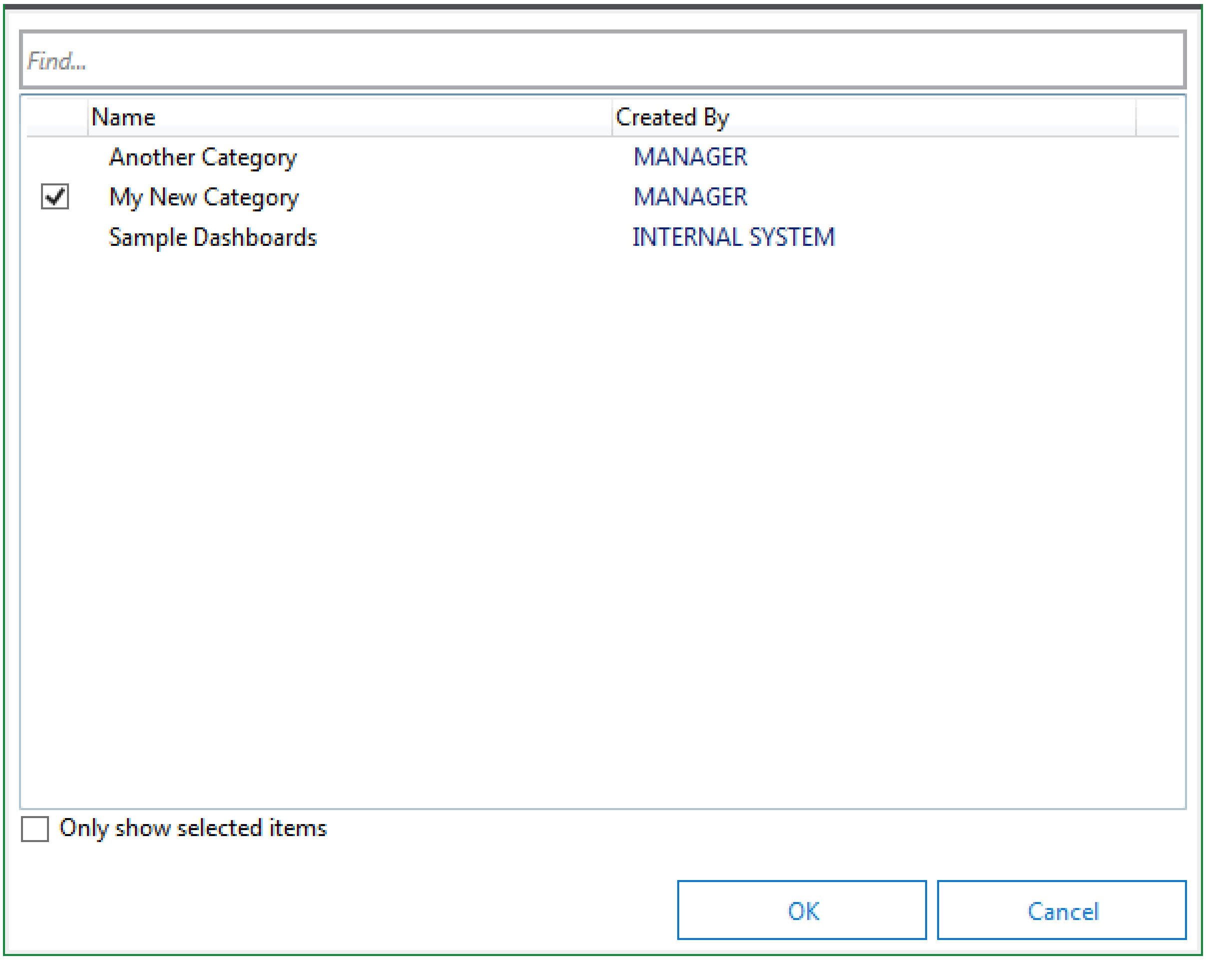
Categories

The **Categories** tab of the Properties dialog box allows you to change the categories of a dashboard. Categories allow similar or related dashboards to be grouped together in the Gallery view, making them easier to find.



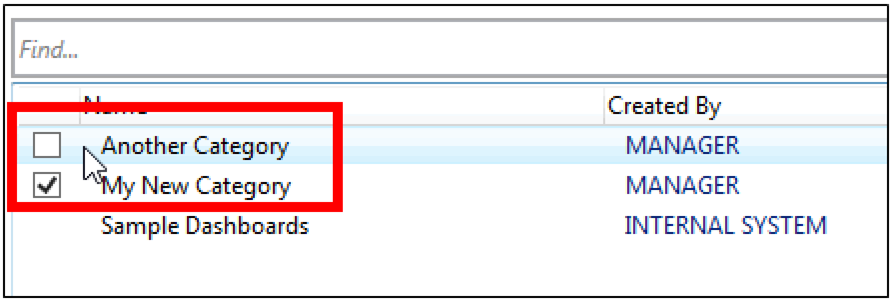
To add the dashboard to categories or remove it from categories:

1. Click **Add**. The **Select Categories** dialog box is displayed.



Tip: To show only previously selected categories, select **Only Show Selected Items** at the bottom of the main pane. To find a specific category, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

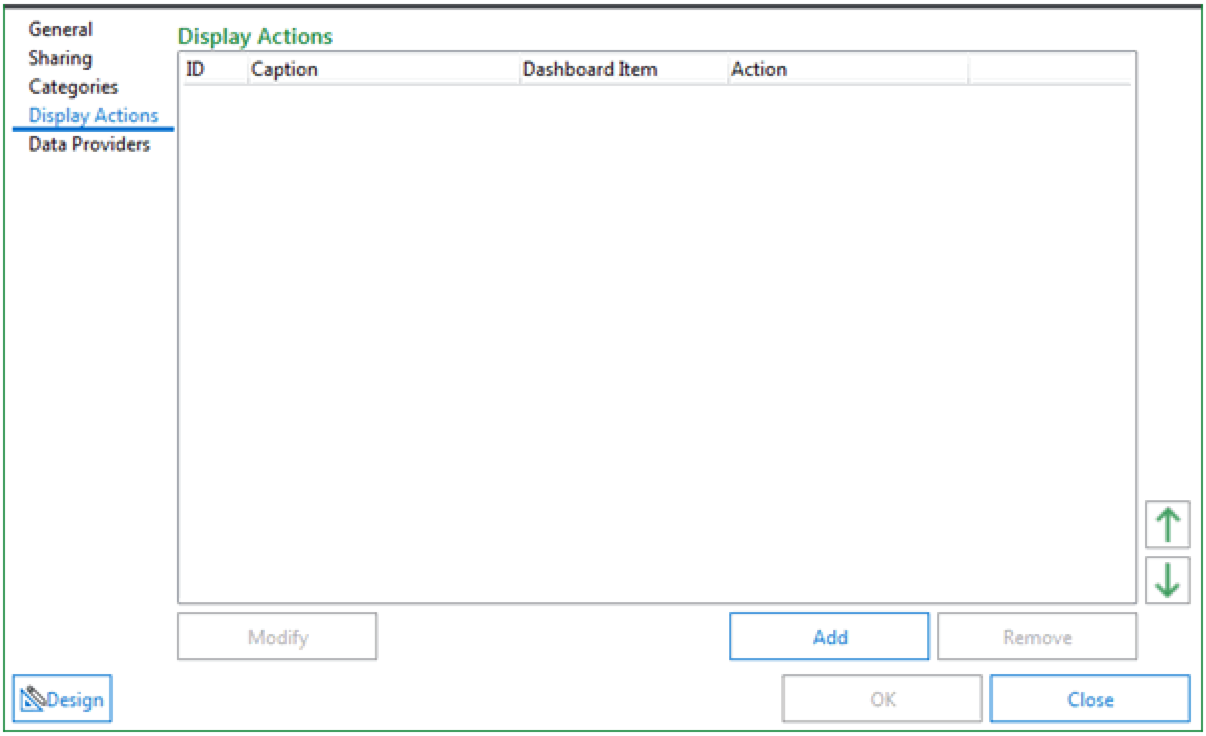
2. To select a category, move the cursor over the row for that category and select the checkbox that is displayed.



   To remove a category, deselect the checkbox beside the name of the category.
3. Click **OK** at the **Select Categories** dialog box to save your selections.
4. To remove dashboards from the category, select the dashboard to remove in the **Assign Categories** pane and click **Remove**. You are not prompted to confirm this action.
5. Click **OK** to save your changes and close the properties dialog box.

Display Actions

The **Display Actions** tab of the **Properties** dialog box allows you to add or remove items from the **Actions** right-click menu for dashboard items on a dashboard.



Note: It is considered a best practice to save your dashboard before configuring display actions from the **Dashboard Designer**. If a dashboard is updated in the **Dashboard Designer** while the **Properties** dialog box is open, changes made to display actions can be overwritten.

The configured display actions are available from the **Actions** right-click menu of configured dashboard items and allow users viewing the dashboard to use that dashboard item to perform actions outside of Reporting Dashboards, such as opening a specific document in OnBase.

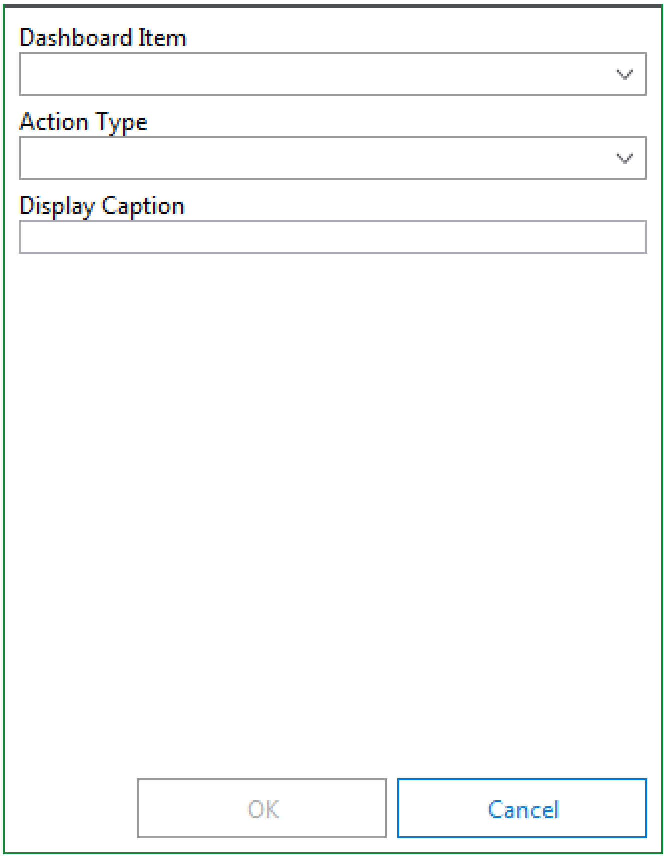
Note: If the dashboard item does not contain the value required to perform the configured display action, that action is disabled in the right-click menu.

The first available display action configured can also be executed by double-clicking the dashboard item, as long as the dashboard item does not have drill-down functionality enabled. If drill-down functionality is enabled, double-clicking the item drills down to the next level of data until the lowest level of data is reached. Once the lowest level of data has been reached, double-clicking the item executes the first available display action.

To remove configured display actions from the dashboard, select the action to remove in the **Display actions** pane and click **Remove**. You are not prompted to confirm this action.

To add display actions to the dashboard:

1. Click **Add**. The **Edit Display Action** dialog box is displayed.



2. Select an item from the **Dashboard Item** drop-down list. This is the dashboard item that the display action is available on. This list is populated with the names of all the dashboard items that are available on the dashboard.

Note: Each display action is configured for a single dashboard item on the dashboard. To configure the same display action for multiple dashboard items, that display action must be added and configured for each dashboard item individually.

3. Select an action from the **Action Type** drop-down list. This is the underlying event that occurs when a user selects the configured action, such as opening a document.

Note: If **Display Document** is configured as the **Action Type** for a Document Type that a user does not have rights to access, that user will only be able to see the metadata for the document but not the document itself.

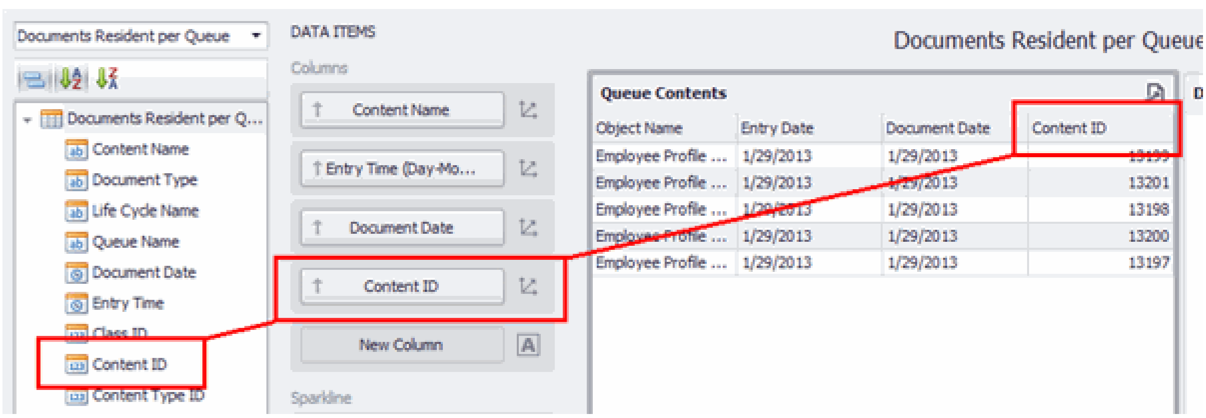
4. Enter a **Display Caption** in the field provided. This is how the action is labeled in the right-click **Actions** menu. The caption should be short and concise and describe what will occur. For example, **Display Document** or **Open Workflow Queue**.

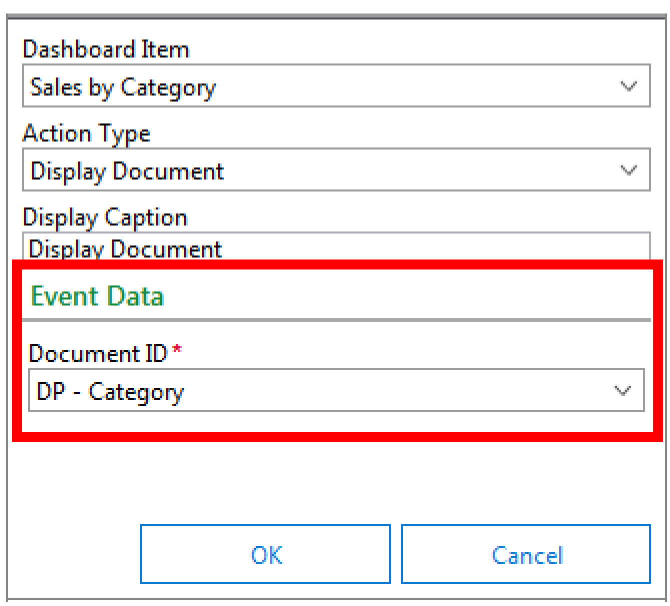
5. Select an **Event Data** option that represents the data required to perform the configured event, such as a document ID that is used to open a specific document.

   One or more Event Data drop-down lists are displayed when an action type is selected. These drop-down lists are populated with both hidden and non-hidden data items configured for the dashboard item that represent a dimension (not a measure) on the dashboard item.

Note: If the Event Data option selected does not contain the value required to perform the configured action, that action is disabled in the right-click menu.

For example, to open a specific document when the **Display Document** action type is selected, the unique document handles of the documents returned when the dashboard item loads must be included as a data item on the dashboard item and selected as the Event Data, which means it must also be configured as a display column for the data provider:

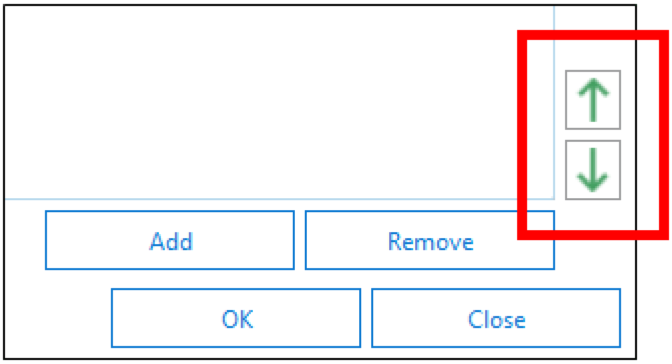




6. Click **OK** at the Edit Display Action dialog box.
7. Click **OK** to save your changes and close the properties dialog box.

To remove display actions from the dashboard, select the action to remove in the **Display actions** pane and click **Remove**. You are not prompted to confirm this action.

To move a display action up or down in the list, select it and click the corresponding arrow in the lower right corner of the dialog box.



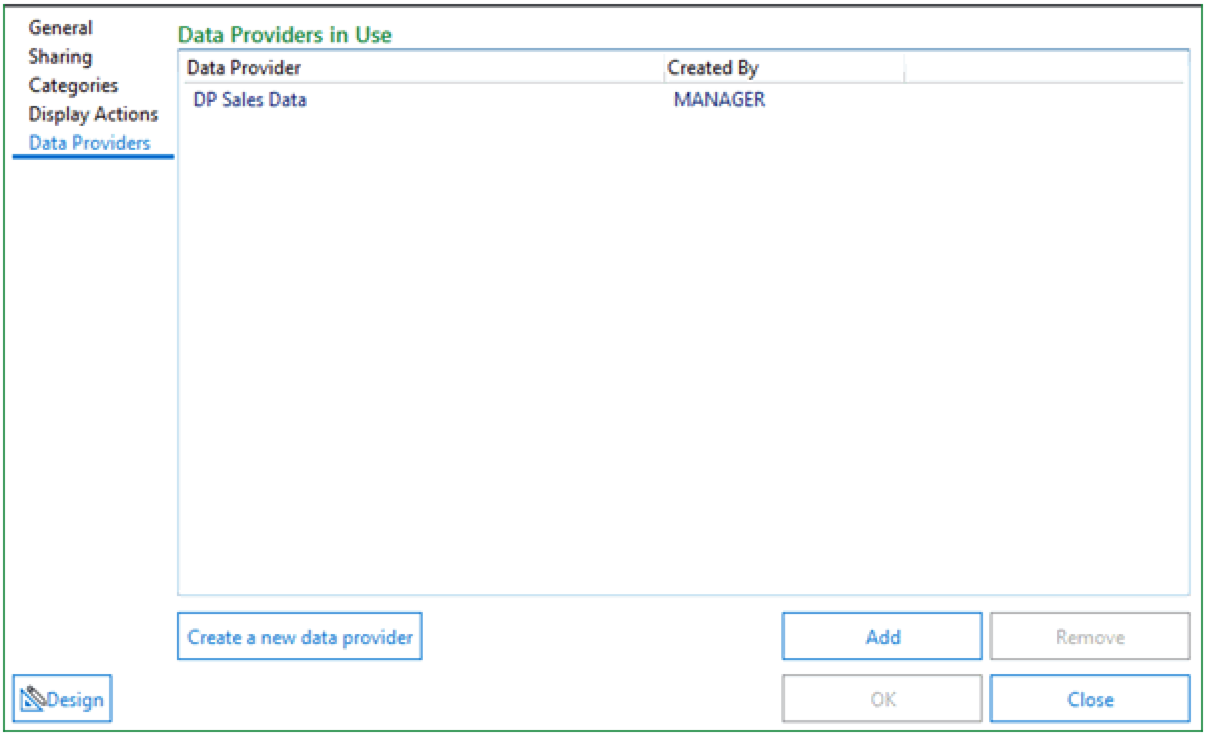
Display actions that are available for a specific dashboard item are displayed to users in the right-click menu in the same order as they are displayed in the **Display actions** list in this dialog box.

Note: If the dashboard item does not contain the value required to perform the configured display action, that action is disabled in the right-click menu.

The first available display action configured can also be executed by double clicking the dashboard item, as long as the dashboard item does not have drill-down functionality enabled. If drill-down functionality is enabled, double clicking the item drills down to the next level of data until the lowest level of data is reached. Once the lowest level of data has been reached, double clicking the item executes the first available display action.

Data Providers

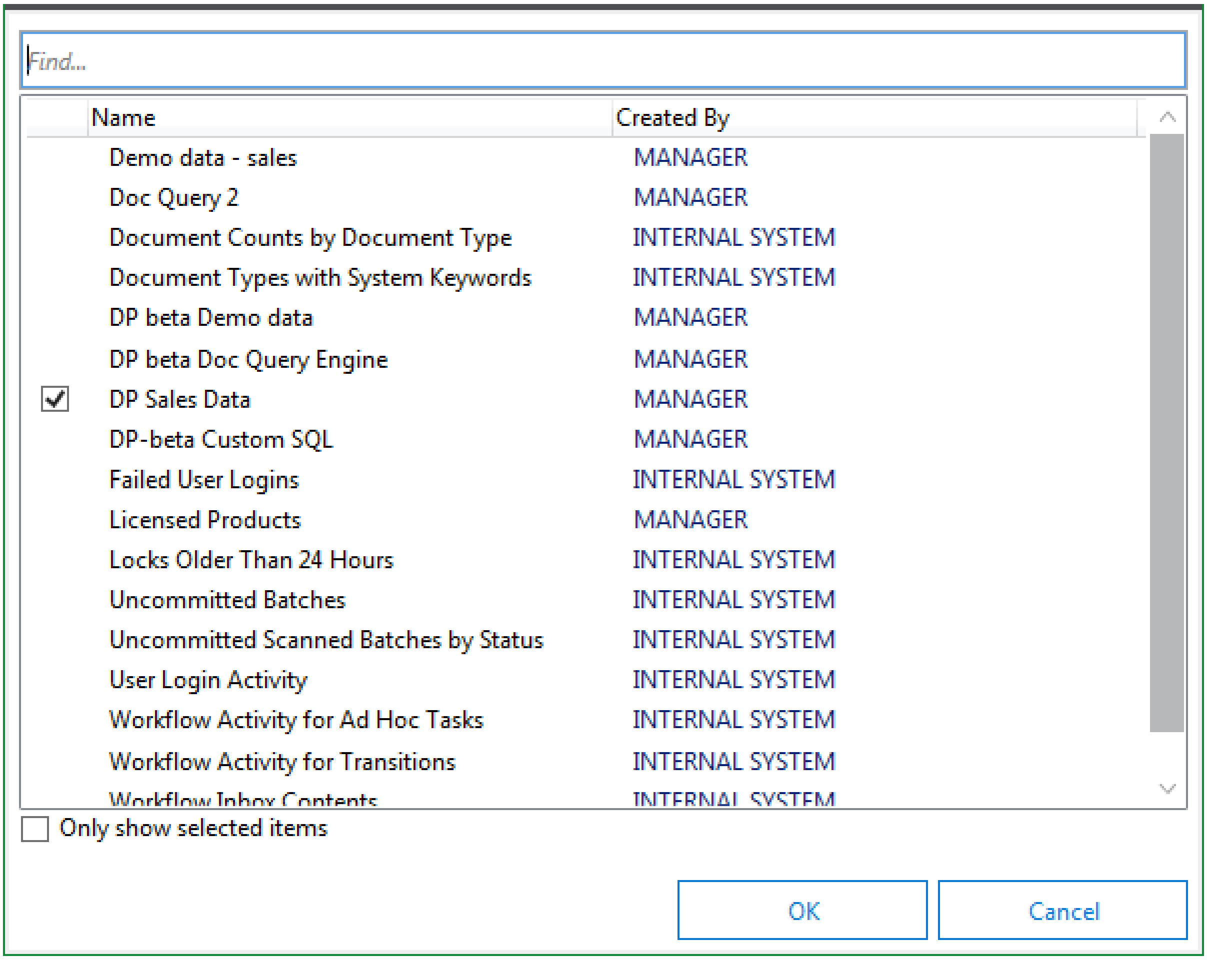
The **Data Providers** tab of the Properties dialog box allows you to change the data providers of a dashboard. Data providers return data from a data source to be displayed in a dashboard.



Note: New dashboards cannot be used unless at least one data provider is added to it. The Create Data Provider Wizard is used to create new data providers and is accessed by clicking the **Create a new data provider button** (see Data Provider Administration on page 183).

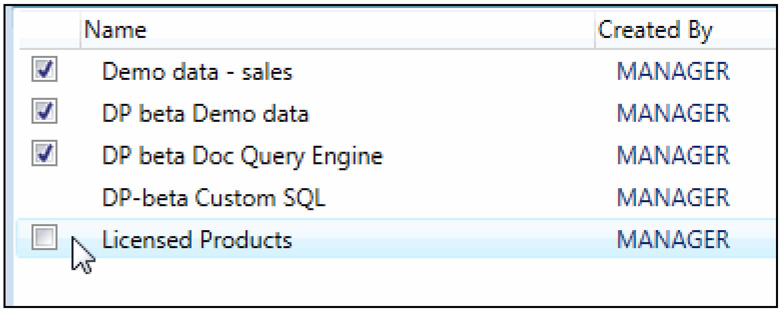
To add data providers to the dashboard or to remove data providers from it:

1. Click **Add**. The **Select Data Providers** dialog box is displayed.



Tip: To show only previously selected data providers, select **Only Show Selected Items** at the bottom of the main pane. To find a specific data provider, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

2. To select a data provider, move the cursor over the row for that data provider and select the checkbox that is displayed.



Name	Created By
Demo data - sales	MANAGER
DP beta Demo data	MANAGER
DP beta Doc Query Engine	MANAGER
DP-beta Custom SQL	MANAGER
Licensed Products	MANAGER

   To remove a data provider, deselect the checkbox beside the name of the data provider.
3. Click **OK** at the **Select Data Providers** dialog box to save your selections.
4. To remove data providers from the dashboard, select the data provider to remove in the **Data providers in use** pane and click **Remove**. You are not prompted to confirm this action.
5. Click **OK** to save your changes and close the properties dialog box.

Using the Dashboard Designer

The dashboard designer is used to configure how the data in a dashboard is displayed to the user. If the dashboard designer was not automatically launched when the dashboard was created, or if the design needs to be modified later, the designer can be launched in several ways.

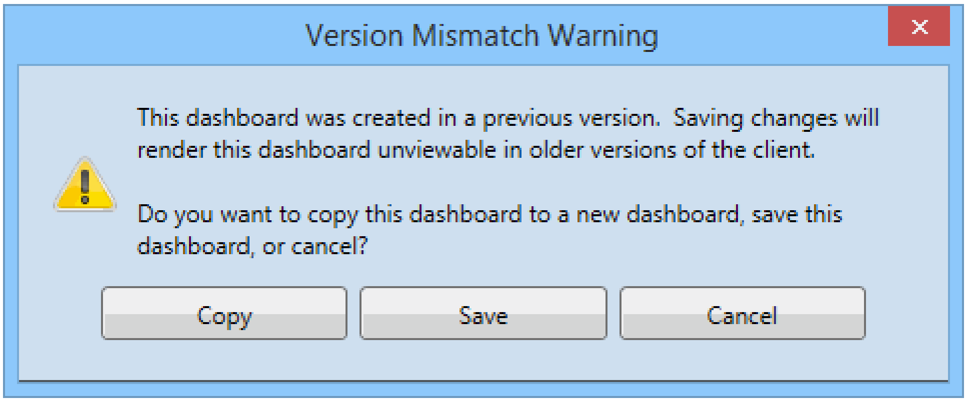
- From the Administration area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.
- From the Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.

- From the dashboard **Properties** dialog box, click the **Design** button at the bottom left of the dialog box.

The dashboard designer is opened in a new user interface. See Dashboard Designer Overview on page 56.

Version Mismatch Warning

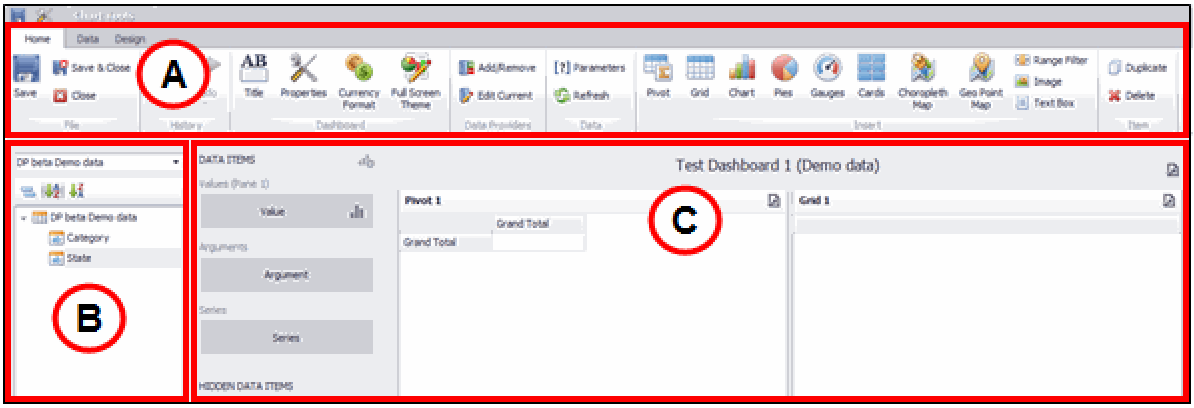
If you are editing a dashboard designed in a previous version of OnBase, you may be prompted with the **Version Mismatch Warning** to upgrade the dashboard when you save your changes.



- **Copy:** The updated dashboard is saved as a new dashboard that is a copy of the old dashboard. Both dashboards are still accessible to users, but only the copied version will reflect your changes.
- **Save:** The updated dashboard is saved but is no longer accessible by clients older than the client used to saved it. For example, if you save the updated dashboard using OnBase 16, it will no longer be accessible to users with Unity Client version 15 or lower.
- **Cancel:** Do not save the changes to the dashboard and do not copy the dashboard to a new version.

Dashboard Designer Overview

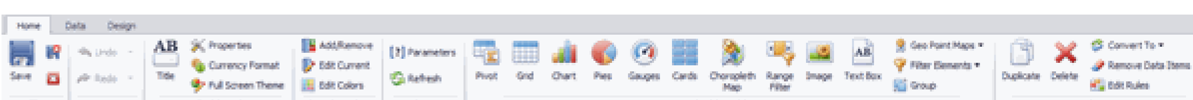
The dashboard designer is used to configure how the data in a dashboard is displayed to the user. The dashboard designer has a Home ribbon with design elements and properties controls, a data provider pane, and the main design area.



- **A:** The Home ribbon, used to open various properties controls and add design elements to the dashboard. See Home Ribbon on page 56.
- **B:** The data provider pane, used to select the data provider to use for a design element and configure calculations for the data returned.
- **C:** The main design area, used to place, size, and configure the design elements. See Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58 and Advanced Dashboard Design on page 68.

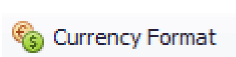
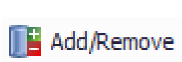
Home Ribbon

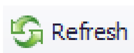
The Home ribbon contains buttons used to open various properties controls and add design elements to the dashboard.



Tip: This section is an overview of the buttons available. For details on designing dashboards see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58 and Advanced Dashboard Design on page 68.

Button	Description
File and **History**	

Button	Description
	**Save:** Click to save the current dashboard design and continue working on it.
	**Save & Close:** Click to save the current dashboard design and close the dashboard designer.
	**Close:** Click to close the dashboard designer without saving the current dashboard design first.
	**Undo:** Click to undo the last action. To select multiple previous actions to undo, click the arrow beneath the button and select the last action to undo from the drop-down list. All actions from that action forward are undone.
	**Redo:** Click to redo the last undone action. To select multiple previous actions to redo, click the arrow beneath the button and select the last action to redo from the drop-down list. All actions from that action forward are redone.
Dashboard, **Data Providers**, and **Data**	
	**Title:** Click to access the **Dashboard Title** dialog box. This dialog box allows you to edit the title of the dashboard. See Changing the Dashboard Title Settings on page 140.
	**Properties:** Click to access the dashboard **Properties** dialog box. This dialog box allows you to edit the configuration of the dashboard and control the data that is returned. See Changing Existing Dashboards on page 35.
	**Currency Format:** Click to access the **Dashboard Currency** dialog box. This dialog box allows you to edit the currency settings for the dashboard. See Changing the Dashboard Currency Settings on page 144.
	**Full Screen Theme:** Click to access the **Full Screen Theme** dialog box. This dialog box allows you to change the color scheme of the dashboard interface. See Changing the Dashboard Theme on page 146.
	**Add/Remove:** Click to access the **Data Providers** tab of the dashboard **Properties** dialog box. This tab allows you to add or remove data providers for the dashboard. See Data Providers on page 52.
	**Edit Current:** Click to access the data provider **Properties** dialog box of the data provider selected. This dialog box allows you to edit the configuration of the data provider and control the data that is returned. See Changing the Properties of Existing Data Providers on page 247.

Button	Description
	**Edit Colors:** Click to change the default colors assigned to Charts, Pies, and Maps. See Changing Dashboard Item Colors on page 146.
	**Parameters:** Click to access the **Parameters** dialog box. This dialog box allows you to change the values of the parameters for the dashboard that accept user input. After changing the parameters, click **OK**. Click **Cancel** to close the dialog box without applying any changes.
	**Refresh:** Click to refresh the data in the main designer pane based on the changes made to the configuration options and other settings.
Dashboard Items and **Item** **Note:** The buttons in the **Dashboard Items** ribbon group are used to add specific dashboard items to a dashboard. For details on these options, see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58 and Advanced Dashboard Design on page 68.	
	**Duplicate:** Select a dashboard item on the dashboard and click **Duplicate** to add a copy of it to the dashboard. The copied item can be altered to fine-tune the new display. See Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58.
	**Delete:** Select a dashboard item on the dashboard item and click **Delete** to remove it from the dashboard.

For details on designing dashboards see:

- Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58
- Advanced Dashboard Design on page 68

Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item)

Dashboards are composed of different graphical representations of data returned from a configured data provider. The graphical dashboard items of a dashboard allow users to quickly identify relevant information and trends surrounding the data managed by the data provider.

The dashboard designer is used to configure how the data in a dashboard is displayed to the user. Dashboards can contain one or more dashboard items representing data from one or more data providers.

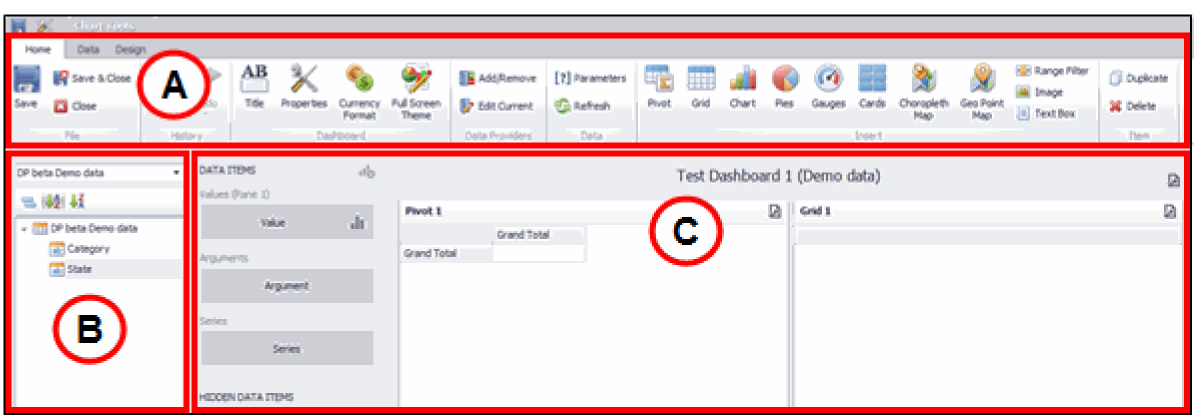
Note: This section covers the basics of two-dimensional dashboard design (adding a basic grid, chart, or pie dashboard item). For other types of dashboard items and advanced design options, see Advanced Dashboard Design on page 68.

To design a basic, two-dimensional grid, chart, or pie dashboard:

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

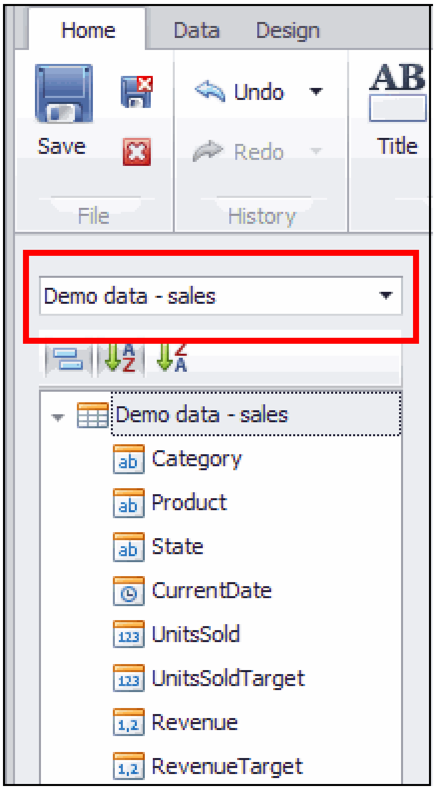
   The dashboard designer is opened in a new user interface.



   - **A:** The Home ribbon, used to open various properties controls and add design elements to the dashboard.

- **B:** The data provider pane, used to select the data provider to use for a design element.
- **C:** The main design area, used to place, size, and configure the design elements.

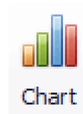
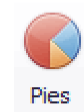
2. In the data provider pane, select the data provider from the drop-down list that returns the data needed for the dashboard item.



For example, if you are designing a pie chart that shows units sold by product category, select the data provider that includes the units sold and categories columns.

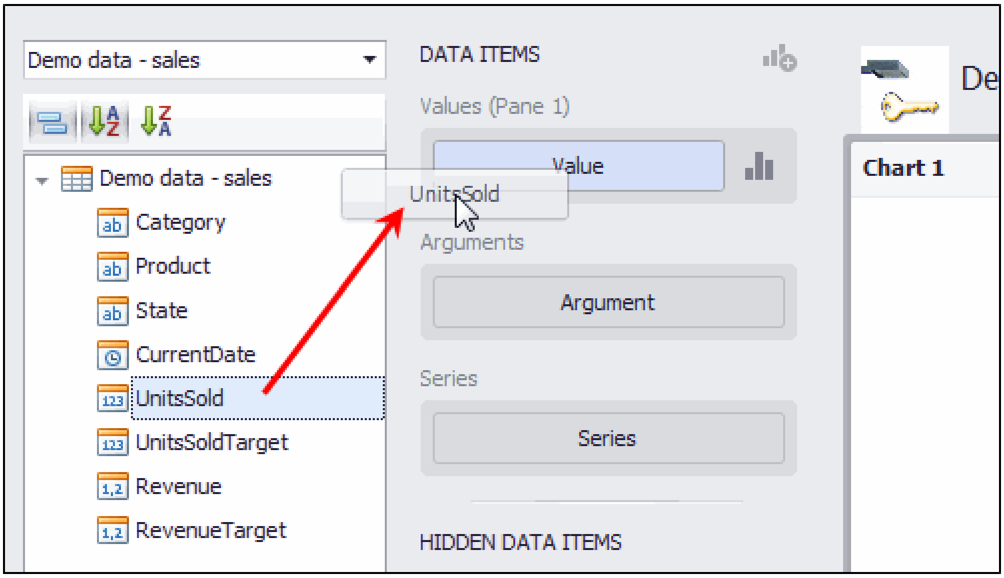
Note: To add, edit, or create a data provider, see Data Providers on page 52.

3. Click the button in the **Home** ribbon that corresponds to the dashboard item to represent the data in the dashboard. One or more dashboard items can be added for one or more data providers.

 **Grid:** Inserts a grid that displays data in a tabular form.	 **Chart:** Inserts a visual diagram with an X-Y axis.	 **Pies:** Inserts a visual diagram that displays the contribution of each part to a total.

Note: This section covers the basics of two-dimensional dashboard design. For other types of dashboard items and advanced design options, see Advanced Dashboard Design on page 68.

4. Drag-and-drop the columns from the data provider pane into the appropriate data item in the **Data Items** pane. The required columns for each dashboard item are described in the following table.



Tip: For advanced dashboard design, see Advanced Dashboard Design on page 68.

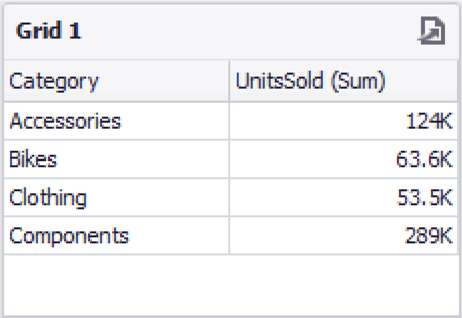
<table>
<tr><th>Dashboard Item</th><th>Data Items</th></tr>
<tr><td>

</td><td>

Grid: Inserts a grid that displays data in a tabular form.

- Drag the option for the first column of the grid into the **Columns** data item. A new empty data item slot is added for additional columns.
- Drag the option used for the second column of the grid into the empty slot under the **Columns** data items.
- Once added to the grid, a column can automatically have a total included. To select this click the down arrow next to the column name and select **Add Total**. Available total options include **Min** (minimum), **Max** (maximum), **Average**, **Sum** (the total of all values in the column), and **Count** (the total number of items in the column).

For example, if you are designing a grid that shows units sold by product category, add the category column as the first column and the units sold column as the second column:

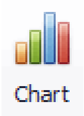
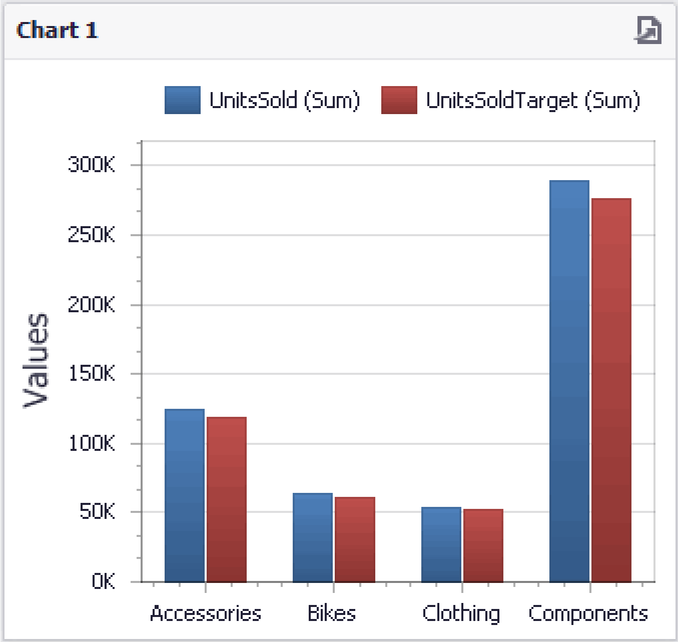


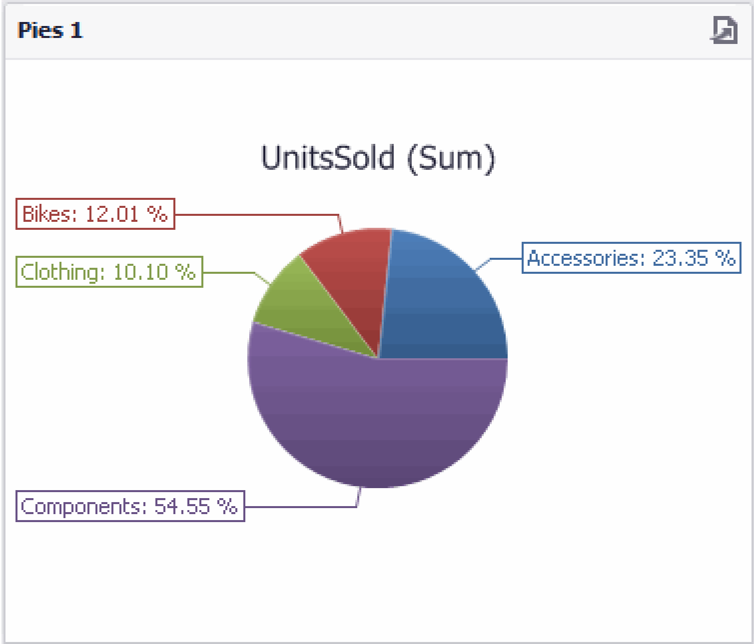
Grid 1

Category	UnitsSold (Sum)
Accessories	124K
Bikes	63.6K
Clothing	53.5K
Components	289K

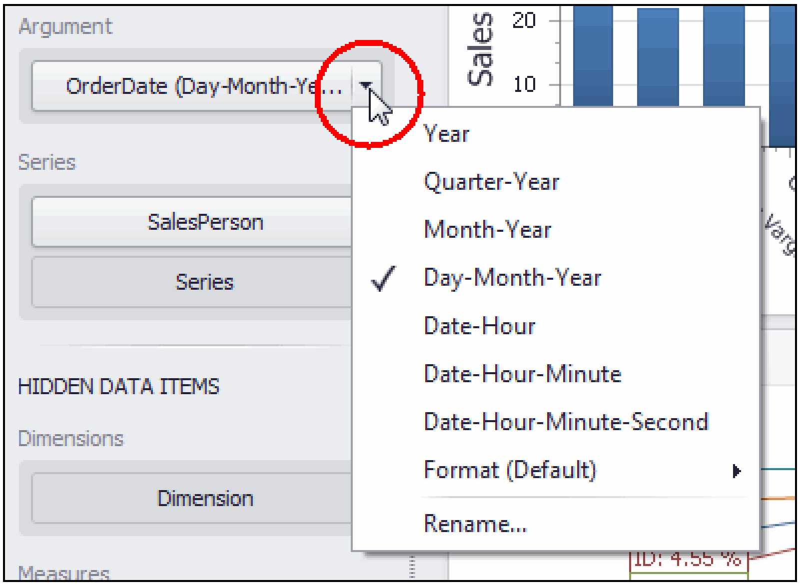
Note: Grid cells can be merged in the Dashboard Designer. However, merged cells are only available in the Client and not in the Dashboards Web Viewer. When viewed in the Web Viewer, cells are still separated.

</td></tr>
</table>

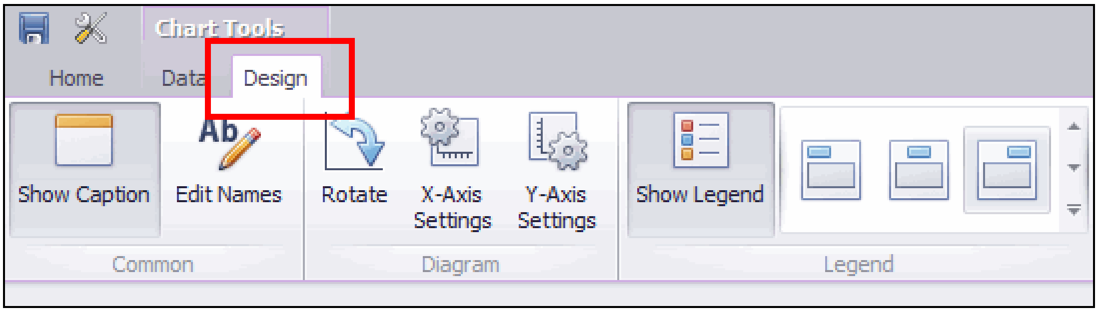
Dashboard Item	Data Items
	**Chart:** Inserts a visual diagram with an X-Y axis. • Drag the column for the X axis of the chart into the **Arguments** data item. This is typically a sub-group within a bigger group. • Drag the column for the Y axis of the chart into the **Values** data item. This is typically a numeric measure. For example, if you are designing a chart that shows units sold by product category as compared to sales targets, add the units sold and sales targets columns as **Values** data items (Y axis) and the category column as the **Arguments** data item (X axis): 

Dashboard Item	Data Items
	**Pies:** Inserts a visual diagram that displays the contribution of each part to a total. • Drag the column used to produce the sum total into the **Values** data item. • Drag the column used to divide the pie graph into wedges into the **Arguments** data item. For example, if you are designing a pie chart that shows units sold as percentages by product category, add the units sold column as the **Values** data item and the category column as the **Arguments** data item: 

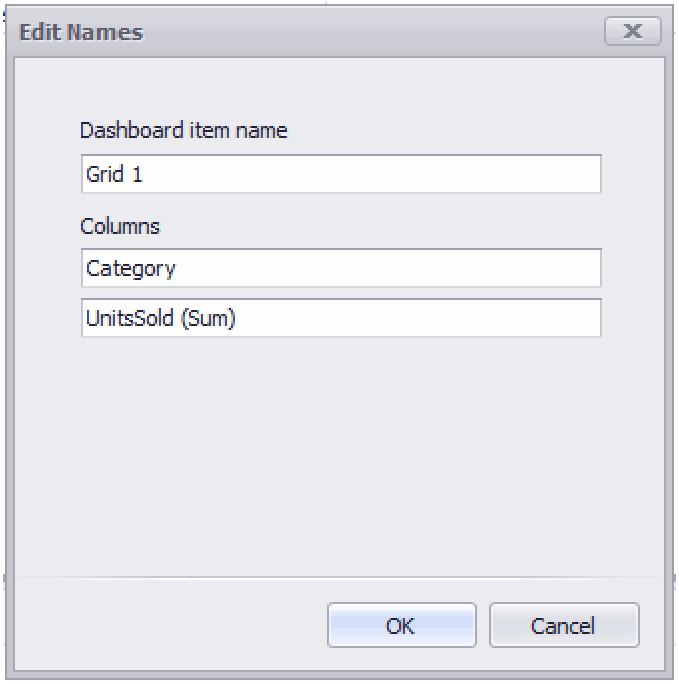
5. To change the scale of a column, move the cursor over the data item and click the arrow that is displayed, then select the scale from the menu that is displayed. Not all columns have scales that can be changed.



6. To change specific design elements of a data item, such as the shape of gauges or style and color of bar chart, click the **Design** ribbon to display the detailed design elements available for that dashboard item. Not all dashboard items have additional design elements.



7. To change the column names in the display or the caption of a dashboard item in the dashboard, right-click anywhere in the dashboard item to edit and select **Edit Names**. The **Edit Names** dialog box is displayed with each parameter and the caption in editable fields.



8. Update the **Dashboard item name** field to change the caption at the top of the dashboard item.

Tip: To hide the caption, right-click anywhere in the dashboard item and select **Show Caption** from the right-click menu. This is a toggle option that shows/hides the caption.

9. Update the remaining fields to change the display name of that parameter in the dashboard item. Not all parameter names are displayed in all dashboard items.
10. Click **OK**.
11. Click **Save** in the **File** ribbon group of the **Home** ribbon to save your dashboard design and continue working, or click **Save & Close** to save your dashboard design and close the dashboard designer.

Tip: For details on other customization options, such as changing the title or currency settings of the dashboard, or adding images or informational text to the dashboard, see Additional Customizations on page 139.

Note: For other types of dashboard items and advanced design options, see Advanced Dashboard Design on page 68.

Previewing the Dashboard

A preview of the dashboard is displayed in the main display area of the dashboard designer. This preview is automatically refreshed when any design options are changed. You can also change the available runtime parameters of the dashboard to simulate the actions of a user viewing it.

To change the dashboard runtime parameters, click **Parameters** in the **Data** ribbon group.

The **Parameters** dialog box is displayed. The parameters that accept user input for all data providers assigned to the dashboard are included in the dialog box. Update the parameters for the data provider that corresponds to the data in the dashboard items that you want to filter or limit, then click **OK**. The preview display is automatically refreshed.

To refresh the preview display outside of any design or parameter changes, click **Refresh** in the **Data** ribbon group.

Tip: For details on other customization options, such as changing the title or currency settings of the dashboard, see Additional Customizations on page 139.

Advanced Dashboard Design

The dashboard designer is used to configure how the data in a dashboard is displayed to the user. This section describes the configuration of advanced dashboard items and advanced configuration options, such as master filtering and dynamic dashboard items that interact with other dashboard items on the same dashboard.

See:

- Adding Advanced Dashboard Items to a Dashboard on page 68
- Creating Interactive Dashboard Items on page 82
- Adding Custom Calculated Fields on page 92

Tip: For basic design instructions, see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58.

Adding Advanced Dashboard Items to a Dashboard

Dashboards are composed of different graphical representations of data returned from a configured data provider. The graphical dashboard items of a dashboard allow users to quickly identify relevant information and trends surrounding the data managed by the data provider.

The dashboard designer is used to configure how the data in a dashboard is displayed to the user. Dashboards can contain one or more dashboard items representing data from one or more data providers.

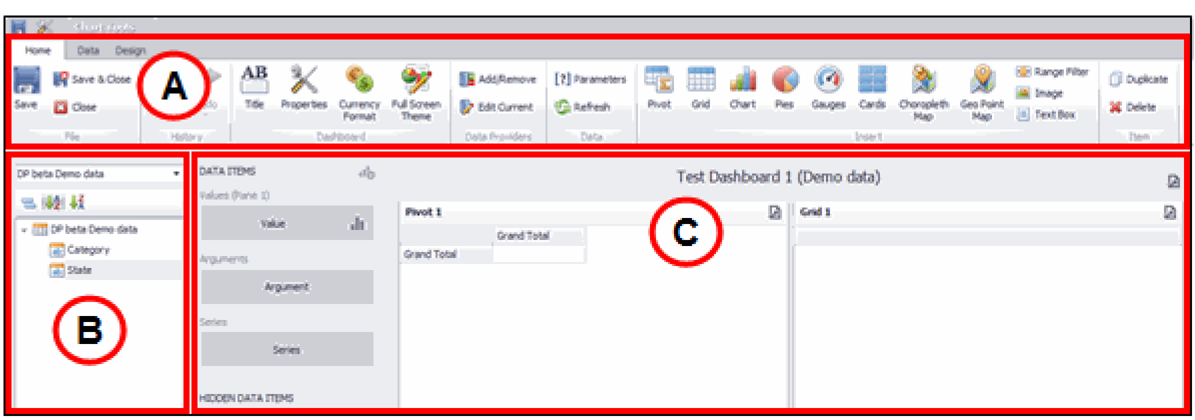
Note: This section covers advanced dashboard items such as pivot tables, maps, and gauges. For basic dashboard items, see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58.

To add advanced dashboard items to your dashboard:

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

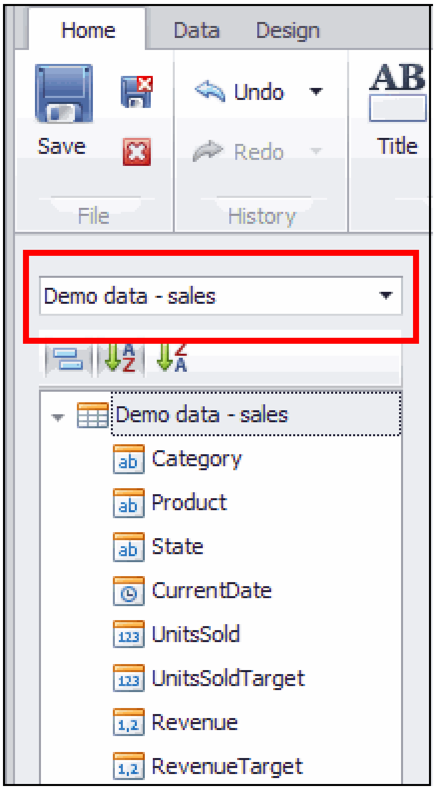
   The dashboard designer is opened in a new user interface.



   - **A:** The Home ribbon, used to open various properties controls and add design elements to the dashboard.

- **B:** The data provider pane, used to select the data provider to use for a design element.
- **C:** The main design area, used to place, size, and configure the design elements.

2. In the data provider pane, select the data provider from the drop-down list that returns the data needed for the dashboard item.

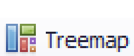


For example, if you are designing a choropleth map that shows units sold for each location, select the data provider that includes the units sold and location columns.

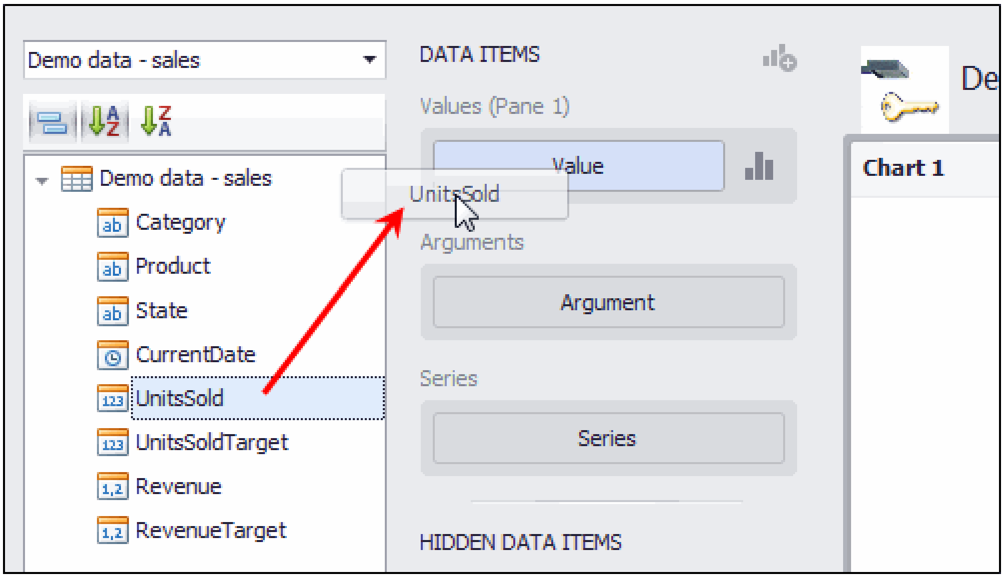
Note: To add, edit, or create a data provider, see Data Providers on page 52.

3. Click the button in the **Home** ribbon that corresponds to the dashboard item to represent the data in the dashboard. One or more dashboard items can be added for one or more data providers.

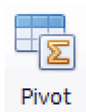
Note: This section covers advanced dashboard items such as pivot tables, maps, and gauges. For basic dashboard items, see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58.

Button	Description
	**Pivot:** Insert a pivot grid display. Pivot grid displays are a way to present multi-dimensional data in a two-dimensional grid display.
	**Gauges:** Insert a visual diagram of data representing a scale and a data point on that scale. For example, progress toward a sales goal.
	**Cards:** Insert a visual diagram of the difference between two values, presented as cards that show an absolute and percent-based variation.
	**Choropleth Map:** Insert a visual diagram of where on a map the data is relevant. Maps are colored by area based on the returned values to show geographical patterns surrounding the data. For example, sales figures by region. **Note:** Reporting Dashboards supports maps based on longitude and latitude; it does not support Cartesian coordinates.
	**Geo Point Map:** Insert visual callouts of specific data items on a map. For example, inventory counts by warehouse. **Note:** Reporting Dashboards supports maps based on longitude and latitude; it does not support Cartesian coordinates.
	**Scatter Chart:** Insert a visual diagram with two axes using the size of points on that diagram to indicate a third value. For example, margin averages, sales, and overall profits for a company’s different product categories.
	**Treemap:** Insert a visual diagram that sorts data into nested rectangles as part of a whole. For example, various product lines can be visualized as a portion of a company’s entire profit or sales.

4. Drag-and-drop the columns from the data provider pane into the appropriate data item in the **Data Items** pane. The required columns for each dashboard item are described in the following table.



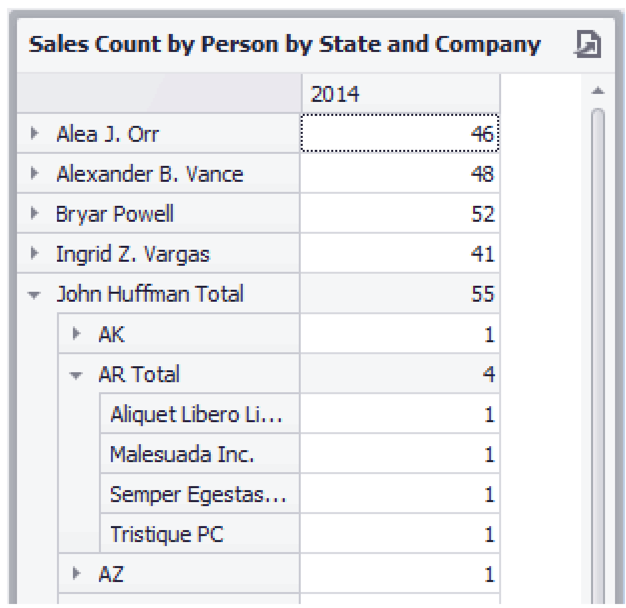
Tip: For basic dashboard design, see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58.

<table>
<tr><th>Dashboard Item</th><th>Data Items</th></tr>
<tr><td>
</td><td>

Pivot: Inserts a pivot grid display. Pivot grid displays are a way to present multi-dimensional data in a two-dimensional grid display.

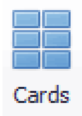
- Drag the columns used to calculate totals into the **Values** data item.
- Drag the columns used as columns headings into the **Columns** data item.
- Drag the columns used as row headings into the **Rows** data item.

For example, if you are designing a grid that shows sales totals by year for each sales person by state and company, add the sales count column to the **Values** data item; the year column to the **Columns** data item; and the sales person, state, and company columns to the **Rows** data item.



</td></tr>
</table>

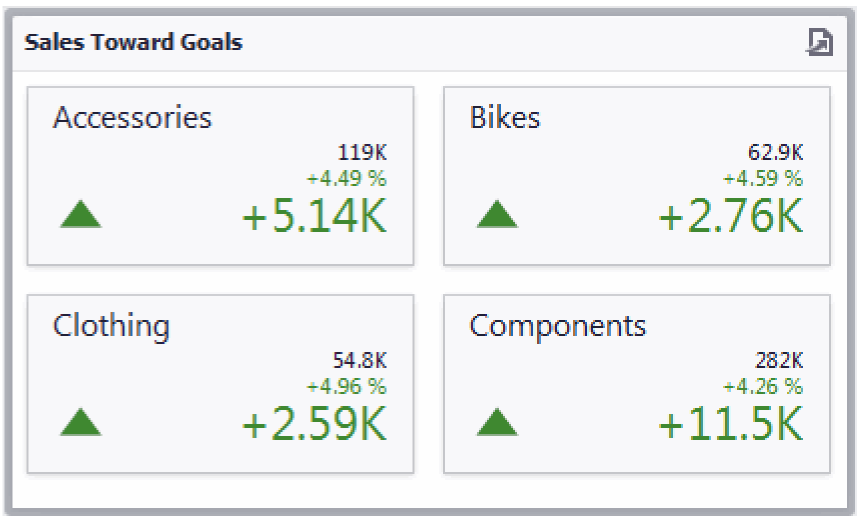
Dashboard Item	Data Items
	**Gauges:** Insert a visual diagram of data representing a scale and a data point on that scale. For example, progress toward a sales goal. • Drag the column for the progress toward the total into the **Actual** data item under **Gauges**. • Drag the column for the target total into the **Target** data item under **Gauges**. • Drag the column used to break the totals into separate gauges into the **Series** data item. For example, to show progress toward a sales goal for each product category, add the units sold (actual) and units sold (target) columns into the **Gauges** data item, and add the category column to the **Series** data item. 

<table>
<tr><th>Dashboard Item</th><th>Data Items</th></tr>
<tr><td>
</td><td>

Cards: Insert a visual diagram of the difference between two values, presented as cards that show an absolute and percent-based variation.

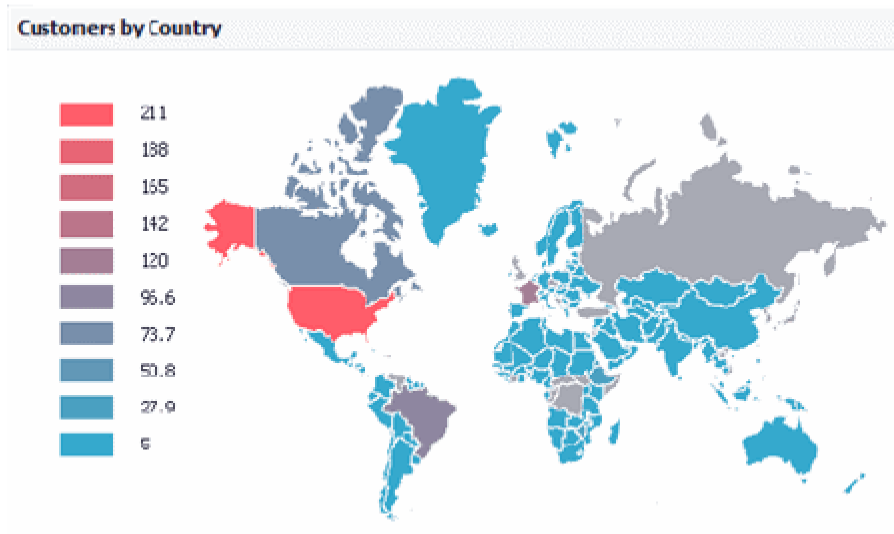
- Drag the column for the current total into the **Actual** data item under **Cards**. The Actual value is subtracted from the Target value to establish the difference.
- Drag the column for the target total into the **Target** data item under **Cards**.
- Drag the column used to break the totals into separate cards into the **Series** data item.

For example, to the difference between sales goals and actual sales for each product category, add the units sold (actual) and units sold (target) columns into the **Cards** data item, and add the category column to the **Series** data item.

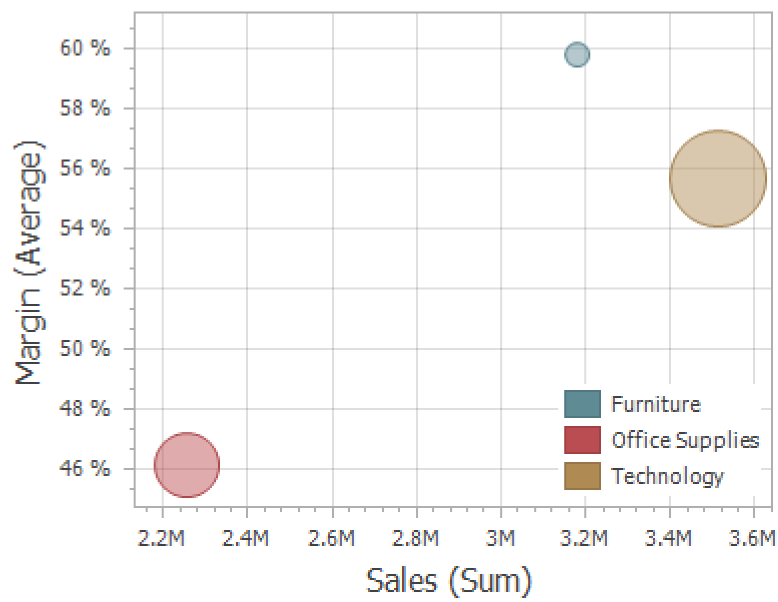


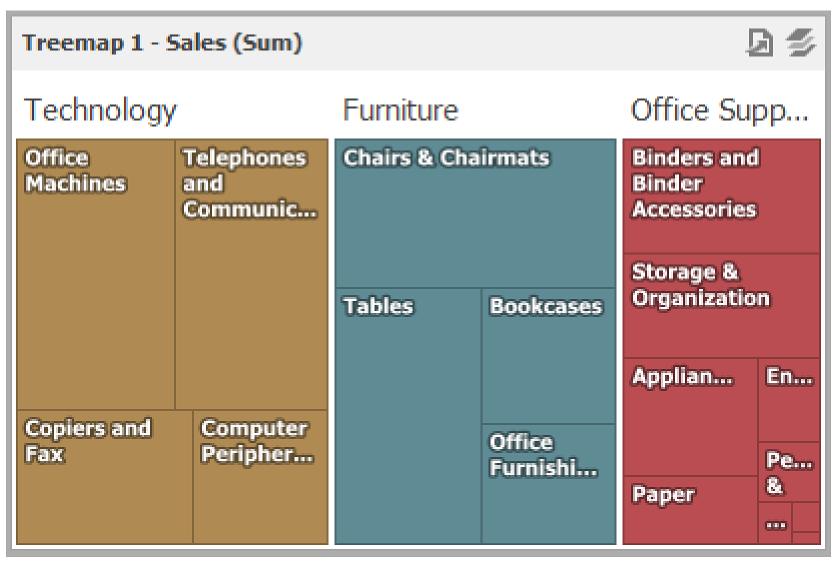
The size of cards can be changed by clicking on the settings button next to the Actual and Target values. To add a sparkline to the bottom of the cards (a visual representation of the values over time), drag the parameter that contains the value to track into the **Argument** data item under **Sparkline**.

</td></tr>
</table>

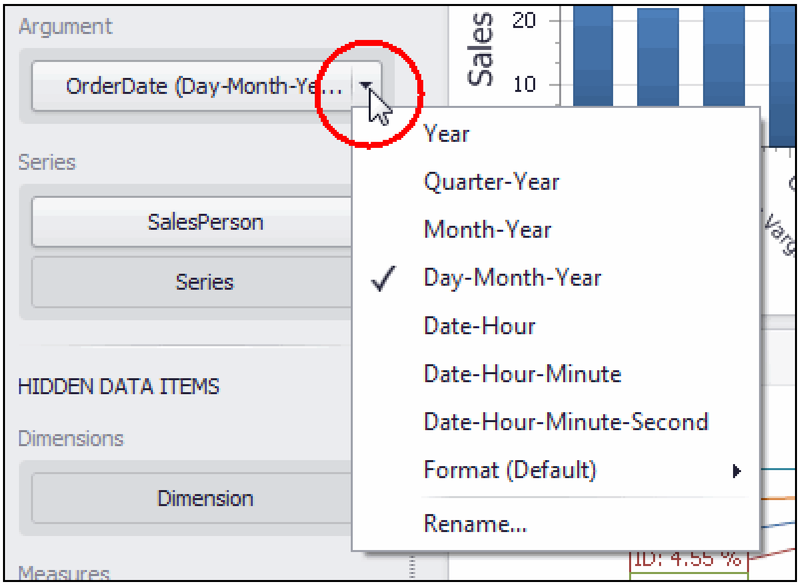
Dashboard Item	Data Items
	**Choropleth Map:** Insert a visual diagram of where on a map the data is relevant. Maps are colored by area based on the returned values to show geographical patterns surrounding the data. For example, sales figures by region. • Drag the column to group the total by into the **Attribute** data item. • Drag the columns for the total counts into the **Maps** data items. For example, to show the total number of customers for each country in the world, add the country column as the Attribute and the customer count as the Maps value.  **Note:** Reporting Dashboards supports maps based on longitude and latitude; it does not currently support Cartesian coordinates.

Dashboard Item	Data Items
	**Geo Point Map:** Insert visual callouts of specific data items on a map. For example, inventory counts by warehouse. • Drag the geographical latitude column of the location into the **Latitude** data item. • Drag the geographical longitude column of the location into the **Longitude** data item. • Drag the value column associated with geographical locations into the **Value** data item. For example, to show how many units of a specific product are in each warehouse, add the columns for the latitudes and longitudes of warehouses into the corresponding data items and add the inventory count for a product as the value. **Note:** Reporting Dashboards supports maps based on longitude and latitude; it does not currently support Cartesian coordinates.

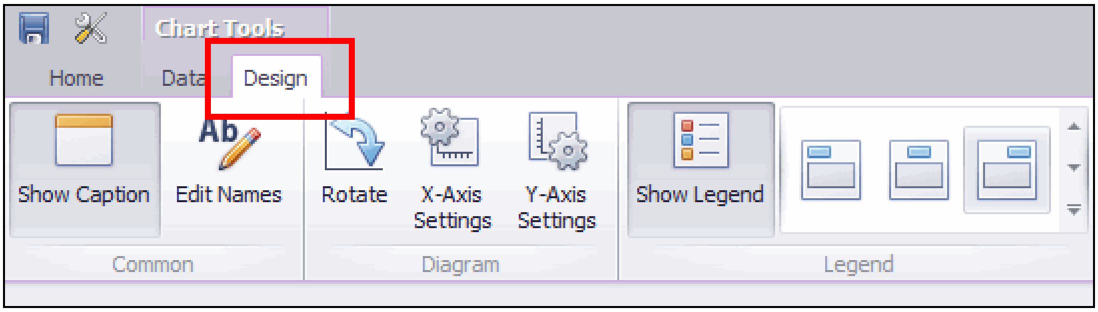
Dashboard Item	Data Items
Scatter Chart	**Scatter Chart:** Insert a visual diagram with two axes using the size of points on that diagram to indicate a third value. For example, margin averages, sales, and overall profits for a company's different product categories. • Drag the column for the horizontal axis into the **X-axis** data item. • Drag the column for the vertical axis into the **Y-axis** data item. • Drag the data used to determine the size of the data points into the **Weight** data item. • Drag the data used to color and differentiate data points into the **Argument** data item. For example, to show the profit performance of different product categories for a store, add the total sales to the **X-axis**, add the margin average to the **Y-axis**, add the total profit to the **Weight**, and add the product category to the **Argument**. 

Dashboard Item	Data Items
 	**Treemap:** Insert a visual diagram that sorts data into nested rectangles as part of a whole. For example, various product lines can be visualized as a portion of a company's entire sales. • Drag the column that determines the sizing of the rectangles into the **Values** data item. You can drag multiple columns into the **Values** data item to create multiple views within a single treemap dashboard item. • Drag the column that determines the larger categories to sort data by into the **Arguments** data item. • Drag the column that determines the sub-categories under each broader category into the **Arguments** data item. • Sub-categories can be grouped by their categories by clicking on the name of the category and selecting **Group Tiles** from the drop-down list. Grouping the sub-categories in this manner makes visual comparison between the broader categories easier for the user. For example, total profit and total sales could be used as **Values** to determine the sizes of rectangles. Product category (such as Technology, Furniture, and Office Supplies) can be used as the first **Argument** to determine the broadest grouping of data with product sub-category (such as Office Machines, Chairs & Chairmats, and Storage & Organization) as the second **Argument** to create sub-groupings. 

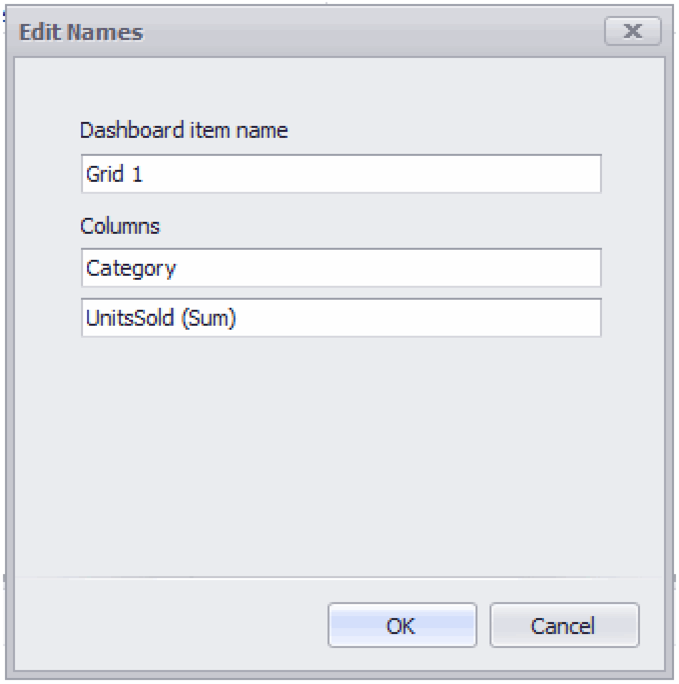
5. To change the scale of a column, move the cursor over the data item and click the arrow that is displayed, then select the scale from the menu that is displayed. Not all columns have scales that can be changed.



6. To change specific design elements of a dashboard item, such as the shape of gauges or style of bar chart, click the **Design** ribbon to display the detailed design elements available for that dashboard item. Not all dashboard items have additional design elements.



7. To change the column names in the display or the caption of a dashboard item in the dashboard, right-click anywhere in the dashboard item to edit and select **Edit Names**. The **Edit Names** dialog box is displayed with each parameter and the caption in editable fields.



8. Update the **Dashboard item name** field to change the caption at the top of the dashboard item.

Tip: To hide the caption, right-click anywhere in the dashboard item and select **Show Caption** from the right-click menu. This is a toggle option that shows/hides the caption.

9. Update the remaining fields to change the display name of that parameter or column in the dashboard item. Not all parameter and column names are displayed in all dashboard items.
10. Click **OK**.
11. Click **Save** in the **File** ribbon group of the **Home** ribbon to save your dashboard design and continue working, or click **Save & Close** to save your dashboard design and close the dashboard designer.

Tip: For details on other customization options, such as changing the title or currency settings of the dashboard, or adding images or informational text to the dashboard, see Additional Customizations on page 139.

Note: For information on adding basic dashboard items, see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58.

Creating Interactive Dashboard Items

Dashboard items within a dashboard can be used to populate other dashboard items, and drill-down and range-filtering functionality can be applied to limit the detail and scope of the data displayed.

See:

- Master Filtering on page 82
- Drill-Down Dashboard Items on page 85
- Range Filtering on page 87

Tip: For details on other customization options, such as changing the title or currency settings of the dashboard, or adding images or informational text to the dashboard, see Additional Customizations on page 139.

Master Filtering

Master filtering is a design concept that allows the elements in one dashboard item in a dashboard to update the data in another dashboard item on the same dashboard. Master filtering can be reset by the user accessing the dashboard.

For example, a bar graph showing total sales counts by sale representative can be used to update a pie chart showing sales counts by state for the selected sales representative.

All dashboard items in the same dashboard that use the same data provider are included in the master filtering by default, but specific dashboard items can be excluding from the master filtering. Dashboard items using other data providers can also be included.

See:

- Configuring a Master Filter on page 82
- Excluding a Dashboard Item From a Master Filter on page 84

Configuring a Master Filter

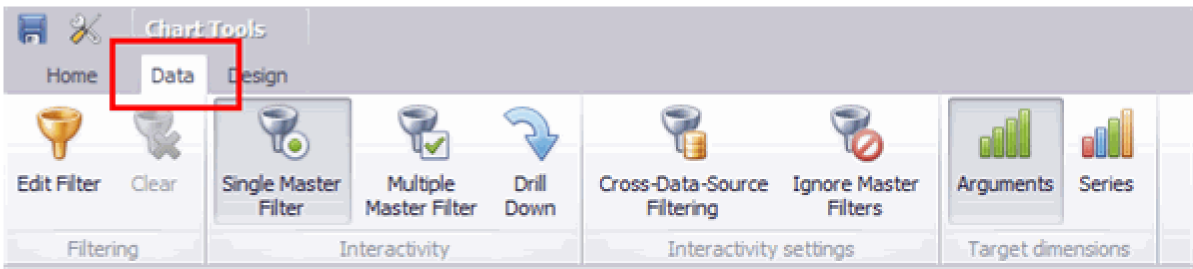
To configure a dashboard item as the master filter:

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

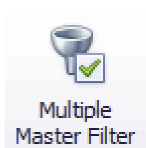
- From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

The dashboard designer is opened in a new user interface.

2. Select the dashboard item to use as the master filter.
3. Click the **Data** tab to display the **Data** ribbon.



4. Select the type of master filtering to apply:

Master Filter	Description
	**Single Master Filter:** Allows you to select one element in the master filter dashboard item to update the data in the other dashboard items. For example, clicking a bar representing the sales totals of a single sales representative updates a pie chart showing the breakdown of sales by state for that sales representative.
	**Multiple Master Filter:** Allows you to select one or more element in the master filter dashboard item to update the data in the other dashboard items. For example, selecting bars representing the three highest sales totals among sales representatives updates a pie chart showing the breakdown of sales by state for the three sales representatives selected.

5. Select **Cross-Data-Source Filtering** to include data supplied by other data providers in the master filtering.

Filtering across data providers is accomplishing by matching the full names of data provider display columns. Only data with matching display column names is affected by a cross-data-source master filter. For example, if the **Sales Rep Total** display column has the same name in both data providers it will allow cross-data-source filtering, but if the column name is **Sales Rep Total** in one data provider and **Sales Total** in another data provider, cross-data-source filtering is not applied.

Tip: Display column names for data providers can be changed in data provider configuration. See Changing the Configuration of Existing Data Providers on page 262.

6. Click **Save** in the **File** ribbon group of the **Home** ribbon to save your dashboard design and continue working, or click **Save & Close** to save your dashboard design and close the dashboard designer.

Tip: If a dashboard item is assigned as a master filter, it is a best practice to display the caption for the dashboard item. If the caption is hidden, the icon showing that the dashboard item is a master filter is also hidden.

Excluding a Dashboard Item From a Master Filter

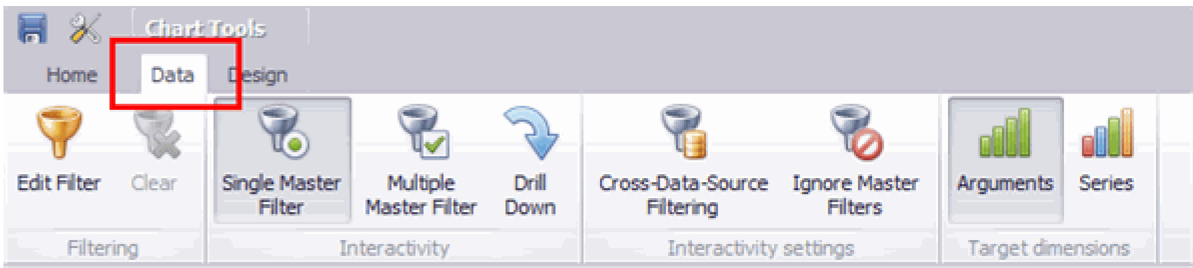
To prevent a dashboard item from being updated by a master filter:

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

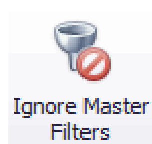
- From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

The dashboard designer is opened in a new user interface.

2. Select the dashboard item to exclude from the master filter.
3. Click the **Data** tab to display the **Data** ribbon.



4. Click **Ignore Master Filters**.



5. Click **Save** in the **File** ribbon group of the **Home** ribbon to save your dashboard design and continue working, or click **Save & Close** to save your dashboard design and close the dashboard designer.

Drill-Down Dashboard Items

Drill down is a design element that allows the user viewing the dashboard to control the level of detail displayed in a dashboard item by clicking a specific data point on the dashboard item. For example, sales totals for the year can be drilled down to view specific sales totals by quarter and then further to show sales totals by month.

To configure drill-down functionality for a dashboard item:

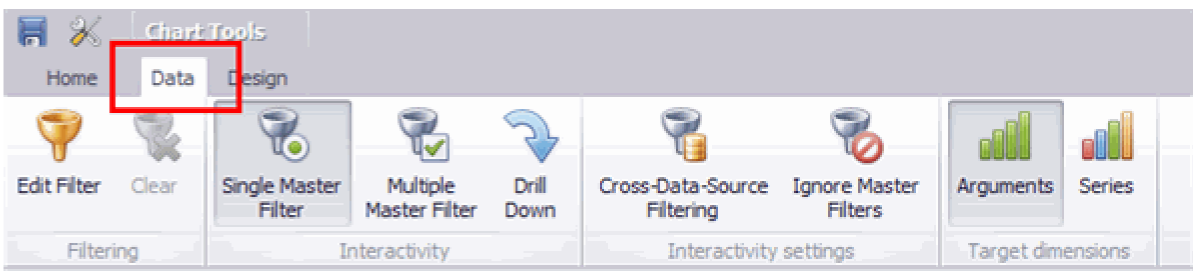
1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.

- From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

- From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

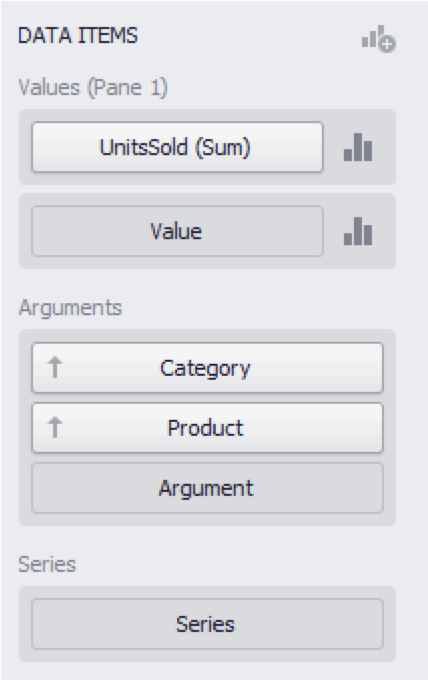
The dashboard designer is opened in a new user interface.

2. Select the dashboard item to use drill-down functionality with.
3. Click the **Data** tab to display the **Data** ribbon.



4. Click **Drill Down**.

5. Ensure that more than one **Argument** is supplied for the data items. The argument data is used to drill down on the data, with the drill down moving from the top (most general) to the bottom (most detailed) of the arguments list. The dashboard item is initially displayed using the top-most argument.



For example, to show the number of units sold in a dashboard item by category that can be drilled down into specific products, configure the data item arguments with the category and product parameters, with the category (most general) parameter first.

6. Click **Save** in the **File** ribbon group of the **Home** ribbon to save your dashboard design and continue working, or click **Save & Close** to save your dashboard design and close the dashboard designer.

Tip: If a dashboard item is configured with drill-down functionality, it is a best practice to display the caption for the dashboard item. If the caption is hidden, the button showing that the dashboard item has drill-down functionality, and that is used to move back up after drilling down, is also hidden. However, even if the button is hidden, users can still drill up from the right-click menu.

Range Filtering

Range filtering is a design element that allows the user viewing the dashboard to control with a simple sliding scale how much data is displayed for dashboard items that use the same data provider.

For example, limiting the sales counts displayed to a specific date range that can be changed dynamically using the graphical range filter.

To add a range filter for dashboard items:

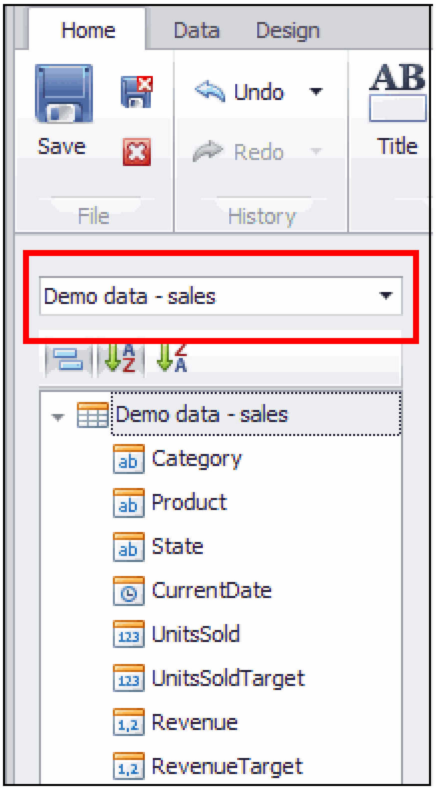
1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

   The dashboard designer is opened in a new user interface.
2. Select the dashboard item to range filtering with.
3. Click **Range Filter** from the Home ribbon.

   A range filter dashboard item is added to the dashboard.

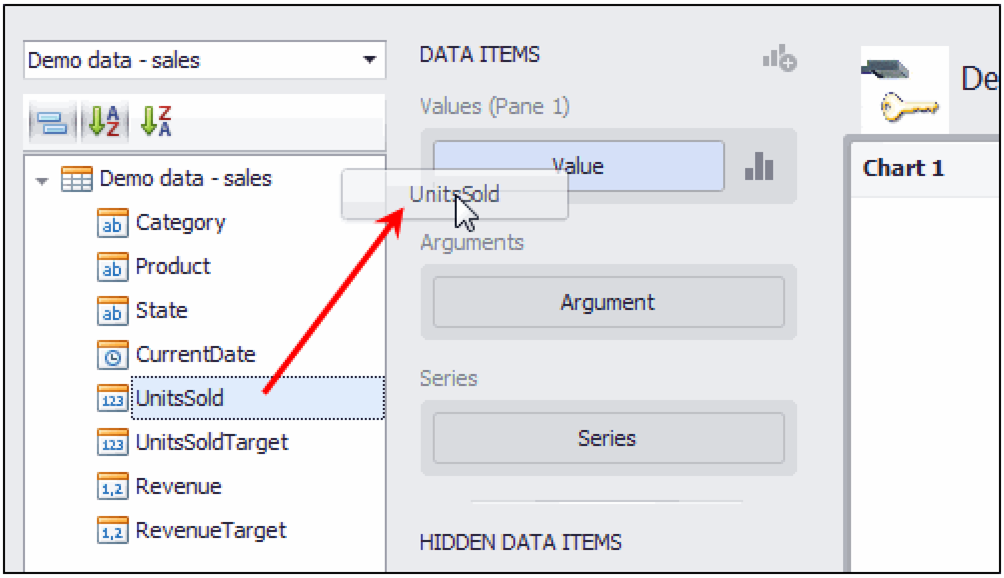
4. In the data provider pane, select the data provider from the drop-down list that returns the data for the dashboard items you would like to apply range filtering to.



For example, if you would like to enable range filtering for sales data on a dashboard item that uses the **Demo data - sales** data provider, then the range filter dashboard item must also use the **Demo data - sales** data provider.

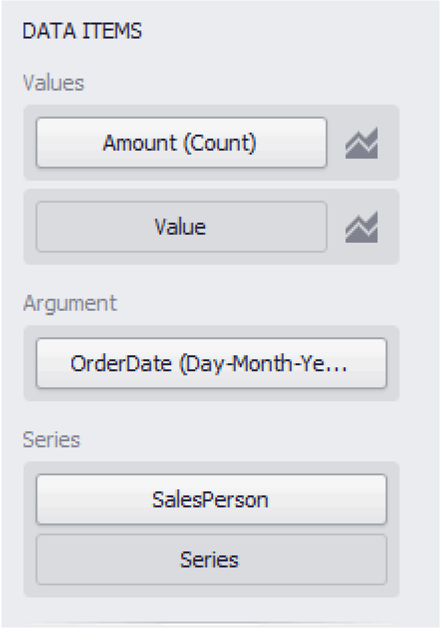
Note: To add, edit, or create a data provider, see Data Providers on page 52.

5. Drag-and-drop the parameters from the data provider pane into the appropriate data item in the **Data Items** pane.

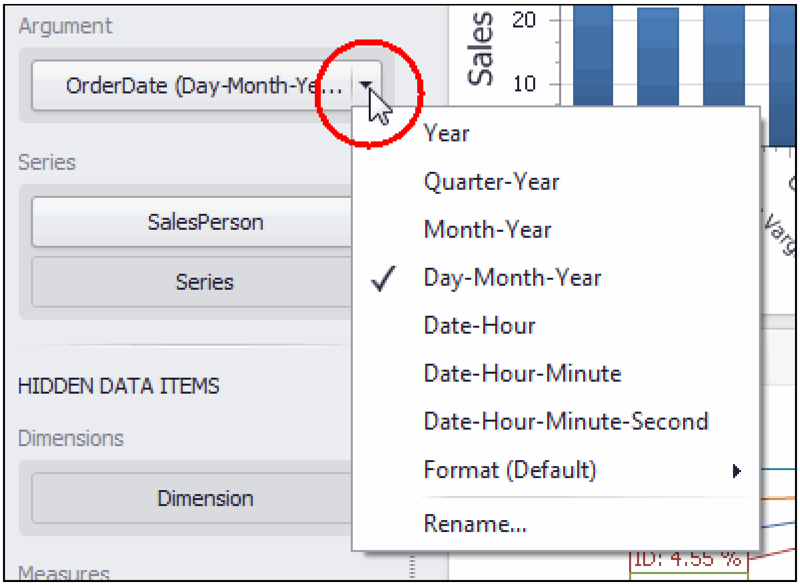


- Drag the parameter for the Y (vertical) axis of the range filter into the **Values** data item.
- Drag the parameter for X (horizontal) axis of the range filter into the **Arguments** data item. This is the value the range filtering is performed on.
- Drag the parameter that creates the chart display being filtered into the **Series** data item.

For example, to create a range filter that filters sales counts by date range in a chart that displays sales counts per sales representative using the same data provider, add the parameter for sales counts to the Values data item, the parameter for sales dates to the Arguments data item, and the parameter for sales representatives to the Series data item.



6. To change the scale of a parameter, move the cursor over the data item and click the arrow that is displayed, then select the scale from the menu that is displayed.



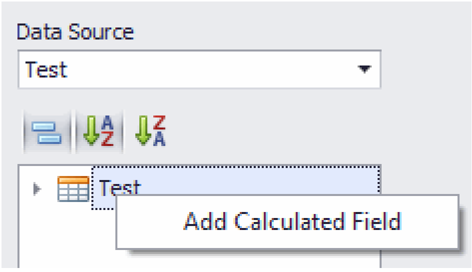
7. Click **Save** in the **File** ribbon group of the **Home** ribbon to save your dashboard design and continue working, or click **Save & Close** to save your dashboard design and close the dashboard designer.

Adding Custom Calculated Fields

Calculated fields allow you to apply custom expressions to data obtained from a data source. Calculated fields can be used as any other field. For example, calculated fields can be used as a target value for comparison in dashboard items.

To add a calculated field:

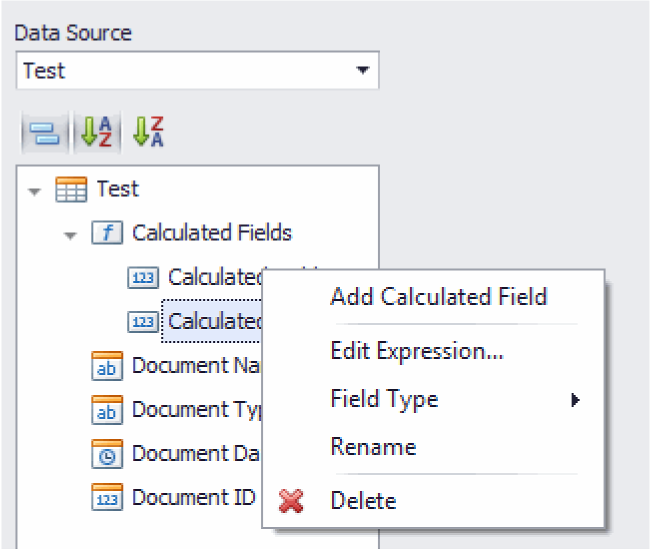
1. In the data provider pane, right click on the data provider for which you would like to create a calculated field.
2. Select **Add Calculated Field**.



3. The **Expression Editor** is displayed. For more information on the **Expression Editor**, see Using the Expression Editor on page 94.
4. Enter the desired function. Functions, aggregate functions, operators, fields, constants, and parameter elements can be used.
5. When finished adding the function, click **OK**. The calculated field is displayed in the data provider pane.

Editing Calculated Fields

Previously configured custom calculated fields can be edited. This includes changing Field Type and renaming the field. All editing options for calculated fields can be found in the right-click context menu.



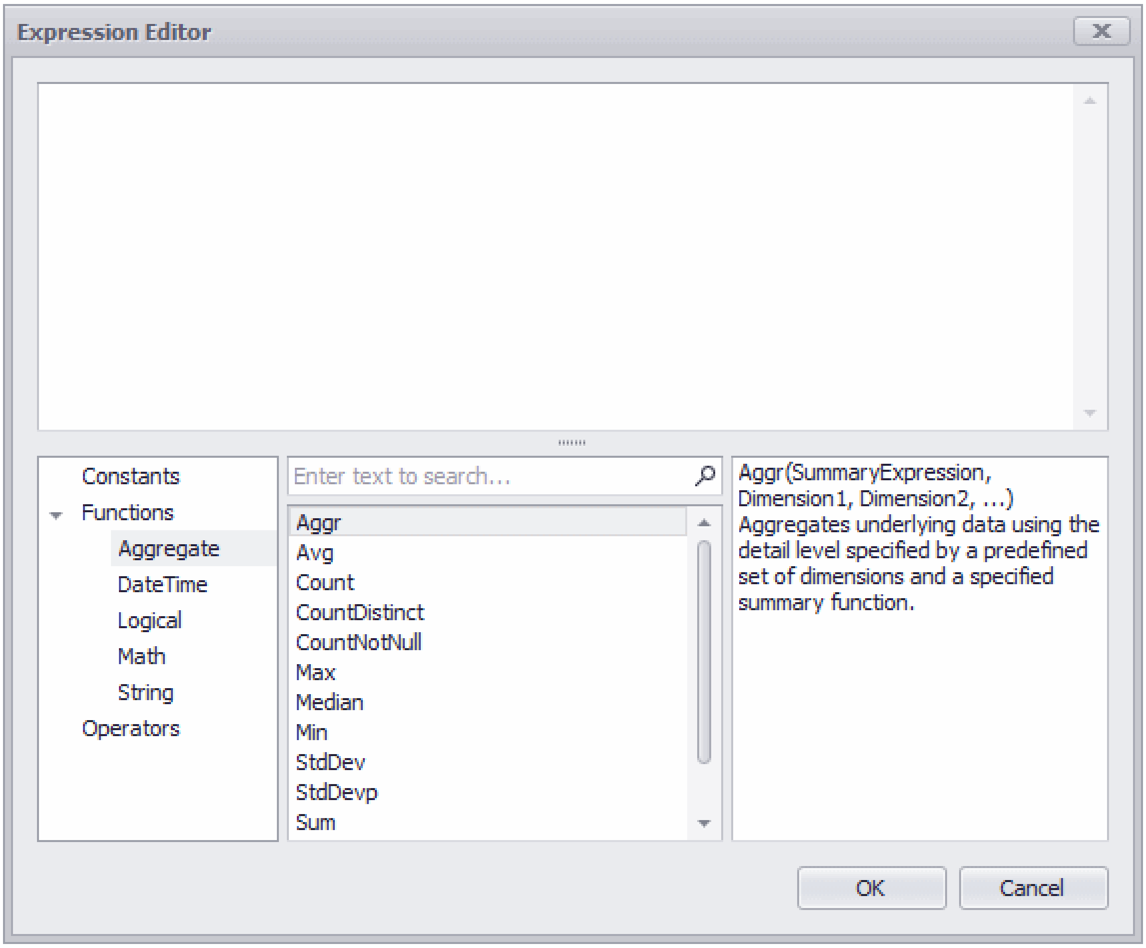
To edit the expression you entered in the **Expression Editor**, right-click the calculated field and select **Edit Expression**. For more information on the **Expression Editor**, see Using the Expression Editor on page 94.

To change the type of the calculated field, select **Field Type**. Options include **String**, **Integer**, **Decimal**, **Boolean**, **DateTime**, and **Object**.

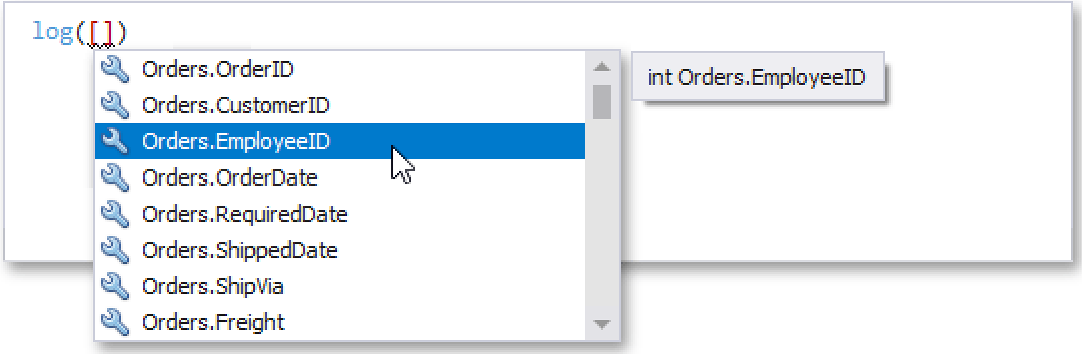
To rename a calculated field, select **Rename** to enter the new name.

Using the Expression Editor

The **Expression Editor** is used to edit calculated fields in dashboards. The **Expression Editor** supports a variety of math, date-time, string, and logical functions for use in calculated fields.



The **Expression Editor** supports syntax highlighting and intelligent code completion, which suggests functions as you type. Typing a left square bracket causes a drop-down list to display, listing all available data columns. When hovering over a column, a tooltip is displayed with the column's data type.



If an expression contains any errors, the editor immediately highlights them.

The following syntax conventions should be taken into account when using the **Expression Editor**:

- A data field is referenced by enclosing its name in square brackets. For example: `[Products.ProductName]`
- Query parameters are referenced by typing a question mark before their names. For example: `?parameter1`
- Report parameters are referenced by adding the **Parameters.** prefix before their names. For example: `[Parameters.parameter1]`
- String values are enclosed with apostrophes. An attempt to use quotes instead will result in an error. For example: `'string value'`
- To include an apostrophe in a string value, type two apostrophes. For example: `'It''s sample text'`
- Date-time constants should be enclosed by number signs. For example: `[OrderDate] >= #1/1/2016#`
- To represent a null reference (one that does not refer to any object), use a question mark. For example: `[Region] != ?`
- If an expression involves the use of different types, you can convert them to the same type using dedicated functions. For example: `Max(ToDecimal([Quantity]),[UnitPrice])`

Conditional Formatting

The Dashboard Designer can be used to format dashboard item elements whose values meet the specified condition. This feature allows you to highlight specific elements using a predefined set of rules.

Conditional Formatting Overview

Comparison rules used in conditional formatting can be divided into the following groups, which also includes the data items that are supported by each group:

Group	Description	Supported Data Items
Value	Used to compare static values using operators such as Greater Than, Less Than, Between, etc. See Value on page 103.	Measure/Numeric dimension, String dimension (with condition type set to **Equal To**, **Not Equal To**, or **Text that Contains Expression**), Date-Time dimension

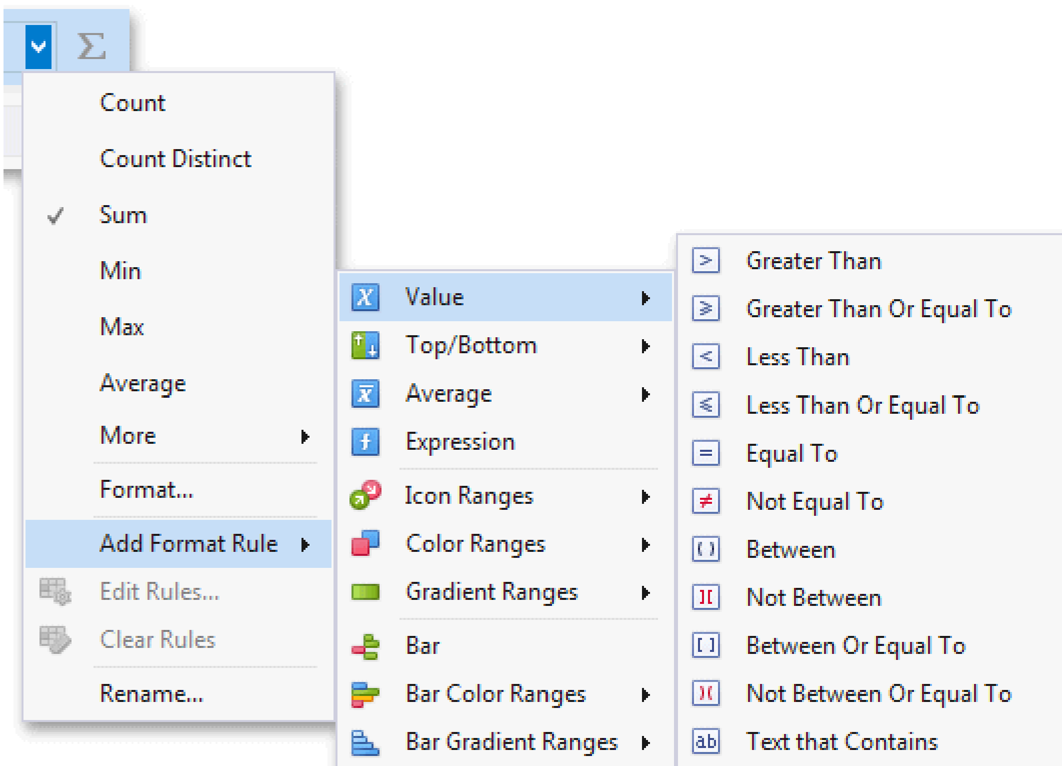
Group	Description	Supported Data Items
Top-Bottom	Used to highlight a specific number of topmost/bottommost values. See Top-Bottom on page 106.	Measure/Numeric dimension
Average	Used to highlight values above and below an average. See Average on page 107.	Measure/Numeric dimension
A Date Occurring	Used to highlight date-time values within a specified interval. See A Date Occurring on page 109	Date-Time dimension
Expression	Used to apply formatting using complex conditions. You can also pass dashboard parameters to expressions. See Expression on page 111.	Measure/Numeric dimension, Date-Time dimension
Icon Ranges	Used to apply formatting by displaying specific icons for different ranges of values. You can select a predefined set of icons or use a specific icon for each range. See Icon Ranges on page 113.	Measure/Numeric dimension, Date-Time dimension
Color Ranges	Used to apply formatting using specific colors for different ranges of values. You can select a predefined set of colors or use custom appearance settings to highlight values within specified ranges. See Color Ranges on page 117.	Measure/Numeric dimension, Date-Time dimension
Gradient Ranges	Used to apply formatting using gradient color scales. See Gradient Ranges on page 120.	Measure/Numeric dimension, Date-Time dimension
Bar	Used to visualize numeric values using bars. You can also color bars corresponding to positive and negative values using different colors. See Bar on page 123.	Measure/Numeric dimension, Date-Time dimension
Bar Color Ranges	Used to visualize numeric values using bars whose colors are contained in a color set containing a specified number of colors. See Bar Color Ranges on page 126.	Measure/Numeric dimension, Date-Time dimension

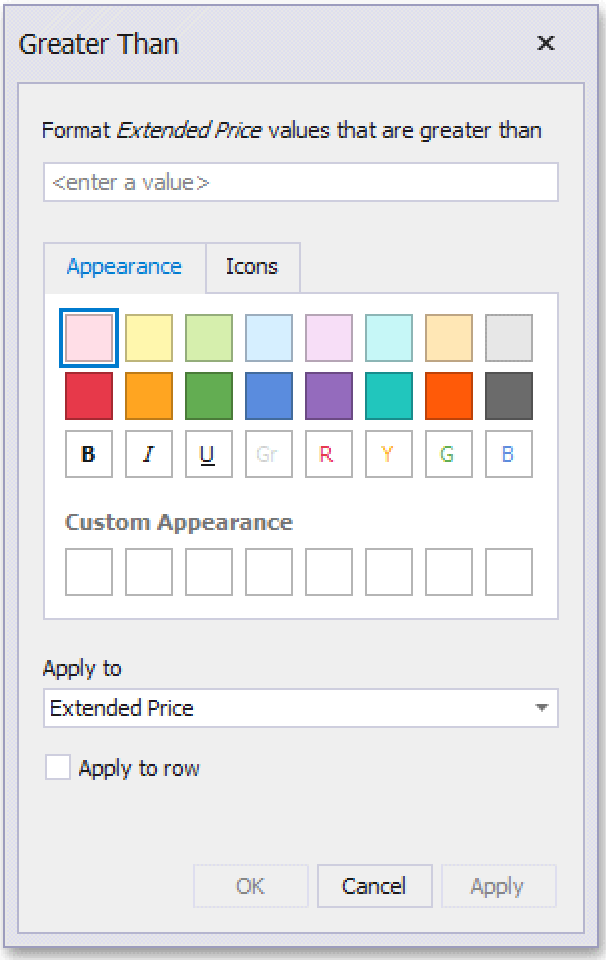
Group	Description	Supported Data Items
Bar Gradient Ranges	Used to visualize numeric values using bars whose colors selected from a specified color gradient. See Bar Gradient Ranges on page 129.	Measure/Numeric dimension, Date-Time dimension

Creating a Format Rule

Rules are used to apply formatting according to a required condition. To create a rule:

1. Choose a measure or dimension to use when calculating a format condition.
2. Click the drop-down arrow next to the measure or dimension menu button, select **Add Format Rule** and choose the condition. One of several different dialog boxes, depending on the selected format condition and the type of the dashboard item, is displayed. For instance, the image below displays the **Greater Than** dialog corresponding to the **Value** format condition for the **Grid** dashboard item.





In this dialog, specify settings specific for the selected condition (for instance, specify a value to compare with dimension/measure values).

3. Specify appearance settings applied to elements whose values meet the specified condition. For more information, see Specifying Appearance Settings on page 100.

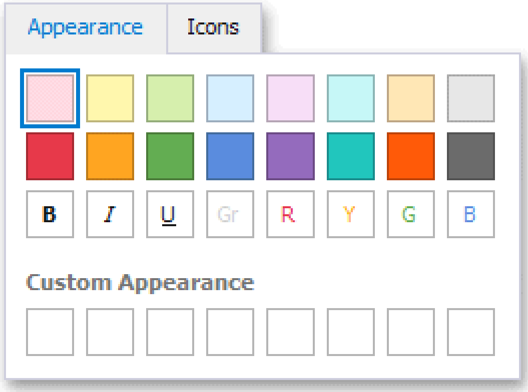
4. Specify the data item and its values to which conditional formatting is applied using the **Apply to** drop-down list. Thus, you can create a format rule for one data item and apply new appearance settings to the other data item. You can also create format rules for hidden measures and apply formatting to values of visible data items.

Note: Different dashboard items can provide additional options for creating a new format rule. To learn more, refer to documentation for the dashboard item.

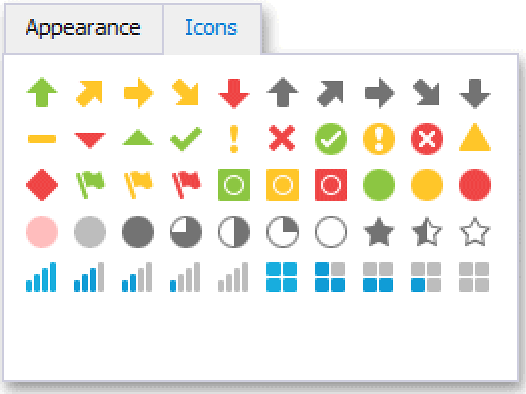
Specifying Appearance Settings

When creating a new format rule, you can select the appearance settings that will applied according to the format condition. All format conditions allow you to customize appearance settings in a similar manner. For instance, the **Value** format condition allows you to specify appearance settings in the following methods:

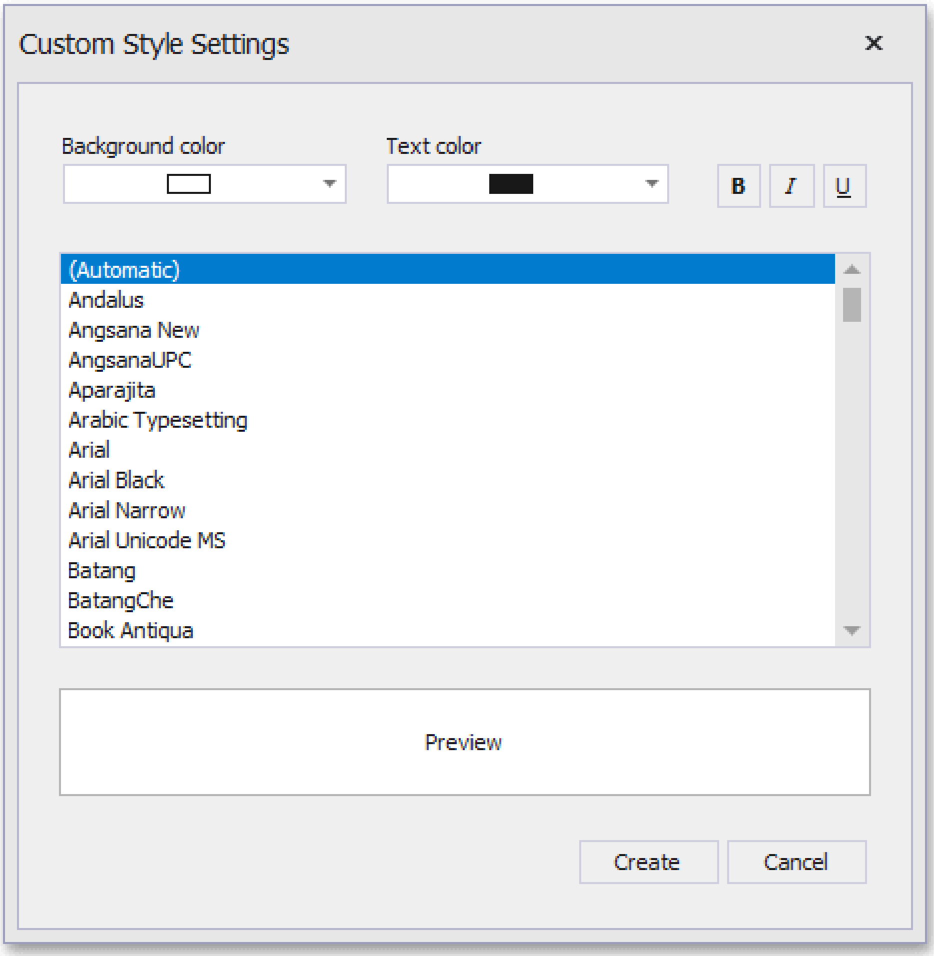
- The **Appearance** tab allows you to choose the predefined background color and font.



- The **Icons** tab allows you to add the predefined icon.



- Use the **Custom Appearance** section of the **Appearance** tab to add presets containing custom appearance settings. To add a new preset, click an empty square. The **Custom Style Settings** dialog is displayed, allowing you to specify the required appearance settings.

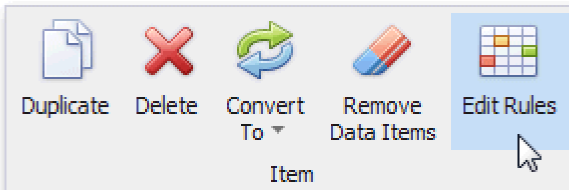


In this dialog, you can specify the background/foreground colors and font settings. Click **Create** to add a preset. The created preset will be displayed in the **Custom Appearance** area.

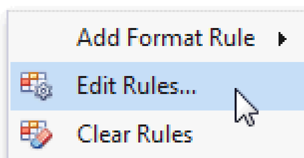
Editing a Format Rule

To edit format rules for the selected dashboard item:

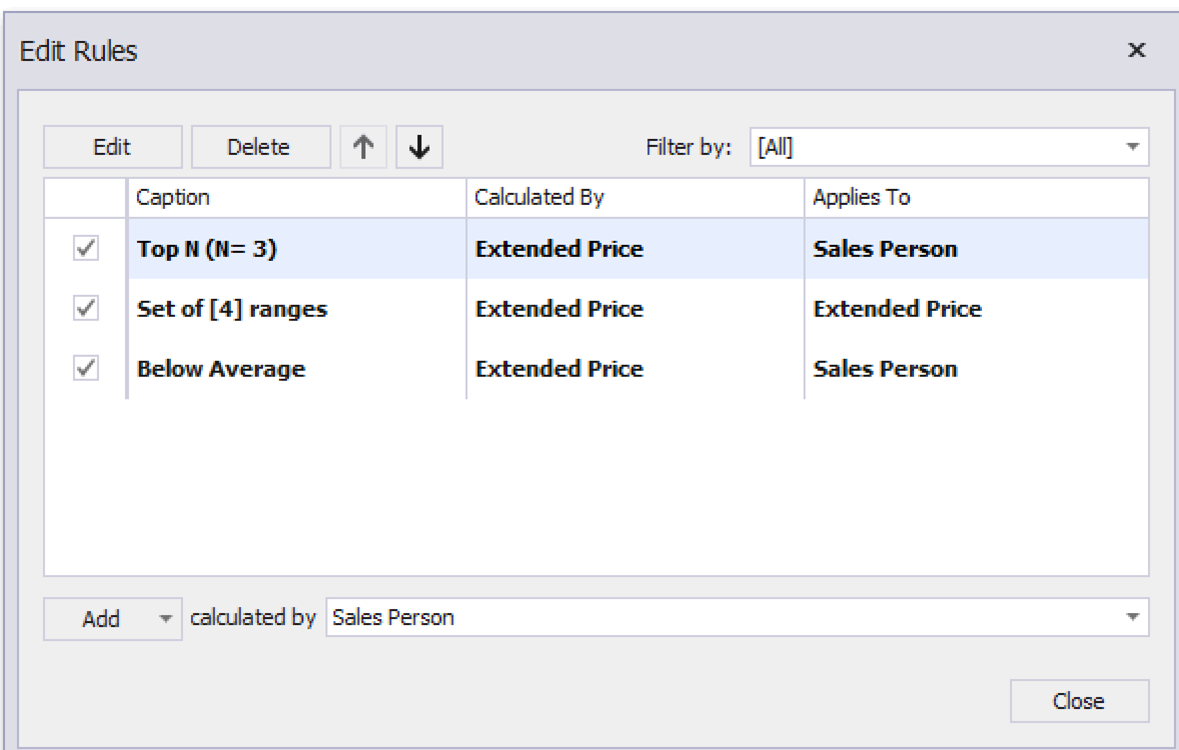
1. Click the **Edit Rules** button in the **Home** ribbon tab.



As an alternative, use the **Edit Rules** data item's menu item or the corresponding item in the dashboard item's right-click menu.



2. The **Edit Rules** dialog box is displayed, which contains existing format rules for this dashboard item.



This dialog allows you to perform the following actions:

- To edit the selected rule, use the **Edit** button or double-click the required rule.
- To delete the selected rule, use the **Delete** button.
- To reorder format rules, use the **Up** and **Down** buttons (the ↑ and ↓ icon, respectively). Reordering of rules allows you to specify the priority of rules from higher (a bottommost rule) to lower (a topmost rule). Higher rules are followed first and override lower rules.
- To filter format rules by the specified data item, use the **Filter by** combo box.
- To enable/disable the required rule, use the corresponding check box on the left column.
- To create a new rule, click the **Add** button and select the required format condition. The **calculated by** drop-down list allows you to select the measure/dimension by whose values a format rule is applied.

3. To clear all rules for the specified data item, use the **Clear Rules** button in the data item's right-click menu.

Value

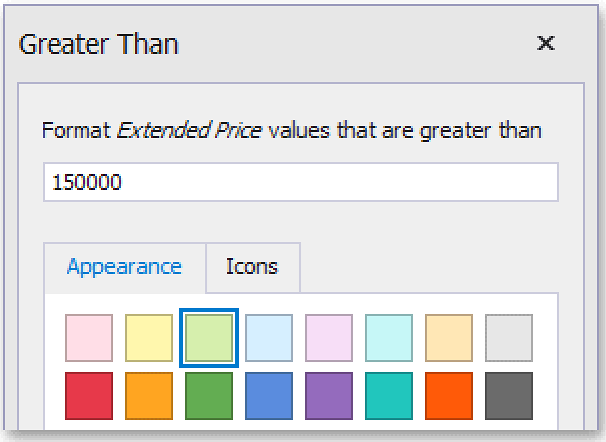
The **Value** format condition allows you to compare dimension/measure values with static values using operators (such as Greater Than, Less Than, Between, etc.).

The following condition types are supported for measures or date-time dimensions:

- **Greater Than**
- **Greater Than or Equal To**
- **Less Than**
- **Less Than or Equal To**
- **Equal To**
- **Not Equal To**
- **Between**
- **Not Between**
- **Text That Contains**

Greater Than and Greater Than or Equal To

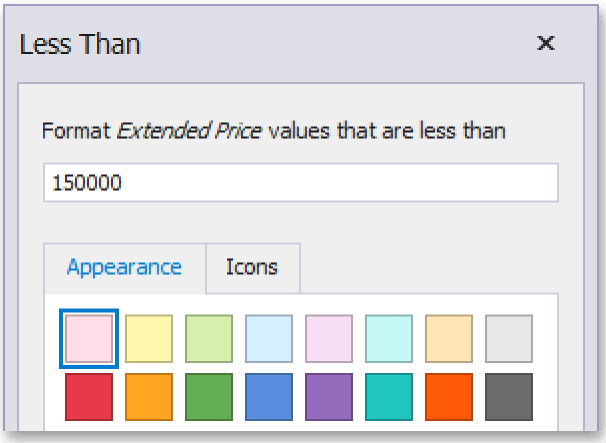
The **Greater Than** format condition allows you to apply formatting to elements whose values are greater than the specified value**.** The **Greater Than or Equal To** format conditions allow you to apply formatting to elements whose values are greater than or equal to the specified value. For instance, the following image displays a **Grid** dashboard item whose **Extended Price** cells are filled in green if their values are greater than 150,000. This format condition can be applied to measures or date-time dimensions.



Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

Less Than and Less Than or Equal To

The **Less Than** format condition allows you to apply formatting to elements whose values are less than the specified value. The **Less Than or Equal To** format condition allows you to apply formatting to elements whose values are less than or equal the specified value. For instance, the following image displays a **Grid** dashboard item whose **Extended Price** cells are filled in red if their values are less than 150,000. This format condition can be applied to measures or date-time dimensions.



Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

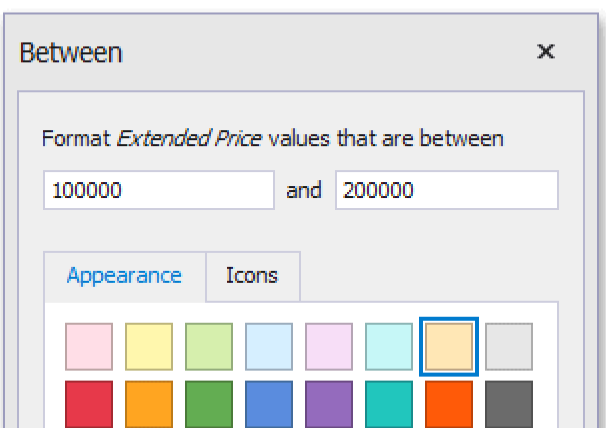
Equal To and Not Equal To

The **Equal To** format condition allows you to apply formatting to elements whose values are equal to the specified value. The **Not Equal To** format condition allows you to apply formatting to elements whose values are not equal to the specified value. For instance, the following image displays a **Grid** dashboard item whose **Sales Person** cells are filled in blue if their values are equal to **Robert King**. This format condition can be applied to measures, string dimensions, or date-time dimensions.

Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

Between and Not Between

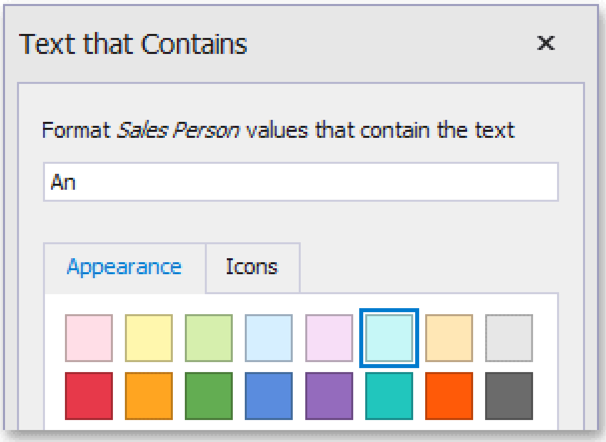
The **Between** and **Not Between** format conditions allow you to apply formatting to elements whose values are between or not between the specified values. For instance, the following image displays a Grid dashboard item whose **Extended Price** cells are filled in orange if their values are between 100,000 and 200,000. This format condition can be applied to measures or date-time dimensions.

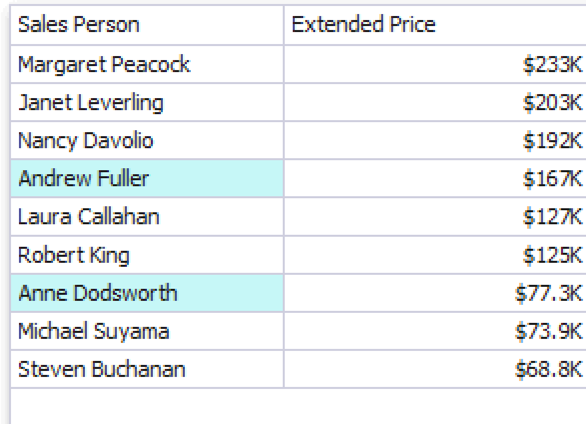


Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

Text That Contains

The **Text That Contains** format condition allows you to apply formatting to elements whose values contain the specified text. For instance, the following image displays a **Grid** dashboard item whose **Sales Person** cells are in cyan if their values contain the 'An' text. This format condition can be applied to measures, string dimensions, or date-time dimensions.





Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

Top-Bottom

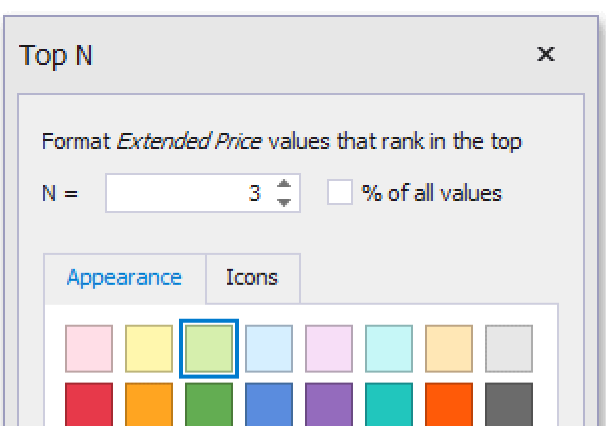
The **Top-Bottom** format conditions allow you to highlight a specific number of topmost/ bottommost values. You can specify this number as an absolute or percent value.

The following condition types are supported for measures:

- Top N. See Top N on page 106.
- Bottom N. See Bottom N on page 107.

Top N

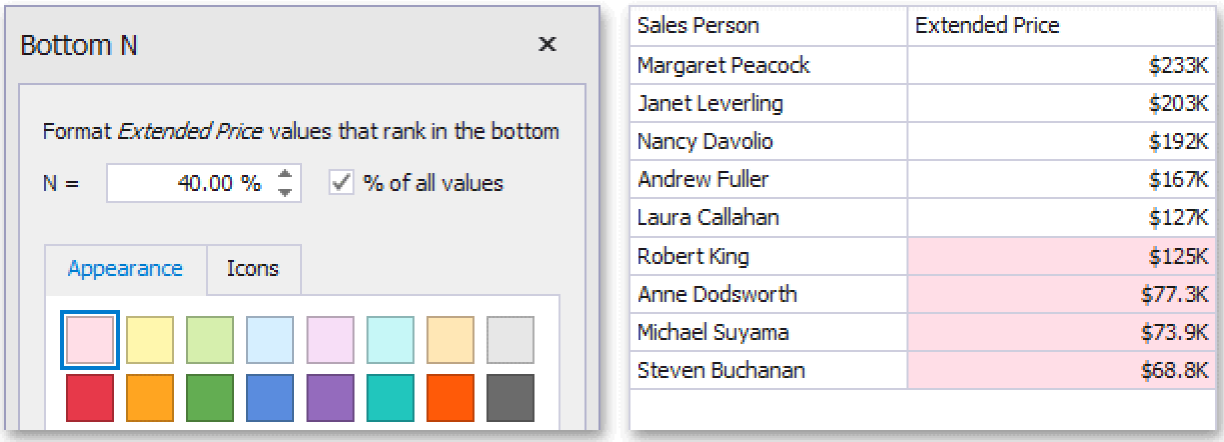
The **Top N** format condition allows you to apply formatting to elements whose values are ranked at the top. For instance, the following image displays a **Grid** dashboard item whose top 3 **Extended Price** values filled in green. This format condition can be applied to measures.



Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

Bottom N

The **Bottom N** format condition allows you to apply formatting to elements whose values are ranked at the bottom. For instance, the following image displays a **Grid** dashboard item whose bottom 40 percent **Extended Price** values are filled in red. This format condition can be applied to measures.



Average

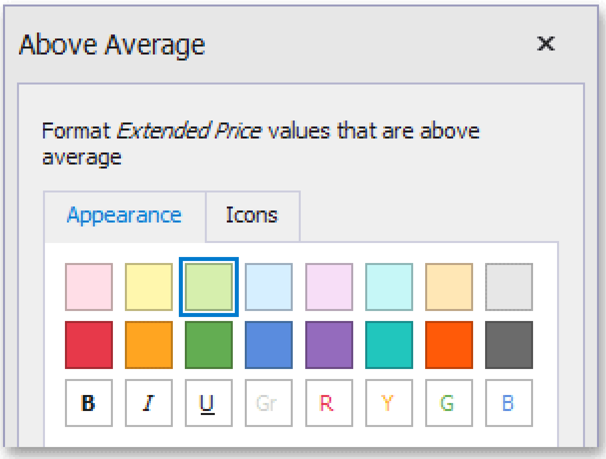
The **Average** format conditions allow you to highlight values above or below an average value.

The following condition types are supported for measures:

- **Above Average**
- **Above or Equal Average**
- **Below Average**
- **Below or Equal Average**

Above Average and Above or Equal Average

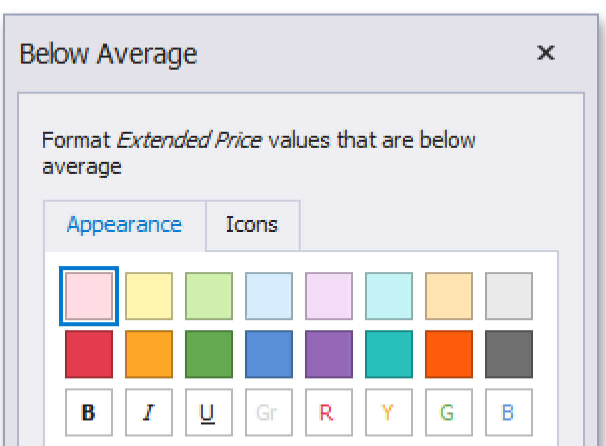
The **Above Average** format condition allows you to apply formatting to elements whose values are above the average of the selected data. The **Above or Equal Average** format condition allows you to apply formatting to elements whose values are above or equal to the average of a selected data. For instance, the following image displays a **Grid** dashboard item whose **Extended Price** values that are above average (approximately 141,000) are filled in green. This format condition can be applied to measures.



Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

Below Average and Below or Equal Average

The **Below Average** format condition allows you to apply formatting to elements whose values are below the average of the selected data. The **Below or Equal Average** format condition allows you to apply formatting to elements whose values are below or equal to the average of the selected data. For instance, the following image displays a **Grid** dashboard item whose **Extended Price** values that are below average (approximately 141,000) are filled in red. This format condition can be applied to measures.



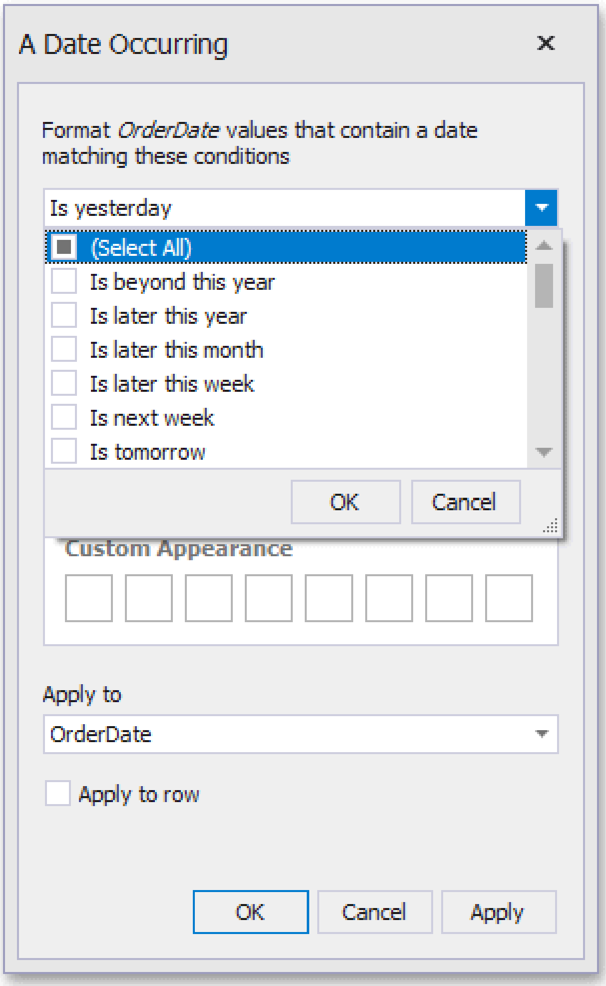
Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

A Date Occurring

The **A Date Occurring** format condition allows you to highlight date-time values that fall into a specified interval. This format condition can be applied to dimensions with the continuous date-time group interval.

Creating a Format Rule

To format values according the **A Date Occurring** condition, click the menu button of the required dimension and select **Add Format Rule | A Date Occurring**. The **A Date Occurring** dialog box is displayed, which allows you to select a date-time interval(s) whose value should be formatted.



The following intervals are supported:

Interval	Description
Is beyond this year	Dates that follow the current year.

Interval	Description
Is later this year	Dates of the current year starting from the following month.
Is later this month	Dates of the current month that follow the next week.
Is later this week	Dates of the current week starting from the day after tomorrow.
Is next week	Dates that belong to the following week.
Is tomorrow	Dates following the current date.
Is today	Dates equaling the current date.
Is yesterday	Dates that are one day prior to the current date.
Is earlier this week	Dates of the current week that are prior to yesterday.
Is last week	Dates of the previous week.
Is earlier this month	Dates of the current month that are prior to the previous week.
Is earlier this year	Dates of the current year that are prior to the current month.
Is prior to this year	Dates that are prior to the current year.
Empty	Does not specify any condition.
Beyond	Dates occurring three months from the current month and later.
ThisWeek	Dates that belong to the current week.
ThisMonth	Dates that belong to the current month.
MonthAfter1	Dates that belong to the following month.
MonthAfter2	Dates that belong to the month two months after the current month.
MonthAgo1	Dates that belong to the previous month.
MonthAgo2	Dates that belong to the month two months ago.
MonthAgo3	Dates that belong to the month three months ago.
MonthAgo4	Dates that belong to the month four months ago.

Interval	Description
MonthAgo5	Dates that belong to the month five months ago.
MonthAgo6	Dates that belong to the month six months ago.
Earlier	Dates that belong to the month seven months ago and earlier.

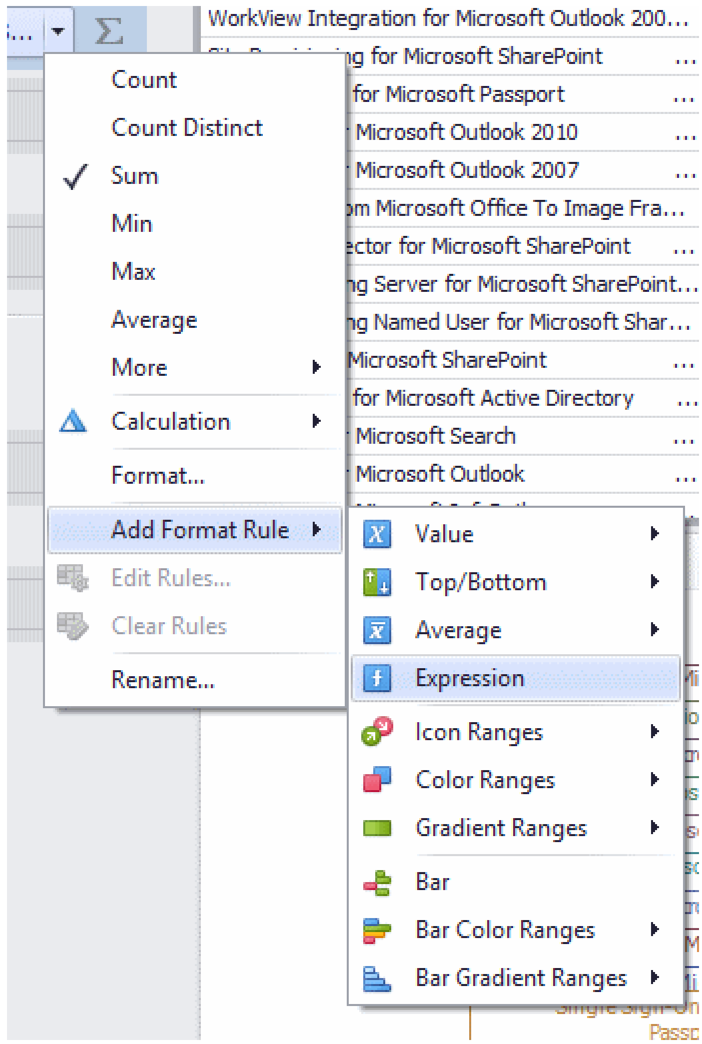
Expression

An Expression format condition allows you to use complex conditions to apply formatting.

Creating a Format Rule

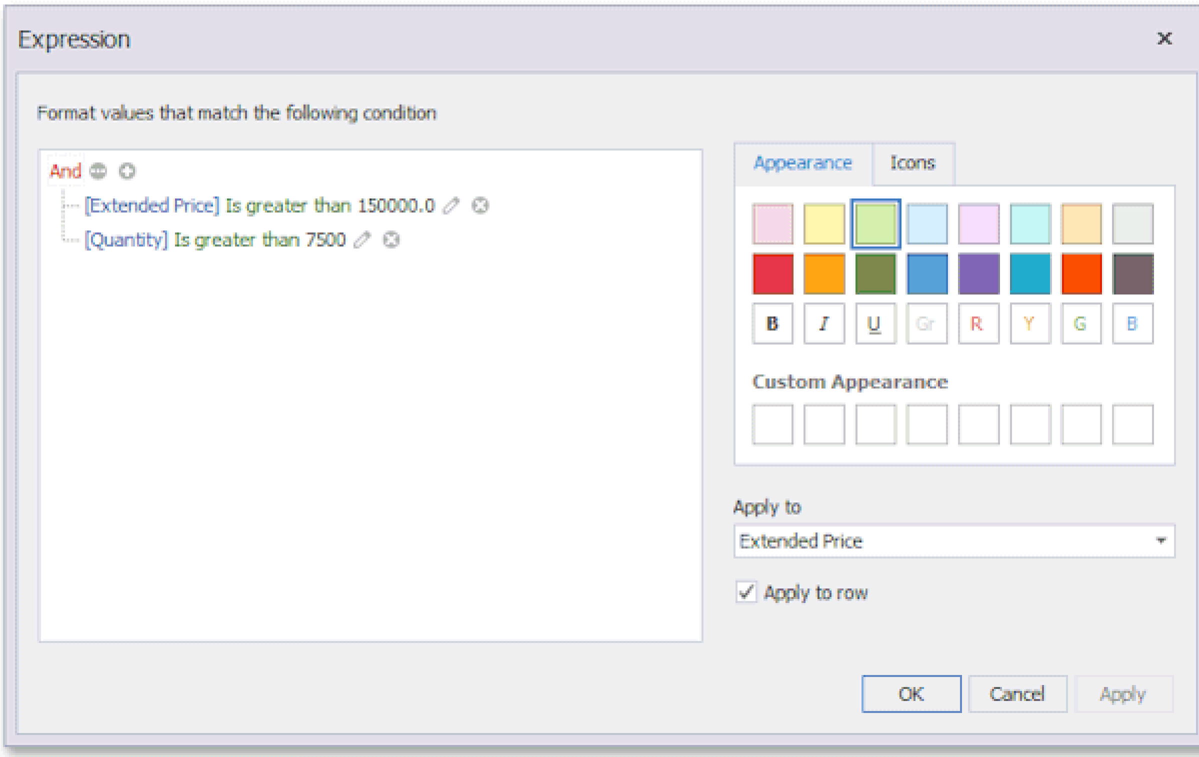
To format values according to the **Expression** condition,

1. Click the menu button of the required data item and select **Add Format Rule | Expression**.The **Expression** dialog box is displayed, which allows you to specify the required expression.



2. Select the value being evaluated by the expression by clicking on the blue value in brackets. This will display a list of available values.
3. Select the operator for the expression by clicking on the green operators, which will bring up a drop-down list of available operators.
4. Specify a static value for comparison by clicking the **<enter a value>** field, or by clicking the to change the field to allow comparison to a dashboard parameter.

For instance, the following image displays a **Grid** dashboard item whose rows are filled in green if the **Extended Price** value is greater than **150,000** and the **Quantity** value is greater than **7,500**.



Sales Person	Extended Price	Quantity
Margaret Peacock	$233K	9798
Janet Leverling	$203K	7852
Nancy Davolio	$192K	7812
Andrew Fuller	$167K	6055
Laura Callahan	$127K	5913
Robert King	$125K	4654
Anne Dodsworth	$77.3K	2670
Michael Suyama	$73.9K	3527
Steven Buchanan	$68.8K	3036

Icon Ranges

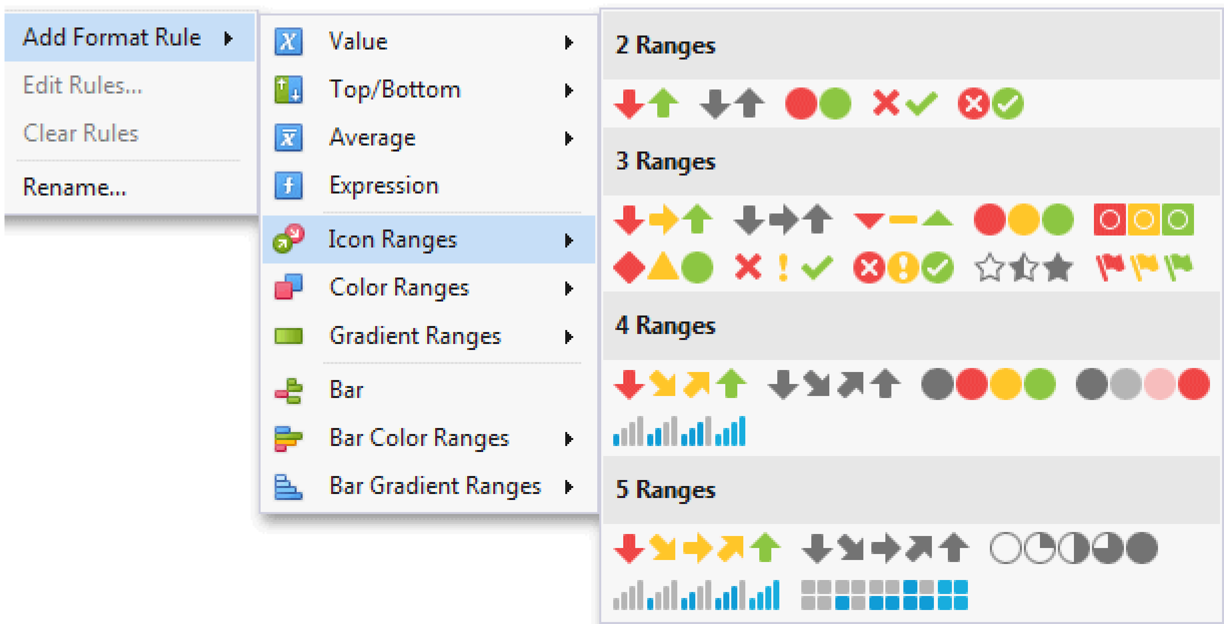
Icon Ranges allow you to use predefined or custom sets of icons to apply conditional formatting to different ranges of values.

Creating a Format Rule

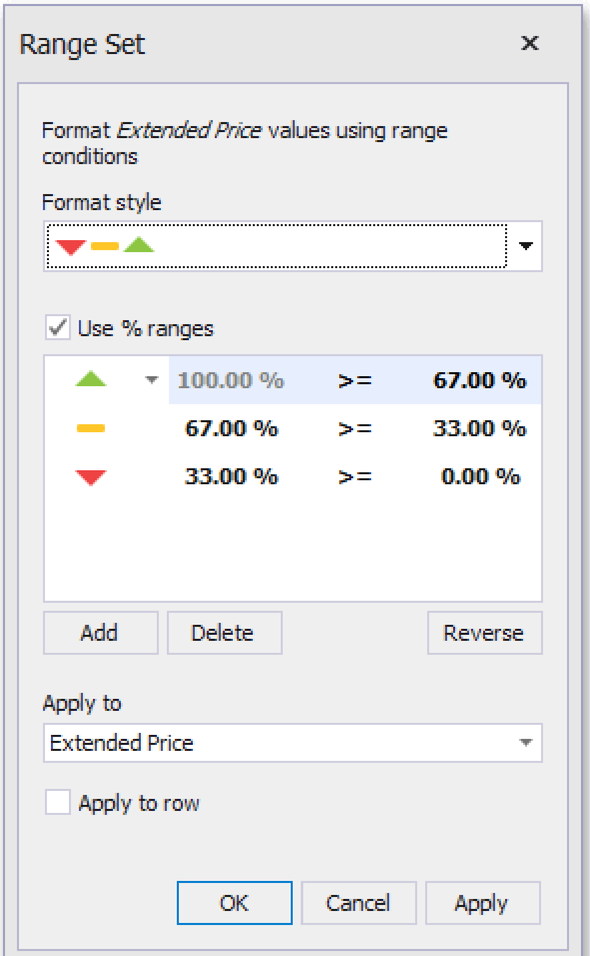
Ranges are sets of values that can be evaluated and have an icon assigned to them. Depending on the number of ranges being used, several different icon sets are available. For example, a 3 range set could include all percents above 67, all percents between 33 and 67, and all percents below 33. For this set of ranges, you could select a 3 Range set to show above 67 percent with a green up arrow, between 33 and 67 percent with a yellow hyphen, and below 33 percent with a red down arrow.

To format values according the required condition using Icon Ranges:

1. Click the data item menu button, select **Add Format Rule | Icon Ranges** and select the required icon set.



The **Range Set** dialog box is displayed, containing the set of value ranges and corresponding icons. The **Grid** dashboard item on the right displays the default formatting applied using the predefined set of 3 icons.



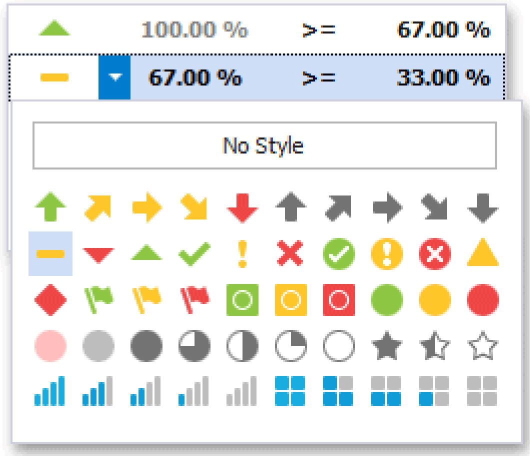
Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

This dialog allows you to change the following options specific to Icon Ranges.

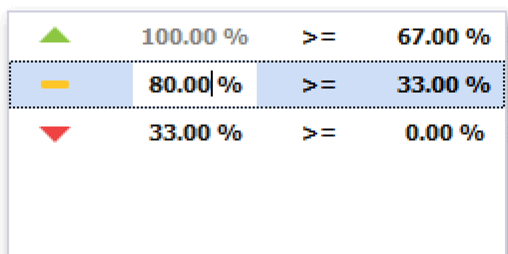
- The **Format Style** drop-down list allows you to change the entire icon set used for the rule.
- The **Use % ranges** option specifies whether percentages or specified values are used to generate ranges. If selected, percents will be assigned for the range values. If not selected, you will need to specify values for each range.

Note: The **Use % ranges** option is not available for date-time dimensions.

2. To change the icon displayed for values corresponding to the specified range, click the drop-down arrow next to the required icon and select a new icon.Select **No Style** to specify that the range should have no icon.

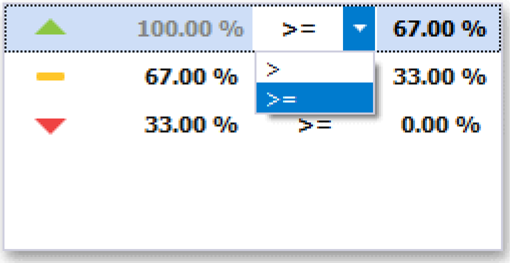


3. Change range boundaries by specifying the required values by clicking on the value and typing in the desired range boundary.



Note: A new value should fall into a range between corresponding values of the previous and next range.

4. To change the comparison logic for the required range, click the comparison sign and select the required option.



The **> =** (greater or equal to) sign indicated that the range includes the smallest value of the current interval while the **>** (greater) sign indicates that the range excludes the smallest value from the current interval and includes it in the next interval.

5. Use the **Add** and **Delete** buttons to add new ranges or delete the selected range, respectively. The new range is added below the selected range.
6. Use the **Reverse** button to reverse the order of icons corresponding to different ranges.

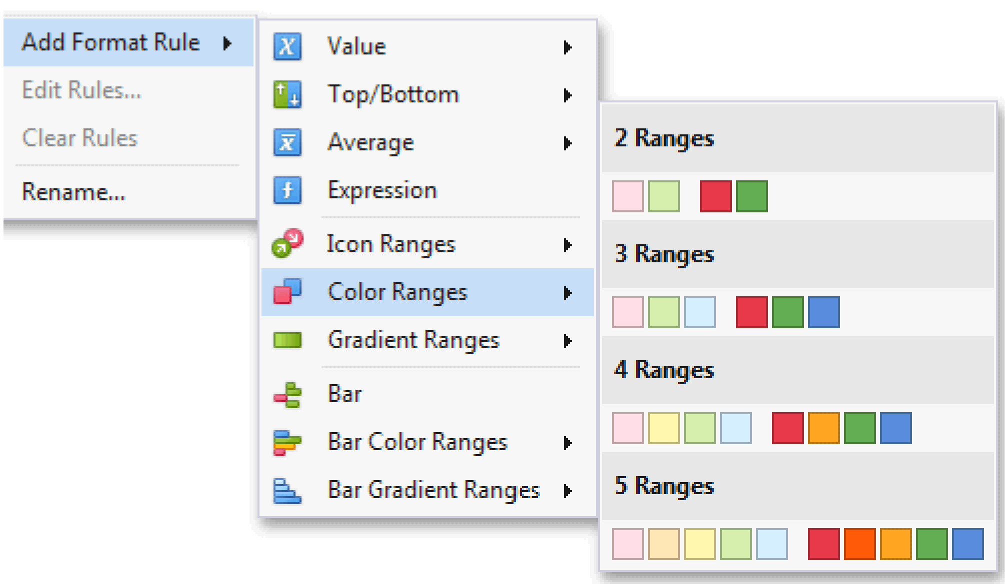
Color Ranges

Color Ranges allow you to use predefined sets of colors to apply conditional formatting to different ranges of values. You can also use custom appearance settings for specific ranges.

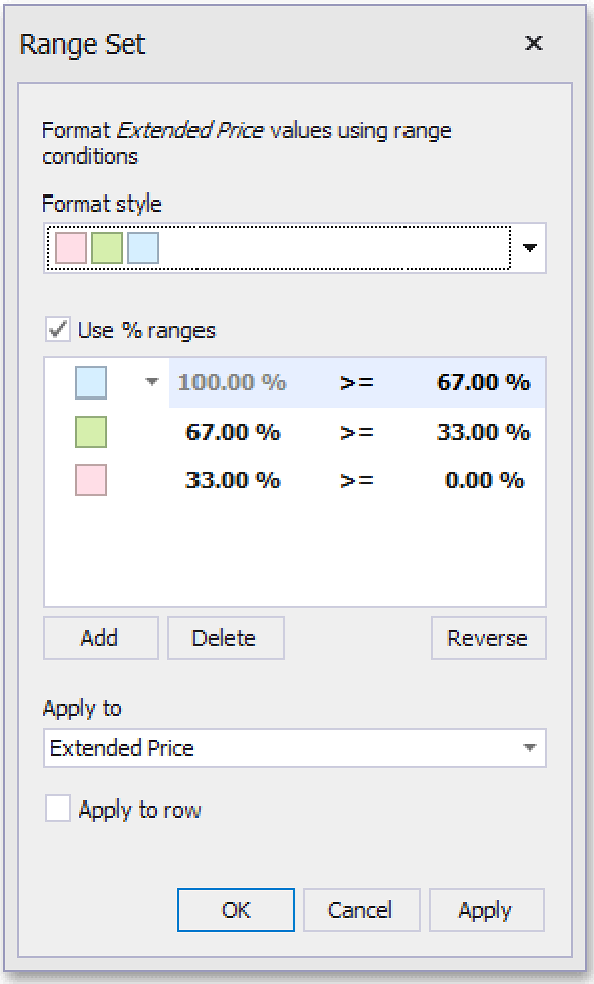
Creating a Format Rule

To format values according to the required condition:

1. Click the data item menu button, select **Add Format Rule | Color Ranges** and choose the required color set.



2. The **Range Set** dialog box is displayed, containing the set of value ranges and corresponding appearance settings. The **Grid** dashboard item on the right displays the default formatting applied using the predefined set of 3 colors.



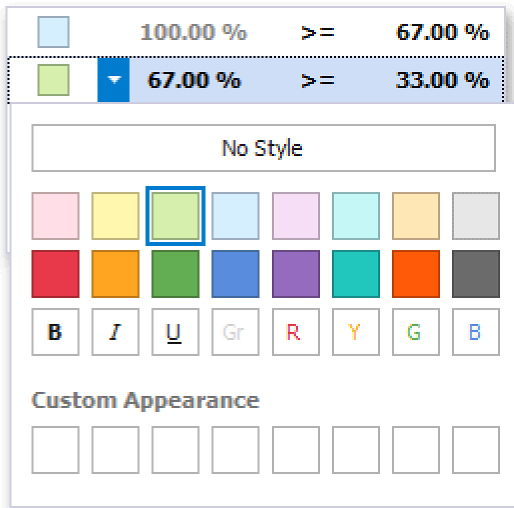
Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

This dialog allows you to change the following options specific to Color Ranges.

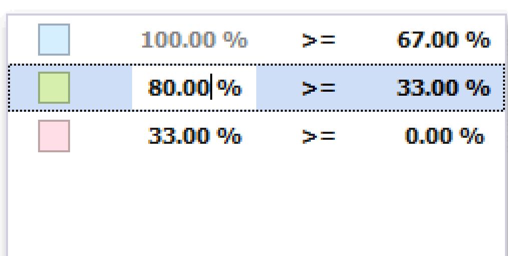
- The **Format Style** drop-down list allows you to change the color set used to apply formatting.
- The **Use % ranges** option specifies whether the percent or absolute scale is used to generate ranges.

Note: The **Use % ranges** option is not available for date-time dimensions.

3. To change the appearance settings applied to values corresponding to the specified range, click the button next to the required color and select a new color or specify custom appearance settings. To learn how to specify custom settings, see Specifying Appearance Settings on page 100. Select **No Style** to disable the indication for the required range.

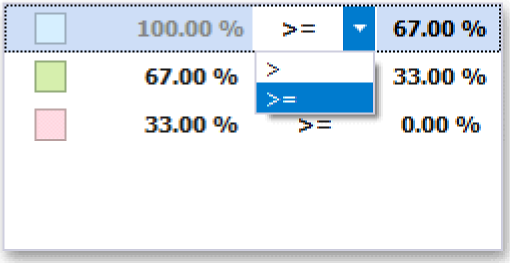


4. Change range boundaries by specifying the required values by typing the values into the range fields.



Note: A new value should fall into a range between corresponding values of the previous and next range.

5. To change the comparison logic for the required range, click the comparison sign and select the required option.



The **> =** (greater or equal to) sign indicated that the range includes the smallest value of the current interval while the **>** (greater) sign indicates that the range excludes the smallest value from the current interval and includes it in the next interval.

6. Use the **Add** and **Delete** buttons to add new ranges or delete the selected range respectively.
7. Use the **Reverse** button to reverse the order of style settings corresponding to different ranges.

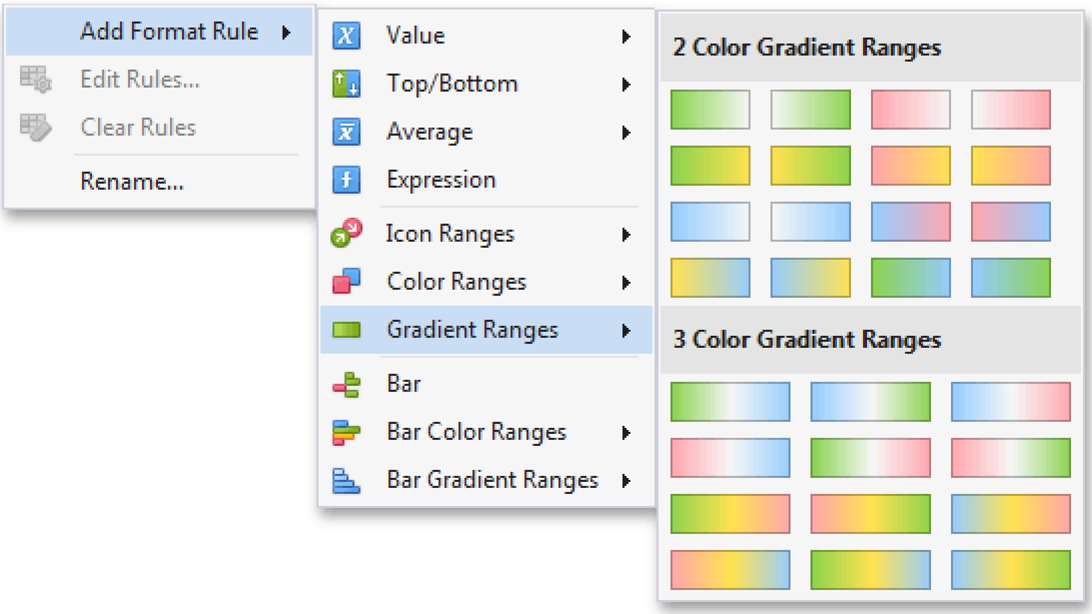
Gradient Ranges

Gradient Ranges allow you to use predefined color gradients to apply conditional formatting to different ranges of values. You can also use specific colors to generate custom gradients.

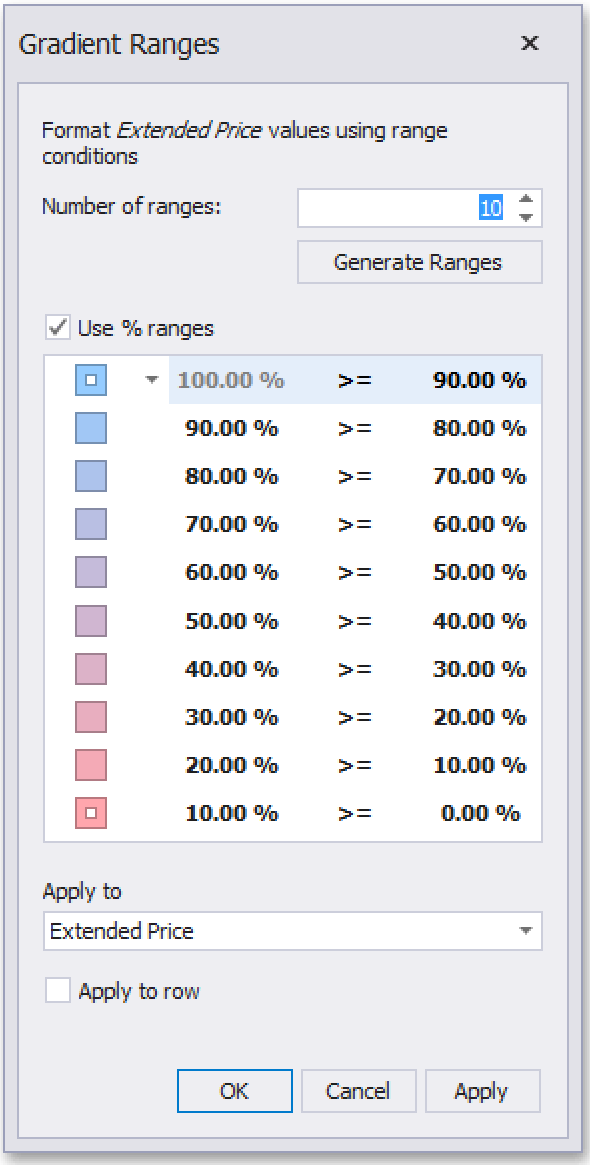
Create a Format Rule

To format values according the required condition:

1. Click the measure menu button, select **Add Format Rule | Gradient Ranges** and choose the required color gradient.



The **Gradient Ranges** dialog box is displayed, containing the set of value ranges and corresponding appearance settings. The **Grid** dashboard item on the right displays the default formatting applied using the predefined red-blue gradient.



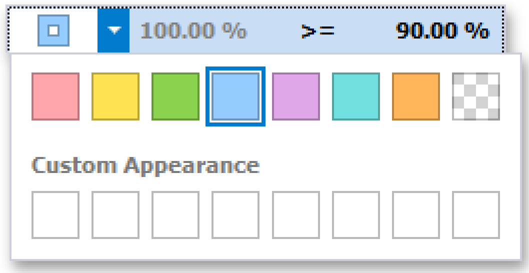
Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

This dialog allows you to change the following options specific to Gradient Ranges.

- **Number of ranges** allows you to specify the number of ranges used to classify values. Click the **Generate Ranges** button to generate a new gradient scale according to the specified number of ranges.
- The **Use % ranges** check box specifies whether the percent or absolute scale is used to generate ranges.

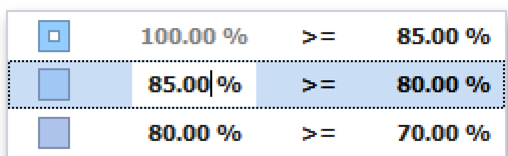
Note: The **Use % ranges** option is not available for date-time dimensions.

2. To change the specific color in the gradient, click the button next to the required color. Select a new color or specify a custom background color. This allows you to create a color gradient based on more than two colors.



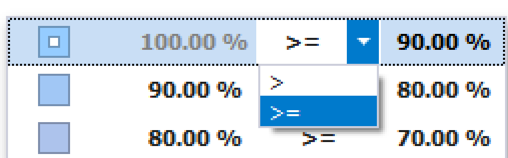
To learn how to specify a custom color, see Specifying Appearance Settings on page 100.

3. Change range boundaries by specifying the required values by typing the new boundaries into the desired fields.



Note: A new value should fall into a range between corresponding values of the previous and next range.

4. To change the comparison logic for the required range, click the comparison sign and select the required option.



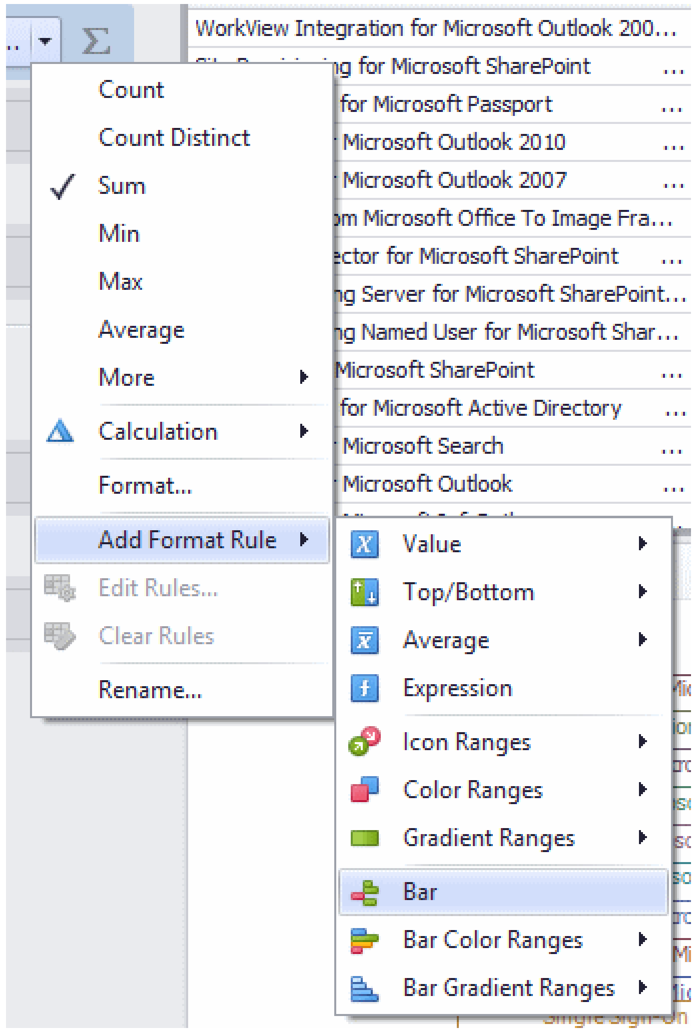
The **> =** (greater or equal to) sign indicates that the range includes the smallest value of the current interval while the **>** (greater) sign indicates that the range excludes the smallest value from the current interval and includes it in the next interval.

Bar

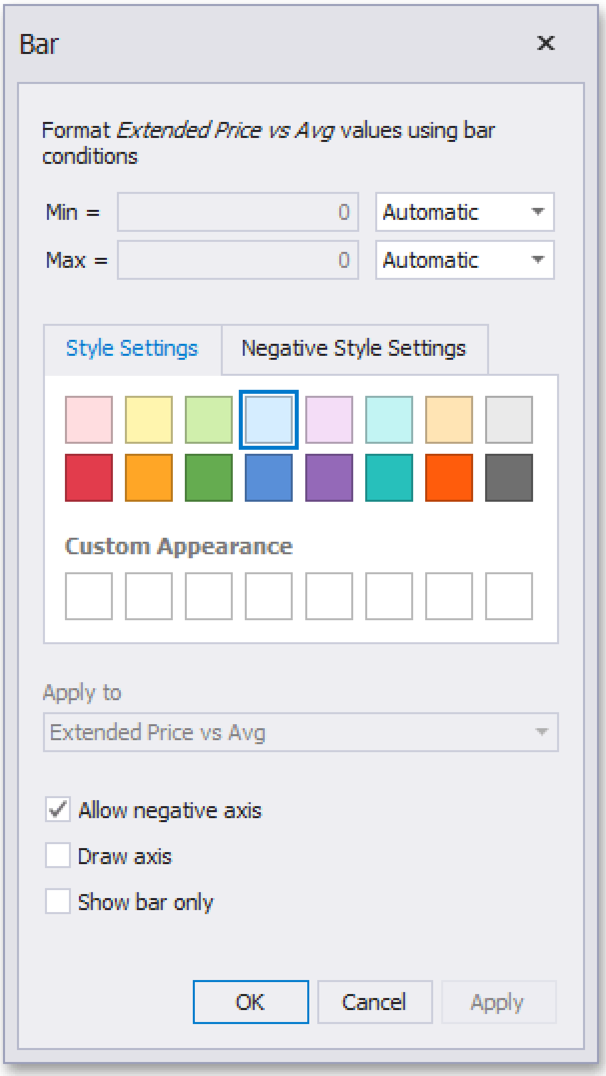
The **Bar** format condition allows you to visualize numeric values using bars. You can also color bars corresponding to positive and negative values using different colors.

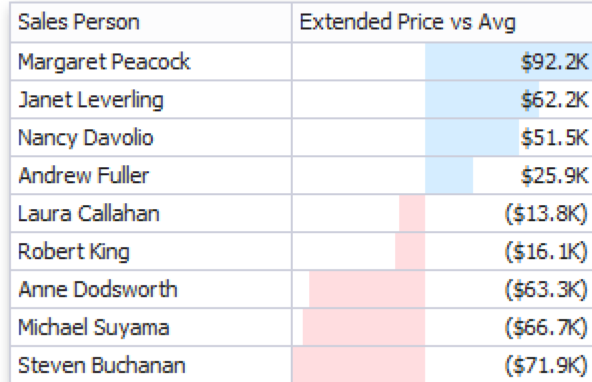
Creating a Format Rule

To format values according to the Bar condition click the menu button of the required data item and select **Add Format Rule | Bar**.



The **Bar** dialog box is displayed, which allows you to specify the required settings. For instance, the following image displays a **Grid** dashboard item whose **Extended Price** cell contains data bars corresponding to numeric values.





Sales Person	Extended Price vs Avg
Margaret Peacock	$92.2K
Janet Leverling	$62.2K
Nancy Davolio	$51.5K
Andrew Fuller	$25.9K
Laura Callahan	($13.8K)
Robert King	($16.1K)
Anne Dodsworth	($63.3K)
Michael Suyama	($66.7K)
Steven Buchanan	($71.9K)

This dialog allows you to change the following options specific to the Bar format condition.

- By default, lengths of the shortest and longest bars correspond to minimum and maximum values, respectively. If necessary, you can specify values corresponding to the shortest and longest bars manually. To do this, change the type of minimum or maximum value from **Automatic** to **Number** or **Percent**, and specify the required values.
- The **Style Settings** and **Negative Style Settings** tabs allow you to specify style settings used to color data bars of positive and negative values, respectively. To learn how to specify custom style settings, see Specifying Appearance Settings on page 100.
- The **Allow negative axis** option allows you to specify whether negative data bars will run in the opposite direction of positive data bars or will be displayed similarly to the positive data bars.

- The **Draw axis** option specifies whether to draw the vertical axis between positive and negative data bars.
- The **Show bar only** option specifies whether to show bars without corresponding values.

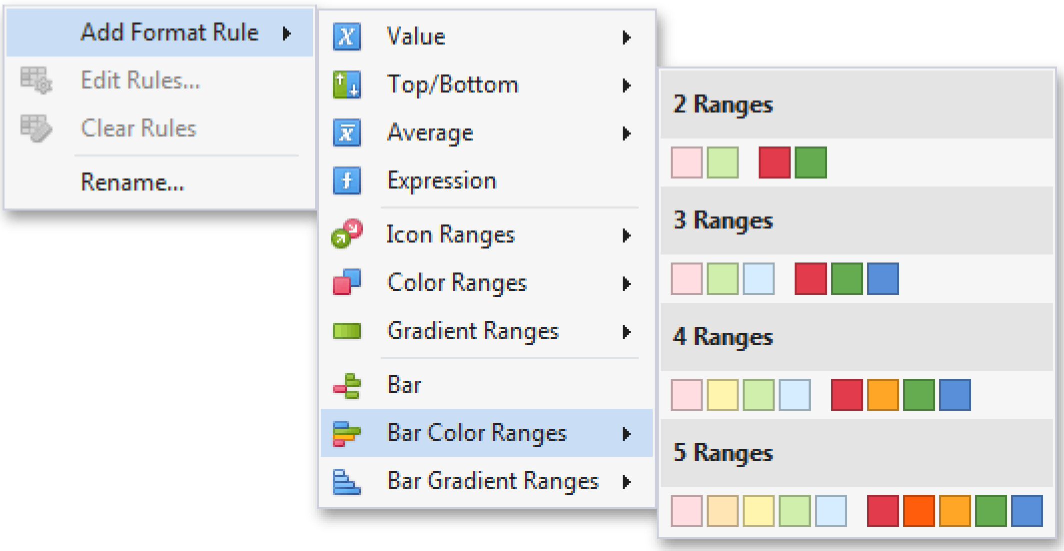
Bar Color Ranges

Bar Color Ranges allow you to visualize numeric values using bars whose colors are contained in the specified color set.

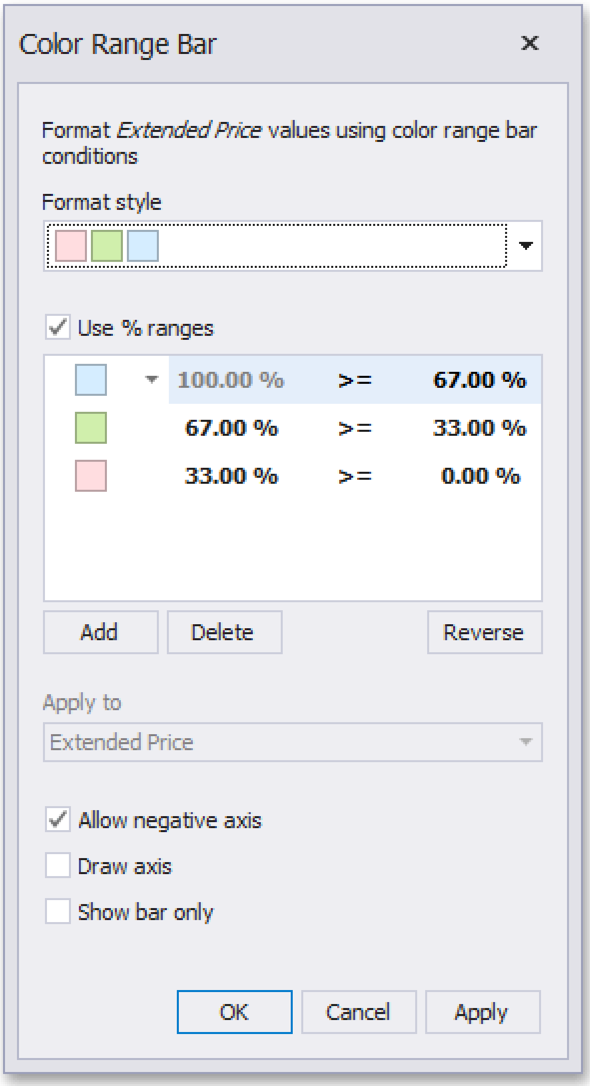
Creating a Format Rule

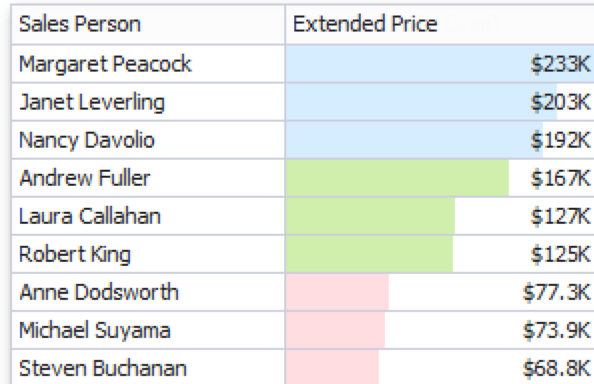
To format values according the required condition:

1. Click the data item menu button, select **Add Format Rule | Bar Color Ranges** and choose the required color set.



The **Color Range Bar** dialog box is displayed, containing the set of value ranges and corresponding colors. The **Grid** dashboard item on the right displays the default formatting applied using the predefined set of 3 colors.





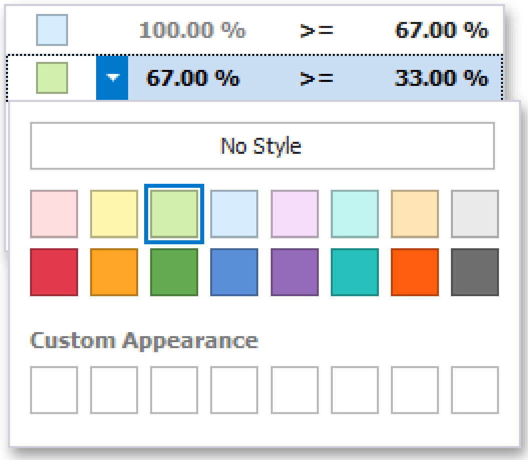
Sales Person	Extended Price
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

This dialog allows you to change the following options specific to Bar Color Ranges:

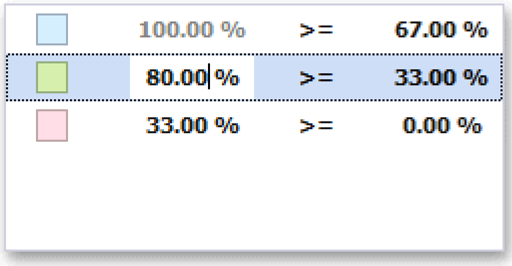
- The **Format Style** drop-down list allows you to change the color set used to apply formatting.
- The **Use % ranges** option specifies whether the percent or absolute scale is used to generate ranges.

Note: The **Use % ranges** option is not available for numeric dimensions.

2. To change the appearance settings applied to values corresponding to the specified range, click the button next to the required color. Select a new color or specify custom appearance settings. Select **No Style** to disable the indication for the required range. To learn how to specify custom settings, see Specifying Appearance Settings on page 100.

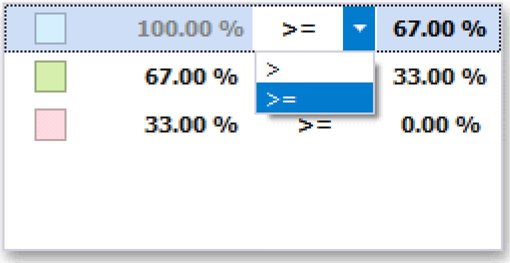


3. Change range boundaries by typing the desired boundaries into the range fields.



Note: A new value must fall into a range between corresponding values of the previous and next range.

4. To change the comparison logic for the required range, click the comparison sign and select the required option.



The **> =** (greater or equal to) sign indicates that the range includes the smallest value of the current interval while the **>** (greater) sign indicates that the range excludes the smallest value from the current interval and includes it in the next interval.

5. Use the **Add** and **Delete** buttons to add new ranges or delete the selected range respectively.

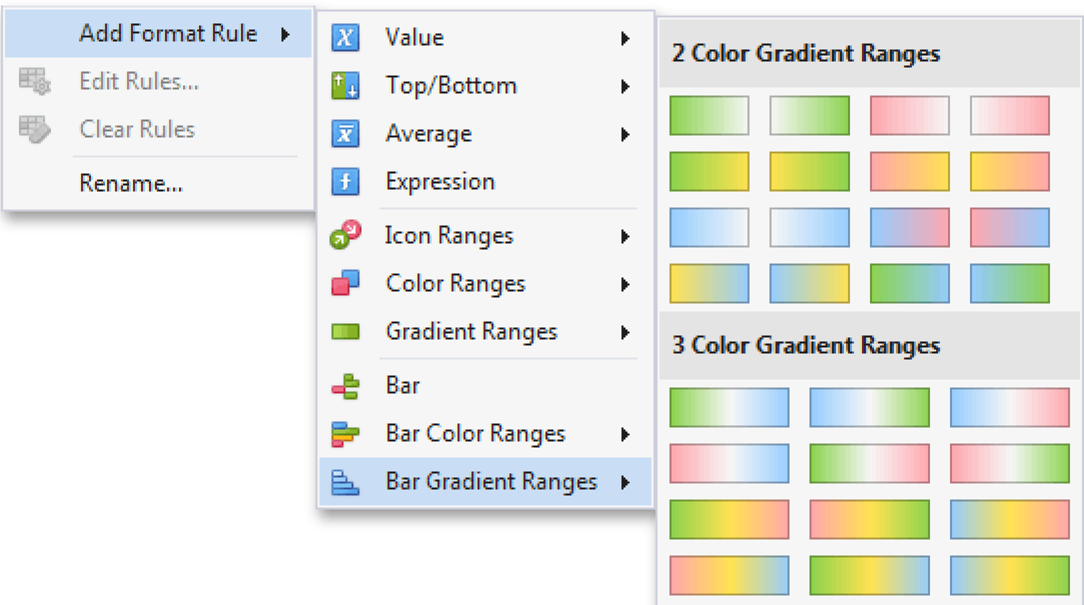
Bar Gradient Ranges

Bar Gradient Ranges allow you to visualize numeric values using bars whose colors are contained in the specified color gradient.

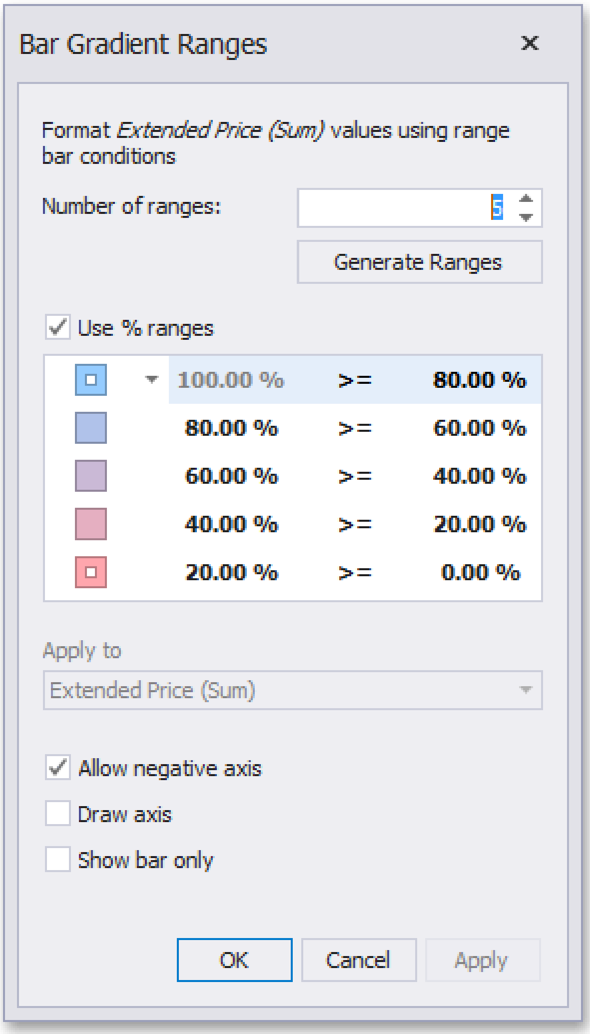
Creating a Format Rule

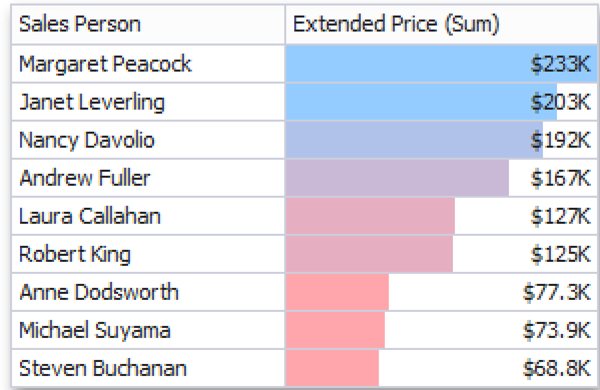
To format values according to the required condition:

1. Click the measure menu button, select **Add Format Rule | Bar Gradient Ranges** and select the required color gradient.



The **Bar Gradient Ranges** dialog is displayed, containing a set of value ranges and corresponding appearance settings. The **Grid** dashboard item on the right displays the default formatting applied using the predefined red-blue gradient.





Sales Person	Extended Price (Sum)
Margaret Peacock	$233K
Janet Leverling	$203K
Nancy Davolio	$192K
Andrew Fuller	$167K
Laura Callahan	$127K
Robert King	$125K
Anne Dodsworth	$77.3K
Michael Suyama	$73.9K
Steven Buchanan	$68.8K

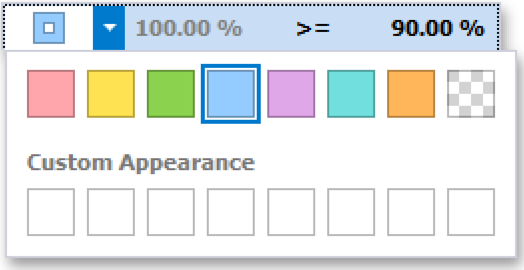
This dialog allows you to change the following options specific to Bar Gradient Ranges.

- The **Number of ranges** field allows you to specify how many ranges are used to classify values. Click the **Generate Ranges** button to generate a new gradient scale according to the specified number of ranges.

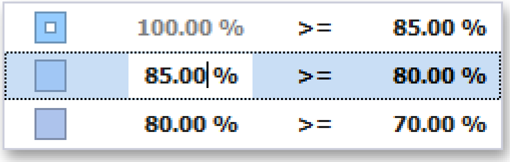
- The **Use % ranges** option box specifies whether the percent or absolute scale is used to generate ranges.

Note: The **Use % ranges** option is not available for numeric dimensions.

To change a specific color in the gradient, click the button next to the required color and select a new color or specify a custom background color. This allows you to create a color gradient based on more than two colors. In this case, the specified colors are marked with an empty square.To learn how to specify a custom color, see tSpecifying Appearance Settings on page 100.

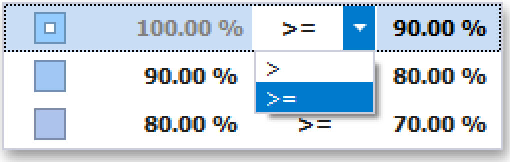


- You can change range boundaries by specifying the required values.



Note: A new value should fall into a range between corresponding values of the previous and next ranges.

- To change the comparison logic for the required range, click the comparison sign and select the required option.



The **> =** (greater or equal to) sign indicates that the range includes the smallest value of the current interval while the **>** (greater) sign indicates that the range excludes the smallest value from the current interval and includes it in the next interval.

Editing Filters

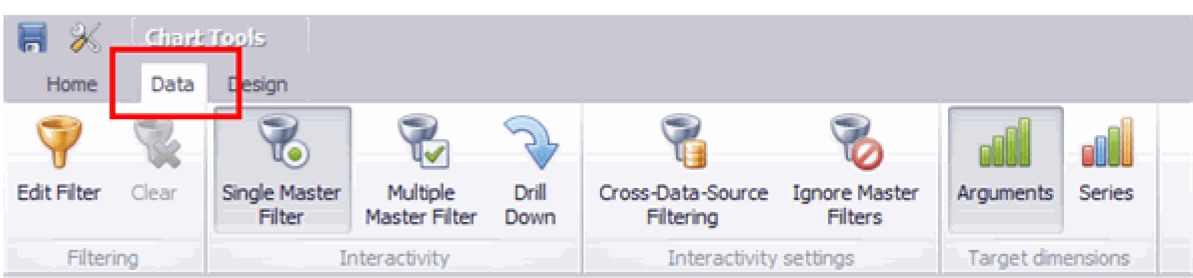
The filtering on dashboard items can be edited to display only a small set of the possible data returned for the filter, or to show only results for specific data. For example, if you create a dashboard item that returns sales figures by product category, it will return all sales figures for all product categories. By editing the filter, the dashboard item can be customized to return only sales figures for a specific subset of categories.

To edit the filter for a dashboard item:

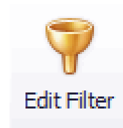
1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

   The dashboard designer is opened in a new user interface.
2. Select the dashboard item to edit the filter for.
3. Click the **Data** tab to display the **Data** ribbon.

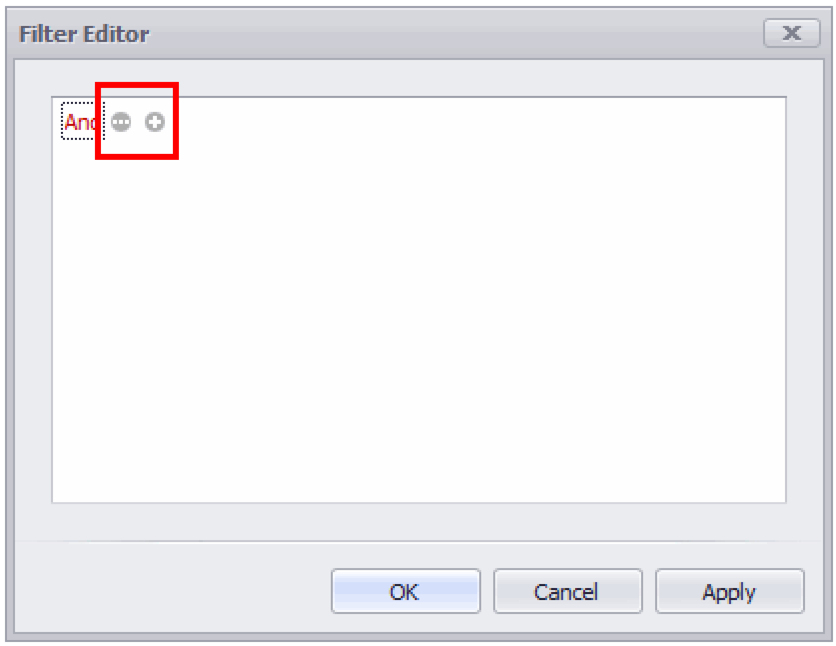


4. Click **Edit Filter**.



   The **Filter Editor** dialog box is displayed.

5. Click the **+** symbol to add a condition, or click **...** and select **Add Condition**. A new condition is added to the filter.

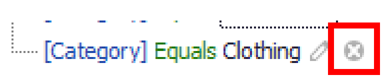


6. Edit the elements of the condition to display the filtered data. Multiple conditions can be added.

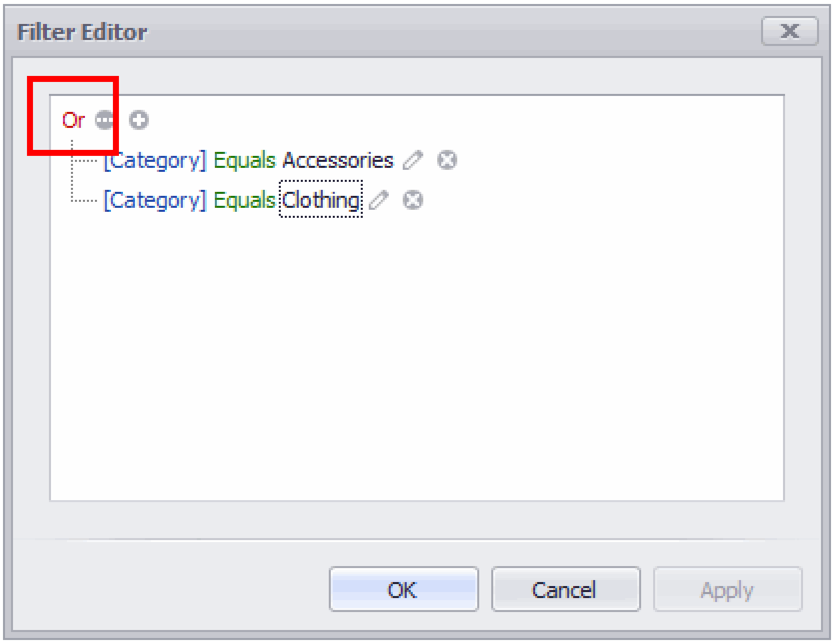
   See also:

   - Parameter Comparison Options on page 136
   - Date Range Parameter Options on page 138

   To remove a condition, click the **X** at the end of the condition line:



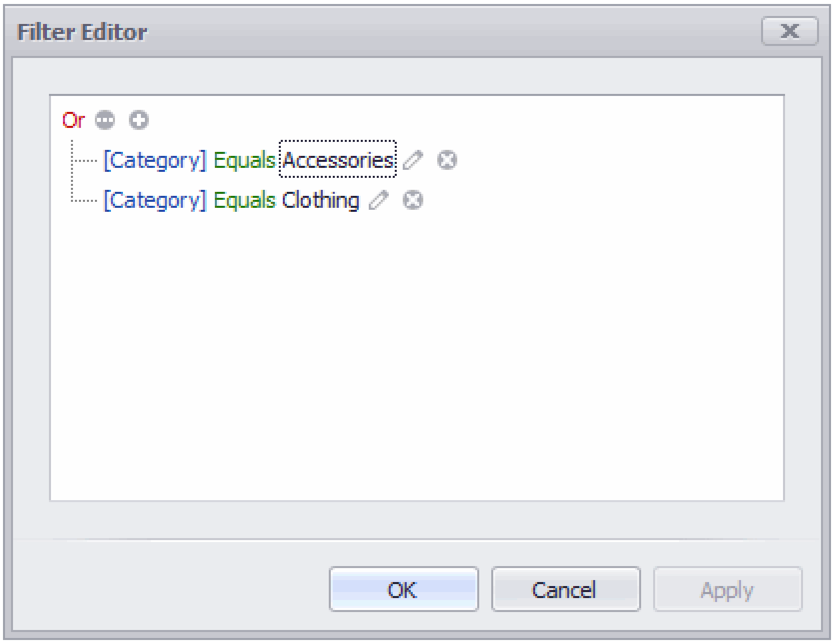
7. If multiple conditions are added, you must select how the conditions are compared to each other by selecting the condition operator:



The available condition operators are:

- **And:** All conditions are true. In the above example, that would mean the category equals **Accessories AND Clothing** (only data where the category is both Accessories and Clothing is included).
- **Or:** One or more of the conditions are true. In the above example, that would mean the category equals **Accessories OR Clothing** (only data where the category is Accessories or the category is Clothing are included).
- **Not And:** All conditions are false. In the above example, that would mean the category does not equal **Accessories AND Clothing** (only data where the category is not both Accessories and Clothing is included).
- **Not Or:** One or more of the conditions are false. In the above example, that would mean the category does not equal **Accessories OR Clothing** (only data where the category is not Accessories or the category is not Clothing are included).

For example, to return only sales data for clothing and accessories in the following filter, and exclude bicycle and components sales, add two conditions and change the elements to reflect data where the category equals accessories or clothing:



8. To preview the filtering, click **Apply**. The dashboard item is displayed in the designer with the filter applied, and the **Filter Editor** dialog box remains open.

   To apply the filter and save your changes, click **OK**. The **Filter Editor** dialog box is closed.

   To cancel your changes and close the **Filter Editor** dialog box, click **Cancel**.

Parameter Comparison Options

The following filtering options are available to compare a parameter to its value:

Option	Description
Equals	The parameter has this exact value.
Does not equal	The parameter does not have this exact value.
Is greater than	The parameter value is greater than this value.
Is greater than or equal to	The parameter value is greater than or equal to this value.
Is less than	The parameter value is less than this value.
Is less than or equal to	The parameter value is less than or equal to this value.
Is between	The parameter value is between these two values (a second value must be entered if this option is selected).
Is not between	The parameter value is not between these two values (a second value must be entered if this option is selected).

Option	Description
Contains	The parameter value contains this value. This allows a string contained in another string to be included.
Does not contain	The parameter value does not contain this value. This allows all strings that contain another string to be excluded.
Begins with	The parameter value starts with this letter or string.
Ends with	The parameter value ends with this letter or string.
Is like	The parameter is similar to this value.
Is not like	The parameter is not similar to this value.
Is null	The parameter has no value.
Is not null	The parameter has any value.
Is any of	The parameter is any of the listed values. You can add more than one value by clicking the **+** that is displayed at the end of the condition line.  This is the same as separate conditions compared using the OR operator.
Is none of	The parameter is not any of the listed values. You can add more than one value by clicking the **+** that is displayed at the end of the condition line.  This is the same as separate conditions compared using the NOT OR operator.
Is blank	The parameter has a value that is empty.
Is not blank	The parameter has any value that is not empty.

Date Range Parameter Options

The following options are available when filtering parameters with date range values:

Option	Description
Is beyond this year	Dates that follow the current year.
Is later this year	Dates of the current year starting from the following month.
Is later this month	Dates of the current month that follow the next week.
Is later this week	Dates of the current week starting from the day after tomorrow.
Is next week	Dates that belong to the following week.
Is tomorrow	Tomorrow.
Is today	Today.
Is yesterday	Yesterday.
Is earlier this week	Dates of the current week that are prior to yesterday.
Is last week	Dates of the previous week.
Is earlier this month	Dates of the current month that are prior to the previous week.
Is earlier this year	Dates of the current year that are prior to the current month.
Is prior to this year	Dates that are prior to the current year.
Empty	Does not specify any condition.
Beyond	Dates that belong to the month in three-months time and beyond.
ThisWeek	Dates that belong to the current week.
ThisMonth	Dates that belong to the current month.
MonthAfter1	Dates that belong to the following month.
MonthAfter2	Dates that belong to the month in two-months time.
MonthAgo1	Dates that belong to the previous month.
MonthAgo2	Dates that belong to the month two months ago.
MonthAgo3	Dates that belong to the month three months ago.
MonthAgo4	Dates that belong to the month four months ago.
MonthAgo5	Dates that belong to the month five months ago.

Option	Description
MonthAgo6	Dates that belong to the month six months ago.
Earlier	Dates that belong to the month seven months ago and earlier.

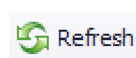
Previewing the Dashboard

A preview of the dashboard is displayed in the main display area of the dashboard designer. This preview is automatically refreshed when any design options are changed. You can also change the available runtime parameters of the dashboard to simulate the actions of a user viewing it.

To change the dashboard runtime parameters, click **Parameters** in the **Data** ribbon group.

The **Parameters** dialog box is displayed. The parameters that accept user input for all data providers assigned to the dashboard are included in the dialog box. Update the parameters for the data provider that corresponds to the data in the dashboard items that you want to filter or limit, then click **OK**. The preview display is automatically refreshed.

To refresh the preview display outside of any design or parameter changes, click **Refresh** in the **Data** ribbon group.



Tip: For details on other customization options, such as changing the title or currency settings of the dashboard, see Additional Customizations on page 139.

Additional Customizations

After adding dashboard items to a dashboard there are several additional aspects of the dashboard that can be customized. See:

- Changing the Dashboard Title Settings on page 140
- Adding Static Images or Text Boxes to Dashboards on page 142
- Changing the Dashboard Currency Settings on page 144
- Changing the Dashboard Theme on page 146
- Changing Dashboard Item Colors on page 146

Changing the Dashboard Title Settings

By default, the dashboard title is the same as the name of the dashboard and it is centered in the dashboard. You can change the alignment, associated graphic, and title text.

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

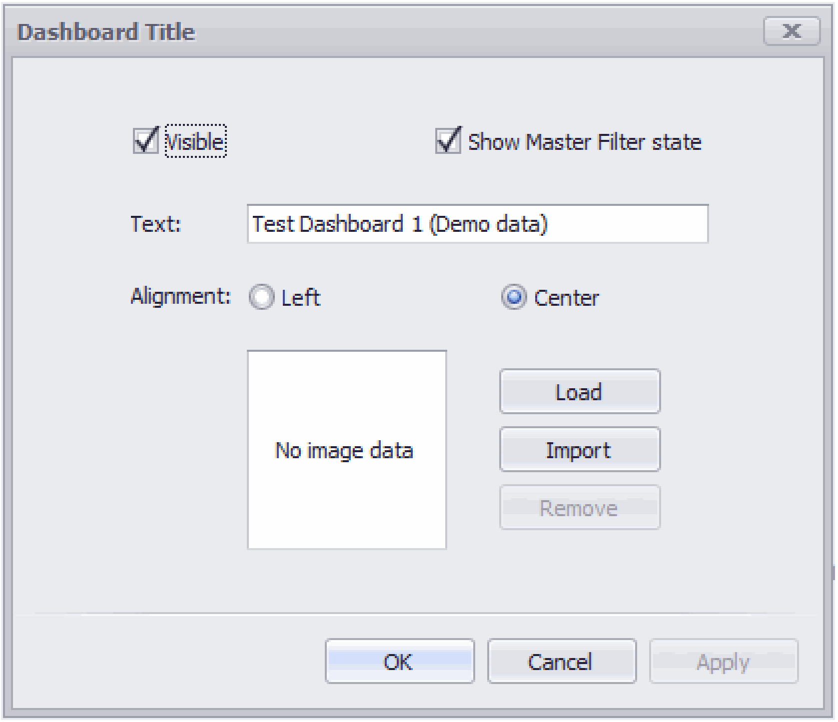
   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

   The dashboard designer is opened in a new user interface.

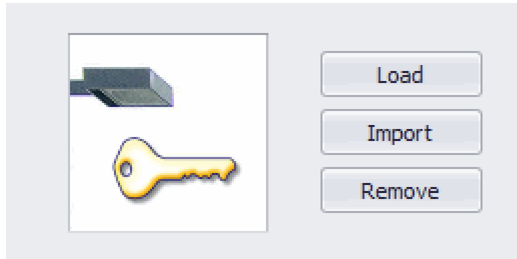
2. Click **Title** in the **Dashboard** ribbon group.

The **Dashboard Title** dialog box is displayed.



3. Select **Visible** for the title to be displayed at the top of the dashboard. This can be helpful to users who may have more than one dashboard open at a time. Deselect **Visible** to hide the title.
4. Select **Show Master Filter state** to include the master filter information applied to the dashboard in the title, if a master filter is applied.
5. The text in the **Text** field is displayed as the title of the dashboard. Edit the text in the **Text** field to change the title of the dashboard.
6. Select **Left** for the **Alignment** option to display the dashboard title at the top left of the dashboard, or select **Center** to display the title at the top center of the dashboard.
7. Click **Load** or **Import** to display an image with the dashboard title. The Microsoft Windows **Open** dialog box is displayed.

8. Browse to an image file to use and select it, then click **Open**. The image is added to dashboard and the preview pane:



9. Click **Remove** to remove the currently selected image.
10. Click **Okay** to save your changes and close the **Dashboard Title** dialog box, or click **Apply** to save your changes and keep working in the **Dashboard Title** dialog box.
11. Click **Save** in the **File** ribbon group of the **Home** ribbon to save your dashboard design and continue working, or click **Save & Close** to save your dashboard design and close the dashboard designer.

Adding Static Images or Text Boxes to Dashboards

Images and text boxes can be added to dashboards as informational or decorative dashboard items.

To add an image or text box:

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

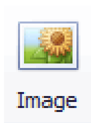
   

   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

   The dashboard designer is opened in a new user interface.

2. Click the button corresponding to the dashboard item to add:

Button	Description
	**Image:** Insert an image into the dashboard. For example, a company logo.
	**Text Box:** Insert a text box into the dashboard. For example, the text box could include information regarding the data being displayed.

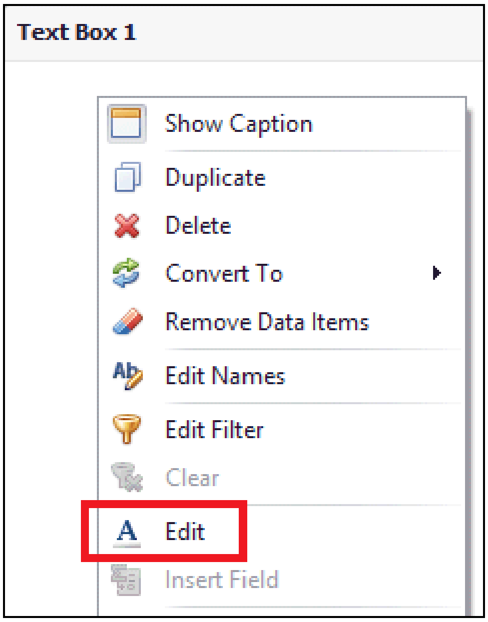
3. If you added an image dashboard item:
   a. Right-click the inserted dashboard item and select a method for adding the image to display:
      - **Load Image:** Add an image to the dashboard by reference. If the path to an image added by reference cannot be resolved when the dashboard is accessed, the image is not displayed.

Note: Images that use the **file** protocol cannot be loaded when the dashboard is accessed from the Web Client or the standalone web viewer.

      - **Image:** Add an image to the dashboard by importing it to the system. Images added in this way are always available when the dashboard is accessed.

      The Microsoft Windows **Open** dialog box is displayed.
   b. Browse to the image and click **Open**.

4. If you added a text box dashboard item:
   a. Right-click the inserted dashboard item and select **Edit** from the right-click menu.



   The **Edit Text** editor is displayed.
   b. Enter and format the text to display using the basic text editing functionality of the text editor.
   c. To insert a field into the text box based on a value from the Dashboard, right click and select **Insert Field** from the menu. **Select value** is added to the text box. Click **Select value** and pick a value from the Dashboard to add. Values available for selection must be added as **Values** under **Data Items**.

Note: The Insert Field option is only available in the Edit Text editor. If the option is unavailable, ensure that the editor has been selected.

   d. Click **OK** to save your changes and close the text editor.

Changing the Dashboard Currency Settings

By default, the dashboard currency uses the client system settings for both currency and currency culture. You can change the currency settings to use other international currencies or cultures instead.

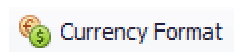
1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.

- From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

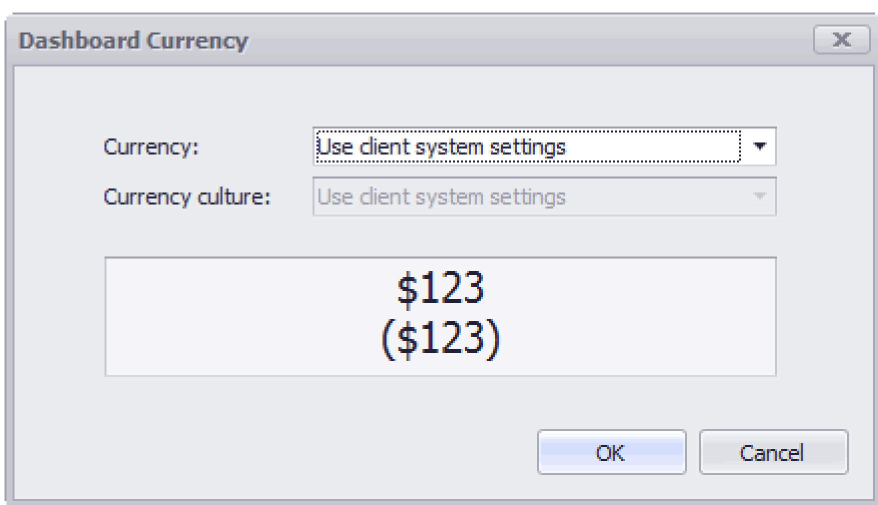
- From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

The dashboard designer is opened in a new user interface.

2. Click **Currency Format** in the **Dashboard** ribbon group.



The **Dashboard Currency** dialog box is displayed.



3. Select a currency from the **Currency** drop-down list. Selecting a specific currency also enables the **Currency culture** drop-down list.
4. Select a currency culture from the **Currency culture** drop-down list. By default, the first currency culture in the list is selected.
5. Click **OK**.

Changing the Dashboard Theme

By default, the dashboard color theme is set to a light gray base color with no background patterns. You can change the color theme and background pattern of a dashboard when viewed in full-screen mode to something that may better reflect the purpose of the dashboard.

Note: The theme is only applied when the dashboard is viewed in full-screen mode.

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

   The dashboard designer is opened in a new user interface.
2. Click **Full Screen Theme** in the **Dashboard** ribbon group.

   The **Full Screen Theme** dialog box is displayed.
3. Select a dashboard theme to preview it. The preview is applied to the dashboard designer interface.
4. Click **Apply** to use the selected theme for the dashboard.

Note: The theme is only applied when the dashboard is viewed in full-screen mode.

Changing Dashboard Item Colors

Charts, Pies, and Maps use color schemes to distinguish the data points from each other in the graphical display. Colors are automatically assigned by the dashboard when data is available for display. It is not necessary to pre-configure colors for data items not currently displayed.

To change the automatically assigned colors for data items for the selected dashboard:

1. Launch the dashboard designer. The designer can be launched in several ways:
   - The dashboard designer is automatically launched when the dashboard is first created.
   - From the **Dashboard** Gallery area, select the dashboard to design in the left pane then click the **Design** button in the **Dashboard** ribbon group.
   - From the **Administration** area, click **Dashboards** in the left pane and select the dashboard to design, then click the **Design** button in the **Dashboard** ribbon group.

   - From the dashboard **Properties** dialog box, click the **Design** button at the bottom of the dialog box.

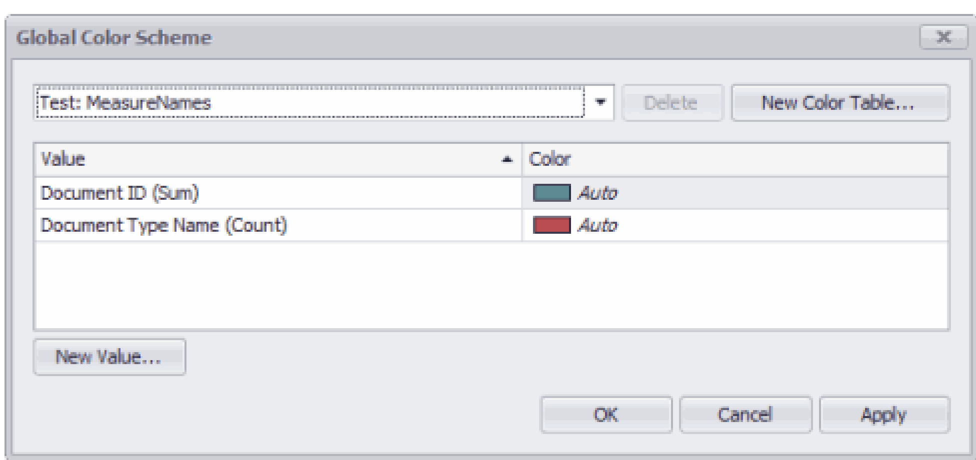
   

   The dashboard designer is opened in a new user interface.
2. From the **Data Providers** ribbon group, click **Edit Colors**.

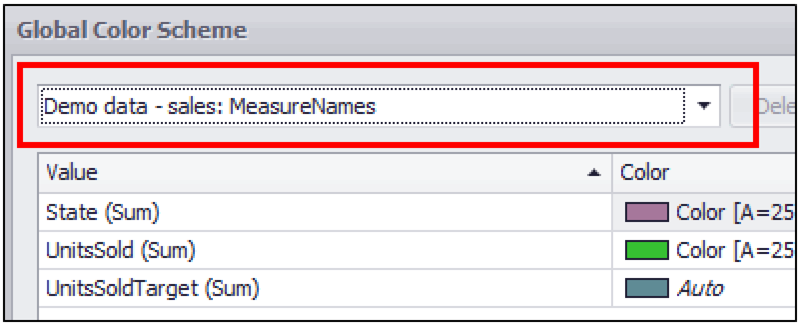
   

   The **Global Color Scheme** dialog box is displayed.

Note: The colors configured in the **Global Color Scheme** dialog box are only applied to the dashboard currently loaded in the designer.

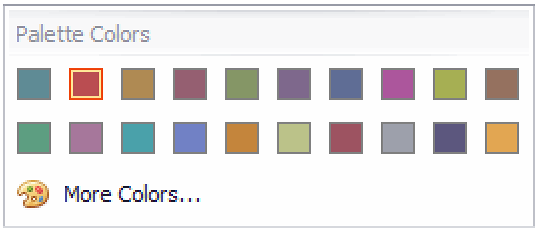


3. From the drop-down list at the top of the dialog box, select the dashboard element to change colors for. The data items configured for that element are listed.



Note: The **New Color Table** functionality allows you to add and pre-configure color schemes for data elements not currently in the dashboard. Due to the complexity of manual configuration, it is not recommended to try and pre-configure data elements. To configure the colors for a data element, add it to the dashboard first.

4. To change a color, click the value in the **Color** column to display the color palette.



5. Select a new color from the **Palette**. To select colors not in the palette, click **More Colors**.

Tip: To restore the automatically assigned color for a data item, right click the **Value** or **Color** for the item and select **Reset**, then click **Apply**.

6. To configure colors for data items not currently displayed in the dashboard, click **New Value.** The **New Value** dialog box for the type of dashboard element selected is displayed.

   This functionality allows you to pre-configure the color for a data item that is not currently displayed in the dashboard. For example, if your dashboard shows sales figures by country, and France is not currently displayed because it has no data, you may want to configure a specific color for France to be used when data for that country is available.

   It is not necessary to pre-configure colors for data items not currently displayed. Colors are automatically assigned by the dashboard when data for that item is available. If you do not know the actual values for data items not currently in the dashboard, you may misconfigure them. For example, if you configure **France** as the data value but the dashboard uses **FR**, your configured color setting is not applied and the automatically assigned color is used.

Note: Adding data items to the color scheme does not add them to the dashboard element. To add data items to dashboard elements, see Designing a Basic Dashboard (Grid, Chart, or Pie Dashboard Item) on page 58.

Tip: To remove a data item you added, right click its name in the **Value** column of the **Global Color Scheme** dialog box and select **Remove**. You are not prompted to confirm this action.

7. Click **Apply** in the **Global Color Scheme** dialog box to apply the color scheme changes to the dashboard. This is immediately reflected in the designer.

   Click **OK** to apply the colors and close the **Global Color Scheme** dialog box.

Report Maintenance Overview

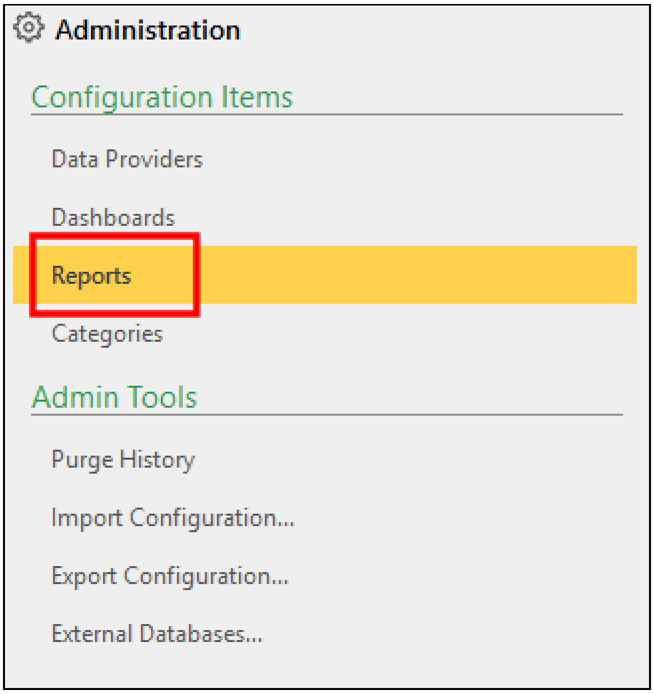
Reports are used to display data returned from a configured data provider in sortable categories based on an established data set. Reports can be added, configured, and designed from both the **Gallery** and **Administration** areas.

To access Report Administration from the **Administration** area:

1. Click **Administration** at the bottom of the left pane:

The **Data Provider Administration** area is displayed.

2. Click **Reports** under **Configuration Items**:



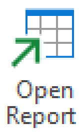
The **Report Administration** ribbon is displayed and the main pane lists the existing reports, which can be configured. For more information on reports, see:

- Creating New Reports on page 152
- Changing Existing Reports on page 160

Report Administration Actions

The following table describes the actions available from the **Report Administration** ribbon.

Action	Description
New	
Create New Report	Launch the **Create New Report** wizard. See Creating New Reports on page 152.
Gallery	
Copy to New	Launch the **Create New Report** wizard with the configuration and settings of the active item pre-populated. See Creating New Reports on page 152.
Delete	Delete the active report. You are prompted to confirm this action. **Caution:** Deleted reports are no longer available to any users and cannot be recovered.
History	View the history log for the active report, which includes configuration changes and an access log. See Viewing History Logs on page 444.
Properties	Open the **Properties** dialog box for the active report. See Changing Existing Reports on page 160.
Actions	
Assign Data Provider	Open the **Assign Data Providers** dialog box to select the data provider for the active report. See Data Providers on page 172.
Assign Categories	Open the **Assign Categories** dialog box to select categories for the active report. See Categories on page 169.

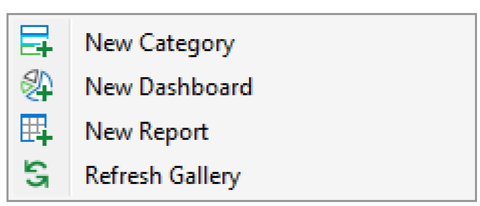
Action	Description
	Open the **Assign Users** dialog box to select which users can access to the report. See Adding Users or User Groups to the Report on page 166.
	Open the report in the Item Viewer in a new window. See Using the Item Viewer on page 386.

Creating New Reports

To create a new report:

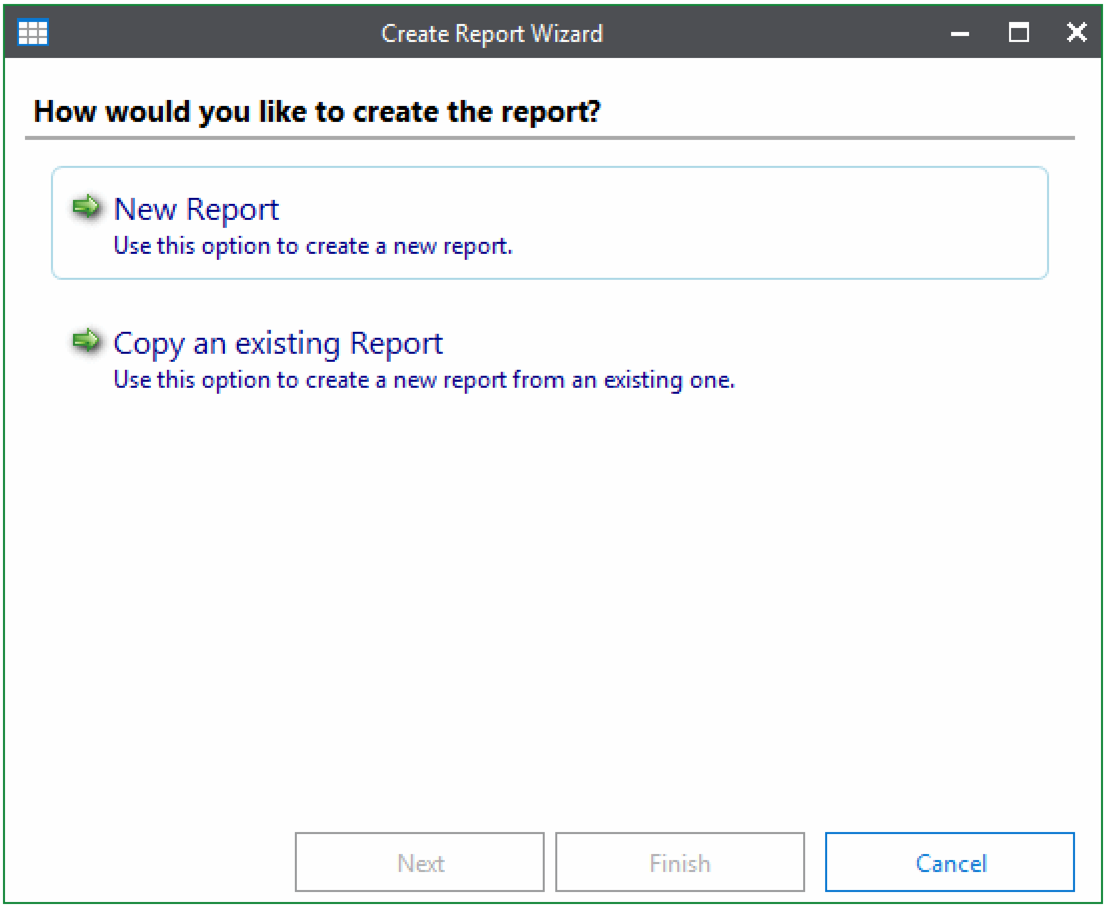
1. Click **Create New Report** on the **Item Viewer** or **Report Administration** ribbon:

2. Right-click anywhere in the **Gallery** pane (on the left side of the Gallery) and select **New Report** from the right-click menu.



The **Create New Report** wizard launches, which guides you through the process of creating a report.

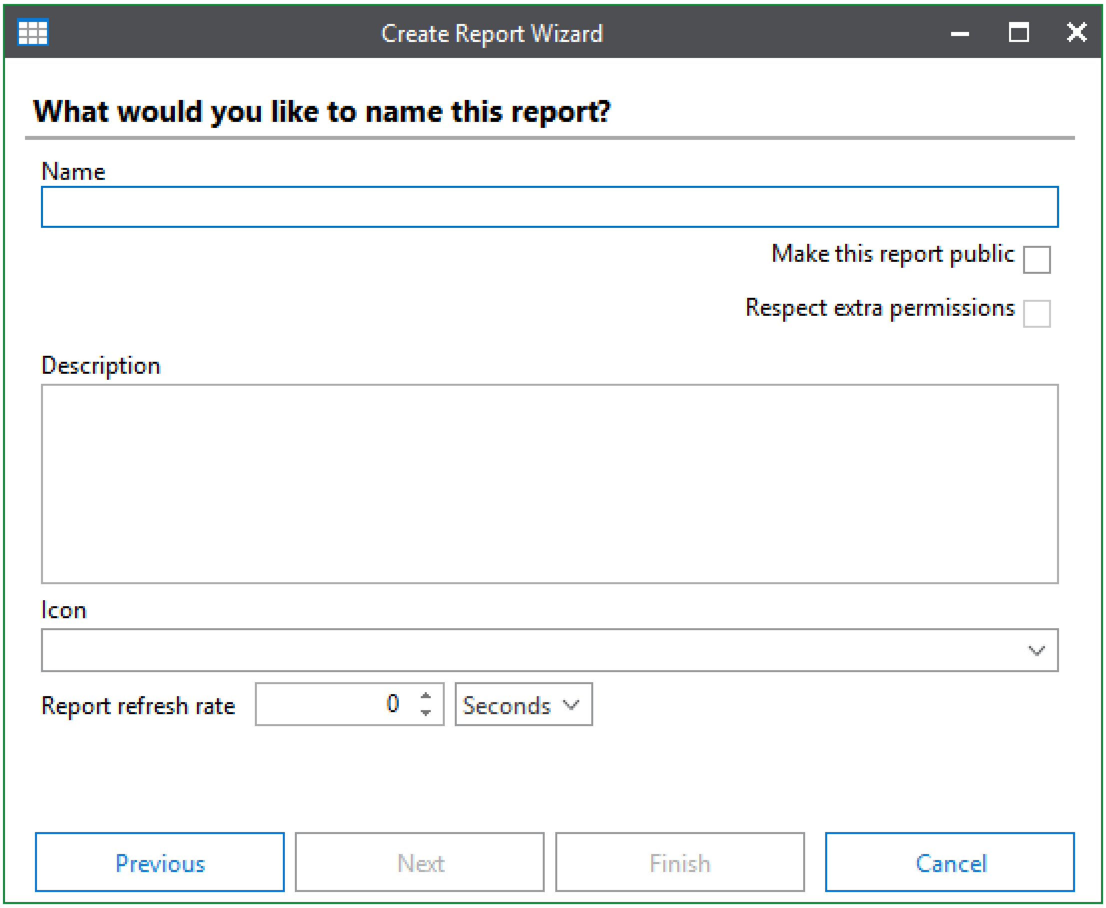
3. At the **How would you like to create the report?** page:
   - Click **New Report** to create a completely new report.
   - Click **Copy an existing Report** to use an existing report as the template for a new report. The process is the same as creating a completely new report except the options are pre-configured with the information from the report that was copied. The pre-configured options can be changed or edited to reflect the requirements of the new report, unless otherwise noted.



4. If you clicked **New Report**, the **What would you like to name this report?** page is displayed.

   If you clicked **Copy an existing Report**, the **Select the report to copy from** page is displayed. You can search for a report to copy by typing the name of the report into the **Search** bar in this page. Select the report to copy, then click **Next**. The **What would you like to name this report?** page is displayed.

Note: When a report is copied, the options in the remaining pages are pre-configured with the information from the report that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new report.



5. Type a name for the report in the **Name** field. The name must be unique compared to other reports created by the same user, but may share a name with reports created by other users. The name should logically describe the kind of data returned by the report.

6. Select **Make this report public** to allow the report to be used by all other users. If this option is deselected, the report is only available to you and the specific users you grant access to.

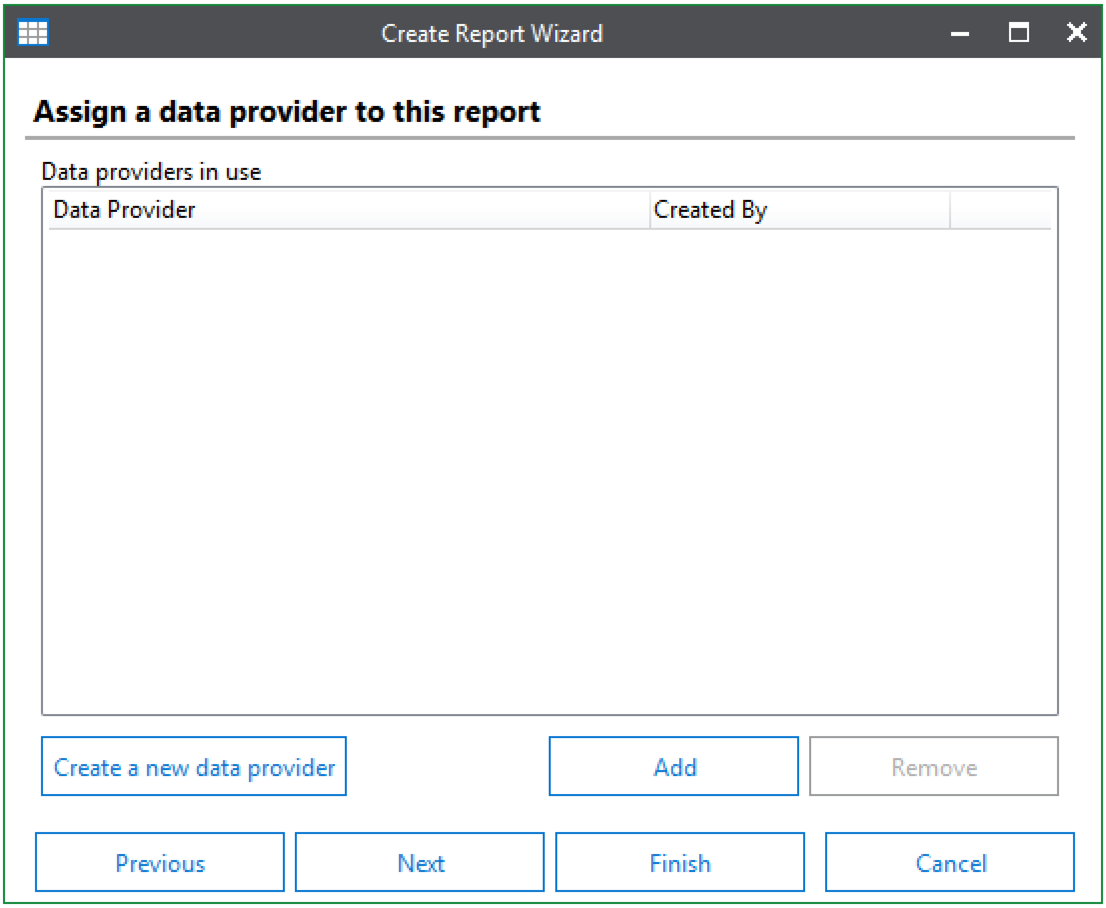
Note: Only members of User Groups with the **Administrator Access** privilege can make a report public.

Note: A public report can not have the same name as any other public report or dashboard. A non-public report can not have the same name as any public or non-public report or dashboard. You will be prompted if you need to change the name of the report to meet these requirements.

7. If **Make this report public** is selected, the **Respect extra permissions** option is enabled. Select this option to allow a public report owner to assign users and User Groups the permission to share or export report data.
8. Type a brief description of the report in the **Description** field. The description should briefly explain what the intended purpose of the report is and what type of data a user can expect to see in it.
9. Select an icon for the report from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find report more easily if there are multiple reports available.
10. Enter the number of seconds between automatic refreshes of the report display in the **Report refresh rate** field. You can also use the arrows on the right side of the field to increase or decrease the value in increments of five seconds, minutes, or hours, as selected from the drop down menu to the right of the field.

Note: Only members of User Groups with the **Administrator Access** privilege can set the refresh rate of a report.

11. Click **Next**. The **Assign a data provider to this report** page is displayed.

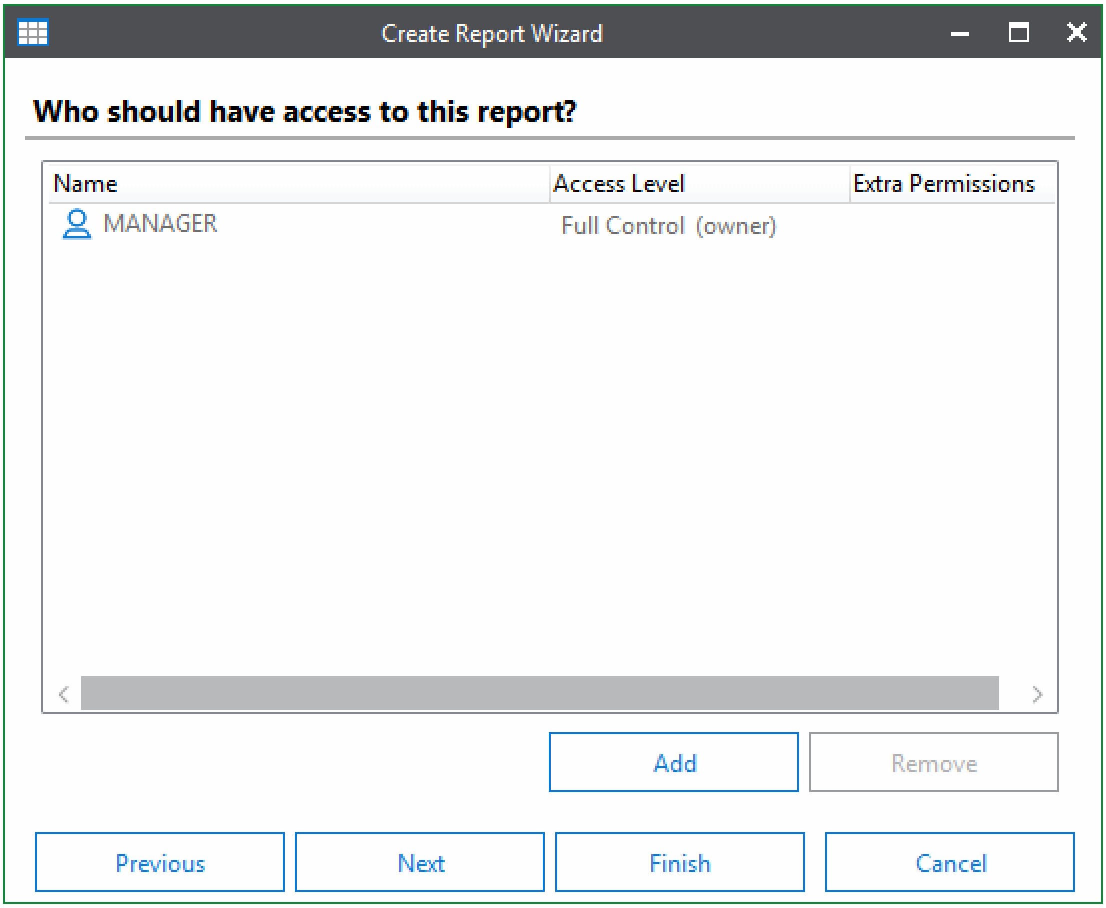


12. To add an existing data provider to the report, click **Add** to select from previously configured data providers. Data providers can also be added later.

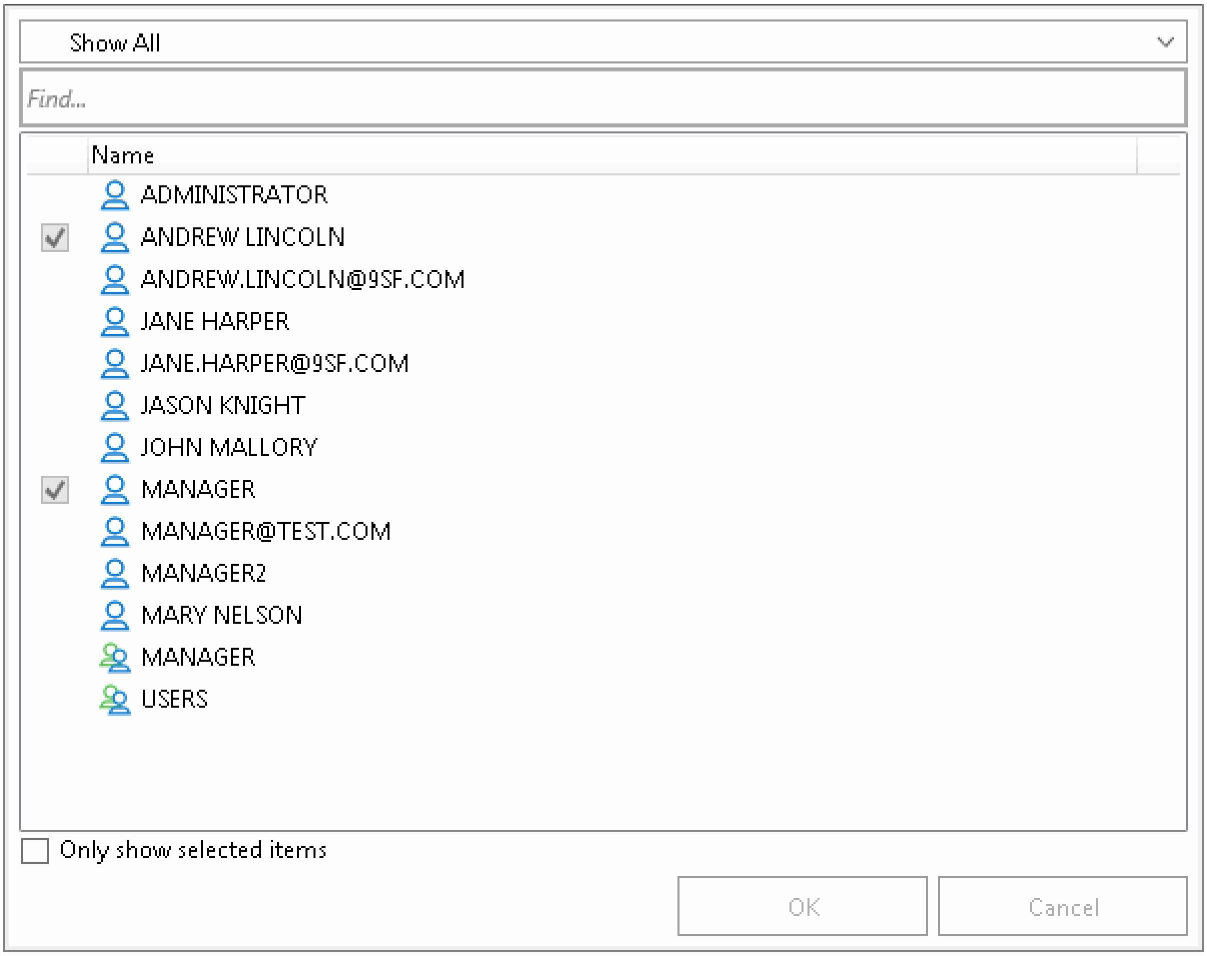
    To create and add a new data provider, click **Create a new data provider**. For more information on creating data providers, see Data Provider Administration on page 183.

Note: A new report cannot be used unless at least one data provider is added to it. Data providers are configured in the **Administration** area of Reporting Dashboards. Contact your system administrator for information on creating and configuring data providers.

13. Click **Next**. The **Who should have access to this report?** page is displayed.

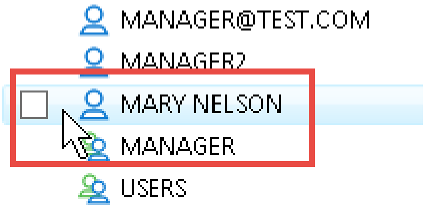


14. To grant access to a new user, click **Add**. The **Select Users** dialog box is displayed. Only users and User Groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

15. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



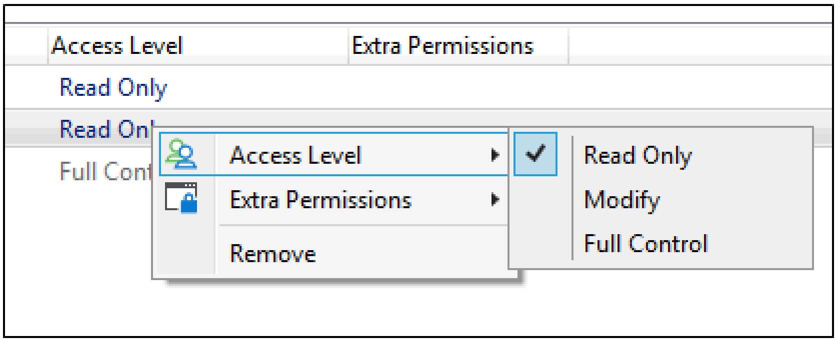
To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

16. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

17. To change a user's access level, right-click the row of the user's name and select one of the **Access Level** options.

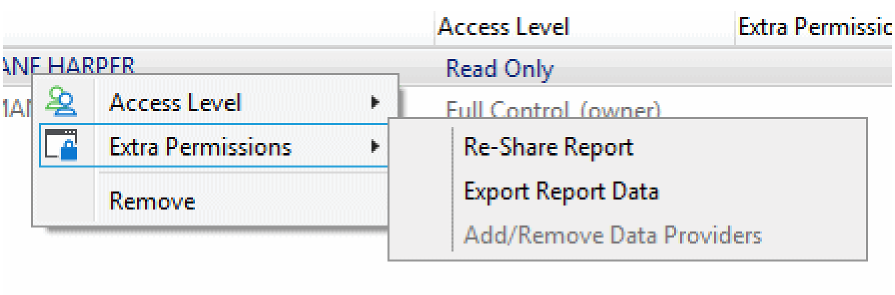


- **Read Only:** The user can view the report but cannot change or delete the report.
- **Modify:** The user can view and modify the report but cannot delete it.
- **Full Control:** The can view, modify, and delete the report.

Note: The owner is the user who created the report. Access cannot be changed for the owner.

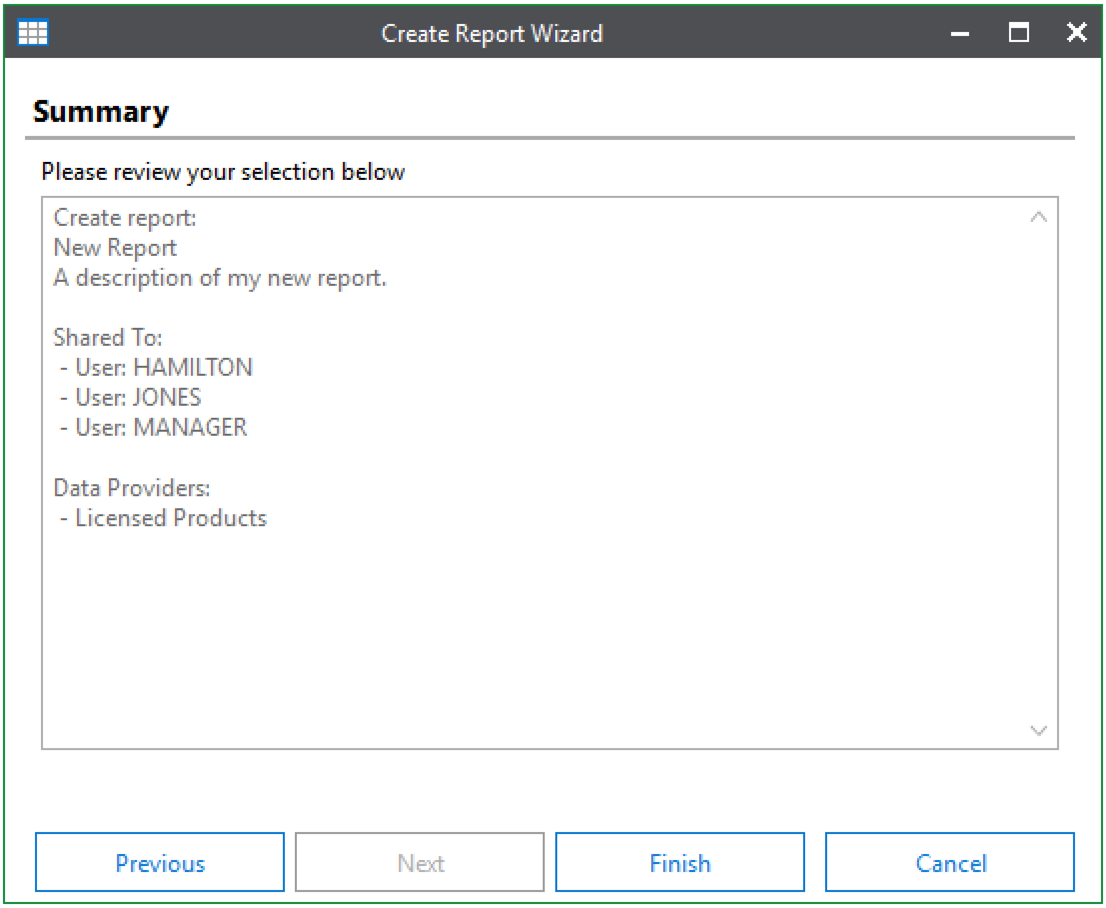
18. To change a user's extra permissions, right-click the user's name and select one of the **Extra Permissions** options:

Note: If the user has **Full Control** access, all extra permissions are included by default and cannot be removed.



- **Re-Share Report:** The user can share the report with other users.
- **Export Report Data:** The user can export the data that was used to create the report.
- **Add/Remove Data Providers:** The user can change the data providers used to retrieve data for the report. This permission is only available to change if the user has **Modify** access.

19. To remove a user, right-click the user's name in the **Who should have access to this report?** page and select **Remove**. You are not prompted to confirm this action.
20. Click **Next**. The **Summary** page is displayed.
21. Confirm that the report is configured correctly. If not, click **Previous** to return to previous pages and make changes.



22. Click **Finish** after confirming the report settings.

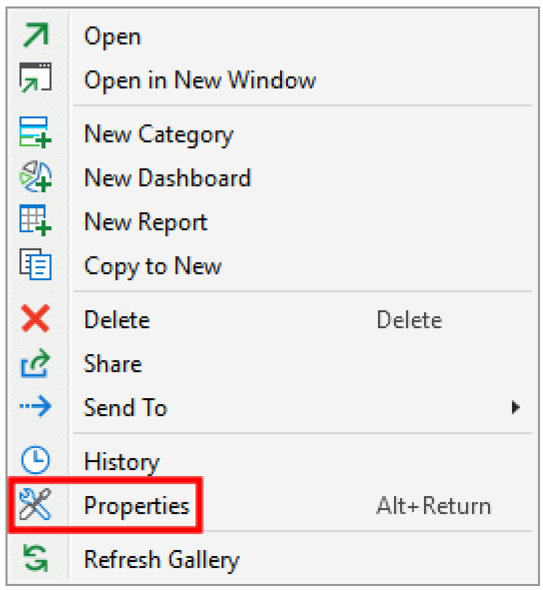
Note: If the report was created by copying an existing report, other properties of the configuration that were copied may also need to be updated. See Changing Existing Reports on page 160.

Changing Existing Reports

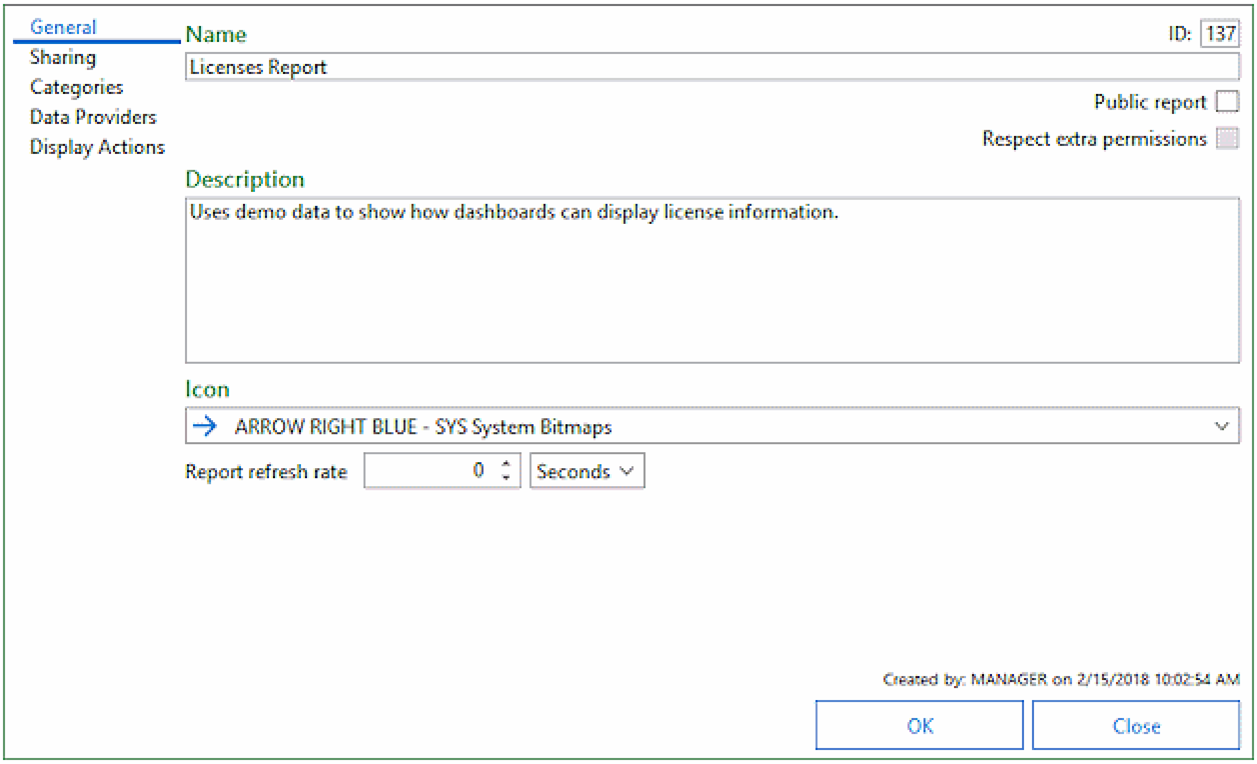
The report properties that can be changed include the name, description, icon, refresh rate, user access, categories, and data providers. They can be changed through the **Properties** dialog box.

To access the properties of a report, select the report to change in the **Gallery** pane on the left of the Item Viewer and click **Properties** in the **Gallery** ribbon group:

You can also right-click the name of the report to change in the **Gallery** pane on the left of the Item Viewer and select **Properties** from the right-click menu:



The **Properties** dialog box is displayed:

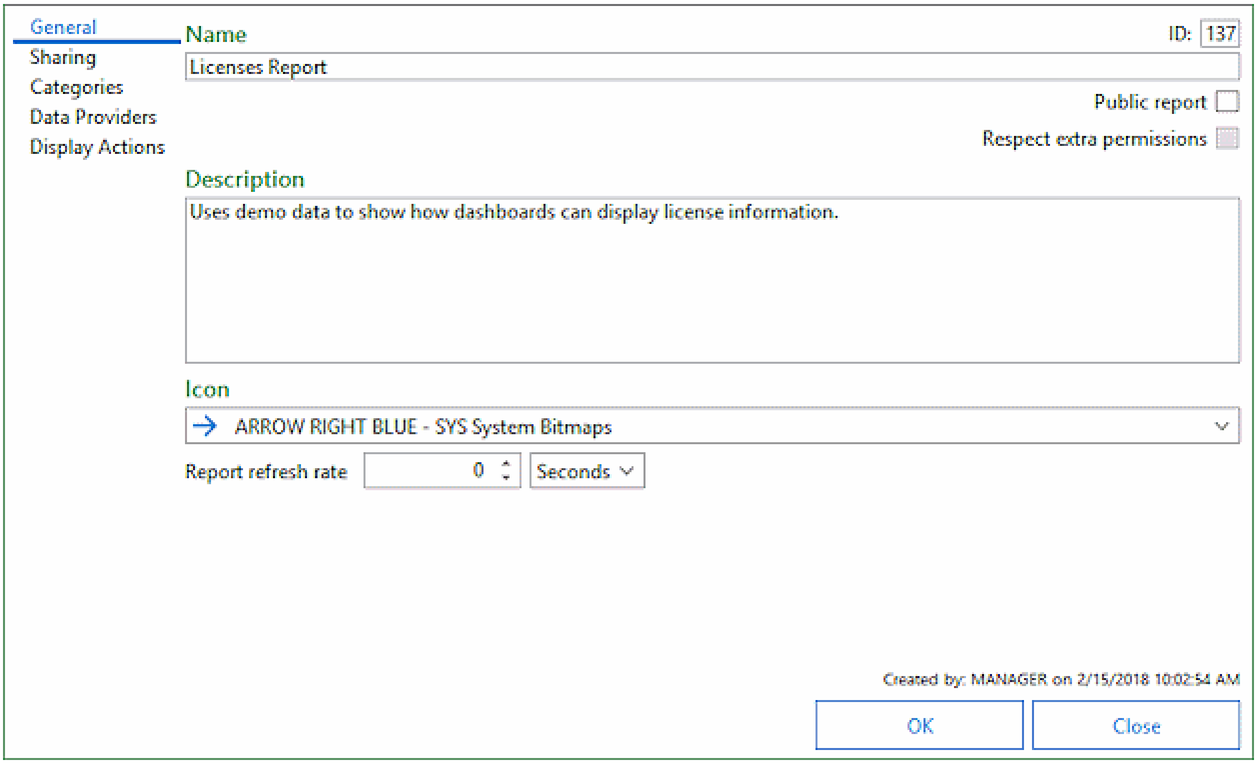


The Properties dialog box is divided into the following areas:

- **General:** Change the name, description, icon, and refresh rate of the report. See General on page 163.
- **Sharing:** Change user access to the report. See Sharing on page 165.
- **Categories:** Change the categories of a report. See Categories on page 169.
- **Data Providers:** Change the data providers of a report. See Data Providers on page 172.
- **Display Actions:** Change the display actions of the report, or reconfigure existing display actions. See Display Actions on page 174.

General

The **General** tab of the **Properties** dialog box allows you to change the name, description, icon, and refresh rate of the report. The **ID** field in the upper-right corner is a read-only field that displays the ID number assigned to the report by the system.



To change the general properties of a report:

1. Update the name of the report in the **Name** field. The name should be unique and allow the report to be easily distinguished from other reports.
2. If you wish to make a report available for all users, select the **Public report** option.

Note: When a report is made public, previously configured sharing settings, except for report owner, are removed.

Note: When the **Public report** option is changed, the report may need to be renamed. A public report can not have the same name as any other public report or dashboard. A non-public report can not have the same name as any public or non-public report or dashboard. You will be prompted if you need to change the name of the report to meet these requirements.

3. If **Public report** is selected, the **Respect extra permissions** option is enabled. Select this option to allow a public report owner to assign users and User Groups the permission to share or export report data.
4. Update the brief description of the report in the **Description** field. The description should briefly explain what the intended purpose of the report is and what type of data a user can expect to see in it.

5. Select an icon for the report from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find reports more easily if there are multiple reports available.
6. Enter the number of seconds between automatic refreshes of the report display in the **Report refresh rate** field. Use the arrows on the right side of the field to increase or decrease the value in increments of five. By default, this time is measured in seconds. If you wish to use a measurement other than seconds, select that measurement from the drop-down list on to the right of this box.

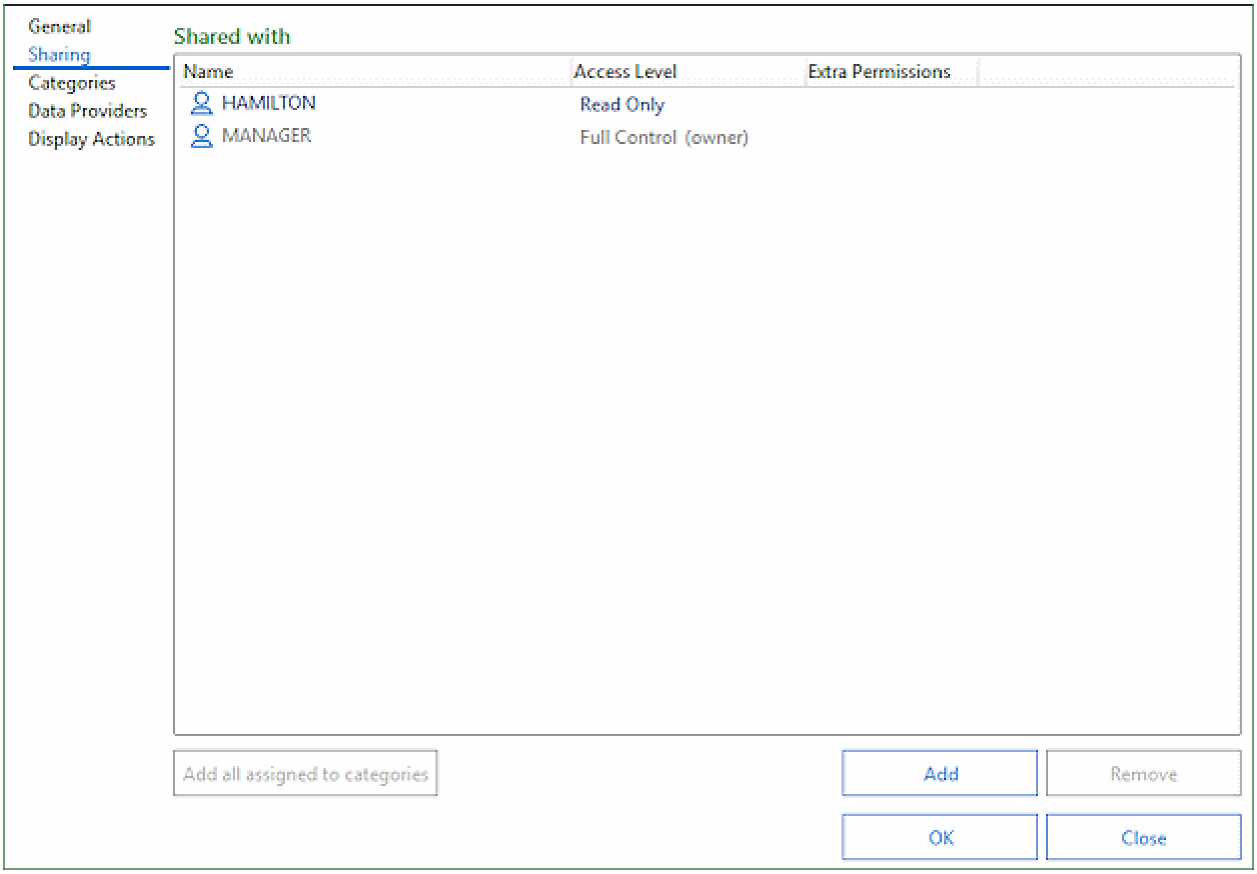
Note: Only members of User Groups with the **Administrator Access** privilege can set the refresh rate of a report.

7. If you have completed all the changes to the report properties that you intend to make, click **OK**. The changes are saved and the **Properties** dialog box is closed.

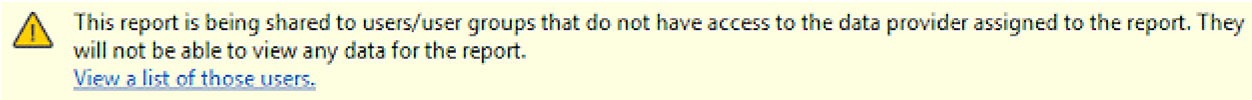
   If you intend to make changes to other properties, click the corresponding tab and make those changes first before clicking **OK**.

Sharing

The **Sharing** tab of the **Properties** dialog box is available to users who have the necessary rights to share the report. It allows you to change user access to the report. Users and User Groups the report is shared with only have the ability to use the report as defined in the Access Level column.



If the report is currently being shared with users or User Groups that do not have access to all of the data providers assigned to the report, a yellow warning banner is displayed along the top of the **Sharing** tab.



Click the **View a list of those users** to display a list of the users and user groups that do not have access to certain data providers. From this list, you can grant access to these users and user groups by clicking the check box near their name. Click **OK** to close the list. To add users and User Groups to data providers, see Changing the Properties of Existing Data Providers on page 247.

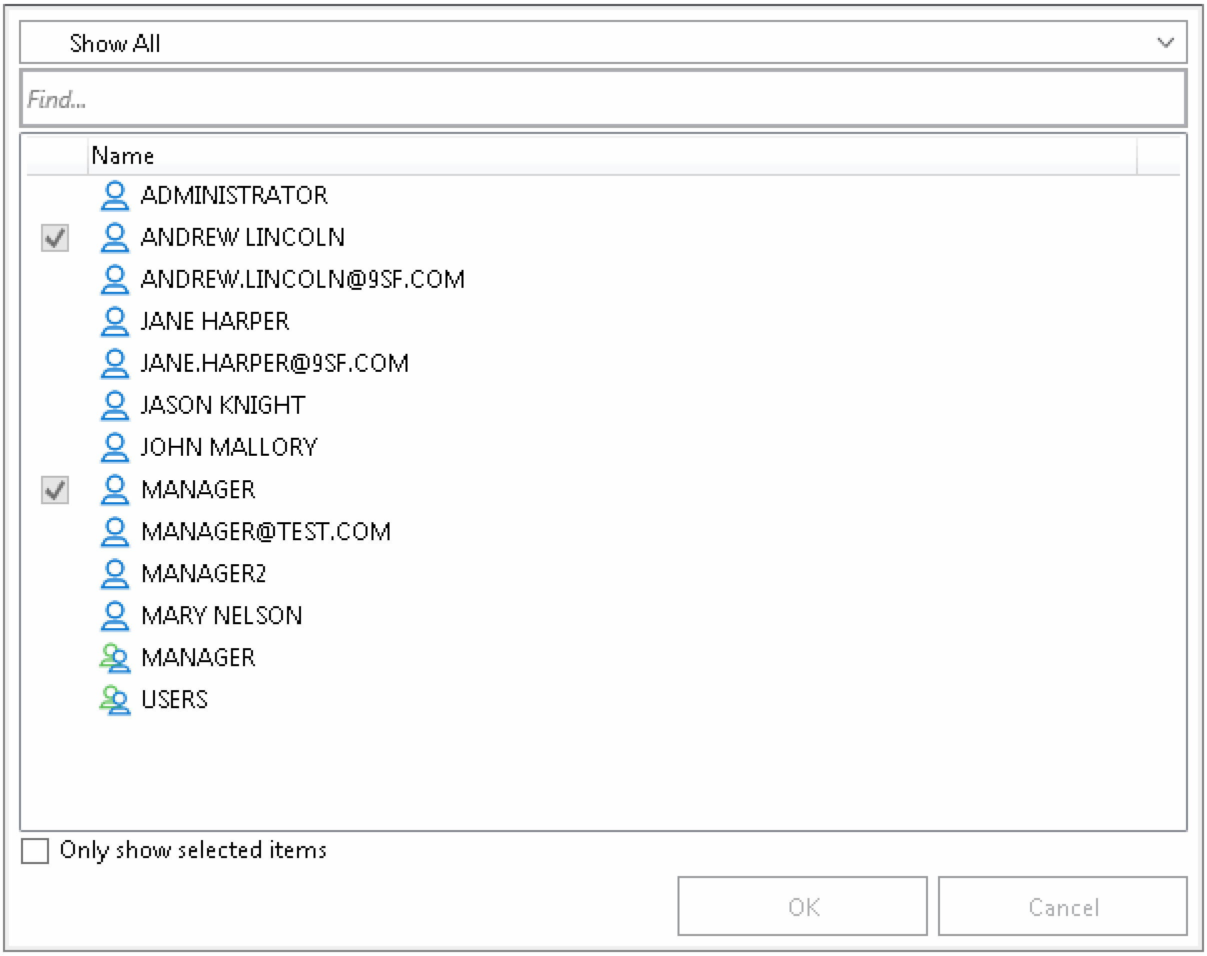
To add or remove users or change the access levels for users or User Groups, see:

- Adding Users or User Groups to the Report on page 166
- Changing User Access Levels and Extra Permissions on page 167
- Bulk Adding Users or User Groups to the Categories of the Report on page 168

Adding Users or User Groups to the Report

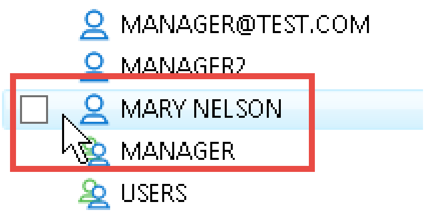
To add a user or User Group to the report:

1. Click **Add** from the **Sharing** tab. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

2. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

3. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

4. To remove users or User Groups, select the users or User Groups to remove in the **Share With** list and click **Remove**. You are not prompted to confirm this action.

Note: Access for the user account that created the report cannot be removed or changed. The report creator always has full access to the report.

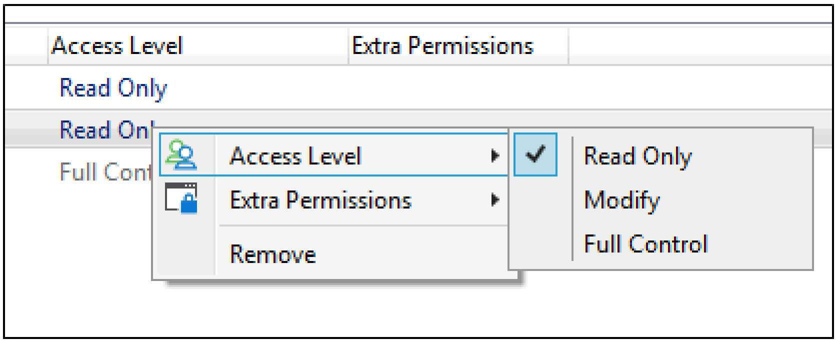
5. If you have completed all the changes to the report properties that you intend to make, click **Save**. The changes are saved and the **Properties** dialog box is closed.

   If you intend to make changes to other properties, click the corresponding tab and make those changes first before clicking **Save**.

Changing User Access Levels and Extra Permissions

To change the access levels and extra permissions of users and User Groups:

1. To change the access level for a user or User Group, right-click the name or the user or User Group and select one of the **Access Level** options.

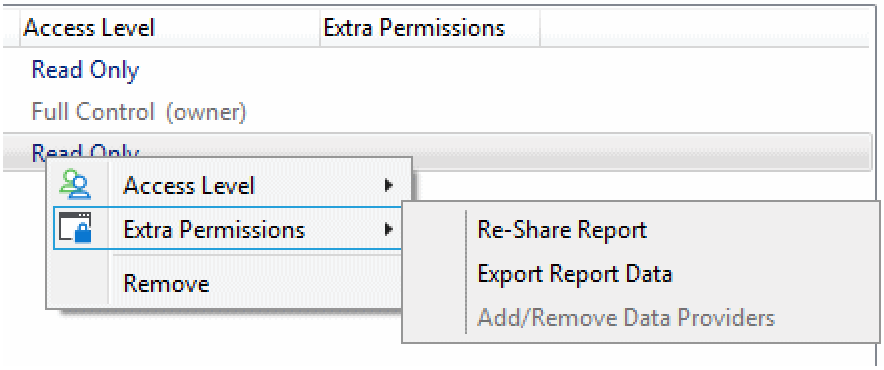


- **Read Only:** The user or User Group can view the report but cannot change or delete the report.
- **Modify:** The user or User Group can view and modify the report but cannot delete it.
- **Full Control:** The user or User Group can view, modify, and delete the report.

Note: The owner is the user who created the report. Access cannot be changed for the owner.

2. To change the extra permissions for a user or User Group, right-click the name of the user or User Group and select one of the **Extra Permissions** options.

Note: If the user or User Group has **Full Control** access, all extra permissions are included by default and cannot be removed.



- **Re-Share Report:** The user or User Group can share the report with other users.
- **Export Report Data:** The user or User Group can export the data that was used to create the report.
- **Add/Remove Data Providers:** The user or User Group can change the data providers used to retrieve data for the report. This permission is only available to change if the user or User Group has **Modify** access.

3. Click **Share** to save your changes and close the dialog box.

Bulk Adding Users or User Groups to the Categories of the Report

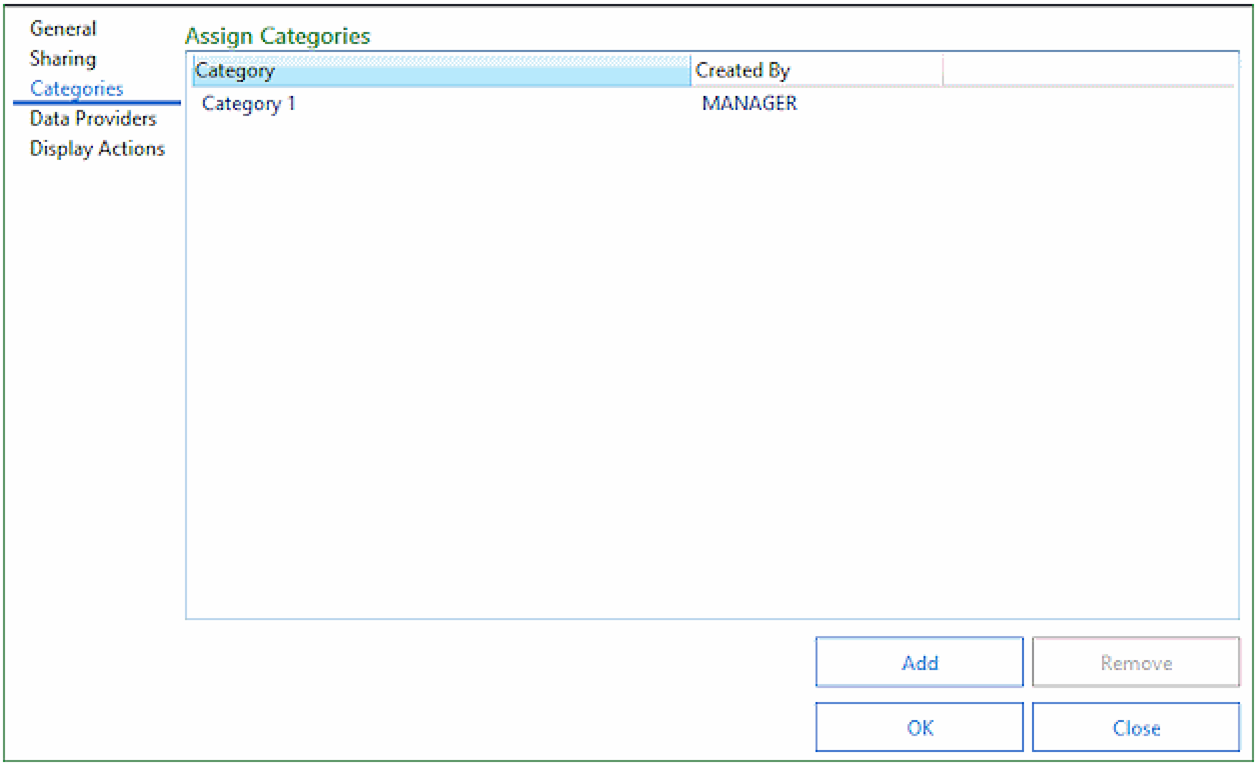
To bulk add the users and User Groups with access to the report to the categories assigned to the report:

1. Select the users or User Groups to add to all categories in the **Shared With** list of the **Sharing** tab.
2. Click **Add all assigned to Categories**.
3. If you have completed all the changes to the report properties that you intend to make, click **Save**. The changes are saved and the **Properties** dialog box is closed.

   If you intend to make changes to other properties, click the corresponding tab and make those changes first before clicking **Save**.

Categories

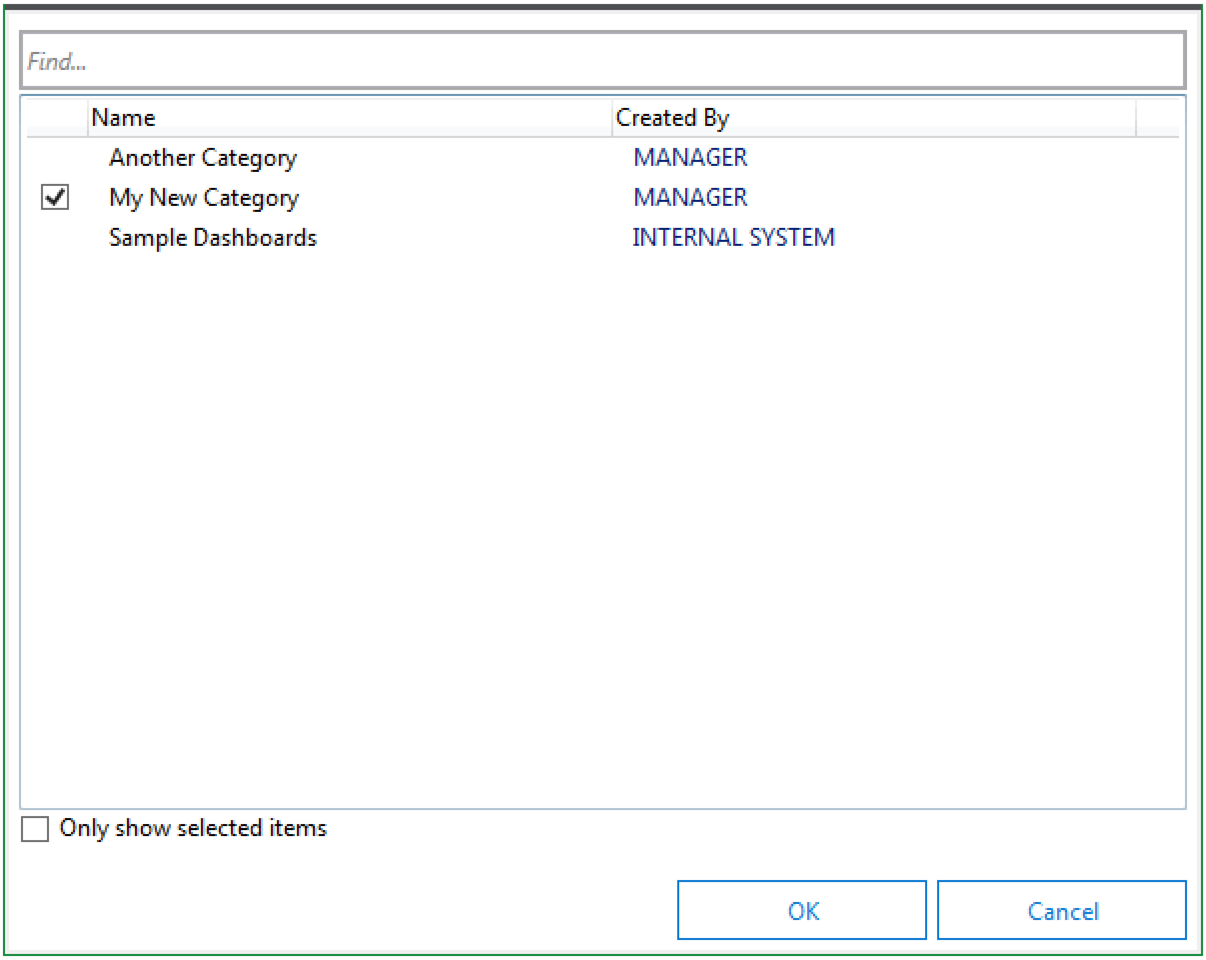
The **Categories** tab of the **Properties** dialog box allows you to change the categories of a report. Categories allow similar or related reports to be grouped together in the Gallery view, making them easier to find.



Changing Categories of a Report

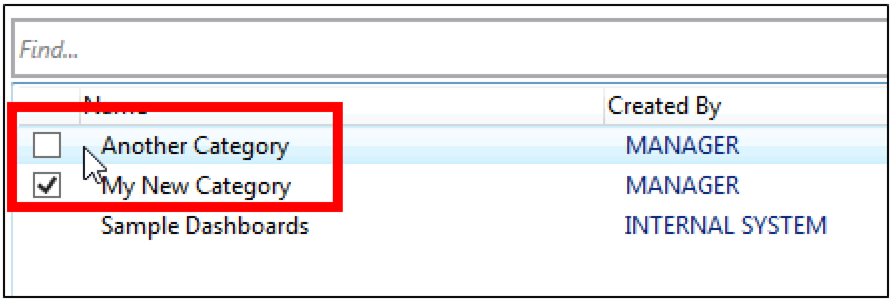
To add the report to categories or remove it from categories:

1. Click **Add**. The **Select Categories** dialog box is displayed.



Tip: To show only previously selected categories, select **Only show selected items**. To find a specific category, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

2. To select a category, move the cursor over the row for that category and select the check box that is displayed.



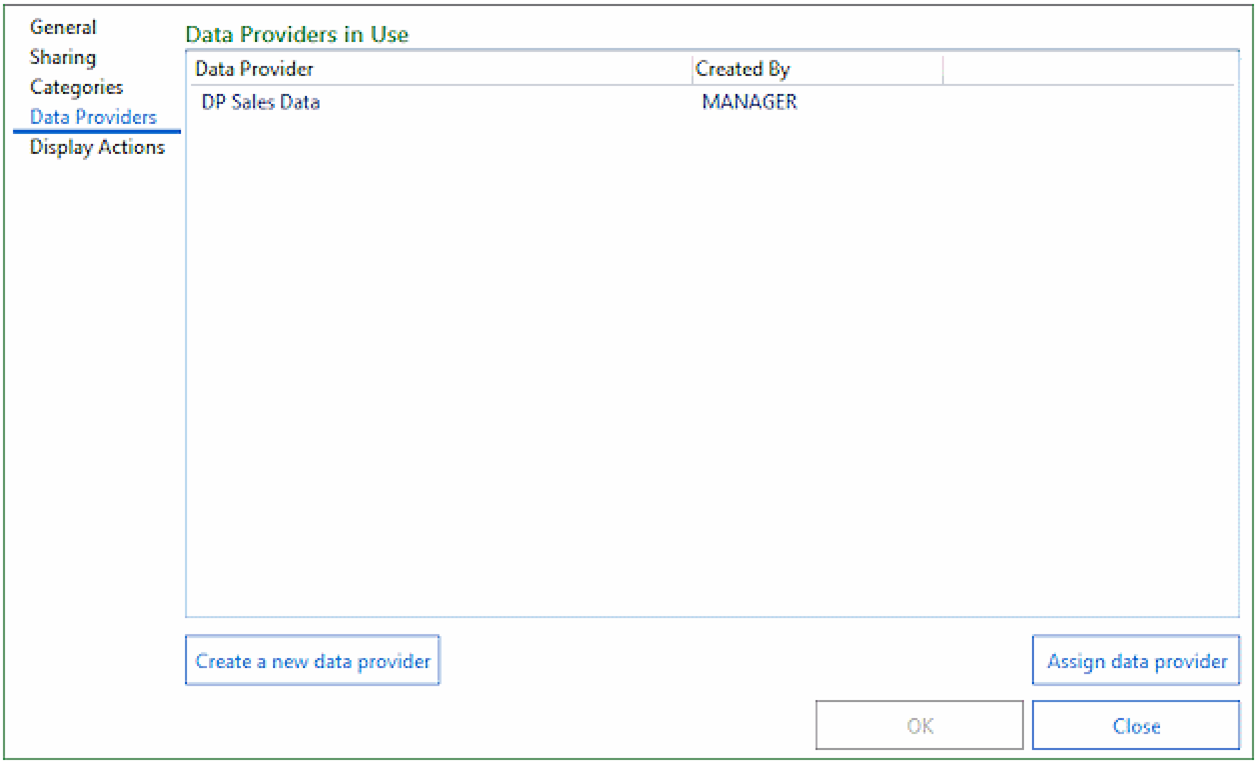
To remove a category, deselect the check box beside the name of the category.

3. Click **OK** at the **Select Categories** dialog box to save your selections.
4. To remove reports from the category, select the report to remove in the **Assign Categories** pane and click **Remove**. You are not prompted to confirm this action.
5. Click **OK** to save your changes and close the **Properties** dialog box.

Data Providers

The **Data Providers** tab of the **Properties** dialog box allows you to change the data providers of a report. Data providers return data from a data source to be displayed in a report.

Caution: Changing the data providers of a report can cause issues in the report. It is recommended that you create a new report if a report using the new data provider if needed.

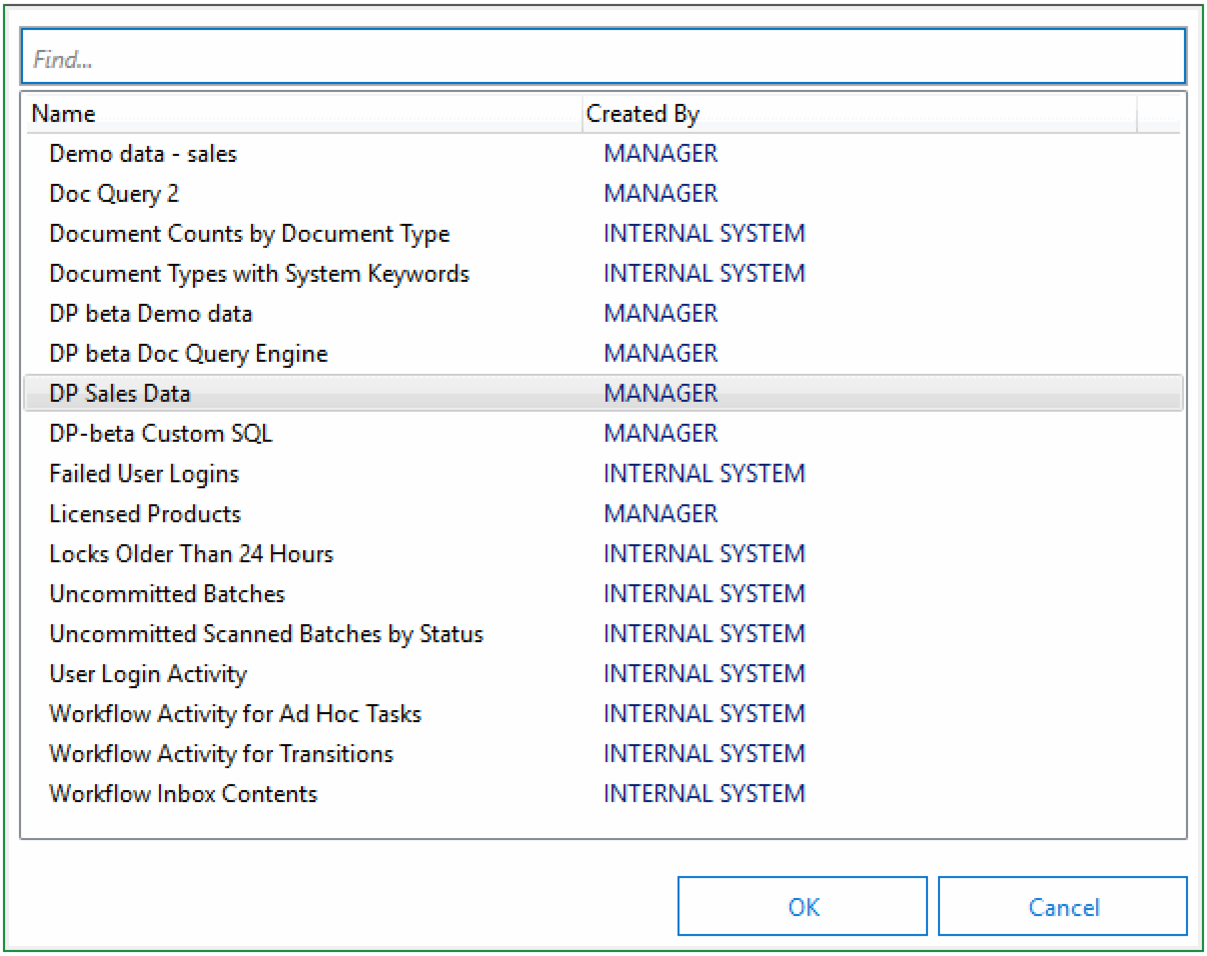


Note: A new report cannot be used unless at least one data provider is added to it. The **Create Data Provider Wizard** is used to create new data providers and is accessed by clicking the **Create a new data provider** button (see Data Provider Administration on page 183).

Changing the Data Providers of a Report

To change the data providers of a report:

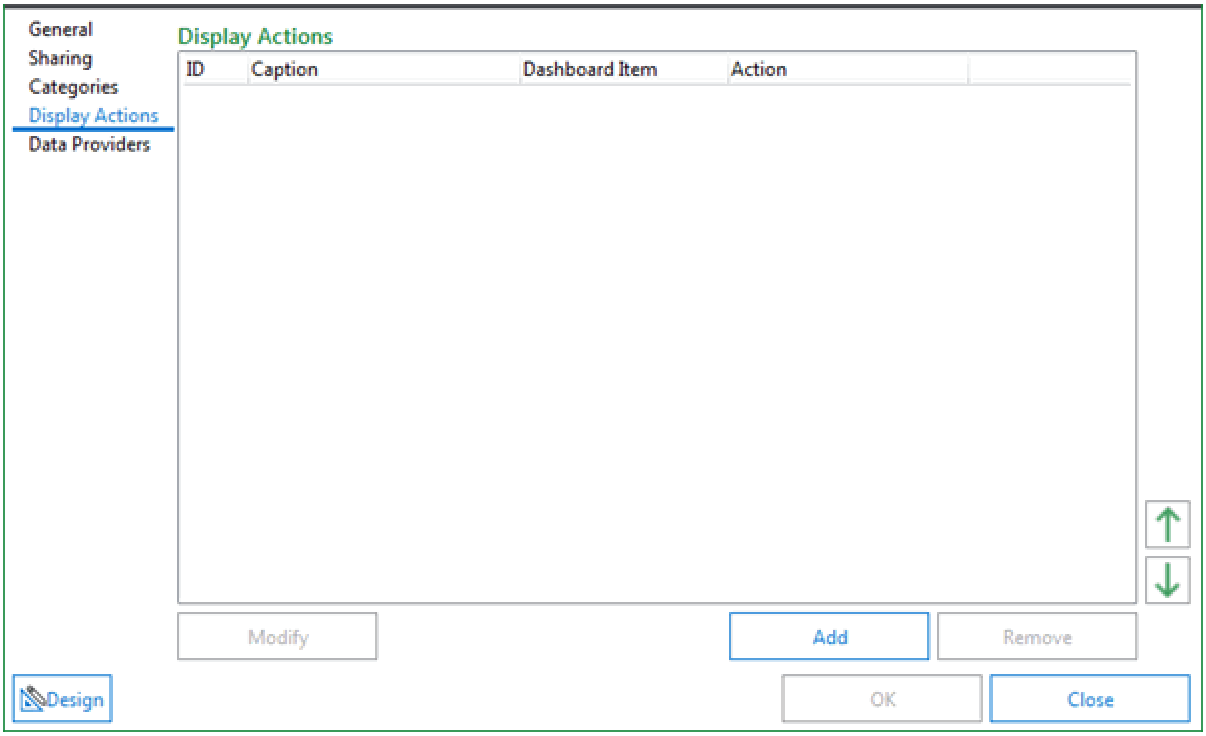
1. Click **Assign data provider**. The **Select Data Providers** dialog box is displayed.



2. To select a data provider, click on the desired data provider and click **OK**.
3. Click **OK** at the **Select Data Providers** dialog box to save your selection.

Display Actions

The **Display Actions** tab of the **Properties** dialog box allows you to add or remove items from the **Actions** right-click menu for reports.



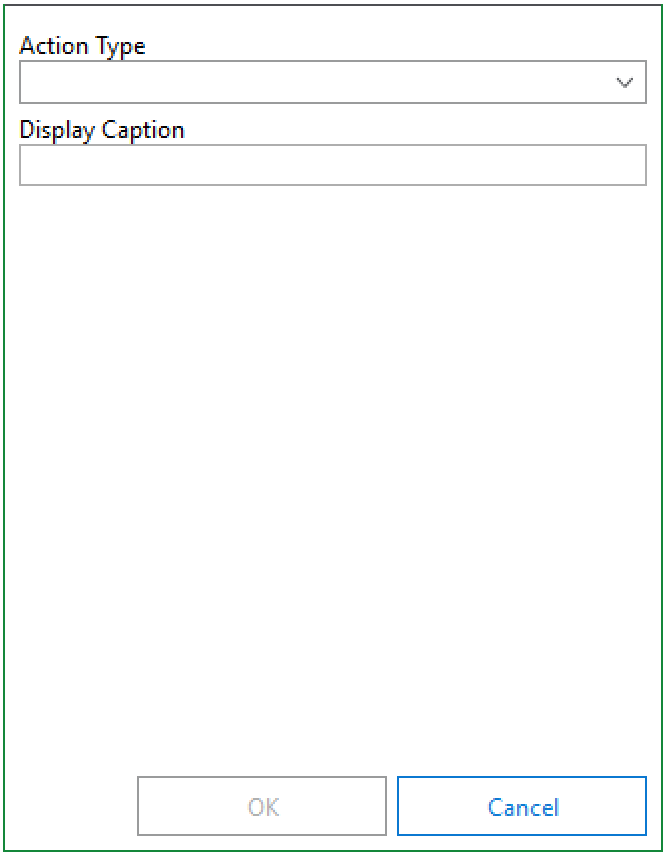
The configured display actions are available from the **Actions** right-click menu of configured report items and allow users viewing the report to use the report to perform the configured actions outside of Reporting Dashboards, such as opening a specific document in OnBase.

Note: If the report does not contain the value required to perform the configured display action, that action is disabled in the right-click menu.

To remove configured display actions from the report, select the action to remove in the **Display actions** pane and click **Remove**. You are not prompted to confirm this action.

To add display actions to the report:

1. Click **Add**. The **Edit Display Action** dialog box is displayed.



Note: Each display action is configured for a single column in a report. To configure the same display action for multiple columns, that display action must be added and configured for each column individually.

2. Select an action from the **Action Type** drop-down list. This is the underlying event that occurs when a user selects the configured action, such as opening a document.

Note: If **Display Document** is configured as the **Action Type** for a Document Type that a user does not have rights to access, that user will only be able to see the metadata for the document but not the document itself.

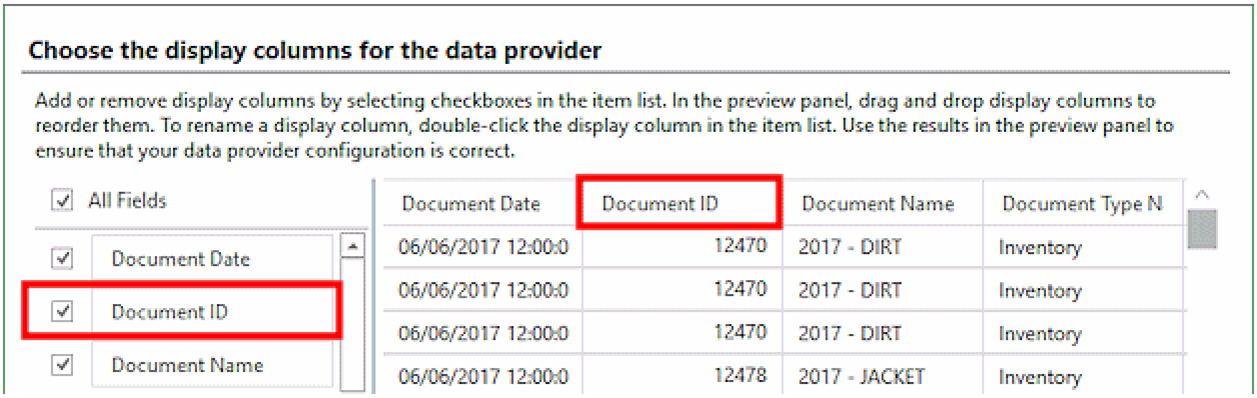
3. Enter a **Display Caption** in the field provided. This is how the action is labeled in the right-click **Actions** menu. The caption should be short and concise and describe what will occur. For example, **Display Document** or **Open Workflow Queue**.

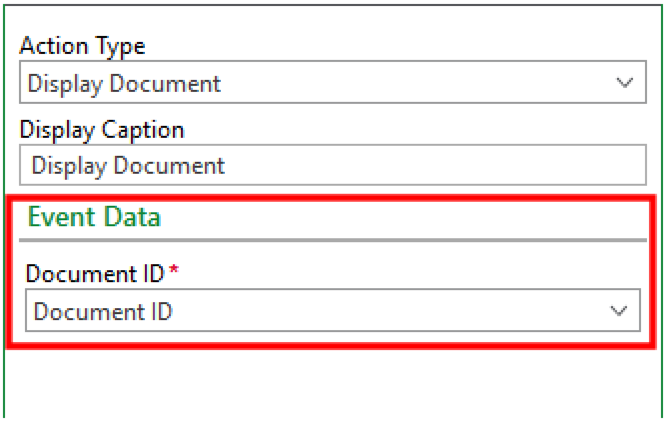
4. Select an **Event Data** option that represents the data required to perform the configured event, such as a document ID that is used to open a specific document.

   One or more Event Data drop-down lists are displayed when an action type is selected. These drop-down lists are populated with both hidden and non-hidden data items configured for the dashboard item that represent a dimension (not a measure) on the report.

Note: If the Event Data option selected does not contain the value required to perform the configured action, that action is disabled in the right-click menu.

For example, to open a specific document using the **Display Document** action type is selected, a unique document identifier such as Document ID should be used. Because of this, the Document ID must be included as a display column within the report and the data provider:

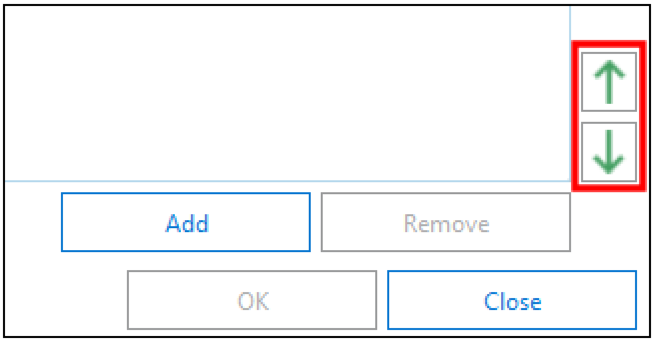




5. Click **OK** at the **Edit Display Action** dialog box.
6. Click **OK** to save your changes and close the **Properties** dialog box.

To remove display actions from the report, select the action to remove in the **Display actions** pane and click **Remove**. You are not prompted to confirm this action.

To move a display action up or down in the list, select it and click the corresponding arrow in the lower right corner of the dialog box.



Display actions that are available for a specific report are displayed to users in the right-click menu in the same order as they are displayed in the **Display actions** list in this dialog box.

Note: If the report does not contain the value required to perform the configured display action, that action is disabled in the right-click menu.

Click **OK** to save your changes and close the **Properties** dialog box.

Configuration and Administration

Reporting Dashboards functionality is available in the Unity Client. To access Reporting Dashboards, launch the Unity Client and click the **Dashboards** button on the **Home** ribbon:

If you have access to any dashboards, your default dashboard is displayed.

If there are no dashboards available to you, the **Create Dashboard Wizard** dialog box is automatically displayed. See Dashboard Maintenance and Design on page 24.

User Access to Configuration and Administration

Many administration areas and configuration options are limited by the level of access a user has to Reporting Dashboards and to specific dashboards, data providers, and categories. Users without the required access level to perform a task are informed of this limitation when the task is attempted.

- The ability to configure data providers, dashboards, and categories is limited to those users who have been given Modify or Full Control access.
- The owner of a dashboard, data provider, or category is the user who created it. The owner has full control. Access and extra permissions of the owner cannot be limited or removed.
- A user with Modify access cannot change the access or extra permissions of a user with Full Control.

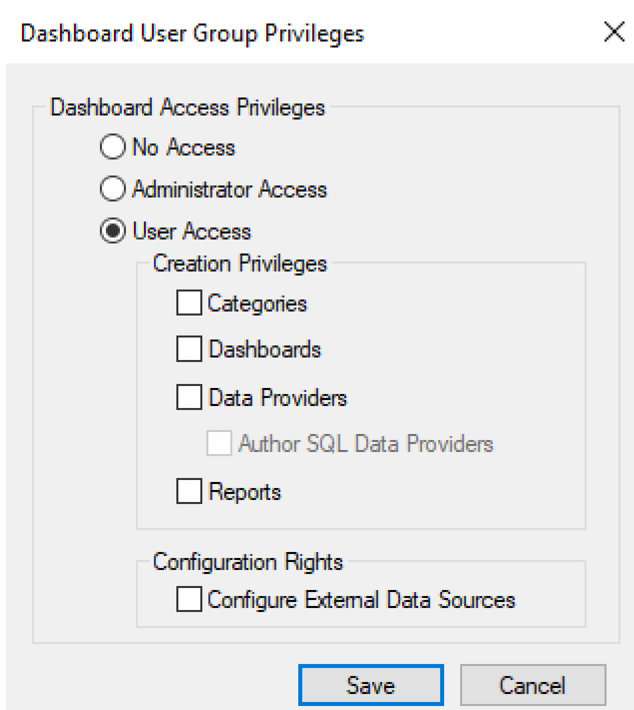
See also, User Group Privileges on page 178.

User Group Privileges

To use Reporting Dashboards, the user must be a member of a User Group with the appropriate privileges. Privileges for Reporting Dashboards are set in the OnBase Configuration module. To set privileges for Reporting Dashboards:

1. Launch the OnBase Configuration module.
2. Select **User Groups / Rights** from the **Users** menu. The **User Groups & Rights** dialog box is displayed.
3. Select the User Group to assign privileges to from the **User Group Name** list.

4. Click the **Reporting Dashboards** button. The **Dashboard User Group Privileges** dialog box is displayed.



5. Select the level of access to give the User Group:
   - **No Access:** Members of the User Group cannot access any Reporting Dashboards functionality. This is the default setting for all User Groups.
   - **Administrator Access:** Members of the User Group can view, create, and configure dashboards, data providers, and categories. They also have access to the **Admin Tools** under Administration, which include purge functionality. Only users with Administrator Access can set the refresh rate of a dashboard or make a dashboard public.
   - **User Access:** Members of the User Group can view dashboards they have been assigned to or that have been shared with them.
6. If you selected **User Access**, select the additional **Creation Privileges** the User Group should have.

Creation Privilege	Description
Categories	Members of the User Group can create and configure custom categories, which are used to organize dashboards and reports into groups of related dashboards and reports.

Creation Privilege	Description
Dashboards	Members of the User Group can create and configure custom dashboards. **Note:** To create a functioning dashboard, it must be assigned to at least one data provider. If no data providers exist or the user is not assigned to any data providers, a functioning dashboard cannot be created.
Data Providers	Members of the User Group can create and configure data providers that do not require custom SQL queries. Data providers are assigned to dashboards or reports and are used to retrieve the data required for the dashboard or report. If you select **Data Providers**, the **Author SQL Data Providers** option is enabled. If this option is also selected, members of the User Group can also configure data providers that require custom SQL queries. **Note:** Members of a User Group without the **Author SQL Data Providers** privilege enabled are unable to create copies of any dashboard, report, or data providers that use custom SQL queries. **Caution:** SQL statements should only be edited or written by certified database administrators. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly. Queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.
Reports	Members of the User Group can create and configure custom reports. **Note:** To create a functioning report, it must be assigned to at least one data provider. If no data providers exist or the user is not assigned to any data providers, a functioning report cannot be created.

7. If you selected **User Access**, select the additional **Configuration Rights** the User Group should have.
   - **Configure External Data Sources:** Members of the User Group can configure external databases for use with Reporting Dashboards.

Note: External databases can only be used with the **Custom SQL Query** data provider.

8. Click **Save** to assign the selected privileges.

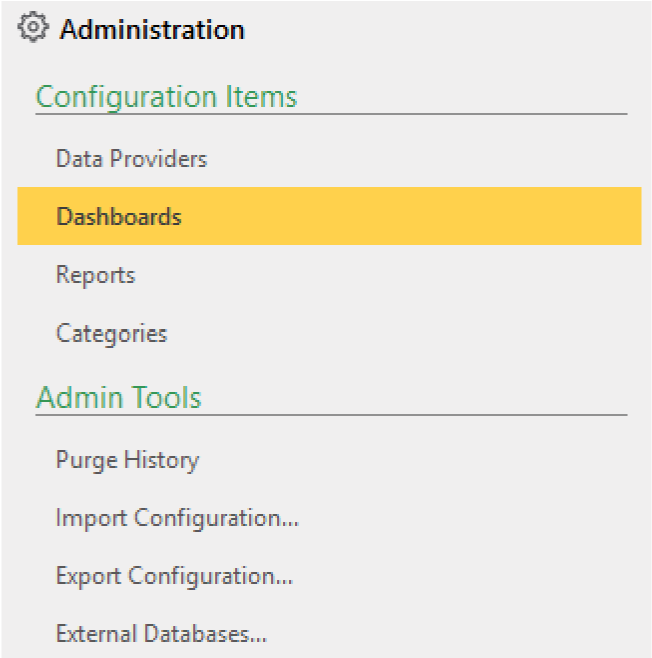
For further information on user access, see User Access to Configuration and Administration on page 178.

Administration Overview

The administration area of Reporting Dashboards allows system administrators to perform bulk changes to the system, such as adding users to multiple dashboards.

To access the administration area of Reporting Dashboards click **Administration** at the bottom of the left pane:

The **Administration** area allows you to configure several aspects of Reporting Dashboards and perform administrative functions, such as the export and import of Reporting Dashboards configuration.



Configuration Items

The **Configuration Items** area provides access to several dashboards configuration areas.

Configuration Item	Description
Data Providers	Data providers return data from a data source to be displayed in a dashboard or report. A new dashboard or report cannot be used unless at least one data provider is added to it. See Data Provider Administration on page 183.
Dashboards	Dashboards are used to display data returned from a configured data provider. The graphical display elements of a dashboard allow users to quickly identify relevant information and trends surrounding the data. **Note:** A new dashboard cannot be used unless at least one data provider is added to it. See Dashboard Maintenance and Design on page 24. See also, Data Provider Administration on page 183.
Reports	Reports are used to display data returned from a configured data provider. Data is displayed in easily sortable reports to allow for the easy interpretation and classification of information. **Note:** A new reports cannot be used unless at least one data provider is added to it. See Report Maintenance and Design on page 150. See also, Data Provider Administration on page 183.
Categories	Categories allow you to group together similar or related dashboards and reports, making them easier for users to find. See Category Administration on page 297.

Admin Tools

The **Admin Tools** area provides access to administrative functions.

Admin Tool	Description
Purge History	Clear the logged history of configuration changes and dashboard access. See Purge History on page 319.
Import Configuration	Launch the wizard to import Reporting Dashboards configuration objects.

Admin Tool	Description
Export Configuration	Launch the wizard to export Reporting Dashboards configuration objects.
External Databases	Configure external databases for use with a custom SQL data provider. **Note:** The **Configure External Data Sources** configuration right is required.
Global Select Lists	Create parameters for use in multiple Custom SQL Data Providers.

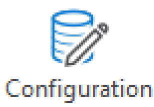
Data Provider Administration

Data providers return data from a data source to be displayed in a dashboard. New dashboards cannot be used unless at least one data provider is added to it. The Create Data Provider Wizard is used to create new data providers.

Depending on the modules licensed for your system, one or more types of data providers may be available for configuration. The basic data provider types that are available to all systems with Reporting Dashboards and are described in this chapter. For details on license-specific data provider types, see License-Specific Data Provider Types on page 298.

The following actions are available from the Data Provider Administration ribbon.

Button	Action
Create New Data Provider	Click **Create New Data Provider** to launch the Create Data Provider Wizard. Data providers return data from a data source to be displayed in a dashboard. New dashboards cannot be used unless at least one data provider is added to it. For more information, see Creating New Data Providers on page 184.
Copy to New	Select an existing data provider in the **Data Providers** list and click **Copy to New** to launch the Create Data Provider Wizard. The wizard is launched at the **What would you like to name this data provider?** dialog box. For more information, see Creating New Data Providers on page 184.
Delete	Select a data provider in the **Data Provider** list and click **Delete** to completely remove it from the system. You are prompted to confirm this action.

Button	Action
	Select a data provider in the **Data Provider** list and click **History** to view the action history of the selected data provider. This allows you to see which users made changes to the data provider and a summary of the changes made. For more information, see Viewing the History Logs on page 317.
	Select a data provider in the **Data Provider** list and click **Properties** to view and change the properties of the data provider. For more information, see Changing the Properties of Existing Data Providers on page 247.
	Select a data provider in the **Data Provider** list and click **Configuration** to view and change the configuration of the data provider. For more information, see Changing the Properties of Existing Data Providers on page 247.
	Select a data provider in the **Data Provider** list and click **Assign Items** to view and change the dashboards or reports assigned to the data provider. For more information, see Changing the Properties of Existing Data Providers on page 247.
	Select a data provider in the **Data Provider** list and click **Assign Users** to view and change the users assigned to the data provider. For more information, see Changing the Properties of Existing Data Providers on page 247

Creating New Data Providers

Data providers return data from a data source to be displayed in a dashboard. New dashboards cannot be used unless at least one data provider is added to it. The Create Data Provider Wizard is used to create new data providers.

The process is the same for copying an existing data provider or creating a completely new data provider, except the options are pre-configured with the information from the data provider that was copied if you choose to copy an existing data provider. The pre-configured options for copied data providers can be changed or edited to reflect the requirements of the new data provider, unless otherwise noted.

Note: The basic data provider types that are available to all systems with Reporting Dashboards and are described in this chapter. Depending on the modules licensed for your system, data provider types may be available for configuration. For details on license-specific data provider types, see the module reference guide for that module.

The exact configuration process depends on the data provider type selected. This table describes the data provider types available with all Reporting Dashboards installations.

Data Provider Type	Description
Custom SQL Query	Allows you to write and execute custom SQL data access statements and stored procedures. **Caution:** SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly, and queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted. See Adding a Custom SQL Query Data Provider Type on page 186.
Document Imaging Query - Time in Queue	Retrieves time-in-queue data from Document Imaging queues, including idle time and the total time from initial scan to final commit. See Adding a Document Imaging Query (Time in Queue) Data Provider Type on page 203.
Document Imaging Query - Time to Process	Retrieves the time-to-process data for batch Document Imaging processes, based on users or User Groups. See Adding a Document Imaging Query (Time to Process) Data Provider Type on page 214.
Document Query	Returns data based on Keyword information for documents stored in OnBase. See Adding a Document Query Data Provider Type on page 226.

The following modules also have data provider types available for use with Reporting Dashboards:

- Plan Review
- Report Capture
- Workflow

- WorkView
- Document Knowledge Transfer & Compliance

Tip: WorkView data can also be displayed using **Custom SQL Query** reports in Reporting Dashboards. For best results, WorkView applications should make use of filters that are configured with the **Enable reportable view** setting. With this configuration, the column names in the SQL view are defined by the administrator and will be easier to configure for dashboards. For more information on configuring WorkView applications, see the **WorkView** module reference guide.

For details on configuring license-specific data provider types, see the module reference guide for that module.

Adding a Custom SQL Query Data Provider Type

The Custom SQL Query data provider type allows you to write and execute custom SQL data access statements and stored procedures. Database modifications cannot be made using the Custom SQL Query data provider type because the SQL is executed against the configured database with read-only access. For SQL syntax, parameterizations, and macros specific to Reporting Dashboards, see Custom SQL Syntax, Parameterization, and Macros on page 331.

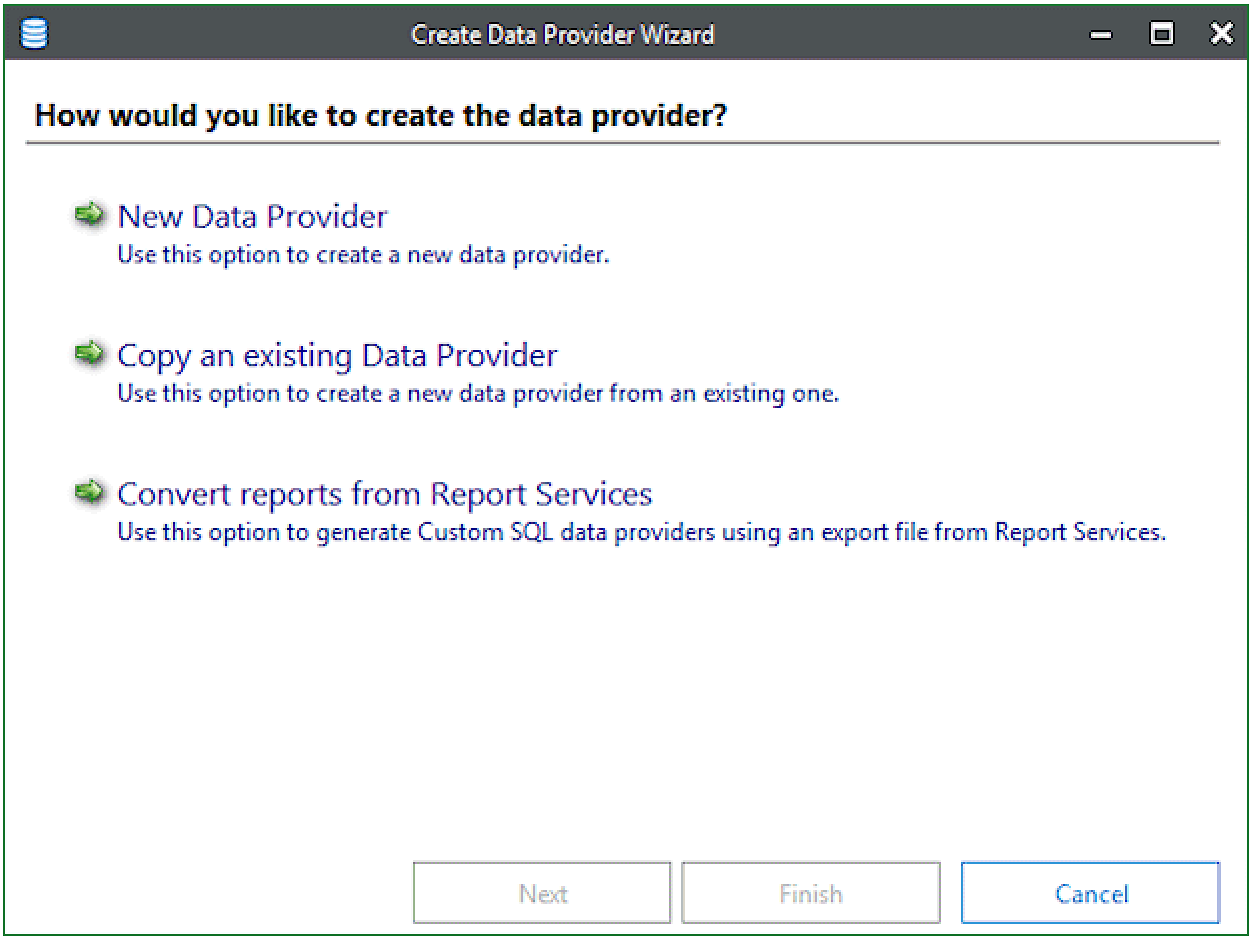
Caution: SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly. Queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.

Tip: As a best practice, all SQL queries created for use with Reporting Dashboards should be first run in a profiler by a certified database administrator, to review the database optimizer access plan. This analysis needs to be performed against the live database or a database of similar size, with similar data distribution, for all tables involved in the query. The DBA should verify that the query is well formed and not I/O intensive. The data access plans should also be documented to provide a baseline in case database performance degrades at a later time.

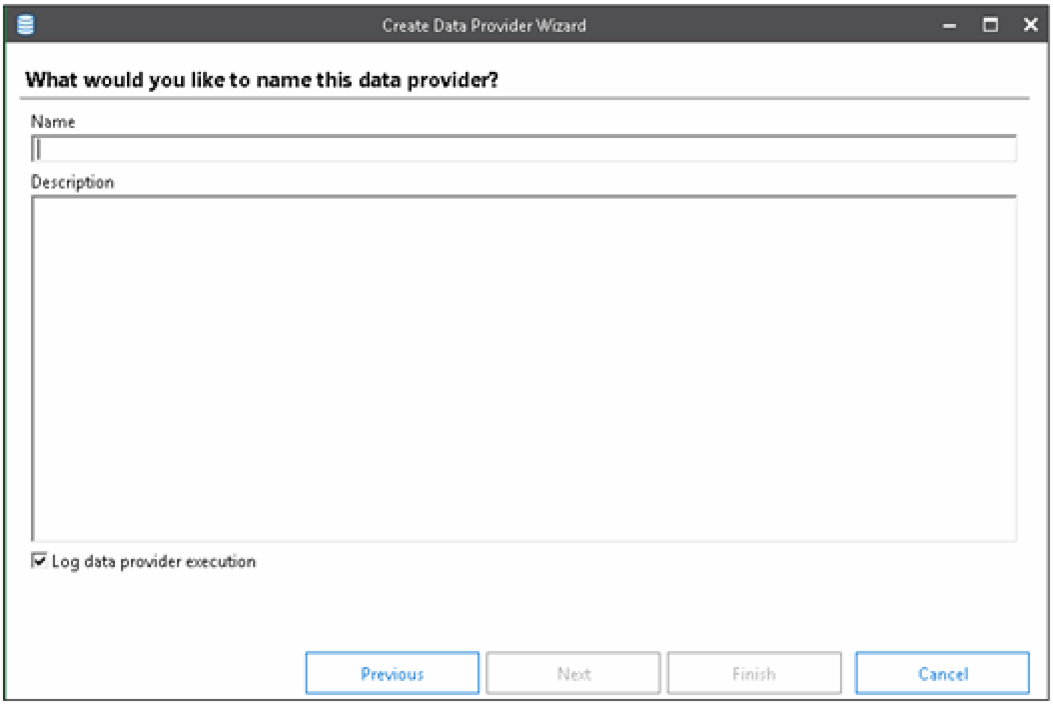
The **Create Data Provider Wizard** is used to create new data providers. To create a new data provider:

1. From the Dashboard Viewer, click **Administration** from the bottom of the Dashboard Gallery screen, and then click the **Create new Data Provider** button from the **Data Provider Administration** ribbon of the Unity Client:

2. At the **How would you like to create the data provider?** page:
   - Click **Create new Data Provider** to create a completely new data provider.
   - Click **Copy an existing Data Provider** to use an existing data provider as the template for a new data provider. The process is the same as creating a completely new data provider except the options are pre-configured with the information from the data provider that was copied. The pre-configured options can be changed or edited to reflect the requirements of the new data provider, unless otherwise noted.
   - Click **Convert reports from Report Services** to use an export file from Report Services to create a custom SQL data provider.



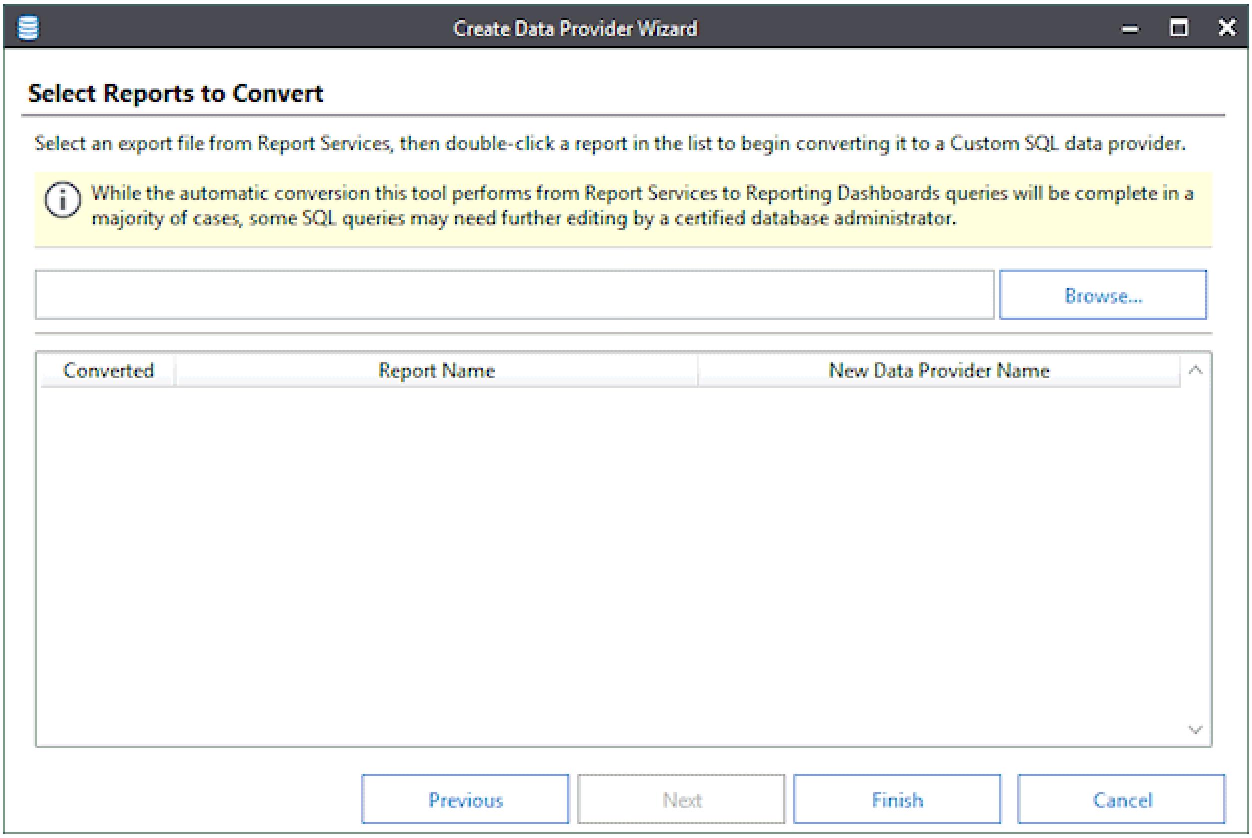
3. If you clicked **Create new Data Provider**, the **What would you like to name this data provider?** page is displayed.



If you clicked **Copy an existing Data Provider**, the **Select the data provider to copy from** page is displayed. You can search for a data provider to copy by typing the name of the data provider into the **Search** bar in this page. Select the data provider to copy, then click **Next**. The **What would you like to name this data provider?** page is displayed.

Note: When a data provider is copied, the options in the remaining pages are pre-configured with the information from the data provider that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new data provider.

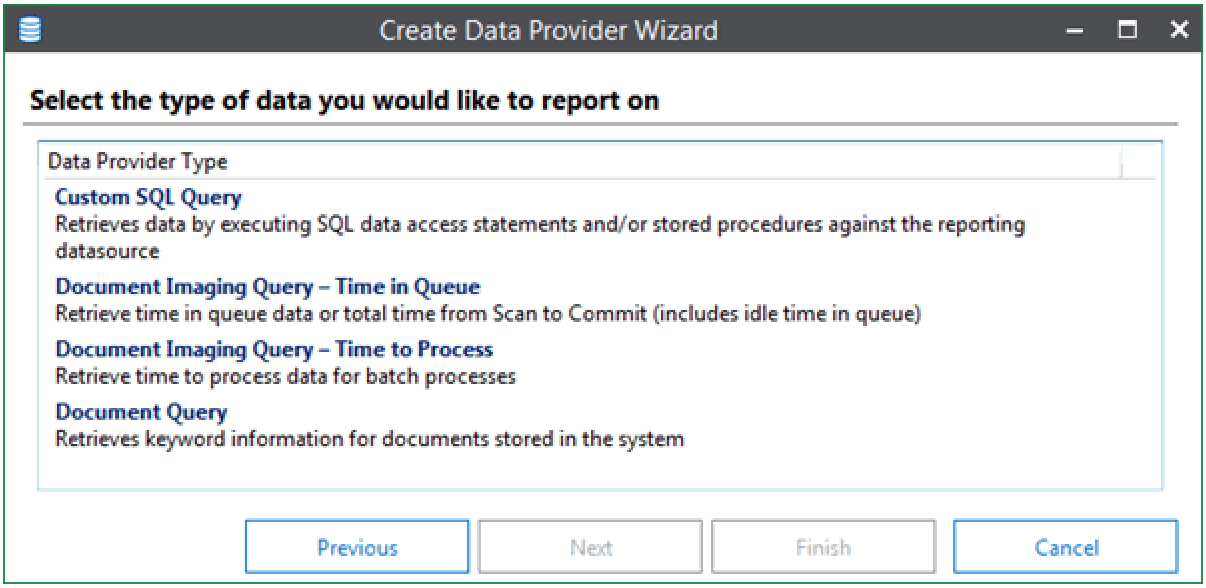
if you clicked **Convert reports from Report Services**, the **Select Reports to Convert** page is displayed. Click **Browse** to select a Report Services export file (**.xml**) to import. The file is imported as a Custom SQL data provider. Multiple Report Services export files can be added on this screen.



To edit the details of each individual import, double-click on the file in the list. The **What would you like to name this data provider?** page is displayed.

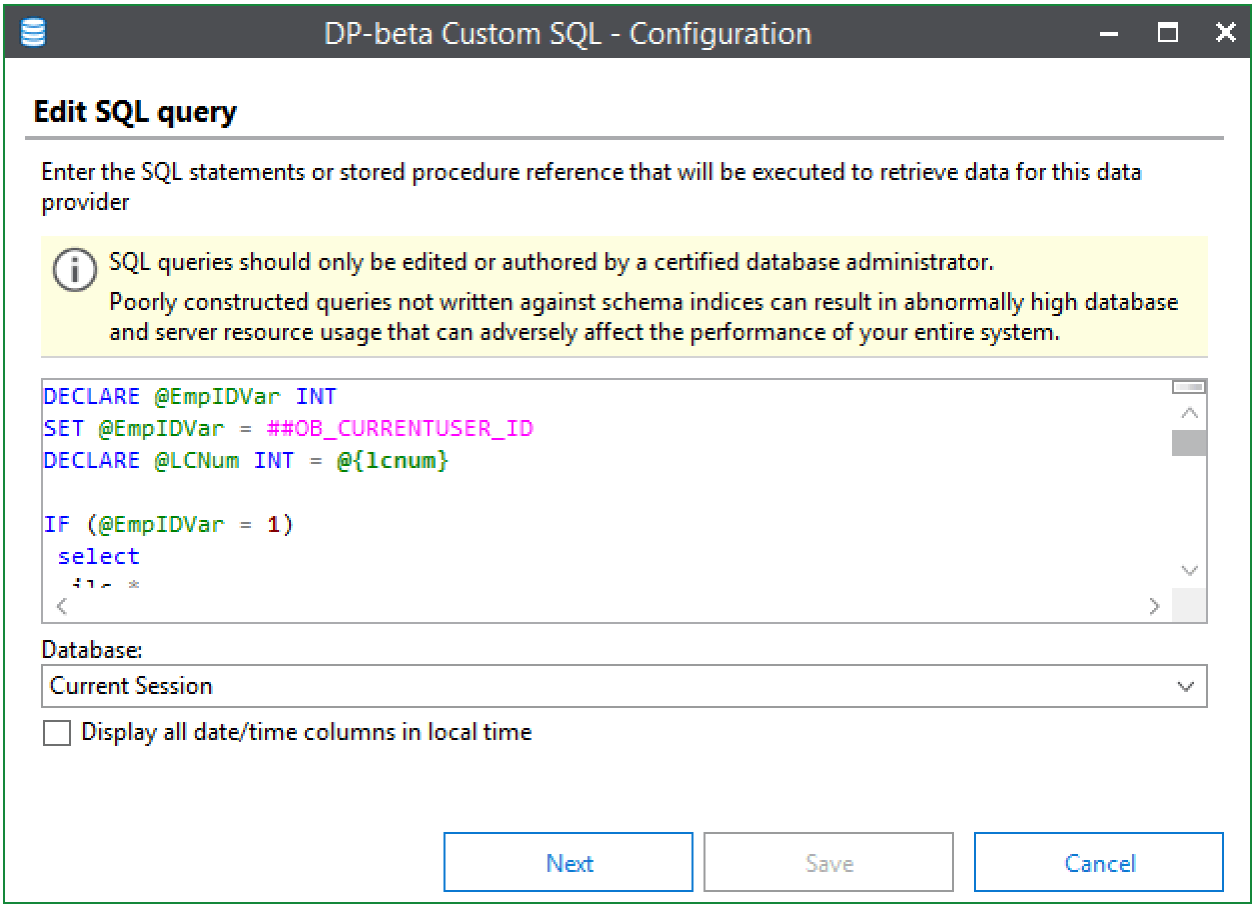
4. Type a name for the data provider in the **Name** field. The name should be unique and allow the data provider to be easily distinguished from other data providers.
5. Type a brief description of the data provider in the **Description** field. The description should briefly explain what the data provider is and what type of data a user can expect to retrieve from it.
6. Select **Log data provider execution** to include the elapsed time of data retrieval and runtime parameter information for this data provider in the **History** log. Data requests for the data provider are always logged in the history even if this option is deselected.
7. Click **Next**. Unless you are converting data from Report Services, the **Select the type of data you would like to report on** page is displayed. If you are converting data from Report Services, the **Edit SQL query** page is displayed.

Note: If you copied an existing data provider this page is not displayed. You cannot change the data provider type for copied data providers.



Note: Depending on the modules licensed for your system, one or more types of data providers may be available for configuration. This image only displays the basic data providers available to all Reporting Dashboards installations.

8. Select **Custom SQL Query**.
9. Click **Next**. The **Edit SQL query** dialog box is displayed.

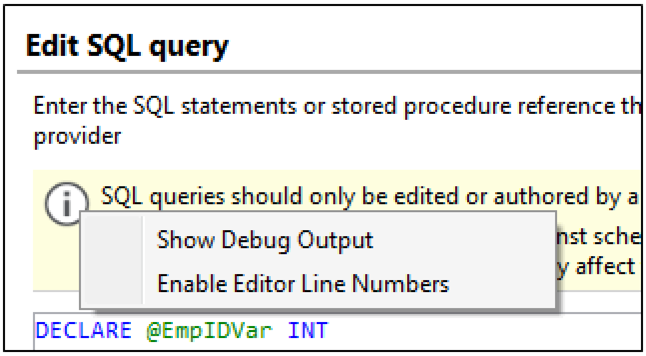

DP-beta Custom SQL - Configuration
Edit SQL query
Enter the SQL statements or stored procedure reference that will be executed to retrieve data for this data provider
SQL queries should only be edited or authored by a certified database administrator.
Poorly constructed queries not written against schema indices can result in abnormally high database and server resource usage that can adversely affect the performance of your entire system.
DECLARE @EmpIDVar INT
SET @EmpIDVar = ##OB_CURRENTUSER_ID
DECLARE @LCNum INT = @{lcnum}
IF (@EmpIDVar = 1)
select
Database:
Current Session
Display all date/time columns in local time
Next
Save
Cancel

10. Type or paste the SQL query into the data-entry field provided. For SQL syntax, parameterizations, and macros specific to Reporting Dashboards, see Custom SQL Syntax, Parameterization, and Macros on page 331.

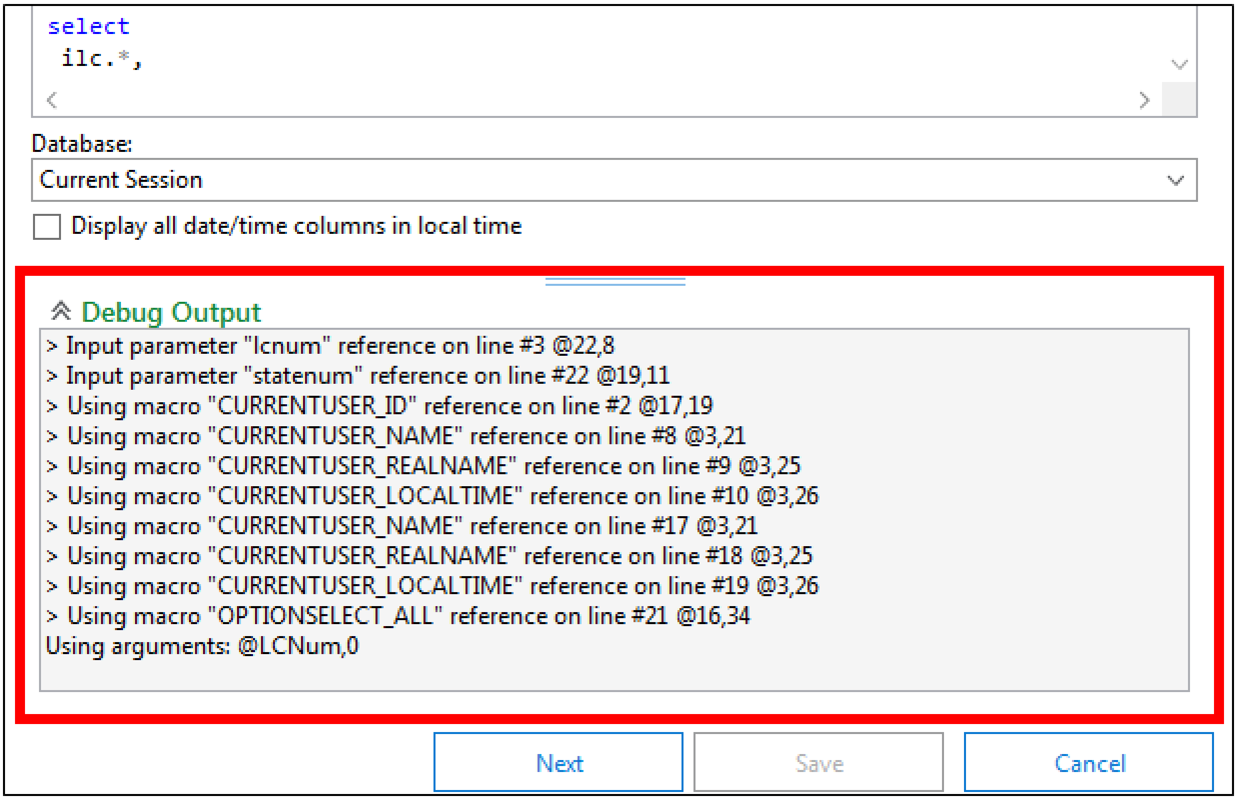
Caution: SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly. Queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.

Tip: As a best practice, all SQL queries created for use with Reporting Dashboards should be first run in a profiler by a certified database administrator, to review the database optimizer access plan. This analysis needs to be performed against the live database or a database of similar size, with similar data distribution, for all tables involved in the query. The DBA should verify that the query is well formed and not I/O intensive. The data access plans should also be documented to provide a baseline in case database performance degrades at a later time.

To display debugging information for the replacement of macros and parameters in the SQL query entered, right-click the information icon and select **Show debug output**:



The debugging information is displayed below the data-entry field in the **Debug Output** pane:

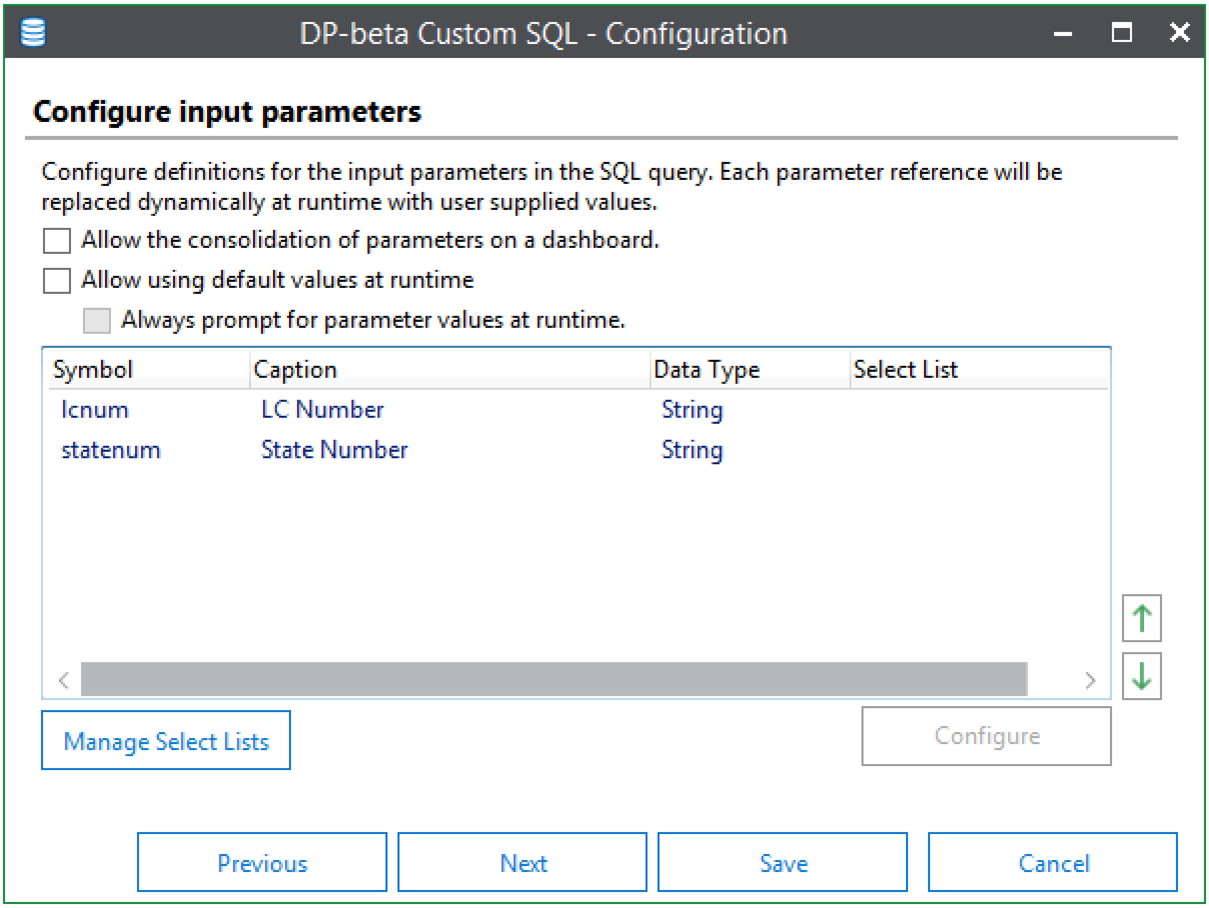


To show/hide line numbers in the SQL editor pane, right-click the information icon and select **Enable editor line numbers**.

11. Select **Display all date/time columns in local time** to convert all date-time values returned to the local time of the user accessing a dashboard.
12. From the **Database** drop-down menu, select the database you would like to use. If any external databases have been configured, they are available for selection here. For more information, see Configuring an External Database for use with Reporting Dashboards on page 244.

13. Click **Next** after ensuring that the SQL entered is valid. The **Configure Runtime Parameters** dialog box is displayed if parameters need to be configured.

Tip: To reduce the processing requirements of Reporting Dashboards, it is a best practice to configure required runtime parameters for every Data Provider, or configure parameters with default values to be used if a value is not entered.



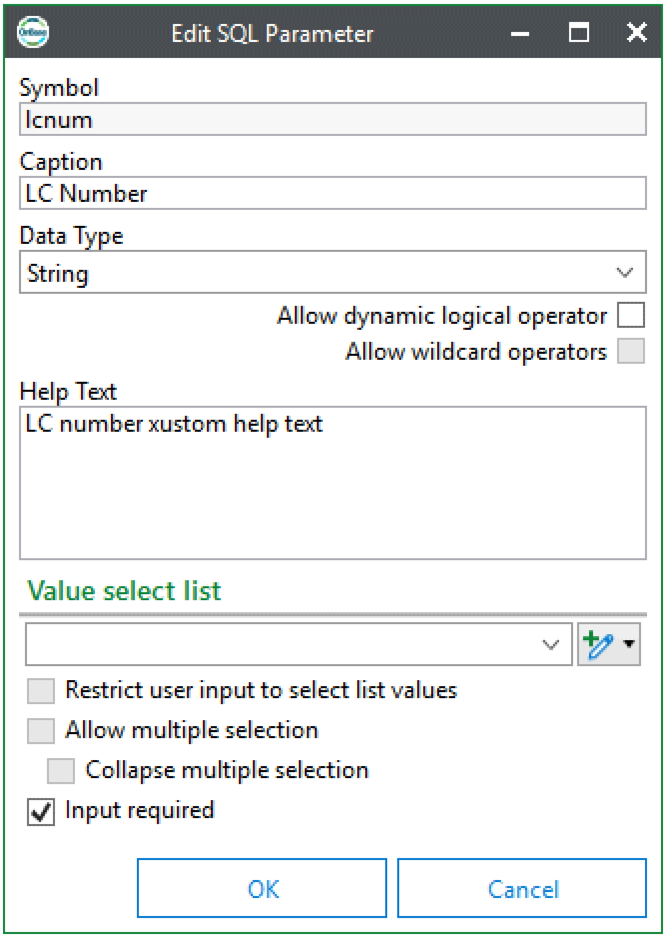
Note: If there are any errors with the runtime parameters, these are displayed in the yellow warning pane above the parameters list. The **Next** button is not enabled until all errors are corrected.

14. Select **Allow the consolidation of parameters on a dashboard** to treat the same parameters from different data providers as one parameter in the Input Parameters dialog box.

Note: In order to be consolidated, parameters must share the same data provider type, parameter ID, and have the same reverse-fill sources.

15. Select **Allow using default values at runtime** to allow the parameters to be filled with a default value if the user does not explicitly select or enter a value.

16. Select **Always prompt for parameter values at runtime** to prompt for parameters even if default values have been configured.
17. To configure a runtime parameter, select it in the parameters list and click **Configure**. The **Edit SQL Parameter** dialog box is displayed.



18. Type a user-friendly name for the parameter in the **Caption** field. This is how the user will know what the parameter is for. The caption is limited to 60 characters.
19. Select the data type of the parameter from the **Data Type** drop-down list. The data type must be valid for the SQL parameter being configured (for example, do not use **Numeric9** as the data type when the SQL parameter being configured contains letters).

Note: The **Date Time Range** data type is only valid after a SQL **BETWEEN** clause.

20. Select **Allow dynamic logical operator** in order to allow the logical operator (for example <, >, =) used to evaluate this parameter to be changed. Dynamic logical operators allow for the comparison of values in a method chosen by the user. By default, the selected logical operator is used when the data provider is accessed.

Note: If **Allow dynamic logical operator** and **Allow multiple selection** are both selected, the only logical operators available are **IN** and **NOT IN**, which allow the user to search for values within (when using **IN**) or not within (when using **NOT IN**) the parameter.

21. Select **Allow wildcard operators** to allow **Contains**, **Begins with**, and **Ends with** operators to be used to evaluate this parameter. This option can only be selected if **Allow dynamic logical operator** is also selected.

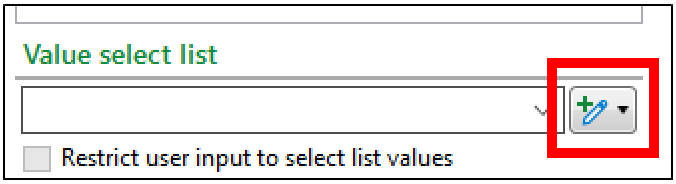
Note: Queries that search for terms using the **Ends with** operator need to ensure that trailing spaces are taken into account. Use the **RTRIM** function in the SQL query to remove trailing spaces.

22. Type a brief description of the data the parameter represents in the **Help Text** field. This text is displayed when a user hovers the cursor over the parameter name in the output display. The help text is limited to 255 characters.
23. To configure the runtime parameter to use a drop-down list, select the list type from the **Value select list** drop-down list. This list includes configured global select lists.

Note: The data type of the **Value select list** must match the data type of the runtime parameter.

To create a new select list to add to the **Value select list** drop-down list, or to edit an existing select list already available in the **Value select list** drop-down list, follow these additional steps:

a. Click the add/edit button at the right of the **Value select list** drop-down list.

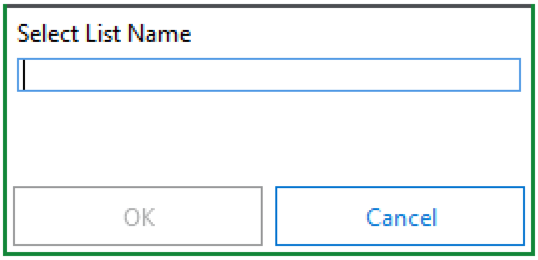


Select **New** to add a new select list.

If you are editing an existing select list, make sure the select list you want to edit is selected in the **Value select list** drop down, then click the add/edit button and select **Edit**.

The **Manage Select Lists** dialog box is displayed.

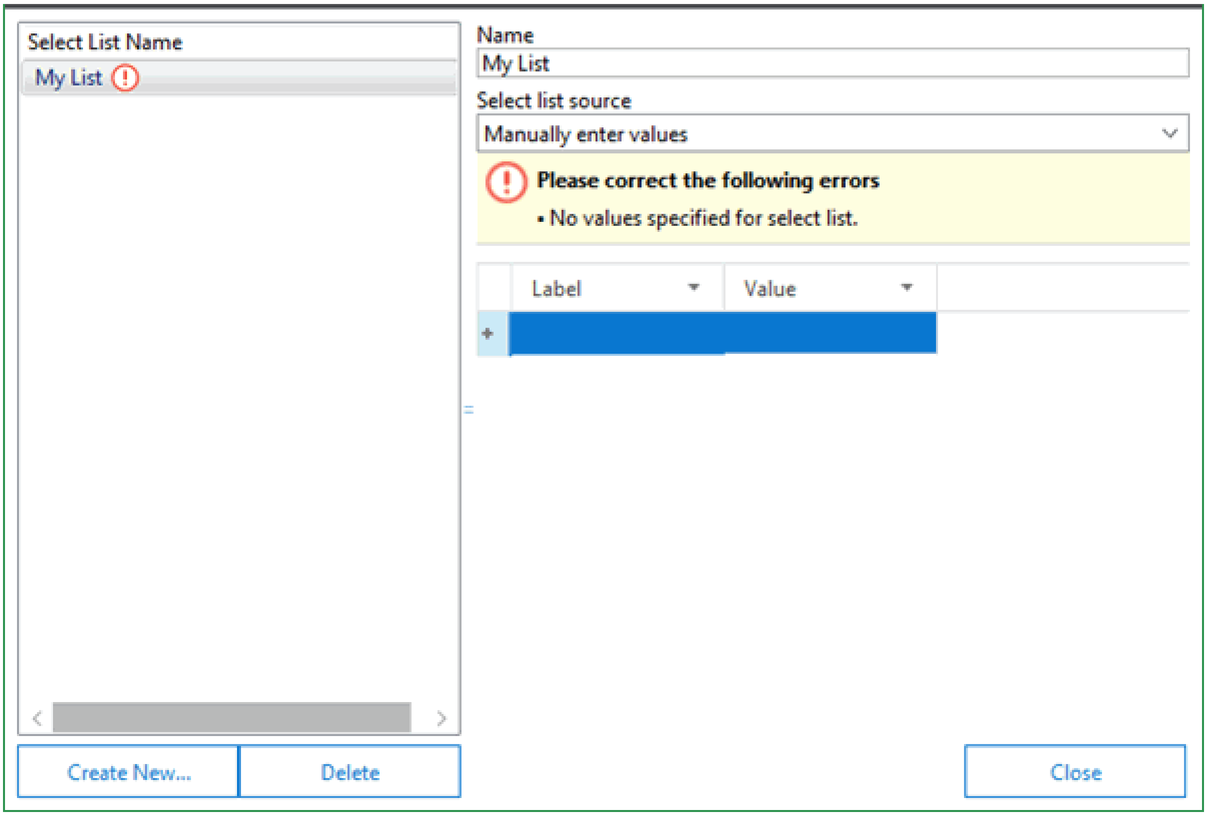
b. If this is a new select list, the **Select List Name** dialog box is displayed over the **Manage Select Lists** dialog box.



c. Type a name for the select list in the field provided. This is the name that is displayed in the **Value select list** drop-down list on the **Edit SQL Parameter** dialog box.

d. Click **OK**. The new select list is added and selected, but requires list values before it can be used.

e. In the right pane, select a source of the values from the **Select list source** drop-down list.



The list source options available include the following:

List Source	Description
Manually enter values	Type the values for the select list in the grid that is displayed. The **Label** is how the item is displayed in the drop-down list and the **Value** is the value that is included in the data query. To add a new value, press the **Enter** key. A new blank row is added to the grid. To change an existing **Label** or **Value**, select it in the grid and type the new value. **Note:** Manually entered values are limited to 255 characters.
Get values from a SQL query	Enter the SQL used to build the label/value pairs for the drop-down list from the data that is returned. To validate the SQL entered, click **Validate SQL** at the bottom of the data-entry field. The SQL statement entered must return exactly two columns, one for the **Label** and the other for the **Value** (the **Label** is how the item is displayed in the drop-down list and the **Value** is the value that is included in the data query).

Caution: SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may cause reports to return unexpected results or could cause Reporting Dashboards to close unexpectedly, and queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.

f. Click **Close**. You are returned to the **Edit SQL Parameter** dialog box.
g. Select the list from the **Value select list** drop-down list.

Note: The data type of the select list must match the data type of the runtime parameter.

24. Select **Restrict user input to select list values** to restrict user input for the parameter to only the options in the drop-down list. If this option is deselected, users can type a value for the parameter or select it from the drop-down list.
25. Select **Allow multiple selection** to allow users to select more than one value from the drop-down list. If this option is deselected, users can only select one value from the select list. This option is only available if **Restrict user input to select list values** is also selected.

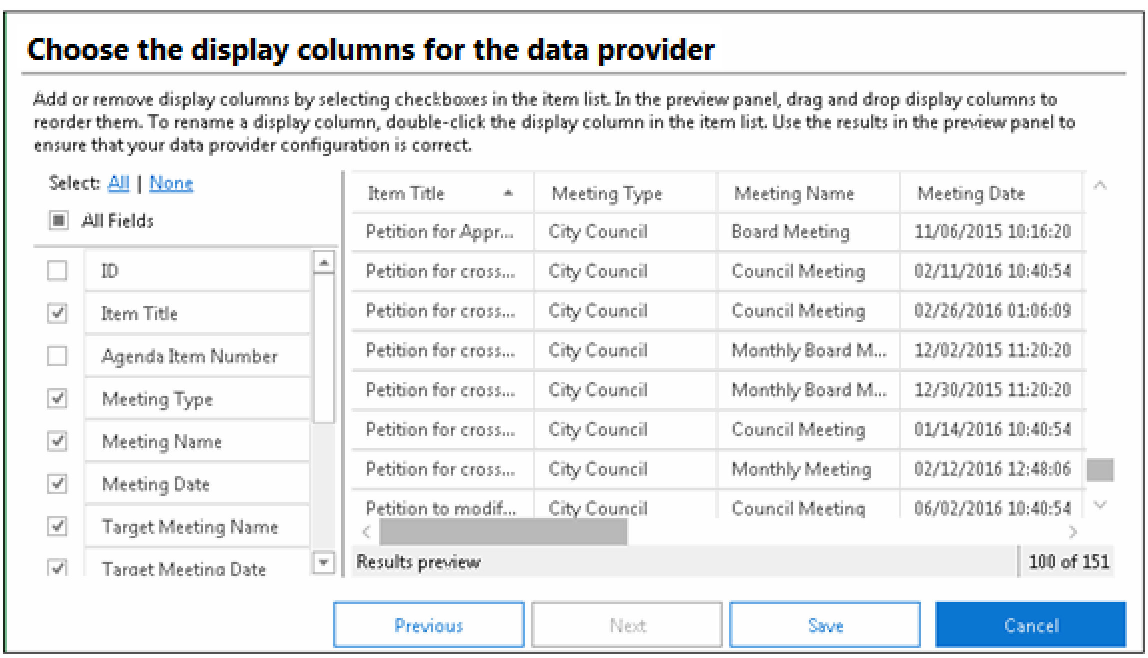
26. Select **Collapse multiple selection** to allow users to collapse the multiple selection list for this parameter. This option is only available if **Allow multiple selection** is also selected.

Note: Without **Allow dynamic logical operator** enabled, the **Allow multiple selection** option is only valid in an **IN** SQL clause.

27. Select **Input required** to require users to enter a value for that parameter. This option is selected by default, but can be deselected if a parameter is optional.
28. Click **OK** on the **Edit SQL Parameter** dialog box to save the configuration and return to the **Configure Runtime Parameters** dialog box.
29. Configure any other runtime parameters.
30. Click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

Note: If the **Restrict user input to select list values** option was selected in the **Edit SQL Parameter** dialog box, you are required to select a default value for the select list prior to selecting display columns for the data provider. Select a value from the drop-down select menu and click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

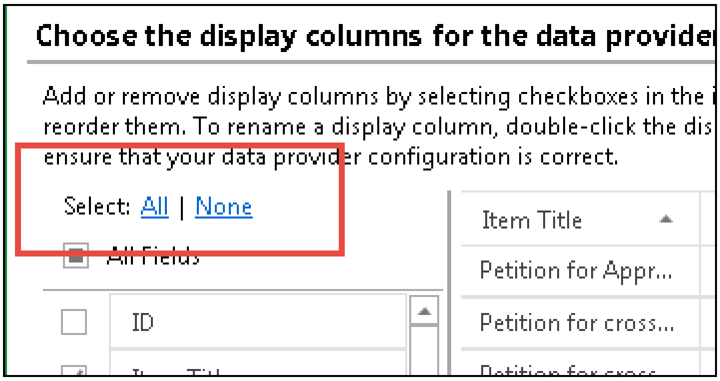
The display columns available depend on the data provider type being configured. If the data provider being configured allowed you to pre-select the display columns available, only the display columns selected earlier in the configuration process are available.



31. Select a display column to include it in the results, or deselect it to hide it.

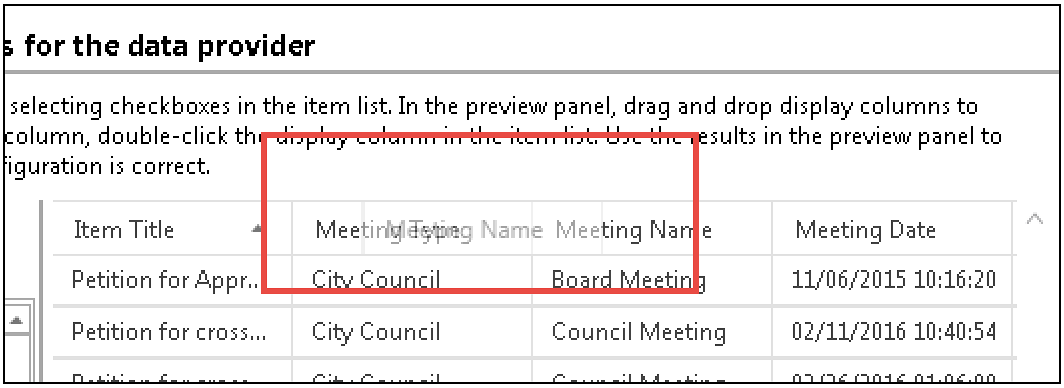
Note: In order for users to be able to open a document directly from a dashboard, the system Keyword Type **Document ID** must be included as a display column.

Click **None** to deselect all display columns or click **All** to select all display columns.



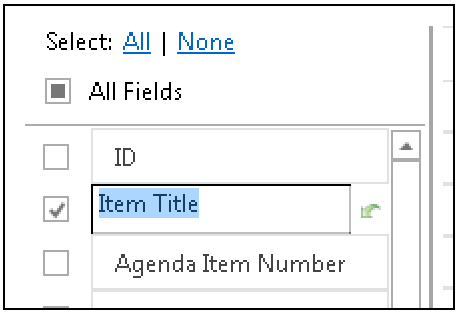
Tip: A preview of the type of data that is returned with the display columns selected is displayed in the preview pane at the right of the list of display columns. If the data returned is not acceptable, select different display columns or click **Previous** to reconfigure previous aspects of the data provider.

32. To reorder the display columns, drag-and-drop the column headings in the preview pane to put them in the desired order.



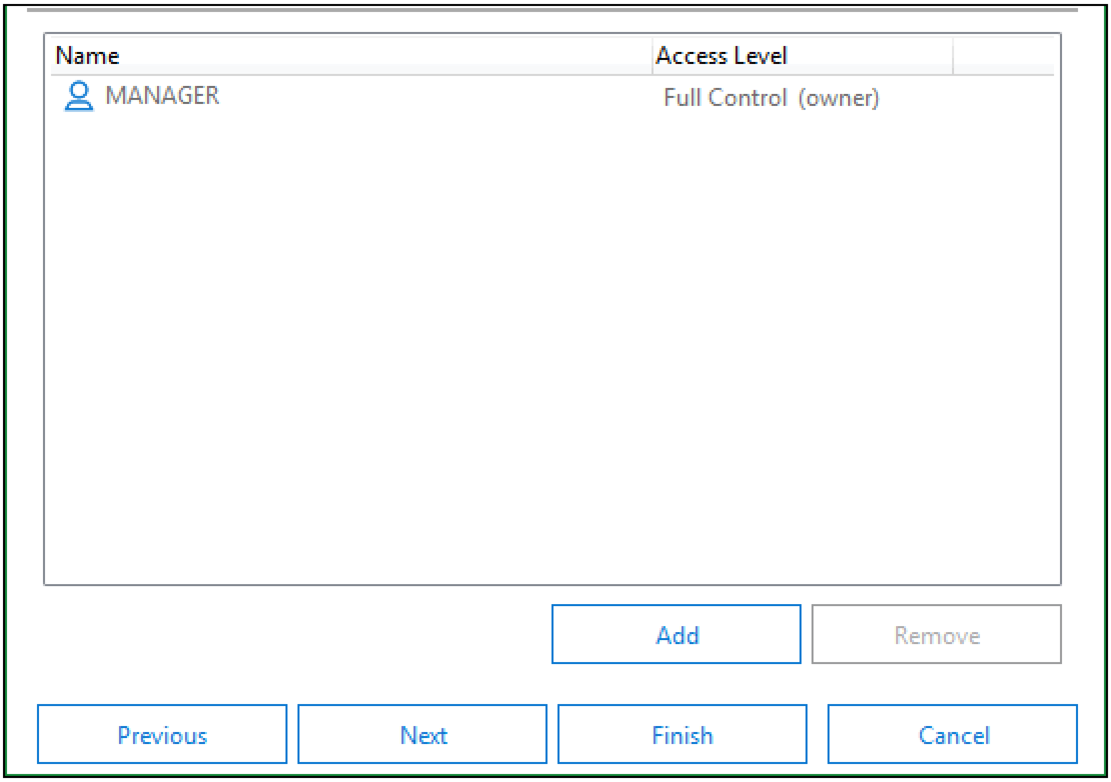
33. To rename a display column, double-click the name in the list, and type the new name in the field provided. Click anywhere outside the field to save the changes.

Note: Display column names must not be blank or end with a space.

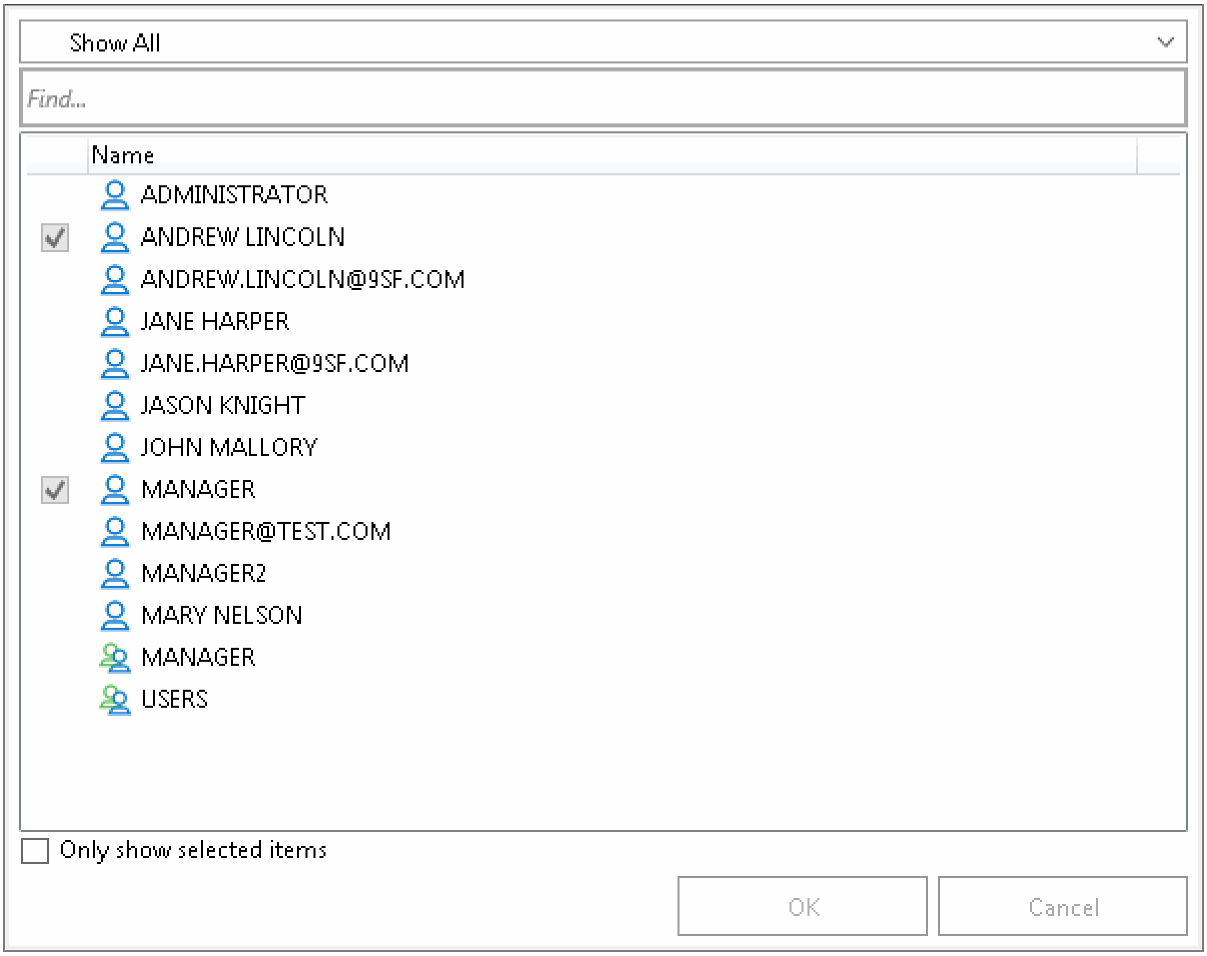


34. If you are converting a report, click **Finish**. You are returned to the **Select Reports to Convert** dialog box. Double click on other reports being converted to configure them. Once all reports are configured, click Finish to complete the creation of the data provider. If you are configuring any other type of data provider, continue to the next step.

35. Click **Next**. The **Who should have access to the data provider?** dialog box is displayed.

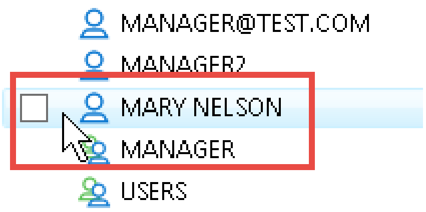


36. To grant access to a new user, click **Add**. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

37. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

38. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

39. To remove users or User Groups, select the users or User Groups to remove in the list and click **Remove**, or right-click the user's name and select **Remove**. You are not prompted to confirm this action.

Note: Access for the user account that created the data provider cannot be removed or changed. The data provider creator always has full access to the data provider.

40. To change a user or User Group's access level, right-click the user's name in the list and select **Full Control**. A check mark will appear next to Full Control to indicate that user or User Group has **Full Control** privileges. If the check mark is not present, the user or User Group only has **Execute Only** privileges. **Full Control** allows the user to configure the settings for the data provider, including user access. **Execute Only** allows the user to use, but not configure, the data provider.

Note: The owner is the user who created the data provider. Access cannot be changed for the owner.

41. Click **Next**. The **Summary** dialog box is displayed. Review the information in the main pane to confirm that the data provider is correctly configured. If not, click **Previous** to return to the various configuration dialog boxes so that changes can be made.
42. Click **Finish**. The data provider is saved and is available for use with dashboards.

Adding a Document Imaging Query (Time in Queue) Data Provider Type

Retrieves time-in-queue data from Document Imaging queues, including idle time and the total time from initial scan to final commit.

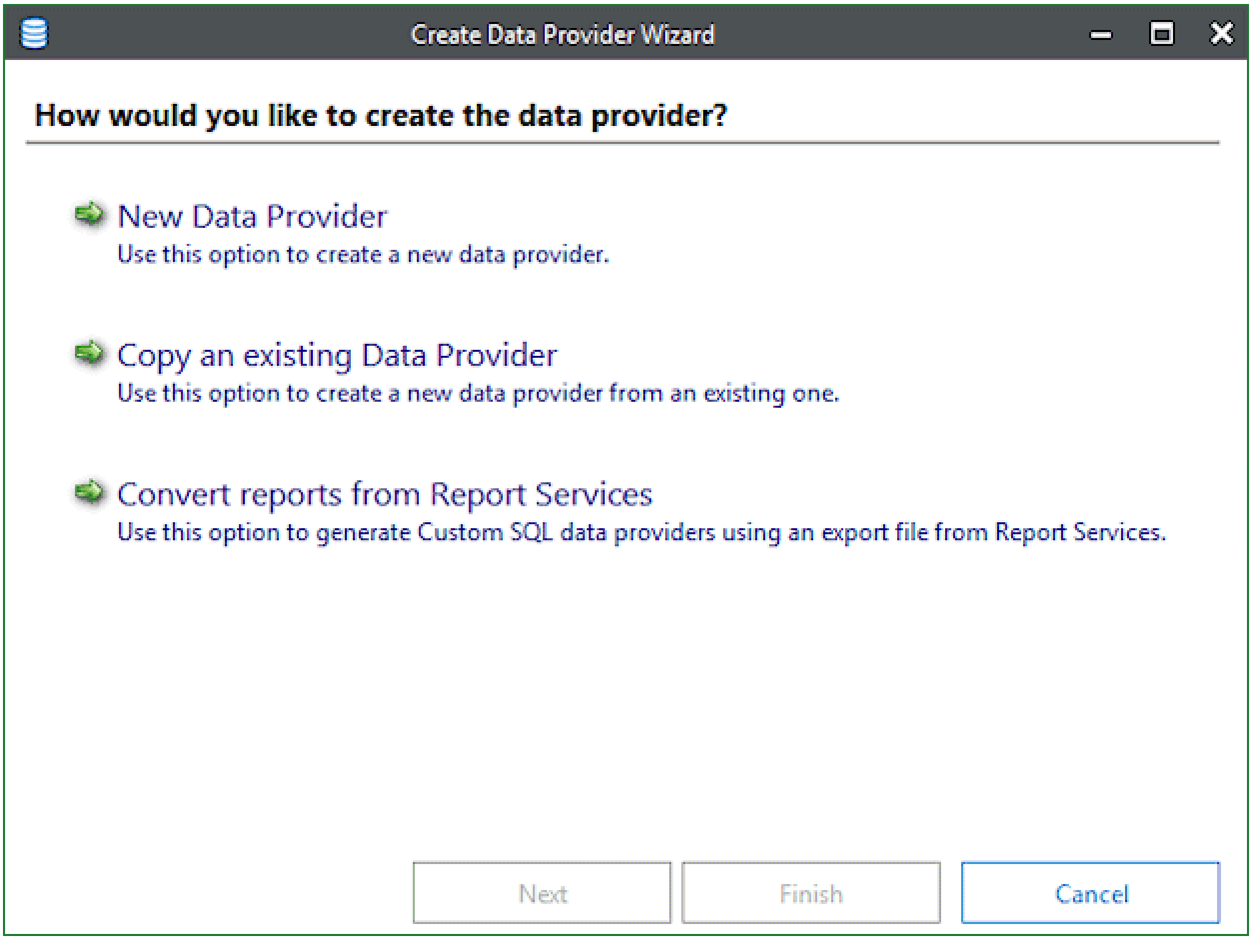
Tip: For complete details on Document Imaging processes and how they relate to processing queues, see the **Document Imaging** module reference guide.

The **Create Data Provider Wizard** is used to create new data providers. To create a new data provider:

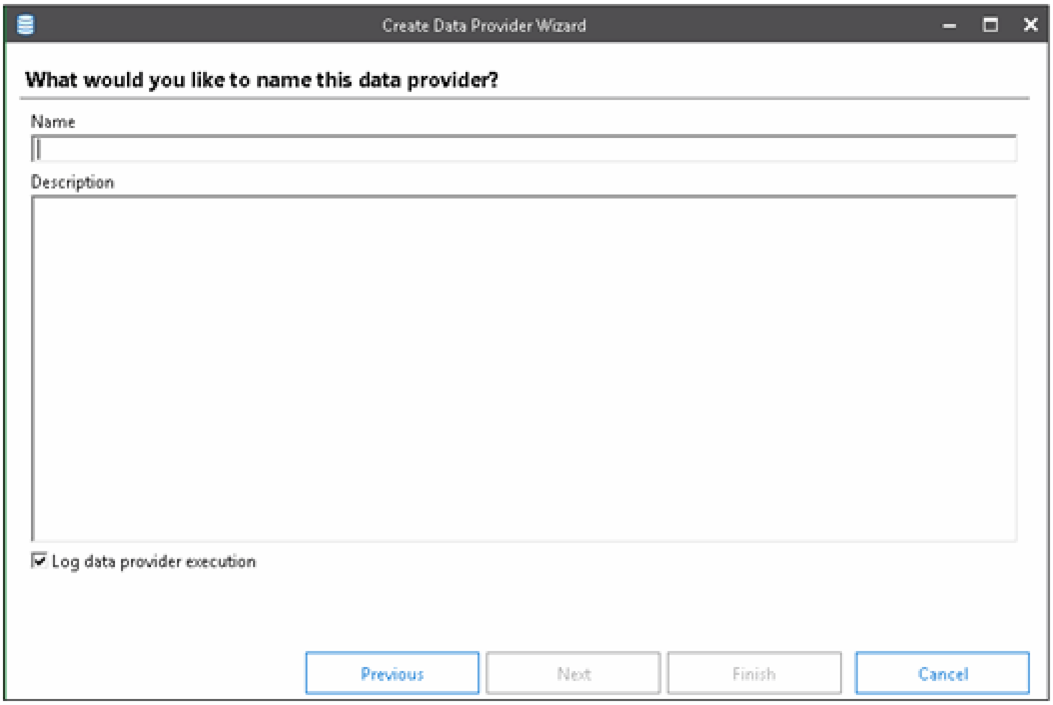
1. From the Dashboard Viewer, click **Administration** from the bottom of the Dashboard Gallery screen, and then click the **Create new Data Provider** button from the **Data Provider Administration** ribbon of the Unity Client:

2. At the **How would you like to create the data provider?** page:
    - Click **Create new Data Provider** to create a completely new data provider.
    - Click **Copy an existing Data Provider** to use an existing data provider as the template for a new data provider. The process is the same as creating a completely new data provider except the options are pre-configured with the information from the data provider that was copied. The pre-configured options can be changed or edited to reflect the requirements of the new data provider, unless otherwise noted.

- Click **Convert reports from Report Services** to use an export file from Report Services to create a custom SQL data provider.



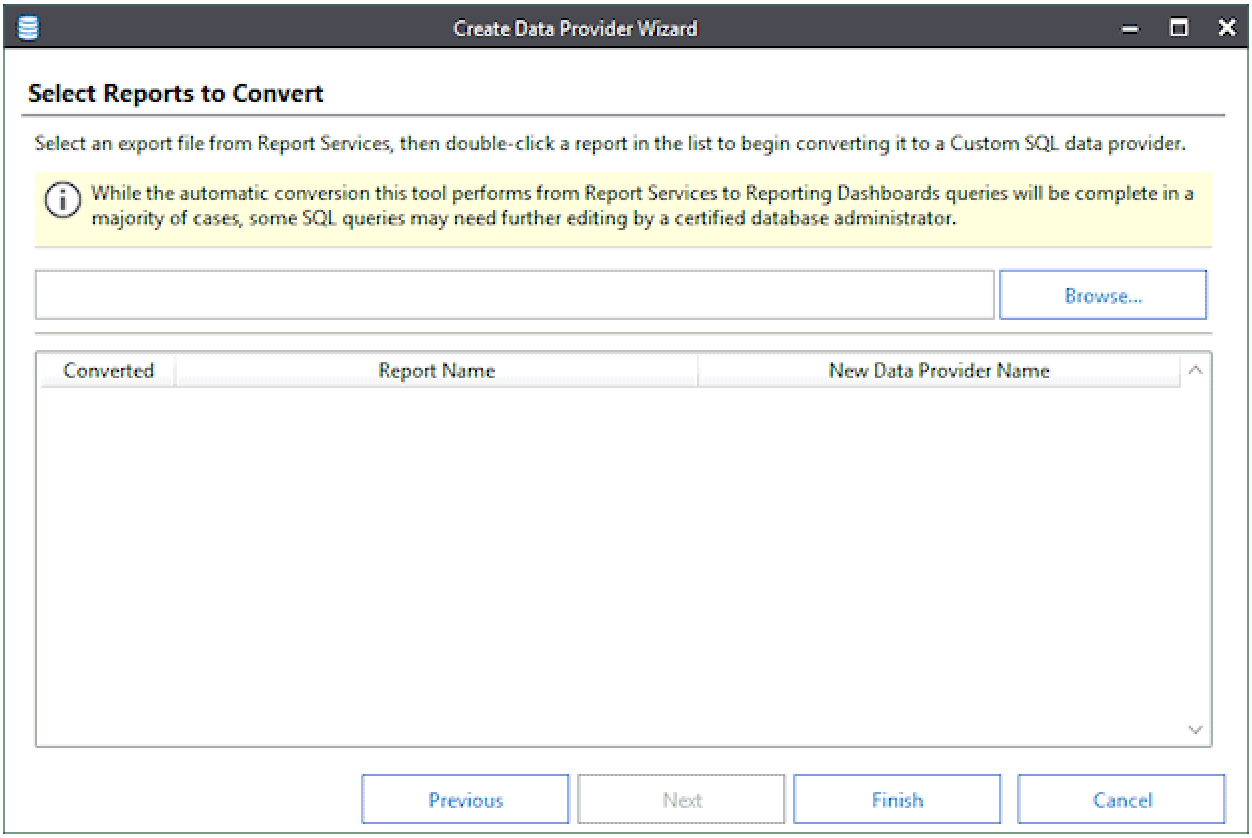
3. If you clicked **Create new Data Provider**, the **What would you like to name this data provider?** page is displayed.



If you clicked **Copy an existing Data Provider**, the **Select the data provider to copy from** page is displayed. You can search for a data provider to copy by typing the name of the data provider into the **Search** bar in this page. Select the data provider to copy, then click **Next**. The **What would you like to name this data provider?** page is displayed.

Note: When a data provider is copied, the options in the remaining pages are pre-configured with the information from the data provider that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new data provider.

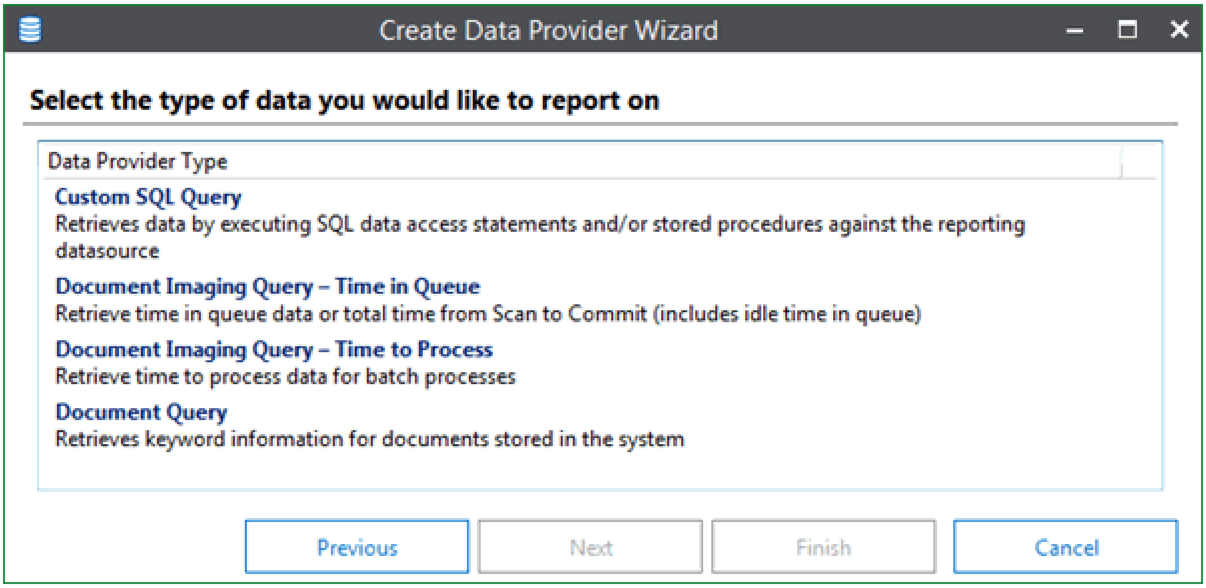
if you clicked **Convert reports from Report Services**, the **Select Reports to Convert** page is displayed. Click **Browse** to select a Report Services export file (**.xml**) to import. The file is imported as a Custom SQL data provider. Multiple Report Services export files can be added on this screen.



To edit the details of each individual import, double-click on the file in the list. The **What would you like to name this data provider?** page is displayed.

4. Type a name for the data provider in the **Name** field. The name should be unique and allow the data provider to be easily distinguished from other data providers.
5. Type a brief description of the data provider in the **Description** field. The description should briefly explain what the data provider is and what type of data a user can expect to retrieve from it.
6. Select **Log data provider execution** to include the elapsed time of data retrieval and runtime parameter information for this data provider in the **History** log. Data requests for the data provider are always logged in the history even if this option is deselected.
7. Click **Next**. Unless you are converting data from Report Services, the **Select the type of data you would like to report on** page is displayed. If you are converting data from Report Services, the **Edit SQL query** page is displayed.

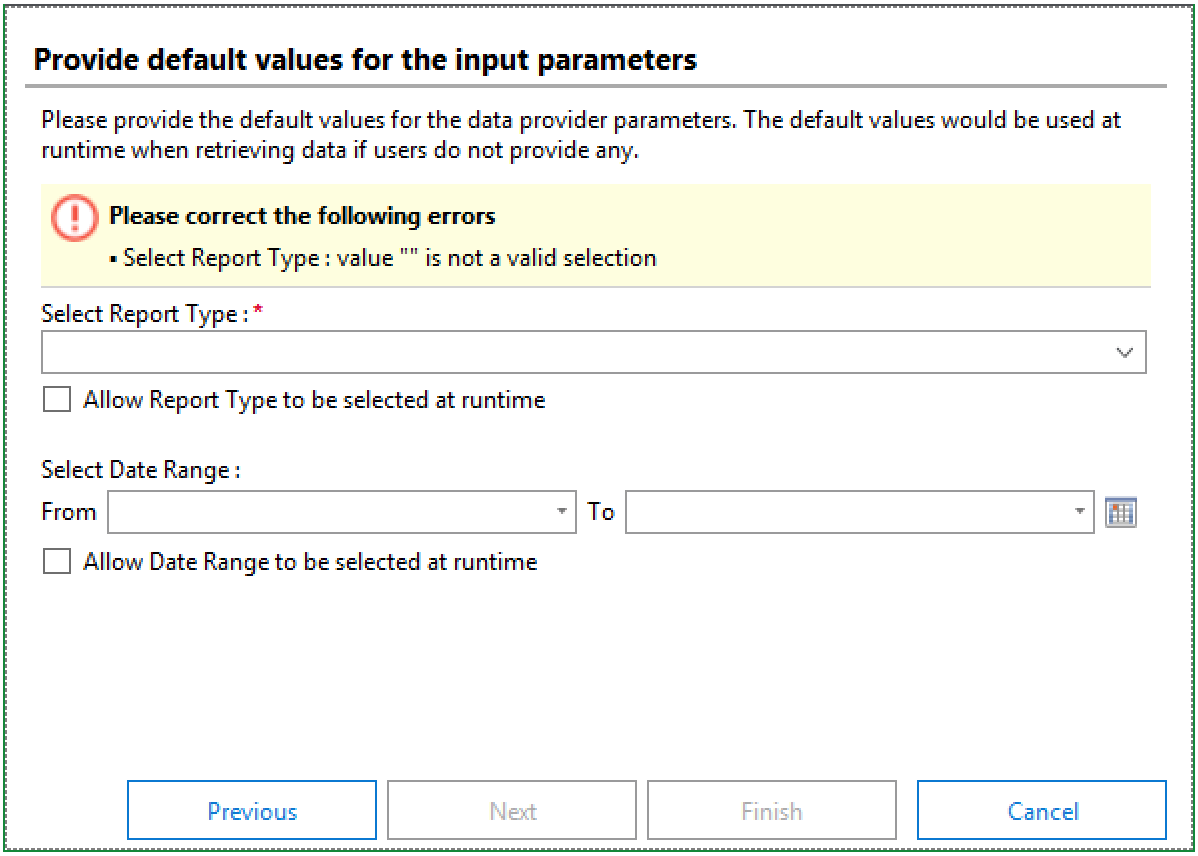
Note: If you copied an existing data provider this page is not displayed. You cannot change the data provider type for copied data providers.



Note: Depending on the modules licensed for your system, one or more types of data providers may be available for configuration. This image only displays the basic data providers available to all Reporting Dashboards installations.

8. Select **Document Imaging Query - Time in Queue**.

9. Click **Next**. The **Provide default values for the input parameters** dialog box is displayed.



10. Select the type of data to return from the **Select Report Type** drop-down list. This is the default value used when the data is returned for a dashboard.

    The report types retrieve time-in-queue data from Document Imaging queues, including idle time and the total time from initial scan to final commit. To create a report on the total time for the whole process to be completed, from initial scan to final commit, select **Scan To Commit** as the report type.

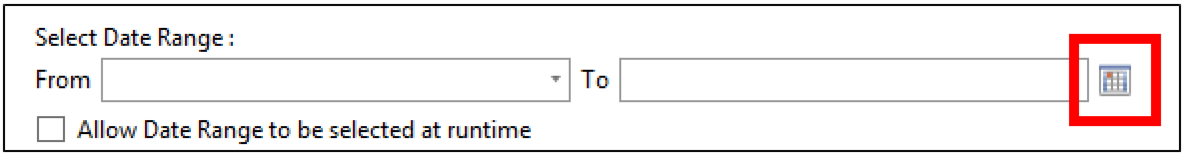
Tip: For complete details on Document Imaging processes and how they relate to processing queues, see the **Document Imaging** module reference guide.

11. Select **Allow Report Type to be selected at runtime** to allow the user accessing the dashboard to change the report type when the dashboard is accessed.

12. Enter a default date range to return data for in the **Select Date Range** fields. These are the default values used when the data is returned for a dashboard.

    You can manually type the **From** and **To** dates, or click the arrows at the right end of each field to select a date for that field from a graphical calendar.

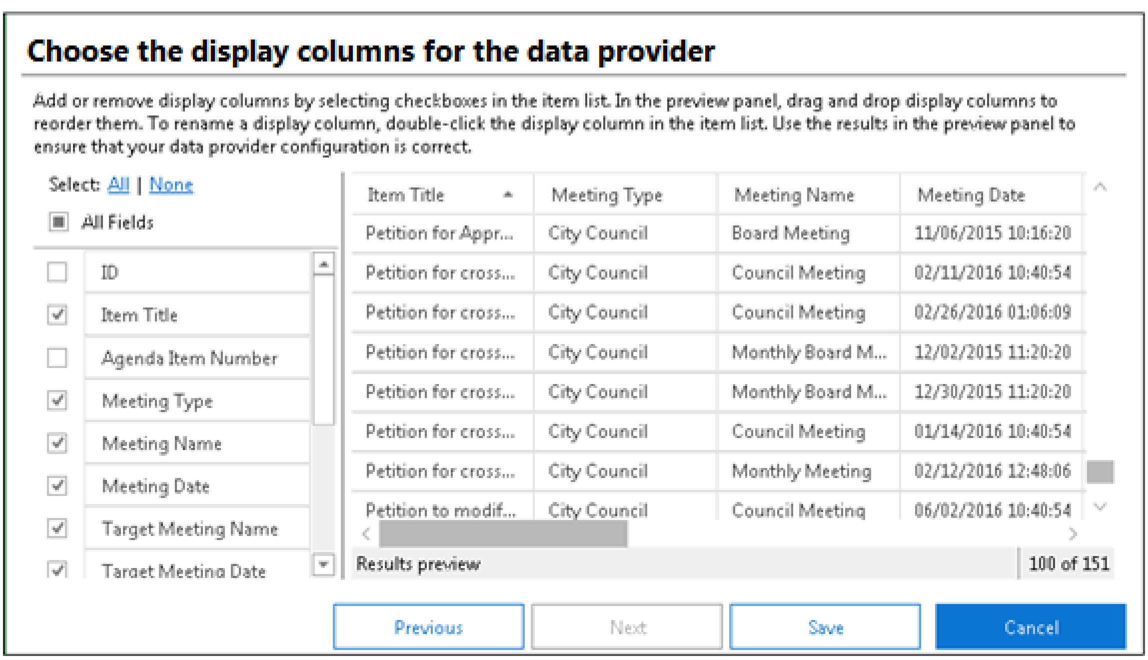
    To select both **From** and **To** dates from a single graphical calendar, click the calendar button at the right end of the **To** field.



13. Select **Allow Date Range to be selected at runtime** to allow the user accessing the dashboard to change the date range when the dashboard is accessed.
14. Click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

Note: If the **Restrict user input to select list values** option was selected in the **Edit SQL Parameter** dialog box, you are required to select a default value for the select list prior to selecting display columns for the data provider. Select a value from the drop-down select menu and click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

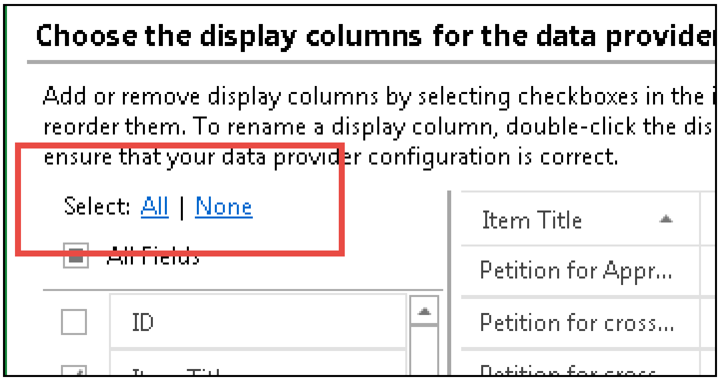
The display columns available depend on the data provider type being configured. If the data provider being configured allowed you to pre-select the display columns available, only the display columns selected earlier in the configuration process are available.



15. Select a display column to include it in the results, or deselect it to hide it.

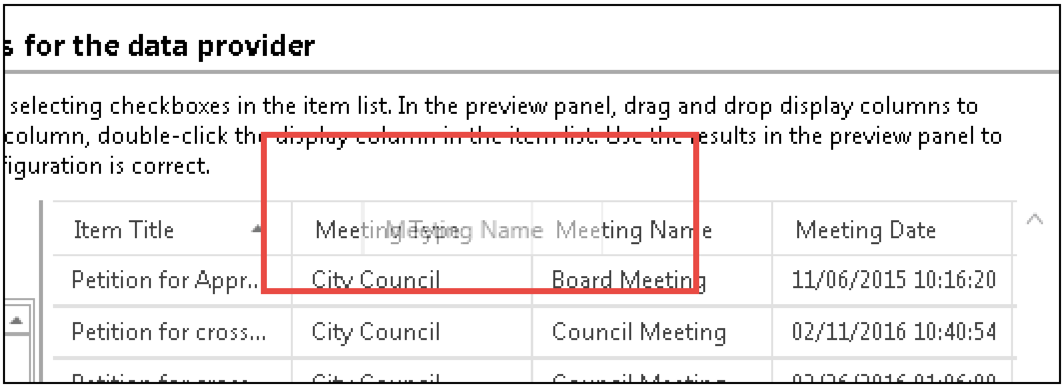
Note: In order for users to be able to open a document directly from a dashboard, the system Keyword Type **Document ID** must be included as a display column.

Click **None** to deselect all display columns or click **All** to select all display columns.



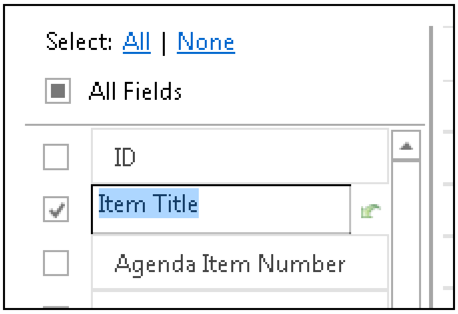
Tip: A preview of the type of data that is returned with the display columns selected is displayed in the preview pane at the right of the list of display columns. If the data returned is not acceptable, select different display columns or click **Previous** to reconfigure previous aspects of the data provider.

16. To reorder the display columns, drag-and-drop the column headings in the preview pane to put them in the desired order.

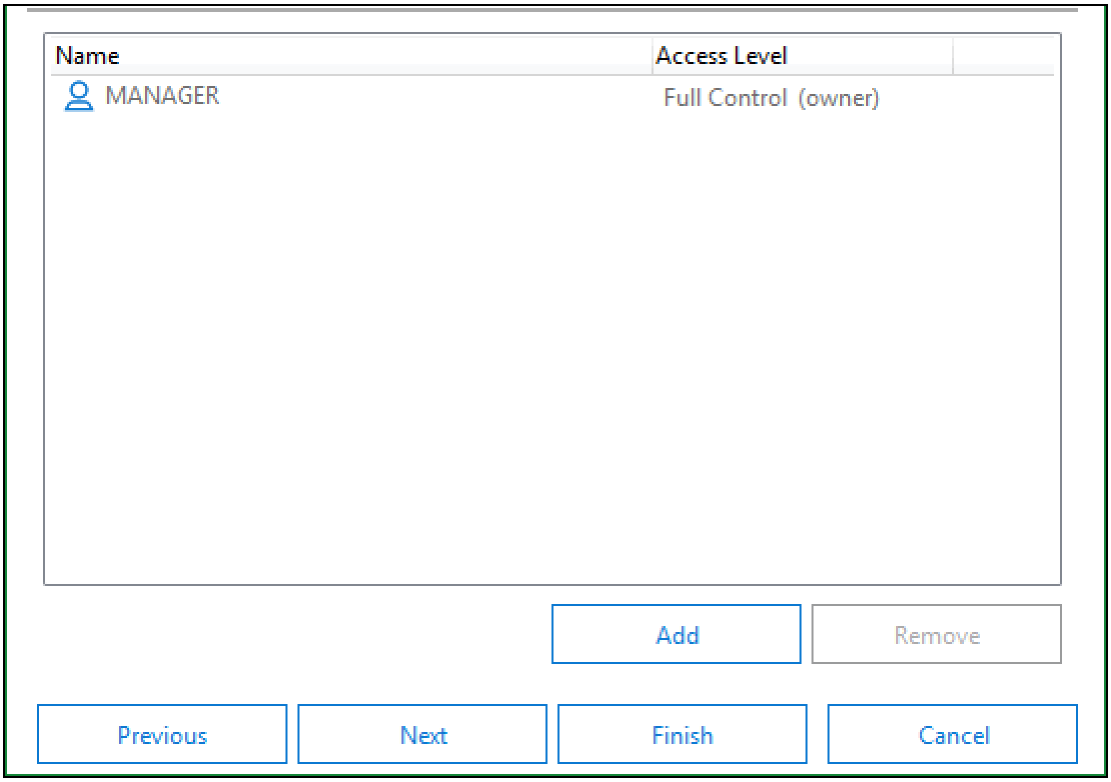


17. To rename a display column, double-click the name in the list, and type the new name in the field provided. Click anywhere outside the field to save the changes.

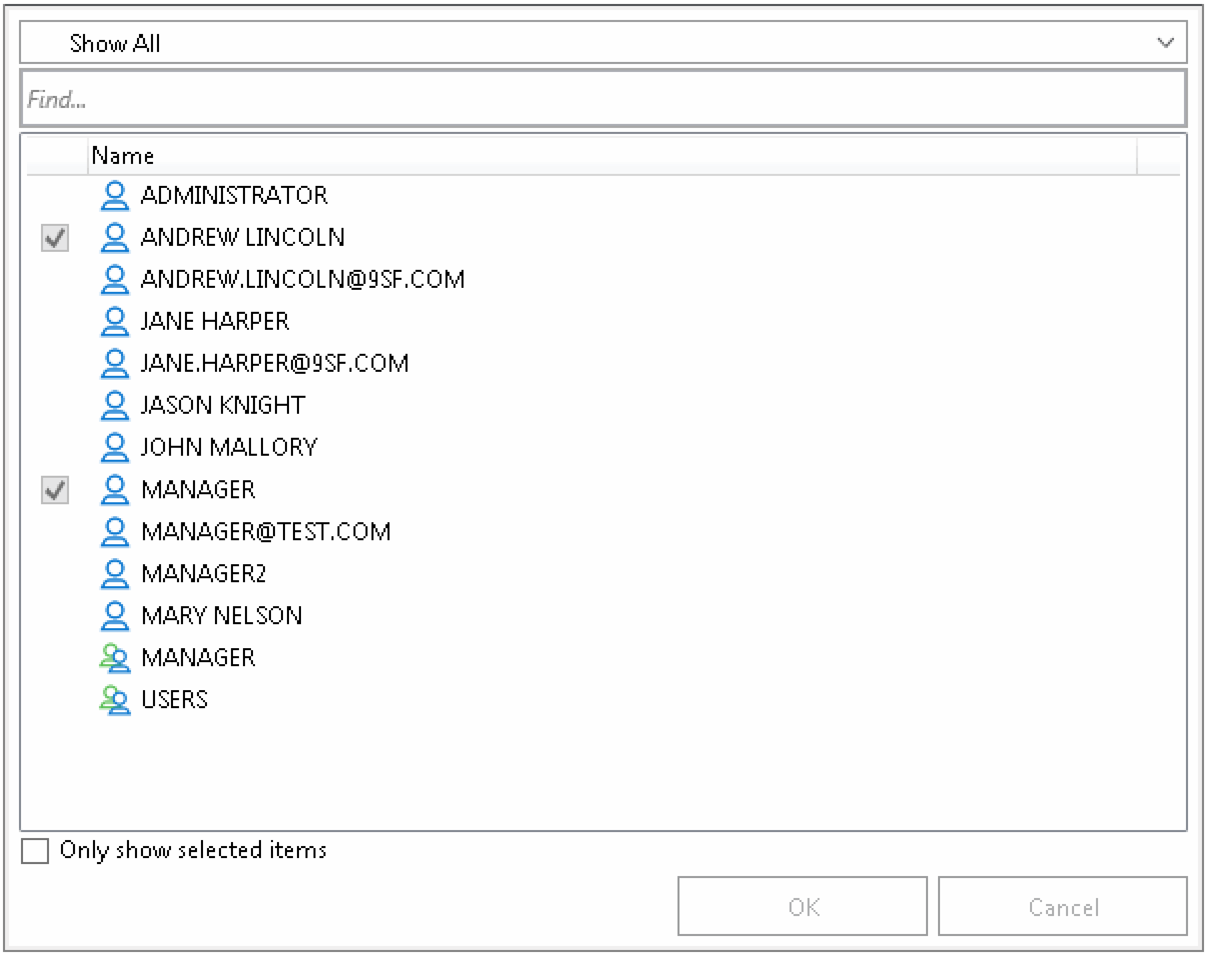
Note: Display column names must not be blank or end with a space.



18. Click **Next**. The **Who should have access to the data provider?** dialog box is displayed.

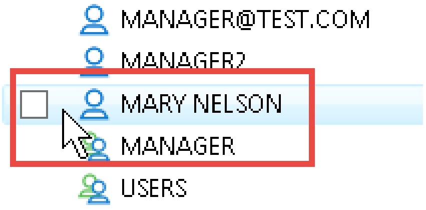


19. To grant access to a new user, click **Add**. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

20. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

21. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

22. To remove users or User Groups, select the users or User Groups to remove in the list and click **Remove**, or right-click the user's name and select **Remove**. You are not prompted to confirm this action.

Note: Access for the user account that created the data provider cannot be removed or changed. The data provider creator always has full access to the data provider.

23. To change a user or User Group's access level, right-click the user's name in the list and select **Full Control**. A check mark will appear next to Full Control to indicate that user or User Group has **Full Control** privileges. If the check mark is not present, the user or User Group only has **Execute Only** privileges. **Full Control** allows the user to configure the settings for the data provider, including user access. **Execute Only** allows the user to use, but not configure, the data provider.

Note: The owner is the user who created the data provider. Access cannot be changed for the owner.

24. Click **Next**. The **Summary** dialog box is displayed. Review the information in the main pane to confirm that the data provider is correctly configured. If not, click **Previous** to return to the various configuration dialog boxes so that changes can be made.
25. Click **Finish**. The data provider is saved and is available for use with dashboards.

Adding a Document Imaging Query (Time to Process) Data Provider Type

Retrieves the time-to-process data for batch Document Imaging processes, based on users or User Groups.

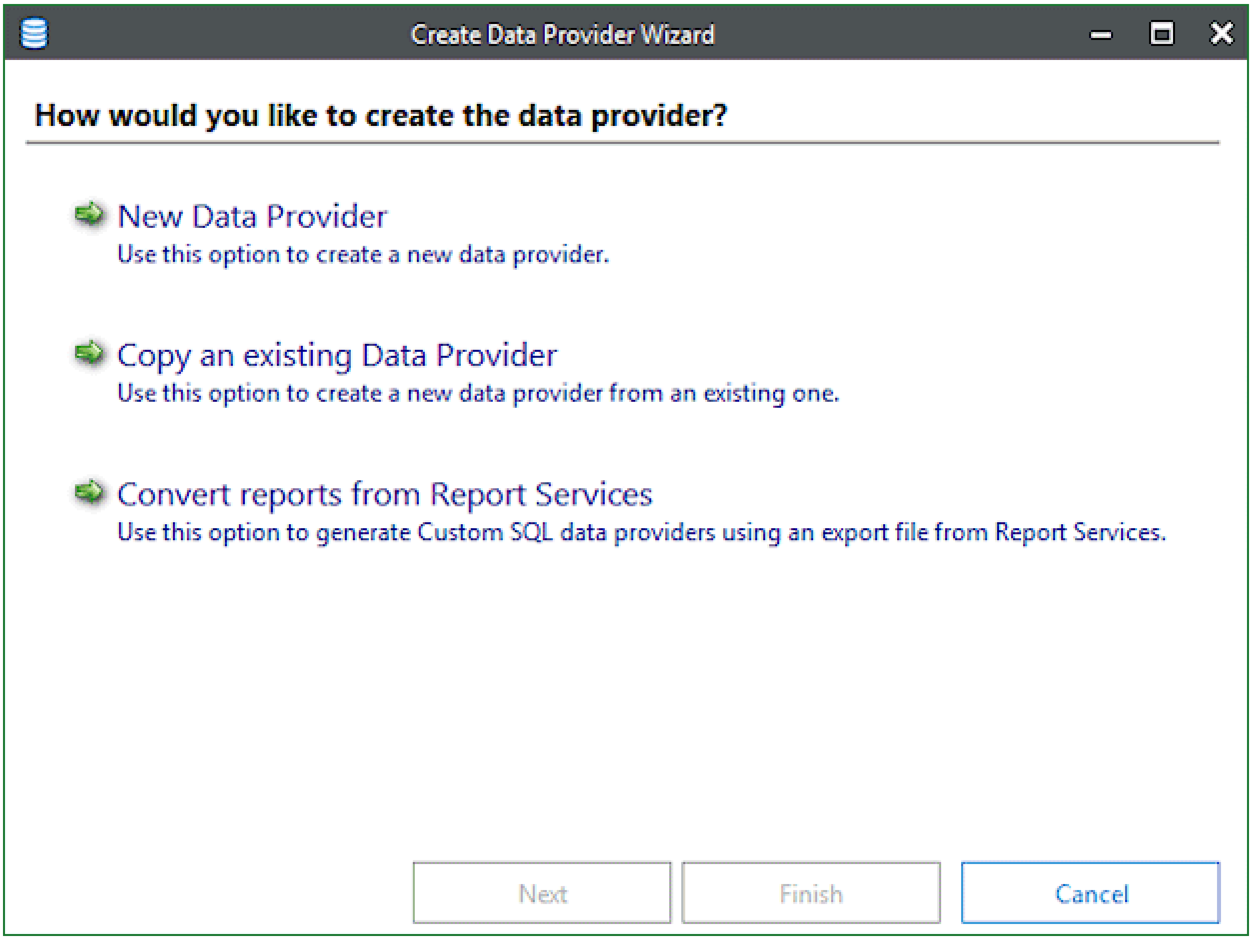
Tip: For complete details on Document Imaging processes and how they relate to processing queues, see the **Document Imaging** module reference guide.

The **Create Data Provider Wizard** is used to create new data providers. To create a new data provider:

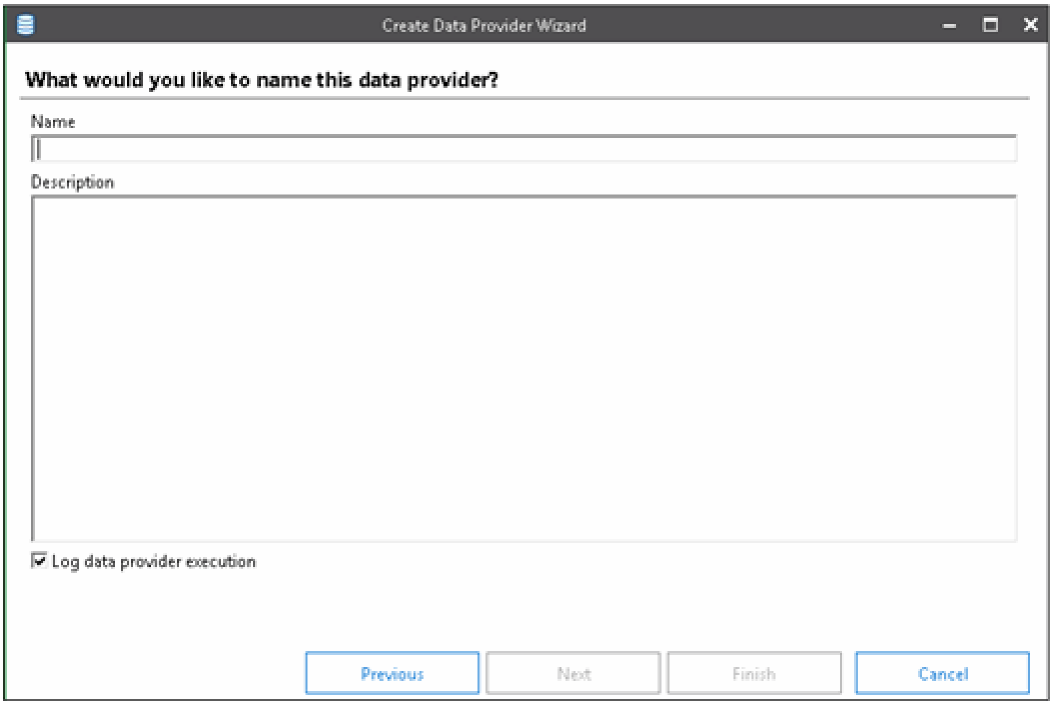
1. From the Dashboard Viewer, click **Administration** from the bottom of the Dashboard Gallery screen, and then click the **Create new Data Provider** button from the **Data Provider Administration** ribbon of the Unity Client:

2. At the **How would you like to create the data provider?** page:
   - Click **Create new Data Provider** to create a completely new data provider.
   - Click **Copy an existing Data Provider** to use an existing data provider as the template for a new data provider. The process is the same as creating a completely new data provider except the options are pre-configured with the information from the data provider that was copied. The pre-configured options can be changed or edited to reflect the requirements of the new data provider, unless otherwise noted.

- Click **Convert reports from Report Services** to use an export file from Report Services to create a custom SQL data provider.



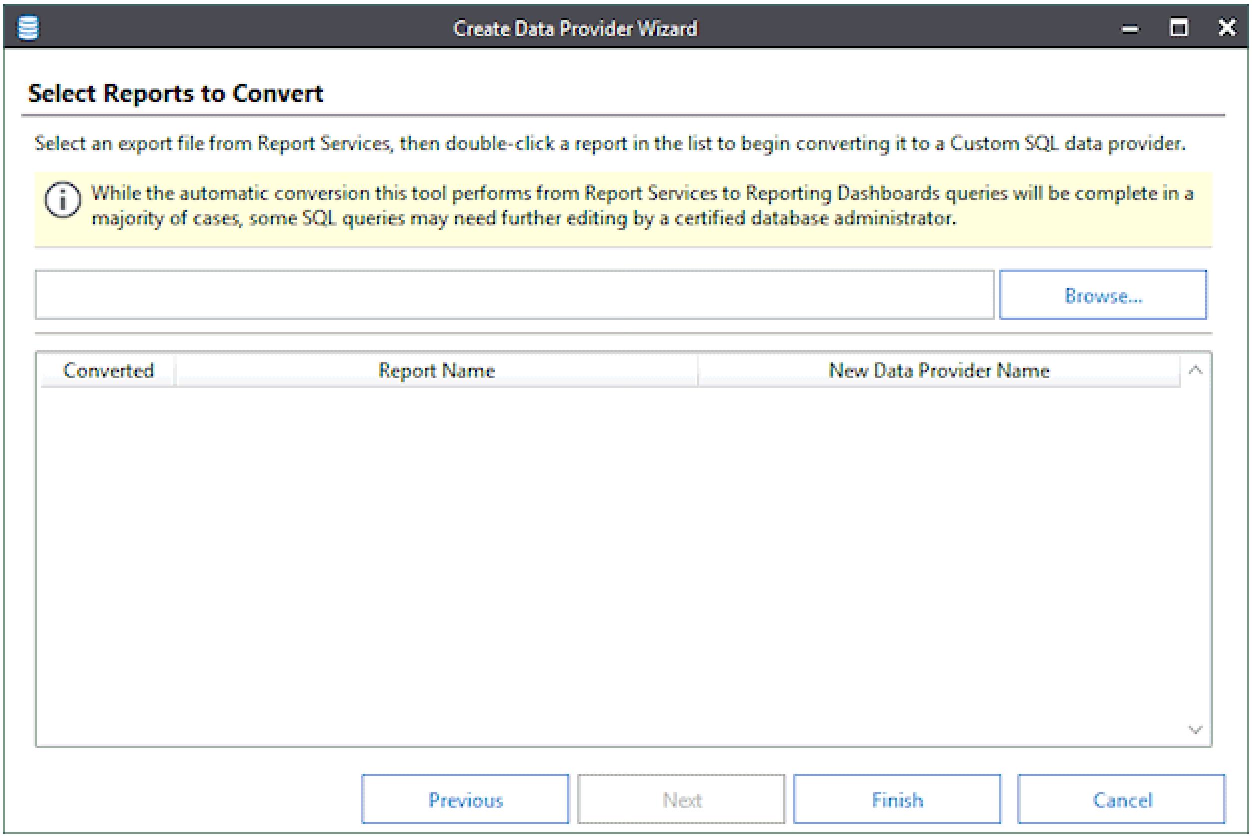
3. If you clicked **Create new Data Provider**, the **What would you like to name this data provider?** page is displayed.



If you clicked **Copy an existing Data Provider**, the **Select the data provider to copy from** page is displayed. You can search for a data provider to copy by typing the name of the data provider into the **Search** bar in this page. Select the data provider to copy, then click **Next**. The **What would you like to name this data provider?** page is displayed.

Note: When a data provider is copied, the options in the remaining pages are pre-configured with the information from the data provider that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new data provider.

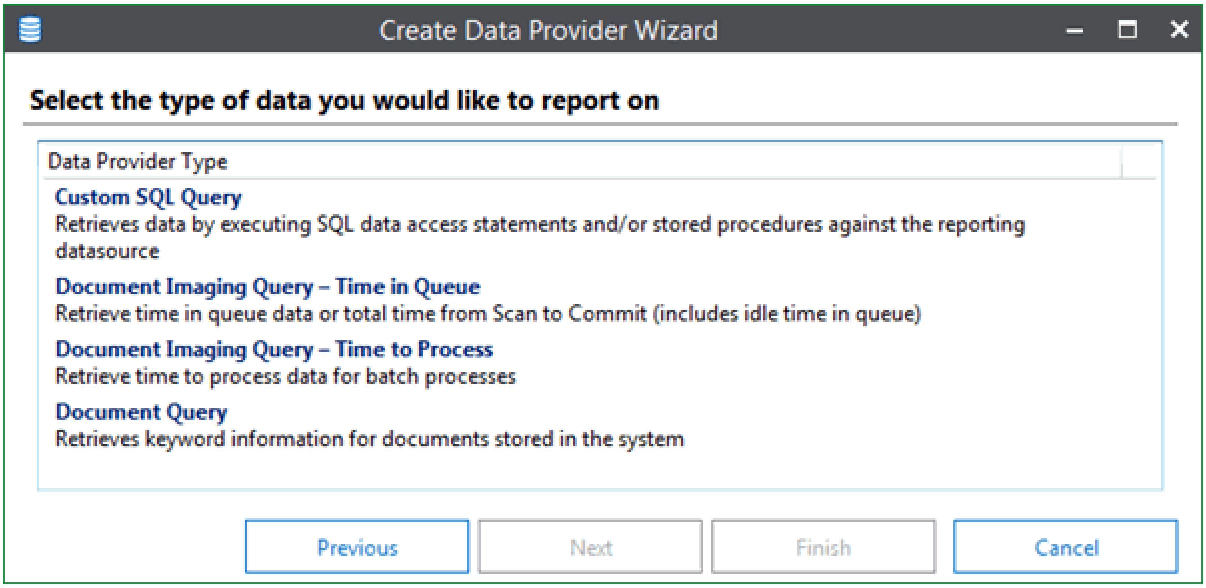
if you clicked **Convert reports from Report Services**, the **Select Reports to Convert** page is displayed. Click **Browse** to select a Report Services export file (**.xml**) to import. The file is imported as a Custom SQL data provider. Multiple Report Services export files can be added on this screen.



To edit the details of each individual import, double-click on the file in the list. The **What would you like to name this data provider?** page is displayed.

4. Type a name for the data provider in the **Name** field. The name should be unique and allow the data provider to be easily distinguished from other data providers.
5. Type a brief description of the data provider in the **Description** field. The description should briefly explain what the data provider is and what type of data a user can expect to retrieve from it.
6. Select **Log data provider execution** to include the elapsed time of data retrieval and runtime parameter information for this data provider in the **History** log. Data requests for the data provider are always logged in the history even if this option is deselected.
7. Click **Next**. Unless you are converting data from Report Services, the **Select the type of data you would like to report on** page is displayed. If you are converting data from Report Services, the **Edit SQL query** page is displayed.

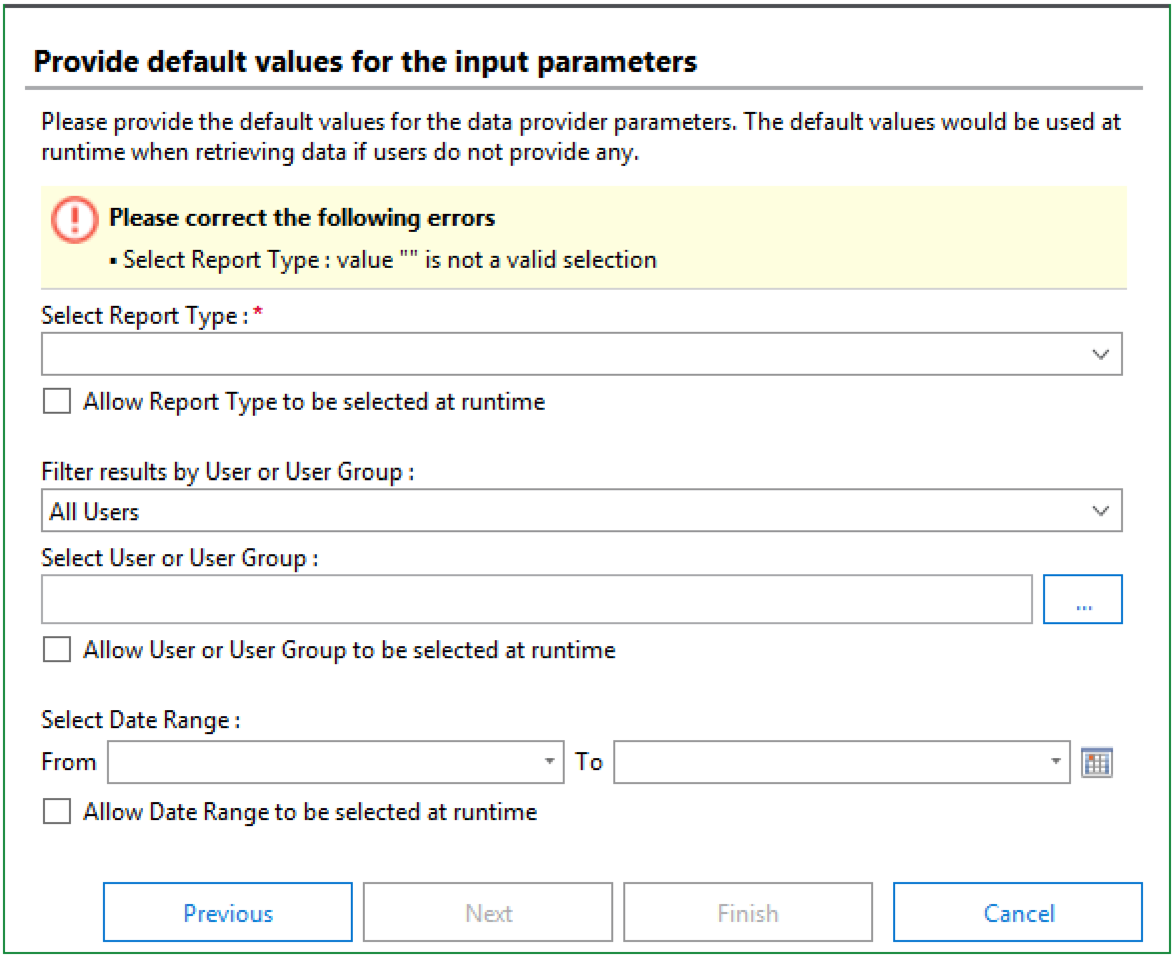
Note: If you copied an existing data provider this page is not displayed. You cannot change the data provider type for copied data providers.



Note: Depending on the modules licensed for your system, one or more types of data providers may be available for configuration. This image only displays the basic data providers available to all Reporting Dashboards installations.

8. Select **Document Imaging Query - Time to Process**.

9. Click **Next**. The **Provide default values for the input parameters** dialog box is displayed.



10. Select the type of data to return from the **Select Report Type** drop-down list. This is the default value used when the data is returned for a dashboard.

    The report types retrieve the time-to-process data for Document Imaging batch processes, based on users or User Groups.

Tip: For complete details on Document Imaging processes and how they relate to processing queues, see the **Document Imaging** module reference guide.

11. Select **Allow Report Type to be selected at runtime** to allow the user accessing the dashboard to change the report type when the dashboard is accessed.

12. Select how to filter the user or User Group list from the **Filter results by User or User Group** drop-down list:
    - By User
    - By User Group
    - Current User
    - All Users

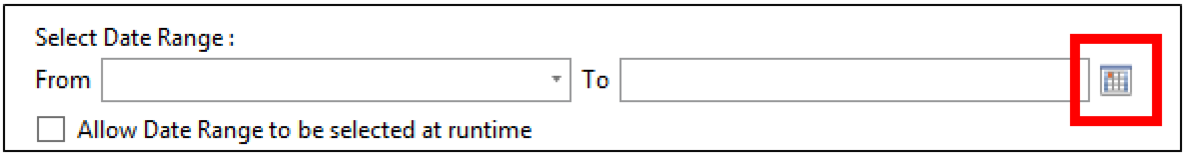
    The **Select User or User Group** list is populated based on the filter selected.
13. If **By User** or **By User Group** is used as the filter, select from the **Select User or User Group** list the users or User Groups to limit the results returned to.

    To select specific users or User Groups, hold down the **Ctrl** key and select each user or User Group to include in the results.

    To select a range of users or User Groups, click the first user or User Group to include, then hold down the **Shift** key and select the last user or User Group in the range. The users or User Groups selected, and all users or User Groups between them, are included in the results.
14. Select **Allow User or User Group to be selected at runtime** to allow the user accessing the dashboard to change the users or User Groups included in the results when the dashboard is accessed.
15. Enter a default date range to return data for in the **Select Date Range** fields. These are the default values used when the data is returned for a dashboard.

    You can manually type the **From** and **To** dates, or click the arrows at the right end of each field to select a date for that field from a graphical calendar.

    To select both **From** and **To** dates from a single graphical calendar, click the calendar button at the right end of the **To** field.

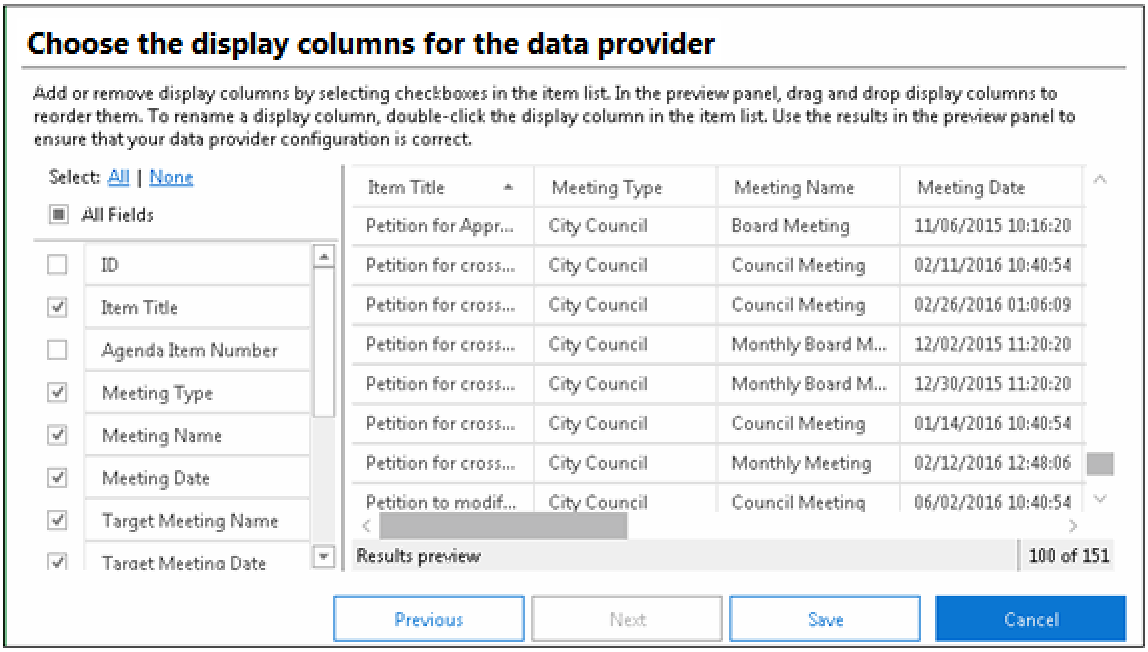


16. Select **Allow Date Range to be selected at runtime** to allow the user accessing the dashboard to change the date range when the dashboard is accessed.

17. Click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

Note: If the **Restrict user input to select list values** option was selected in the **Edit SQL Parameter** dialog box, you are required to select a default value for the select list prior to selecting display columns for the data provider. Select a value from the drop-down select menu and click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

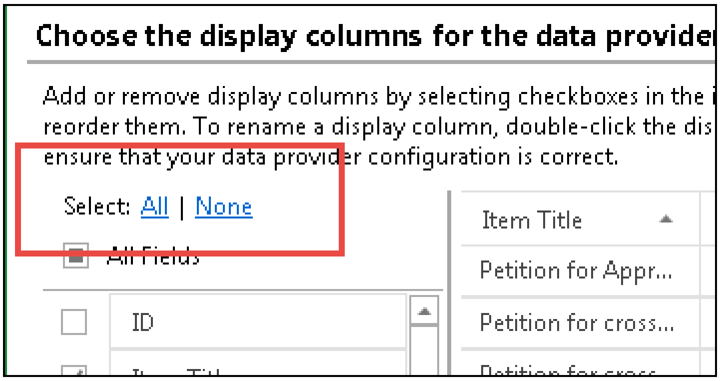
The display columns available depend on the data provider type being configured. If the data provider being configured allowed you to pre-select the display columns available, only the display columns selected earlier in the configuration process are available.



18. Select a display column to include it in the results, or deselect it to hide it.

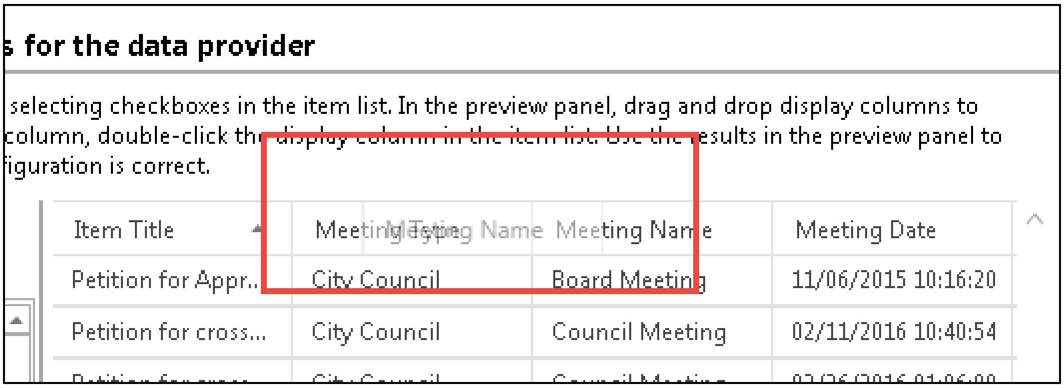
Note: In order for users to be able to open a document directly from a dashboard, the system Keyword Type **Document ID** must be included as a display column.

Click **None** to deselect all display columns or click **All** to select all display columns.



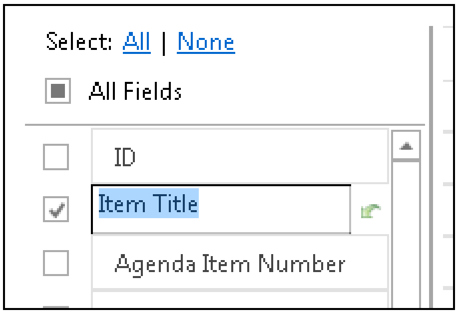
Tip: A preview of the type of data that is returned with the display columns selected is displayed in the preview pane at the right of the list of display columns. If the data returned is not acceptable, select different display columns or click **Previous** to reconfigure previous aspects of the data provider.

19. To reorder the display columns, drag-and-drop the column headings in the preview pane to put them in the desired order.

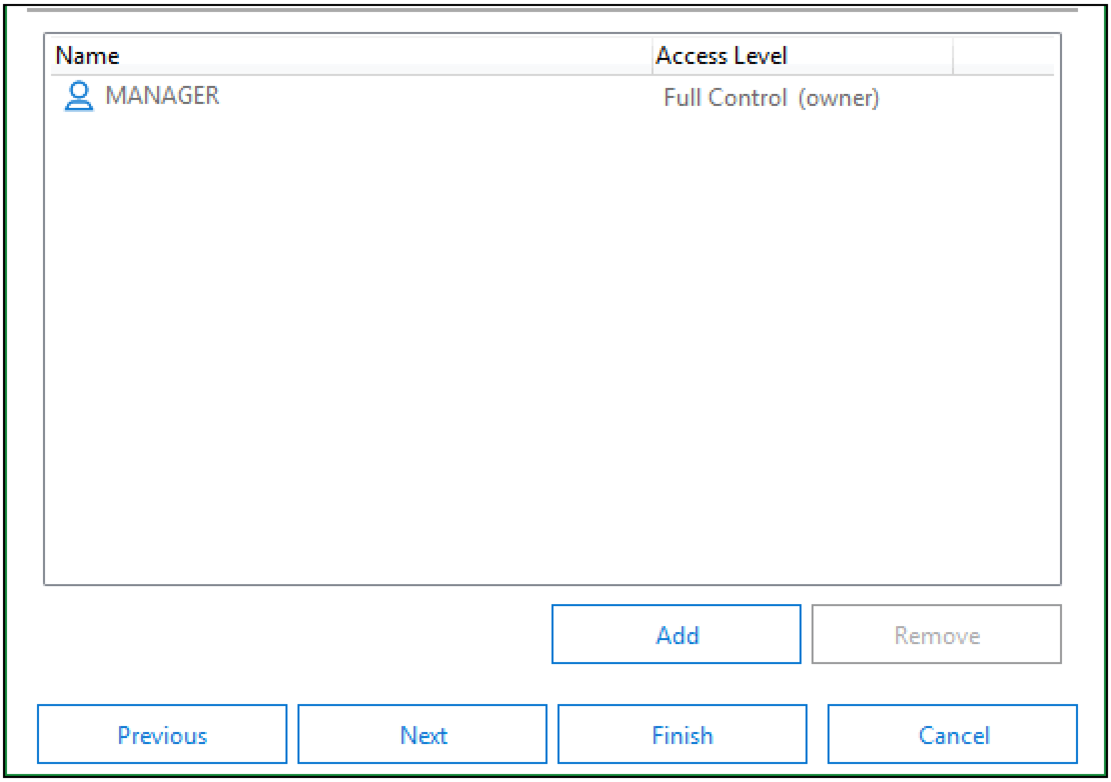


20. To rename a display column, double-click the name in the list, and type the new name in the field provided. Click anywhere outside the field to save the changes.

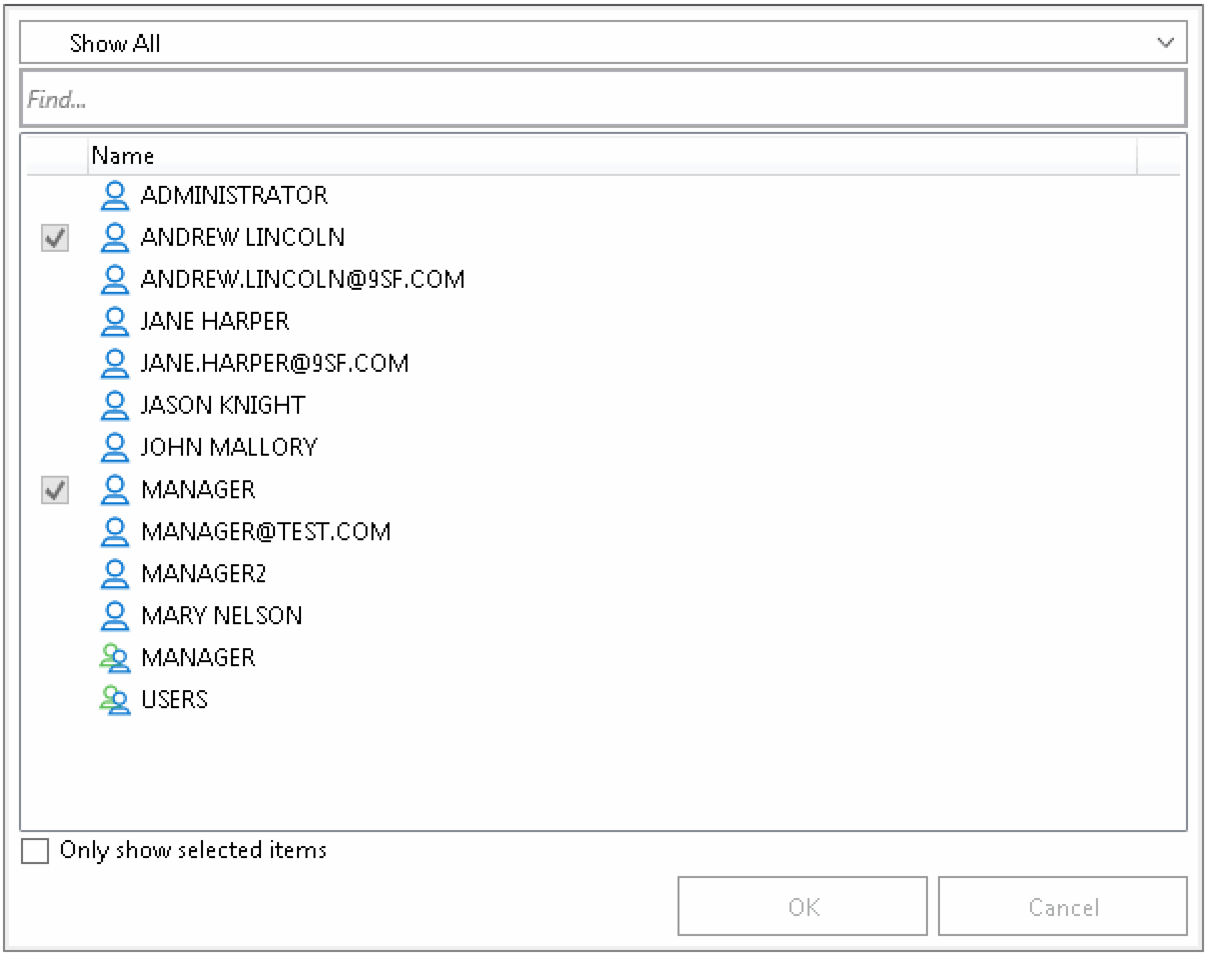
Note: Display column names must not be blank or end with a space.



21. Click **Next**. The **Who should have access to the data provider?** dialog box is displayed.

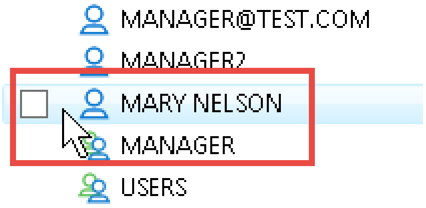


22. To grant access to a new user, click **Add**. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

23. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

24. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

25. To remove users or User Groups, select the users or User Groups to remove in the list and click **Remove**, or right-click the user's name and select **Remove**. You are not prompted to confirm this action.

Note: Access for the user account that created the data provider cannot be removed or changed. The data provider creator always has full access to the data provider.

26. To change a user or User Group's access level, right-click the user's name in the list and select **Full Control**. A check mark will appear next to Full Control to indicate that user or User Group has **Full Control** privileges. If the check mark is not present, the user or User Group only has **Execute Only** privileges. **Full Control** allows the user to configure the settings for the data provider, including user access. **Execute Only** allows the user to use, but not configure, the data provider.

Note: The owner is the user who created the data provider. Access cannot be changed for the owner.

27. Click **Next**. The **Summary** dialog box is displayed. Review the information in the main pane to confirm that the data provider is correctly configured. If not, click **Previous** to return to the various configuration dialog boxes so that changes can be made.
28. Click **Finish**. The data provider is saved and is available for use with dashboards.

Adding a Document Query Data Provider Type

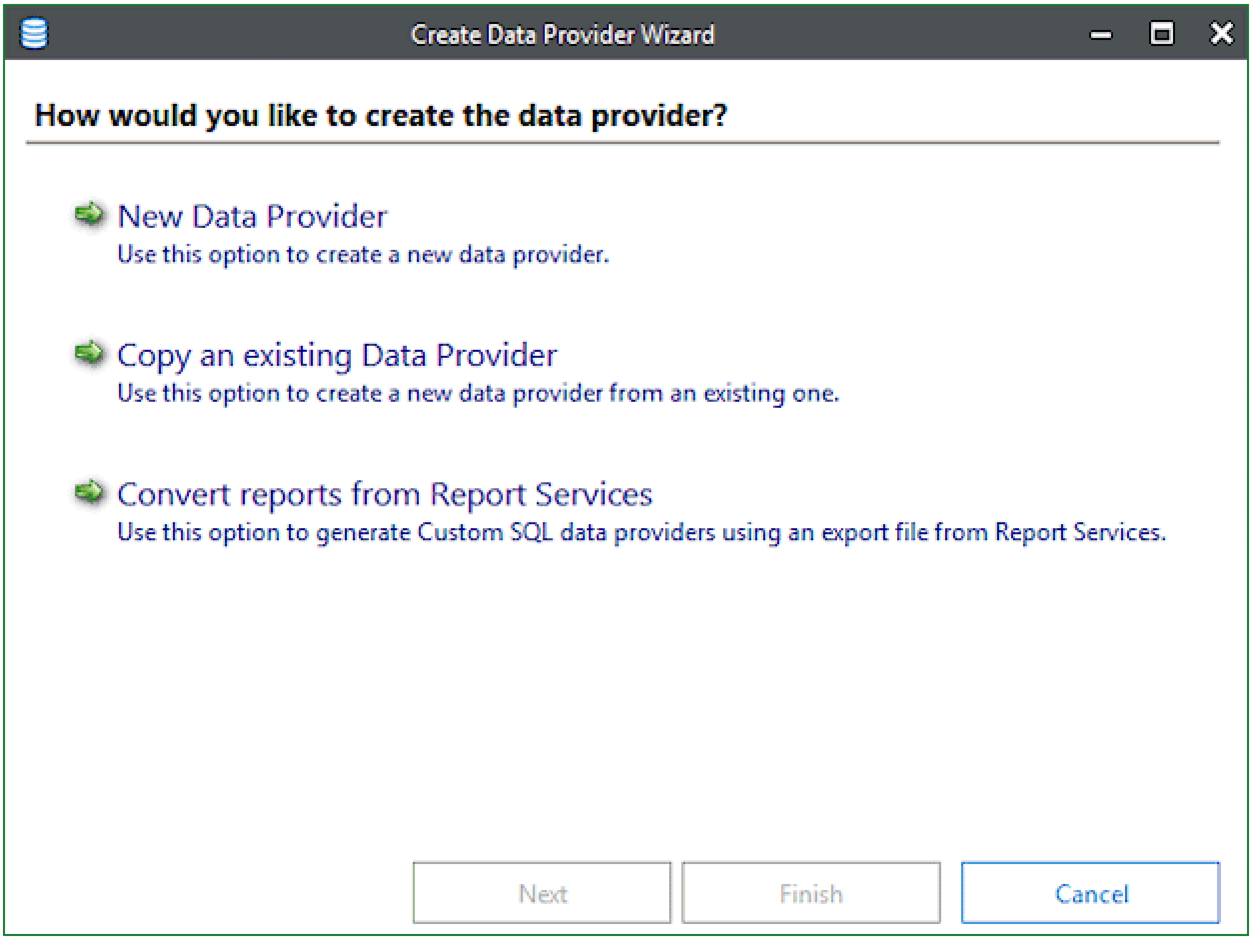
The Document Query data provider type returns data based on Keyword information for documents stored in OnBase.

Note: The Document Types available for configuration are limited to the Document Types the user configuring the data provider has access to in OnBase.

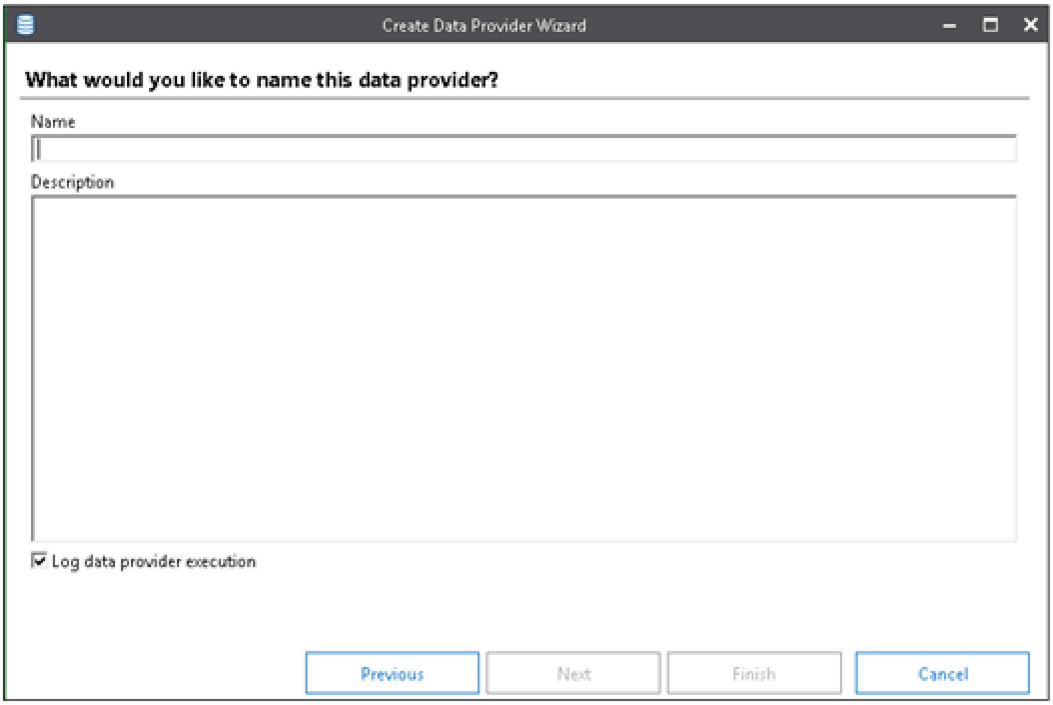
The **Create Data Provider Wizard** is used to create new data providers. To create a new data provider:

1. From the Dashboard Viewer, click **Administration** from the bottom of the Dashboard Gallery screen, and then click the **Create new Data Provider** button from the **Data Provider Administration** ribbon of the Unity Client:

2. At the **How would you like to create the data provider?** page:
   - Click **Create new Data Provider** to create a completely new data provider.
   - Click **Copy an existing Data Provider** to use an existing data provider as the template for a new data provider. The process is the same as creating a completely new data provider except the options are pre-configured with the information from the data provider that was copied. The pre-configured options can be changed or edited to reflect the requirements of the new data provider, unless otherwise noted.
   - Click **Convert reports from Report Services** to use an export file from Report Services to create a custom SQL data provider.



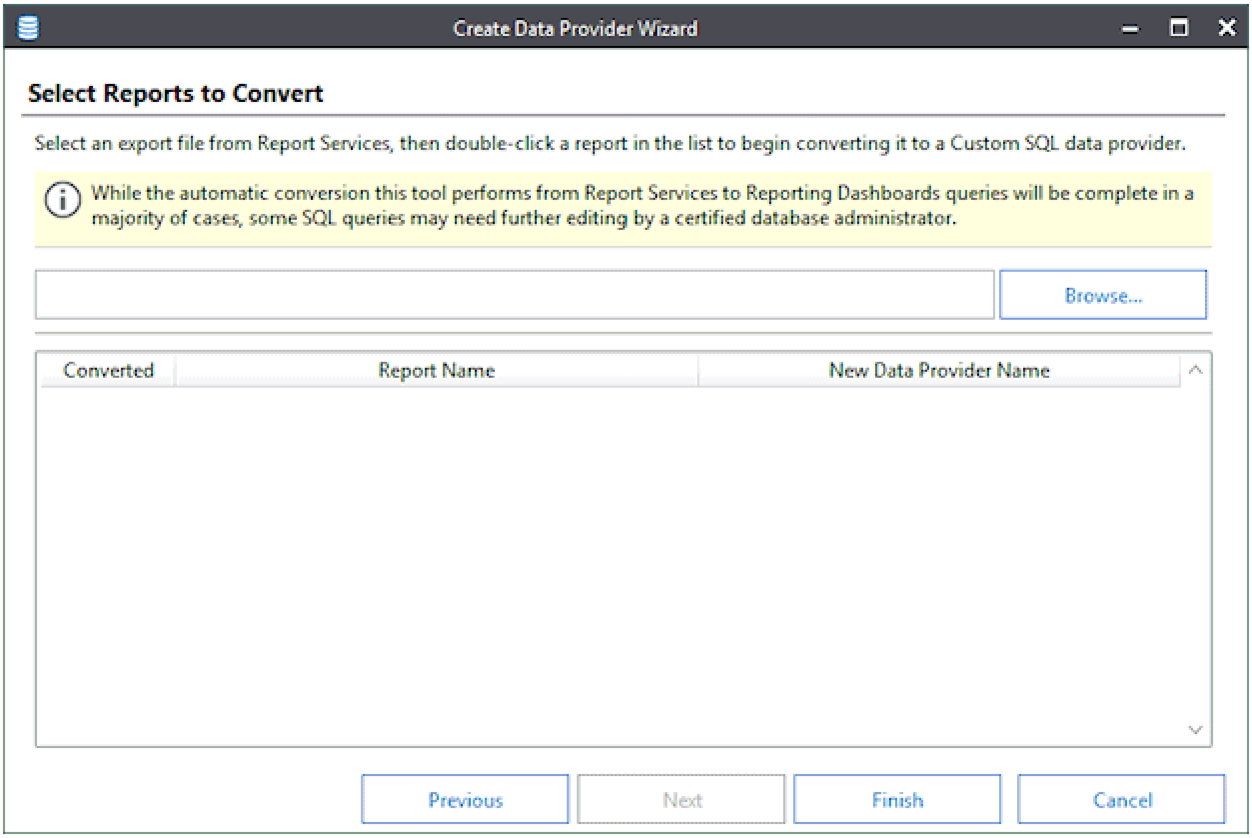
3. If you clicked **Create new Data Provider**, the **What would you like to name this data provider?** page is displayed.



If you clicked **Copy an existing Data Provider**, the **Select the data provider to copy from** page is displayed. You can search for a data provider to copy by typing the name of the data provider into the **Search** bar in this page. Select the data provider to copy, then click **Next**. The **What would you like to name this data provider?** page is displayed.

Note: When a data provider is copied, the options in the remaining pages are pre-configured with the information from the data provider that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new data provider.

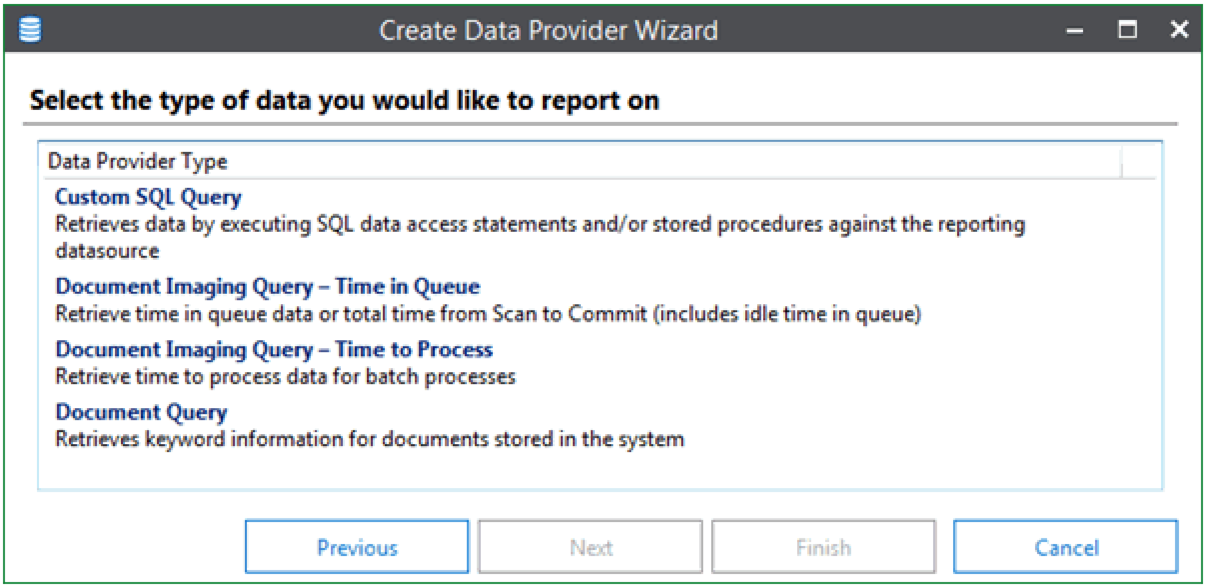
if you clicked **Convert reports from Report Services**, the **Select Reports to Convert** page is displayed. Click **Browse** to select a Report Services export file (**.xml**) to import. The file is imported as a Custom SQL data provider. Multiple Report Services export files can be added on this screen.



To edit the details of each individual import, double-click on the file in the list. The **What would you like to name this data provider?** page is displayed.

4. Type a name for the data provider in the **Name** field. The name should be unique and allow the data provider to be easily distinguished from other data providers.
5. Type a brief description of the data provider in the **Description** field. The description should briefly explain what the data provider is and what type of data a user can expect to retrieve from it.
6. Select **Log data provider execution** to include the elapsed time of data retrieval and runtime parameter information for this data provider in the **History** log. Data requests for the data provider are always logged in the history even if this option is deselected.
7. Click **Next**. Unless you are converting data from Report Services, the **Select the type of data you would like to report on** page is displayed. If you are converting data from Report Services, the **Edit SQL query** page is displayed.

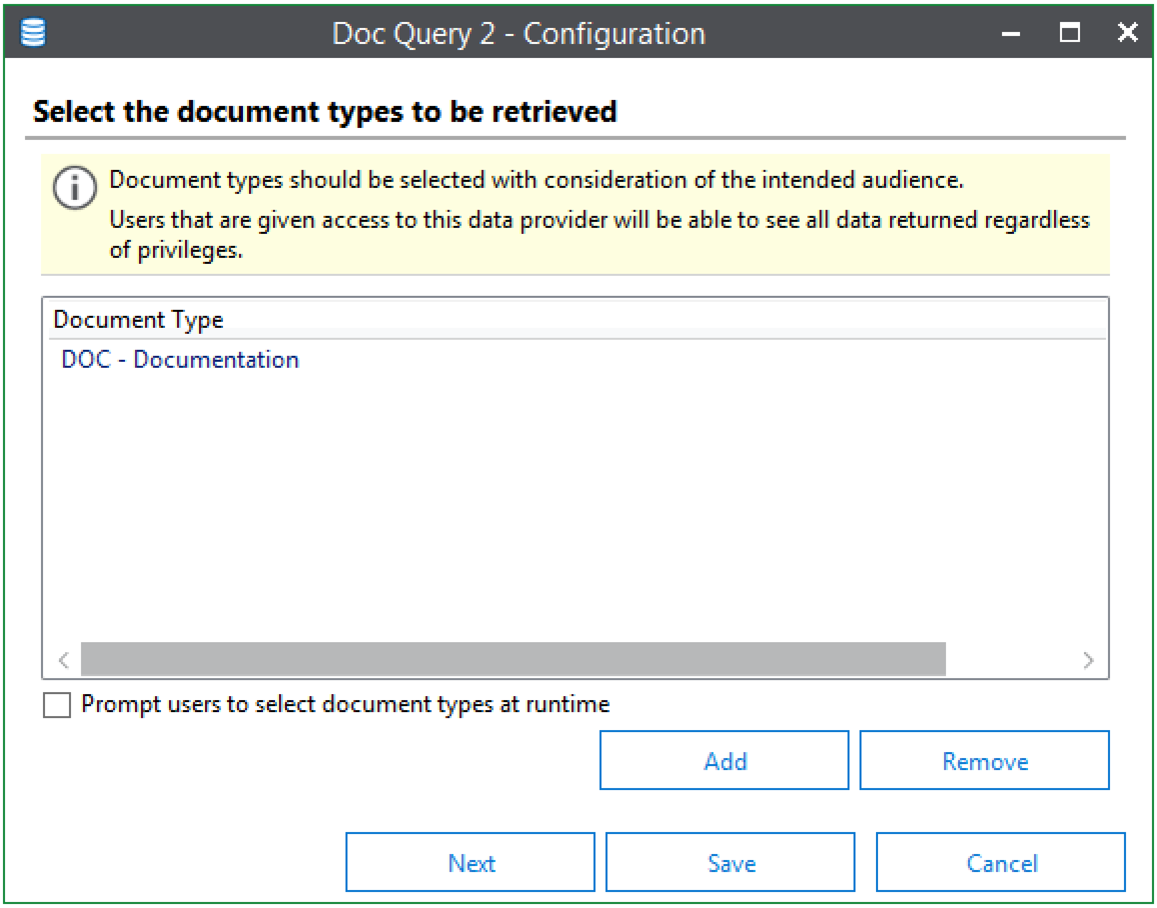
Note: If you copied an existing data provider this page is not displayed. You cannot change the data provider type for copied data providers.



Note: Depending on the modules licensed for your system, one or more types of data providers may be available for configuration. This image only displays the basic data providers available to all Reporting Dashboards installations.

8. Select **Document Query**.
9. Click **Next**. The **Select document types to be retrieved** dialog box is displayed, which lists the Document Types selected for copied data providers.

Note: If this is a new data provider or you do not have any Document Types configured, the **Select Document Types** dialog box is automatically displayed over the **Select the document types to be retrieved** dialog box.



10. Select **Prompt users to select document types at runtime** at the lower left of the **Select document types to be retrieved** dialog box to allow users to select the Document Types they have access to in OnBase to include in the results when the dashboard is accessed by them.

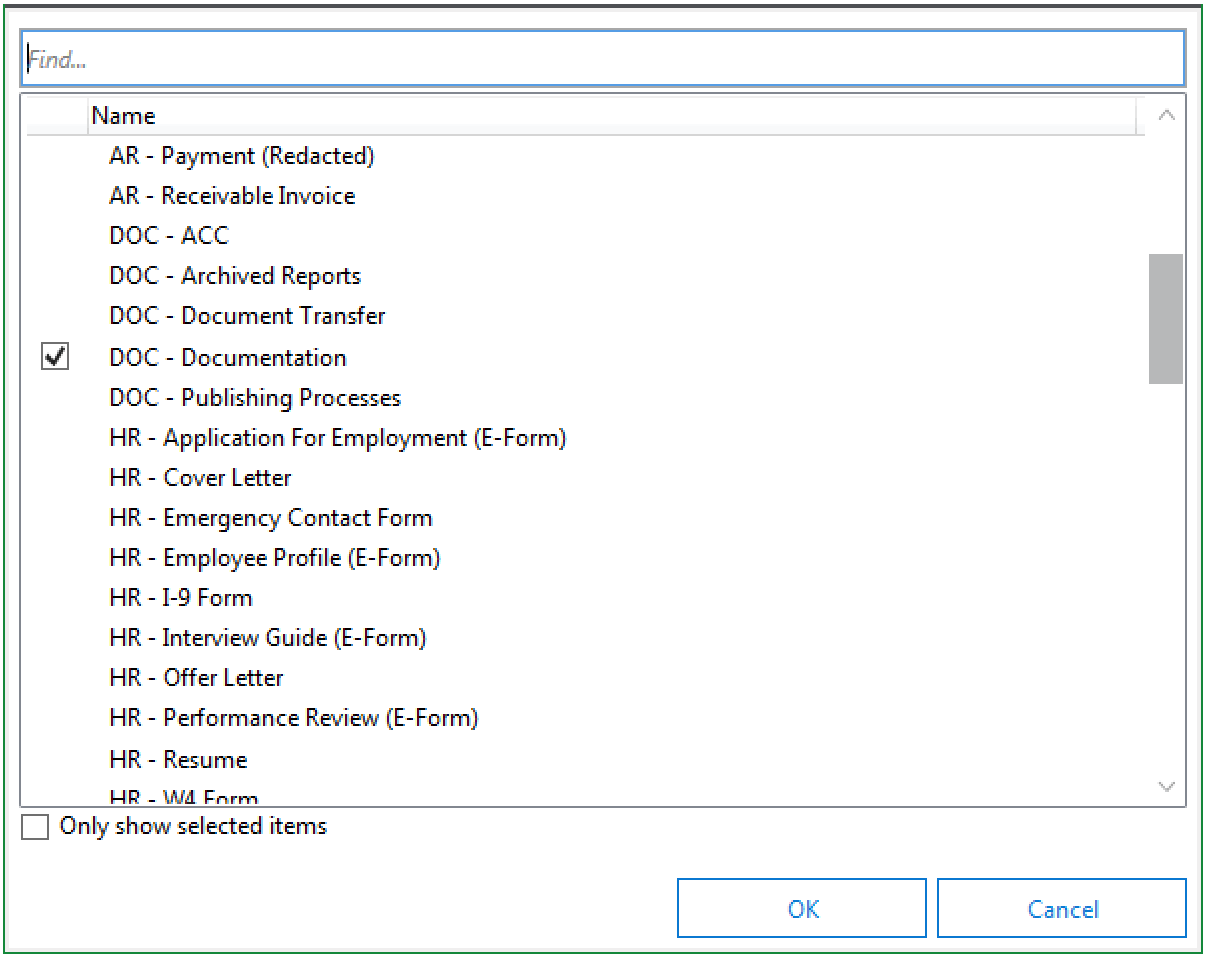
    If **Prompt users to select document types at runtime** is selected, any previously added Document Types are removed and the **Add** and **Remove** buttons are disabled.

Tip: If the **Select Document Types** dialog box was automatically displayed, click **Cancel** to close it and return to the **Select document types to be retrieved** dialog box.

11. To add Document Types if the **Select Document Types** dialog box is not displayed, click **Add**. The **Select Document Types** dialog box is displayed.

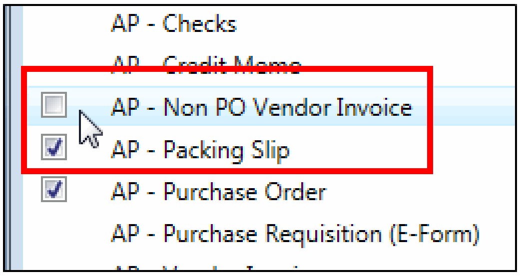
    Only the Document Types you have access to are displayed. Pre-configured Document Types you do not have access to are disabled.

Note: If **Prompt users to select document types at runtime** is selected, any previously added Document Types are removed and the **Add** and **Remove** buttons are disabled.



Tip: To show only previously selected Document Types, select **Only Show Selected Items** at the bottom of the main pane. To find a specific Document Type, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

12. To select a Document Type, move the cursor over the row for that Document Type and select the checkbox that is displayed.



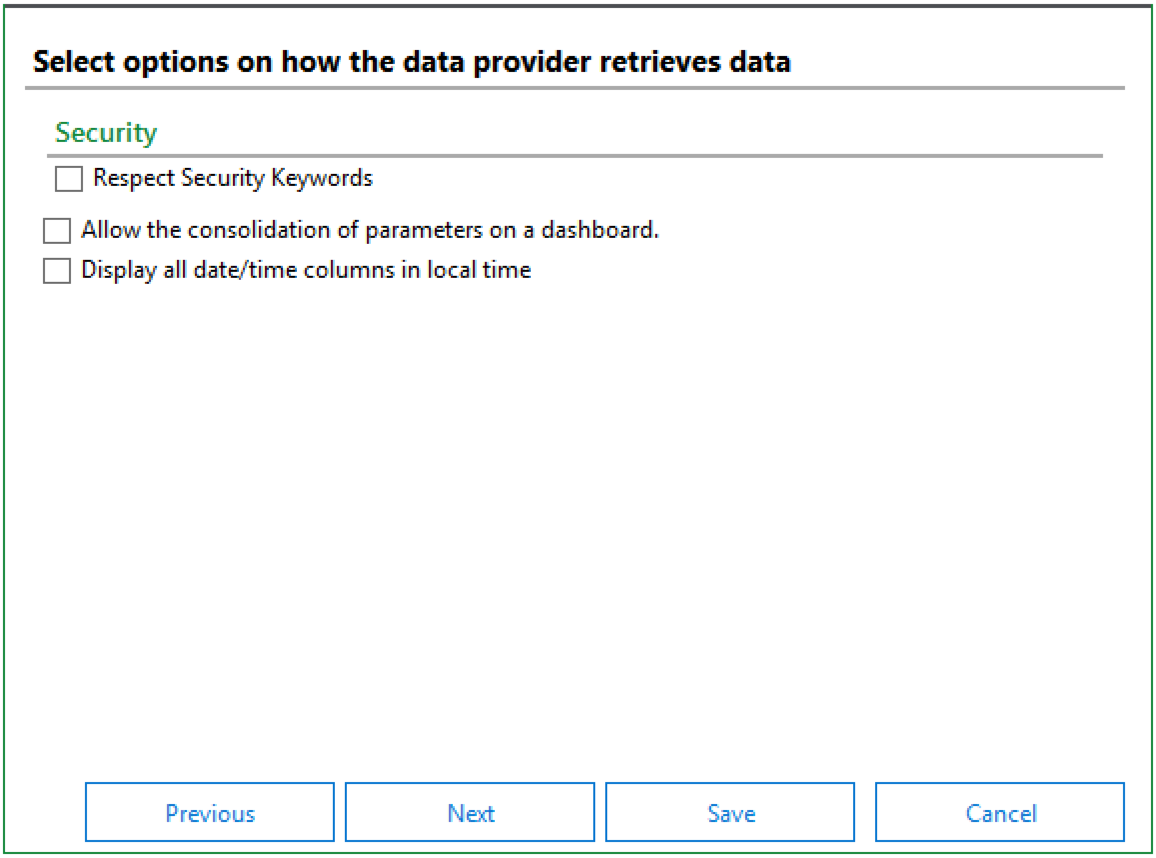
To remove a Document Type, deselect the checkbox beside the name of the Document Type.

13. Click **OK** at the **Select Document Types** dialog box to save your selections. The **Select the document types to be retrieved** dialog box is displayed, which lists the Document Types selected.

Note: When the a dashboard that uses the configured data provider is accessed by a user, data for all configured Document Types is returned even if the user accessing the dashboard does not have access to those Document Types in OnBase.

14. To remove Document Types from the data provider, select the Document Type to remove and click **Remove**. You are not prompted to confirm this action.

15. Click **Next**. The **Select options on how the data provider retrieves data** dialog box is displayed.



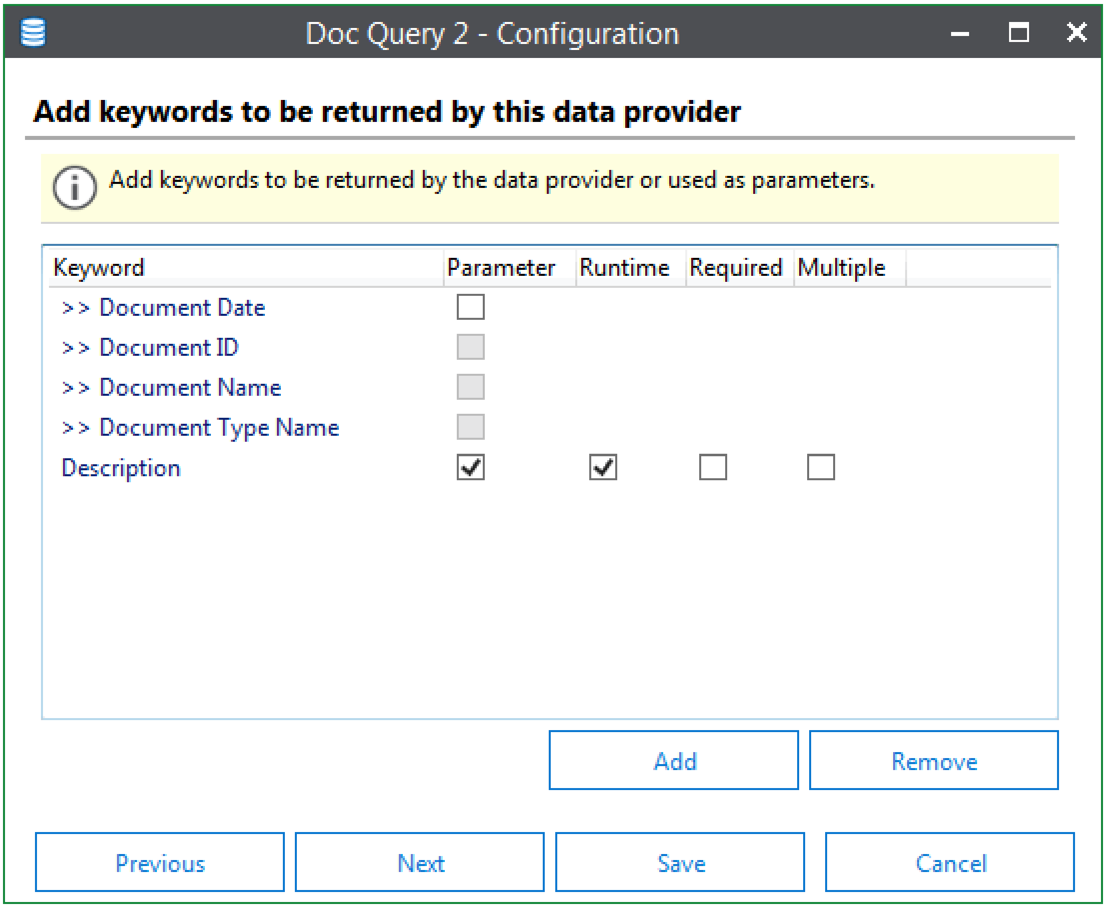
16. Select the options to apply to this data provider:
    - **Respect Security Keywords:** Select this option to ensure the result returned will respect the Security Keyword settings of the user retrieving the data.
    - **Allow the consolidation of parameters on a dashboard:** Select this option to treat the same parameters from different data providers as one parameter in the Input Parameters dialog box.

Note: In order to be consolidated, parameters must share the same data provider type, parameter ID, and have the same reverse-fill sources.

- **Display all date/time columns in local time:** Select this option to display date and time information in the user's local time

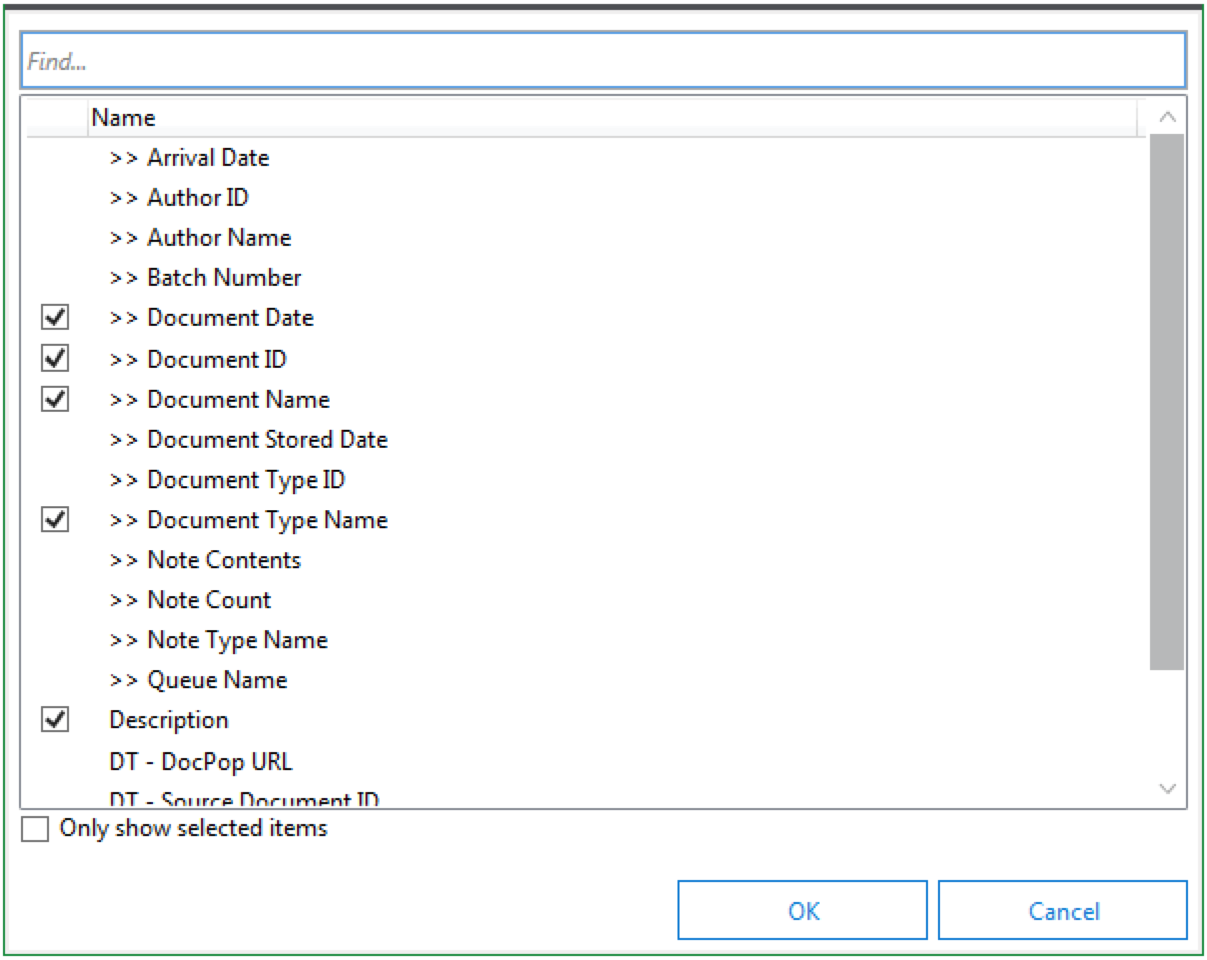
17. Click **Next**. The **Add keywords to be returned by this data provider** dialog box is displayed. Keyword Types that represent document properties, which are added automatically by the system to every document, are denoted with angle brackets **>>** before the Keyword Type name. For example, **>> Content ID** is the field for the Document handle in OnBase (the names can be changed during configuration).

Note: For more information on document properties, see the **System Administration** module reference guide.



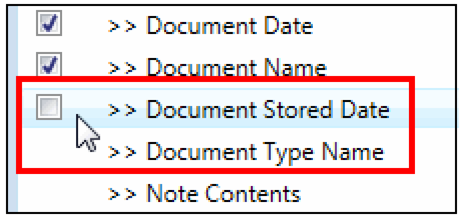
18. To add Keyword Types, click **Add**. The **Select Keyword(s)** dialog box is displayed.

Note: Keywords are automatically selected as display columns when they are added to a data provider.



Tip: To show only previously selected Keyword Types, select **Only Show Selected Items** at the bottom of the main pane. To find a specific Keyword Type, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

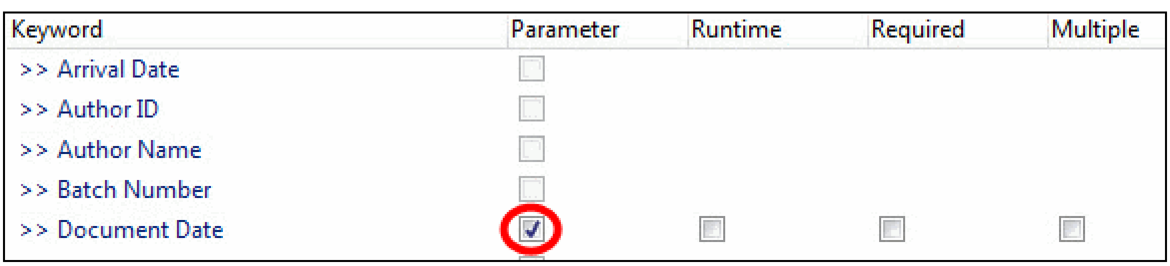
19. To select a Keyword Type, move the cursor over the row for that Keyword Type and select the checkbox that is displayed.



To remove a Keyword Type, deselect the check box beside the name of the Keyword Type. Keyword Types that represent document properties are denoted with angle brackets **>>** before the Keyword Type name.

Note: Security Keyword settings are respected by Reporting Dashboards.

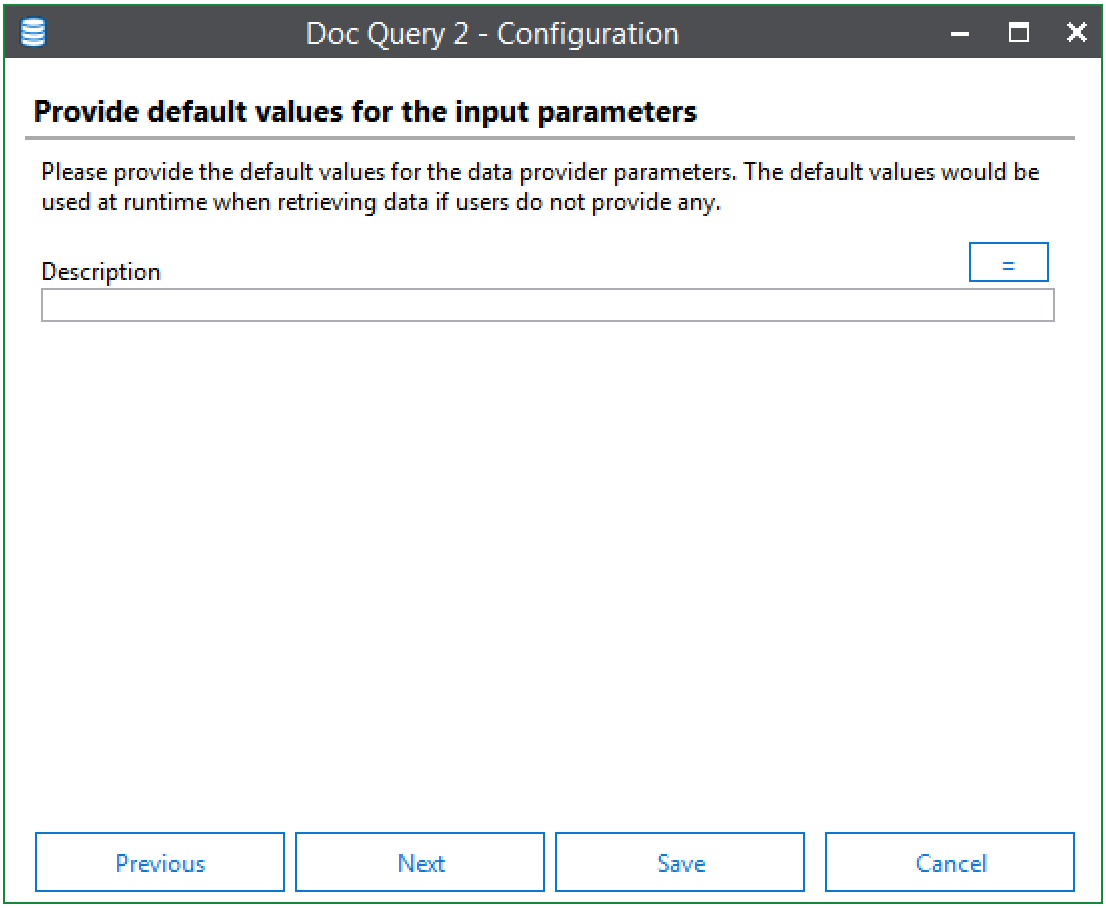
20. Click **OK** at the **Select Keyword(s)** dialog box to save your selections. You are returned to the **Select the keyword(s) to be displayed and/or used as parameter(s)** dialog box.
21. To remove Keyword Types from the data provider, select the Keyword Type to remove and click **Remove**. You are not prompted to confirm this action.
22. To include the Keyword Type as a runtime parameter, select the **Parameter** checkbox next to the Keyword Type. Runtime parameters help you limit the data returned by the data provider.



Tip: To reduce the processing requirements of Reporting Dashboards, it is a best practice to configure required runtime parameters for every Data Provider, or configure parameters with default values to be used if a value is not entered.

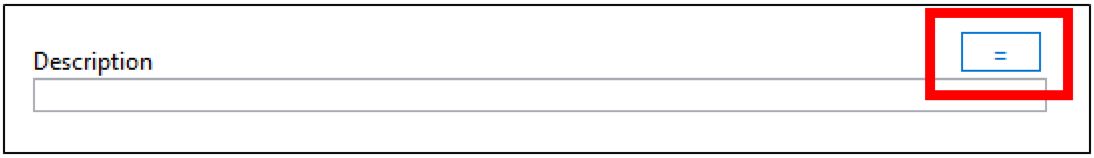
23. If the **Parameter** checkbox is selected you can configure additional options for the parameter:
    - **Runtime:** Select this option to allow the user to change the default value of the parameter when the data provider is used.
    - **Required:** If **Runtime** is selected, you can also select the **Required** option to force the user to enter a value for the Keyword Type before returning data for the data provider.
    - **Multiple:** Select this option to allow the user to select multiple values for the parameter if the parameter is a drop-down list.

24. Click **Next**. If **Parameter** was selected for any Keywords, the **Provide default values for the runtime parameters** dialog box is displayed. The data entry fields available in this dialog box depend on the Keywords that need to be configured.



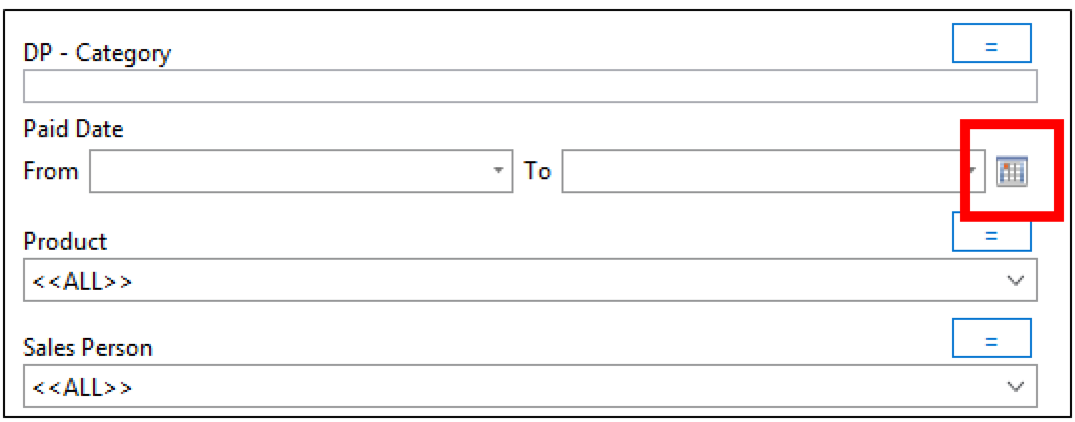
The type of data entry fields depends on the Keyword Types that default values can be configured for. The character length of input values is limited to the length specified by the corresponding Keyword Type value.

For text fields, enter the default value and select a logical operator that defines how the value entered is compared to the value returned by the data provider. The data is used in the dashboard only if the result of the logical operator is true.



Logical Operator	Description
=	The value entered is the same as the value returned.
>	The value entered is greater than the value returned. This operator only applies to numeric data.
>=	The value entered is greater than or equal to the value returned. This operator only applies to numeric data.
<	The value entered is less than the value returned. This operator only applies to numeric data.
<=	The value entered is less than or equal to the value returned. This operator only applies to numeric data.
<>	The value entered is not the same as the value returned.

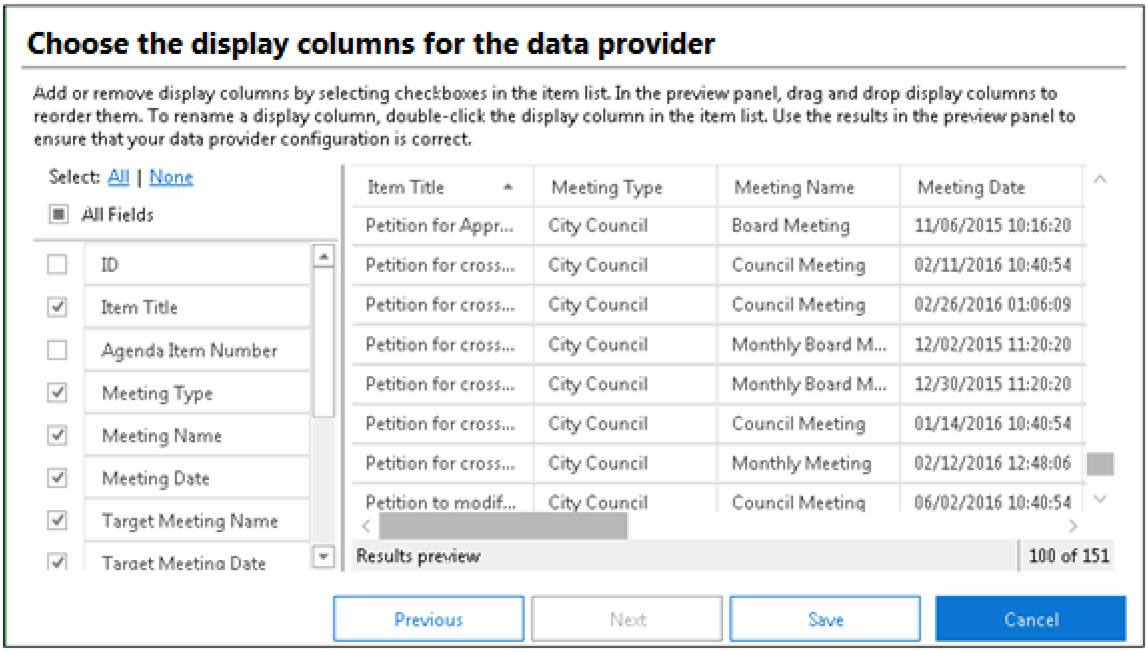
For date fields, enter the default dates in the **From** and **To** fields or click the calendar button to select a date from a graphical calendar.



25. Click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

Note: If the **Restrict user input to select list values** option was selected in the **Edit SQL Parameter** dialog box, you are required to select a default value for the select list prior to selecting display columns for the data provider. Select a value from the drop-down select menu and click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

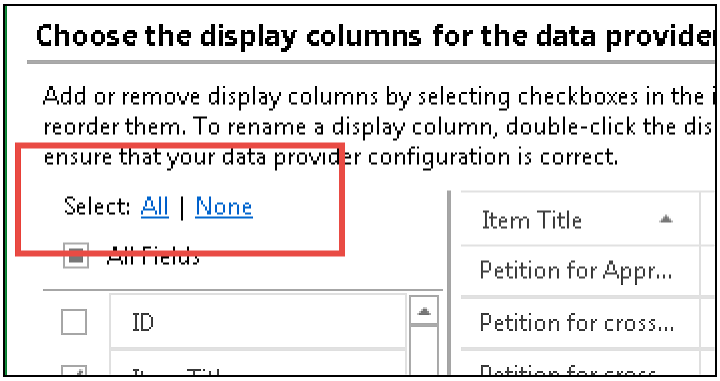
The display columns available depend on the data provider type being configured. If the data provider being configured allowed you to pre-select the display columns available, only the display columns selected earlier in the configuration process are available.



26. Select a display column to include it in the results, or deselect it to hide it.

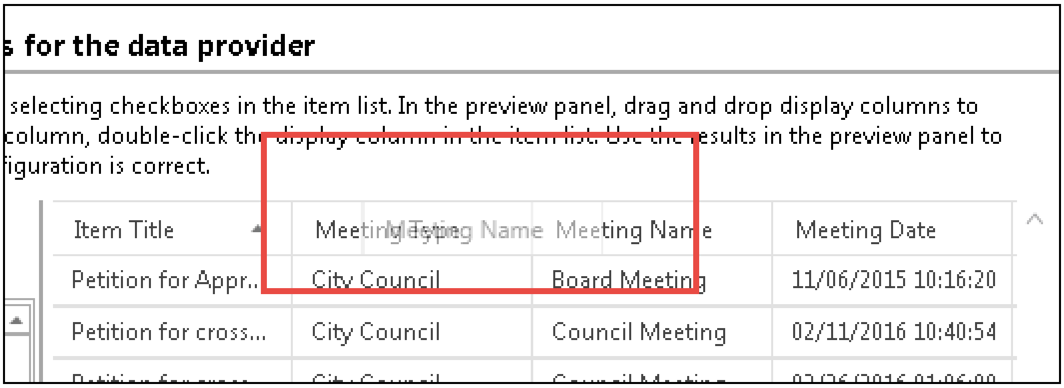
Note: In order for users to be able to open a document directly from a dashboard, the system Keyword Type **Document ID** must be included as a display column.

Click **None** to deselect all display columns or click **All** to select all display columns.



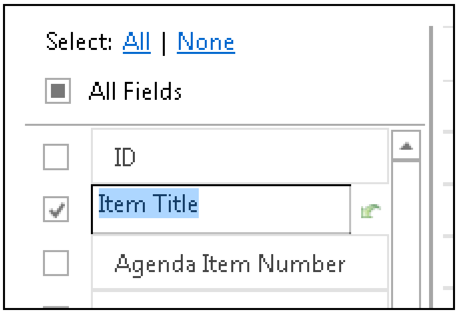
Tip: A preview of the type of data that is returned with the display columns selected is displayed in the preview pane at the right of the list of display columns. If the data returned is not acceptable, select different display columns or click **Previous** to reconfigure previous aspects of the data provider.

27. To reorder the display columns, drag-and-drop the column headings in the preview pane to put them in the desired order.

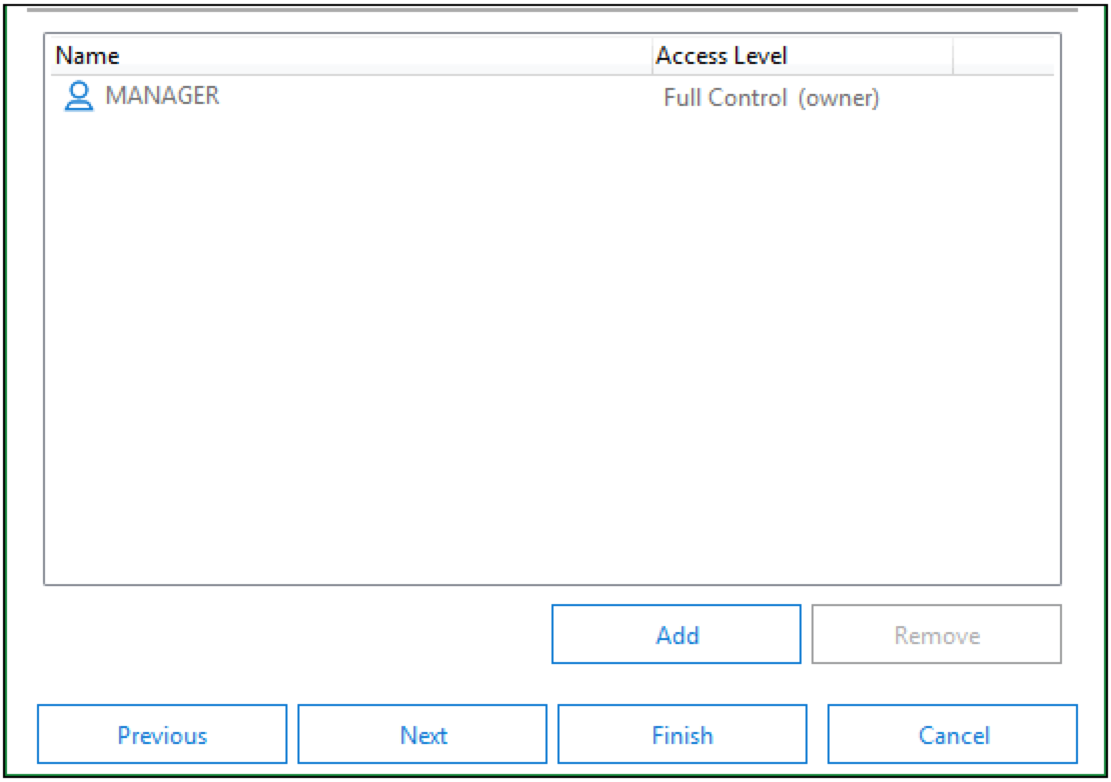


28. To rename a display column, double-click the name in the list, and type the new name in the field provided. Click anywhere outside the field to save the changes.

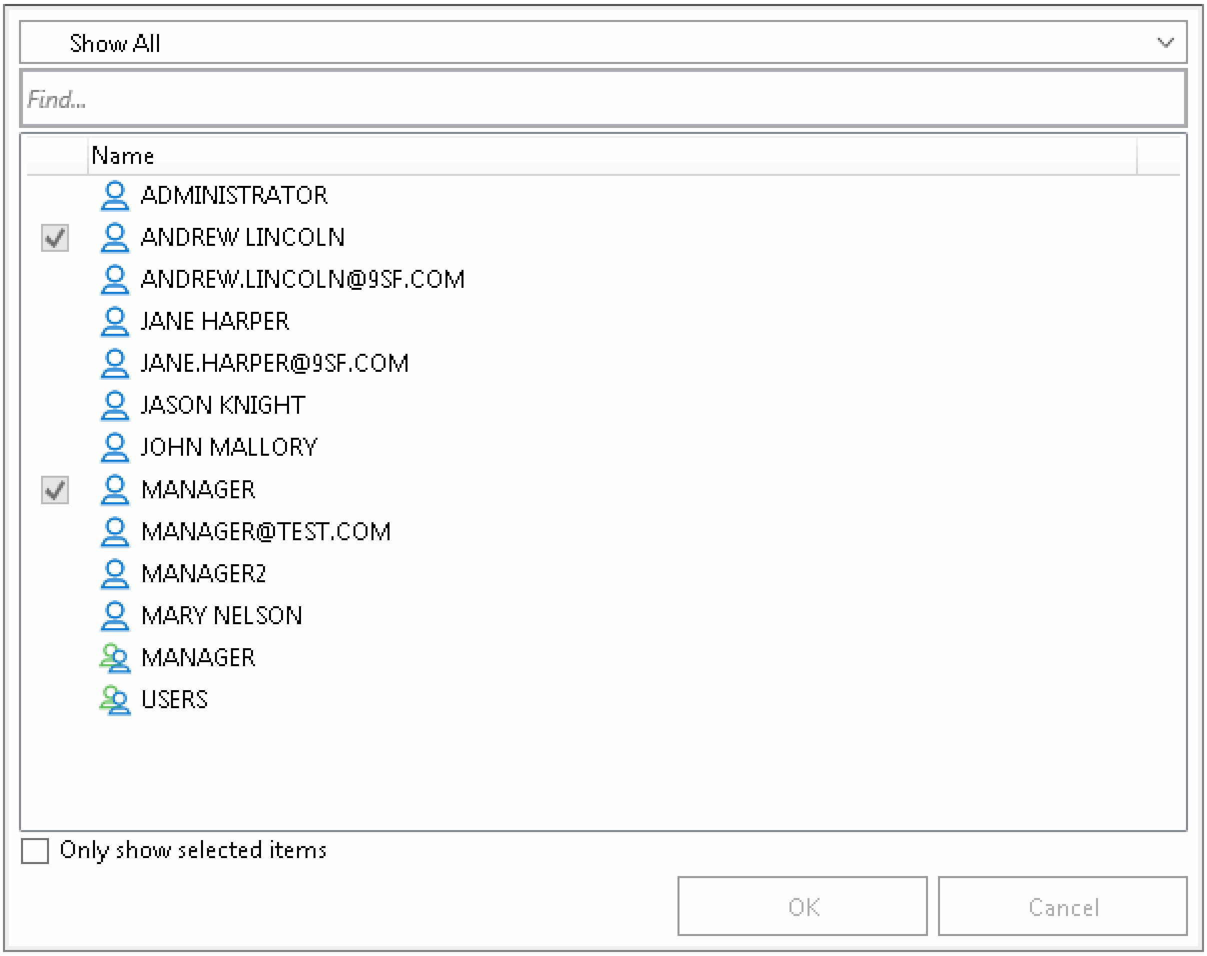
Note: Display column names must not be blank or end with a space.



29. Click **Next**. The **Who should have access to the data provider?** dialog box is displayed.

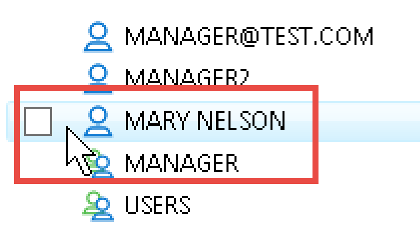


30. To grant access to a new user, click **Add**. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

31. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

32. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

33. To remove users or User Groups, select the users or User Groups to remove in the list and click **Remove**, or right-click the user's name and select **Remove**. You are not prompted to confirm this action.

Note: Access for the user account that created the data provider cannot be removed or changed. The data provider creator always has full access to the data provider.

34. To change a user or User Group's access level, right-click the user's name in the list and select **Full Control**. A check mark will appear next to Full Control to indicate that user or User Group has **Full Control** privileges. If the check mark is not present, the user or User Group only has **Execute Only** privileges. **Full Control** allows the user to configure the settings for the data provider, including user access. **Execute Only** allows the user to use, but not configure, the data provider.

Note: The owner is the user who created the data provider. Access cannot be changed for the owner.

35. Click **Next**. The **Summary** dialog box is displayed. Review the information in the main pane to confirm that the data provider is correctly configured. If not, click **Previous** to return to the various configuration dialog boxes so that changes can be made.
36. Click **Finish**. The data provider is saved and is available for use with dashboards.

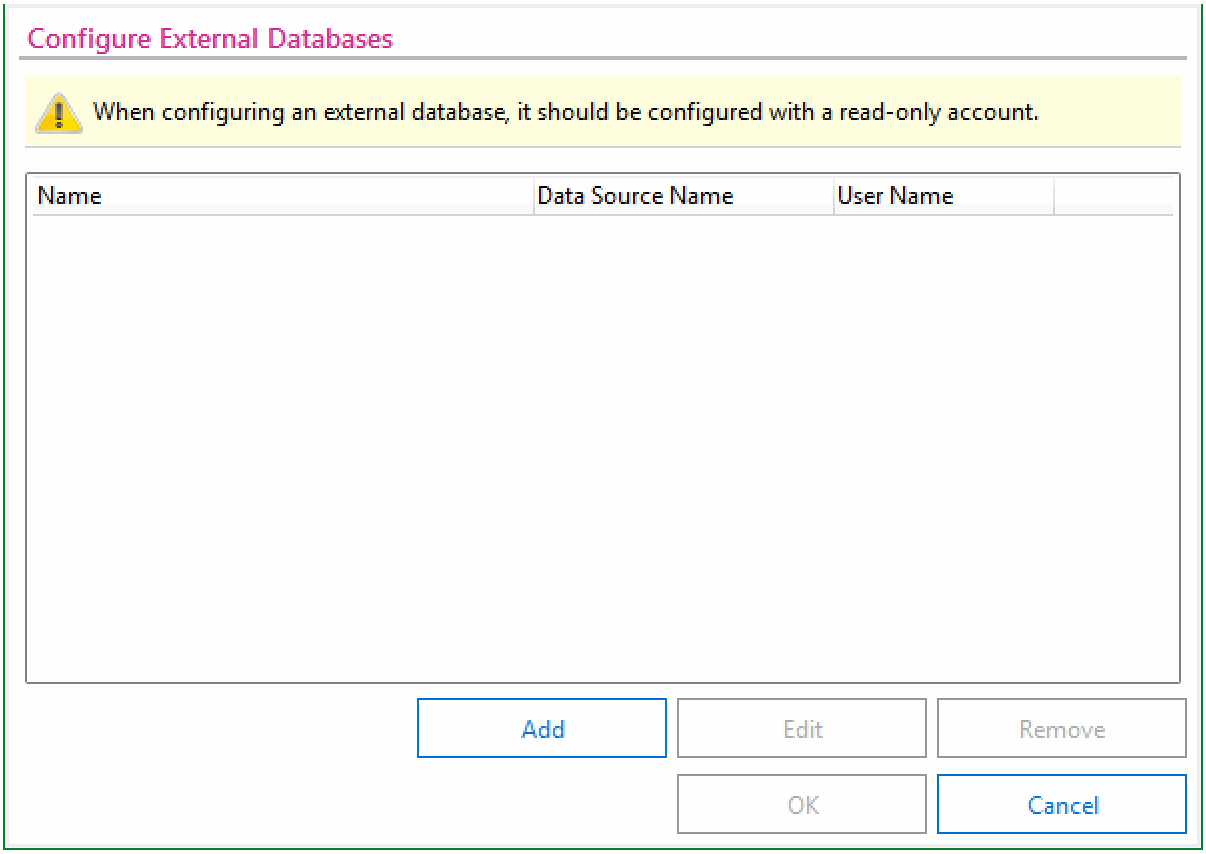
Configuring an External Database for use with Reporting Dashboards

Note: The **Configure External Data Sources** configuration right is required.

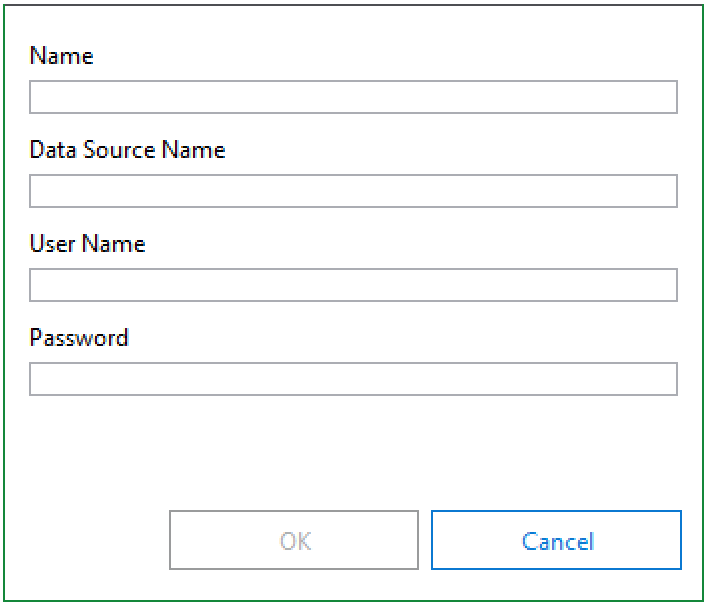
An external database can be used with a custom SQL data provider. External databases can be configured for use in Reporting Dashboards in the **Admin Tools**.

To add an external database:

1. Click **External Databases** under **Admin Tools** in the **Administration** area. The Configure **External Databases** dialog box is displayed.



2. Click **Add**. The **New External Database** dialog is displayed.



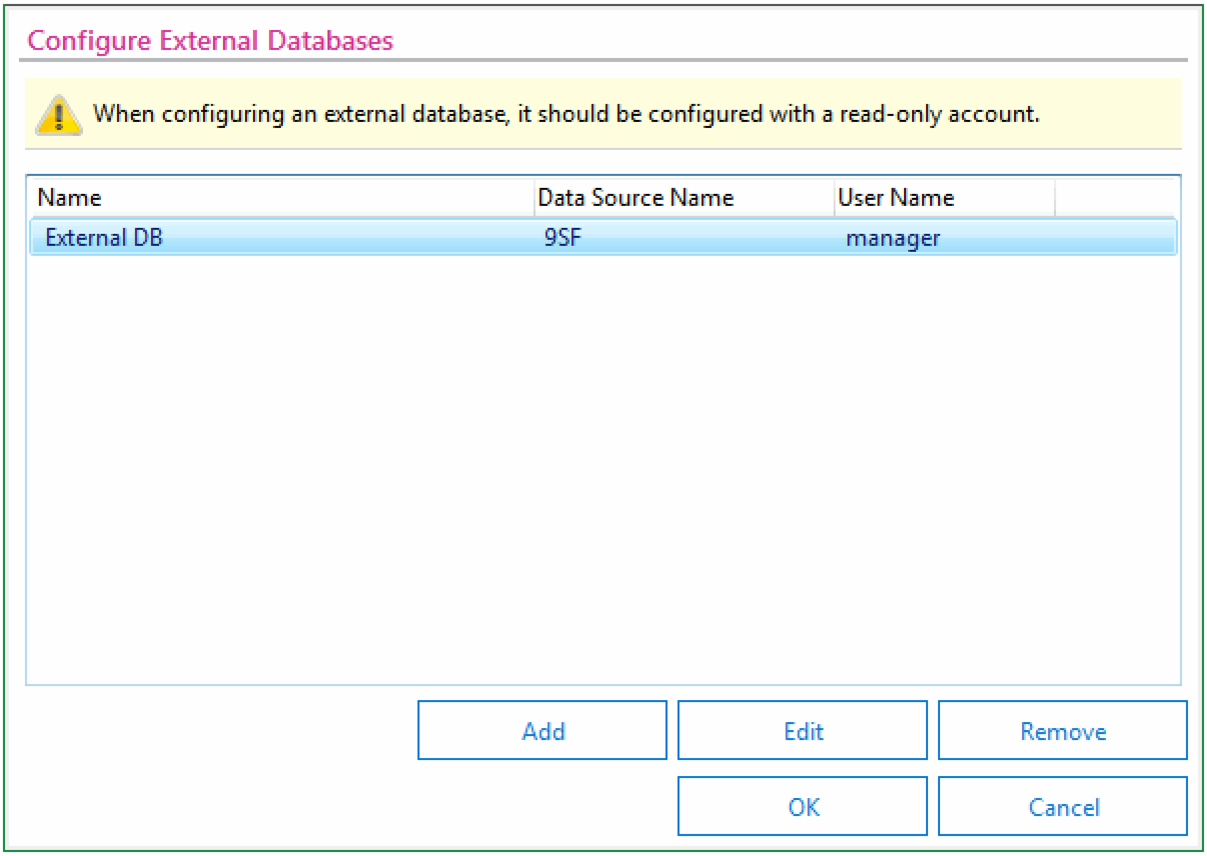
3. Enter the **Name** of the external database.
4. Enter the **Data Source** name.
5. Enter the **User Name** associated with the database.

Note: External databases should be configured with a read-only account.

6. Enter the **Password**.

7. Click **OK** when finished.

   The database is added to the **Configure External Databases** dialog. Click **Edit** if you would like to edit the existing entry. Databases can be removed by clicking **Remove**.



Changing the Properties of Existing Data Providers

The properties of data providers can be changed from the Administration area. Bulk changes to dashboard, report, and user assignments for multiple data providers can also be performed, and the configuration of the display columns and runtime parameters of a data provider can be changed.

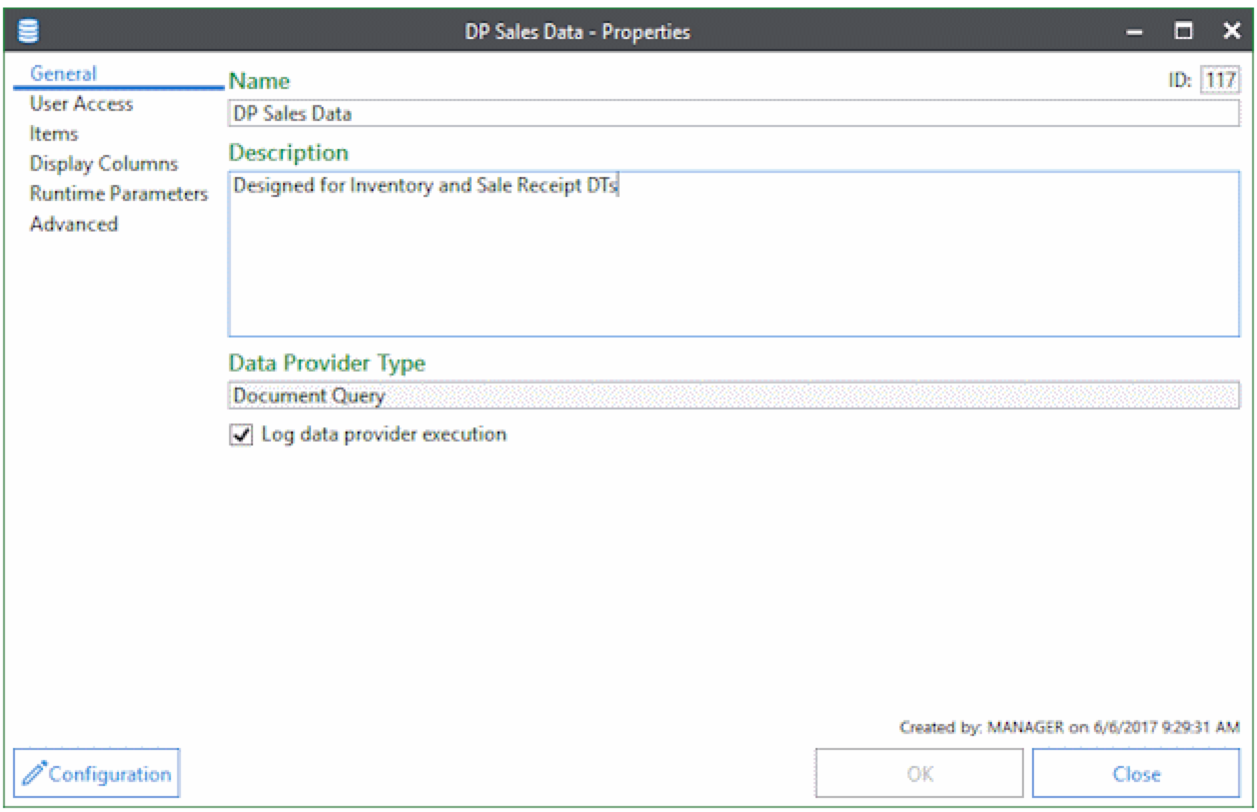
This section covers changes to the properties of a data provider. To perform bulk dashboard, report, and user assignment changes, see Making Bulk Changes to Multiple Data Providers on page 258. To change the configuration of a data provider, see Changing the Configuration of Existing Data Providers on page 262.

To access the properties of a data provider in the Administration area:

1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select a data provider to change in the right pane and click **Properties** in the **Data Provider** ribbon group or right-click it and select **Properties** from the right-click menu.

The **Properties** dialog box is displayed.

3. Select the area to change from the tabs at the left of the dialog box.



See:

- Changing the General Properties of a Data Provider on page 249
- Changing the User Access Properties of a Data Provider on page 250
- Changing the Dashboards and Reports Assigned to a Data Provider on page 253

- Changing the Configuration of Existing Data Providers on page 262 (Display Columns and Runtime Parameters)
- Changing the Advanced Properties for a Data Provider on page 256

Note: Users must have the ability to create new data providers in order to access the Advanced tab.

To perform bulk dashboard and user assignment changes, see Making Bulk Changes to Multiple Data Providers on page 258.

Note: The **Configuration** button is used to access the configuration area for the data provider. To change the configuration of a data provider, including display columns and runtime parameters, see Changing the Configuration of Existing Data Providers on page 262.

Changing the General Properties of a Data Provider

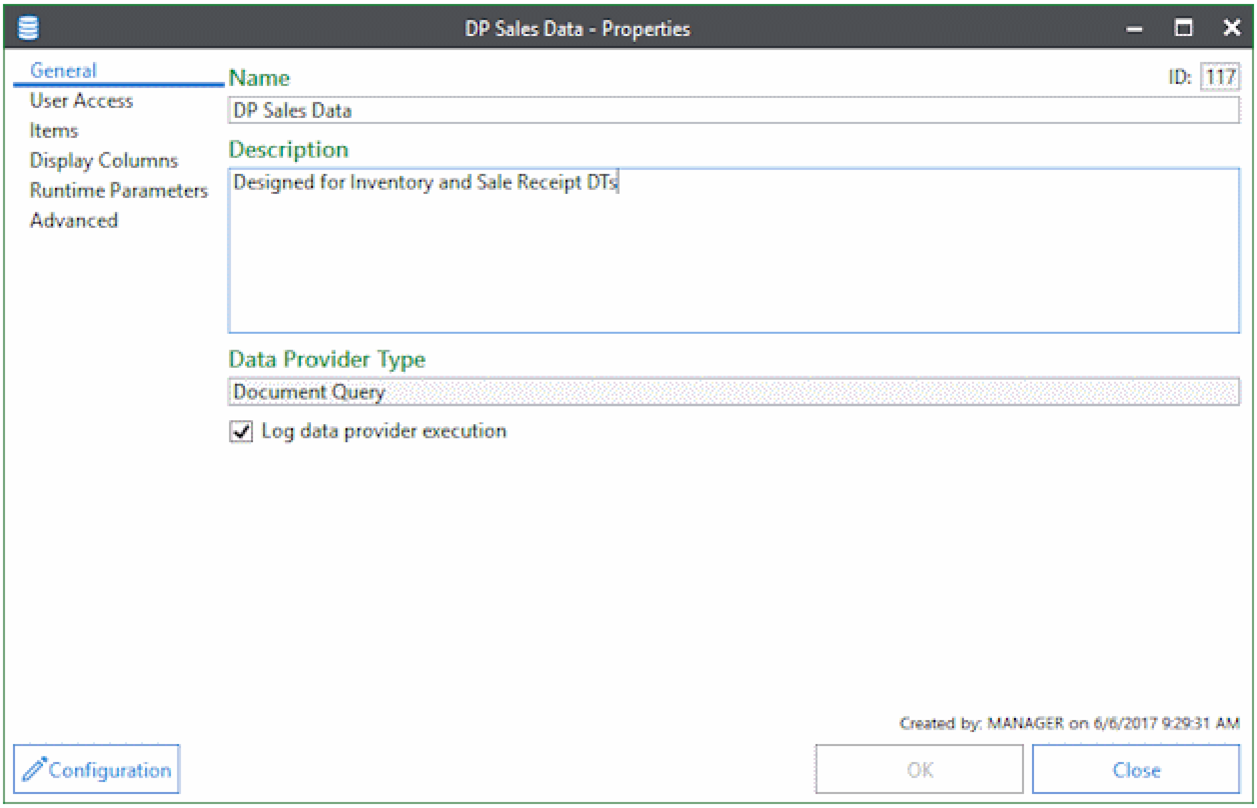
The **General** tab of the data provider properties dialog box is where you can change the name, description, and logging settings.

To access the properties of a data provider in the Administration area:

1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select a data provider to change in the right pane and click **Properties** in the **Data Provider** ribbon group or right-click it and select **Properties** from the right-click menu.

The **Properties** dialog box is displayed.

3. Select the **General** tab.



4. Type a name for the data provider in the **Name** field. The name should be unique and allow the data provider to be easily distinguished from other data providers.
5. Type a brief description of the data provider in the **Description** field. The description should briefly explain what the data provider is and what type of data a user can expect to retrieve from it.

Note: The **Data Provider Type** is a read-only field and cannot be changed. To adjust the data provider type you must create a new data provider. See Creating New Data Providers on page 184.

6. Select **Log data provider execution** to include the elapsed time of data retrieval and runtime parameter information for this data provider in the **History** log. Data requests for the data provider are always logged in the history even if this option is deselected.
7. Click **OK** to save your changes and close the **Properties** dialog box.

Changing the User Access Properties of a Data Provider

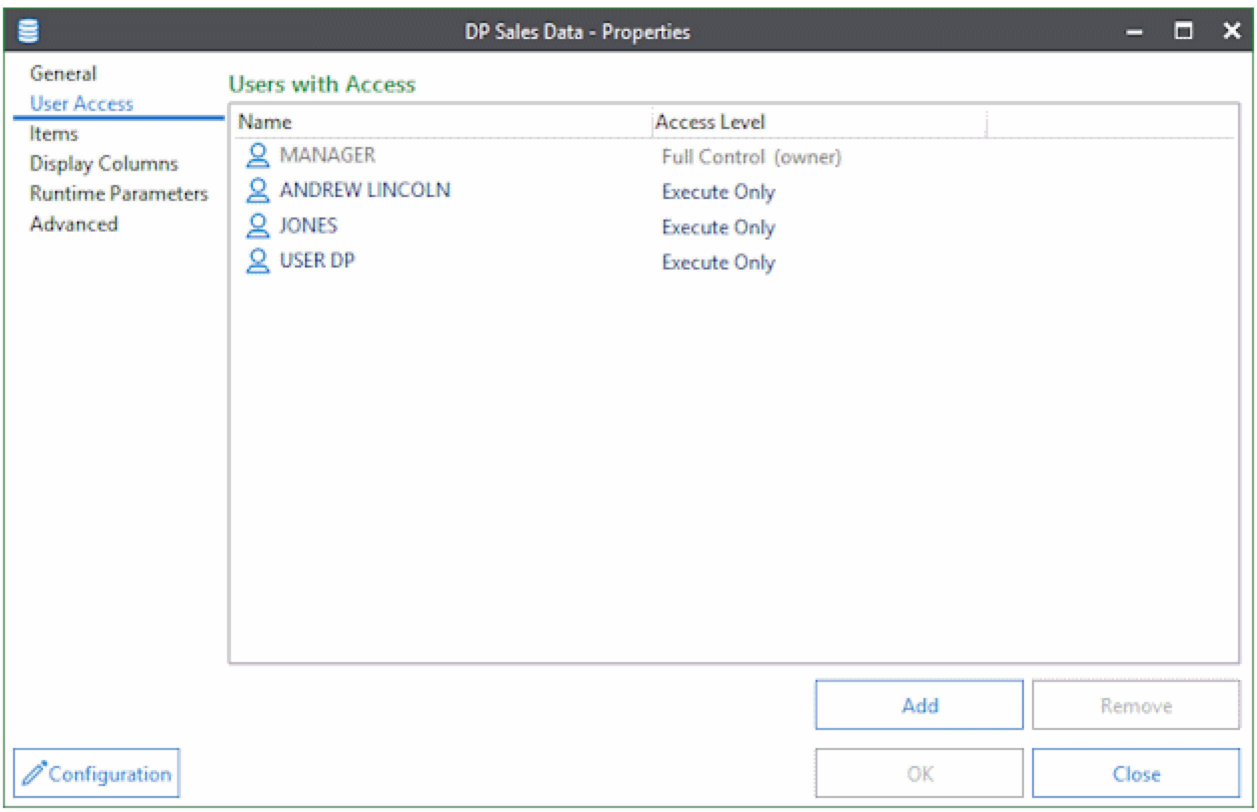
The **User Access** tab of the **Properties** dialog box is where you can change which users and User Groups have access to the data provider and what level of access they have.

To access the properties of a data provider in the Administration area:

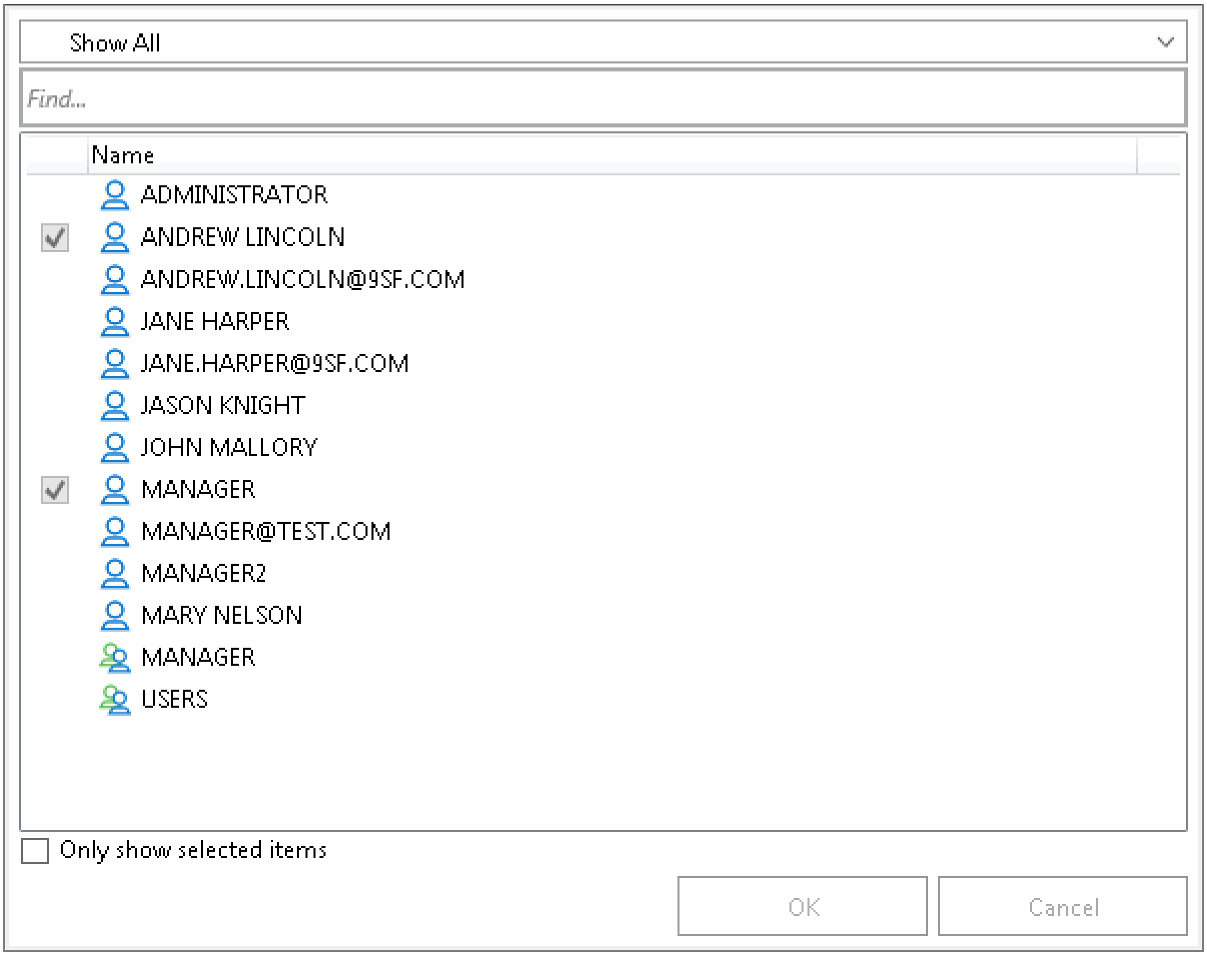
1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select a data provider to change in the right pane and click **Properties** in the **Data Provider** ribbon group or right-click it and select **Properties** from the right-click menu.

   The **Properties** dialog box is displayed.

3. Select the **User Access** tab.

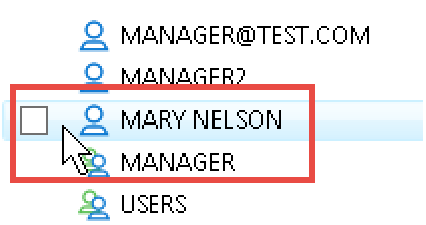


4. To add a user or User Group, click **Add**. The **Select Users** dialog box is displayed. Only users and User Groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

5. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

6. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

7. To remove users or User Groups, select the users or User Groups to remove in the list and click **Remove**, or right-click the user's name and select **Remove**. You are not prompted to confirm this action.

Note: Access for the user account that created the data provider cannot be removed or changed. The data provider creator always has full access to the data provider.

8. To change a user or User Group's access level, right-click the user's name in the list and select **Full Control**. A check mark will appear next to Full Control to indicate that user or User Group has **Full Control** privileges. If the check mark is not present, the user or User Group only has **Execute Only** privileges. **Full Control** allows the user to configure the settings for the data provider, including user access. **Execute Only** allows the user to use, but not configure, the data provider.

Note: The owner is the user who created the data provider. Access cannot be changed for the owner.

9. Click **OK** to save your changes and close the **Properties** dialog box.

Changing the Dashboards and Reports Assigned to a Data Provider

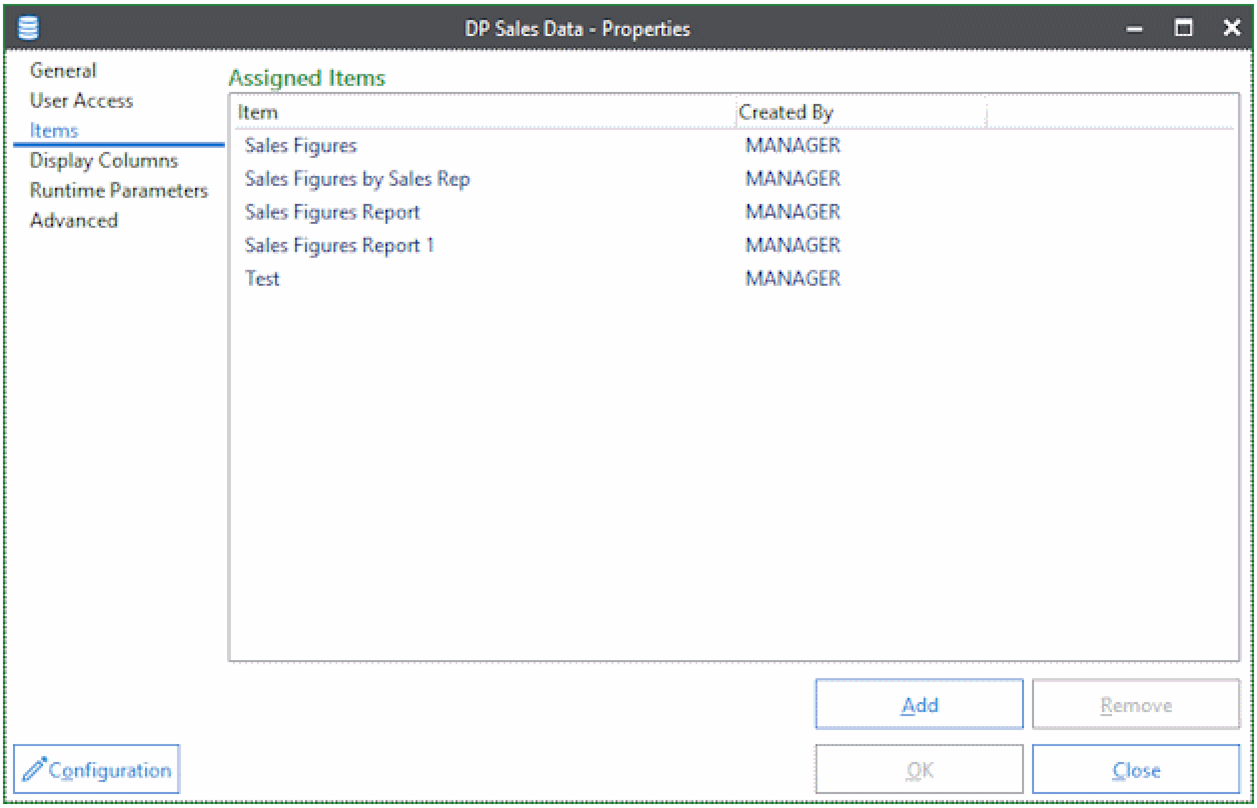
The **Items** tab of the **Properties** dialog box is where you can change the dashboards and reports assigned to the data provider.

To access the properties of a data provider in the Administration area:

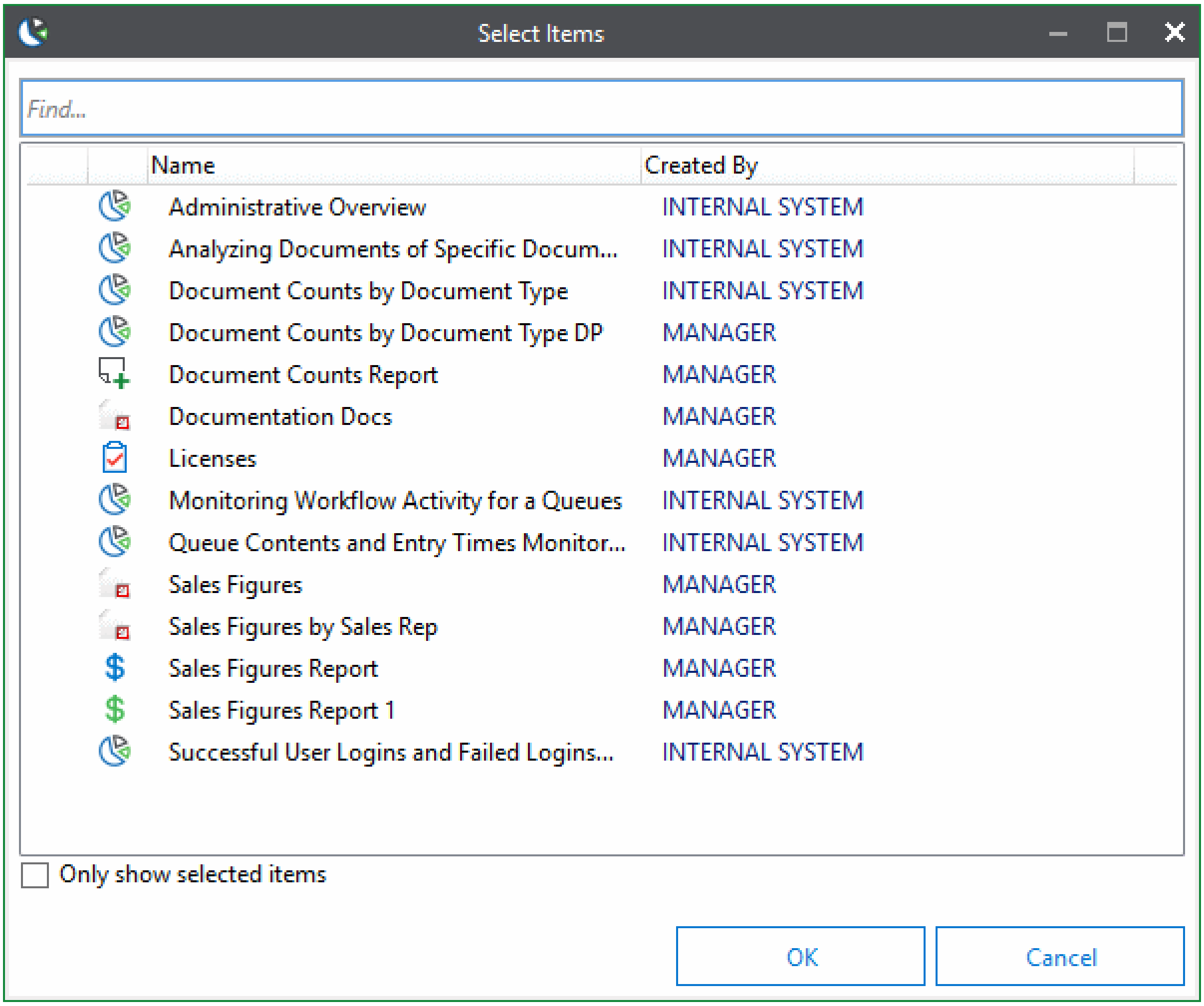
1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select a data provider to change in the right pane and click **Properties** in the **Data Provider** ribbon group or right-click it and select **Properties** from the right-click menu.

The **Properties** dialog box is displayed.

3. Select the **Items** tab.

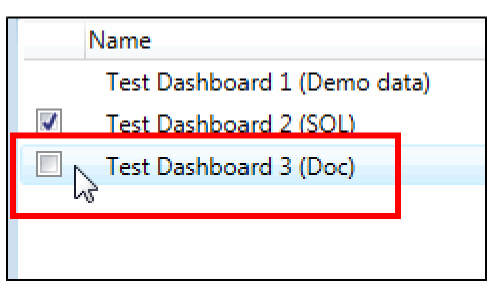


4. To add a dashboard or report, click **Add**. The **Select Items** dialog box is displayed.



Tip: To show only previously selected dashboards or reports, select **Only Show Selected Items** at the bottom of the main pane. To find a specific dashboard or report, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

5. To select a dashboard or report, move the cursor over the row for that item and select the check box that is displayed.



6. Click **OK** at the **Select Items** window to save your selections.
7. To remove an item from the list of assigned dashboards and reports, select the item to remove in the **Assigned items** pane and click **Remove**. You are not prompted to confirm this action.
8. Click **OK** to save your changes and close the **Properties** dialog box.

Viewing the Display Columns and Runtime Parameters of a Data Provider

The **Display Columns** and **Runtime Parameters** tabs of the data provider **Properties** dialog box allow you to view the currently configured items for the data provider. To make changes to the display columns or runtime parameters, see Changing the Configuration of Existing Data Providers on page 262.

Changing the Advanced Properties for a Data Provider

The **Advanced** tab of the **Properties** dialog box is where you can change parameters that may affect dashboard and report performance.

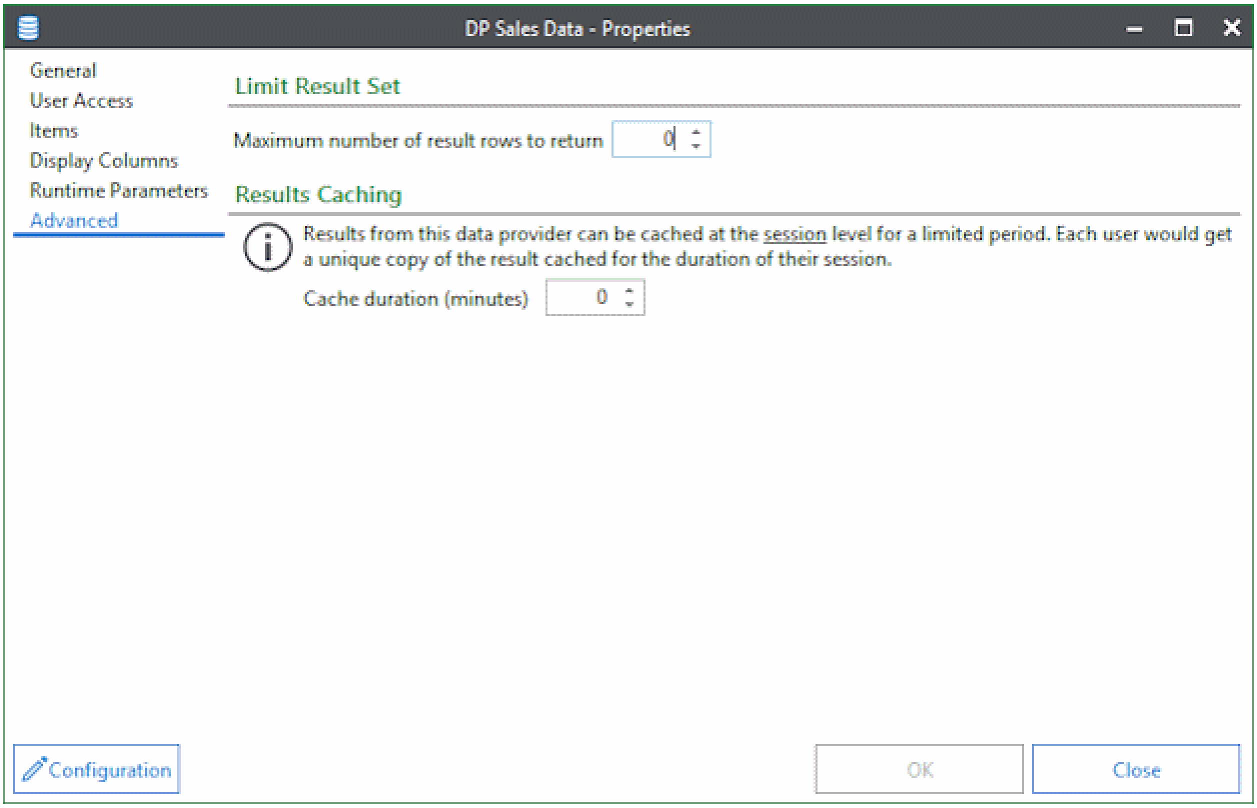
Note: Users must have the rights to create new data providers in order to access the **Advanced** tab. User rights and permissions are configured in the OnBase Configuration module.

To access the properties of a data provider in the Administration area:

1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select a data provider to change in the right pane and click **Properties** in the **Data Provider** ribbon group or right-click it and select **Properties** from the right-click menu.

The **Properties** dialog box is displayed.

3. Select the **Advanced** tab.



4. Enter a whole number in the **Maximum number of result rows to return** to limit the data set returned to the client to the number of rows configured, even if more rows than the maximum are returned by the database. The row limit is displayed in the dashboard viewer if the number of rows included in the dashboard is less than the number returned.

   To return all rows to the client, enter **0**.

   The **Maximum number of result rows to return** setting is overridden if a global value for all data providers has been configured in the **Reporting Dashboards Settings** dialog box in the Configuration module.

Note: The **Maximum number of result rows to return** should only be changed from **0** if performance issues in the environment are identified. Dashboards should always be configured using parameters that will only return a limited number of rows with relevant data.

5. Enter a whole number in the **Cache duration (minutes)** field to cache the data returned for the number of minutes entered. Other users who access the same data source using the same Application Server will return the cached data for the duration of the cache time limit. Data is cached at the data source level. Enter **0** to not cache data.

   The **Cache duration** setting is overridden if a global value for all data providers has been configured in the **Dashboards Report Settings** dialog box in the Configuration module.

Tip: Enabling caching may improve system performance and dashboard responsiveness, especially in systems where multiple users are accessing the same dashboard at the same time.

6. Click **OK** to save your changes and close the **Properties** dialog box.

Making Bulk Changes to Multiple Data Providers

Changes to the users, User Groups, and dashboards assigned to data providers can be made in bulk to multiple data providers at the same time.

See:

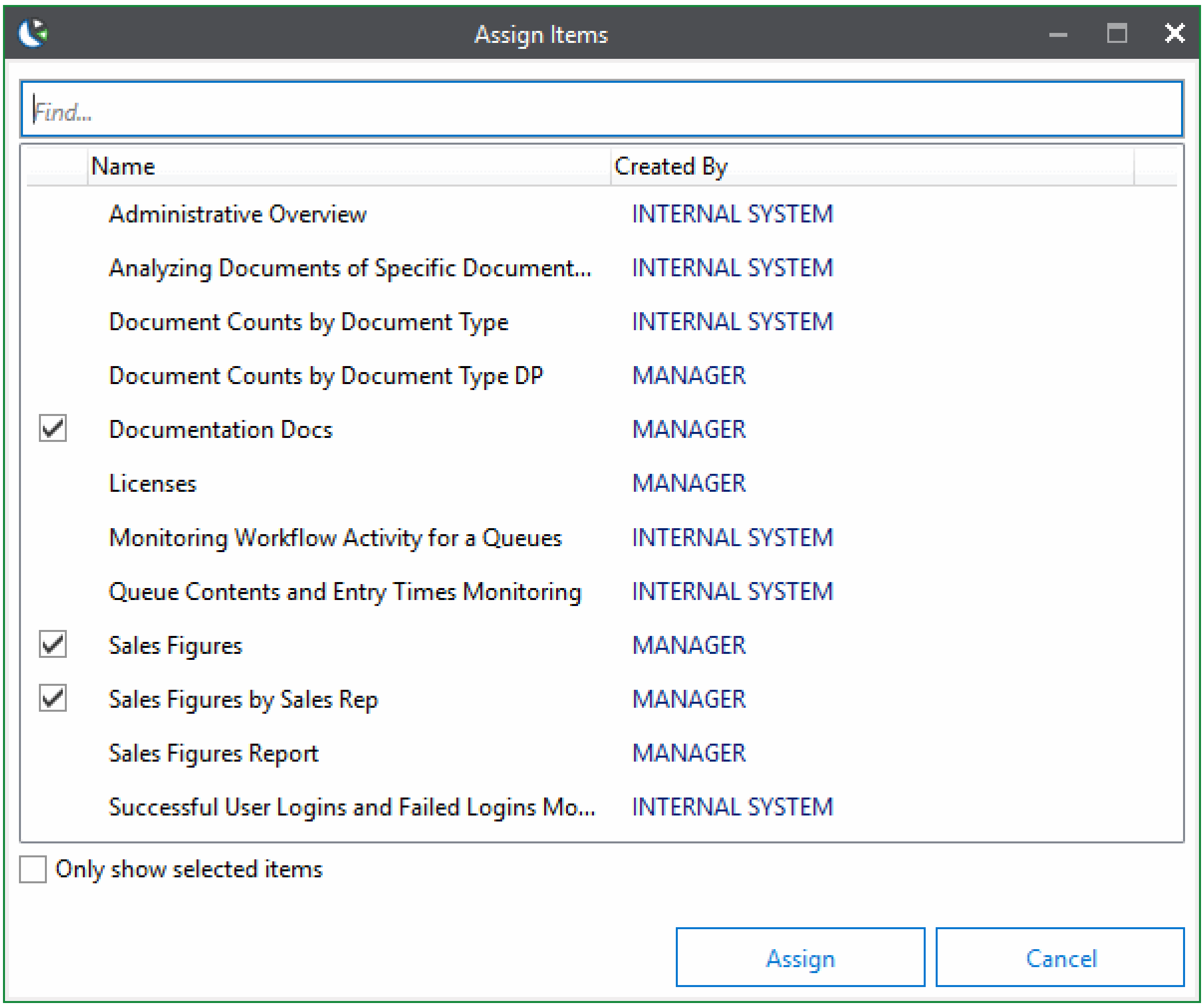
- Bulk Changes to Data Provider Dashboard Assignments on page 258
- Bulk Changes to Data Provider User and User Group Assignments on page 260

Bulk Changes to Data Provider Dashboard Assignments

To change the dashboard assignments of multiple data providers in the Administration area:

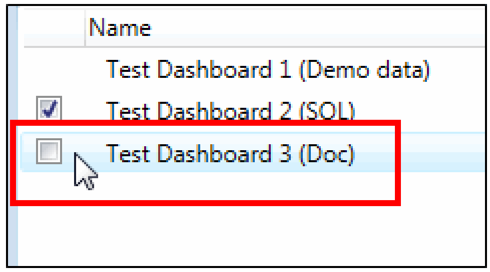
1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select the data providers to change in the right pane and click **Assign Dashboards** in the **Actions** ribbon group.

The **Assign Items** window is displayed.



Tip: To show only previously selected dashboards and reports, select **Only show selected items** at the bottom of the main pane. To find a specific item, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

3. To assign a dashboard or report to all items selected, move the cursor over the row for that item and select the check box that is displayed.



Dashboards and reports that are currently assigned to some, but not all, of the items selected have the selection box filled in:

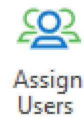
To remove a dashboard or report from all items selected, deselect the check box beside the name of the item.

4. Click **Assign** to save your changes.

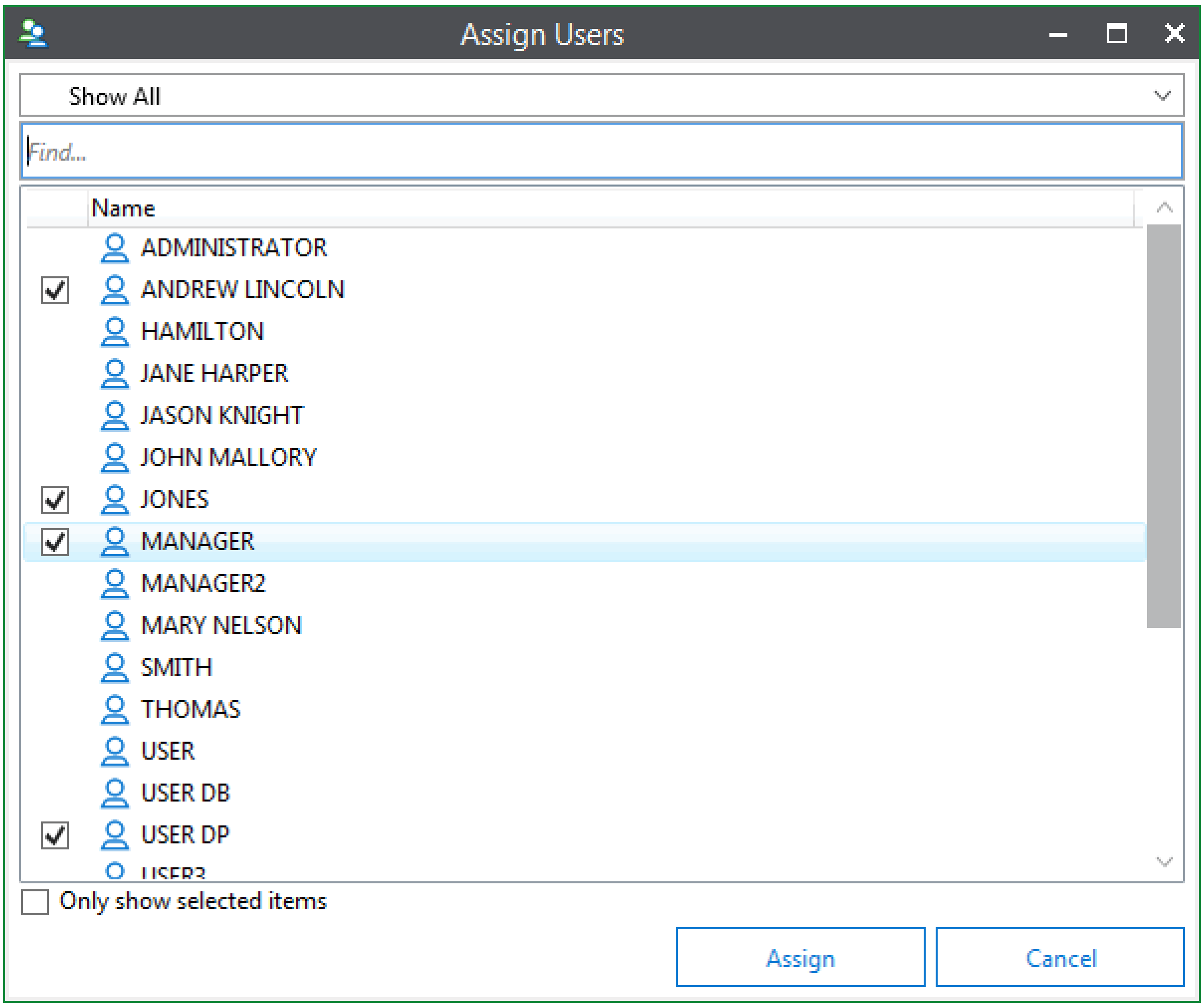
Bulk Changes to Data Provider User and User Group Assignments

To change the user and User Group assignments of multiple data providers in the Administration area:

1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select the data providers to change in the right pane and click **Assign Users** in the **Actions** ribbon group.

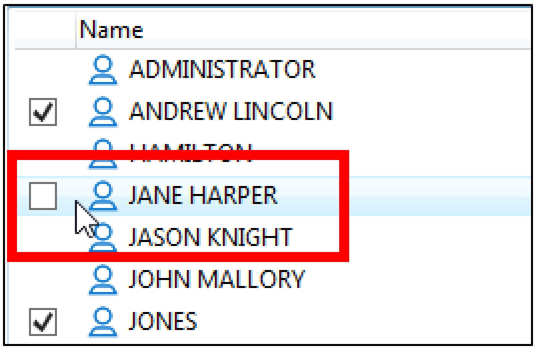


The **Assign Users** window is displayed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only user groups, select **User Group** from the drop-down list. To find a specific user or user group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only Show Selected Items** at the bottom of the main pane.

3. To select a user, move the cursor over that user's row and select the check box that is displayed.

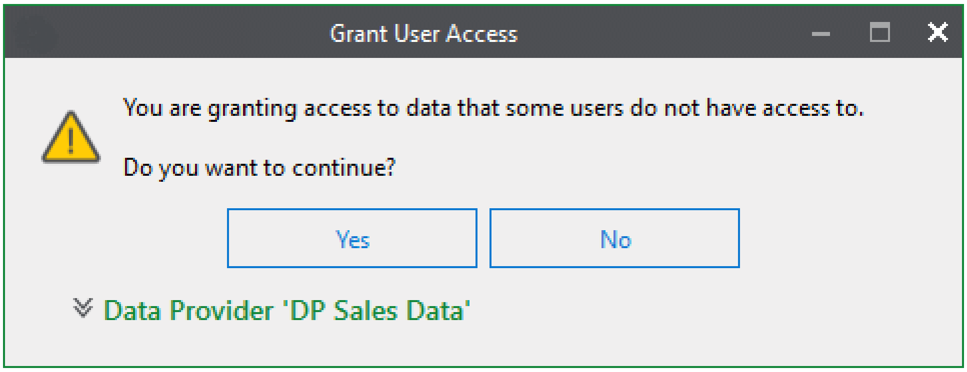


To remove a user's access, deselect the check box beside the user's name.

Note: Access cannot be changed for the owner.

4. Click **Assign** to save your user selections.

   If you attempt to grant access to a user that does not have access to all of the data within that data provider, the following dialog box is displayed.



   Click the name of the data provider for a list of all affected users and the data they do not have access to. These users will not be able to use any reports or dashboards that use this data provider. Granting users access to this data provider does not grant access to any data or columns within the data provider that the user does not already have access to.

Changing the Configuration of Existing Data Providers

The underlying configuration of a data provider, including the SQL or dataset used, display columns, and runtime parameters, can be changed through the Administration area.

Note: The **Custom SQL Query** and **Document Query** data provider types are available to all systems with Reporting Dashboards. Additional data provider types are available depending on additional licensing. See Additional Data Provider Types on page 2.

To access the configuration area for a data provider:

1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select the data provider to configure in the right pane and click **Configuration** in the **Data Provider** ribbon group.

You can also access configuration by clicking the **Configuration** button at the bottom of the **Properties** dialog box for data providers:

3. The configuration process depends on the data provider type selected. This table describes the data provider types available with all Reporting Dashboards installations. Additional data provider types are available depending on additional licensing. See Additional Data Provider Types on page 2.

Data Provider Type	Description
Custom SQL Query	Configured using the **Edit SQL query** dialog box, which allows you to write and execute custom SQL data access statements and stored procedures. **Caution:** SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly, and queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted. See Configuring a Custom SQL Query Data Provider on page 264.
Document Query	Configured using the **Select the document types to be retrieved** dialog box and returns data based on Keyword information for documents stored in OnBase. See Configuring a Document Query Data Provider on page 275.

Note: The **Custom SQL Query** and **Document Query** data provider types are available to all systems with Reporting Dashboards. Additional data provider types are available depending on additional licensing. See Additional Data Provider Types on page 2.

Configuring a Custom SQL Query Data Provider

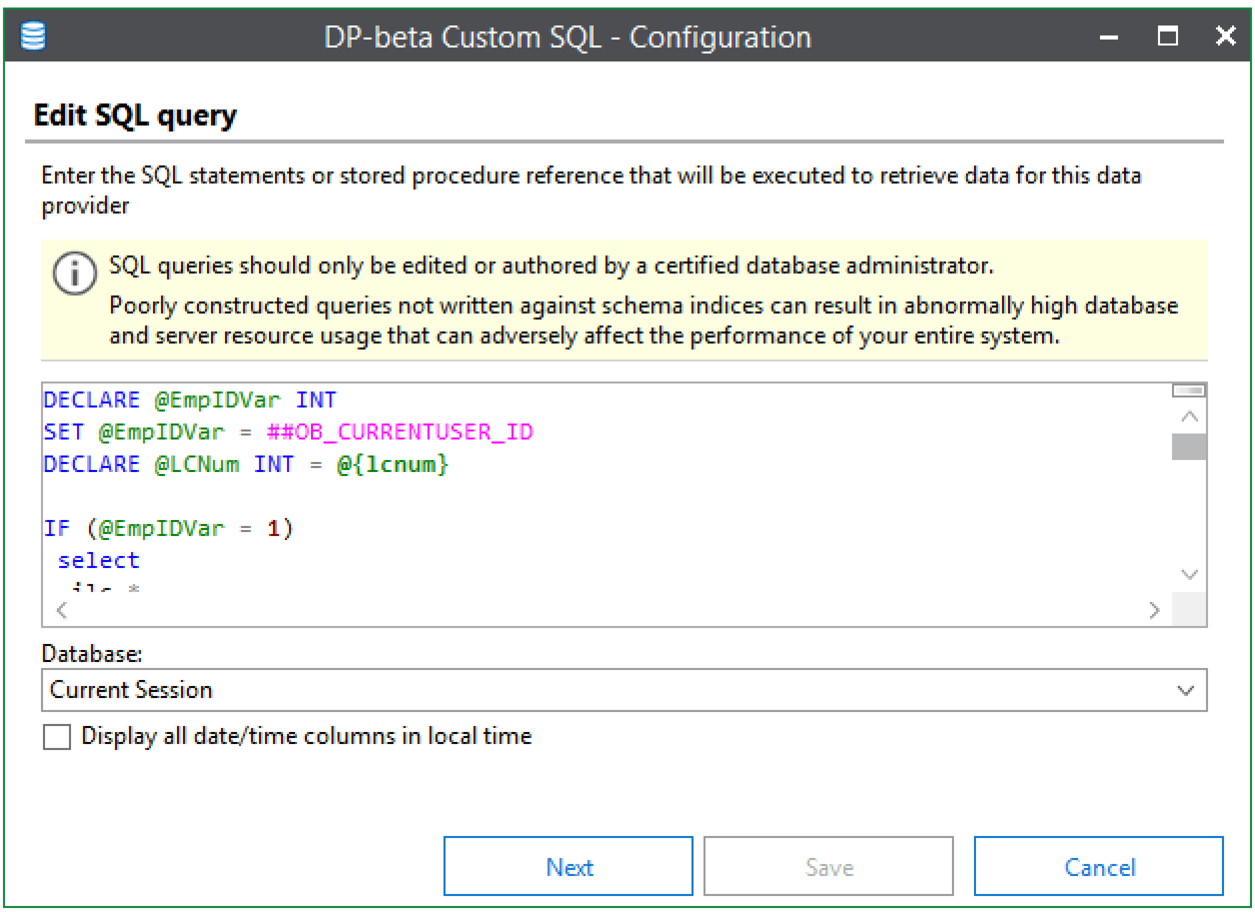
A custom SQL query data provider allows you to write and execute custom SQL data access statements and stored procedures.

Caution: SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly, and queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.

To configure a custom SQL query data provider:

1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select the data provider to configure in the right pane and click **Configuration** in the **Data Provider** ribbon group.

The **Edit SQL query** dialog box is displayed.

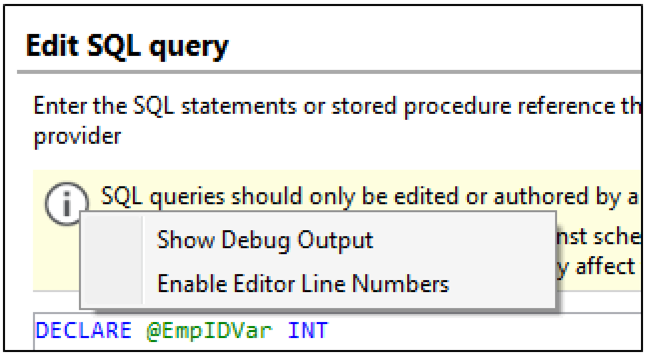


3. Type or paste the SQL query into the data-entry field provided. For SQL syntax, parameterizations, and macros specific to Reporting Dashboards, see Custom SQL Syntax, Parameterization, and Macros on page 331.

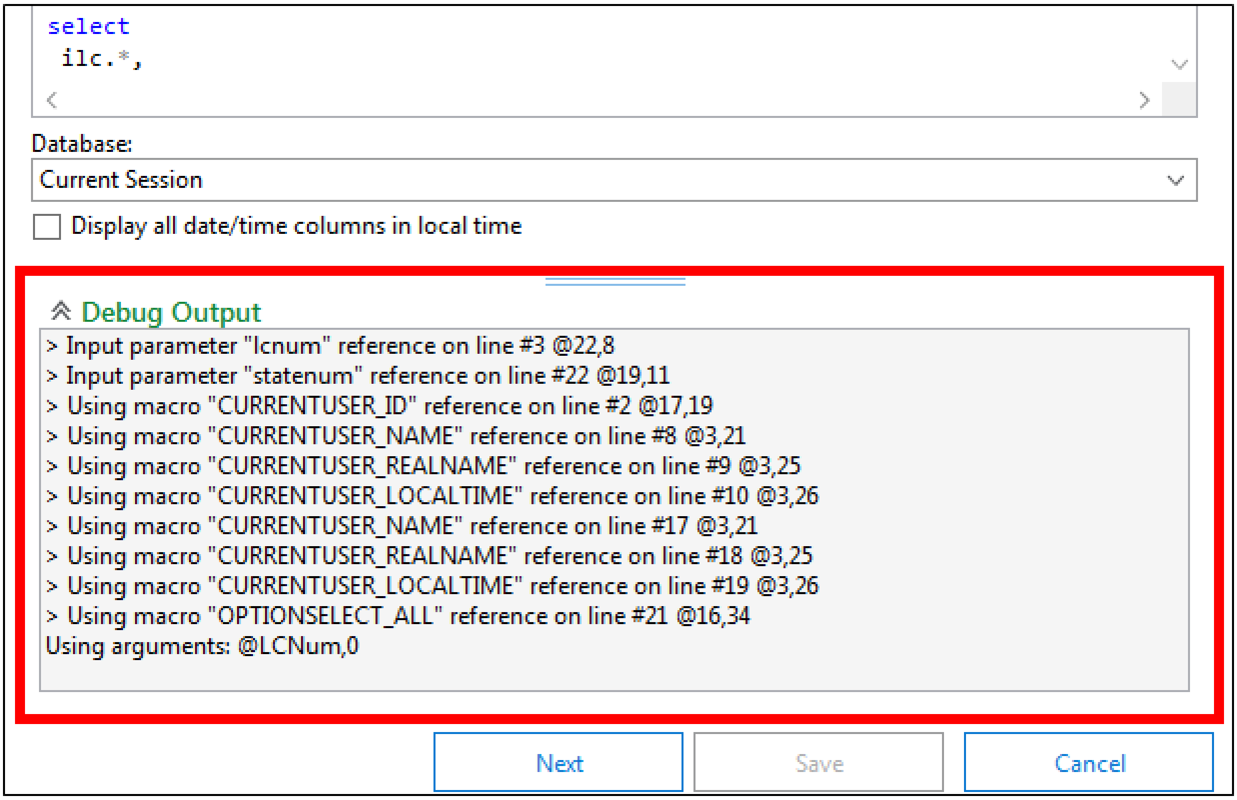
Caution: SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly. Queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.

Tip: As a best practice, all SQL queries created for use with Reporting Dashboards should be first run in a profiler by a certified database administrator, to review the database optimizer access plan. This analysis needs to be performed against the live database or a database of similar size, with similar data distribution, for all tables involved in the query. The DBA should verify that the query is well formed and not I/O intensive. The data access plans should also be documented to provide a baseline in case database performance degrades at a later time.

To display debugging information for the replacement of macros and parameters in the SQL query entered, right-click the information icon and select **Show debug output**:



The debugging information is displayed below the data-entry field in the **Debug Output** pane:

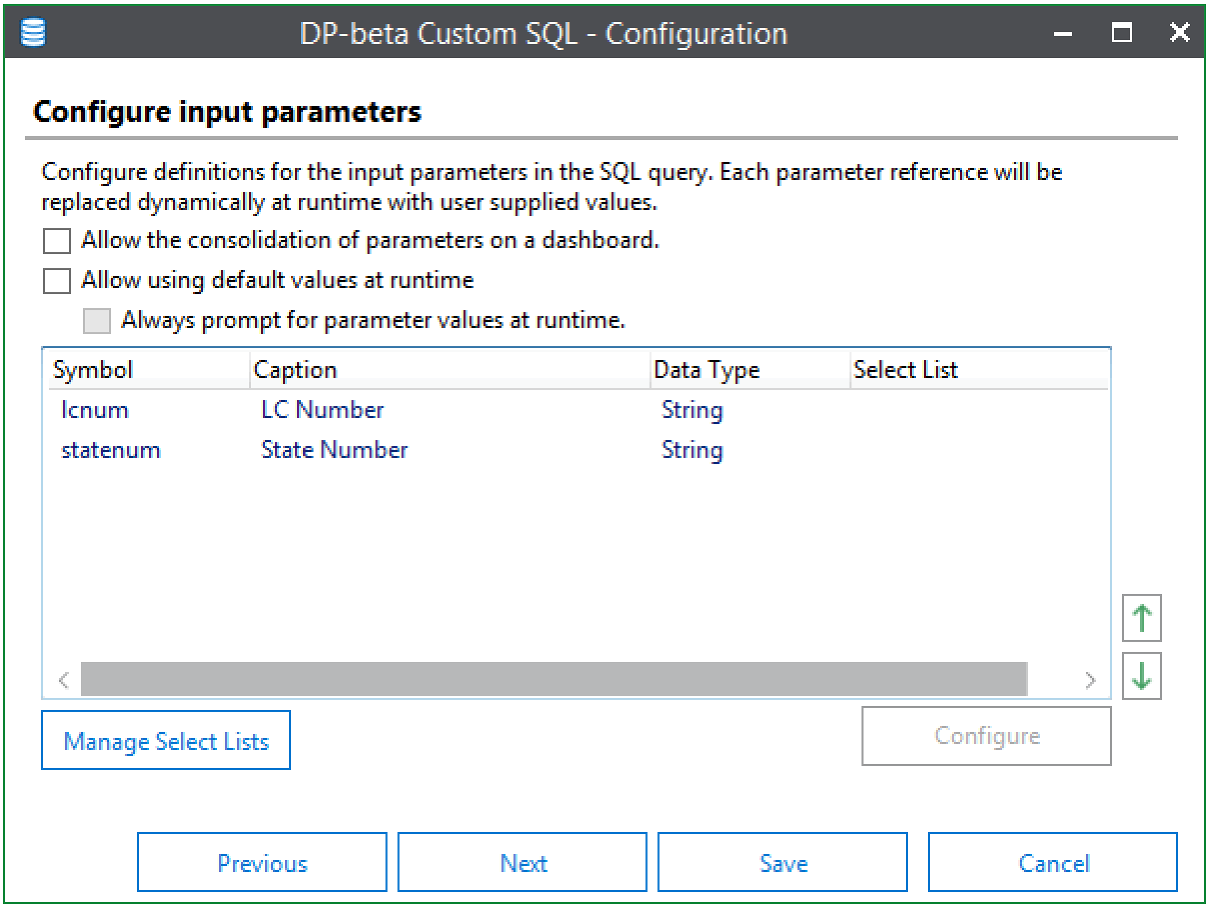


To show/hide line numbers in the SQL editor pane, right-click the information icon and select **Enable editor line numbers**.

4. Select **Display all date/time columns in local time** to convert all date-time values returned to the local time of the user accessing a dashboard.
5. From the **Database** drop-down menu, select the database you would like to use. If any external databases have been configured, they are available for selection here. For more information, see Configuring an External Database for use with Reporting Dashboards on page 244.

6. Click **Next** after ensuring that the SQL entered is valid. The **Configure Runtime Parameters** dialog box is displayed if parameters need to be configured.

Tip: To reduce the processing requirements of Reporting Dashboards, it is a best practice to configure required runtime parameters for every Data Provider, or configure parameters with default values to be used if a value is not entered.



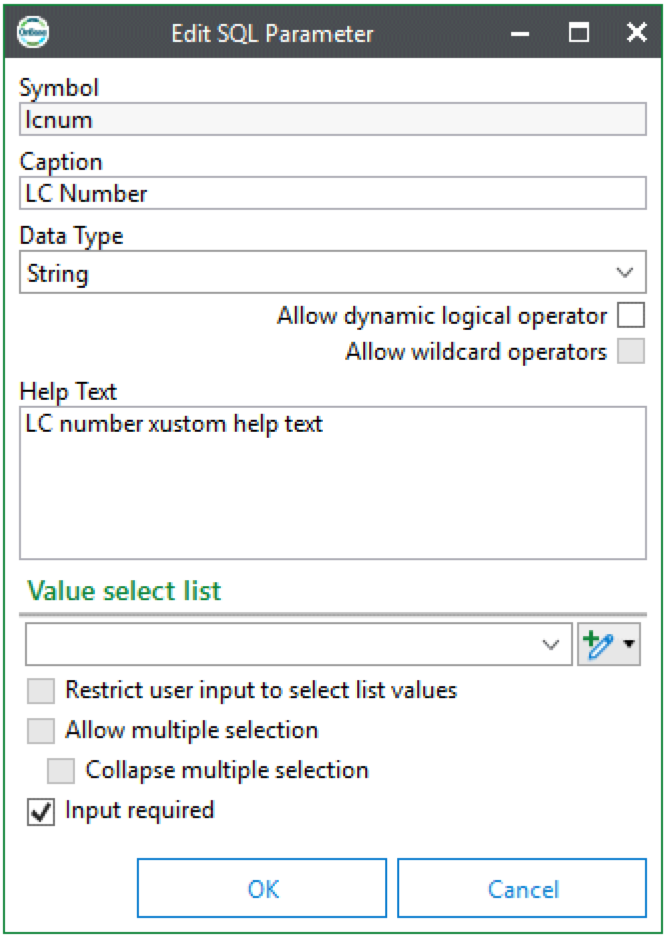
Note: If there are any errors with the runtime parameters, these are displayed in the yellow warning pane above the parameters list. The **Next** button is not enabled until all errors are corrected.

7. Select **Allow the consolidation of parameters on a dashboard** to treat the same parameters from different data providers as one parameter in the Input Parameters dialog box.

Note: In order to be consolidated, parameters must share the same data provider type, parameter ID, and have the same reverse-fill sources.

8. Select **Allow using default values at runtime** to allow the parameters to be filled with a default value if the user does not explicitly select or enter a value.

9. Select **Always prompt for parameter values at runtime** to prompt for parameters even if default values have been configured.
10. To configure a runtime parameter, select it in the parameters list and click **Configure**. The **Edit SQL Parameter** dialog box is displayed.



11. Type a user-friendly name for the parameter in the **Caption** field. This is how the user will know what the parameter is for. The caption is limited to 60 characters.
12. Select the data type of the parameter from the **Data Type** drop-down list. The data type must be valid for the SQL parameter being configured (for example, do not use **Numeric9** as the data type when the SQL parameter being configured contains letters).

Note: The **Date Time Range** data type is only valid after a SQL **BETWEEN** clause.

13. Select **Allow dynamic logical operator** in order to allow the logical operator (for example <, >, =) used to evaluate this parameter to be changed. Dynamic logical operators allow for the comparison of values in a method chosen by the user. By default, the selected logical operator is used when the data provider is accessed.

Note: If **Allow dynamic logical operator** and **Allow multiple selection** are both selected, the only logical operators available are **IN** and **NOT IN**, which allow the user to search for values within (when using **IN**) or not within (when using **NOT IN**) the parameter.

14. Select **Allow wildcard operators** to allow **Contains**, **Begins with**, and **Ends with** operators to be used to evaluate this parameter. This option can only be selected if **Allow dynamic logical operator** is also selected.

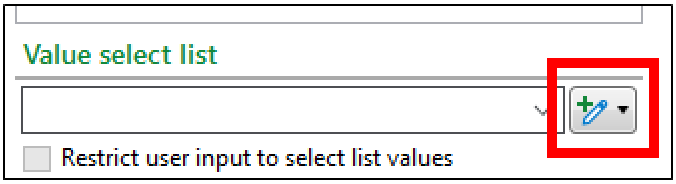
Note: Queries that search for terms using the **Ends with** operator need to ensure that trailing spaces are taken into account. Use the **RTRIM** function in the SQL query to remove trailing spaces.

15. Type a brief description of the data the parameter represents in the **Help Text** field. This text is displayed when a user hovers the cursor over the parameter name in the output display. The help text is limited to 255 characters.
16. To configure the runtime parameter to use a drop-down list, select the list type from the **Value select list** drop-down list. This list includes configured global select lists.

Note: The data type of the **Value select list** must match the data type of the runtime parameter.

To create a new select list to add to the **Value select list** drop-down list, or to edit an existing select list already available in the **Value select list** drop-down list, follow these additional steps:

a. Click the add/edit button at the right of the **Value select list** drop-down list.

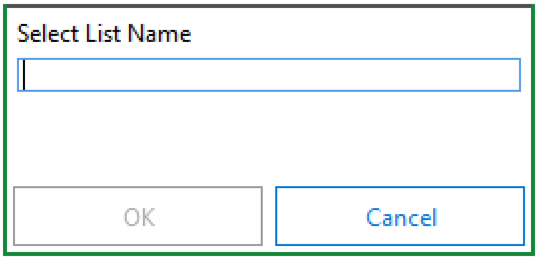


Select **New** to add a new select list.

If you are editing an existing select list, make sure the select list you want to edit is selected in the **Value select list** drop down, then click the add/edit button and select **Edit**.

The **Manage Select Lists** dialog box is displayed.

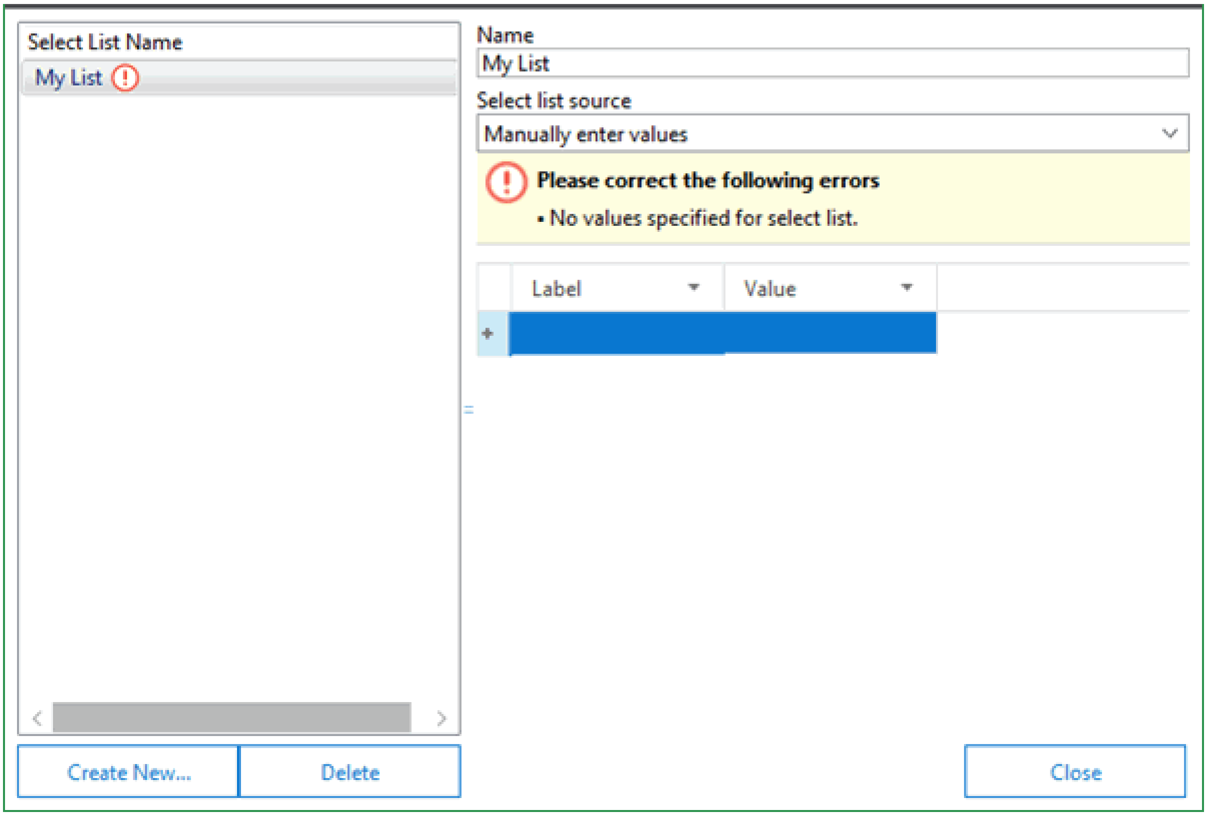
b. If this is a new select list, the **Select List Name** dialog box is displayed over the **Manage Select Lists** dialog box.



c. Type a name for the select list in the field provided. This is the name that is displayed in the **Value select list** drop-down list on the **Edit SQL Parameter** dialog box.

d. Click **OK**. The new select list is added and selected, but requires list values before it can be used.

e. In the right pane, select a source of the values from the **Select list source** drop-down list.



The list source options available include the following:

List Source	Description
Manually enter values	Type the values for the select list in the grid that is displayed. The **Label** is how the item is displayed in the drop-down list and the **Value** is the value that is included in the data query. To add a new value, press the **Enter** key. A new blank row is added to the grid. To change an existing **Label** or **Value**, select it in the grid and type the new value. **Note:** Manually entered values are limited to 255 characters.
Get values from a SQL query	Enter the SQL used to build the label/value pairs for the drop-down list from the data that is returned. To validate the SQL entered, click **Validate SQL** at the bottom of the data-entry field. The SQL statement entered must return exactly two columns, one for the **Label** and the other for the **Value** (the **Label** is how the item is displayed in the drop-down list and the **Value** is the value that is included in the data query).

Caution: SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may cause reports to return unexpected results or could cause Reporting Dashboards to close unexpectedly, and queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.

f. Click **Close**. You are returned to the **Edit SQL Parameter** dialog box.
g. Select the list from the **Value select list** drop-down list.

Note: The data type of the select list must match the data type of the runtime parameter.

17. Select **Restrict user input to select list values** to restrict user input for the parameter to only the options in the drop-down list. If this option is deselected, users can type a value for the parameter or select it from the drop-down list.
18. Select **Allow multiple selection** to allow users to select more than one value from the drop-down list. If this option is deselected, users can only select one value from the select list. This option is only available if **Restrict user input to select list values** is also selected.

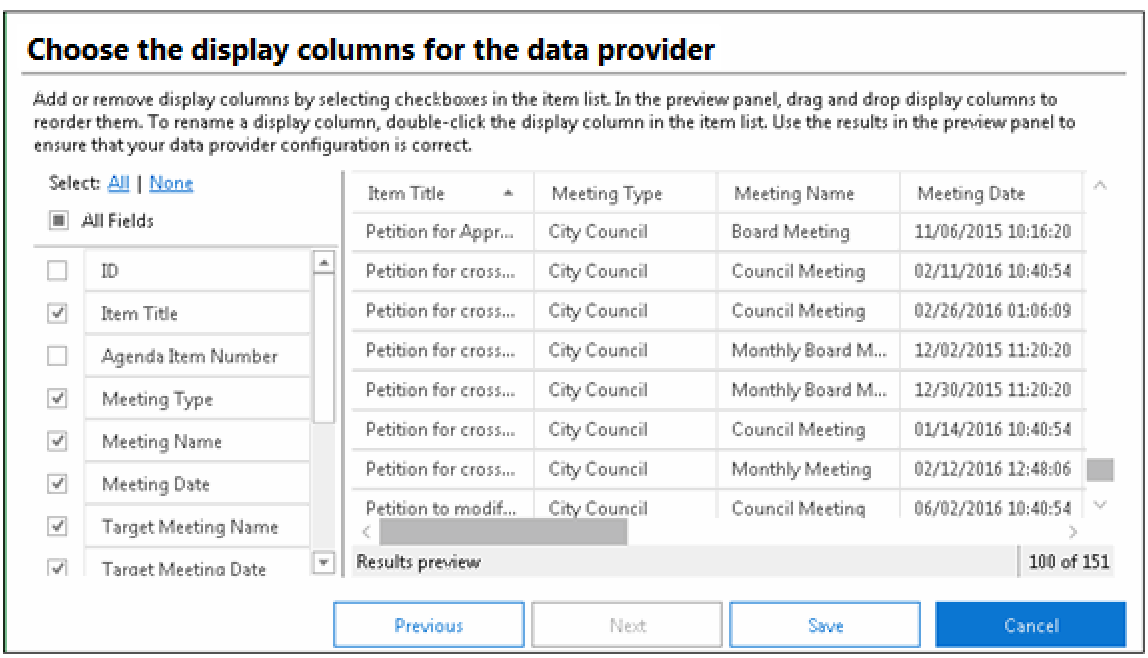
19. Select **Collapse multiple selection** to allow users to collapse the multiple selection list for this parameter. This option is only available if **Allow multiple selection** is also selected.

Note: Without **Allow dynamic logical operator** enabled, the **Allow multiple selection** option is only valid in an **IN** SQL clause.

20. Select **Input required** to require users to enter a value for that parameter. This option is selected by default, but can be deselected if a parameter is optional.
21. Click **OK** on the **Edit SQL Parameter** dialog box to save the configuration and return to the **Configure Runtime Parameters** dialog box.
22. Configure any other runtime parameters.
23. Click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

Note: If the **Restrict user input to select list values** option was selected in the **Edit SQL Parameter** dialog box, you are required to select a default value for the select list prior to selecting display columns for the data provider. Select a value from the drop-down select menu and click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

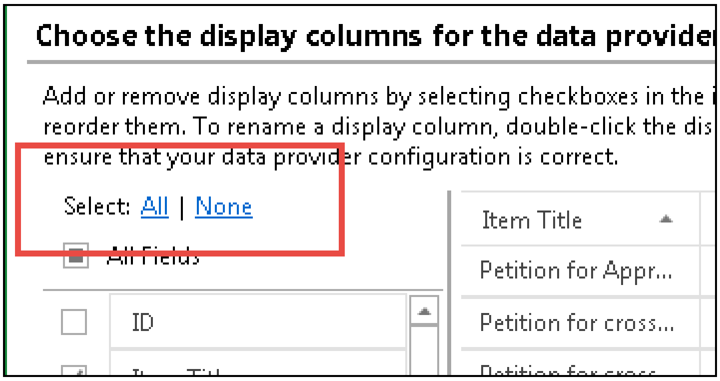
The display columns available depend on the data provider type being configured. If the data provider being configured allowed you to pre-select the display columns available, only the display columns selected earlier in the configuration process are available.



24. Select a display column to include it in the results, or deselect it to hide it.

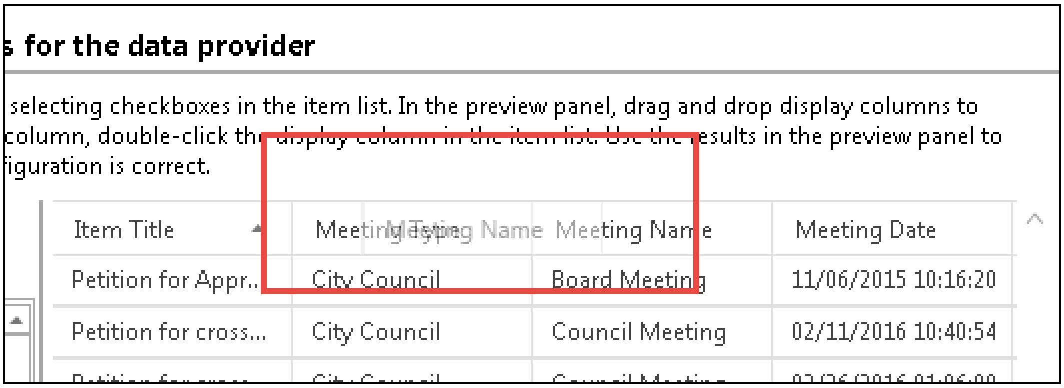
Note: In order for users to be able to open a document directly from a dashboard, the system Keyword Type **Document ID** must be included as a display column.

Click **None** to deselect all display columns or click **All** to select all display columns.



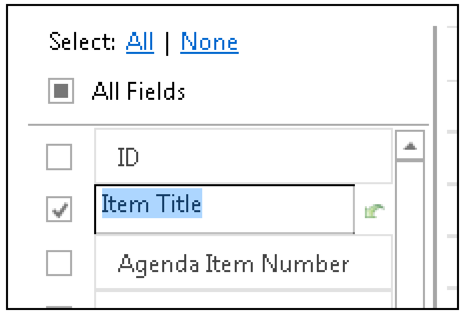
Tip: A preview of the type of data that is returned with the display columns selected is displayed in the preview pane at the right of the list of display columns. If the data returned is not acceptable, select different display columns or click **Previous** to reconfigure previous aspects of the data provider.

25. To reorder the display columns, drag-and-drop the column headings in the preview pane to put them in the desired order.



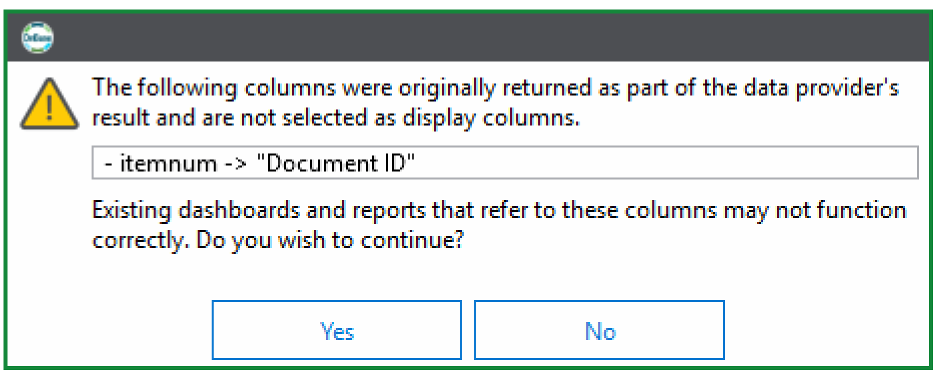
26. To rename a display column, double-click the name in the list, and type the new name in the field provided. Click anywhere outside the field to save the changes.

Note: Display column names must not be blank or end with a space.



27. Click **Save** to save your changes.

    If any display columns were deselected or renamed, a prompt is displayed to confirm that you wish to make these changes, even though these changes may cause existing dashboards and reports to not function correctly.



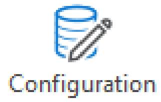
28. Click **Yes** to accept these changes. Click **No** to return to the **Choose the display columns for the data provider** dialog box.

Configuring a Document Query Data Provider

A document query data provider returns data based on Keyword information for documents stored in OnBase.

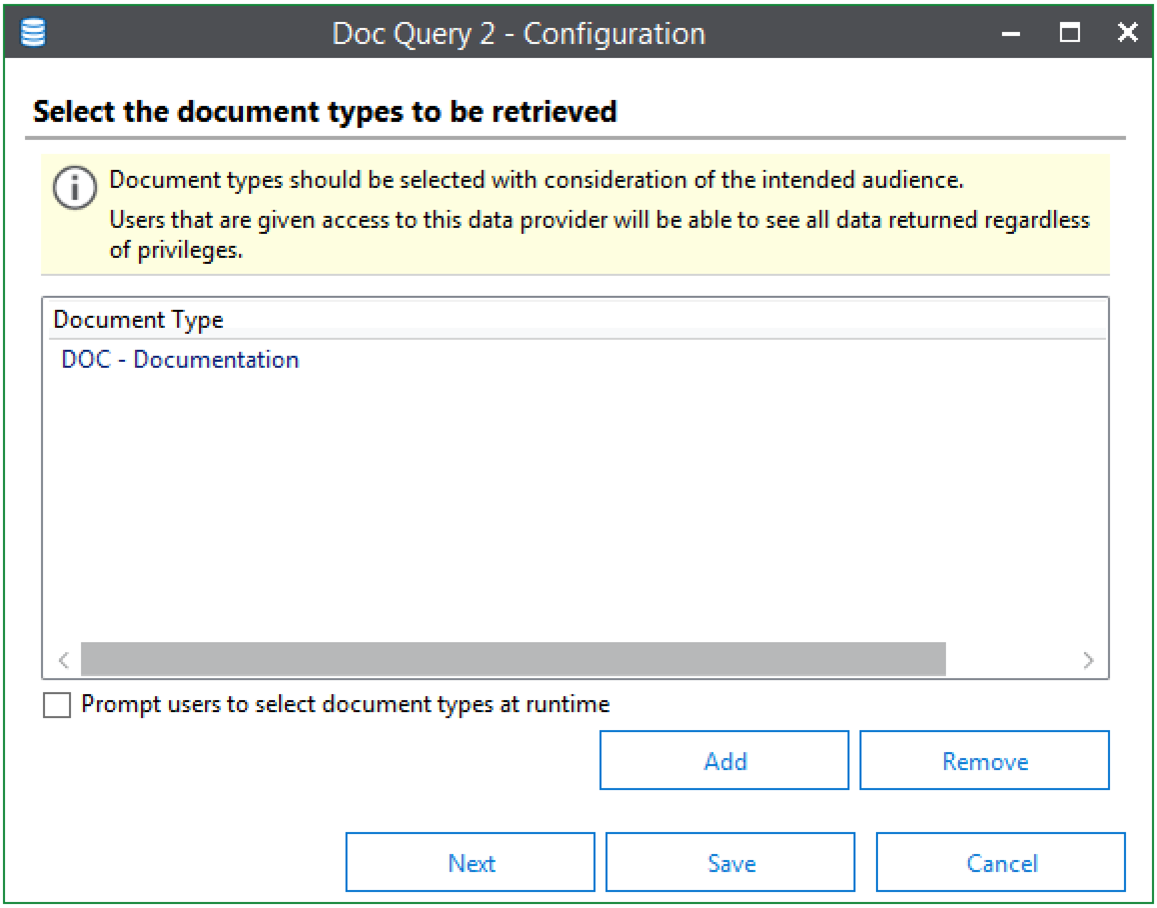
To configure a document query data provider:

1. Select **Data Providers** in the left pane under **Configuration Items**. The data providers configured are listed in the right pane.
2. Select the data provider to configure in the right pane and click **Configuration** in the **Data Provider** ribbon group.



The **Select document types to be retrieved** dialog box is displayed, which lists the Document Types selected for copied data providers

Note: If this is a new data provider or you do not have any Document Types configured, the **Select Document Types** dialog box is automatically displayed over the **Select the document types to be retrieved** dialog box.



3. Select **Prompt users to select document types at runtime** at the lower left of the **Select document types to be retrieved** dialog box to allow users to select the Document Types they have access to in OnBase to include in the results when the dashboard is accessed by them.

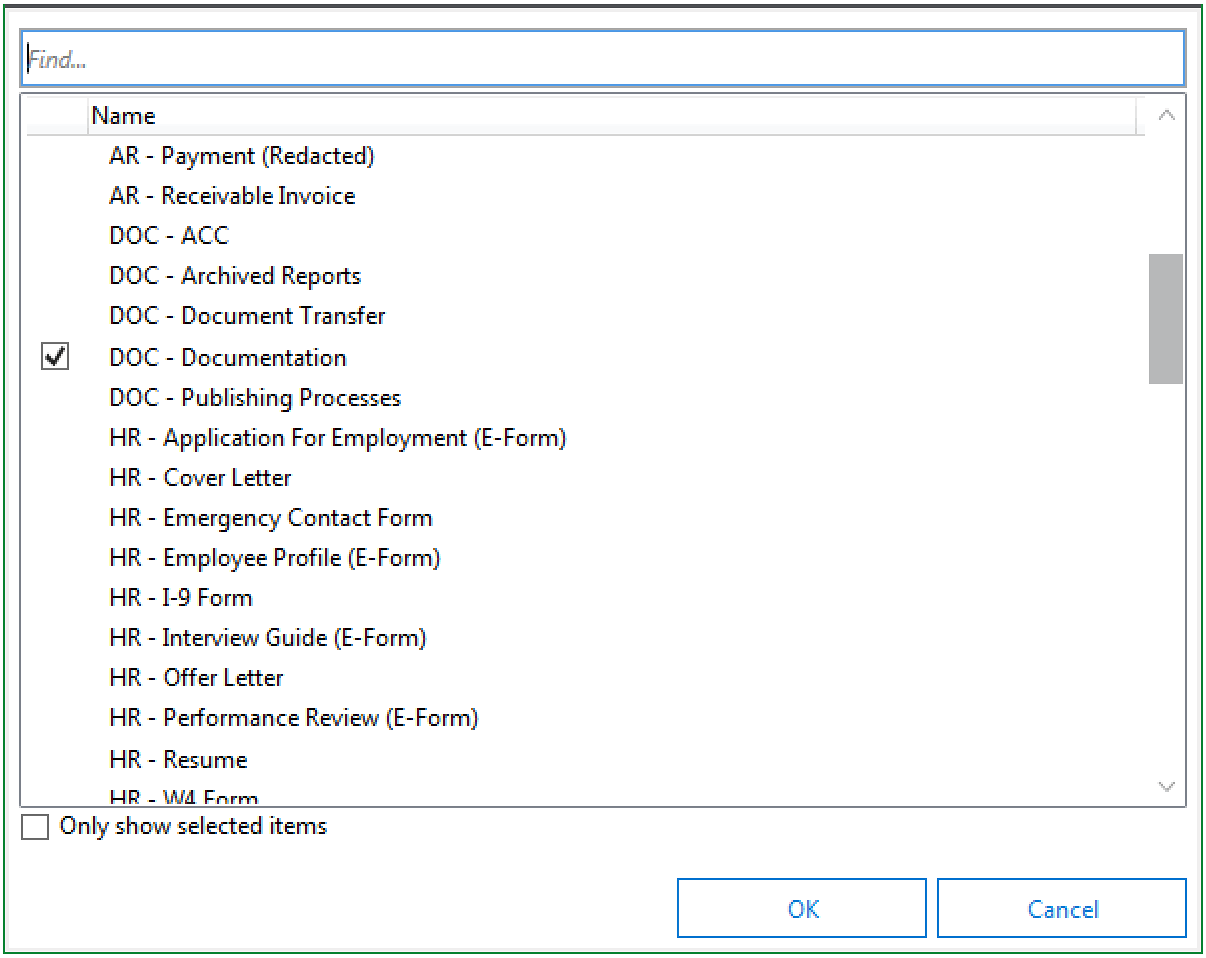
   If **Prompt users to select document types at runtime** is selected, any previously added Document Types are removed and the **Add** and **Remove** buttons are disabled.

Tip: If the **Select Document Types** dialog box was automatically displayed, click **Cancel** to close it and return to the **Select document types to be retrieved** dialog box.

4. To add Document Types if the **Select Document Types** dialog box is not displayed, click **Add**. The **Select Document Types** dialog box is displayed.

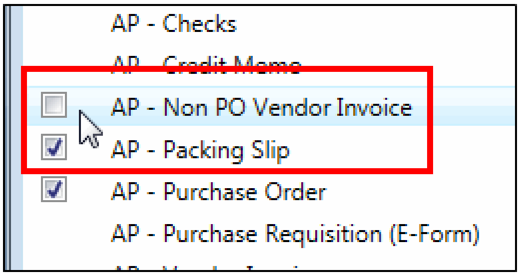
   Only the Document Types you have access to are displayed. Pre-configured Document Types you do not have access to are disabled.

Note: If **Prompt users to select document types at runtime** is selected, any previously added Document Types are removed and the **Add** and **Remove** buttons are disabled.



Tip: To show only previously selected Document Types, select **Only Show Selected Items** at the bottom of the main pane. To find a specific Document Type, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

5. To select a Document Type, move the cursor over the row for that Document Type and select the checkbox that is displayed.

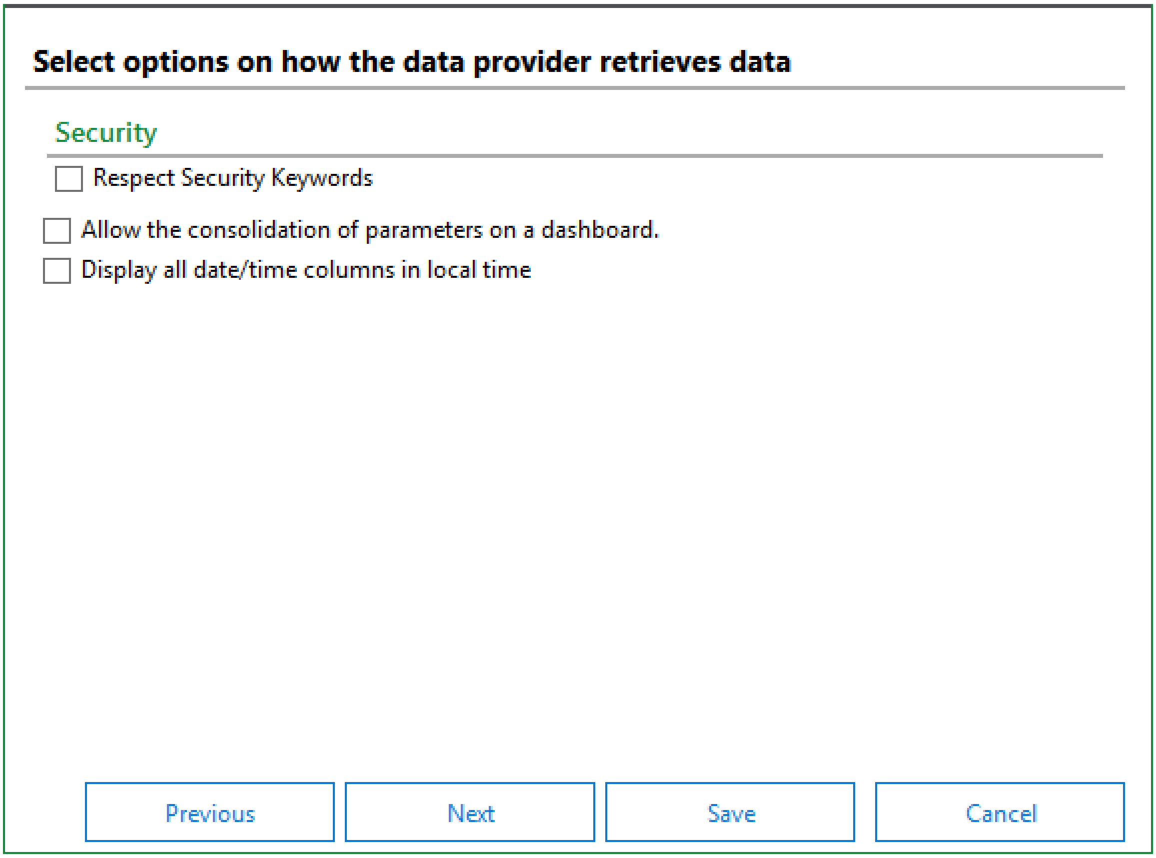


   To remove a Document Type, deselect the checkbox beside the name of the Document Type.
6. Click **OK** at the **Select Document Types** dialog box to save your selections. The **Select the document types to be retrieved** dialog box is displayed, which lists the Document Types selected.

Note: When the a dashboard that uses the configured data provider is accessed by a user, data for all configured Document Types is returned even if the user accessing the dashboard does not have access to those Document Types in OnBase.

7. To remove Document Types from the data provider, select the Document Type to remove and click **Remove**. You are not prompted to confirm this action.

8. Click **Next**. The **Select options on how the data provider retrieves data** dialog box is displayed.



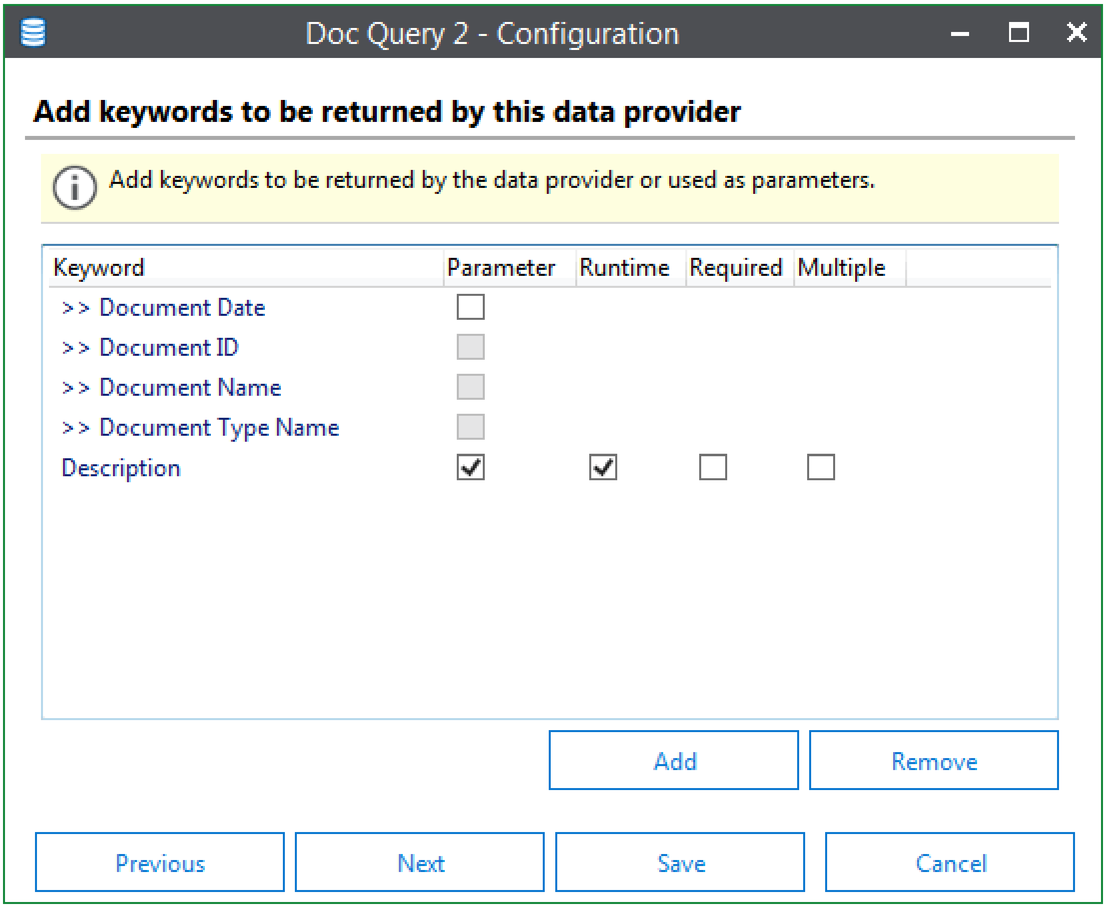
9. Select the options to apply to this data provider:
   - **Respect Security Keywords:** Select this option to ensure the result returned will respect the Security Keyword settings of the user retrieving the data.
   - **Allow the consolidation of parameters on a dashboard:** Select this option to treat the same parameters from different data providers as one parameter in the Input Parameters dialog box.

Note: In order to be consolidated, parameters must share the same data provider type, parameter ID, and have the same reverse-fill sources.

   - **Display all date/time columns in local time:** Select this option to display date and time information in the user's local time

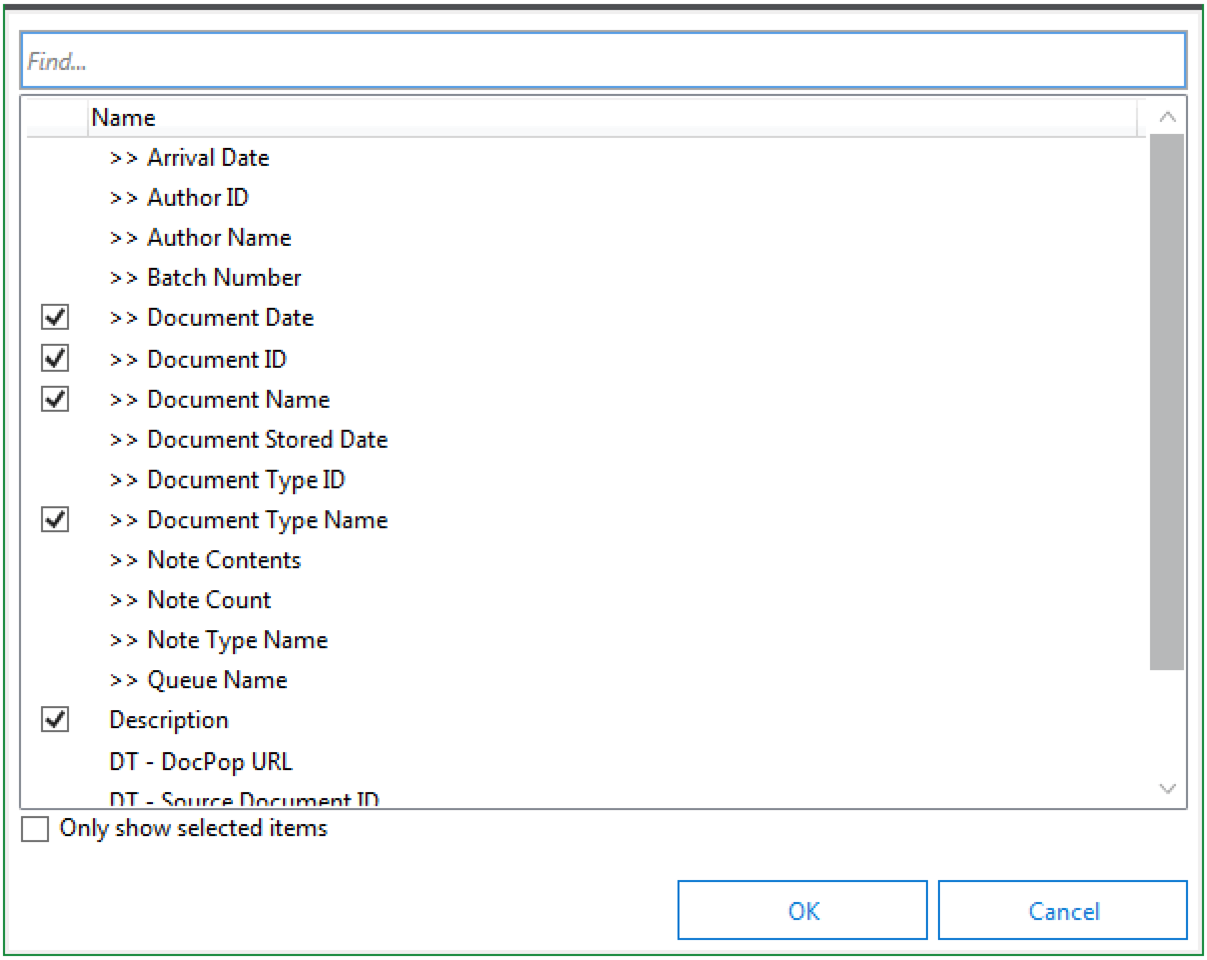
10. Click **Next**. The **Add keywords to be returned by this data provider** dialog box is displayed. Keyword Types that represent document properties, which are added automatically by the system to every document, are denoted with angle brackets **>>** before the Keyword Type name. For example, **>> Content ID** is the field for the Document handle in OnBase (the names can be changed during configuration).

Note: For more information on document properties, see the **System Administration** module reference guide.



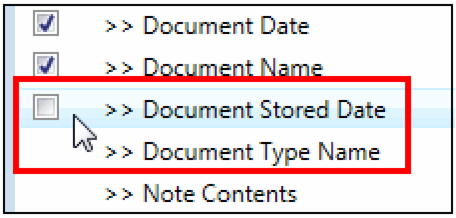
11. To add Keyword Types, click **Add**. The **Select Keyword(s)** dialog box is displayed.

Note: Keywords are automatically selected as display columns when they are added to a data provider.



Tip: To show only previously selected Keyword Types, select **Only Show Selected Items** at the bottom of the main pane. To find a specific Keyword Type, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

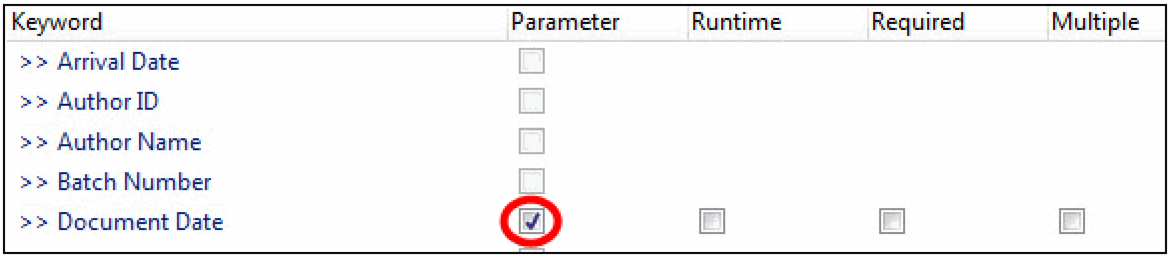
12. To select a Keyword Type, move the cursor over the row for that Keyword Type and select the checkbox that is displayed.



To remove a Keyword Type, deselect the check box beside the name of the Keyword Type. Keyword Types that represent document properties are denoted with angle brackets **>>** before the Keyword Type name.

Note: Security Keyword settings are respected by Reporting Dashboards.

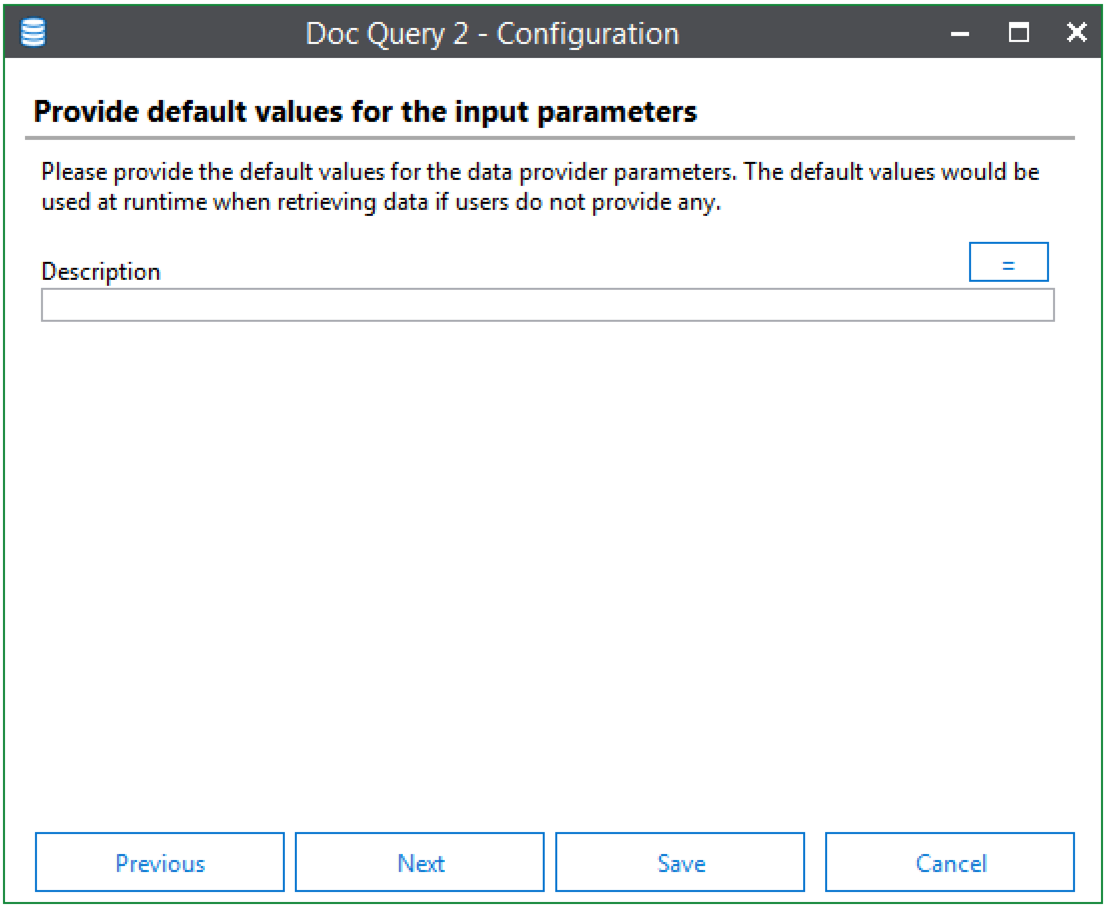
13. Click **OK** at the **Select Keyword(s)** dialog box to save your selections. You are returned to the **Select the keyword(s) to be displayed and/or used as parameter(s)** dialog box.
14. To remove Keyword Types from the data provider, select the Keyword Type to remove and click **Remove**. You are not prompted to confirm this action.
15. To include the Keyword Type as a runtime parameter, select the **Parameter** checkbox next to the Keyword Type. Runtime parameters help you limit the data returned by the data provider.



Tip: To reduce the processing requirements of Reporting Dashboards, it is a best practice to configure required runtime parameters for every Data Provider, or configure parameters with default values to be used if a value is not entered.

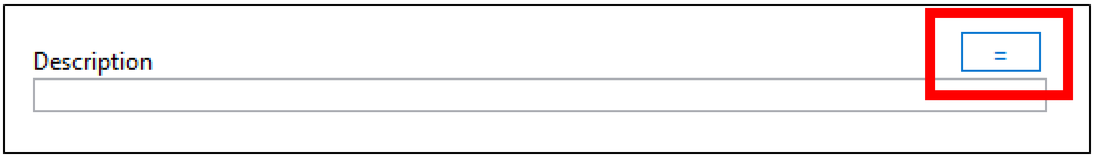
16. If the **Parameter** checkbox is selected you can configure additional options for the parameter:
    - **Runtime:** Select this option to allow the user to change the default value of the parameter when the data provider is used.
    - **Required:** If **Runtime** is selected, you can also select the **Required** option to force the user to enter a value for the Keyword Type before returning data for the data provider.
    - **Multiple:** Select this option to allow the user to select multiple values for the parameter if the parameter is a drop-down list.

17. Click **Next**. If **Parameter** was selected for any Keywords, the **Provide default values for the runtime parameters** dialog box is displayed. The data entry fields available in this dialog box depend on the Keywords that need to be configured.



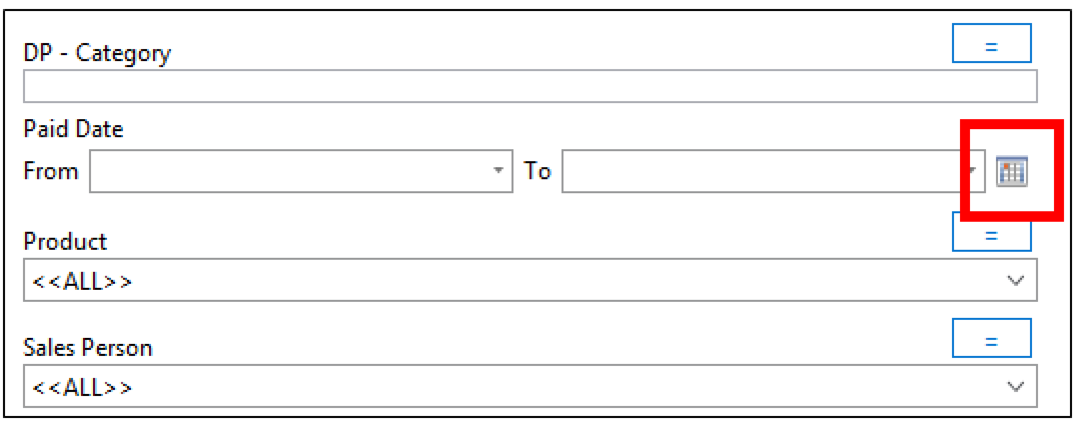
The type of data entry fields depends on the Keyword Types that default values can be configured for. The character length of input values is limited to the length specified by the corresponding Keyword Type value.

For text fields, enter the default value and select a logical operator that defines how the value entered is compared to the value returned by the data provider. The data is used in the dashboard only if the result of the logical operator is true.



Logical Operator	Description
=	The value entered is the same as the value returned.
>	The value entered is greater than the value returned. This operator only applies to numeric data.
>=	The value entered is greater than or equal to the value returned. This operator only applies to numeric data.
<	The value entered is less than the value returned. This operator only applies to numeric data.
<=	The value entered is less than or equal to the value returned. This operator only applies to numeric data.
<>	The value entered is not the same as the value returned.

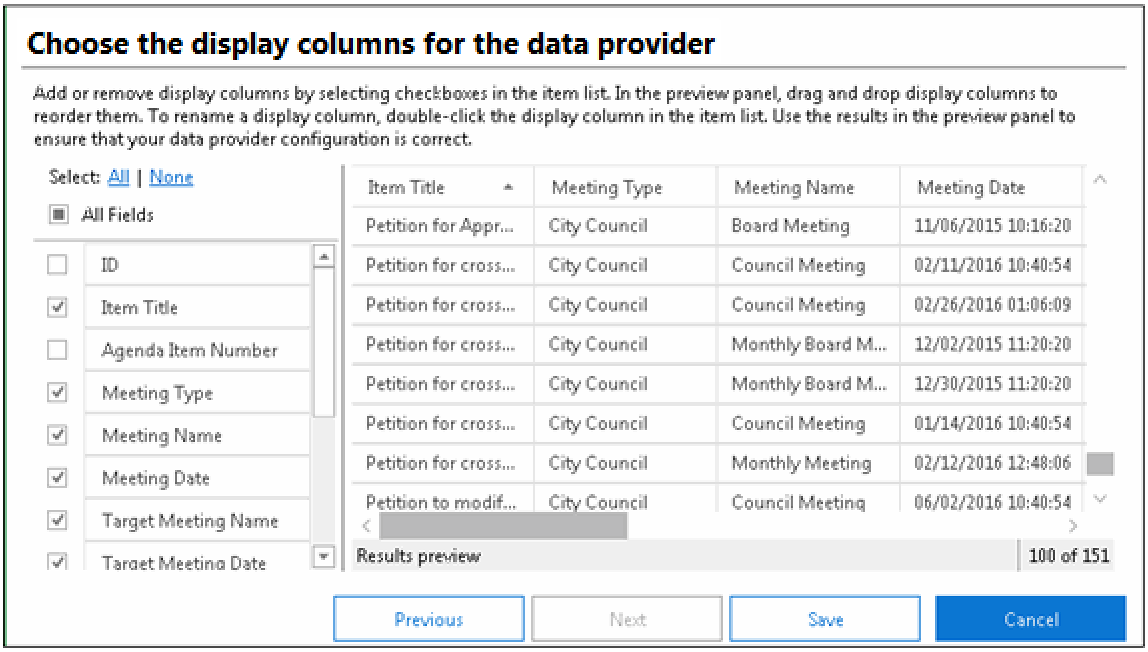
For date fields, enter the default dates in the **From** and **To** fields or click the calendar button to select a date from a graphical calendar.



18. Click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

Note: If the **Restrict user input to select list values** option was selected in the **Edit SQL Parameter** dialog box, you are required to select a default value for the select list prior to selecting display columns for the data provider. Select a value from the drop-down select menu and click **Next**. The **Choose the display columns for the data provider** dialog box is displayed.

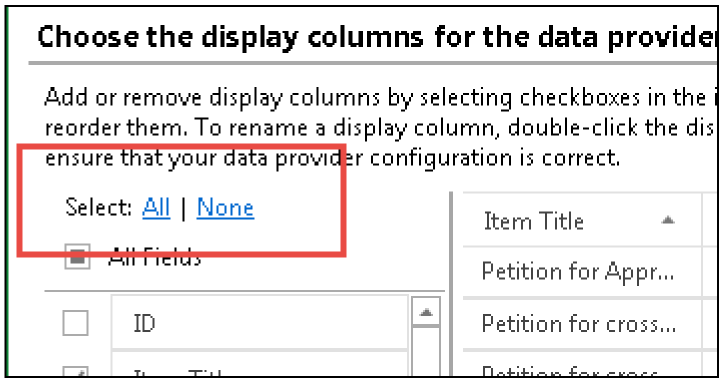
The display columns available depend on the data provider type being configured. If the data provider being configured allowed you to pre-select the display columns available, only the display columns selected earlier in the configuration process are available.



19. Select a display column to include it in the results, or deselect it to hide it.

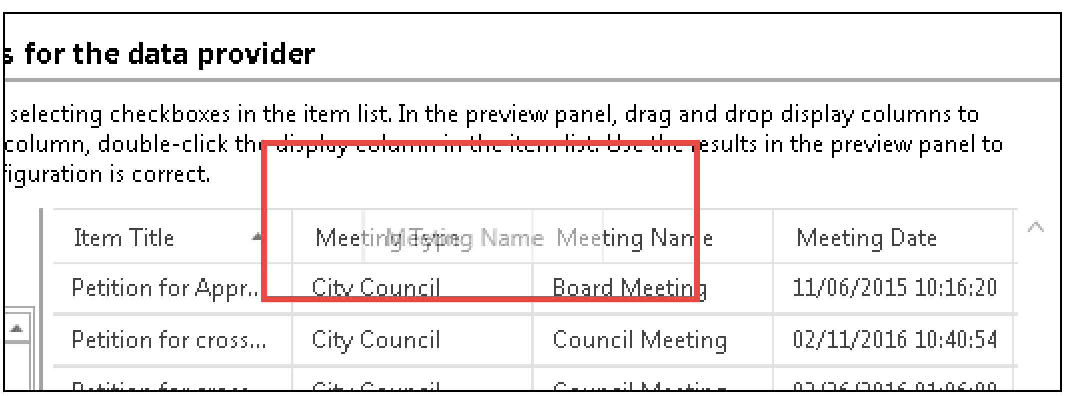
Note: In order for users to be able to open a document directly from a dashboard, the system Keyword Type **Document ID** must be included as a display column.

Click **None** to deselect all display columns or click **All** to select all display columns.



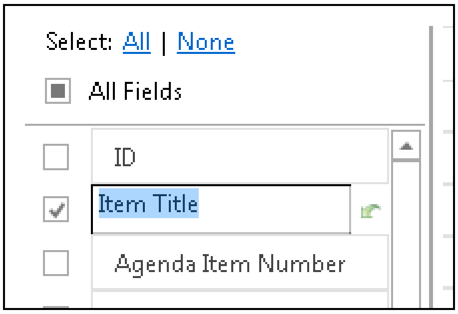
Tip: A preview of the type of data that is returned with the display columns selected is displayed in the preview pane at the right of the list of display columns. If the data returned is not acceptable, select different display columns or click **Previous** to reconfigure previous aspects of the data provider.

20. To reorder the display columns, drag-and-drop the column headings in the preview pane to put them in the desired order.



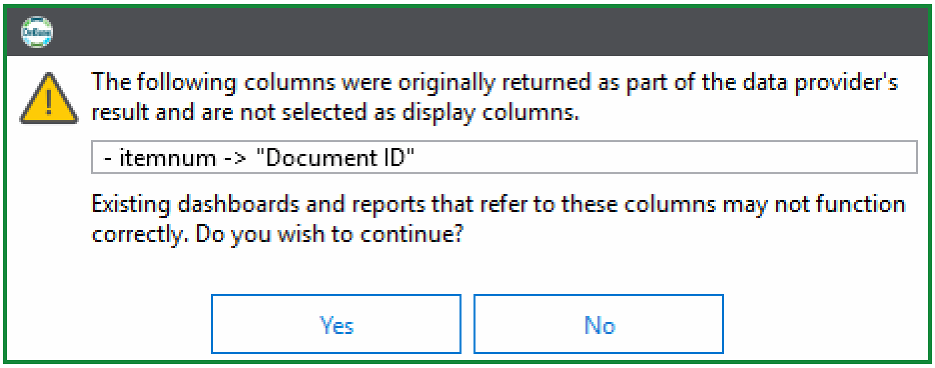
21. To rename a display column, double-click the name in the list, and type the new name in the field provided. Click anywhere outside the field to save the changes.

Note: Display column names must not be blank or end with a space.



22. Click **Save** to save your changes.

    If any display columns were deselected or renamed, a prompt is displayed to confirm that you wish to make these changes, even though these changes may cause existing dashboards and reports to not function correctly.



23. Click **Yes** to accept these changes. Click **No** to return to the **Choose the display columns for the data provider** dialog box.

Maintenance and Design

Dashboards and reports can be added and configured from both the Gallery and Administration areas. Bulk changes to category and user assignments for multiple dashboards can only be completed in the Administration area.

For details on changing individual dashboards, see Changing Existing Dashboards on page 35.

For details on changing individual reports, see Changing Existing Reports on page 160.

For details on making bulk changes, see Making Bulk Changes to Multiple Dashboards or Reports on page 289.

Making Bulk Changes to Multiple Dashboards or Reports

Changes to the users, User Groups, data providers, and categories assigned to dashboards and reports can be made in bulk to multiple dashboards or reports at the same time.

See:

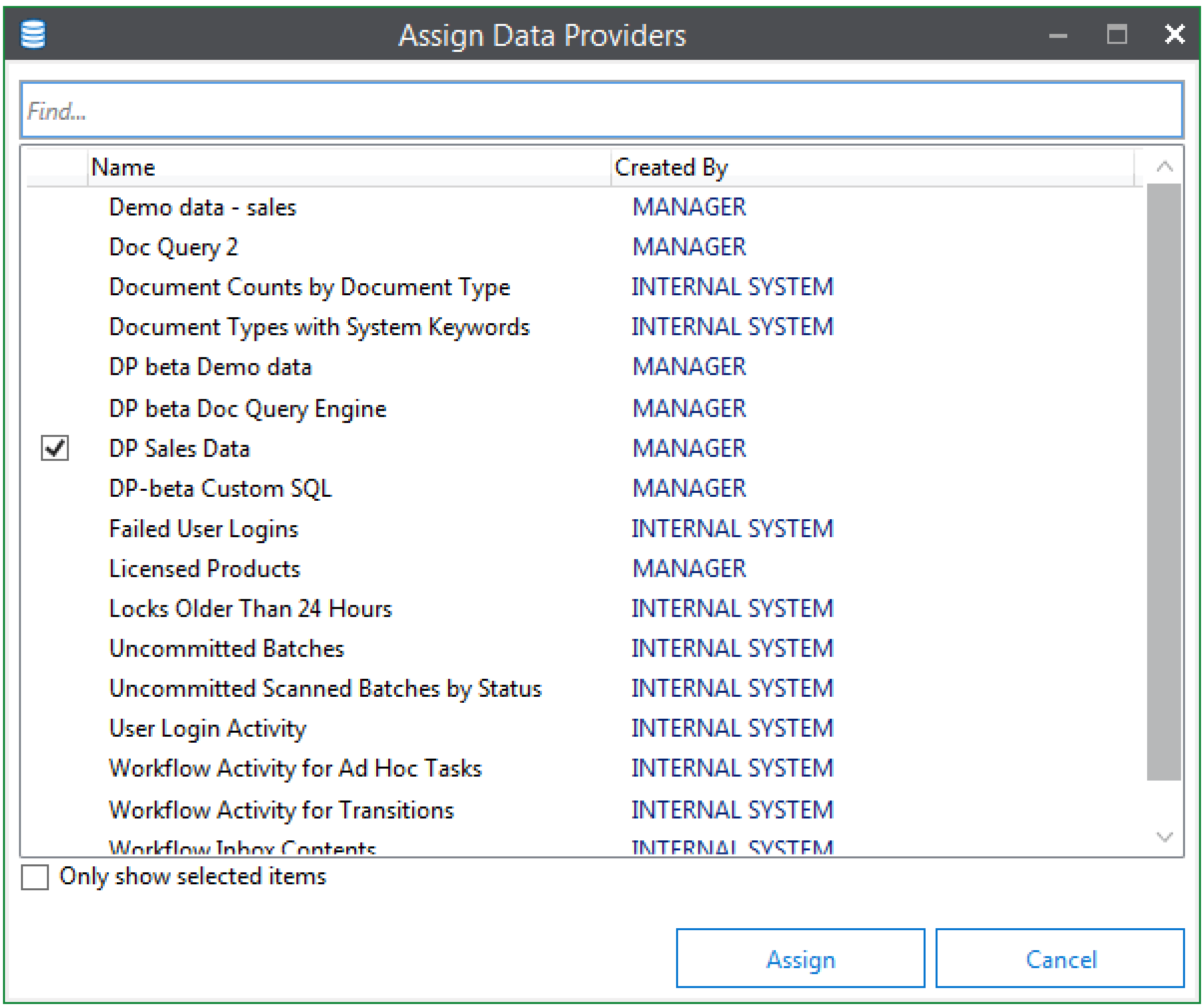
- Bulk Changes to Data Provider Assignments on page 290
- Bulk Changes to Category Assignments on page 294
- Bulk Changes to User and User Group Assignments on page 295

Bulk Changes to Data Provider Assignments

To change the data provider assignments of multiple dashboards or reports:

1. Select **Dashboards** or **Reports** in the left pane under **Configuration Items**. The dashboards configured are listed in the right pane.
2. Select the dashboards or reports to change in the right pane and click **Assign Data Providers** in the **Actions** ribbon group.

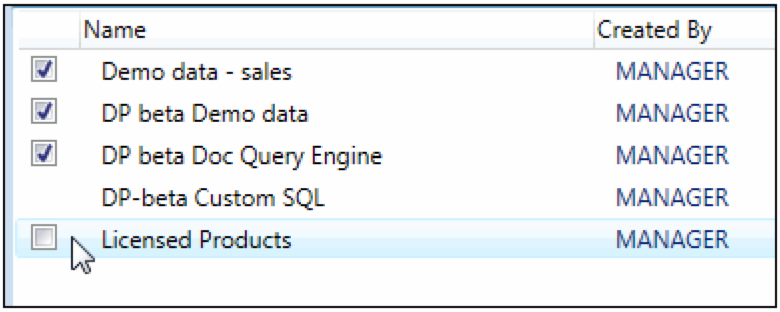
The **Assign Data Providers** dialog box is displayed.



Tip: To show only previously selected data providers for a dashboard, select **Only show**

selected items at the bottom of the main pane. This check box will not appear for reports. To find a specific data provider, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

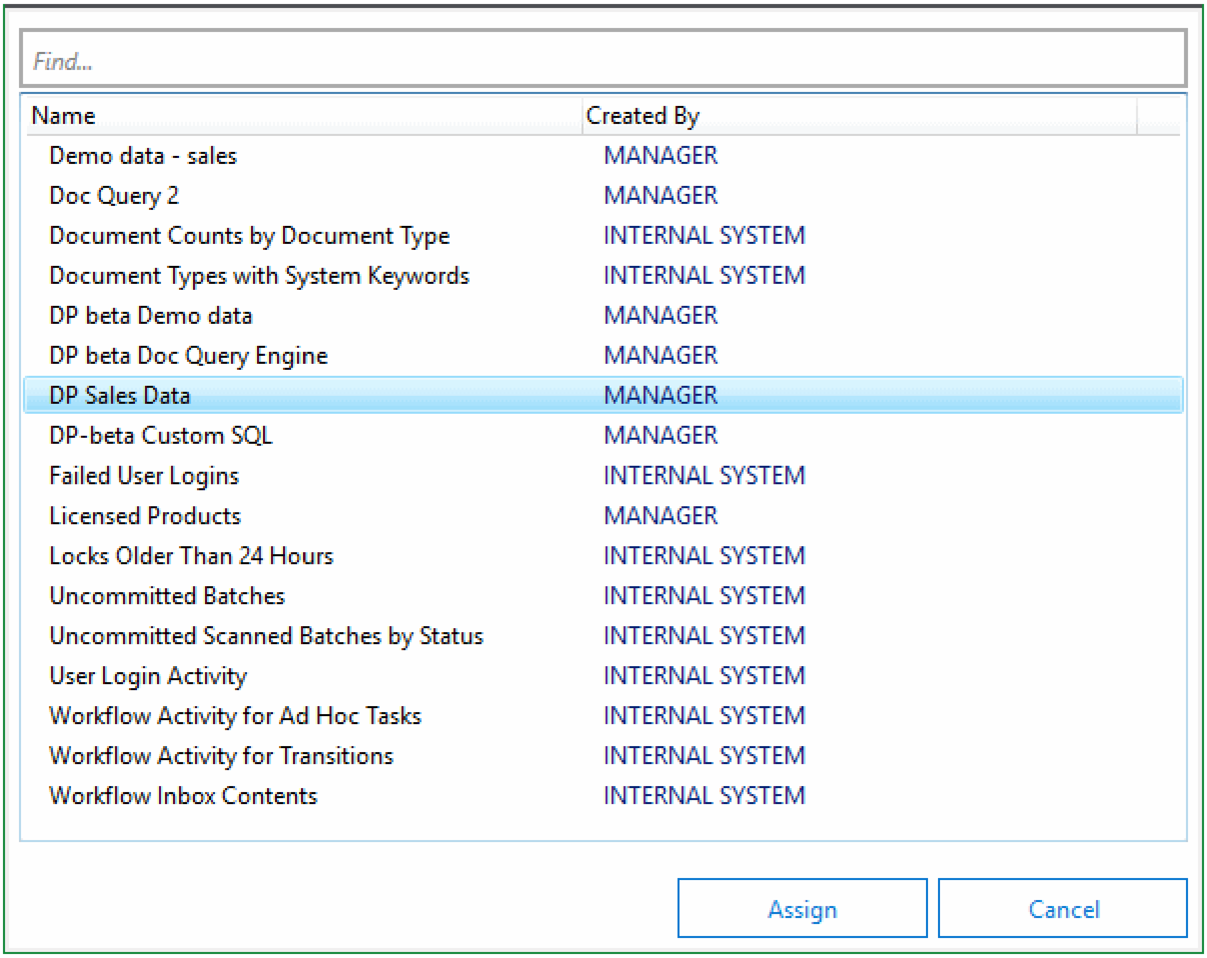
3. To assign a data provider to all dashboards selected, move the cursor over the row for that data provider and select the check box that is displayed.



Data providers that are currently assigned to some, but not all, of the dashboards selected have the selection box filled in:

To remove a data provider from all dashboards selected, deselect the check box beside the name of the data provider.

To assign a data provider for a report, move the cursor over the row to select the data provider and click to select that provider.



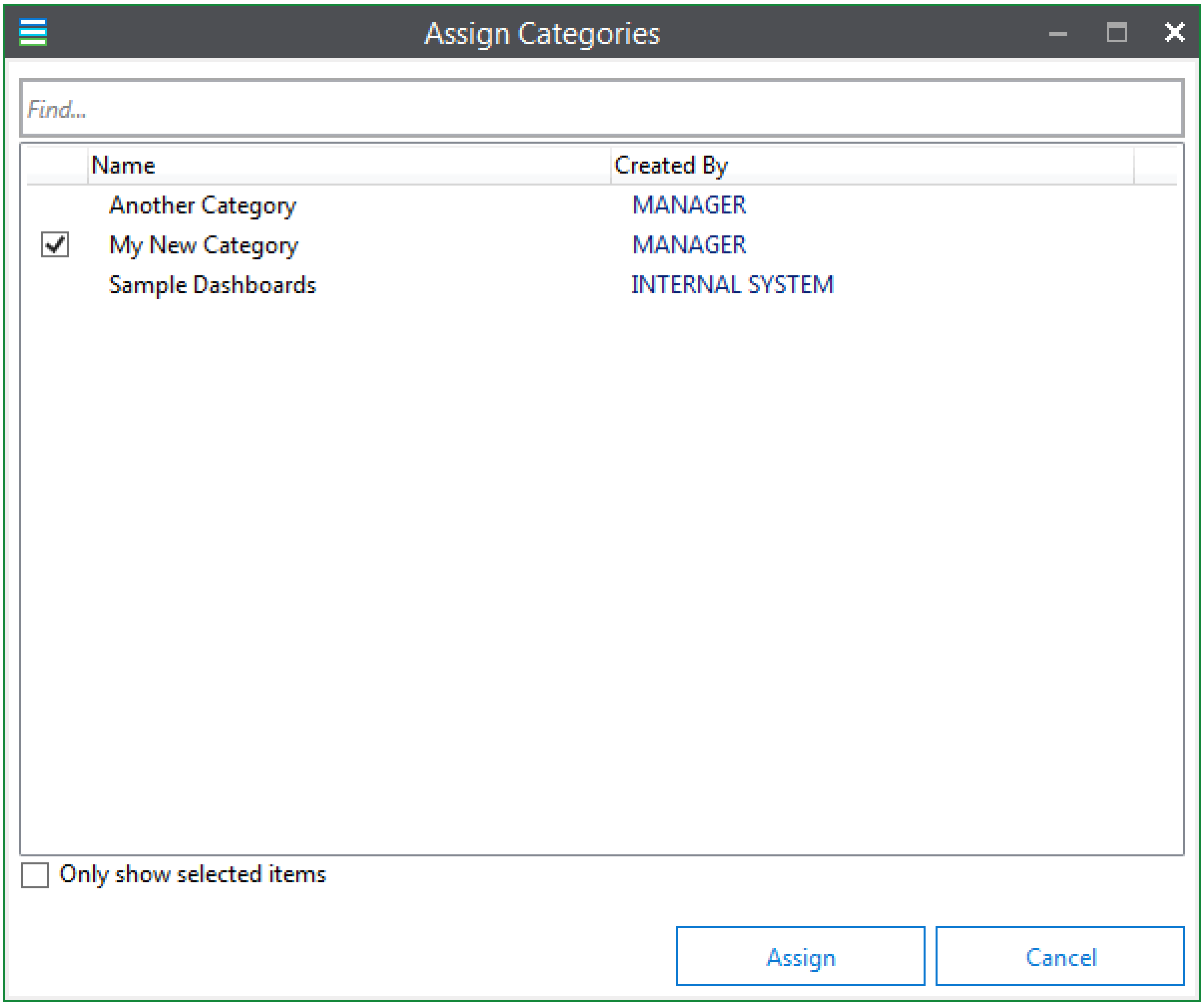
4. Click **Assign** to save your changes.

Bulk Changes to Category Assignments

To change the category assignments of multiple dashboards:

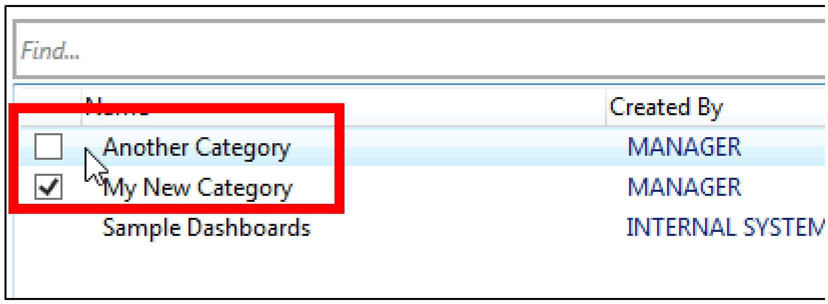
1. Select **Dashboards** or **Reports** in the left pane under **Configuration Items**. The dashboards or reports configured are listed in the right pane.
2. Select the dashboards or reports to change in the right pane and click **Assign Categories** in the **Actions** ribbon group.

The **Assign Categories** dialog box is displayed.



Tip: To show only previously selected categories, select **Only show selected items** at the bottom of the main pane. To find a specific category, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

3. To assign a category to all dashboards or reports selected, move the cursor over the row for that category and select the check box that is displayed.



   Categories that are currently assigned to some, but not all, of the dashboards or reports selected have the selection box filled in:

   To remove a category from all dashboards or reports selected, deselect the check box beside the name of the category.
4. Click **Assign** to save your changes.

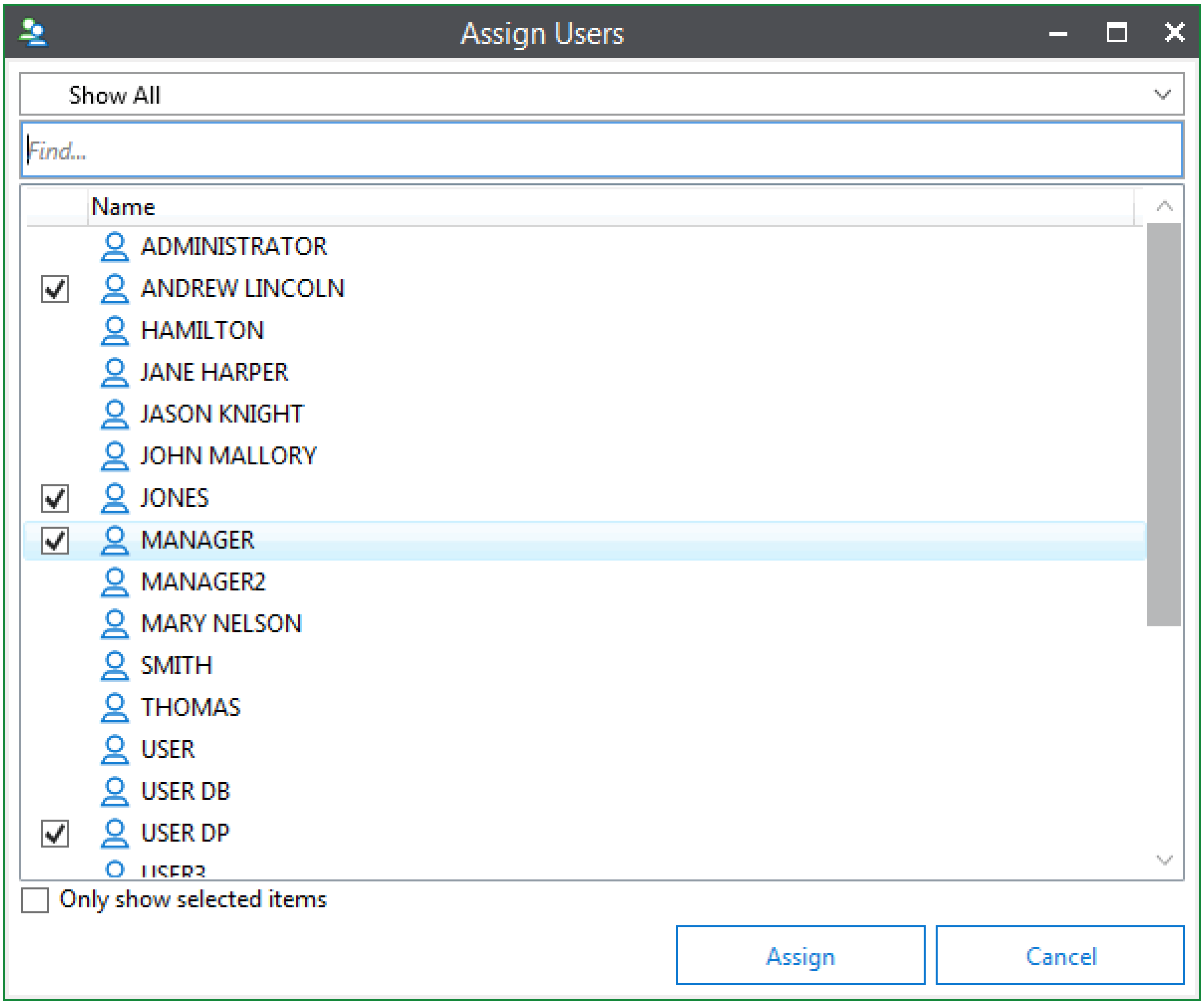
Bulk Changes to User and User Group Assignments

Changes to user and User Group assignments can be made in bulk to multiple dashboards. When users or User Groups are added in bulk they are given read-only access to the dashboard with no extra permissions.

To change the user and User Group assignments of multiple dashboards in the Administration area:

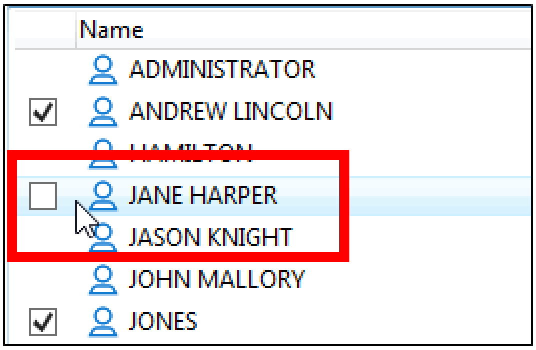
1. Select **Dashboards** or **Reports** in the left pane under **Configuration Items**. The dashboards or reports configured are listed in the right pane.
2. Select the dashboards or reports to change in the right pane and click **Assign Users** in the **Actions** ribbon group.

The **Assign Users** window is displayed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only user groups, select **User Group** from the drop-down list. To find a specific user or user group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only Show Selected Items** at the bottom of the main pane.

3. To select a user, move the cursor over that user's row and select the check box that is displayed.



To remove a user's access, deselect the check box beside the user's name.

Note: Access cannot be changed for the owner.

4. Click **Assign** to save your user selections. When users or User Groups are added in bulk, they are given read-only access to the dashboard or report with no extra permissions.

Category Administration

Categories allow similar or related dashboards to be grouped together in the Gallery view, making them easier for users to find.

See:

- Creating New Categories on page 297
- Changing Existing Categories on page 304

Creating New Categories

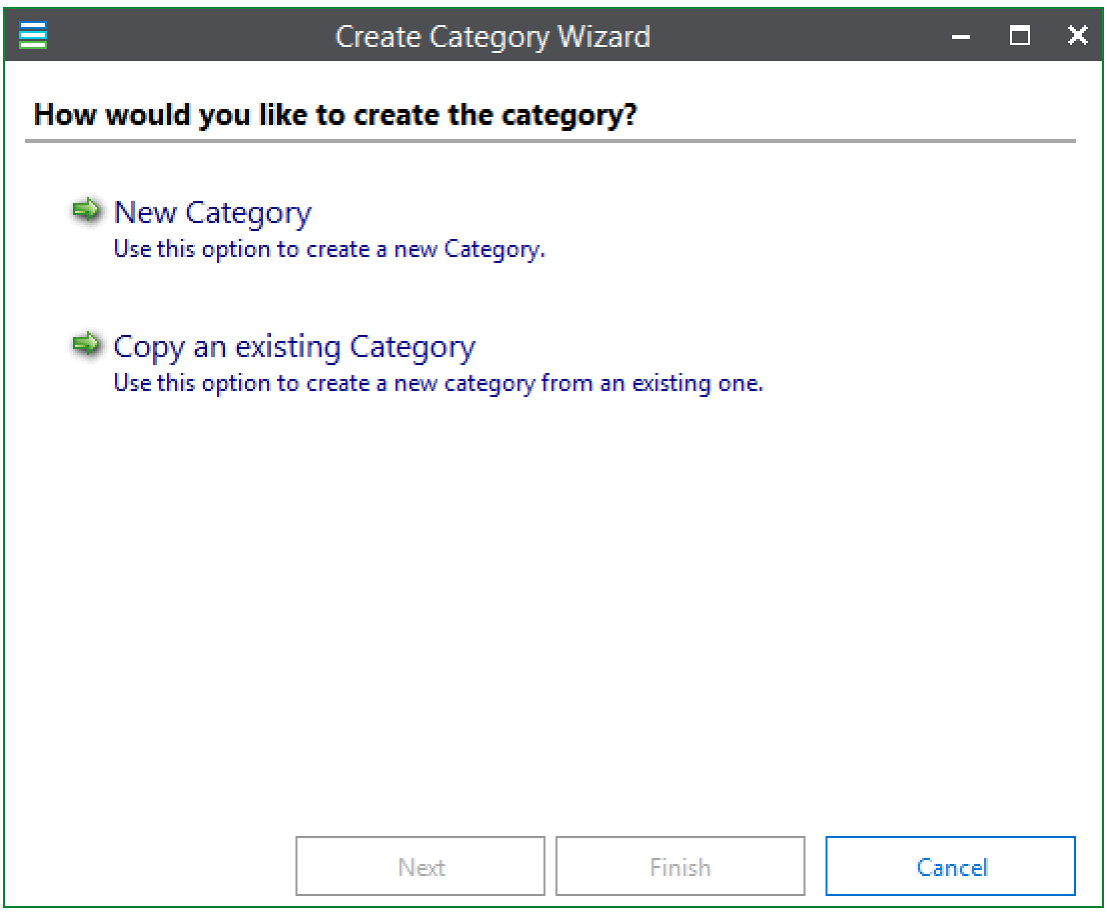
The Create Category Wizard is used to create new categories. Categories allow similar or related dashboards or reports to be grouped together in the Gallery view, making them easier for users to find. One category can include both dashboards and reports.

The process is the same for copying an existing category or creating a completely new category, except the options are pre-configured with the information from the category that was copied if you choose to copy an existing category. The pre-configured options for copied categories can be changed or edited to reflect the requirements of the new category, unless otherwise noted.

To create a new category:

1. Launch the Create Category Wizard by clicking the **Create new Category** button on the **Category Administration** ribbon of the Unity Client:

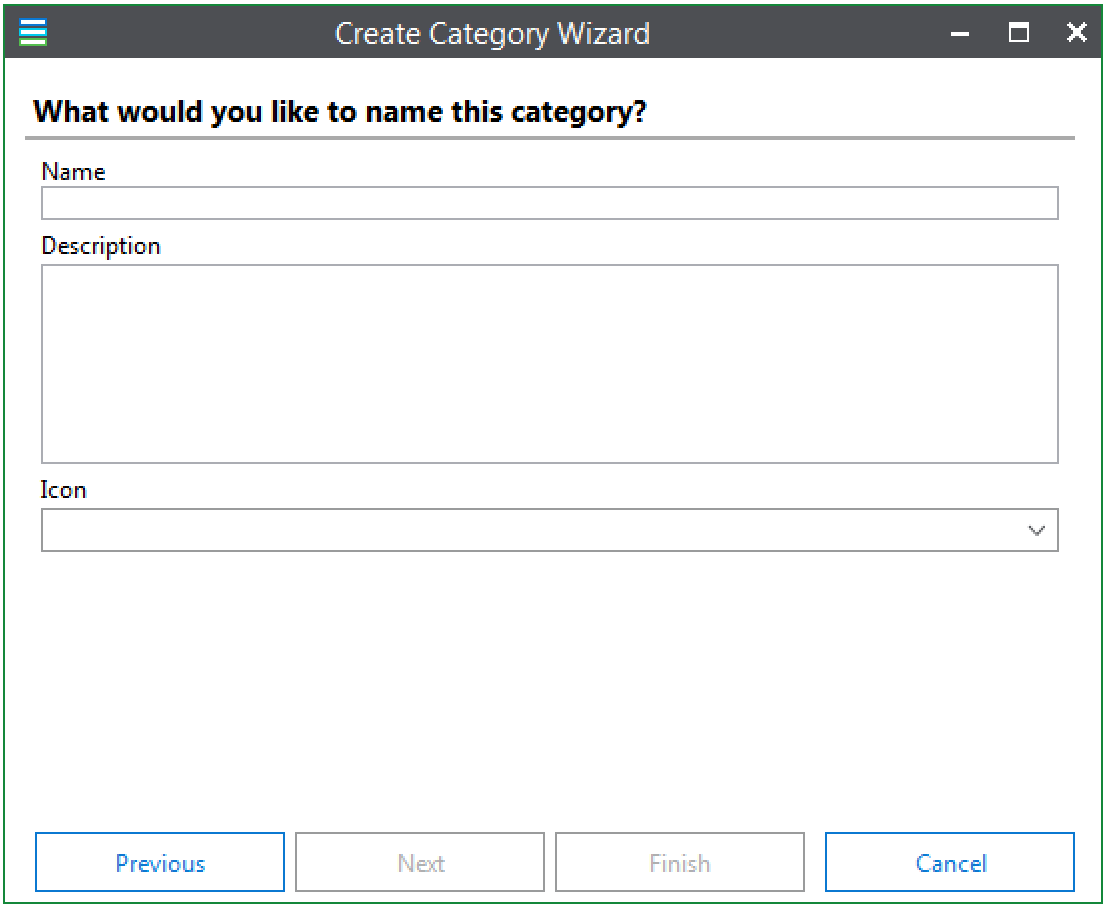
2. At the **How would you like to create the category?** dialog box:
   - Click **Create new Category** to create a completely new data provider.
   - Click **Copy an existing Category** to use an existing category as the template for a new category. The process is the same as creating a completely new category except the options are pre-configured with the information from the category that was copied. The pre-configured options can be changed or edited to reflect the requirements of the new category, unless otherwise noted.



3. If you clicked **Create new Category**, the **What would you like to name this category?** page is displayed.

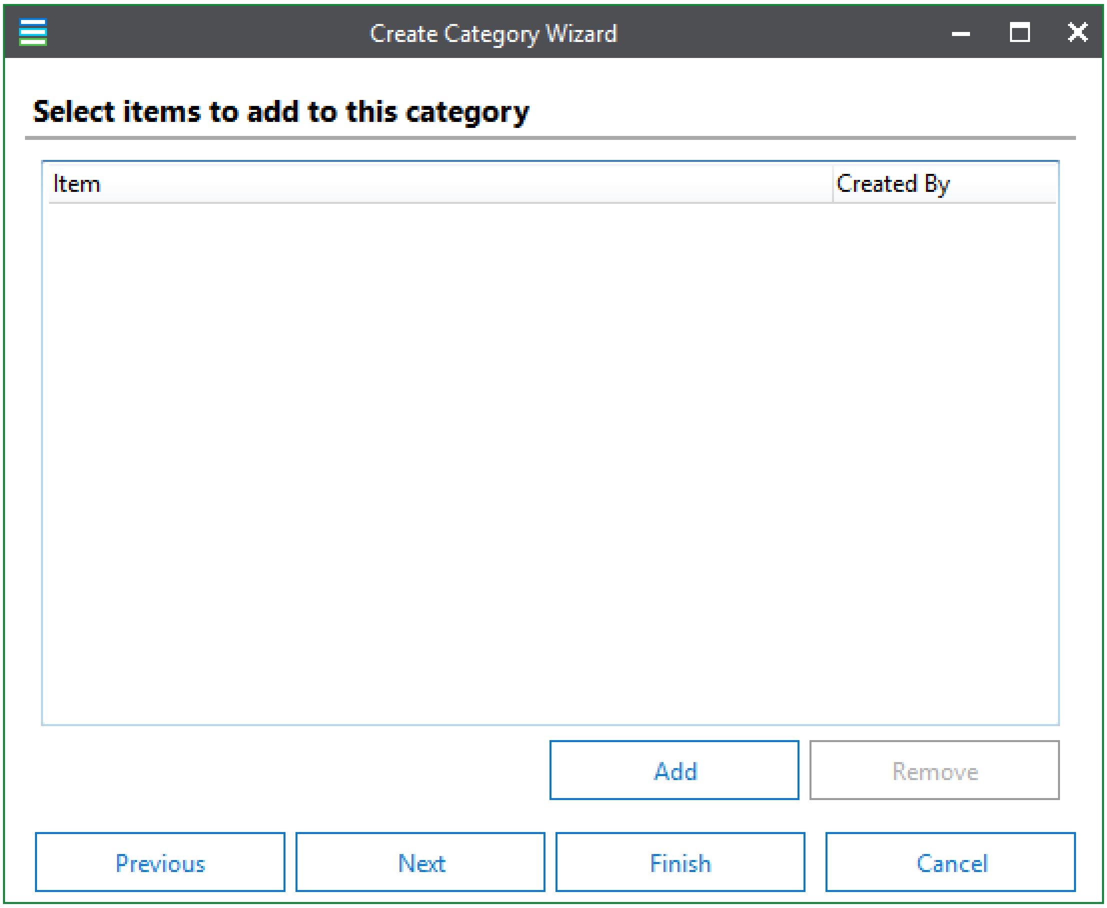
   If you clicked **Copy an existing Category**, the **Select the category to copy from** page is displayed. You can search for a category to copy by typing the name of the category into the **Search** bar in this page. Select the category to copy, then click **Next**. The **What would you like to name this category?** page is displayed.

Note: When a category is copied, the options in the remaining pages are pre-configured with the information from the category that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new category.

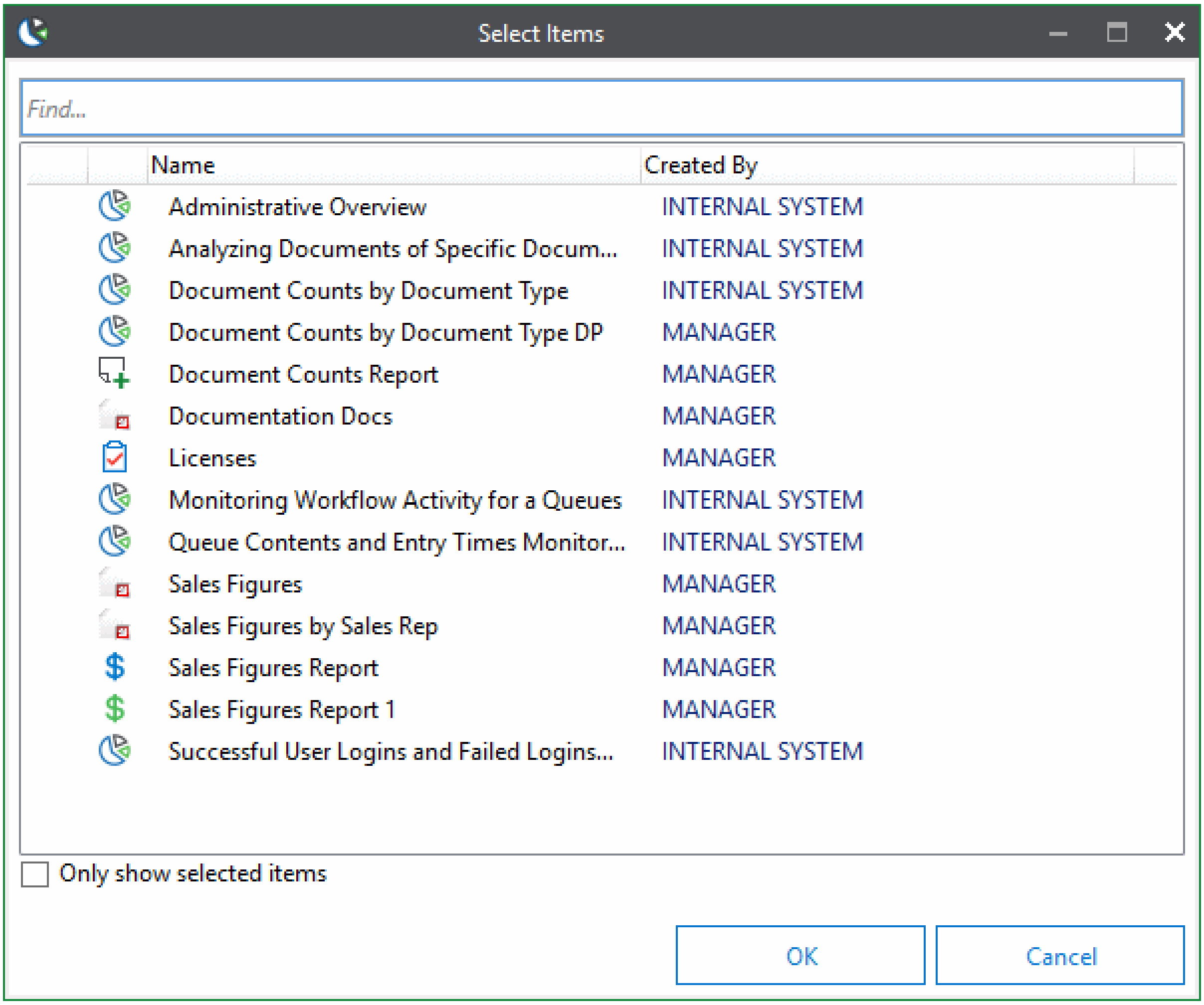


4. Type a name for the category in the **Name** field. The name must be unique compared to other categories created by the same user, but may share a name with categories created by other users. The name should logically describe the kinds of dashboards or reports that will be assigned to it.
5. Type a description of the category in the **Description** field. The description should briefly explain what the intended purpose of the category is and what type of dashboards or reports a user can expect to see under it.

6. Select an icon for the category from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find categories more easily if there are multiple categories available.
7. Click **Next**. The **Select items to add to this category** page is displayed.

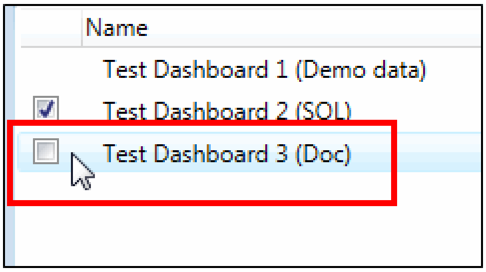


8. To add dashboards or reports to the category, click **Add**. The **Select Items** page is displayed.



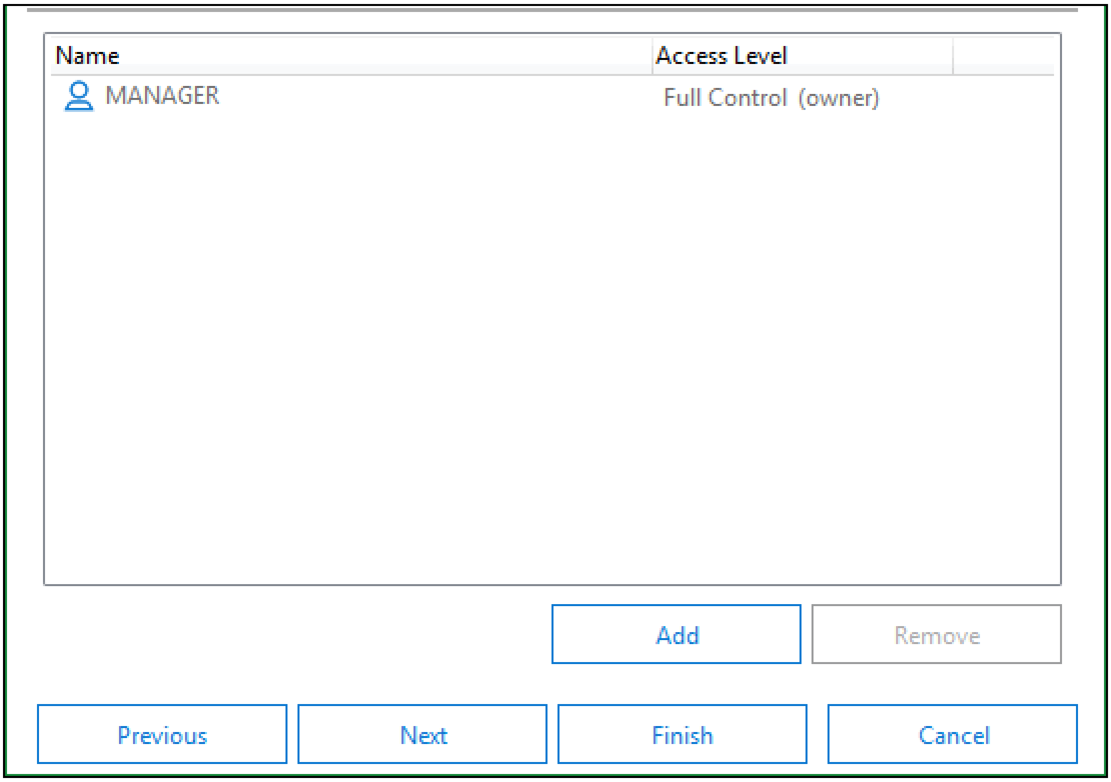
Tip: To show only previously selected item, select **Only Show Selected Items** at the bottom of the main pane. To find a specific item, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

9. To select a dashboard or report, move the cursor over the row for that item and select the check box that is displayed.

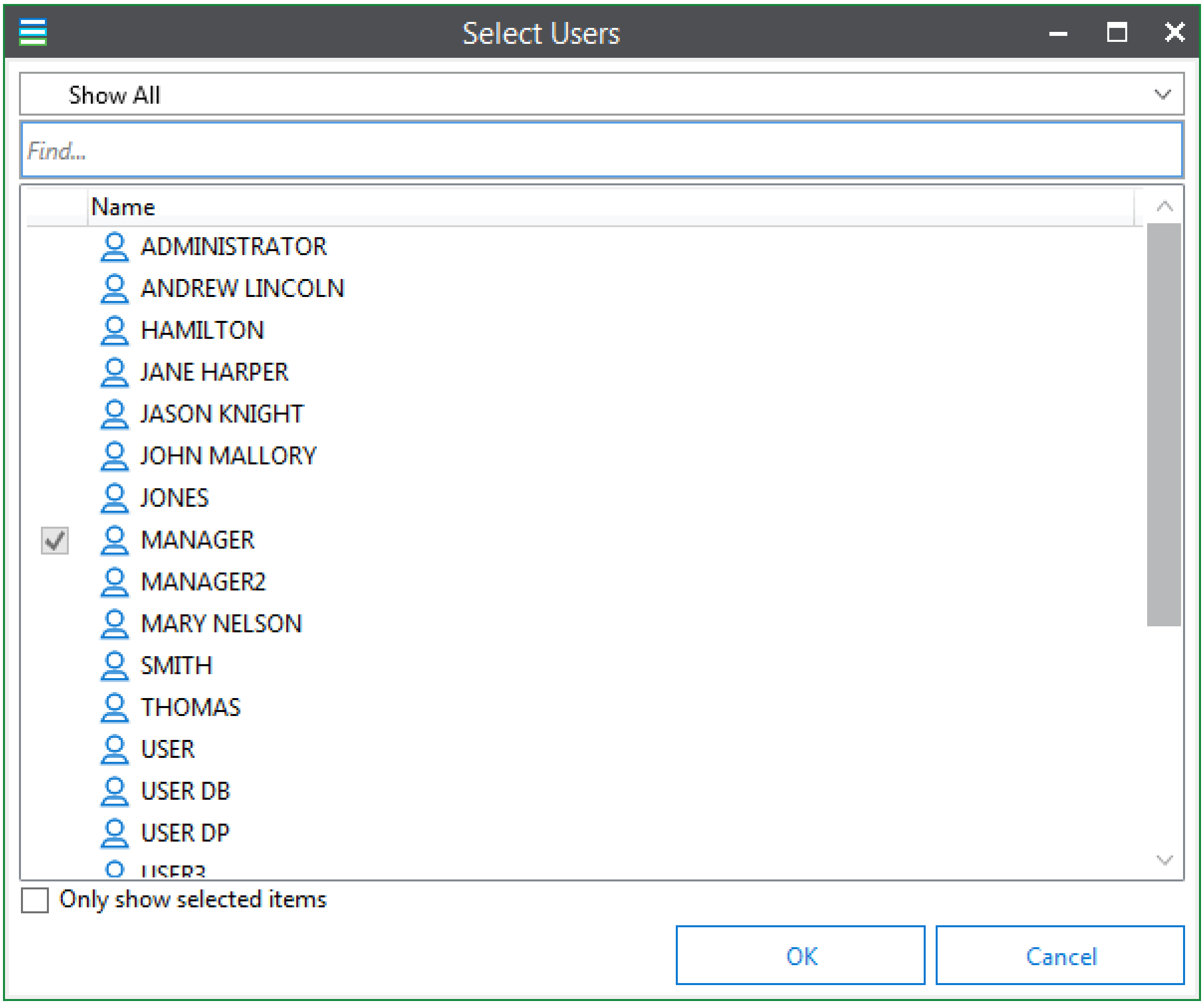


   To remove a dashboard or report, deselect the check box beside the name of the item.

10. Click **OK**. The **Select items to add to this category** dialog box is displayed, which lists the dashboards selected.
11. To remove dashboards from the category, select the dashboard to remove and click **Remove**. You are not prompted to confirm this action.
12. Click **Next**. The **Who would you like to have access to this category?** page is displayed.

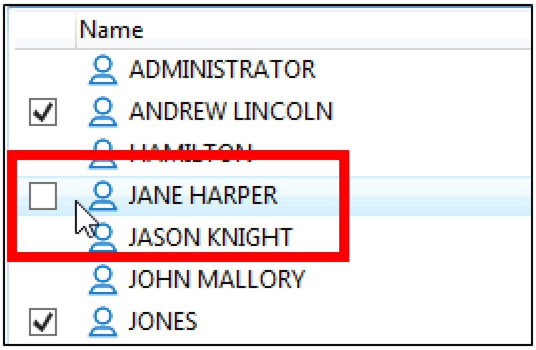


13. To grant access to a new user, click **Add**. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only user groups, select **User Group** from the drop-down list. To find a specific user or user group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only Show Selected Items** at the bottom of the main pane.

14. To select a user, move the cursor over that user's row and select the check box that is displayed.



To remove a user's access, deselect the check box beside the user's name.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

15. Click **OK** at the **Select Users** dialog box to save your user selections.
16. To change a user's access level, right-click the user's name in the **Who would you like to have access to this category?** dialog box and select **Full Control**:
    - If the user currently has Execute Only access, they are granted Full Control.
    - If the user currently has Full Control, their access level is reduced to Execute Only.

    Full Control allows the user to configure the settings for the category, including user access. **Execute Only** allows the user to use, but not configure, the category.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

17. To remove a user, right-click the right-click the user's name in the **Who would you like to have access to this category?** page and select **Remove**. You are not prompted to confirm this action.
18. Click **Next**. The **Summary** dialog box is displayed. Review the information in main pane to confirm that the category is correctly configured. If not, click **Previous** to return to the various configuration dialog boxes so that changes can be made.
19. Click **Finish**. The category is saved and is available for use with dashboards and reports.

Changing Existing Categories

Existing categories can be changed from the **Gallery** or **Administration** panes to add or remove items or users, or change the name, icon, and description to better reflect the purpose of the category.

Bulk item and user assignment changes for multiple categories can only be completed in the **Administration** pane. See Making Bulk Changes to Existing Categories on page 313.

To access the properties of a category in the **Administration** pane:

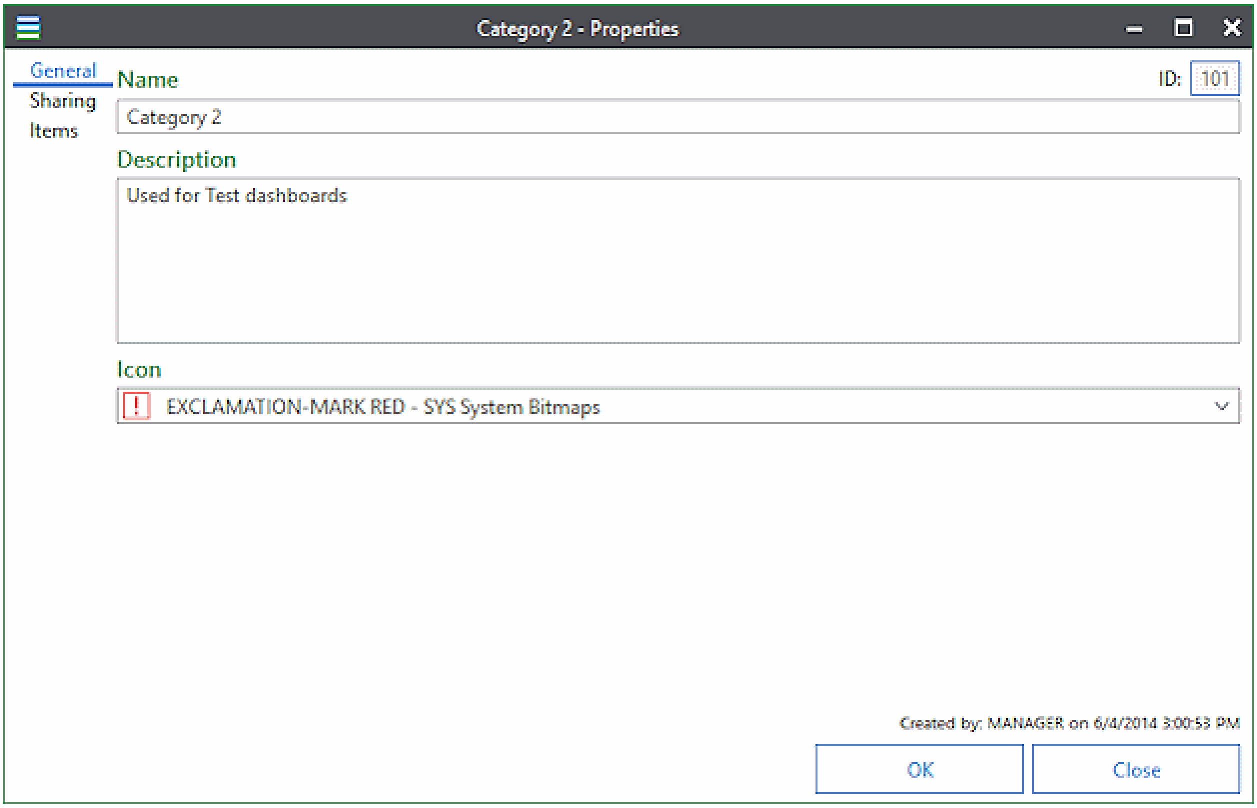
1. Select **Categories** in the left pane under **Configuration Items**. The categories configured are listed in the right pane.
2. Select a category to change in the right pane and click **Properties** in the **Category** ribbon group or right-click it and select **Properties** from the right-click menu.

   The **Properties** window is displayed.
3. Click the tab that corresponds to the items to change:
   - **General:** Change the name, description, and icon. See Changing the General Properties of a Category on page 306.
   - **Sharing:** Change the users who have access to the category and their level of access. See Changing User Assignments for a Category on page 307.
   - **Items:** Change the dashboards and reports that are assigned to the category. See Changing Item Assignments for a Category on page 311.

Note: Bulk item and user assignment changes for multiple categories can only be completed in the Administration area. See Making Bulk Changes to Existing Categories on page 313.

Changing the General Properties of a Category

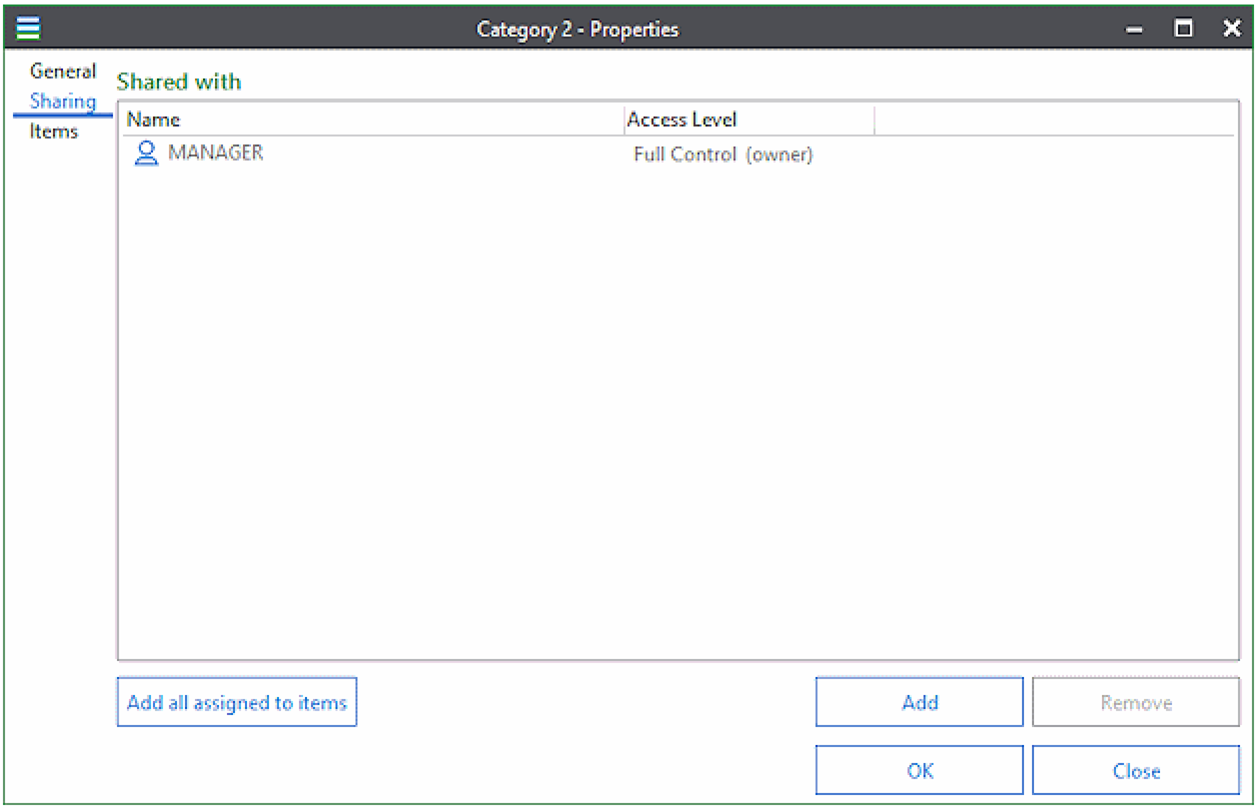
The **General** tab of the category **Properties** window is where you can change the name, description, and icon.



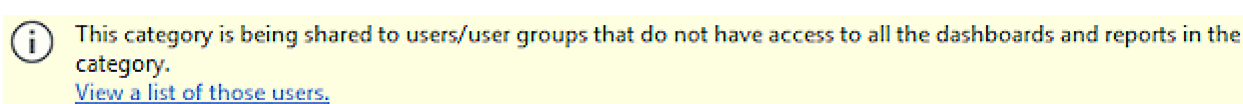
1. Update the name for the category in the **Name** field. The name should be unique and logically describe the kinds of dashboards and reports that will be assigned to it.
2. Update the description of the category in the **Description** field. The description should briefly explain what the intended purpose of the category is and what type of dashboards and reports a user can expect to see under it.
3. Select an icon for the category from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find categories more easily if there are multiple categories available.
4. Click **OK** to save your changes and close the **Properties** window.

Changing User Assignments for a Category

The **Sharing** tab of the category **Properties** window is where you can change the users who have access to the category and their level of access.



If the category is currently being shared with users who do not have access to all of the dashboards or reports assigned to the category, a yellow warning banner is displayed along the top of the **Sharing** tab.



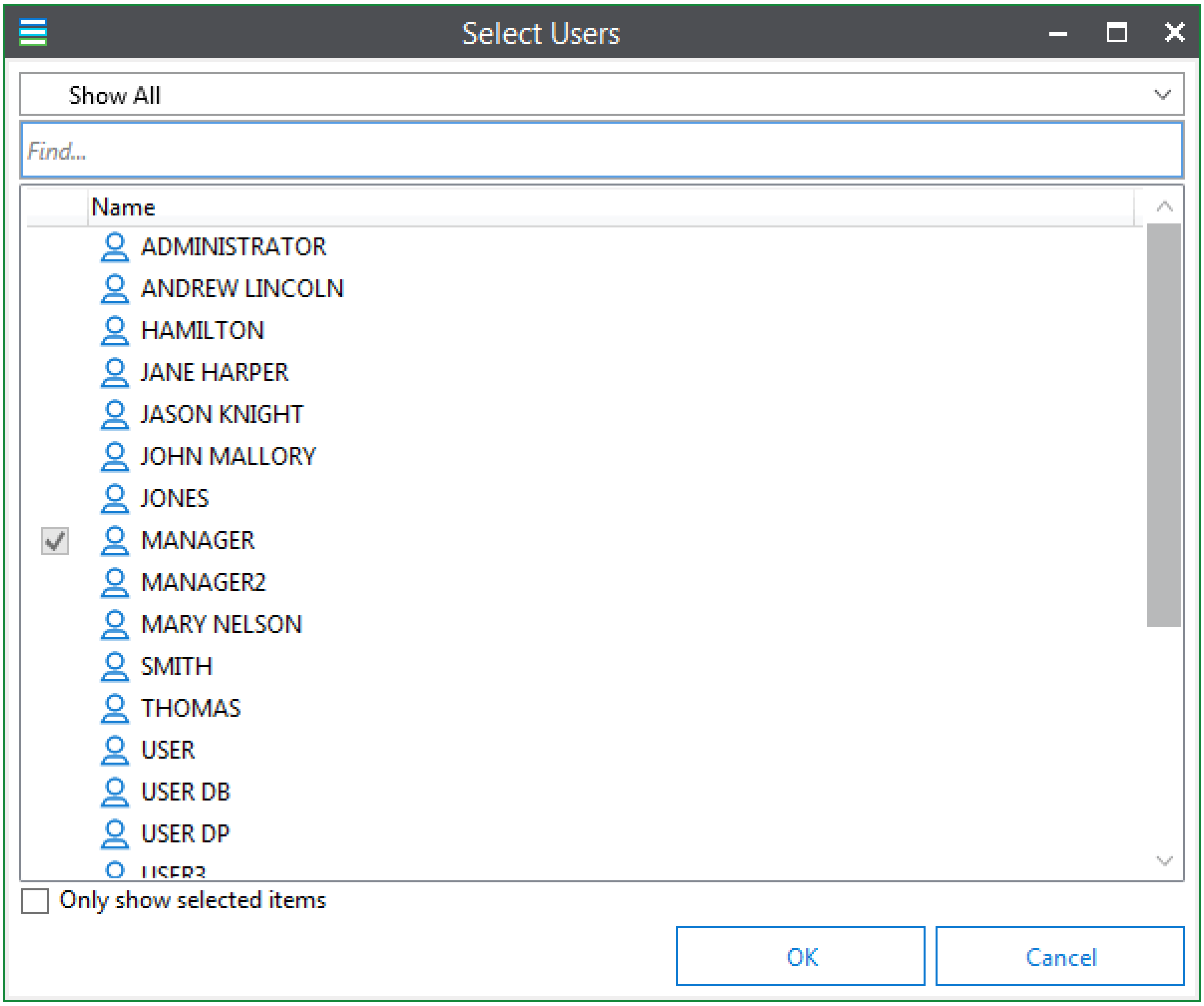
Click **View a list of those users** to display a list of the users and user groups that do not have access to certain data providers. From this list, you can grant access to these users and user groups by clicking the check box near their name. Click **OK** to close the list. To add users and User Groups to dashboards, see Adding Users or User Groups to the Dashboard on page 41. To add users and User Groups to reports see Adding Users or User Groups to the Report on page 166.

To give access to the category to all users and User Groups with access to at least one of the dashboards or reports assigned to the category, click the **Add all assigned to items** button at the bottom of the **Sharing** tab.

Note: Users and User Groups are not assigned to dashboards or reports using this button, they are only assigned to the category. To add users and User Groups to dashboards, see Adding Users or User Groups to the Dashboard on page 41. To add users and User Groups to reports, see Adding Users or User Groups to the Report on page 166.

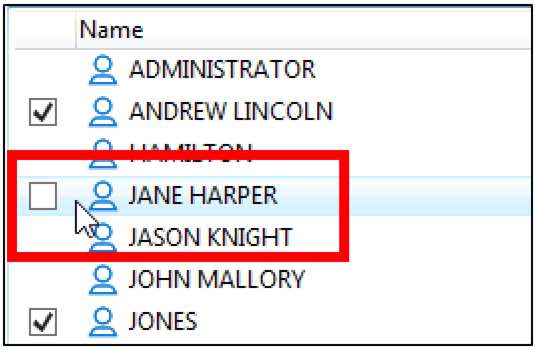
To add or remove users and User Group assignments for the category and change their level of access:

1. To grant access to a new user, click **Add**. The **Select Users** window is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only user groups, select **User Group** from the drop-down list. To find a specific user or user group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only Show Selected Items** at the bottom of the main pane.

2. To select a user, move the cursor over that user's row and select the check box that is displayed.



To remove a user's access, deselect the check box beside the user's name.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

3. Click **OK** at the **Select Users** dialog box to save your selections.
4. To change a user's access level, right-click the user's name in the **Shared with** pane and select **Full Control**:
   - If the user currently has Execute Only access, they are granted Full Control.
   - If the user currently has Full Control, their access level is reduced to Execute Only.

   Full Control allows the user to configure the settings for the category, including user access. **Execute Only** allows the user to use, but not configure, the category.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

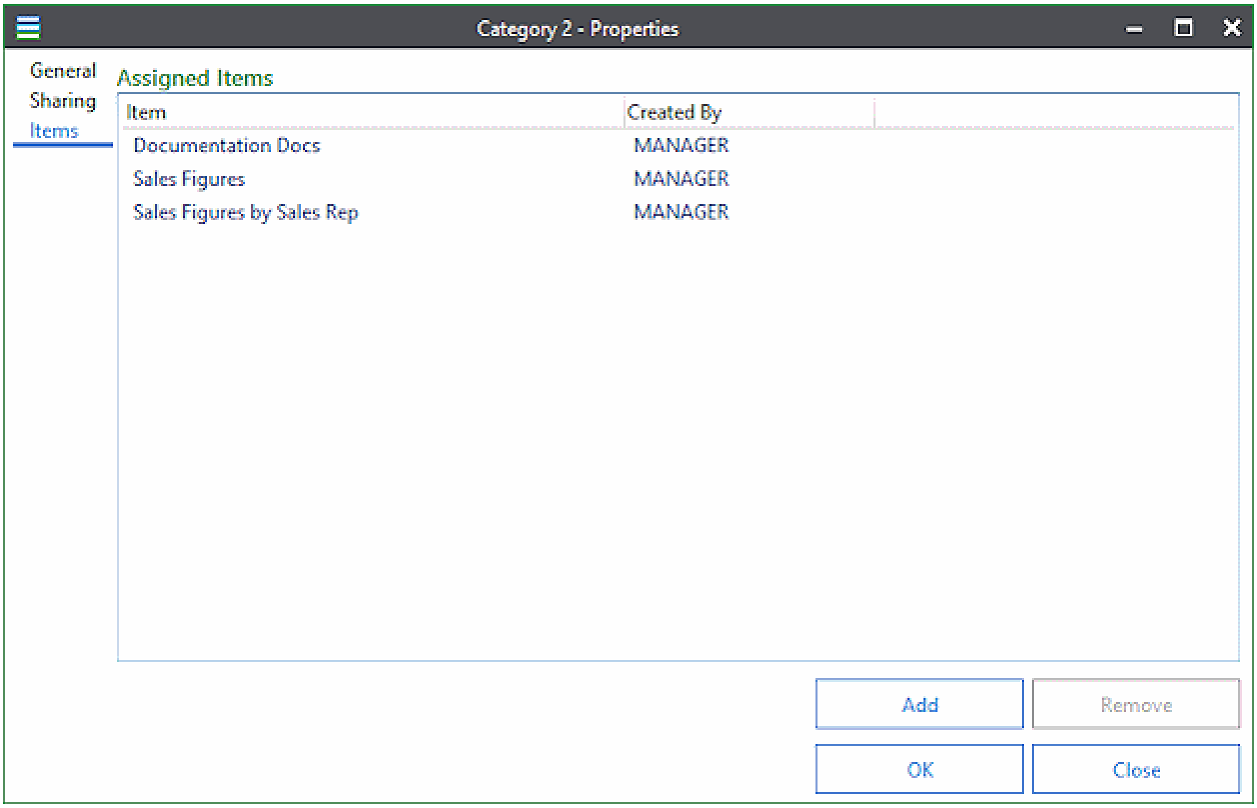
5. To remove a user, select the user's name in the **Shared with** pane and click **Remove**. You are not prompted to confirm this action.

Note: The owner is the user who created the category. The owner cannot be removed.

6. Click **OK** to save your changes and close the properties dialog box.

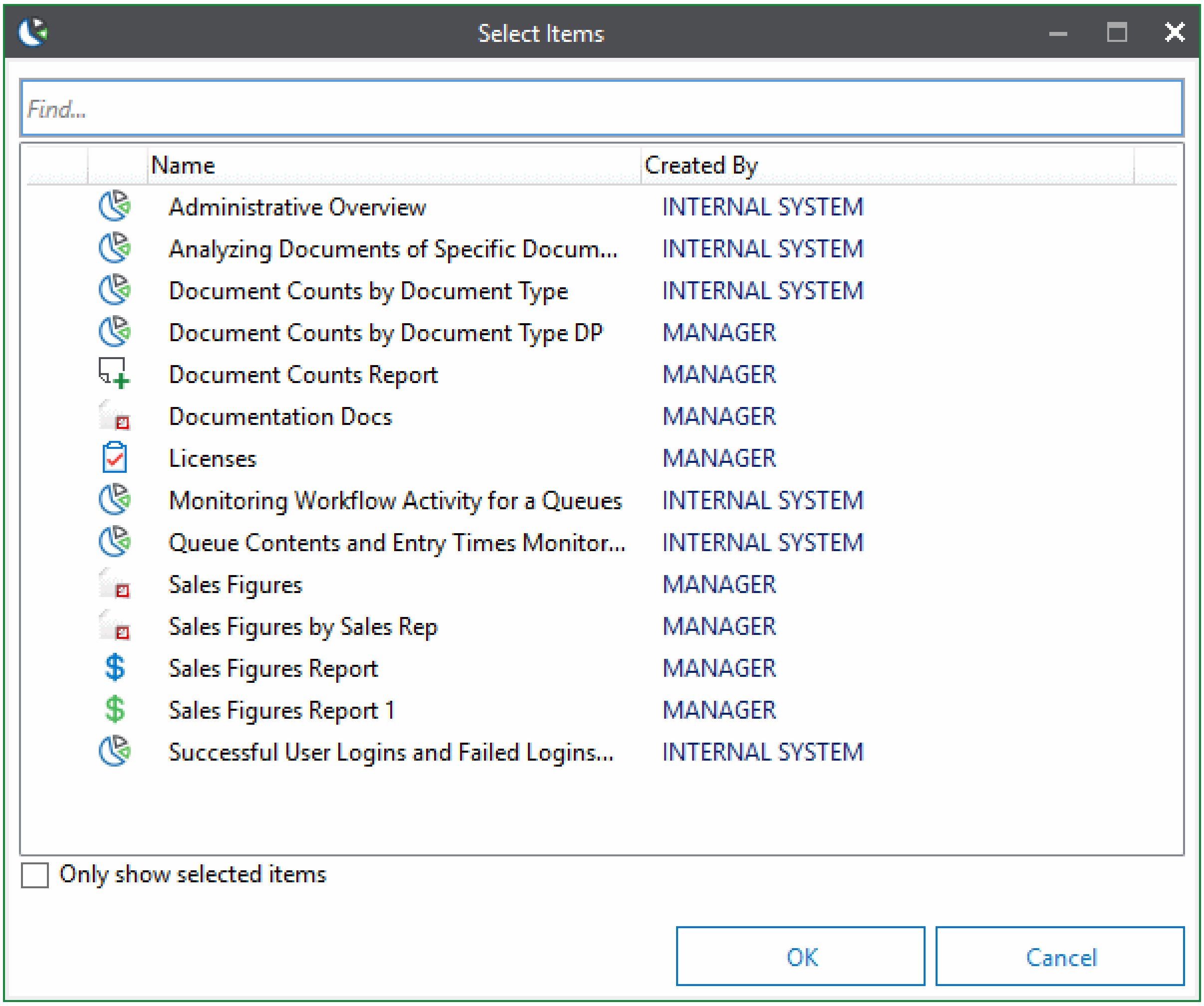
Changing Item Assignments for a Category

The **Items** tab of the category **Properties** window is where you can change the dashboards and reports that are assigned to the category.



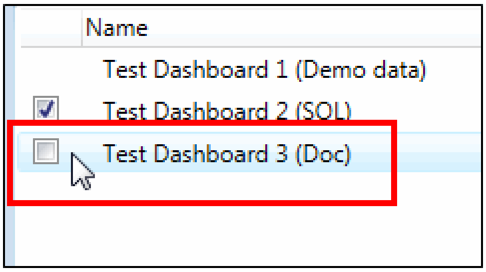
To add dashboards or reports to the category:

1. Click **Add**. The **Select Items** window is displayed.



Tip: To show only previously selected dashboards or reports, select **Only Show Selected Items** at the bottom of the main pane. To find a specific dashboard or report, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

2. To select a dashboard or report, move the cursor over the row for that item and select the check box that is displayed.



3. Click **OK** at the **Select Items** window to save your selections.
4. To remove an item from the list of assigned dashboards and reports, select the item to remove in the **Assigned items** pane and click **Remove**. You are not prompted to confirm this action.
5. Click **OK** to save your changes and close the **Properties** window.

Making Bulk Changes to Existing Categories

Changes to the users, User Groups, and items assigned to categories can be made in bulk to multiple categories at the same time.

See:

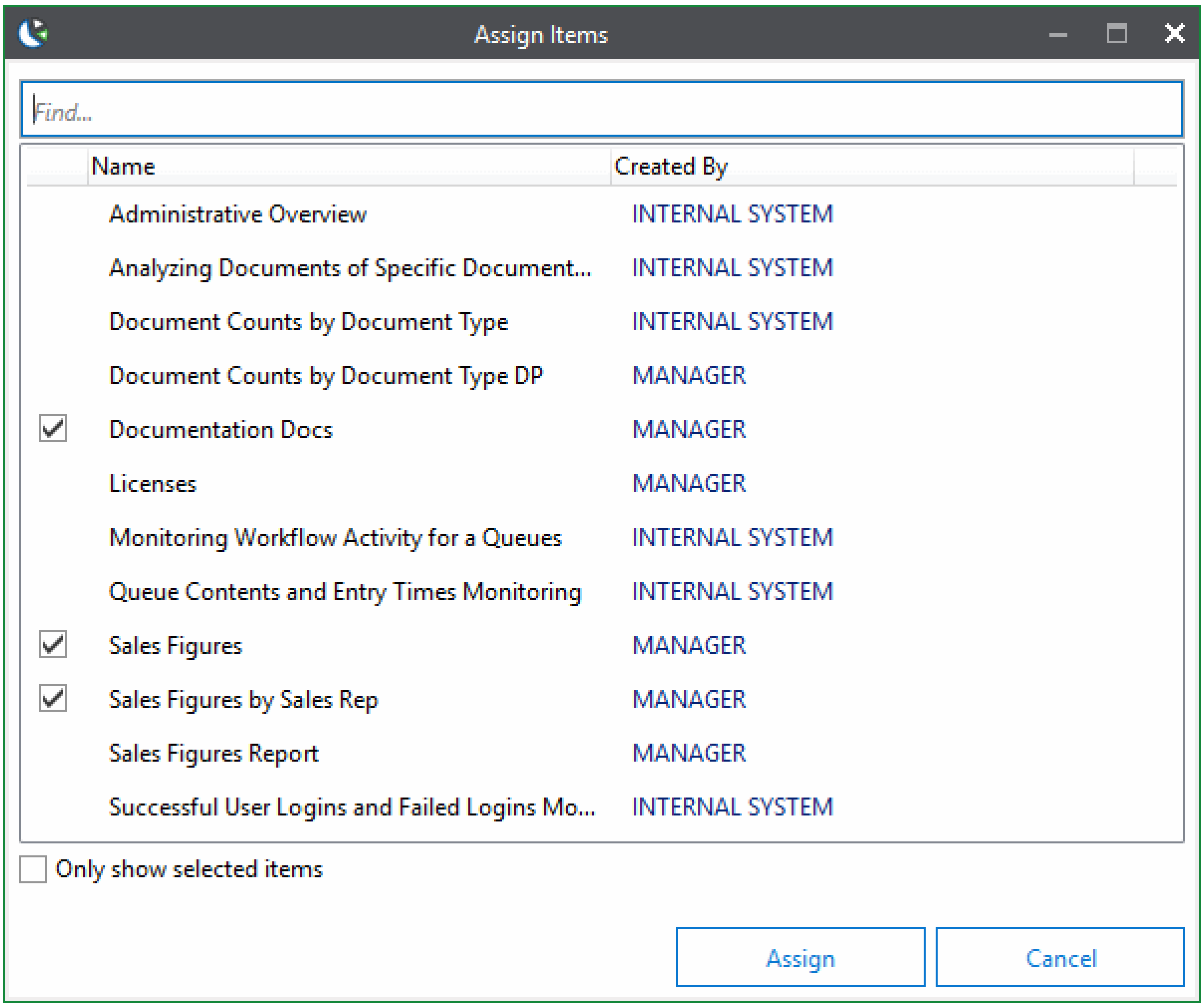
- Bulk Changes to Category Item Assignments on page 313
- Bulk Changes to Category User and User Group Assignments on page 315

Bulk Changes to Category Item Assignments

To change the dashboard and report assignments of multiple categories in the Administration area:

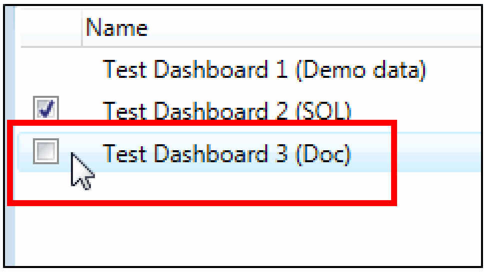
1. Select **Categories** in the left pane under **Configuration Items**. The categories configured are listed in the right pane.
2. Select the categories to change in the right pane and click **Assign Items** in the **Actions** ribbon group.

The **Assign Items** window is displayed.



Tip: To show only previously selected dashboards and reports, select **Only show selected items** at the bottom of the main pane. To find a specific item, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

3. To assign a dashboard or report to all items selected, move the cursor over the row for that item and select the check box that is displayed.



   Dashboards and reports that are currently assigned to some, but not all, of the items selected have the selection box filled in:

   To remove a dashboard or report from all items selected, deselect the check box beside the name of the item.

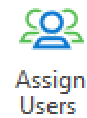
4. Click **Assign** to save your changes.

Bulk Changes to Category User and User Group Assignments

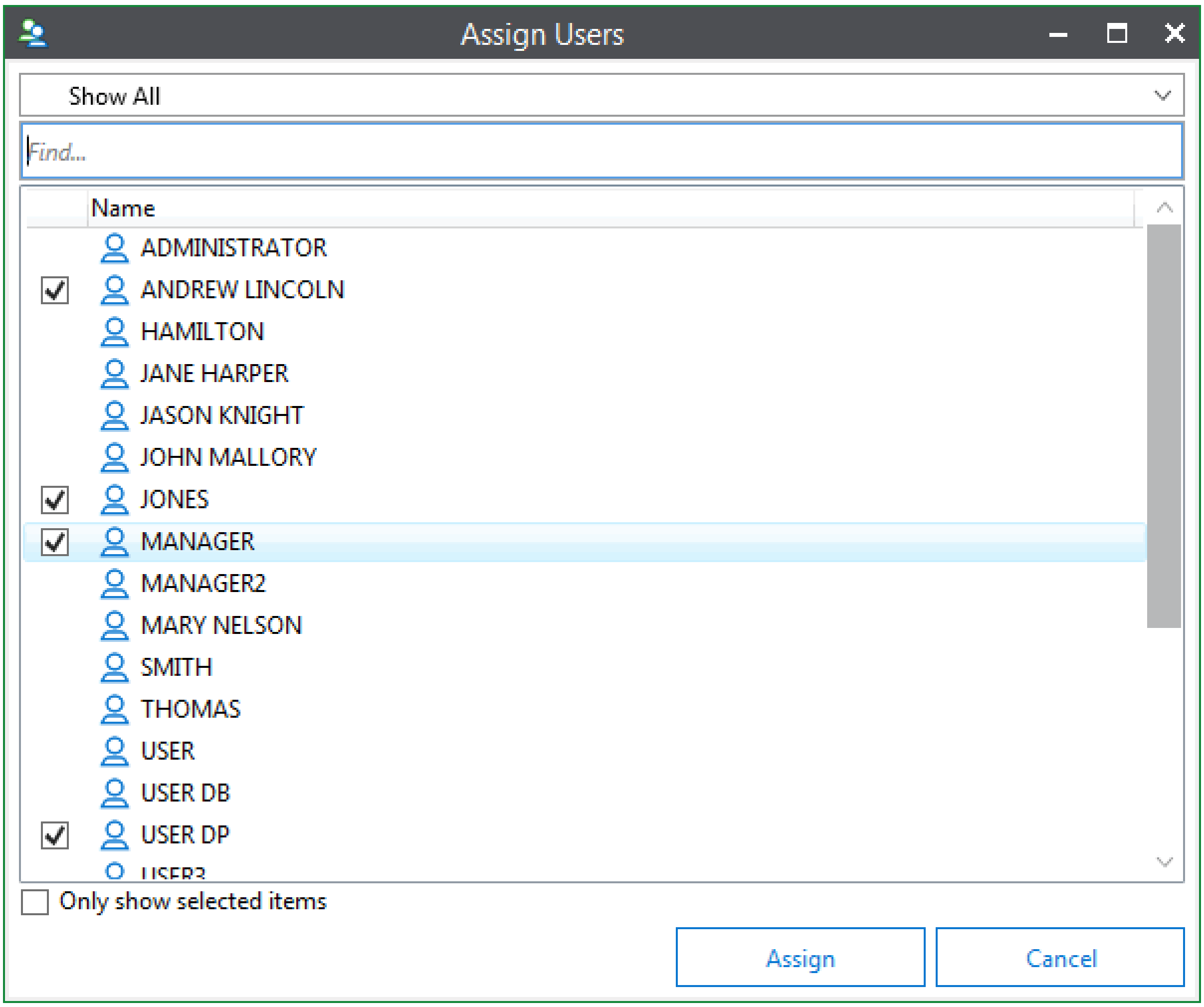
Changes to user and User Group assignments can be made in bulk to multiple categories. When users or User Groups are added in bulk, they are given read-only access to the category with no extra permissions.

To change the user and User Group assignments of multiple categories in the Administration area:

1. Select **Categories** in the left pane under **Configuration Items**. The categories configured are listed in the right pane.
2. Select the categories to change in the right pane and click **Assign Users** in the **Actions** ribbon group.

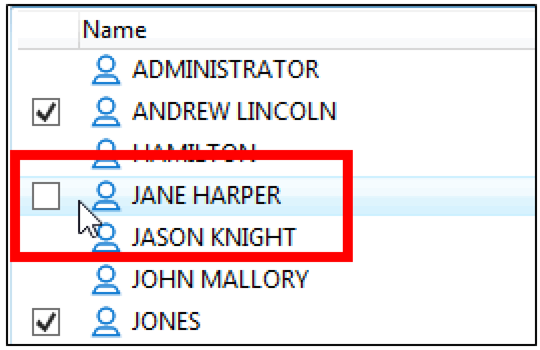


The **Assign Users** window is displayed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only user groups, select **User Group** from the drop-down list. To find a specific user or user group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only Show Selected Items** at the bottom of the main pane.

3. To select a user, move the cursor over that user's row and select the check box that is displayed.



To remove a user's access, deselect the check box beside the user's name.

Note: Access cannot be changed for the owner.

4. Click **Assign** to save your changes. When users or User Groups are added in bulk they are given read-only access to the category with no extra permissions.

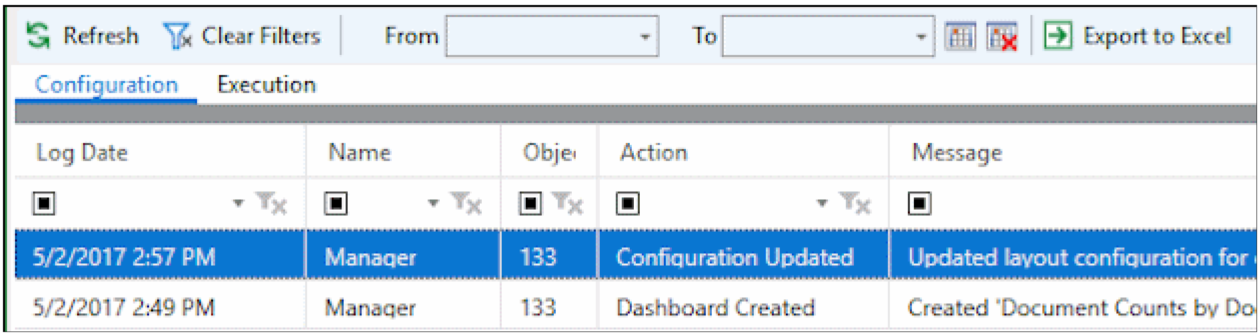
Viewing the History Logs

The history allows you to see which users made changes to or accessed data providers, dashboards, reports, including a summary of the changes made or access provided.

To view the history, select a data provider, dashboard, or report in the main pane and click **History**.

The **History** dialog box is displayed.

The **History** window is divided into **Configuration** and **Execution** tabs.

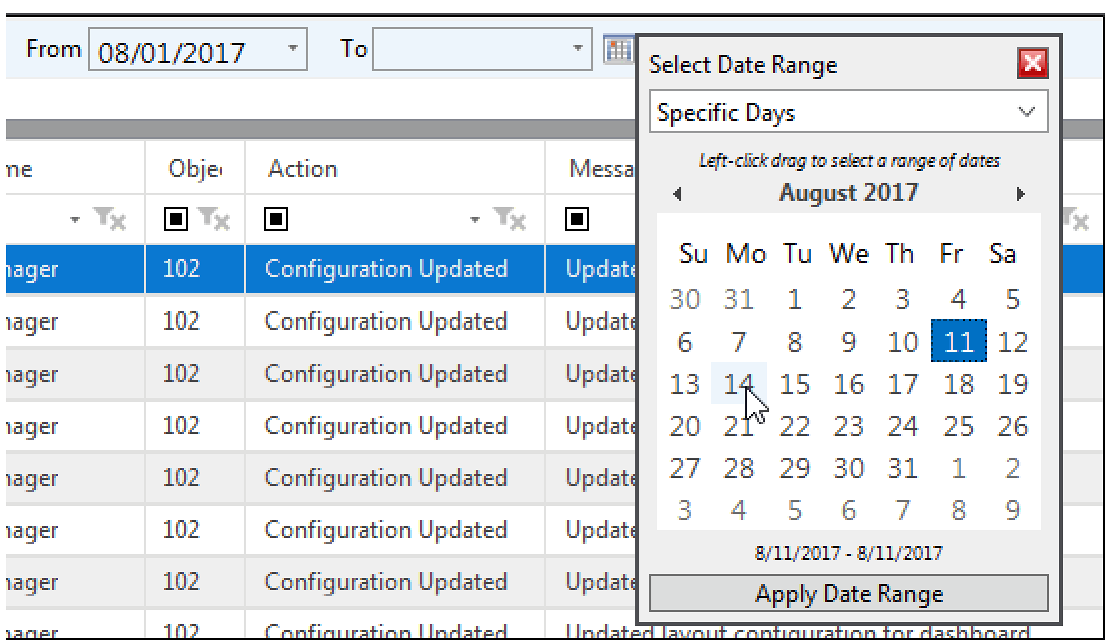


- The **Configuration** tab lists changes made to the configuration of the selected item and who made them, including changes to the sharing permissions of the item.
- The **Execution** tab lists who has accessed the selected item and when they accessed it.

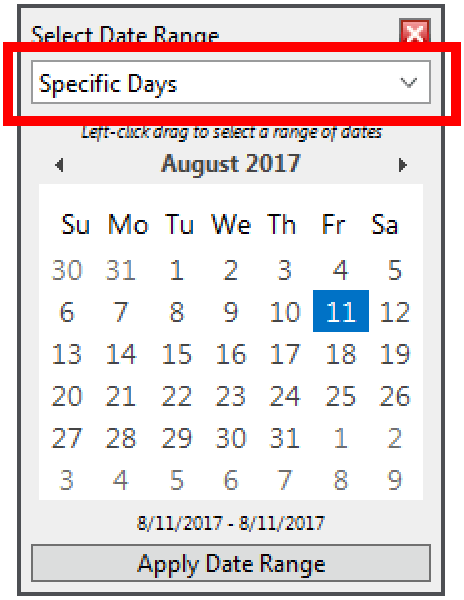
The actions toolbar allows you to refresh and filter the information displayed.

Click **Refresh** to refresh the history log to reflect changes to the filters.

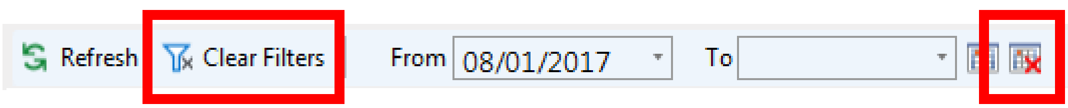
To filter the history log to show only a specific date range, select the date to start the range in the **From** field and the date to end the range in the **To** field.



To automatically populate the date range, click the calendar icon at the right of the date range fields and select one of the options, then click **Apply Date Range**.



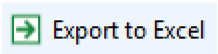
To clear the selected dates, click **Clear Filters** or the clear calendar icon.



Note: Administrators are able to purge the history logs. If a history log has been purged, no information is displayed.

Export History to Excel

Click **Export to Excel** to export the history to a file that can be viewed in Microsoft Excel. This file can be used outside of Reporting Dashboards for further analysis.



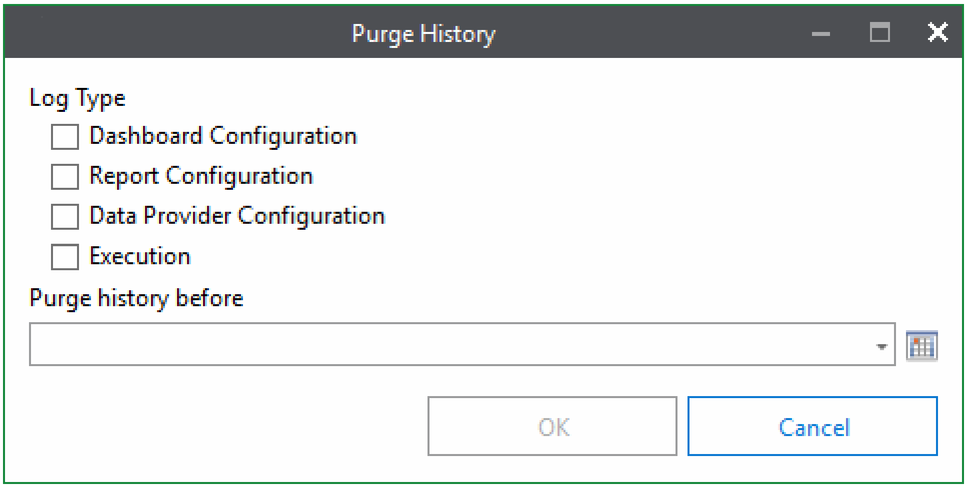
This will open a dialog box to select the location to save the file. Once the file is saved, it will open in Microsoft Excel.

Purge History

The history logs for configuration and execution items can be purged. Only administrators can purge the history logs.

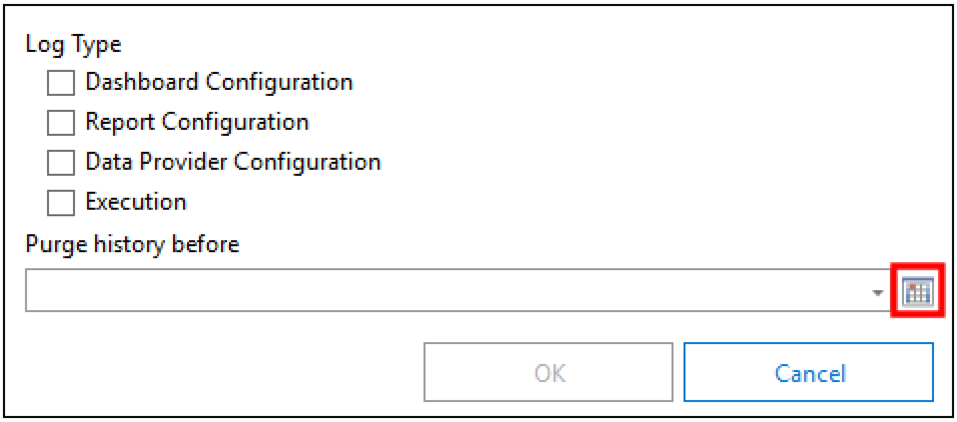
To purge the history:

1. Click **Purge History** under **Admin Tools** in the **Administration** area. The **Purge History** dialog box is displayed.



2. Select one or more log types to purge.
   - **Dashboard Configuration:** The history of changes made to dashboard configurations. This includes all dashboards in the system.
   - **Report Configuration**: The history of changes made to report configurations. This includes all reports in the system.
   - **Data Provider Configuration:** The history of changes made to data provider configurations. This includes all data providers in the system.
   - **Execution:** The history of dashboard and data provider access (when a data provider returned data or a dashboard was displayed by a user). This includes all data providers and dashboards in the system.

3. Enter a date in the **Purge history before field** to limit the scope of the purge, or select a date using the graphical calendar that can be accessed by clicking the calendar icon:



If the current date is entered, items for that day are retained. If a date beyond the current date is entered, all items are purged, including those for the current day.

Caution: Purged history items cannot be recovered.

4. Click **OK** to purge the selected items.

Import and Export Configuration

The Import and Export Configuration functionality allows you to export Reporting Dashboards configurations so they can be imported to other systems or backed up for disaster recovery purposes. Both import and export wizards are accessed using the **Administration** area, under **Admin Tools**.

See:

- Export Configuration on page 321
- Import Configuration on page 322

Note: Depending on system configuration, the Import and Export wizards may enforce certain requirements, such as encryption or file size limits for packages. For more information on these requirements, see your system administrator.

Export Configuration

Reporting Dashboards configurations can be exported for categories, data providers, reports, and dashboards to allow them to be imported to other systems or backed up for disaster recovery purposes.

The following items should be noted with regard to exporting Reporting Dashboards:

- If the Reporting Dashboard configuration being exported is associated with a WorkView application, the WorkView application must also be exported. For more information on exporting WorkView applications, see the WorkView module reference guide.
- Users and User Groups assigned to exported dashboards and reports are not created when those items are imported to another system.

To access export configurations, click **Export Configuration** under **Admin Tools** in the **Administration** area. The Export Wizard is displayed. For more information on this wizard, see the System Administration module reference guide. Items can also be exported using the OnBase Studio or Configuration. For more information on exporting using these modules, see their respective module reference guides.

Note: Default input parameter values are not retained for data providers.

Import Configuration

Reporting Dashboards configurations can be imported for categories, data providers, reports, and dashboards to allow them to be duplicated in other systems or recovered from backups in disaster recovery situations. To import configurations, click **Import Configuration** under **Admin Tools** in the **Administration** area. For more information on importing, see the System Administration module reference guide.

The following items should be noted with regard to importing:

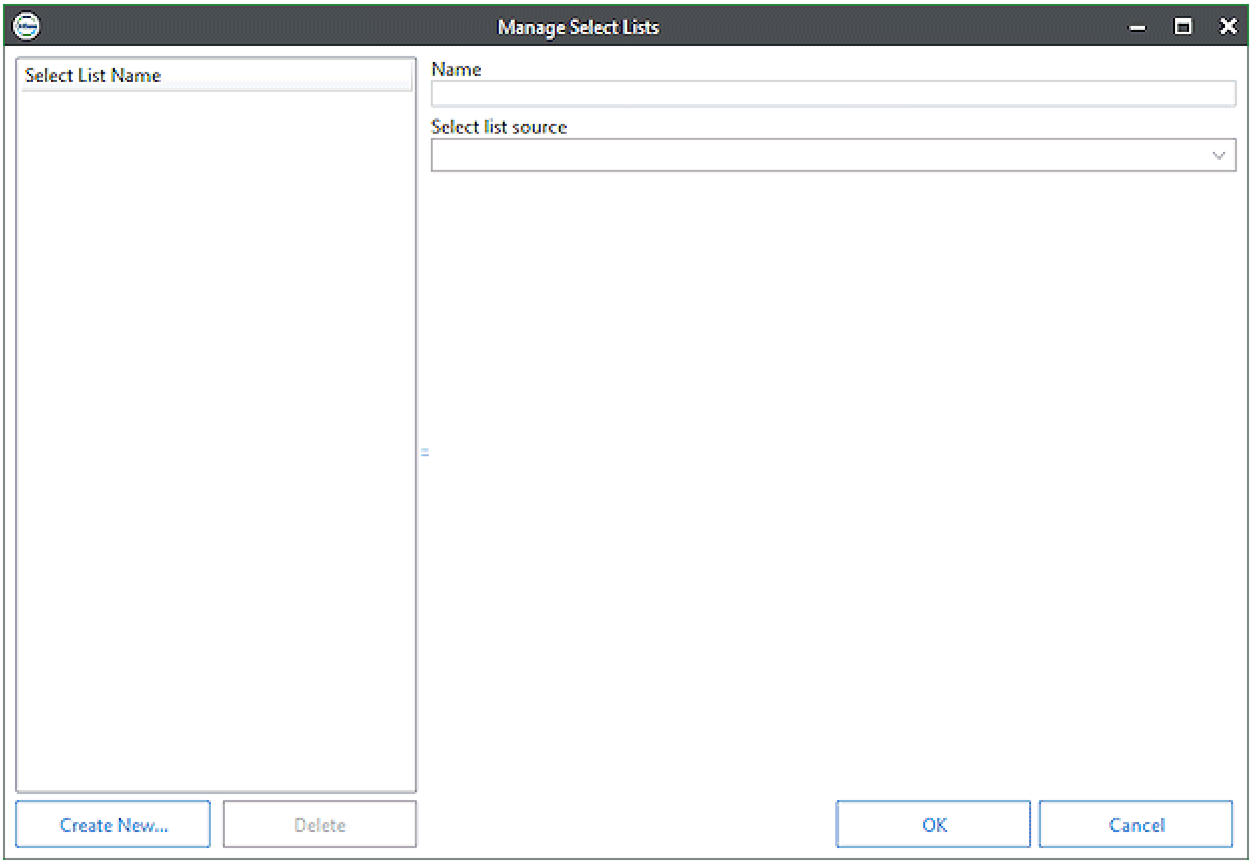
- Users and User Groups can only be set as **No Action** or **Map** (user accounts assigned to dashboards and reports cannot be created when the dashboard or report is imported).
- Mappable user accounts can be filtered based on account type. For example, service accounts can be hidden from the user list.
- Some Reporting Dashboards items cannot be set as **No Action**. If an action is not selected for these items, an error is displayed and an action must be chosen.
- Dashboards, Reports, Data Providers, and Categories cannot be set as **No Action** (an action must be taken on these objects).
- Users only have access to the **Change Control Settings** option from **Import Configuration** if they have the **System Configuration** right.
- When importing a Reporting Dashboard configuration that utilizes a WorkView application, you must import the associated WorkView application prior to importing the Reporting Dashboard Configuration.

You will need to manually assign users to every dashboard and report created during the import in the **Administration** panel. For information on adding users to dashboards, see Adding Users or User Groups to the Dashboard on page 41. For information on adding users to a report, see Adding Users or User Groups to the Report on page 166.

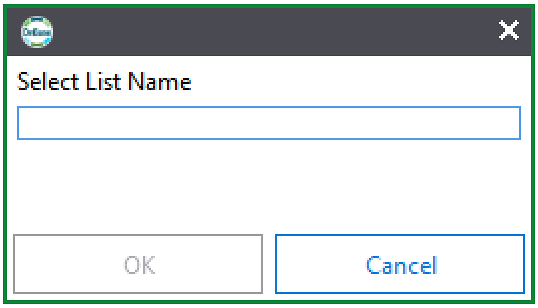
Creating Global Select Lists

When creating custom SQL data provider, you can specify parameter values for use. These values are generated using SQL commands that are specific to each data provider. However, Global Select Lists allow the creation of a set of common parameters to be configured that can be used in multiple custom SQL data providers. When configuring a Custom SQL data provider, the global select list is available for selection from the **Manage Select Lists** dialog box and the **Select Lists** drop-down menu. To create a Global Select List for use in custom SQL data providers:

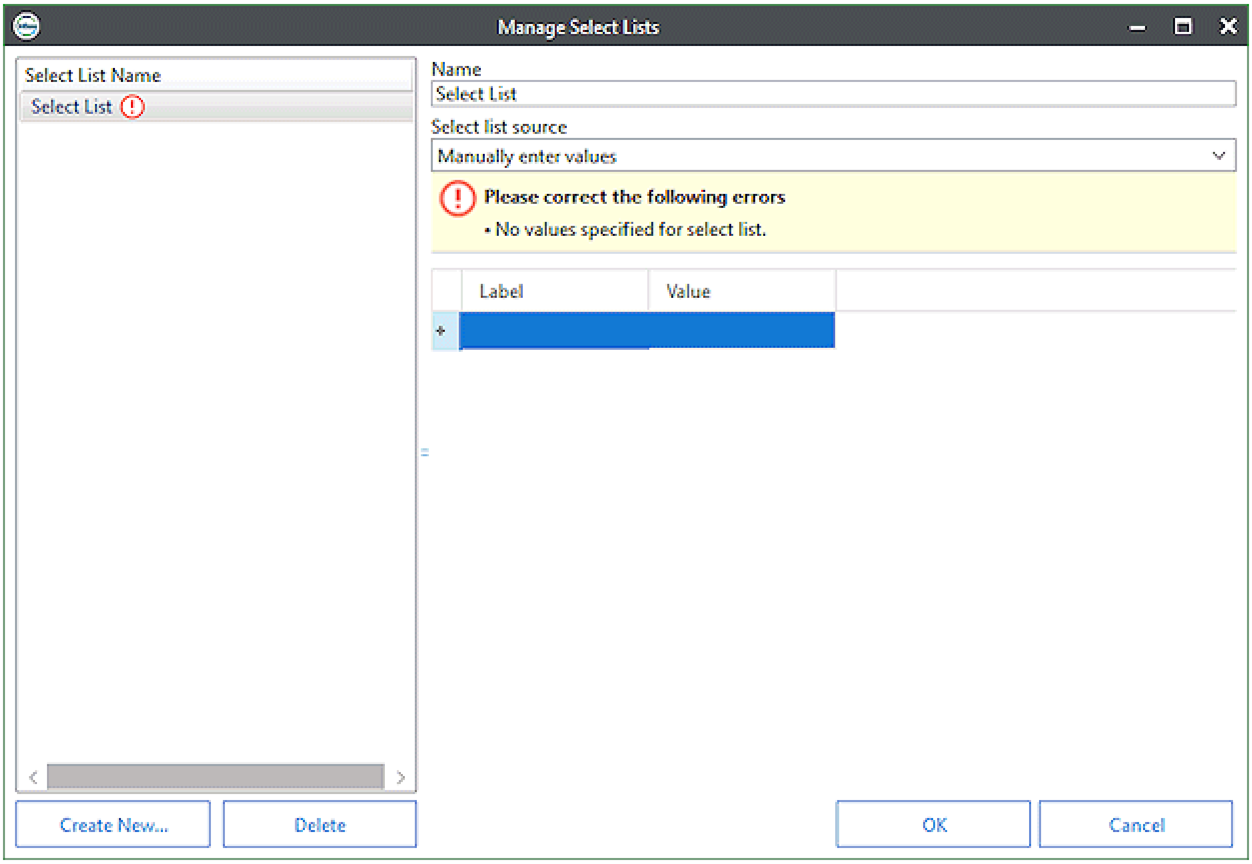
1. In the Administration panel, click **Global Select Lists**. The **Manage Select Lists** dialog box is displayed.



2. Click Create New. The **Select List Name** dialog box is displayed.



3. Enter a name for the new select list and click **OK**. The **Select List Name** dialog box is closed and the **Manage Select List** changes to allow the new list to be edited.



4. Choose the type of parameters to include in the list from the **Select list source** drop-down list. The options include:
   - **Manually enter values:** This is the default option for select lists. This option allows you to manually enter labels and values for the select list. Once a value is entered, click outside the field to add additional rows and include more values.
   - **Get values from an SQL query**: This option allows you to construct an SQL query to retrieve values. Enter the SQL query into the field and click **Validate Query** to ensure the SQL is properly entered.
5. Once the values or SQL have been entered, click **OK**. The **Manage Select Lists** dialog box is closed.

To edit a previously created global select list

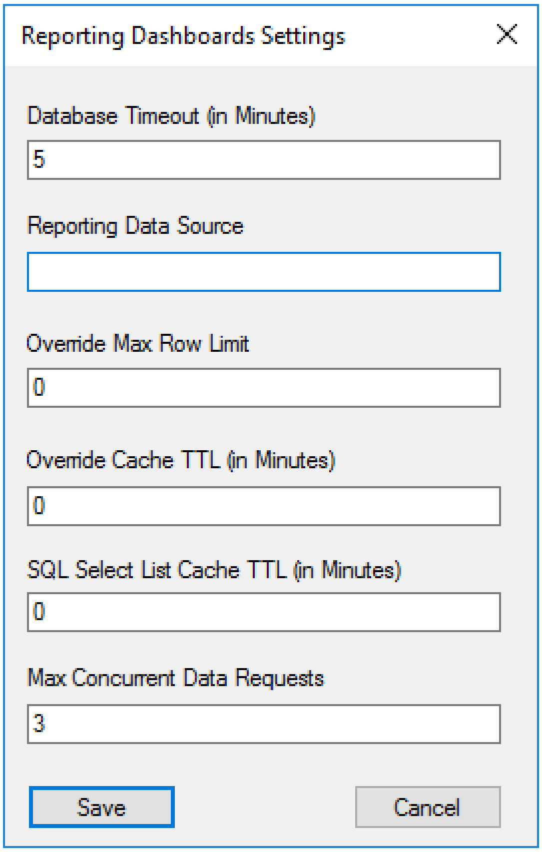
1. Select **Global Select Lists** from the **Admin Tools**. The **Manage Select Lists** dialog box is displayed.
2. Click the name of the select list to edit.
3. Add or remove values or SQL as needed.
4. Click **OK** to save the changes. The **Manage Select Lists** dialog box is closed.

Changing Reporting Dashboards Settings

Settings related to the performance of Reporting Dashboards can be fine-tuned in the OnBase Configuration module. The settings that relate to Reporting Dashboards are under the **Utils** menu.

To access Reporting Dashboards settings:

1. Launch the OnBase Configuration module.
2. Select **Reporting Dashboards Settings** from the **Utils** menu. The **Reporting Dashboards Settings** dialog box is displayed.



3. Update the settings as required. In most cases, the default value is acceptable.

Setting	Description
Database Timeout (in Minutes)	Overrides the default connection timeout value for the data provider when querying the database. Enter a whole number of minutes in the field provided. The default value is **5** (five minutes). The minimum value is also **5** (five minutes).

Setting	Description
Reporting Data Source	Specify a data source that all data providers query. Enter the name of the connection string in the field provided. If a data source is not specified, Reporting Dashboards uses the data source for the current user's session. **Note:** Document Query and Workflow Inbox data providers do not respect this setting.
Override Max Row Limit	Sets an upper limit for the number of rows returned in the results set for a data provider query. If the data provider allows more rows to be returned than the **Result Limit Override** value, the Result Limit Override value overrides the value set at the data provider level. Enter a whole number of rows in the field provided. By default, this value is set to **0** (zero) and the level of each data provider is used, as set at the data provider level.
Override Cache TTL (in Minutes)	Set a lower limit for the number of minutes after which to cache the results from a data provider query. Enter a whole number of minutes in the field provided. If set to **0** (zero), this setting is ignored. **Note:** Results are only cached if the data provider is configured to allow cached results.
SQL Select List Cache TTL (in Minutes)	Set a limit for the number of minutes to maintain a cache of select lists in Custom SQL data providers. After the configured minutes have elapsed, the cached values for select lists are cleared. Enter a whole number of minutes in the field provided. If set to **0** (zero) or a negative number, this setting is ignored. **Note:** To refresh the values of select lists after the configured time has elapsed the dashboard must be closed and reopened.
Max Concurrent Data Requests	Sets an upper limit for the number of concurrent requests a single session can make. Enter a whole number of requests in the field provided. The value must be greater than zero (i.e., **1** or more). The default value is **3**.

4. Click **Save**.

Note: The **Save** button is disabled if invalid entries are in any of the fields.

Sample Dashboards and Data Providers

There are several sample dashboards and data providers that can be imported to your system and used to gain insight to the most common data. The sample dashboards and data providers are contained in an import package that is available from your first line of support.

This section contains the following information:

Sample Dashboards

The import package contains the sample dashboards listed in the following table.

None of the imported dashboards are shared with any users or User Groups on import. User and User Group sharing must be configured for the dashboards after import. The design of imported dashboards cannot be changed but they can be copied to base new dashboards on.

Note: Some dashboards require additional licensing, as noted.

Dashboard	Description
Administrative Overview	A dashboard for tracking uncommitted batches and current system locks. Data providers used: • Locks Older Than 24 Hours • Uncommitted Batches • Uncommitted Scanned Batches by Status
Analyzing Documents of Specific Document Types	A dashboard used to display data about documents of a specific Document Type in Workflow. • Document Types with System Keywords **Note:** System must be licensed for **Workflow** to use this dashboard.
Document Counts by Document Type	A dashboard that displays a breakdown of when documents were created and who created them, by Document Type. Specific documents can be displayed directly from the list in the dashboard. Data providers used: • Document Counts by Document Type

<table>
<tr><th>Dashboard</th><th>Description</th></tr>
<tr><td>Monitoring Workflow Activity for a Queues</td><td>A dashboard used to monitor how items moved through Workflow queues and how users interacted with them in the process.
Data providers used:
• Workflow Activity for Ad Hoc Tasks
• Workflow Activity for Transitions
Note: System must be licensed for Workflow to use this dashboard.
For more information on these data providers, see the Workflow module reference guide.</td></tr>
<tr><td>Queue Contents and Entry Times Monitoring</td><td>A dashboard that returns data about the contents in selected Workflow queues. Queues can be accessed directly from the Life Cycle document list.
Data providers used:
• Workflow Inbox Contents
Note: System must be licensed for Workflow to use this dashboard.</td></tr>
<tr><td>Successful User Logins and Failed Logins Monitoring</td><td>A dashboard that tracks user login activity for specific users. It displays data related to failed and successful logins.
Data providers used:
• Failed User Logins
• User Login Activity</td></tr>
</table>

Sample Data Providers

The import package contains the sample data providers listed in the following table. The configuration of imported data providers cannot be changed but they can be copied to base new data providers on. The imported data providers can also be used to create new custom dashboards not included in the import package.

Note: Some data providers require additional licensing, as noted.

Data Provider	Data Provider Type	Description
Document Counts by Document Type	Document Query	Returns data about the selected Document Types.
Document Types with System Keywords	Document Query	Reports on the documents for the selected Document Types.

Data Provider	Data Provider Type	Description
Failed User Logins	Custom SQL Query	Reports the number of failed logins per user.
Locks Older Than 24 Hours	Custom SQL Query	Reports the current number of batch, disk group, and document locks.
Uncommitted Batches	Custom SQL Query	Reports the number of uncommitted scanned batches as compared to a threshold value (a default value of 500 is used if no threshold is set).
Uncommitted Scanned Batches by Status	Custom SQL Query	Reports the number of uncommitted scanned batches by status.
User Login Activity	Custom SQL Query	Reports the number of successful logins per client per user.
Workflow Activity for Ad Hoc Tasks	Workflow Activity	Reports on the execution of ad hoc tasks for the selected Workflow queues. **Note:** System must be licensed for **Workflow** to use this data provider. For more information on this data provider, see the **Workflow** module reference guide.
Workflow Activity for Transitions	Workflow Activity	Reports on how items transitioned through Workflow for the selected Workflow queues. **Note:** System must be licensed for **Workflow** to use this data provider. For more information on this data provider, see the **Workflow** module reference guide.
Workflow Inbox Contents	Workflow Inbox	Reports on the items that are currently in the Workflow Inbox for the selected Workflow queues. **Note:** System must be licensed for **Workflow** to use this data provider.

Importing Sample Dashboards and Data Providers

The import package used to import sample dashboards and data providers is available from your first line of support. The package is imported using the standard **Import Configuration** functionality (see Export Configuration on page 321).

The following limitations should be noted regarding the dashboards and data providers that are imported:

- Some dashboards and data providers can be imported but require additional licensing to be used. Additional licensing requirements are noted in Sample Dashboards on page 327 and Sample Data Providers on page 328.
- None of the imported dashboards are shared with any users or User Groups on import. User and User Group sharing must be configured for the dashboards after import.
- All dashboards are imported to the **Sample Dashboard** category. This category is created on import.
- The design of imported dashboards cannot be changed but they can be copied to base new dashboards on, and new dashboards can be created using the imported data providers.
- The configuration of imported data providers cannot be changed but they can be copied to base new data providers on.

Custom SQL Syntax, Parameterization, and Macros

The Custom SQL Query data provider type allows you to write and execute custom data access statements and stored procedures. Database modifications cannot be made using the Custom SQL Query data provider type because the SQL is executed against the configured database with read-only access. Statements that attempt to modify the database will result in errors.

The information in this chapter is a guide to the SQL syntax, parameterization, and macros information that is unique to Reporting Dashboards and that can be used in SQL statements written for the Custom SQL Query data provider type. This chapter is not intended to provide instructions on creating complete, valid SQL statements, which is beyond the scope of this documentation.

Caution: SQL statements should only be edited or written by a certified database administrator. Poorly constructed SQL statements may return unexpected results or could cause the client to close unexpectedly. Queries that are not written with the index schemas and data distributions in mind can become long-running queries that consume substantial database server resources and adversely affect the performance of the entire system. In extreme cases, data could also be removed from the database or otherwise corrupted.

For details on creating a Custom SQL Query data provider in Reporting Dashboards, see Adding a Custom SQL Query Data Provider Type on page 186. This chapter includes the following supplemental information:

Tip: As a best practice, all SQL queries created for use with Reporting Dashboards should be first run in a profiler by a certified database administrator, to review the database optimizer access plan. This analysis should be performed against a test database of similar size to the production database, with similar data distribution, for all tables involved in the query. The DBA should verify that the query is well formed and not I/O intensive. The data access plans should also be documented to provide a baseline in case database performance degrades at a later time.

Query Syntax

Reporting Dashboards does not validate or correct SQL statements. All errors reported by the database are reported in the OnBase Diagnostics Console (see Troubleshooting on page 13).

Note: Queries are executed against the database using a read-only viewer account. Statements that attempt to modify the database will result in errors.

The following syntax limitations and rules are applied to all custom added to Reporting Dashboards:

- Only statements that return a single result set are supported (e.g., statements cannot include multiple GO statements to perform evaluation queries).
- Expressions must return at least one output column.
- Literal column values in the SQL query should be cast to the desired type in the SQL text.
- Output column names from a query must begin with an alphabetic character or an underscore character (_).
- Output column names can only contain alphanumeric characters and underscores (_).
- Output column names cannot contain spaces.
- Comments are not supported in the custom SQL editor and may cause issues if included.

Tip: Output column names can be changed to user-friendly values during configuration of the display columns for the data provider. These restrictions only apply to the underlying executed by Reporting Dashboards.

The following data types are supported by Reporting Dashboards but are transformed into the corresponding data type.

Note: For Oracle databases, all SQL functions or expressions that are expected to return a numeric value (e.g., COUNT) must be explicitly CAST to **NUMBER(38,0)** in order to ensure that Reporting Dashboards returns the column as numeric. For example, **SELECT CAST(COUNT(*) as NUMBER(38,0)) "YourColumn" FROM some.dbtable**. This condition only applies to Oracle databases.

Data Type	Transformation
boolean	boolean
byte	boolean
date	date-time
datetime	date-time
decimal	currency
double	decimal
long/int (any size, including unsigned versions)	numeric
NULL	string
single	decimal
string	string
time	date-time
timestamp	date-time

Note: All date-time values are returned in the same timezone as they were stored on the database server. To convert these values to the local time of the user accessing a dashboard, select **Display all date/time columns in local time** when configuring the data provider.

Query Parameterization

Reporting Dashboards supports parameterization to allow dynamic runtime parameters to be resolved when a dashboard is accessed and the configured data provider is used. Dynamic parameters can be placed anywhere in the statement of Custom Query data providers and all instances of them are replaced by the supplied values when the data provider is used.

The following rules must be followed for parameterization to function as expected:

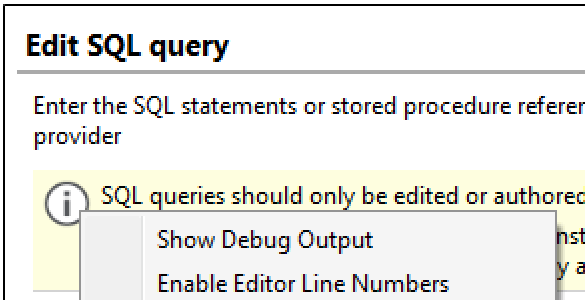
- Dynamic parameters must be added to the statement as **@{YourName}**, where **YourName** is the name you have defined for the dynamic parameter.
- Parameter names are case-sensitive.
- Parameter names must begin with an alphabetic characters or an underscore (_).
- Parameter names can only contain alphanumeric characters and underscores (_).
- Parameter names cannot contain spaces.
- To prevent a parameter name from being replaced, prepend an additional @ symbol before the parameter. For example, **@@{YourName}**.
- Macro expansion always occurs before parameter expansion (see Query Macros on page 335).

Note: When using a parameter that is not required, enclosing the parameter in parentheses is recommended. This ensures that the statement respects the proper order of operations and returns the expected results.

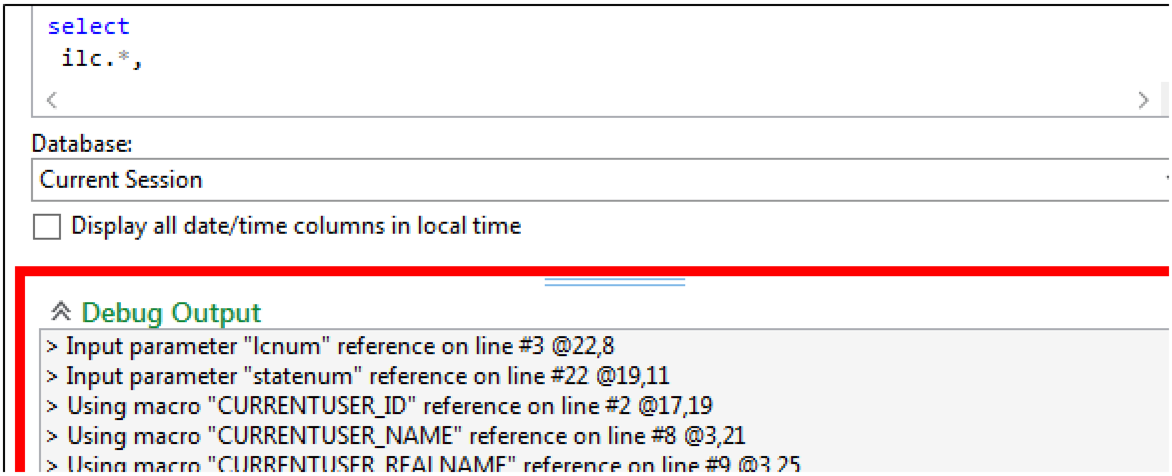
Parameters require additional configuration when the data provider is configured. This configuration is done from the **Edit Parameters** dialog box. See Adding a Custom SQL Query Data Provider Type on page 186.

Debugging Query Parameterization

To display debugging information for the replacement of macros and parameters in the SQL query entered, right-click the information icon in the **Edit SQL Query** dialog box when configuring the data provider and select **Show debug output**:



The debugging information is displayed below the data-entry field in the **Debug Output** pane:



To show/hide line numbers in the SQL editor pane, right-click the information icon and select **Enable editor line numbers**.

Query Macros

Reporting Dashboards supports the use of system-created macros that are evaluated when the a Custom SQL Query data provider is used to return data for a dashboard. Macros are expanded and replaced with the valid SQL functions or expressions they represent, saving time when writing custom SQL and making the SQL easier to maintain. Some macros accept arguments that are used to control how the macro is expanded, but not all macros accept arguments. Macros can be used anywhere in a SQL statement.

When editing a Custom SQL Query data provider, macros can be added in by right clicking and selecting **Insert Macro** from the menu. The options for each macro selectable from the **Insert Macro** menu are noted in each description of the macros.

Note: Macros are included with Reporting Dashboards and cannot be created or changed by users.

The macros available and how they are used are described in the following sections. The following limitations and rules apply to the use of macros:

- Macro names are case sensitive and must be included exactly as presented in the following sections.
- Macros cannot be nested (i.e., one macro cannot be used as an argument to another macro).
- Macros can contain dynamic parameters (see Query Parameterization on page 333).
- Macro values are treated as text unless a dynamic parameter returns a non-text value.

- To prevent a macro from being expanded, prepend an additional # symbol before the macro name. For example, **###OB_CURRENTUSER_ID**.
- Macro expansion always occurs before parameter expansion (see Query Parameterization on page 333).

Tip: See also, Debugging SQL Query Macros on page 340.

##OB_CURRENTUSER_ID

The **##OB_CURRENTUSER_ID** macro returns the unique ID number in OnBase for the user accessing the dashboard. In the **Insert Macro** menu, this macro is listed as **Current User ID**.

##OB_CURRENTUSER_NAME

The **##OB_CURRENTUSER_NAME** macro returns the user name in OnBase for the user accessing the dashboard. In the **Insert Macro** menu, this macro is listed as **Current User Name**.

##OB_CURRENTUSER_REALNAME

The **##OB_CURRENTUSER_REALNAME** macro returns the real name in OnBase for the user accessing the dashboard. In the **Insert Macro** menu, this macro is listed as **Current User Real Name**.

##OB_CURRENTUSER_LOCALTIME

The **##OB_CURRENTUSER_LOCALTIME** macro returns the local time for the user accessing the dashboard. Values are returned in ISO 8601 format (yyyy-MM-dd HH:mm:ss). In the **Insert Macro** menu, this macro is listed as **Current User Local Time**.

Note: This value may be different from the database time if the database is located in a different timezone.

##OB_CURRENTUSER_INSTITUTIONID

The **##OB_CURRENTUSER_INSTITUTIONID** macro returns the institution ID in OnBase for the user accessing the dashboard. In the **Insert Macro** menu, this macro is listed as **Current User Institution ID**.

##OB_CURRENTUSER_WORKSTATIONID

The **##OB_CURRENTUSER_WORKSTATIONID** macro returns the workstation ID for the user accessing the dashboard.In the **Insert Macro** menu, this macro is listed as **Current User Workstation ID**.

##OB_OPTIONSELECT_ALL

The **##OB_OPTIONSELECT_ALL** macro accepts two comma-separated arguments in this format:

```
##OB_OPTIONSELECT_ALL{(arg1,arg2)}
```

The arguments return an expression that always affirms the current SQL expression if they are equivalent. The most obvious use of this macro is in creating an **<ALL>** option in a drop-down list runtime parameter.

For example, this expression is expanded using the following logic:

```
select * from some.dbtable

where scope = ##OB_OPTIONSELECT_ALL{(@{param}, 0)}
```

If @{param} = 0 then the query is expanded to:

```
select * from some.dbtable

where scope = @{param} OR 1=1
```

Else, if @{param} <> 0 then the query is expanded to:

```
select * from some.dbtable

where scope = @{param}
```

In the **Insert Macro** menu, this macro is listed as **Option Select All**.

##OB_OPTIONSELECT_NONE

The **##OB_OPTIONSELECT_NONE** macro accepts two comma-separated arguments in this format:

```
##OB_OPTIONSELECT_NONE{(arg1,arg2)}
```

The arguments return an expression that always negates the current SQL expression if they are equivalent. The most obvious use of this macro is in creating a **<NONE>** option in a drop-down list runtime parameter.

For example, this expression is expanded using the following logic:

```
select * from some.dbtable

where scope = ##OB_OPTIONSELECT_NONE{(@{param}, 0)}
```

If @{param} = 0 then the query is expanded to:

```
select * from some.dbtable
```

```
where scope = @{param} AND 1=0
```

Else, if @{param} <> 0 then the query is expanded to:

```
select * from some.dbtable

where scope = @{param}
```

In the **Insert Macro** menu, this macro is listed as **Option Select None**.

##OB_KEYWORDVALUE_TABLE

The **##OB_KEYWORDVALUE_TABLE** macro is used to return documents that have the specified Keyword Type applied to them. The documents returned can be optionally limited to the specified Document Types.

Tip: For Security Keywords, see also ##OB_SECURITYKEYWORDVALUE_TABLE on page 339.

This macro returns a sub-select table expression for accessing the document handle and Keyword Type value.

Note: Encrypted Keyword values are not displayed.

This macro accepts two comma-separated arguments in this format:

```
##OB_KEYWORDVALUE_TABLE{(arg1,arg2)}
```

- **arg1** is the unique system ID for the Keyword Type to use to locate documents. This value is required.
- **arg2** is the unique system ID for the Document Type used to limit the documents returned. Multiple Document Types can be included in a comma-separated list (e.g., **101,102,103**).

The expression returns a table of values and so must also include the table alias. In this example, the results are optionally limited to Document Types 101, 107, and 110, and the table alias is set to **t0**:

```
select * from ##OB_KEYWORDVALUE_TABLE{(1,101,107,110)} t0
```

The table returned contains the following columns:

- **itemnum:** The unique system ID of the document that contains the specified Keyword Type, also known as the document handle.
- **keytypenum:** The unique system ID of the Keyword Type.
- **keyvalue:** The Keyword Type value of the Keyword Type.

In the **Insert Macro** menu, this macro is listed as **Keyword Value Table**.

##OB_SECURITYKEYWORDVALUE_TABLE

The **##OB_SECURITYKEYWORDVALUE_TABLE** macro is used to return documents that have the specified Keyword Type applied to them, but also respects Security Keywords.

Note: Dual-table Security Keywords are not supported.

The documents returned can be optionally limited to the specified Document Types.

Tip: For normal Keyword Types, see also ##OB_KEYWORDVALUE_TABLE on page 338.

This macro returns a sub-select table expression for accessing the document handle and Keyword Type value.

Note: Encrypted Keyword values are not displayed.

This macro accepts two comma-separated arguments in this format:

```
##OB_SECURITYKEYWORDVALUE_TABLE{(arg1,arg2)}
```

- **arg1** is the unique system ID for the Keyword Type to use to locate documents. This value is required.
- **arg2** is the unique system ID for the Document Type used to limit the documents returned. Multiple Document Types can be included in a comma-separated list (e.g., **101,102,103**).

The expression returns a table of values and so must also include the table alias. In this example, the results are optionally limited to Document Types 101, 107, and 110, and the table alias is set to **t0**:

```
select * from ##OB_SECURITYKEYWORDVALUE_TABLE{(1,101,107,110)} t0
```

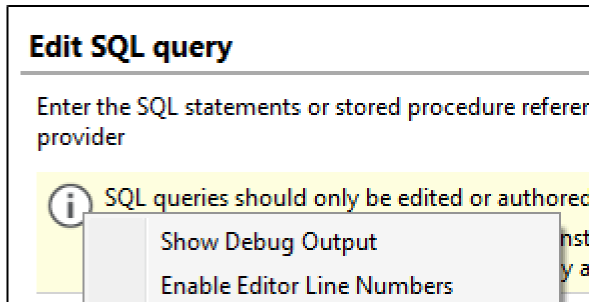
The table returned contains the following columns:

- **itemnum:** The unique system ID of the document that contains the specified Keyword Type, also known as the document handle.
- **keytypenum:** The unique system ID of the Keyword Type.
- **keyvalue:** The Keyword Type value of the Keyword Type.

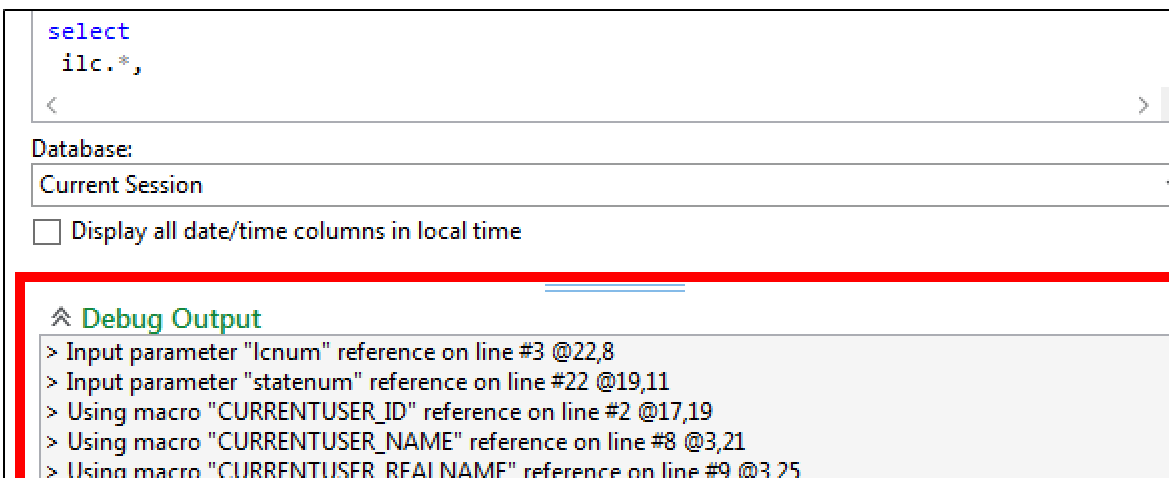
In the **Insert Macro** menu, this macro is listed as **Security Keyword Value Table**.

Debugging SQL Query Macros

To display debugging information for the replacement of macros and parameters in the SQL query entered, right-click the information icon in the **Edit SQL Query** dialog box when configuring the data provider and select **Show debug output**:



The debugging information is displayed below the data-entry field in the **Debug Output** pane:



To show/hide line numbers in the SQL editor pane, right-click the information icon and select **Enable editor line numbers**.

Reporting Web Viewer

Reporting Dashboards items can be viewed from web browsers, including mobile web browsers, using the additional Web Viewer. This allows users who do not have access to the OnBase Unity Client or OnBase Web Client to view dashboards and reports.

Note: Web Viewer links are not accessible using the OnBase Web Client. To view dashboards in the OnBase Web Client, see Web Client Usage on page 447.

The Reporting Web Viewer has limited functionality. It is not intended as a replacement for the Unity Client item viewer. Advanced features such as drill-down items and master filtering are available, and dashboard items can be exported as images or PDFs, but the following common features are not available in the Reporting Web Viewer, as well as other features not listed:

- Changing the input parameters of the dashboard or report
- Zooming and enlarging items
- Printing options
- Using display actions to open documents in OnBase
- Modifying dashboards
- Saving customizations to items, such as item widths

Note: For full functionality, Reporting Dashboards items must be accessed using the Unity Client. To access dashboards and reports in the Unity Client, see Unity Client Usage on page 377.

The Reporting Web Viewer is a server installed under IIS as an application accessed via HTTP. This appendix covers the installation, configuration, and usage of the Reporting Web Viewer.

This appendix is divided into the following sections:

Licensing

The system configured for use with the Web Viewer must be licensed for Reporting Dashboards. Additional licensing may be required to display dashboards or reports that include data from other OnBase modules, such as Workflow. See Licensing on page 2.

Requirements

The following requirements must be met for the Reporting Web Viewer to be installed and function correctly.

Upgrade Considerations

As of OnBase 18, the Reporting Web Viewer is a 64-bit application. If you are upgrading the Reporting Web Viewer from version 17 or earlier, using the Reporting Web Viewer installer automatically handles the transition from 32-bit to 64-bit, including enabling the application pool for the Reporting Web Viewer for 64-bit execution.

IIS

In order to install the Reporting Web Viewer, Microsoft Internet Information Services (IIS) must be installed. If IIS is not installed, or if no Web sites exist under IIS, you cannot install the Reporting Web Viewer until these requirements are met.

Application Server

A functioning OnBase Application Server must be installed before the Reporting Web Viewer can be installed. The Web Viewer does not have to be installed on the same machine as the OnBase Application Server but it must be able to communicate with it.

64-Bit Server Hardware Requirements

The following requirements apply to the 64-bit Web and Application Servers only. Differences are noted where applicable.

Server Component	Minimum	Recommended
CPU	2.4GHz dual-core / dual processor	Intel® XEON™ processor with multiple cores or processors
Memory (RAM)	• **Web Server:** 4 GB • **App Server (64-bit):** 8 GB **Note:** Using the minimum recommended memory may have an adverse effect on performance.	• **Web Server:** 8 GB • **App Server (64-bit):** 16 GB
Free Hard Disk Space (total for installation itself and post-installation files)	2 GB Available disk space should be at least twice the size of the largest file users may upload.	2 GB or greater Available disk space should be at least twice the size of the largest file users may upload.

Server Component	Minimum	Recommended
Network Card	Gigabit Ethernet	Gigabit Ethernet or higher
IIS	Microsoft Internet Information Services 8.0, 8.5, or 10.0	

Web or Application Servers must be dedicated purpose servers; they must not be used as a domain controller, DNS server, non-OnBase Web server, email server, print/database/file server, index server, proxy server, network backup server, jukebox manager, network performance monitor, OnBase Client processing workstation, or Workflow/API OnBase Client broker. Network and disk I/O hardware should be optimized for performance and redundancy. Two network ports can reduce server bottlenecks by using a segmented network for external and internal requests, where external requests are sent to the Web clients and internal requests are sent to the file and database servers. A Gigabit Ethernet connection to the file server and minimal latency connection to the database server are recommended.

.Web Browser Support

The Web Server and both the 32-bit and 64-bit versions of the Application Server are supported on Microsoft Internet Explorer 11 (IE 11) running in IE 11 document mode.

Note: You must ensure that all Windows Server updates are applied.

NET Requirements

OnBase requires Microsoft .NET Framework 4.7.2 or later. The .NET Framework can be obtained from the Microsoft Download Center at http://www.microsoft.com/downloads.

Microsoft Visual C++ Requirements

The Web Server and both the 32-bit and 64-bit versions of the Application Server require the Microsoft Visual C++ Redistributable Packages listed below. If not already present on your server, these packages are installed when the **setup.exe** installer is used to install the OnBase Web or Application Servers.

Note: If the Web Server and Application Server are not installed on the same computer as the module(s) with which they are connecting, you must ensure that the following packages are also installed on the modules’ workstations.

The 32-bit Application Server requires the following:

- Microsoft Visual C++ 2012 Redistributable Package (x86)
- Microsoft Visual C++ 2013 Redistributable Package (x86)
- Microsoft Visual C++ 2019 Redistributable Package (x86)

The 64-bit Application Server requires the following:

- Microsoft Visual C++ 2012 Redistributable Package (x64)
- Microsoft Visual C++ 2019 Redistributable Package (x64)

The Web Server requires the following:

- Microsoft Visual C++ 2012 Redistributable Package (x64)
- Microsoft Visual C++ 2019 Redistributable Package (x64)

If you are using the Application Server (either 32-bit or 64-bit) in conjunction with the Unity Client on a 64-bit system, you must also ensure that all of the following are installed on the Unity Client's workstation:

- Microsoft Visual C++ 2012 Redistributable Package (x86)
- Microsoft Visual C++ 2012 Redistributable Package (x64)
- Microsoft Visual C++ 2019 Redistributable Package (x86)
- Microsoft Visual C++ 2019 Redistributable Package (x64)

Client Hardware and Browser Requirements

Web Client Component	Minimum	Recommended
CPU	1 GHz	
Memory (RAM)	1 GB	2 GB or greater
Free Hard Disk Space	• **For installing and running the ActiveX Web Client:** 200 MB • **For installing and running the Desktop Host:** 400 MB	
Screen Resolution	1280 x 768	1280 x 1024 (1440 x 900 widescreen)
Email Platform	MAPI 1.1 Compliant Email Client connection and supporting Active Messaging DLLs	

The following sections list the Web browsers explicitly supported in the Web Client in OnBase Foundation EP5. Ensure that you are using these browser versions at a minimum with the Web Client.

Note: For any Web browser used with OnBase, it is recommended that you disable your Web browser's form field saving feature (sometimes referred to as AutoComplete or Autofill). If a workstation with OnBase has multiple users or handles sensitive or private data, the browser's form field saving feature could save this data and expose it to other users. For more information on disabling the form field saving feature, see your browser's documentation.

ActiveX Web Client

The ActiveX Web Client is supported on Microsoft Internet Explorer 11 (IE 11) running in IE 11 document mode.

HTML Web Client (Macintosh OS)

The HTML Web Client is supported on the following browsers in macOS:

- Google Chrome 89 or greater
- Mozilla Firefox 87 or greater
- Mozilla Firefox Extended Support Release (ESR) 78 or greater
- Safari 14.0 or greater, with the exceptions of full screen mode and Safari Reader

HTML Web Client (Windows OS)

The HTML Web Client is supported on the following browsers in Windows:

- Google Chrome 89 or greater
- Microsoft Edge on Chromium 89 or greater
- Microsoft Internet Explorer 11 (IE 11) running in IE 11 document mode
- Mozilla Firefox 87 or greater
- Mozilla Firefox Extended Support Release (ESR) 78 or greater

Note: As of OnBase Foundation EP5, Microsoft EdgeHTML (Edge Legacy) is no longer supported. If you are using any version of EdgeHTML, you should not upgrade to OnBase Foundation EP5 until you have upgraded to a browser supported by OnBase.

Installer Prerequisites

The installer must be run on operating systems that support the Windows® Installer 3.0+ architecture.

The installer setup executable (**setup.exe**) detects most of the prerequisites for the module that are also required for installation and installs them, if necessary. If the installer fails to run, install all of the requirements for the module separately before relaunching the installer. Module requirements can be found in the installation chapters of the corresponding module reference guides.

Note: If installation is being performed using the installer MSI file, the requirements for the module must be installed before launching the installer.

Installer User Permissions

You must be logged on to the installation machine with administrator privileges in order to run the installer.

If installing under Windows operating systems with UAC enabled, the installer must be run with elevated administrator privileges, even if the user currently logged in is an administrator.

Installer .NET Framework Requirements

The installer must be run on a machine that meets the .NET Framework requirements of the module being installed. Module requirements can be found in the installation chapters of the corresponding module reference guides.

OnBase requires Microsoft .NET Framework 4.7.2 or later. The .NET Framework can be obtained from the Microsoft Download Center at http://www.microsoft.com/downloads.

Third-Party Software Compatibility

OnBase is used in conjunction with a variety of third-party software products. The specific versions of third-party software that are supported are documented in the requirements sections of this manual, which reflect the versions that were required at the time this manual was published.

For up-to-date information, visit the following site:

https://community.hyland.com/technical/third-party-compatibility/third-party-compatibility-list

About Virtual Environments

Hyland Software develops, tests, and supports the OnBase suite of products on specific Operating Systems, not specific hardware configurations. When OnBase is operated in a virtual environment (such as Citrix, VMware, Hyper-V, or Windows Remote Desktop) there may be limitations or subtle differences imposed by the environment. The customer and the virtual environment vendor are responsible for any interactions or issues that arise at the Hardware or Operating System layer as a result of their use of a virtual environment.

When it appears that a performance-related issue in OnBase is either caused by (or is unique to) the virtual environment, organizations may be asked to validate that the issue occurs in a non-virtual environment. Hyland Software will make this request if there is reason to believe that the virtual environment is a contributing factor to the issue.

Each OnBase site is unique. Hyland Software depends on the customers who deploy OnBase in virtual environments to do so only after careful design and adequate planning (that takes into account the workloads of your organization), and in accordance with recommendations provided by the virtual environment's vendor. As with any implementation, Hyland Software strongly recommends that any customer deploying the OnBase solution in a virtual environment thoroughly test the solution before putting it into production.

For information about using OnBase in a Citrix and Microsoft Windows Remote Desktop environment, please see the **Citrix and Microsoft Windows Remote Desktop Environment Deployment Guide**, available on the Hyland Community (https://community.hyland.com).

64-Bit Support Statement

The OnBase suite of products is tested on 64-bit systems and is capable of being deployed on 64-bit systems using the Windows 32-bit on Windows 64-bit Emulator (WOW64) layer. However, OnBase modules that integrate with third-party applications may not be able to be used with the 64-bit versions of these applications. For these modules, only the 32-bit versions of these third-party applications are currently supported by the OnBase integrations. Consult the module-specific requirements section in each module reference guide for complete requirements details.

Supported database versions that are deployed on a 64-bit database server are also supported. For more information, contact your solution provider.

Installation

Note: Before installing the Reporting Web Viewer ensure that all requirements have been met. See Requirements on page 342.

The Reporting Web Viewer installer can be run from an installation CD or a local drive. If upgrading from a previous installation that used the Reporting Web Viewer installer, it is not necessary to uninstall the old components before running the installer.

Note: Existing files, such as configuration files, are overwritten when performing an upgrade.

Standard (EXE or MSI) Installers — There are two methods for running OnBase installers: Interactive and silent. An interactive installation requires user interaction with dialog boxes during the installation process. A silent installation does not require user interaction during the installation process.

OnBase installers may consist of both an executable file (**.exe**) and a Windows Installer Package file (**.msi**). When performing an interactive installation, and both an executable file and MSI are available, use the executable file to ensure a complete installation. The executable validates that all prerequisites are met before proceeding with the installation. If any missing prerequisites are identified, the installer alerts the user. Most missing prerequisites can be installed directly from the installer before continuing the installation process.

Note: The Microsoft .NET Framework prerequisite must always be installed separately before running either the EXE or MSI installer.

When performing a silent installation, and both an executable file and MSI are available, use the MSI. Since the MSI package does not validate prerequisites, you must ensure that Windows Installer 3.0 or greater is installed on each workstation and that all other prerequisites are met before running the MSI. If any prerequisites are not met, a silent installation from the MSI will fail without alerting the user.

For more information about configuring a silent installation, see https://docs.microsoft.com/en-us/windows/win32/msi/command-line-options.

ClickOnce Installers — Some OnBase modules are installed for deployment using ClickOnce. ClickOnce is a Microsoft technology that installs a deployment package to a central server. This package can then be accessed by users to install the application on their local workstations. The application is installed entirely under the user's profile, ensuring that it cannot interfere with other applications installed on the workstation.

ClickOnce deployments also have the following advantages:

- Previously installed versions of the module can be easily and automatically updated to the latest version with little or no user interaction, as long as the deployment server and deployment instance name are not changed.
- The module is installed on a per-user basis and does not require administrator privileges for local installation.
- There can be multiple instances of the module deployed, allowing for different versions of the module to be installed on a per-user basis, to match the version requirements of the workstation it is being installed to.

For more information on Microsoft's ClickOnce technology see https://docs.microsoft.com/en-us/visualstudio/deployment/clickonce-security-and-deployment.

Note: ClickOnce-deployed applications are not supported by Microsoft within a Remote Desktop environment.

OnBase modules that are deployed using ClickOnce should either take advantage of the ClickOnce deployment method as an alternative to a Remote Desktop deployment, or the module should be installed using a standard installer and deployed using the Remote Desktop methodology.

Note: Not all OnBase modules that support ClickOnce have a standard installer available. Contact your first line of support if you are unsure how to install and deploy a specific module.

User Account Control (UAC) — If Windows User Account Control (UAC) is enabled, the installer must be run with elevated administrator privileges, even if an administrator is currently logged on. This can be accomplished by right clicking on the installer executable and selecting **Run as Administrator** from the right-click menu. MSI files cannot be run using the **Run as Administrator** option. Instead, you must launch the MSI package using the command line. For more information on installing files through the command line, refer to your Microsoft support information or see https://docs.microsoft.com/en-us/windows/win32/msi/command-line-options.

Silent Installation Using setup.exe — If you are running setup.exe silently from the command line you must use the **/q** switch and the **/CompleteCommandArgs** switch, followed by the required command-line arguments.

The **q** switch specifies quiet mode and is required to suppress the GUI. The **CompleteCommandArgs** switch must be followed by the command-line parameters required to configure and install the desired components.

The complete string of command-line parameters must be included in double quotes after the **CompleteCommandArgs** switch. If a parameter in the string also requires double quotes, those quotes must be escaped using ****. For example: **setup.exe /q /CompleteCommandArgs "INSTALL_PROPERTY=\\"my value\\" INSTALL_PROPERTY_2=\\"my value 2\\""**.

Note: You should check the return value of the setup.exe process. A return value of **0** (zero) indicates success. Any other value returned may indicate that an error was encountered and the installation failed.

Tip: For complete details on running the installer from the command line, see Controlling the Installer from the Command Line on page 357.

Windows User Account Control Statement

Hyland Software is dedicated to ensuring that OnBase is compatible with Windows User Account Control (UAC). UAC is a feature of Windows operating systems that was introduced with Windows Vista. It limits the ability of standard users to make global system changes to a workstation and prevents malicious software from making unauthorized changes to protected areas.

For details on UAC, refer to your Microsoft support information or see http://technet.microsoft.com/en-us/library/cc709691(WS.10).aspx.

You may encounter UAC in OnBase when:

- Installing or uninstalling OnBase, OnBase modules, or OnBase ActiveX controls.
- Copying, moving, or saving files to the Program Files directory, Windows directory, or another protected location.
- Modifying system-wide settings, such as the registry.
- Re-indexing a document or opening a scanned batch using published Internet Explorer from a Remote Desktop Server.

If Windows UAC is enabled, the above operations may prompt for administrator privileges or credentials, even if an administrator is currently logged on.

Running the Installer

Launch the Reporting Web Viewer installer by executing **setup.exe**. This executable is usually located in the **\install\Reporting Viewer** folder of your source installation files.

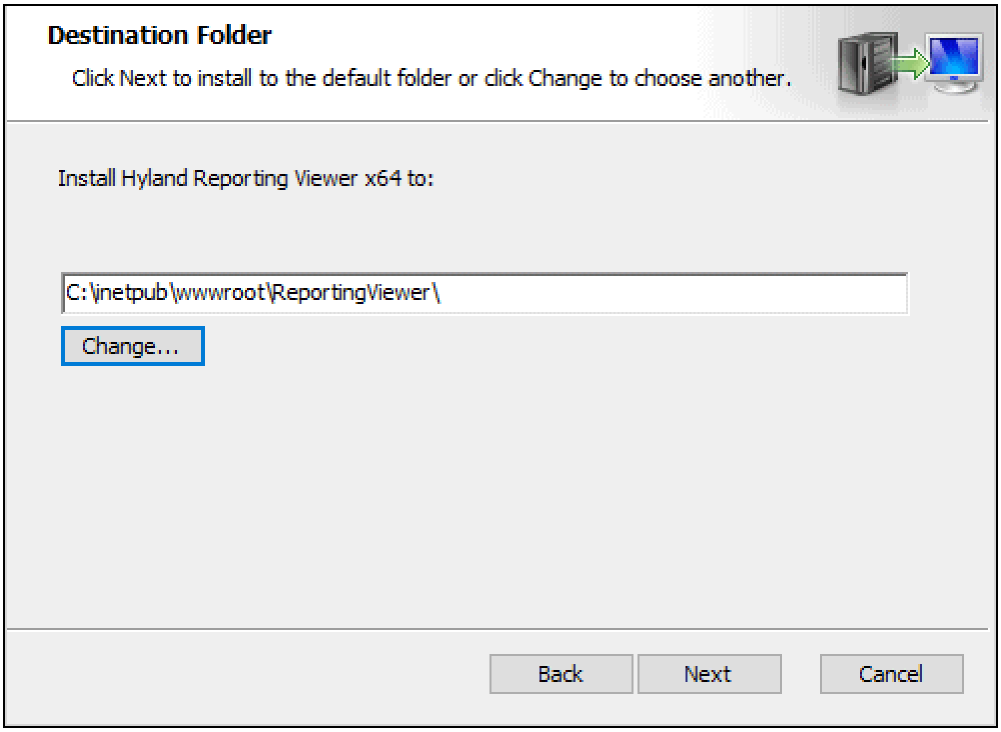
Note: If the installer is being copied from the source location to be run from a different location, the entire **Reporting Viewer** folder and its contents must be copied to the new location.

Tip: For complete details on running the installer from the command line, see Controlling the Installer from the Command Line on page 357.

1. The Hyland Reporting Viewer installation welcome dialog is displayed.

Note: If you are modifying or removing a previous installation, the **Program Maintenance** dialog is displayed. See, Change, Repair, or Remove an Installation on page 357.

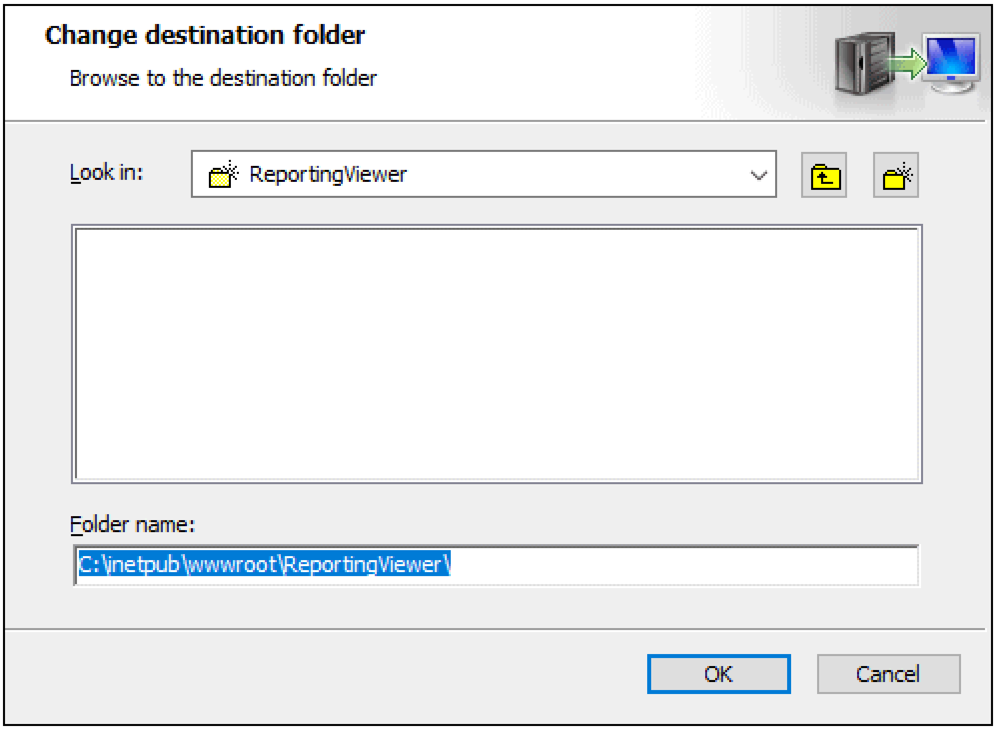
2. Click **Next**. The **Destination Folder** dialog box is displayed.



3. Click **Change** to change the installation location. By default the Web Viewer is installed to **C:\inetpub\wwwroot\ReportingCViewer**. If you do not change the installation location the Web Viewer is installed to the default location.

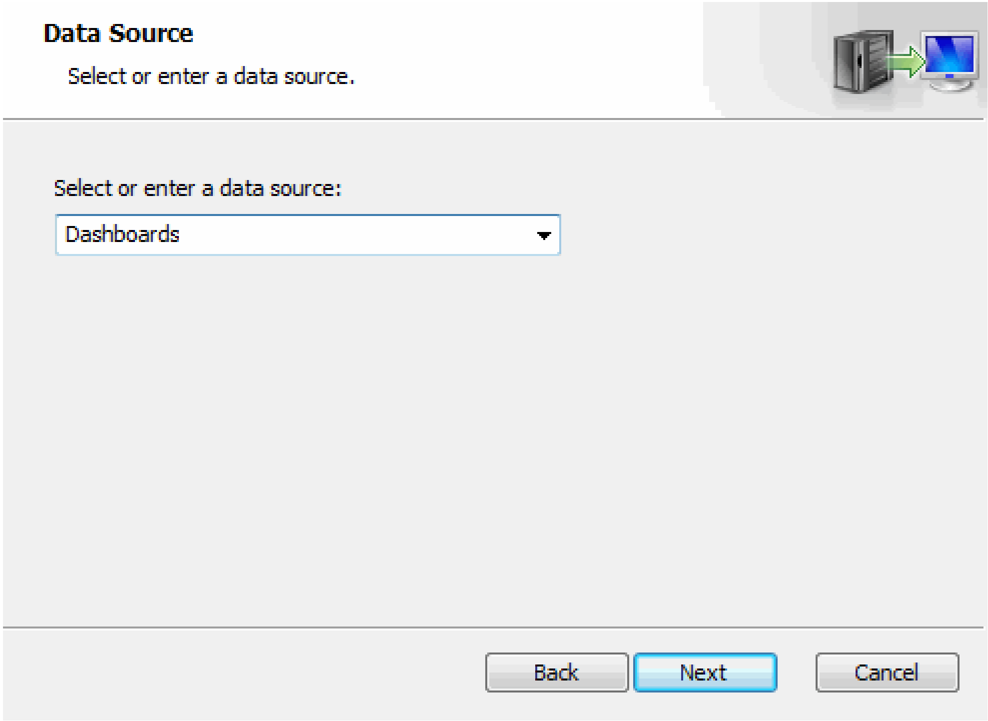
Note: The installation location entered is configured under IIS as the virtual directory for Internet access to the Reporting Dashboards Web Viewer.

If **Change** is clicked the **Change destination folder** dialog box is displayed.



Enter a **Folder name** in the field provided or select it from the **Look in** drop-down list, then click **OK**.

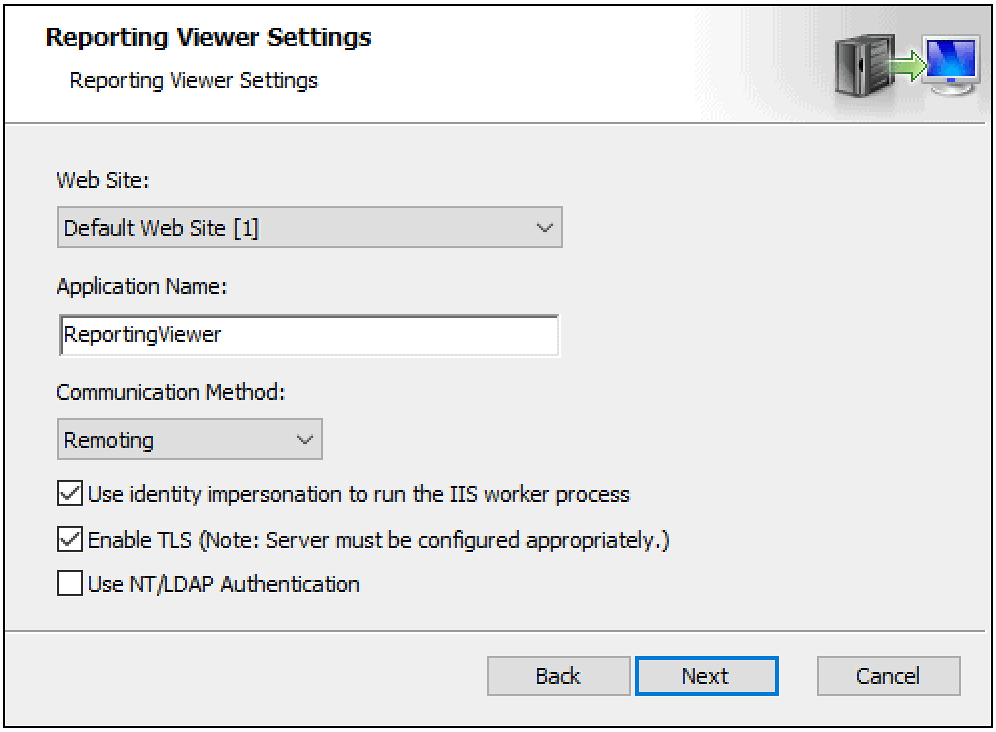
4. Click **Next**. The **Data Source** dialog box is displayed.



From the **Select or enter a data source** drop-down list, select the data source for the OnBase database associated with the dashboards you want to display data for, or enter a valid data source if it is not listed.

Note: The data source used to provide data for the Web Viewer to display must be licensed for Reporting Dashboards. Additional licensing may be required to display dashboards or reports that include data from other OnBase modules. See Licensing on page 2.

5. Click **Next**. The **Dashboard Viewer Settings** dialog box is displayed.



- Select a **Web Site** to install the Reporting Web Viewer to from the drop-down list. The **Web Site** list is populated with the Web Servers configured in IIS and available to the target machine.
- Enter a name for the Web Viewer in the **Application Name** field.

Note: The Web Viewer application name must be unique. It is a best practice not to use parentheses in the application name.

- Under **Communication Method**, select the how the Web Viewer will communicate with the OnBase Application Server.

  Remoting: .NET remoting allows the Web Viewer to use binary over HTTP to communicate with the OnBase Application Server. Remoting provides better performance than SOAP and is enabled by default. You may be unable to use remoting if a firewall needs to inspect the information passed to and from the Web Viewer, such as when the Web Viewer and the OnBase Application Server are hosted on different machines. In these situations, use SOAP.

  SOAP: SOAP allows the Web Viewer to use XML SOAP over HTTP to communicate with the OnBase Application Server. This option is useful for load balancing or situations where a firewall needs to inspect the information passed to and from the Web Viewer. If a load balancer is balancing traffic, then the Web Viewer must be configured to use SOAP.

Tip: In most situations, select **Remoting** if the Web Viewer and the OnBase Application Server are hosted on the same machine. If the Web Viewer and OnBase Application Server are hosted on different machines, select **SOAP**.

- Select **Use identity impersonation to run the IIS worker process** to use identity impersonation to run the installed Web Viewer under the account specified. If this option is deselected then the Web Viewer runs under the **Network Service** account.

  The impersonation account is granted modify rights to the directories and sub-directories used by the Web Viewer (in a default installation, **DashboardViewer** is the Web Viewer directory). The installer does not add modify rights for any other groups.
- Select **Enable TLS** to run the Web Viewer using an HTTPS connection. If this option is deselected then an insecure network connection is used. You are prompted to acknowledge that you understand the risks associated with disabling this security layer before you can proceed with the installation.

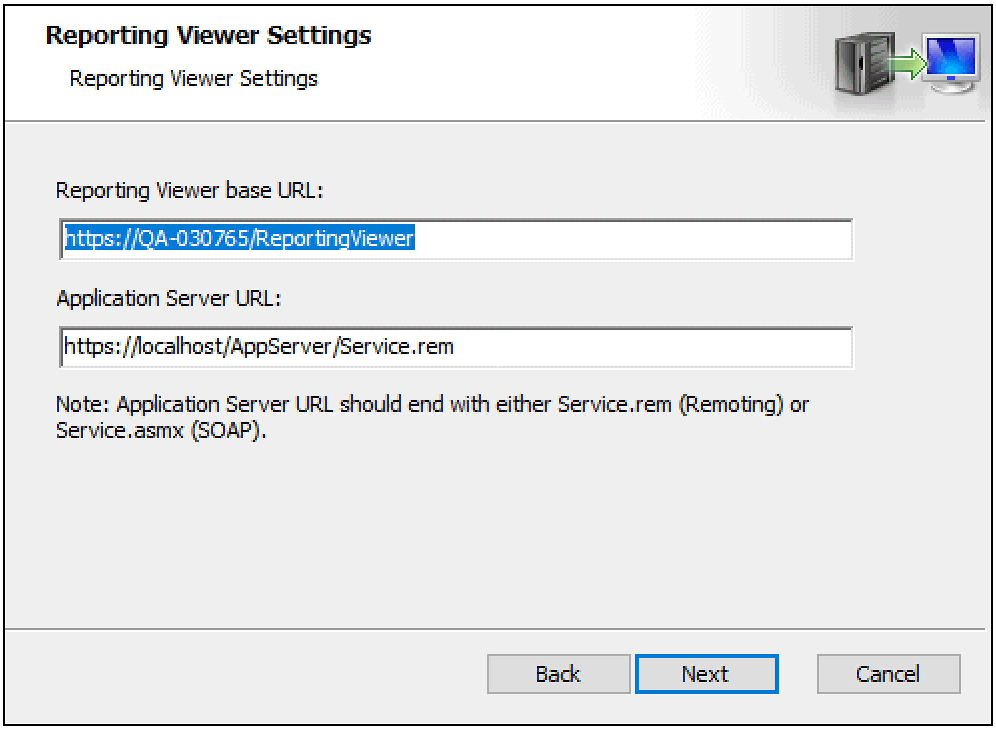
Note: Selecting **Enable TLS** does not configure an HTTPS binding. If this option is selected, you must ensure that your server is correctly configured for HTTPS connections.

- Select **Use NT/LDAP Authentication** to enable Active Directory or LDAP Authentication for the Web Viewer.

Note: Selecting **Use NT/LDAP Authentication** does not configure Active Directory or LDAP, it only allows the Web Viewer to use it. If this option is selected, you must ensure that your OnBase system is correctly configured to use Active Directory or LDAP authentication.

6. Click **Next**. If you deselected **Enable TLS** you are prompted to acknowledge that you understand the risks associated with disabling this security layer before you can proceed with the installation.

   A second **Reporting Viewer Settings** dialog box is displayed.



- In the **Reporting Viewer base URL** field, enter the URL of the Reporting Dashboards Web Viewer you are installing (e.g., http://localhost/ReportingViewer). The default value populated in this field is based on previous installation selections and current user input. Ensure that the URL root entered is accurate. The URL must reflect the machine and virtual directory that will contain the Web Viewer.

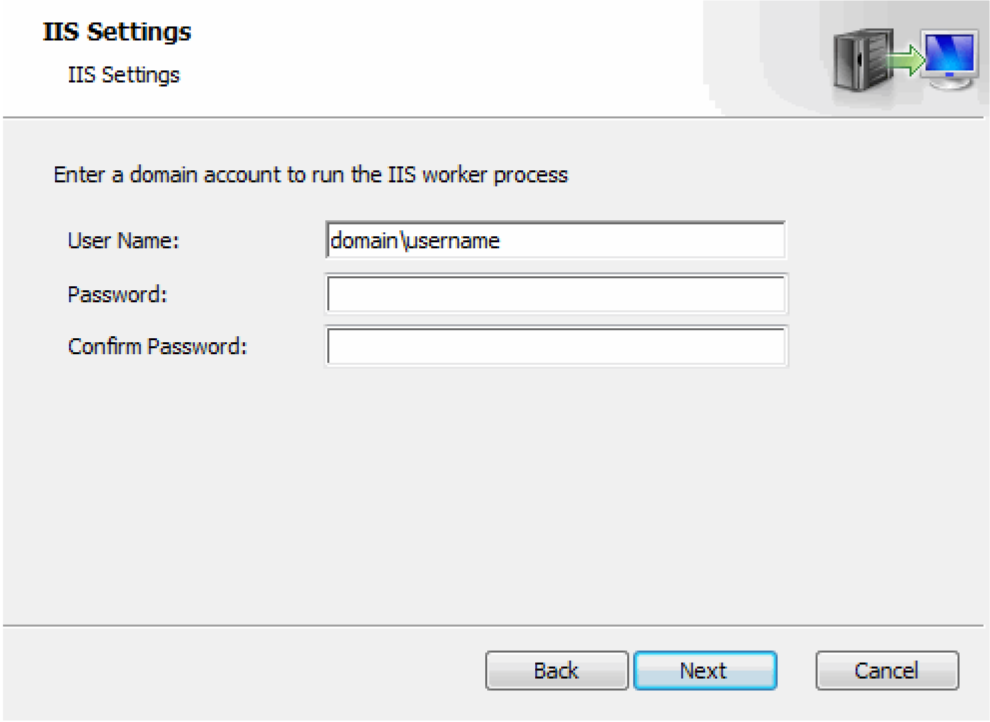
Note: The installer only supports installation to a virtual directory. You cannot use the installer to install to a Web site root. If you selected **Enable TLS** earlier in the installation, the **Reporting Viewer base URL** must begin with **https://**. The name of the virtual directory must match the configured Application Name for the Web Viewer.

- In the **Application Server URL** field, enter the full URL to the **Service** page on the OnBase Application Server that will be used to communicate with the data source configured. The file extension of the service page depends on the **Communication Method** you selected in the previous Reporting Viewer Settings dialog box. If you selected **Remoting**, the service page is **Service.rem**. If you selected **SOAP**, the service page is **Service.asmx**.

Tip: It is recommended to use **localhost** in the URL of the Application Server when it is being installed on the same machine as the Web Viewer. For example, **http://localhost/AppServer/Service.rem**.

The default value populated in this field is based on previous installation selections and current user input. Ensure that the URL entered is accurate. The URL must reflect the machine and virtual directory that contains the OnBase Application Server that will be used to communicate with the data source configured.

7. Click **Next**. The **IIS Settings** dialog box is displayed.



- In the **User Name** field, enter the domain and user name to use to run the IIS worker process for your server. This must be entered in the **domain\username** format.
- In the **Password** field, enter the password that corresponds to the user name provided.
- In the **Confirm Password** field, re-enter the password that corresponds to the user name provided. This is used to ensure that the password is typed correctly.

8. Click **Next**. The **Ready to install Hyland Reporting Viewer** dialog box is displayed.
9. Click **Install** to install the selected components.

   Click **Back** to return to the previous dialog boxes to change configuration options, or click **Cancel** to close the installer without installing the Web Viewer
10. When the **Completed the Hyland Reporting Viewer Setup Wizard** dialog box is displayed, click **Finish** to complete the installation.

Note: In order to ensure that the required system settings take effect, it is a best practice to restart the installing machine once the installer has finished.

Change, Repair, or Remove an Installation

After initial installation, the setup program can be used to change, repair, or remove components from a previous installation. After launching **setup.exe** or the ***.msi** installation package, and clicking **Next** at the welcome dialog, the **Change, repair, or remove installation** dialog box is displayed.

Select the option for the actions you wish to perform:

Option	Description
Change	Add or remove components using the **Custom Setup** dialog. **Note:** This option is not available if the installer has no independently selectable features. The steps for adding selected components are the same as those under the Component Selection section of the installation instructions, if applicable to the installer. **Note: Change** does not allow you to alter configuration options originally set during a previous installation of components contained in the installer.
Repair	Repair errors in the most recent installation of the component, such as missing and corrupt files, shortcuts, and registry entries. **Note:** This option is not available from all installers. **Repair** does not include errors made in the configuration options set by the user during installation. For specific troubleshooting information regarding an installed component, see the module reference guide for that component.
Remove	Removes all previously installed components.

Controlling the Installer from the Command Line

Note: Before installing the Reporting Web Viewer ensure that all requirements have been met. See Requirements on page 342.

To run the Reporting Web Viewer installer from the command line, it must be launched using this command: **msiexec /i "Hyland Reporting Viewer x64.msi" ADDLOCAL=ReportingViewer**.

By default the Web Viewer is installed to **C:\inetpub\wwwroot\ReportingViewer**. To change the installation location, set the **REPORTINGVIEWER_FILES** property on the command line. For example: **msiexec /i "Hyland Reporting Viewer x64.msi" ADDLOCAL=ReportingViewer REPORTINGVIEWER_FILES="C:\My\Install\Directory"**.

If you do not include the **REPORTINGVIEWER_FILES** property the Web Viewer is installed to the default location.

Note: The installation location entered is configured under IIS as a virtual directory for Internet access to the Reporting Web Viewer.

For details on additional properties for command-line installations see Property Names on page 358.

Property Names

When controlling the installation from the command line you must also configure the settings by using the properties listed in the following sections, which correspond to the options presented in the graphic user interface. These properties are appended to the installation command line with the appropriate values defined, for example:

msiexec /i "Hyland Reporting Viewer x64.msi" ADDLOCAL=ReportingViewer DATASOURCE="MyDataSource"

Note: In order to make a property empty, set its value to an empty string on the command line. For example, **IIS_ASPNET_IMPERSONATION** accepts **1** to enable impersonation or no value to disable impersonation. In other words, to disable impersonation the property is set like this on the command line: **IIS_ASPNET_IMPERSONATION=""**.

APPLICATION_SERVER_URL

Set this property to the full URL to the **Service** page on the OnBase Application Server that will be used to communicate with the data source configured. The file extension of the service page depends on the communication method configured under REPORTINGVIEWER_SERVICECLIENTTYPE. If the communication method is **Remoting**, the service page is **Service.rem**. If you use **SOAP**, the service page is **Service.asmx**.

Default value — http://localhost/AppServer/Service.asmx

Tip: It is recommended to use **localhost** in the URL of the Application Server when it is being installed on the same machine as the Web Viewer. For example, **http://localhost/AppServer/Service.rem**.

APPSERVER_APPLICATION_NAME

Set this property to the application name of the Application Server in IIS.

Default value — AppServer

REPORTINGVIEWER_APPLICATION_NAME

Set this property to the application name of the Reporting Dashboards Web Viewer in IIS.

Default value — ReportingViewer

REPORTINGVIEWER_IIS_ASPNET_IMPERSONATION

Set this property to **1** to use identity impersonation to run the installed Web Viewer under the account specified, or leave it empty to not use identity impersonation. If this option is left empty then the Web Viewer runs under the **Network Service** account.

The impersonation account is granted modify rights to the directories and sub-directories used by the Web Viewer (in a default installation, **ReportingViewer** is the Web Viewer directory). The installer does not add modify rights for any other groups.

If this property is set to **1** it requires settings for **IIS_ASPNET_USER** and **IIS_ASPNET_PASS**.

Default value — 1

REPORTINGVIEWER_IIS_NTAUTH

Set this property to **1** to enable Active Directory or LDAP Authentication for the Web Viewer or leave it empty to not enable Active Directory or LDAP Authentication.

Note: Setting this property to 1 does not configure Active Directory or LDAP, it only allows the Web Viewer to use it. If this option is set, you must ensure that your OnBase system is correctly configured to use Active Directory or LDAP authentication.

Default value — Not enabled

REPORTINGVIEWER_IIS_SSL

Set this property to **1** to run the Web Viewer using an HTTPS connection or leave it empty to not use an HTTPS connection. If this option is left empty then an insecure network connection is used.

Note: Setting this property to 1 does not configure your server to use HTTPS bindings. If this option is selected, you must ensure that your server is correctly configured for HTTPS connections.

Default value — 1

REPORTINGVIEWER_IIS_WEBSITE_ID

Set this property to the ID number of the Reporting Dashboards Web Viewer application in IIS. If set, this value must refer to the same application as is set with **DASHBOARDVIEWER_APPLICATION_NAME**.

Default value — No value

REPORTINGVIEWER_SERVICECLIENTTYPE

The setting of this value to determines how the Web Viewer will communicate with the OnBase Application Server. Set it to either **Remoting** or **SOAP**.

- **Remoting:** .NET remoting allows the Web Viewer to use binary over HTTP to communicate with the OnBase Application Server. Remoting provides better performance than SOAP and is enabled by default. You may be unable to use remoting if a firewall needs to inspect the information passed to and from the Web Viewer, such as when the Web Viewer and the OnBase Application Server are hosted on different machines. In these situations, use SOAP.
- **SOAP:** SOAP allows the Web Viewer to use XML SOAP over HTTP to communicate with the OnBase Application Server. This option is useful for load balancing or situations where a firewall needs to inspect the information passed to and from the Web Viewer. If a load balancer is balancing traffic, then the Web Viewer must be configured to use SOAP.

Tip: In most situations, select **Remoting** if the Web Viewer and the OnBase Application Server are hosted on the same machine. If the Web Viewer and OnBase Application Server are hosted on different machines, select **SOAP**.

Default value — Remoting

REPORTINGVIEWER_URL

Set this property to the URL of the Reporting Web Viewer you are installing (e.g., http://localhost/ReportingViewer). The default value populated in this field is based on previous installation selections and current user input. Ensure that the URL root entered is accurate. The URL must reflect the machine and virtual directory that will contain the Web Viewer.

Note: The installer only supports installation to a virtual directory. You cannot use the installer to install to a Web site root. If you set **REPORTINGVIEWER_IIS_SSL** to **1**, the **REPORTINGVIEWER_URL** address must begin with **https://**. The name of the virtual directory must match the configured Application Name for the Web Viewer.

Default value — No value

DATASOURCE

Set this property to the ODBC name of the data source for the OnBase database associated with the dashboards you want to display data for.

Note: The data source used to provide data for the Web Viewer to display must be licensed for Reporting Dashboards. Additional licensing may be required to display dashboards that include data from other OnBase modules. See Licensing on page 2.

Default value — No value

IIS_ASPNET_PASS

Set this property to the password of the domain user account configured for identity impersonation with the IIS_ASPNET_USER property. This property is required if IIS_ASPNET_IMPERSONATION or REPORTINGVIEWER_IIS_ASPNET_IMPERSONATION are enabled (i.e., set to 1).

In the **Password** field, enter the password that corresponds to the user name provided.

Default value — No value

IIS_ASPNET_USER

Set this property to the username of the domain user account to use for identity impersonation. This property is required if IIS_ASPNET_IMPERSONATION or REPORTINGVIEWER_IIS_ASPNET_IMPERSONATION are enabled (i.e., set to 1). This must be entered in the **domain\username** format.

This property is required if IIS_ASPNET_IMPERSONATION or REPORTINGVIEWER_IIS_ASPNET_IMPERSONATION are enabled (i.e., set to 1).

Default value — domain\username

Configuration

In order for the Reporting Web Viewer to function correctly after installation, the OnBase Unity Client must be configured to create URLs that can be used by the Web Viewer. Additionally, the Web Viewer can be configured to require a password for access or to use a specific account for access, among other settings.

See:

- Configuring the Unity Client to Create Web Viewer URLs on page 361
- Configuring the Web Viewer on page 363

Configuring the Unity Client to Create Web Viewer URLs

In order to enable to **Copy Hyperlink** and **Send To | Clipboard (as Shortcut)** options, to allow users to copy the URLs of dashboards to the clipboard so they can be pasted into other applications, the Unity Client configuration file may need to be updated.

The **Create Integration Hyperlink** privilege is also required to use the **Copy Hyperlink** option.

Note: If the Unity Client is installed using ClickOnce package deployment, changes to the Unity Client configuration file will require the package to be redeployed in order to take effect.

To enable hyperlink/shortcut copying:

1. Locate the **obunity.exe.config** file. This file is at the same location as the Unity Client executable.
2. Open the file in a plain-text editor, such as Notepad. Do not open the config file in a binary-text editor, such as Microsoft Word. Binary-text editors can introduce invalid characters to the configuration file that can cause unexpected errors when users access the Unity Client.

Note: When Windows UAC is enabled, the plain-text editor must be launched with elevated administrator privileges in order to enable the config file to be edited. To enable editing, right-click the text editor executable or a shortcut to it and select **Run as administrator**.

3. Locate the **emailLinkAs** key under the **appSettings** element and change the value of the **value** attribute to **weblink**. This allows the dashboard to be accessed directly from the link using a Web browser.
4. Locate the **reportingWebViewerUrl** key under the **appSettings** element and change the value of the **value** attribute to full URL path to the **Viewer.aspx** page for the Web Viewer installation. This is the http: path under IIS, for example: **http://server-name/DashboardViewer/Viewer.aspx**.

Note: If an HTTPS binding is enabled on the server, the path must begin with **https**.

5. If URLs need to be generated manually or by a scripted process, without opening the Unity Client to create them, the Unity Client must be configured to allow unencrypted dashboard URLs.

Caution: Unencrypted URLs pass parameter information in plain text and may expose sensitive information to anyone who can see the URL.

To allow unencrypted Web Viewer URLs:

h. Locate the **encryptReportingUrls** key under the **appSettings** element.

   If the **encryptReportingUrls** element does not exist, add it as a child of the **appSettings** element with this format:

   ```
   <encryptDashboardUrls value="false" />
   ```
i. Make sure the value of the **value** attribute is **false**.

Note: The Web Viewer must also be configured to accept parameters from URLs. The **acceptHttpDashboardParams** web.config setting of the Web Viewer must be set to **true**. See Configuring the Web Viewer on page 363.

6. Save and close the configuration file.

Configuring the Web Viewer

The Web Viewer can be configured to require a valid user name and password to access the linked dashboard or report, and to allow additional functionality for users accessing the dashboard or report from the a link. Web Viewer configuration can be done using the Web Application Management Console or by directly editing the web.config file of the Web Viewer.

Tip: To avoid introducing errors to Web Viewer it is a best practice to use the Web Application Management Console to edit the configuration options. For complete details on installing and using the Web Application Management Console see the **Web Application Management Console** module reference guide.

To configure the Web Viewer:

1. Launch the Web Application Management Console on the machine that hosts the Web Viewer, or locate the **web.config** file for the Web Viewer. In a default installation, the web.config file is located at **C:\inetpub\wwwroot\ReportingViewer**.
2. Select the Web Viewer at the **Select the web application to configure** dialog box in the Web Application Management Console and click **OK**. If the Web Application Management Console is already open, click **Open Web Application** to access the **Select the web application to configure** dialog box.

   If you are editing the web.config file directly, open the web.config file in a plain-text editor, such as Notepad. Do not open the config file in a binary-text editor, such as Microsoft Word. Binary-text editors can introduce invalid characters to the configuration file that can cause unexpected errors when users attempt to use the Web Viewer.

Note: If Windows UAC is enabled, the plain-text editor must be launched with elevated administrator privileges in order to edit the config file. To enable editing, right-click the text editor executable or a shortcut to it and select **Run as administrator**.

3. Select the **Reporting Viewer** tab in the Web Application Management Console, or locate the **Hyland.Web.ReportingViewer** element in the web.config file, and change the items in the following table to reflect your configuration settings.

Note: You cannot edit the web.config file directly if the Hyland.Web.DashboardViewer element contains the **EncryptedData** child element. If the configuration has been encrypted it can only be changed using the Web Application Management Console.

Web Application Management Console Field	Web.Config Element	Description and Settings
User Name	**username**	The user name of the account to use for access to the linked dashboard. If a user name is entered as the value, the corresponding password must also be entered for the **Password** value. **Caution:** This user account is used to access the dashboard by anyone following the link. It is a best practice to create a single-purpose user account to fill this need, with the minimum level of access and privileges to Reporting Dashboards and OnBase. To require the user accessing the dashboard to input a valid user name and password, leave this value empty.
Password	**password**	The password that corresponds to the user name entered as the **User Name** value. To require the user accessing the dashboard to input a valid user name and password, leave this value empty.
Auto Login	**enableAutoLogin**	Select this option, or set it to **true** in the web.config file, if the Web Viewer is configured to use a single sign-on scheme, such as Active Directory or LDAP. **Note:** This does not automatically grant permission to access the dashboard. The user accessing the dashboard from the link must still have permission to access the dashboard.
Dashboard Theme	**useTheme**	Set the color theme used to display dashboards to either **dark** or **light**.

Web Application Management Console Field	Web.Config Element	Description and Settings
Export Dashboard	**enableExportDashboard**	Select this option, or set it to **true** in the web.config file, to allow users accessing dashboards to export dashboards as either images or PDF files. Deselect this option, or set it to **false** in the web.config file, to disable exporting.
Export Dashboard Items	**enableExportDashboardItems**	Select this option, or set it to **true** in the web.config file, to allow users accessing dashboards to export specific dashboard items within a dashboard as either images or PDF files. Deselect this option, or set it to **false** in the web.config file, to disable exporting dashboard items. **Note:** If **Export Dashboard** is deselected (false) the ability to export dashboard items is also disabled even if **Export Dashboard Items** is selected (true).
Allow HTTP Parameters	**acceptHttpDashboardParams**	Select this option, or set it to **true** in the web.config file, to accept dashboard parameters from the HTTP request. Deselect this option, or set it to **false** in the web.config file, to allow the user accessing the dashboard to set the parameters. **Note:** This option must be set to **true** if Web Viewer URLs are going to be created manually, or by a scripted process, without using the Unity Client to create them.
Encrypt Dashboard Viewer	**n/a**	Select this option to encrypt the configuration information of the Web Viewer in the web.config file. **Note:** If this option is selected, the options can no longer be read or configured directly in the web.config file.

Web Application Management Console Field	Web.Config Element	Description and Settings
Dashboard Tracing Info Level	**sessionTraceLevel**	This value is for troubleshooting purposes only. Valid values are whole numbers 1-4.

4. Click **Save** in the Web Application Management Console to save your changes, or save and close the web.config file.

Note: Changes to the configuration of the Web Viewer may require an IIS reset to take effect.

Usage

Web links to dashboards and reports are placed in the operating system clipboard so they can be pasted into other applications, such as emails. With the Reporting Web Viewer, dashboards and reports can be viewed from web browsers, including mobile web browsers, using the additional Web Viewer. This allows users who do not have access to the Unity Client to view dashboards and reports.

Note: In order to access a dashboard or report from the link, the user following the link must have access to the OnBase Unity Client that contains the dashboard or report and permission to view the dashboard or report.

The Reporting Web Viewer has limited functionality. It is not intended as a replacement for the Unity Client dashboard and report viewer. Advanced features such as drill-down items and master filtering are available, and dashboard items can be exported as images or PDFs, but the following common features are not available in the Web Viewer, as well as other features not listed:

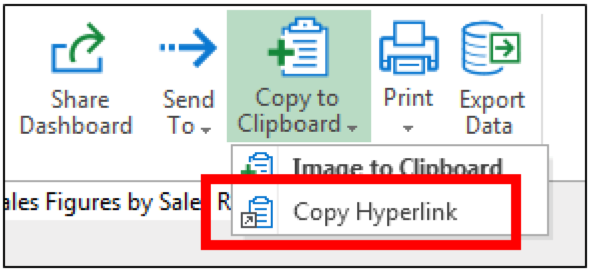
- Changing the input parameters of the dashboard or report
- Zooming and enlarging items
- Printing options
- Using display actions to open documents in OnBase
- Modifying dashboards
- Saving customizations to items, such as item widths

To copy a Web Viewer link to the clipboard:

Note: Web Viewer links are not accessible using the OnBase Web Client.

1. Load the dashboard or report to create a link to in the Dashboard Viewer.
2. Click **Copy to Clipboard | Copy Hyperlink** in the **Actions** ribbon group.

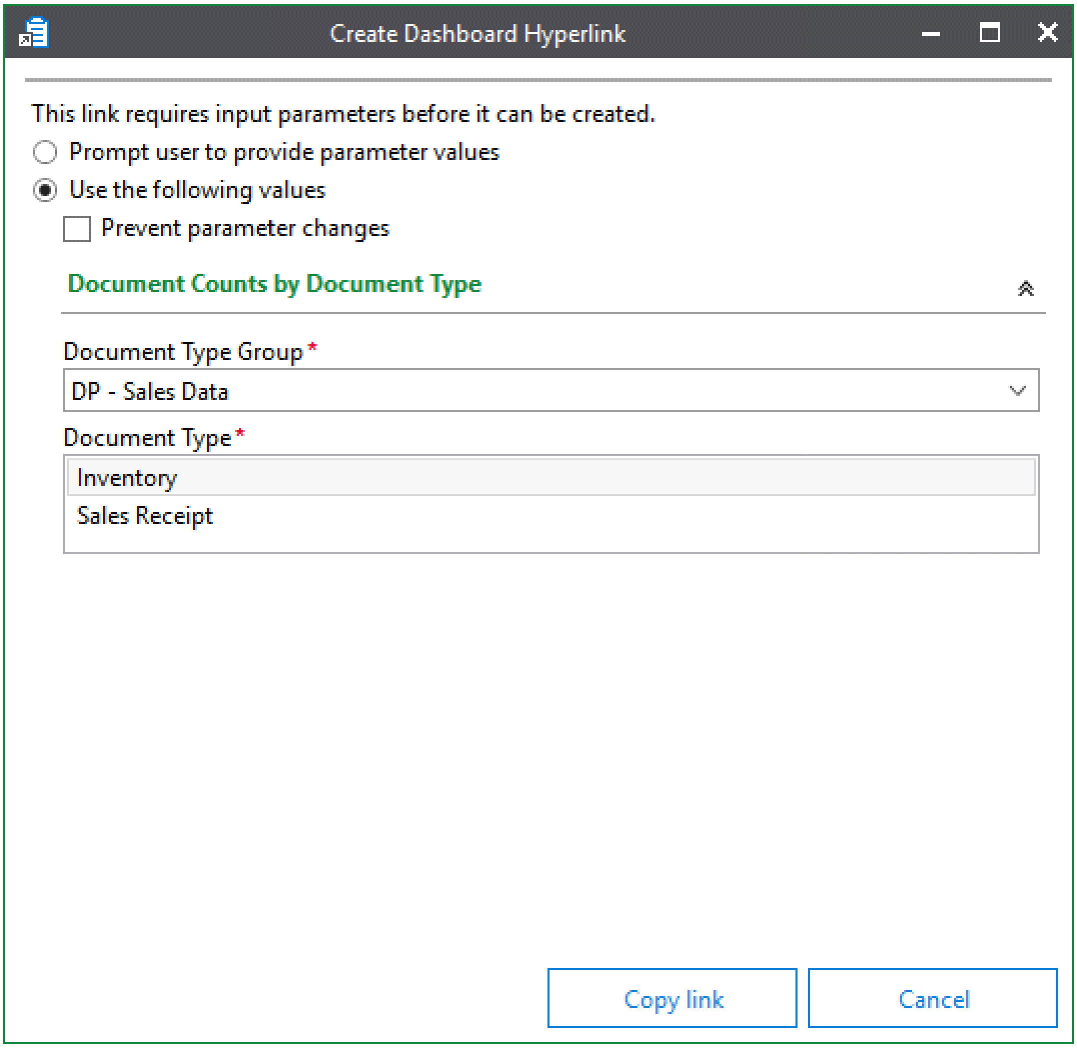
Note: The **Create Integration Hyperlink** privilege is required to use the **Copy Hyperlink** option.



The **Create Dashboard Hyperlink** or **Create Report Hyperlink** dialog box is displayed if the data provider of the dashboard or report being linked to contains runtime parameters (parameters with values provided by the user).

If the dashboard or report contains no runtime parameters, the link is copied to the clipboard and no additional dialog box is displayed.

3. If the **Create Dashboard Hyperlink** or **Create Report Hyperlink** dialog box is displayed, select an option for how runtime parameter values are handled when the dashboard or report is displayed.



- **Prompt user to provide parameter values**: Select this option to prompt the user accessing the dashboard or report to enter values for the runtime parameters. The user is prompted even if the parameters are not required and contain default values.
- **Use the following values**: Select this option to provide values for the runtime parameters. The values entered are used to display the dashboard or report when the hyperlink is followed. The user is only prompted to enter values for required runtime parameters that do not values.

- **Prevent parameter changes**: Enabling this option prevents users from changing the parameters entered in the dashboard or report when the link is created. If this option is not enabled, the dashboard or report is presented with the values set during link creation, but these can be altered by the user.

Tip: The user accessing the dashboard or report in the Web Viewer is able to change the runtime parameters after loading the dashboard or report by clicking **Parameters** in the upper right corner of the page.

4. If you selected **Use the following values** you must enter values for the runtime parameters displayed.
5. Click **Copy link**. The dashboard Web Viewer URL is copied to the clipboard.

Note: Web Viewer links are not accessible using the OnBase Web Client.

Scripted Web Viewer URLs

URLs for Web Viewer links can be generated manually or by a scripted process, without opening the Unity Client to create them, as long as the Unity Client is configured to allow unencrypted dashboard URLs.

Caution: Unencrypted URLs pass parameter information in plain text and may expose sensitive information to anyone who can see the URL.

Information on configuring the Unity Client and Web Viewer to accept unencrypted dashboard or report URLs is found in the following sections:

- Configuring the Unity Client to Create Web Viewer URLs on page 361
- Configuring the Web Viewer on page 363

Valid Web Viewer URLs contain the base URL and several parameters specific to the dashboard or report being viewed, some of which are required. The base URL of the Web Viewer is **http://[server name]/[virtual directory]/Viewer.aspx**, where **[server name]** is the name of the machine where the Web Viewer is installed and **[virtual directory]** is the name of the virtual directory the Web Viewer was installed to. For example, **http://Example-Server/DashboardViewer/Viewer.aspx**.

Note: If the Web Viewer was configured to use an HTTPS binding, the base URL must begin with **https://**. The name of the virtual directory must match the configured Application Name for the Web Viewer.

Several general parameters can be included on the Web Viewer URL, some of which are required. Additional input parameters can also be included. See:

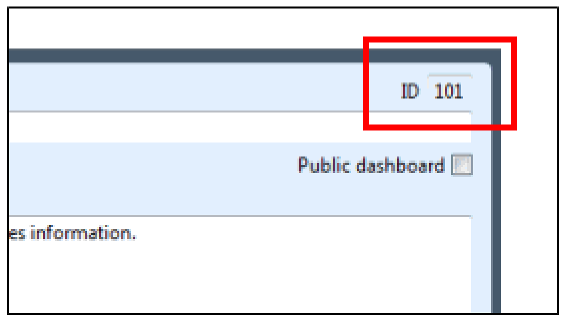
- General Parameters on page 370
- Runtime Parameters on page 371

General Parameters

The following general parameters can be included on the Web Viewer URL, some of which are required. Parameters are appended to the base URL of the Web Viewer with a question mark (?). Additional parameter definitions are separated with an ampersand (&).

For example:

http://Example-Server/DashboardViewer/Viewer.aspx?dashboard=296&ds=MyDatabase

Parameter	Description
dashboard	The **dashboard** parameter defines the dashboard to access, using its ID number. The dashboard ID number is displayed in the upper right corner of the properties window for the dashboard.  **Note:** This parameter is required.
ds	The **ds** parameter defines the data source of the dashboard. This is the ODBC name of the data source. If no value is entered, the data source configured in the **dmsDataSource** key of the web.config file for the Dashboard Viewer is used.
dologin	If the **dologin** parameter is present in the URL, the user is always forced to log in. This parameter has no value, it just needs to be present in the URL: **?dashboard=296&ds=MyDatabase&dologin=&sessionTrace=0**
fp	The **fp** parameter determines if a user is prompted for runtime parameter values when accessing the dashboard. If **fp** is not present in the URL or is set to **0**, the user is only prompted for parameters if at least one parameter is required but has no default value and no value set in the URL. If **fp** is set to **1** and the dashboard has available runtime parameters, the user is always prompted to enter values.
useTheme	The **useTheme** parameter is used to override the default theme of the Dashboard Viewer as set in the web.config file for the Dashboard Viewer. Valid values are **light** or **dark**.

Parameter	Description
sessionTrace	The **sessionTrace** parameter is used to override the default trace level of the Dashboard Viewer as set in the web.config file for the Dashboard Viewer. Valid values are **0**, **1**, **2**, **3**, or **4**.

Runtime Parameters

If the dashboard or report being accessed has parameters that can be changed when the dashboard or report is displayed, those runtime parameters can be appended to the Web Viewer URL to customize the results displayed, just as a user can alter the results with parameter selections using the interface.

See:

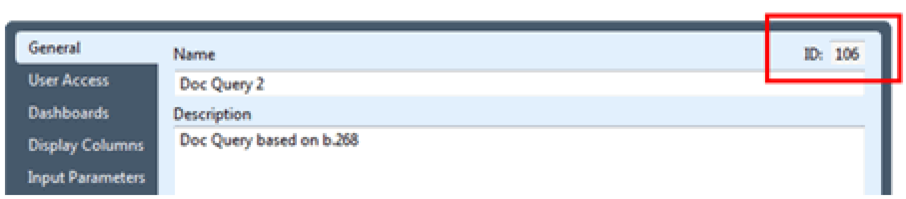
- Runtime Parameter Elements on page 371
- Value Parameter Elements on page 373

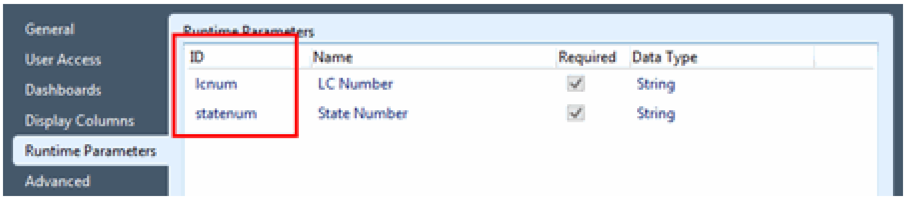
Runtime Parameter Elements

Runtime parameters are added to the Web Viewer URL preceded by an ampersand (&) and in the following pattern, with each element separated by a hyphen (-):

&dpID-ParameterID-ParameterNumber-BinaryOperator-LogicalOperator=Value

The following table describes each element of a runtime parameter.

Parameter	Description
dpID	The data provider ID number, where **ID** is replaced with the ID number of your data provider (the number must be appended after **dp**). For example, **dp106**. This element is required. The data provider ID number is in the upper right corner of the **General** tab of the properties window for the data provider. 

<table>
<tr><th>Parameter</th><th>Description</th></tr>
<tr><td>ParameterID</td><td>The runtime parameter ID. This element is required.
The runtime parameter ID is displayed on the Runtime Parameters tab of the properties window for the data provider in the ID column.

</td></tr>
<tr><td>ParameterNumber</td><td>The sequential number of the parameter in the URL, used to create a unique instance when two or more parameters with the same parameterID are used in the same URL. This element is only required if two or more parameters with the same parameterID are used in the same URL.
For example:
&dp106-statenum-1-eq=oh&dp106-statenum-2-OR-eq=pa</td></tr>
<tr><td>BinaryOperator</td><td>The binary operator that describes the relationship between this parameter and the previous parameter. This element is optional and must be either AND or OR.</td></tr>
<tr><td>LogicalOperator</td><td>The logical operator used to evaluate the value of the parameter. This element is required and must be eq, gt, gte, lt, lte, neq, in, or nin where:

eq is equivalent to = (equal to)
gt is equivalent to > (greater than)
gte is equivalent to >= (greater than or equal to)
lt is equivalent to < (less than)
lte is equivalent to <= (less than or equal to)
neq is equivalent to <> (not equal to)
in indicates that the parameter is contained in the value
nin indicates that the parameter is not contained in the value

Note: If the parameter does not allow the logical operator to be changed at runtime, this setting is ignored.</td></tr>
</table>

Parameter	Description
Value	The value of the parameter, equivalent to what would be entered by a user in the user interface. This element is required. If the parameter requires a currency value, it must be formatted as a decimal value without any commas. For example, **$1,000.00** must be added to the URL as **1000.00**: **&dp106-cost-gt=1000.00** If the parameter requires a date-time range for the value, it must be formatted as **type:begin:end**. **Note:** See the following table for the possible values of **type**, **begin**, and **end** (see Value Parameter Elements on page 373).

Value Parameter Elements

The **Value** parameter of the Web Viewer URL can be used to describe a date-time range. If the parameter requires a date-time value, it must be formatted as **type:begin:end**, for example: **=5:5:0**

Note: In some environments, the colon (:) may be a reserved character. It is a best practice to use URL encoding for all URLs.

The following table describes each element of the **Value** runtime parameter (for details on the runtime parameter elements, see Runtime Parameter Elements on page 371).

Value Parameter Element	Possible Values
type	The **type** value represents the type of date range and must be one of the following numbers. The **type** determines the values for the **begin** and **end** parameters. • **0:** none • **1:** Previous workday • **2:** Last business day • **3:** Yesterday • **4:** Today • **5:** Specific day this week • **6:** First day of the month • **7:** Last day of the month • **1001:** Last month (the first day of last month through the last day of last month) • **1002:** Current month (the first day of this month through the current day) • **1003:** Current week (Sunday through the current day) • **1004:** Month to date (the first day of this month through the current day) • **1005:** Year to date • **2001:** Last days • **2002:** Last weeks • **2003:** Last months • **2004:** Last hours
begin type = 0	If the **type** is set to **0** (none), enter the beginning date, converted to .NET ticks. For example, to begin the date range at **January 26, 2014 12:00:00 AM** you must enter **635262912000000000** for the **begin** parameter.
begin type = 5	If the **type** is set to **5** (specific day this week), enter the number that represents the day of the week: • **0:** Sunday • **1:** Monday • **2:** Tuesday • **3:** Wednesday • **4:** Thursday • **5:** Friday • **6:** Saturday

Value Parameter Element	Possible Values
begin type = 2001	If the **type** is set to **2001** (last days), enter the number of days before the current day. Enter a whole number. For example, **5** starts the date range five days before the current day.
begin type = 2002	If the **type** is set to **2002** (last weeks), enter the number of weeks before the current week. Enter a whole number. For example, **2** starts the date range two weeks before the current week.
begin type = 2003	If the **type** is set to **2003** (last months), enter the number of months before the current month. Enter a whole number. For example, **3** starts the date range three months before the current month.
begin type = 2004	If the **type** is set to **2004** (last hours), enter the number of hours before the current time. Enter a whole number. For example, **3** starts the date range three hours before the current date-time.
begin all other type values	Enter **0** if the **type** is set to 1, 2, 3, 4, 6, 7, 1001, 1002, 1003, 1004, or 1005.
end type = 0	If the **type** is set to **0** (none), enter the ending date, converted to .NET ticks. For example, to end the date range at **January 26, 2014 12:00:00 AM** you must enter **635262912000000000** for the **end** parameter.
end type = 2004	If the **type** is set to **2004** (last hours), enter the number of minutes before the current time. Enter a whole number. For example, **10** ends the date range ten minutes before the current date-time.
end all other type values	Enter **0** if the **type** is set to 1, 2, 3, 4, 5, 6, 7, 1001, 1002, 1003, 1004, 1005, 2001, 2002, or 2003.

OnBase®
Foundation EP5

Reporting Dashboards

User Guide

Foundation EP5

Reporting Dashboards functionality is available in the Unity Client. Dashboards and reports can be viewed in the Unity Client and Web Client.

To view these items in the Web Client, see Web Client Usage on page 447.

To access Reporting Dashboards in the Unity Client, launch the Unity Client and click the **Reporting** button on the **Home** ribbon:

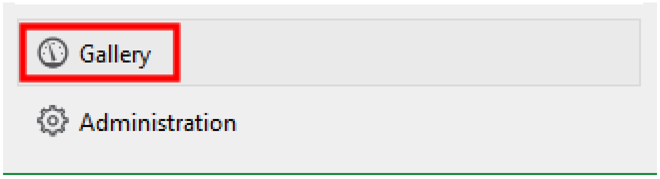
If you have access to any dashboards, your default dashboard is displayed. See Using the Item Viewer on page 386.

If there are no dashboards available to you, the **Create Dashboard Wizard** dialog box is automatically displayed. See Dashboard Maintenance and Design on page 24.

Gallery Overview

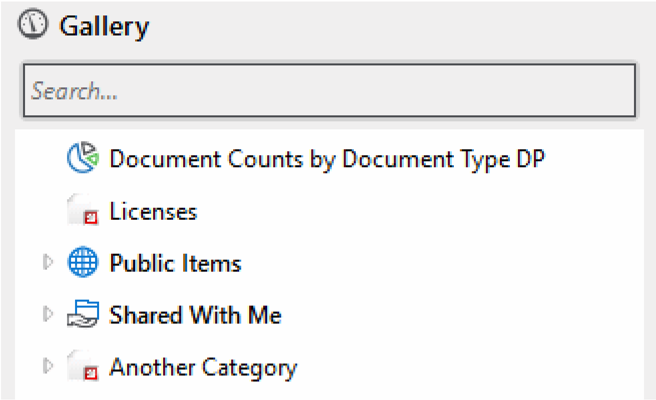
Dashboards and reports are used to display data returned from a configured data provider. The graphical dashboard items of a dashboard allow users to quickly identify relevant information and trends surrounding the data managed by the data provider. Reports allow for the sorting and categorization of data managed by a data provider

To access the Gallery area of Reporting Dashboards click **Gallery** at the bottom of the left pane:



The **Gallery** pane is displayed. This area allows you to access items you have created, as well as public dashboards/reports and any items that are shared with you.

In the **Gallery** pane, dashboards and reports that you have created that are not assigned to a category are listed first. (To create a new category, see Creating New Categories on page 429.)

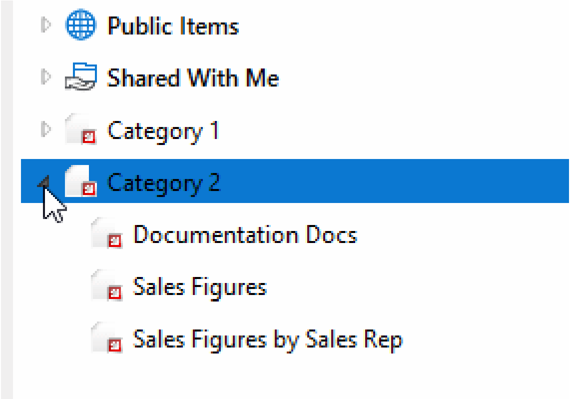


The **Public Items** category includes public dashboards or reports that all users have access to.

The **Shared With Me** category contains dashboards or reports that are not public but that have been shared with you.

Beneath the **Shared With Me** category your custom categories are listed, which contain the dashboards or reports you assigned to them.

To expand or collapse a category, click the arrow at the left of the name of the category.



Tip: To create a new category, see Creating New Categories on page 429.

To view an item, click the name of it in the Gallery. Each item is opened in a new tab in the item viewer and contains the graphical or categorizations configured for the item. See Using the Item Viewer on page 386.

Item Viewer Actions and Right-Click Menu Items

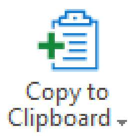
The following actions are available from the **Item Viewer** ribbon or are right-click menu options for dashboards, reports, categories, or dashboard/report items. See Item Viewer Actions on page 379 for information on each action.

Item Viewer Actions

This table describes the actions available from the **Item Viewer** ribbon. Additional information on each action can be found in the linked cross-references.

Action	Description
New	
Create New Dashboard	Launch the **Create New Dashboard** wizard. See Creating New Dashboards on page 26.
Create New Report	Launch the **Create New Report** wizard. See Creating New Reports on page 152.
Gallery	
Copy to New	Launch the **Create New Dashboard** or **Create New Report** wizard with the configuration and settings of the active item pre-populated. See Creating New Dashboards on page 26 or Creating New Reports on page 152.
Delete	Delete the active dashboard or report. You are prompted to confirm this action. **Caution:** Deleted dashboards and reports are no longer available to any users and cannot be recovered.
History	View the history log for the active dashboard or report, which includes configuration changes and an access log. See Viewing History Logs on page 444.
Properties	Open the **Properties** dialog box for the active dashboard or report. See Changing Existing Dashboards on page 35 or Changing Existing Reports on page 160.
Design	Open the dashboard designer to change the design of the active dashboard. See Using the Dashboard Designer on page 54. **Note:** This button is not available for reports.
View	

Action	Description
Full Screen	Open the active dashboard in full-screen mode. In full-screen mode the dashboard or dashboard item fills the viewing area and only right-click menu options for dashboard items are available. See Viewing Dashboards in Full-Screen Mode on page 387. To exit full-screen mode, click **Exit Full Screen** or press **Esc** or **F11** on your keyboard. **Note:** This button is not available for reports.
Clear All Filters	Reset all master filters and drop down filters for the active dashboard or report and return it to its default display.
Parameters	Open the **Parameters** dialog box for the active dashboard or report to change the available parameters for that dashboard or report. See Changing the Parameters of an Item on page 388.
Refresh	Reload the data displayed in the active dashboard or report to reflect the most recent changes to the data or parameters for that dashboard or report.
Column Chooser	Select columns for display and grouping in a report. Columns can also be dragged into this window to remove them from a report. See Using Columns and Groups for Reports on page 389. **Note:** This button is not available for dashboards.
Filter Editor	Opens the editor for complex filters for the report. See CROSS REF NEEDED. **Note:** This button is not available for dashboards.
Actions	
Share	Grant or remove access to the active dashboard or report for users and User Groups. Access level and extra permissions can also be configured. See Sharing with Other Users on page 408.

Action	Description
	Add the active item to your personal page or a tile group in the Unity Client, or send the dashboard or report to an email recipient. See: • Adding Items to Your Personal Page on page 413 • Adding Items to a Tile Group on page 414 • Sending Items to Email Recipients on page 416
	Copy a hyperlink to the active dashboard or report to the clipboard, or copy an image of the item to the clipboard. See Copying Data or a Link to an Item to the Clipboard on page 416. **Note:** In order to use the link, the recipient must have access to the OnBase Unity Client and permission to view the item.
	Print the item on a printer, save it as a PDF or image, or archive the currently active view of a dashboard or report. See Printing, Saving, or Archiving a View on page 418.
	Save the data as a Microsoft Excel spreadsheet. See Exporting Data to Microsoft Excel on page 422.

Right-Click Menu Items

This table describes the actions available from the right-click menu items for dashboards, reports, categories, and dashboard items. Specific instructions for each action are available by following the cross references, where necessary. The actions in this table are listed alphabetically; not all actions are available from each right-click menu.

To access the actions, right-click on the name of the dashboard, report, or category in the **Gallery** pane, or the dashboard item or report in the **Display** pane.

Menu Locations	Menu Item and Description
Dashboard Items Reports	**Actions:** The actions available are configured by your system administrator as Display Actions. See Executing Display Actions on page 406.
Dashboard Items	**Change Theme:** Open the theme selection list to change the color theme of the dashboard. This option is only available in full-screen mode. See Changing the Dashboard Theme on page 407.

Menu Locations	Menu Item and Description
Dashboard Items Reports (in the **Display** pane)	**Clear All Filters:** Reset all master filters and drill-down filters for the active dashboard item or report and return it to its default display.
Dashboard Items Reports (in the **Display** pane)	**Clear Customizations:** Reset all user customizations for the selected dashboard item or report and return it to its default display.
Tabs	**Close All Tabs:** Close all dashboards or reports currently open in the display pane.
Tabs	**Close All But This:** Close all dashboards or reports currently open except for the tab this option was selected on.
Reports (in the **Display** pane)	**Column Formatting**: Set the formatting for a column to reflect different types of data. **Column Formating** is only available for columns using numeric data, date data, and date & time data. For more information on this, see Formatting Columns in a Report on page 395.
Dashboard Items Reports (in the **Display** pane)	**Copy Item to Clipboard (Image):** Copy the selected dashboard item or report to the clipboard as an image so that it can be pasted into other applications. **Note:** Copying larger reports using **Copy Item to Clipboard (Image)** may not properly function for larger reports. The report should be saved as an image instead. To copy the entire dashboard as an image, see Copying Data or a Link to an Item to the Clipboard on page 416.
Dashboards Categories Reports (in the **Gallery** pane)	**Copy to New:** Launch the **Create Dashboard**, **Create Category**, or **Create Report** wizard with the configuration and settings of the selected dashboard, category, or report pre-populated. See Creating New Dashboards on page 26, Creating New Categories on page 429, or Creating New Reports on page 152.
Dashboards Categories Reports (in the **Gallery** pane)	**Delete:** Delete the selected dashboard, report, or category. You are prompted to confirm this action. **Caution:** Deleted dashboards, reports, and categories are no longer available to any users and cannot be recovered.
Dashboards Dashboard Items	**Design:** Open the dashboard designer to change the design of the selected dashboard or the dashboard the selected data grid is from. See Using the Dashboard Designer on page 54.

Menu Locations	Menu Item and Description
Dashboards	**Display Full Screen:** Open the selected dashboard in full-screen mode. In full-screen mode, the dashboard fills the viewing area and only right-click menu options for dashboard items are available. To exit full-screen mode, press **Esc** or **F11** on your keyboard.
Dashboard Items	**Enlarge Item:** Open the selected data grid in an enlarged display mode. Only right-click menu options for the dashboard item are available. See Using Columns and Groups for Reports on page 389. To exit the enlarged mode, click **Exit Enlarge Item View**, press **Esc** on your keyboard, or click anywhere outside the enlarged dashboard item.
Reports	**Export Report to Excel:** Exports the data in the report to an Excel sheet as it is presented in the report, with the columns and groups currently in use in the Excel file. To export all of the data in the report with all columns and no grouping, use the **Export Data** ribbon button. See Exporting Data to Microsoft Excel on page 422.
Dashboard Items	**Full Screen:** Open the dashboard the selected data grid is from in full-screen mode. In full-screen mode, the dashboard fills the viewing area and only right-click menu options for dashboard items are available. See Viewing Dashboards in Full-Screen Mode on page 387. To exit full-screen mode, click **Exit Full Screen** or press **Esc** or **F11** on your keyboard.
Dashboards Dashboard Items Reports	**History:** View the history log for the selected dashboard or report. If this menu item is selected for a dashboard item, the history for the entire dashboard is shown. The history includes configuration changes and an access log. See Viewing History Logs on page 444.
Dashboards Categories Reports (in the **Gallery** pane)	**New Category:** Launch the **Create Category** wizard. See Creating New Categories on page 429.
Dashboards Categories Reports (in the **Gallery** pane)	**New Dashboard:** Launch the **Create Dashboard** wizard. See Creating New Dashboards on page 26.
Dashboards Categories Reports (in the **Gallery** pane)	**New Report:** Launch the **Create Report** wizard. See Creating New Reports on page 152.

Menu Locations	Menu Item and Description
Dashboards Reports (in the **Gallery** pane)	**Open:** Open the selected dashboard or report in a new viewer tab. See Using the Item Viewer on page 386.
Dashboards Reports (in the **Gallery** pane)	**Open in New Window:** Open the selected dashboard or report in a new window. The new window includes the **Item Viewer** ribbon and right-click menu items. See Using the Item Viewer on page 386.
Dashboard Items Reports (in the **Display** pane)	**Parameters:** Open the **Parameters** dialog box for the dashboard item or report the selected data grid is from to change the available parameters for that item. See Changing the Parameters of an Item on page 388.
Dashboard Items Reports (in the **Display** pane)	**Print Preview:** Display the dashboard containing the dashboard item or report in the printing layout so the item can be printed.
Dashboards Categories Dashboard Items Reports	**Properties:** Display the **Properties** dialog box for the selected dashboard, dashboard item, or report. For more information on changing the properties of dashboards and dashboard items, see Changing Existing Dashboards on page 35. For more information on changing the properties of categories, see Changing Existing Categories on page 435. For more information on changing the properties of reports, see Changing Existing Reports on page 160.
Dashboard Items Reports (in the **Display** pane)	**Refresh:** Reload the data displayed in the active dashboard or report to reflect the most recent changes to the data or parameters for that dashboard or report.
Dashboards Categories Reports (in the **Gallery** pane)	**Refresh Gallery:** Reload the **Gallery** pane to reflect the most recent changes to the dashboards, categories, and reports listed.
Dashboards Reports (in the **Gallery** pane)	**Remove from Category:** Remove the selected dashboard or report from the category it is in when you selected it. If an item is included in multiple categories, it is only removed from the category from which you selected it.
Dashboard Items	**Send Item to Personal Page:** Add the dashboard to your Personal Page with the selected dashboard item enlarged when it is displayed. The enlarged dashboard item can be closed and the dashboard used like normal. The dashboard is displayed in a new window when opened from your Personal Page. See Adding Items to Your Personal Page on page 413.

Menu Locations	Menu Item and Description
Dashboard Items	**Send Item to Tile Group:** Add the dashboard to a Tile Group with the selected dashboard item enlarged when the dashboard is displayed. The enlarged dashboard item can be closed and the dashboard used like normal. The dashboard is displayed in a new window when opened from a tile. See Adding Items to a Tile Group on page 414.
Dashboards Reports (in the **Gallery** pane)	**Send To | Clipboard (as Shortcut):** Copy a link to the dashboard or report to the clipboard so that it can be pasted to another location. See Copying Data or a Link to an Item to the Clipboard on page 416. **Note:** In order to use the link, the recipient must have access to the OnBase Unity Client that contains the dashboard or report and permission to view the item.
Dashboards Reports (in the **Gallery** pane)	**Send To | Personal Page:** Add the dashboard or report to your Personal Page. It is displayed in a new window when opened from your Personal Page. See Adding Items to Your Personal Page on page 413.
Dashboards Reports (in the **Gallery** pane)	**Send To | Tile Group:** Add the dashboard or report to the selected Tile Group. It is displayed in a new window when opened from a tile. See Adding Items to a Tile Group on page 414.
Dashboards Reports (in the **Gallery** pane)	**Send To | Mail Recipient (as Shortcut):** Create an email in your default email program that contains a link to the dashboard or report. See Sending Items to Email Recipients on page 416. **Note:** In order to use the link, the recipient must have access to the OnBase Unity Client that contains the dashboard or report and permission to view the item.
Dashboards Categories Reports (in the **Gallery** pane)	**Share:** Grant or remove access to the selected dashboard, category, or report for users and User Groups. Access level and extra permissions can also be configured. See Sharing with Other Users on page 408.
Reports (in the **Gallery** pane)	**Show Column Chooser**: Enable the **Column Chooser** dialog box for selecting columns and groups. See Using Columns and Groups for Reports on page 389.

Using the Item Viewer

The Item Viewer is a tabbed display of the dashboards and reports currently open. The Item Viewer ribbon and right-click menu items provide access to various areas of functionality.

Tip: See Item Viewer Actions on page 379.

This section includes the following information:

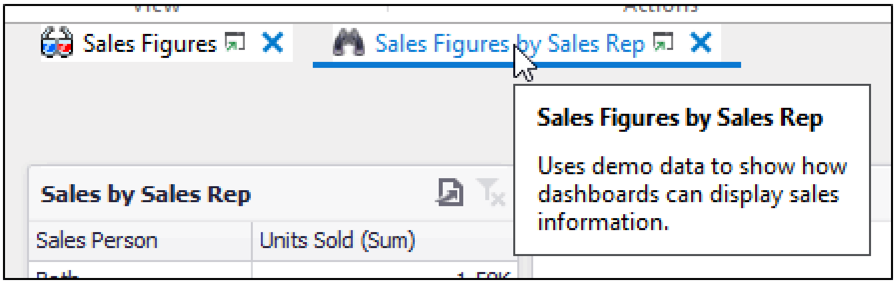
- Viewing Dashboards and Reports on page 386
- Using Columns and Groups for Reports on page 389
- Using Interactive Dashboard Items on page 397
- Sharing and Exporting Data on page 407
- Changing the Dashboard Theme on page 407

Viewing Dashboards and Reports

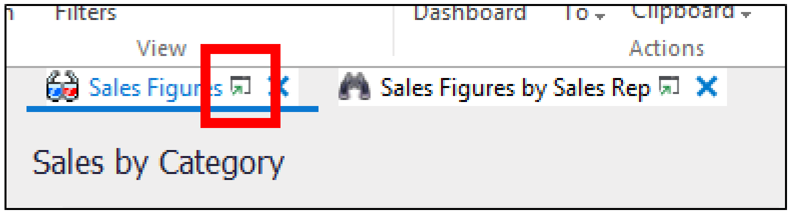
To view a dashboard or a report, click its name in the **Gallery** pane, or click its tab in the item viewer if it has already been opened. Some dashboards require runtime parameters to be filled in before they can be displayed. The **Parameters** dialog box is automatically displayed when the dashboard or report is first accessed. The **Column Chooser** dialog box will appear for reports if columns have not already been selected for that report. Input the parameters, then click **OK**.

Note: If the amount of data returned for any item is limited by the configuration of the data provider, this limit is displayed in the lower right corner of the item viewer when the amount of data included in the item is less than the total amount of data available.

To see a brief description of a dashboard or report before accessing it, move the cursor over the name of the dashboard or report in the Gallery or on its tab, but do not click it. The configured description is displayed:

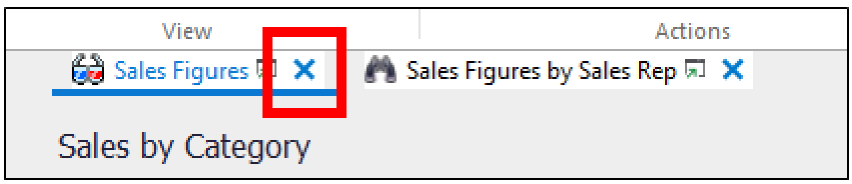


To open a dashboard or report in its own window, click the **Open in New Window** icon on the tab.



The item is displayed in a new window and its related tab is closed. The new window also includes the Item Viewer ribbon.

To close a dashboard or report, click the **X** on the tab, or close the window if the item is displayed in its own window.



The following sections contain more detail on viewing dashboards and reports:

- Viewing Dashboards in Full-Screen Mode on page 387
- Changing the Parameters of an Item on page 388
- Using Columns and Groups for Reports on page 389
- Using Interactive Dashboard Items on page 397

Viewing Dashboards in Full-Screen Mode

To view a dashboard in full-screen mode, click **Full Screen** in the **View** ribbon group of the **Item Viewer** ribbon.

The item is displayed over all current windows. The full-screen display does not include the Item Viewer ribbon, but the viewer right-click menu options are still available (see Item Viewer Actions on page 379).

To exit full-screen mode, click **Exit Full Screen** or press the **F11** or **Esc** keys.

Changing the Parameters of an Item

Some dashboards and reports require runtime parameters to be filled in before they can be displayed. The **Parameters** dialog box is automatically displayed when the dashboard is first accessed. Input the parameters, then click **OK**.

Tip: To refresh the dashboard or report without making parameter changes, click **Refresh** in the **View** ribbon group of the **Item Viewer** ribbon.

To change the dashboard or report runtime parameters:

1. Click **Parameters** in the **View** ribbon group of the **Item Viewer** ribbon or select **Parameters** from the right-click menu for a dashboard item on a dashboard.

   The **Parameters** dialog box is displayed.
2. Update the parameters for the data in the dashboard, dashboard items, or reports that you want to filter, limit, or otherwise update. The parameters that accept user input for all data providers assigned to the dashboard or report are included in the **Parameters** dialog box.
3. Select the **Save Parameters** option to replace any saved parameters settings for the dashboard or report with the current selection. If the box is not checked, no parameters will be saved.

Tip: Multiple items from a parameter list can be selected by holding the **CTRL** key and clicking on the items.

4. Click **OK**. The dashboard or report is automatically refreshed. Changing parameters clears existing filters.

Note: If the amount of data returned for a dashboard or report is limited by the configuration of the data provider, this limit is displayed in the lower right corner of the item viewer when the amount of data included in the dashboard is less than the total amount of data available.

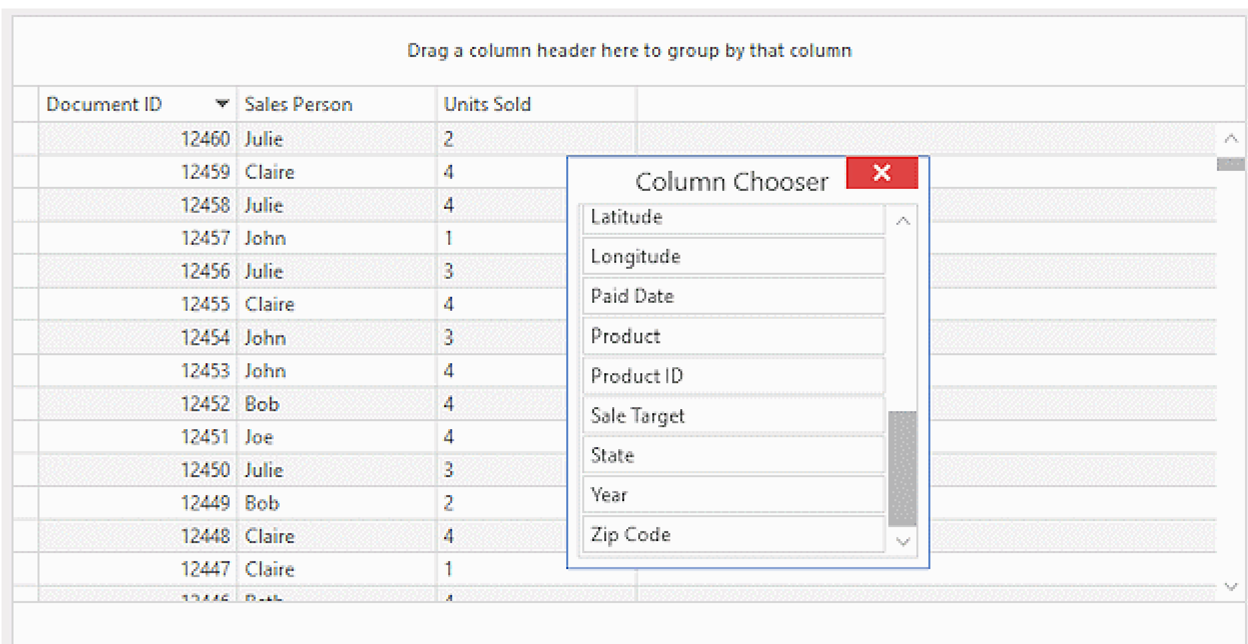
Using Columns and Groups for Reports

When a report is opened for the first time, the **Column Chooser** dialog box is displayed. The **Column Chooser** dialog box is used to select the columns of data that appear in the report for grouping and sorting the data. The columns available in the **Column Chooser** dialog box are determined by the display columns configured for the data provider associated with the report. For more information on data providers, see Data Provider Administration on page 183. To open the **Column Chooser** dialog box, click the **Column Chooser** button with the desired report open in the **Item Viewer**.

Note: Columns and groups configured for reports are saved when the report is closed. When the report is opened again, the columns and groups that you have configured will open automatically.

Adding Columns Using Column Chooser

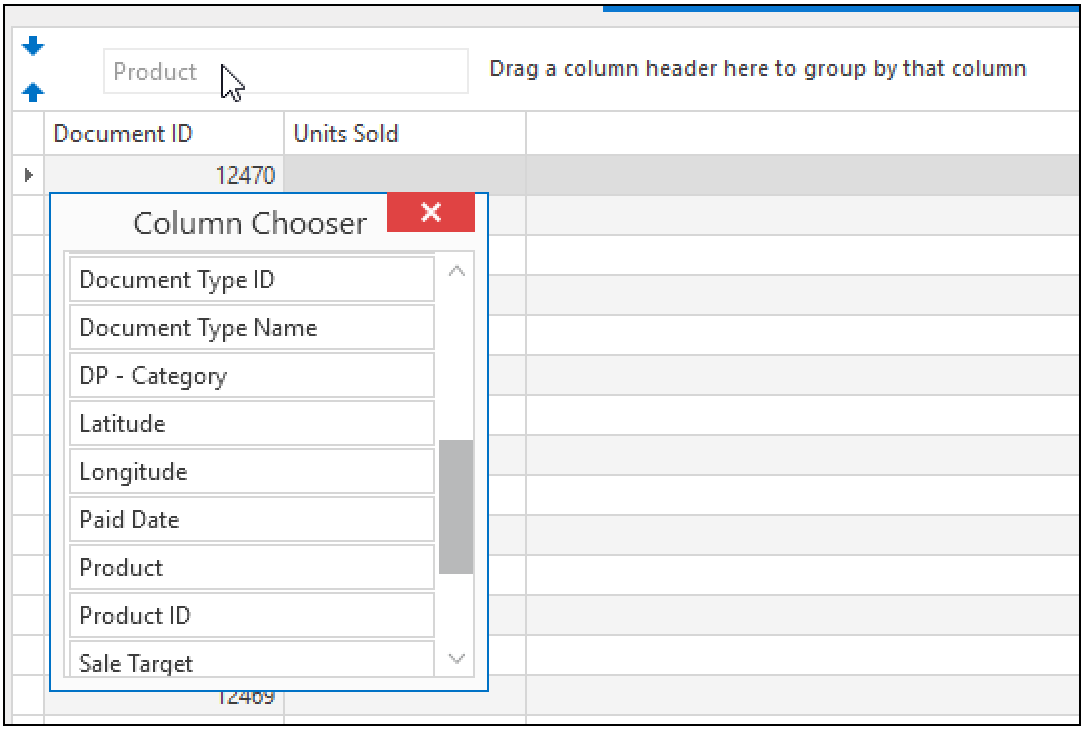
When creating a new report, no columns are included to start. To select columns to display in the report, drag the name of the column to the top of the report, below the **Drag a column header here to group by that column** area.



Grouping Data Using Columns

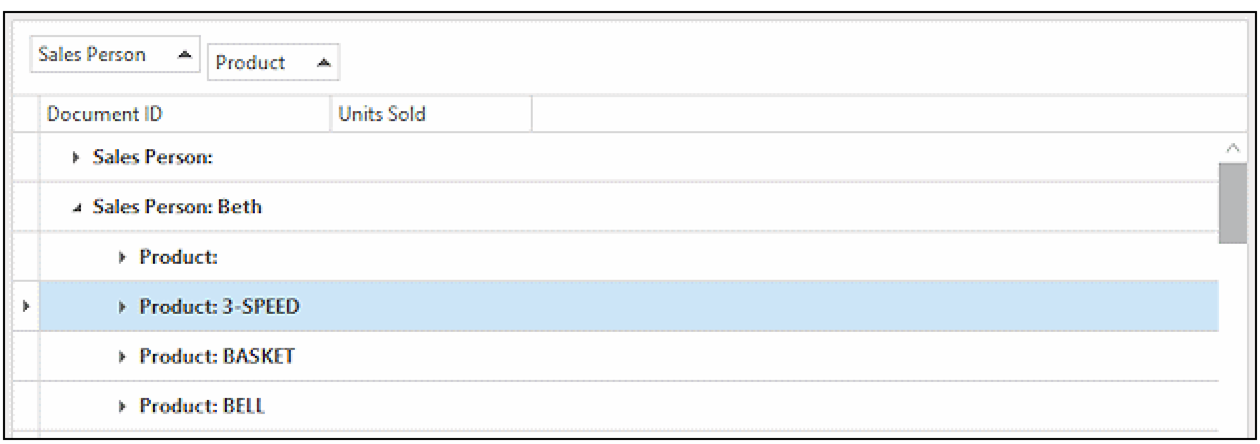
Once columns are added to a report, the data in the report can be grouped according to any column header. To do this, drag the name of a column from the header row of the report or the **Column Chooser** dialog box and drop it into the **Drag a column header here to group by that column** area. The order in which the columns are added to the area at the top will determine the way in which they are grouped.

For example, in a report that contains columns for **Document ID**, **Sales Persons**, and **Units Sold**, you can group the results by the **Sales Person** column by dragging the column name to the top.

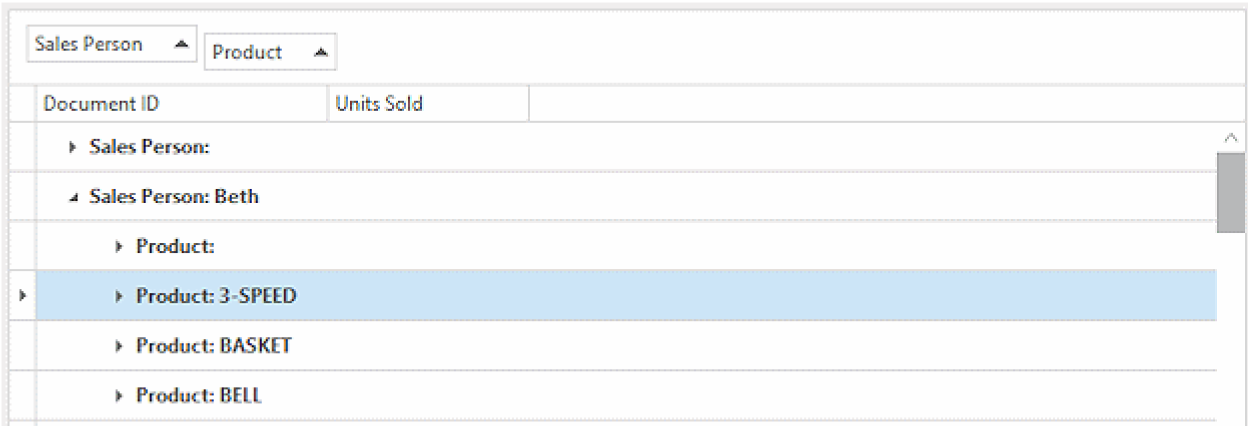


This will group the data by the sales person, with the remaining two columns (**Document ID** and **Units Sold**) under each sales person's name. Any rows that do not contain a Sales Person are grouped together as well.

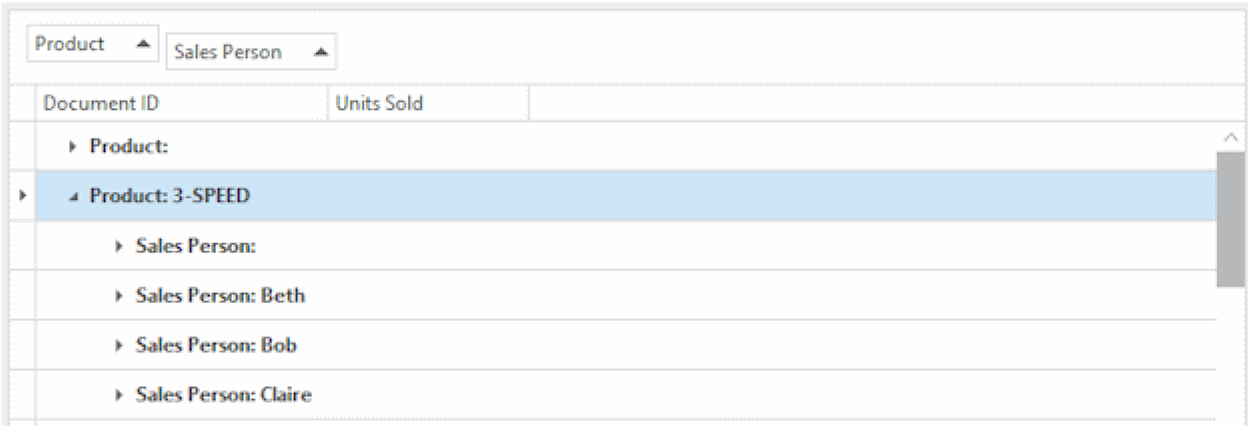
You can then click on the arrow next to a sales person's name to expand their section of the report and see all rows associated with them.



Additional groupings can be added from other columns already in the report or brought in from the **Column Chooser** dialog box. In the above example, you can add the **Product** column to the grouping area to add another level of grouping to the results, which displays all document IDs and units sold for a specific product when available.

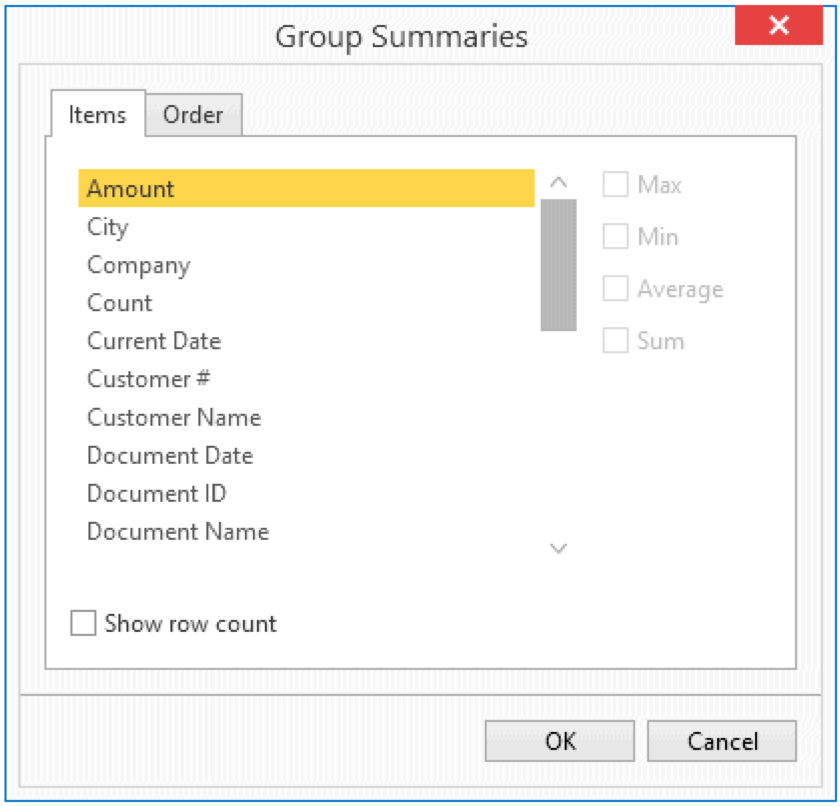


Each grouping can be sorted in ascending or descending order by clicking the arrow next to the grouping. If you drag the group on the right to the left in the top area, you will change the level of the groups as well. The leftmost group will always be the broadest grouping, with each additional grouping to the right being a subgroup of the broader groups.



Adding Summaries to Groupings

Once groupings are added to a report, summaries can be added to the group's heading by right-clicking the grouping and selecting **Group Summary Editor...**. The **Group Summaries** dialog box is displayed.

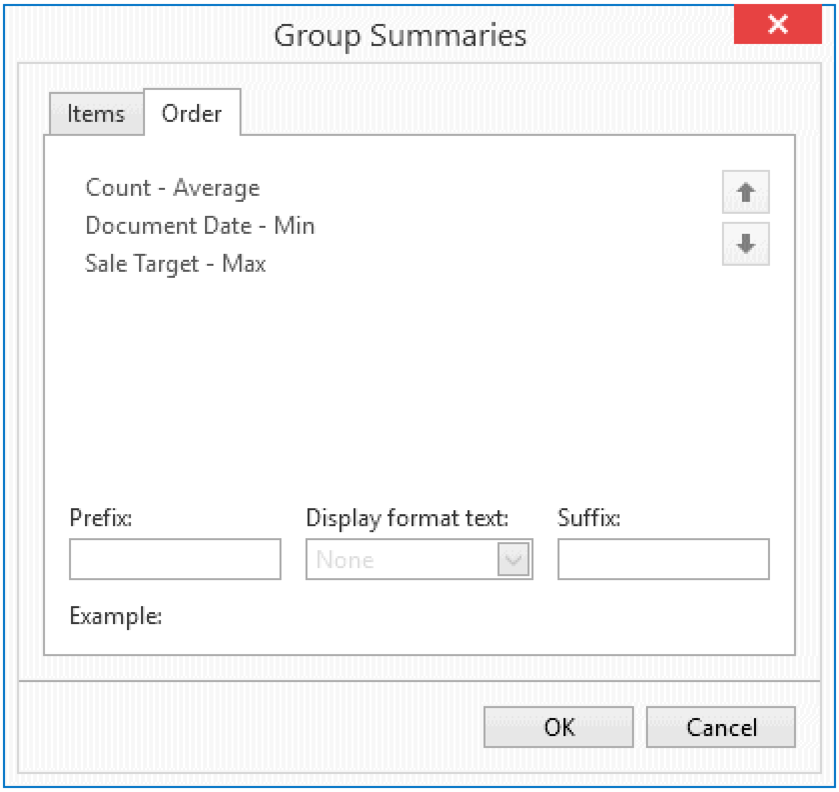


In the **Items** tab, select the columns you want to appear as summaries for each group. Depending on the column and the associated keywords, you can select one of the following values to display for the column:

Option	Description
Max	The summary shows the maximum value for the column in a group.
Min	The summary shows the minimum value for the column in a group.
Average	The summary shows the average value for the column in a group.
Sum	The summary shows the sum of all values in the column for a group.

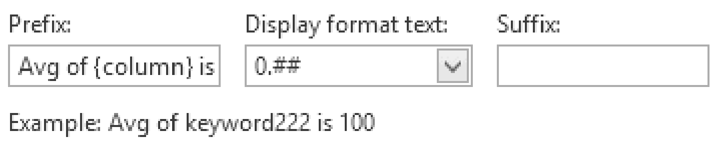
Additionally, select the **Show row count** option to show the number of rows within a group in the summary.

In the **Order** tab, select the order in which the enabled summary items are shown in the group headings.



Select a summary item and click the **Up** and **Down** arrows to change the order of summary items. Items at the top of the list will appear first in the group summary.

Once you have selected a summary item, you can edit how the item is displayed at the bottom of the **Order** tab. Default options are provided for each summary item.



The following options are available to change for each summary item:

Options	Description
Prefix:	The text that includes the name of the column as **{column}** and is shown in the summary before the selected value. Type in the text you want to appear before the value in this field.
Display format text:	The format for the value to appear as in the summary. Various options are available, depending on the keyword type of the column. Select the desired format from the drop-down list.

Options	Description
Suffix:	Text that appears after the value in the summary. This can be used to specify units for the value. Type the desired text in this field.

An example of the current options is shown below the options.

Once you have selected all the summary items in the **Items** tab and properly configured them in the **Order** tab, click **OK** to save the settings.

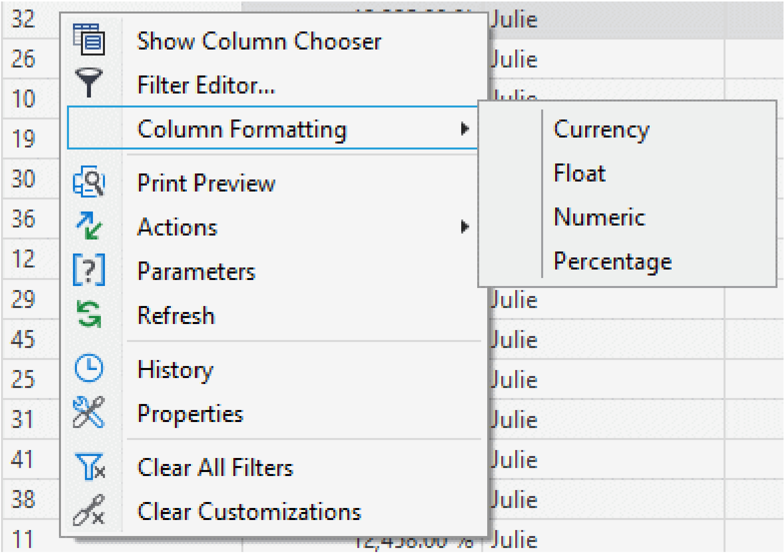
Formatting Columns in a Report

Numeric data, date data, and date & time data can be formatted in a number of different ways, depending on the type of data used in the column. To format the data in a column:

1. Right-click anywhere in the column.
2. Select **Column Formatting**.
3. From the menu that appears, select the desired formatting. The options available depend on the type of data in the column. For numeric data, see Numeric Data on page 395. For date data and date & time data, see Date Data and Date & Time Data on page 396.

Numeric Data

Numeric data in a column in a report can be formatted using the following options:

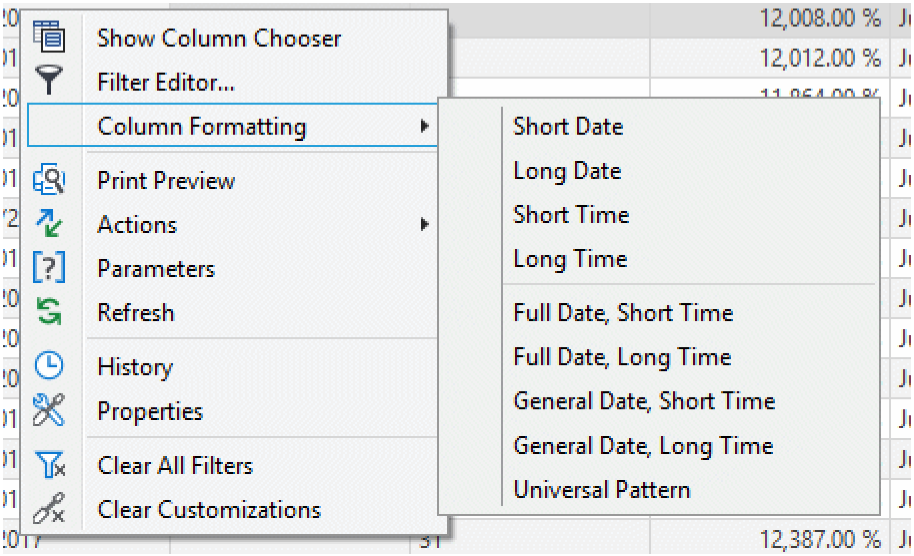


Formatting Option	Description
Currency	Formats data using the defined Currency Format for its Keyword Type.

Formatting Option	Description
Float	Formats data to use a decimal point, with empty places indicated with zeros. By default, there are two decimal places used when **Float** is selected for column formatting. If any data is present with more than two decimal point places, the largest number of decimal places will be used.
Numeric	Formats data as numeric data without additional decimal places. Any data with decimals is preserved.
Percentage	Formats data as a percentage, with two decimal places.

Date Data and Date & Time Data

Date data and date & time data in a report column can be formatted using the following options:



Formatting Option	Description
Short Date	Formats dates as **MM/DD/YYYY**. For example, March 12, 2018 is formatted as **3/12/2018**. No time indicator is displayed.
Long Date	Formats dates as **Weekday, Month Date, Year**. For example, March 12, 2018 is formatted as **Monday, March 12, 2018**. No time indicator is displayed.
Short Time	Formats times as **HH:MM AM/PM**. For example, 2:04 PM is formatted as **2:04 PM**. No date indicator is displayed.
Long Time	Formats times as **HH:MM:SS AM/PM**. For example, 2:04 PM is formatted as **2:04:00 PM**. No date indicator is displayed.

Formatting Option	Description
Full Date, Short Time	Formats dates and times as **Weekday, Month Date, Year HH:MM AM/PM**. For example, 2:04 PM on March 12, 2018 is formatted as **Monday, March 12, 2018 2:04 PM**.
Full Date, Long Time	Formats dates and times as **Weekday, Month Date, Year HH:MM:SS AM/PM**. For example, 2:04 PM on March 12, 2018 is formatted as **Monday, March 12, 2018 2:04:00 PM**.
General Date, Short Time	Formats dates and times as **MM/DD/YYYY, HH:MM AM/PM**. For example, 2:04 PM on March 12, 2018 is formatted as **3/12/2018 2:04 PM**.
General Date, Long Time	Formats dates and times as **MM/DD/YYYY, HH:MM:SS AM/PM**. For example, 2:04 PM on March 12, 2018 is formatted as **3/12/2018 2:04:00 PM**.
Universal Pattern	Formats dates and times as **YYYY-MM-DD HH:MM:SSZ**. For example, 2:04 PM on March 12, 2018 is formatted as **2018-03-12 14:04:00Z**.

Enlarging a Dashboard Item

Specific dashboard items within a dashboard can be enlarged. To enlarge a dashboard item, double click its caption or right-click on it and select **Enlarge Item** from the right-click menu. The selected dashboard item is displayed in enlarged mode. Only right-click menu options for the dashboard item are available in enlarged mode.

To exit the enlarged mode, click **Exit Enlarge Item View**, press **Esc** on your computer keyboard, or click anywhere outside the enlarged dashboard item.

Using Interactive Dashboard Items

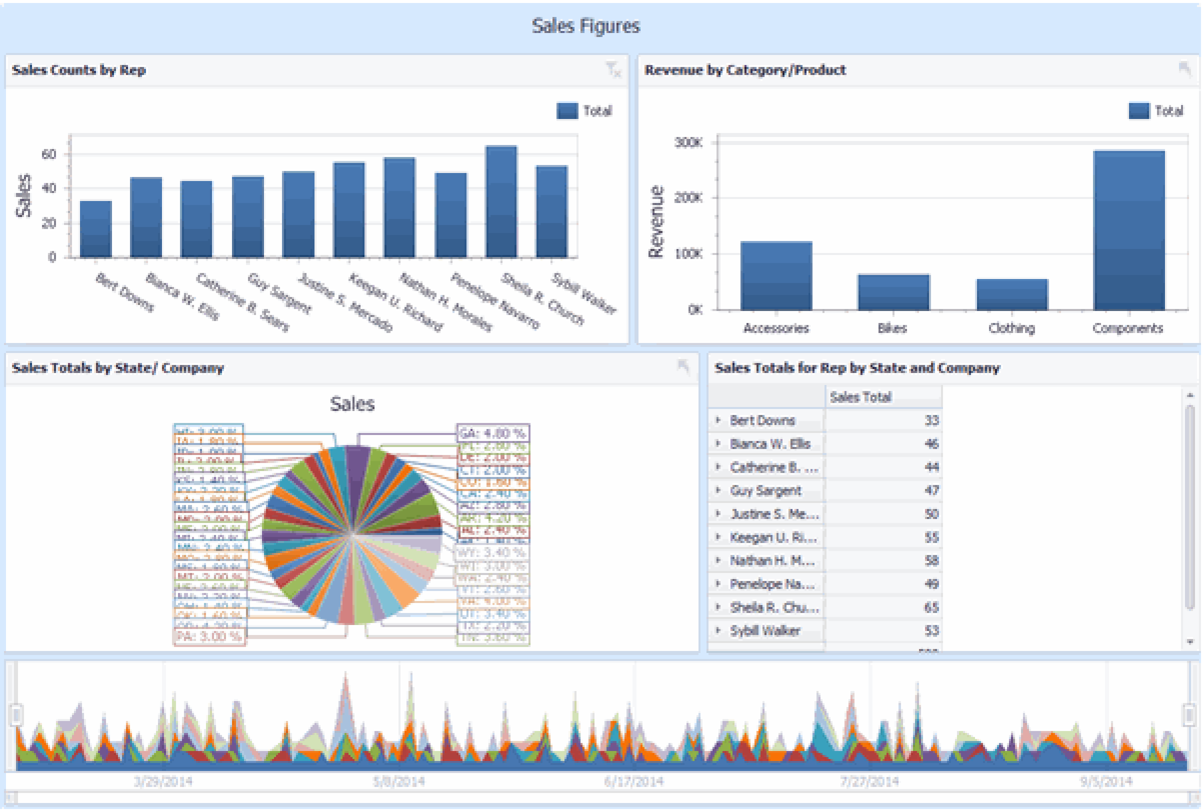
Dashboard items within a dashboard may be configured to update other dashboard items; control the level of detail displayed through drill-down and range-filtering functionality; and open related documents or execute other external functionality through display actions.

Note: Interactivity is not available with all dashboard items. The interactivity of dashboards items is dependent on how the dashboard has been configured. See Dashboard Maintenance and Design on page 24.

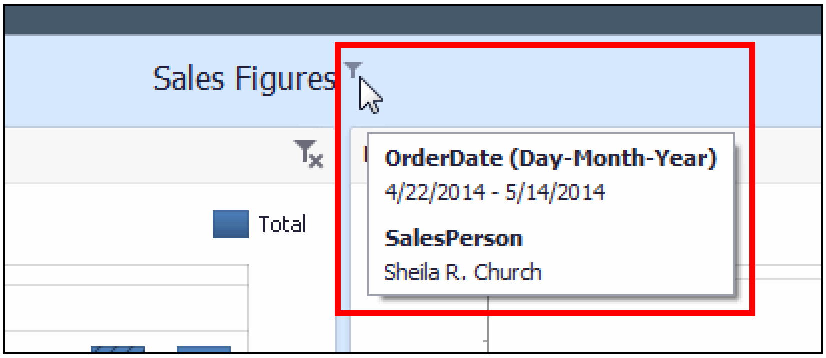
See:

- Using Master Filters to Update Related Dashboard Items on page 399
- Displaying Detailed Data About Specific Elements in Dashboard Items on page 401
- Limiting the Range of the Data Displayed in Related Dashboard Items on page 402
- Executing Display Actions on page 406

The examples in the following sections use this example dashboard, illustrated here with no interactive filters applied:

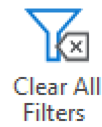


If multiple interactive filters are applied to the dashboard, move the cursor over the filters icon and detailed information regarding the applied filters is displayed:



To remove all filters applied to the dashboard:

- Click **Clear All Filters** in the View ribbon group.



- Right-click any dashboard item and select **Clear All Filters** from the right-click menu.

See Date Range Filters on page 346 for a list of filters.

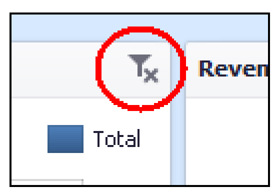
Using Master Filters to Update Related Dashboard Items

Master filtering allows the elements in one dashboard item in a dashboard to update the data in another dashboard item on the same dashboard. Master filters that have been applied can be reset.

Tip: Master filtering is only available if the dashboard has been designed to include it. See Dashboard Maintenance and Design on page 24.

For example, a bar graph showing total sales counts by sales representative can be used to update a pie chart showing sales counts by state for the selected sales representative.

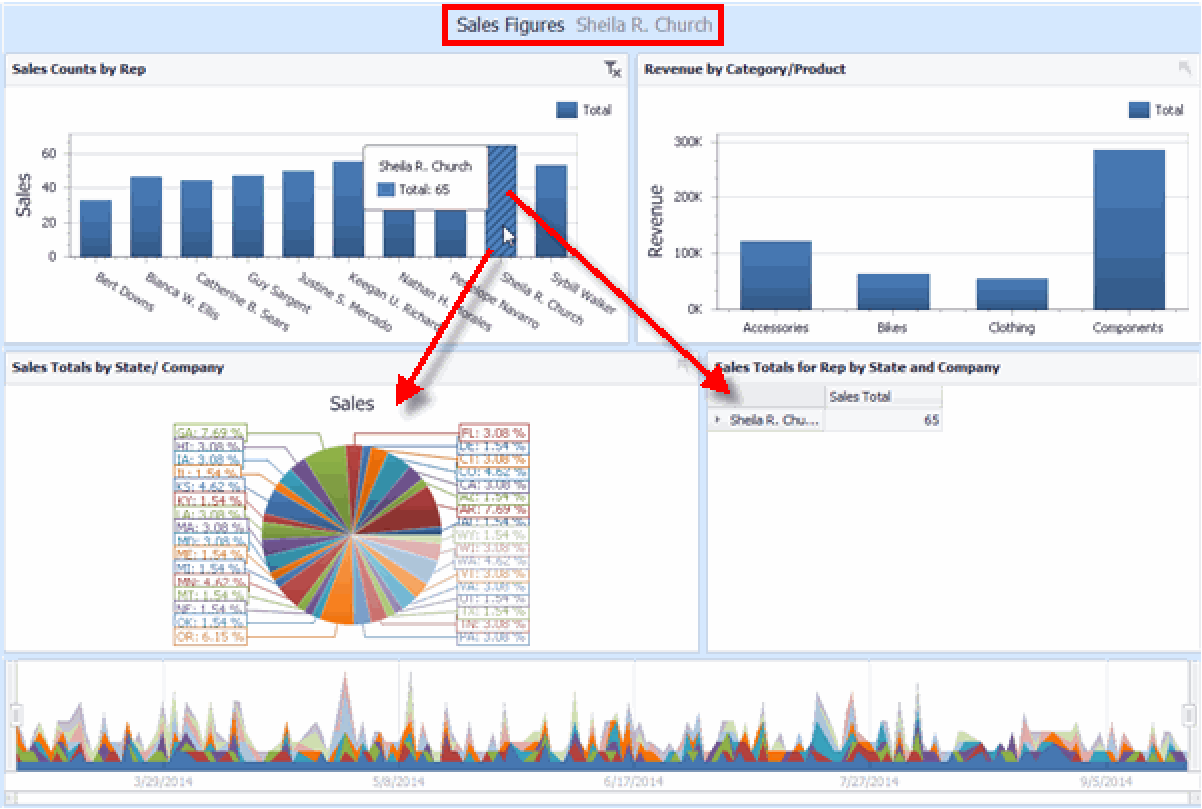
Dashboard items that can be used as master filters show the master filter icon at the right end of the caption for the dashboard item.



Note: The icon is shaded lighter if the master filter is not currently applied. The icon is not visible if the dashboard item is configured to hide the dashboard item caption.

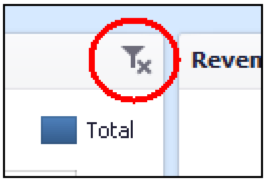
To apply the master filter, click one of the elements in the dashboard item. All related dashboard items in the dashboard are updated to reflect only the data for the element clicked, unless a dashboard item has been configured to be excluded from master filtering.

For example, the pie chart and pivot table in this dashboard are updated to reflect the specific sales representative when the data bar for that sale representative is clicked in the bar chart:



The master filter can be removed in one of the following ways:

- Click the master filter icon at the right end of the caption for the dashboard item, if it is available.



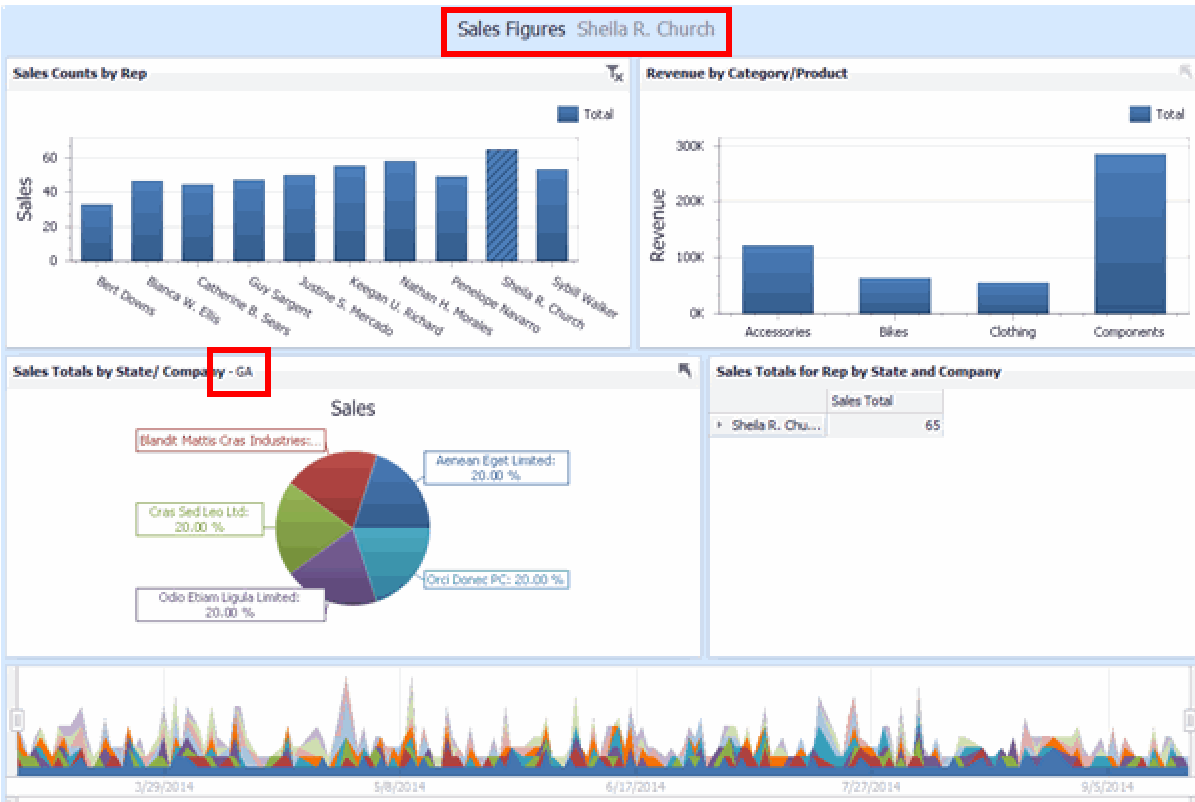
- Click **Clear All Filters** in the **View** ribbon group to remove all interactive filters on the dashboard.

- Right-click the dashboard item and select **Clear All Filters** from the right-click menu to remove all interactive filters on the dashboard.

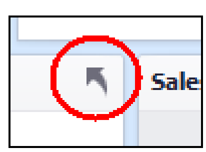
Displaying Detailed Data About Specific Elements in Dashboard Items

If a dashboard item is configured to use drill-down functionality you can control the level of detail displayed in that dashboard item. To drill down to more detailed data levels, click one of the elements in the dashboard item.

For example, this pie chart displays sales by state but can be drilled down to show sales by company in each state by clicking a wedge in the pie chart:



To move back up to a less detailed level in the drill-down data, click the **Drill Up** button at the right end of the caption for the dashboard item, if it is available:

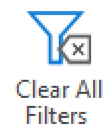


The **Drill Up** button is disabled if the display is currently at the top level, and the button is not visible if the dashboard item is configured to hide the caption.

Tip: To drill up when the caption is hidden, right click the dashboard item and select **Drill Up** from the right-click menu.

To return to the top level display and remove all other filters applied to the dashboard:

- Click **Clear All Filters** in the **View** ribbon group.

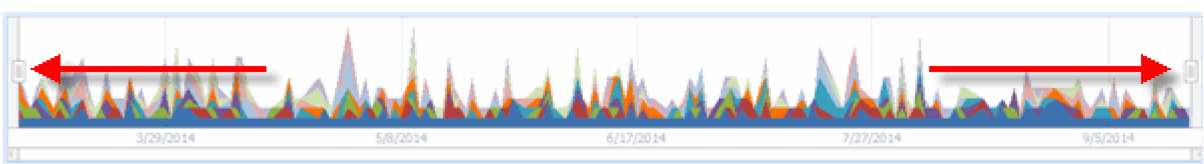


- Right-click the dashboard item and select **Clear All Filters** from the right-click menu.

Note: If the dashboard item has been drilled down to the lowest level and a display action is also configured, double clicking the dashboard item executes the first available action. See Executing Display Actions on page 406.

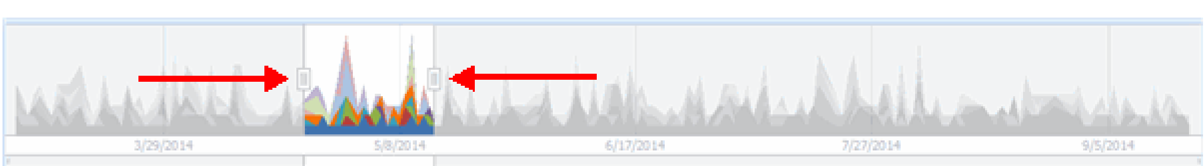
Limiting the Range of the Data Displayed in Related Dashboard Items

Range filtering allows you to control with a simple sliding scale how much data is displayed for dashboard items that the range filter is configured to interact with. For example, limiting the sales counts displayed to a specific date range can be changed dynamically using a graphical range filter. Dashboards that include range filtering functionality contain a range filter dashboard item, distinguished by the range start and end markers on it:



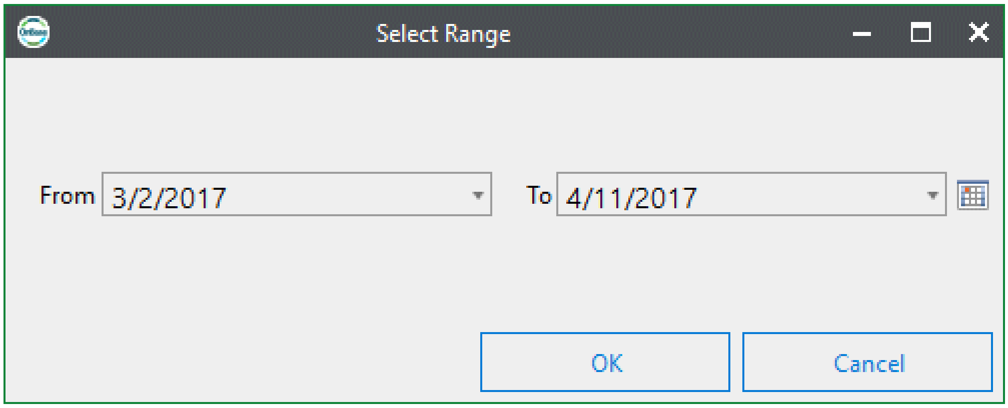
Tip: Range filters are only available if the dashboard has been designed to include them. See Dashboard Maintenance and Design on page 24.

To adjust the range of the filter, click and drag the left and right filter end points to points on the range filter that define the start (left) and end (right) points of the range.

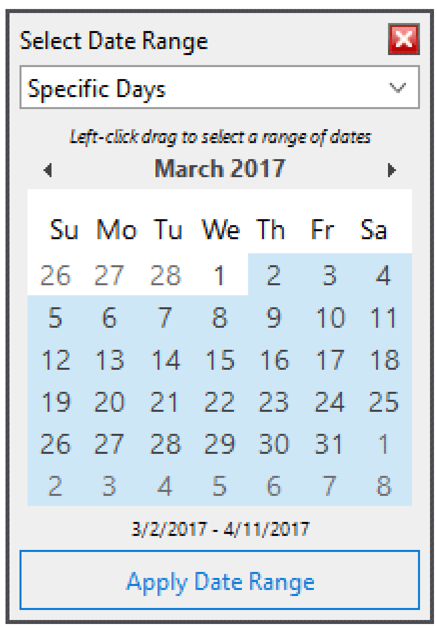


You can also click on the range filter icon in the upper right of the range filter dashboard item to manually select dates or type them into a **Select Range** dialog box.

Alternately, you can right-click on the range filter and select a range from the **Date Range Periods** menu or select **Custom Period...** to manually enter specific dates. A more detailed **Select Range** dialog box is displayed.



You can either manually type in the dates desired (in **MM/DD/YYYY** format) or select a range of dates using the calendar button, which opens the **Select Date Range** dialog box. The currently active date range is selected in the dialog box.



From the drop-down list, pick a **Specific Dates** or a **Relative Time Values** item. The options available here include:

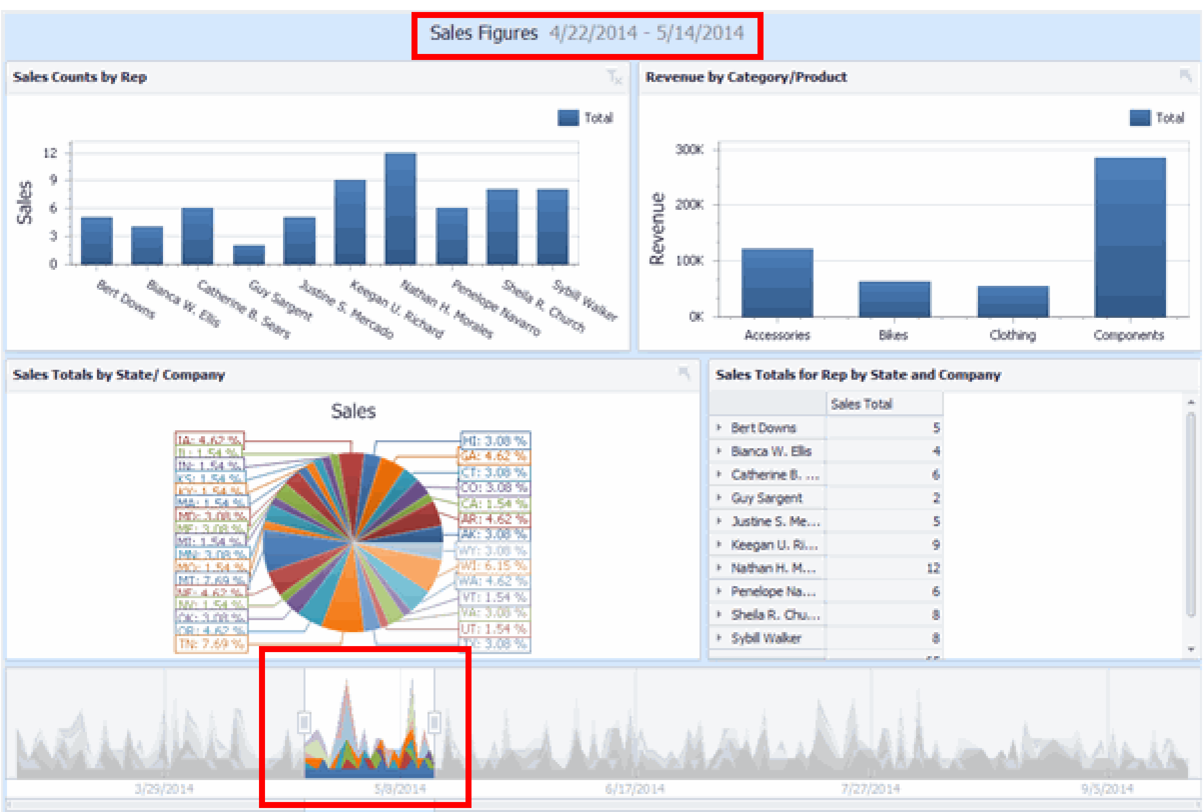
Item	Description
Specific Dates	
Specific Days	Displays data from a set of specified days.
Specific Months	Displays data from a set of specified months.

Item	Description
Specific Years	Displays data from a set of specified years.
Relative Time Values	
Today	Displays data from the date that the dashboard is viewed.
Yesterday	Displays data from the day prior to the date the dashboard is viewed on.
Previous Workday	Displays data from the previous workday to the date the dashboard is viewed on.
Last Business Day	Displays data from the previous business day to the date the dashboard is viewed on.
First Day of the Month	Displays data from the first date of the month the dashboard is viewed in.
Last Day of the Month	Displays data from the last date of the month the dashboard is viewed in.
Tomorrow	Displays data for the next day after the date the dashboard is viewed on.
Next Workday	Displays data from the next workday to the date the dashboard is viewed on.
Next Business Day	Displays data from the next business day to the date the dashboard is viewed on.
Month to Date	Displays data from the first date of the month the dashboard is viewed in through the current date.
Year to Date	Displays data from the first date of the year the dashboard is viewed in through the current date.
Current Week	Displays data from the current week in which the dashboard is viewed.
Previous Week	Displays data from the week prior to the week in which the dashboard is viewed.
Current Month	Displays data from the current month in which the dashboard is viewed.
Last Month	Displays data from the month prior to the week in which the dashboard is viewed.
Next Week	Displays data from the month after that in which the dashboard is viewed.
Next Month	Displays data from the month after the week in which the dashboard is viewed.

Item	Description
Specific Day this Week	Shows data only from a specified day of the week for all previous weeks. Adds a drop-down list to chose the day of the week.
Specific Day next Week	Shows data only from a specified day of the week for all later weeks. Adds a drop-down list to chose the day of the week.
Last Days	Shows data for a specified range of days prior to the date the dashboard is viewed on. Adds a drop-down list to specify how many days prior to the current date to include.
Last Weeks	Shows data for a specified range of weeks prior to the date the dashboard is viewed on. Adds a drop-down list to specify how many weeks prior to the current date to include.
Last Months	Shows data for a specified range of months prior to the date the dashboard is viewed on. Adds a drop-down list to specify how many days prior to the current date to include.

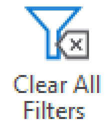
If any of the **Specific Dates** options were selected, you should specify the dates by selecting them from the calendar. Additionally, several of the **Relative Time Values** options will have additional selections required for them, as specified above. Once the desired dates and options are selected, click **Apply Date Range** to return to the **Select Range** screen. Click **OK**.

The related dashboard items are updated to reflect the new range.

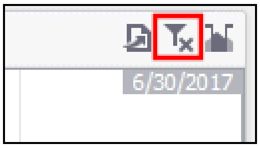


To clear the range filter and remove all other filters applied to the dashboard:

- Click **Clear All Filters** in the View ribbon group.



- Click the **Clear Master Filter** icon in the upper right of the range filter dashboard item.



- Right-click the dashboard item and select **Clear All Filters** from the right-click menu.

Executing Display Actions

Display actions are specifically configured for the data available in a dashboard item or report and may include actions such as opening related documents or a Workflow queue.

To access the available display actions, right-click on a dashboard item or specific data within a report. The configured display actions are available from the **Actions** right-click menu of the dashboard item.

Note: Display actions are only available if the dashboard or report has been designed to include them. See Dashboard Maintenance and Design on page 24 and Report Maintenance and Design on page 150.

Each display action is configured for a single dashboard item on the dashboard or a single type of data in a report. If the dashboard item or report does not contain the value required to perform the configured display action, that action is disabled in the right-click menu.

The first available display action configured can also be executed by double-clicking the dashboard item or the specific data in the report. However. if a dashboard item has drill-down functionality enabled, double-clicking the item drills down to the next level of data until the lowest level of data is reached. Once the lowest level of data has been reached, double-clicking the item executes the first available display action.

Note: If a display action is configured to display a Document Type that you do not have the rights to access, you will be unable to view the document but will be able to see its metadata. If you need to see the entire document, please contact your administrator.

Changing the Dashboard Theme

The **Change Theme** right-click menu option for dashboards is only available in full-screen mode. By default, the dashboard color theme is set to a light gray base color with no background patterns. You can change the color theme and background pattern of a dashboard when viewed in full-screen mode to something that may better reflect the purpose of the dashboard.

Note: The theme is only applied when the dashboard is viewed in full-screen mode.

1. Click **Full Screen** in the **View** ribbon group of the **Item Viewer** ribbon to open the selected dashboard in full-screen mode.

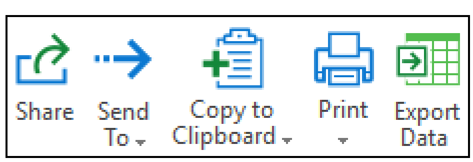
   The **Full Screen Theme** dialog box is displayed.
2. Select a dashboard theme to preview it. The preview is applied to the dashboard interface.

   Or, click **Reset** to revert to the default theme.
3. Click **Apply** to use the selected theme for the dashboard.

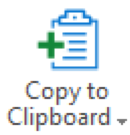
Note: The theme is only applied when the dashboard is viewed in full-screen mode.

Sharing and Exporting Data

Dashboards and reports can be shared with other Reporting Dashboards users or sent to them in an email. They can also be printed, saved, copied to the clipboard as an image, and exported as data to a spreadsheet. The **Actions** ribbon group of the **Item Viewer** ribbon provides access to the sharing and export functions:



Action	Description
	Use this action to share the dashboard or report with other OnBase users. See Sharing with Other Users on page 408.

Action	Description
	Use this action to add the dashboard or report to your personal page or a Tile Group in the OnBase Unity Client, or to send the dashboard to an email recipient. For more information, see • Adding Items to Your Personal Page on page 413 • Adding Items to a Tile Group on page 414 • Sending Items to Email Recipients on page 416.
	Use this action to copy one of the following to the clipboard: • A hyperlink to the dashboard or report to the clipboard • An image of the dashboard to the clipboard. See Copying Data or a Link to an Item to the Clipboard on page 416.
	Use this action to: • Print the dashboard or report view on a printer • Save the dashboard or report view as a PDF or image • Archive the dashboard or report view in OnBase See Printing, Saving, or Archiving a View on page 418.
	Use this action to save the dashboard data as a Microsoft Excel spreadsheet. See Exporting Data to Microsoft Excel on page 422.

The **Export To** action can be used to export individual dashboard items to an image or PDF, or to print the individual item. If the **Export To** action is available for an item, the button is displayed in the title of the dashboard item. See Exporting or Printing Individual Dashboard Items on page 423.

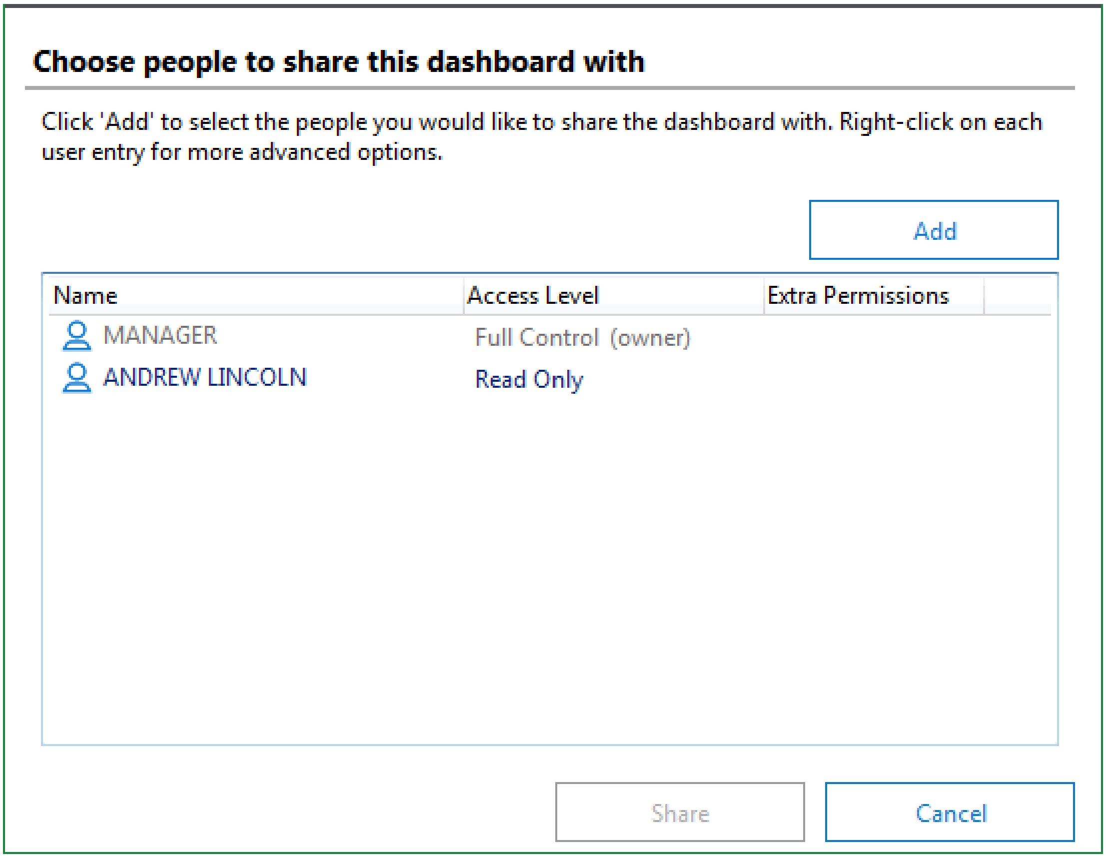
Sharing with Other Users

The **Share** functionality is used to grant or remove access to the active or selected dashboard or report for users and User Groups. While configuring the sharing of the dashboard or report, you can adjust the access levels of users and User Groups, and configure any extra permissions such as the user's ability to share the item with other.

To access sharing for a dashboard or report, right-click on the name of the dashboard or report in the **Gallery** pane and select **Share** from the right-click menu.

If the dashboard or report is open and active in the viewer, click the **Share** button in the **Actions** ribbon group.

The **Choose people to share this dashboard with** or the **Choose people to share this report with** dialog box is displayed, depending on the type of item chosen. Both dialog boxes function similarly, with the only difference being the type of item you are sharing.



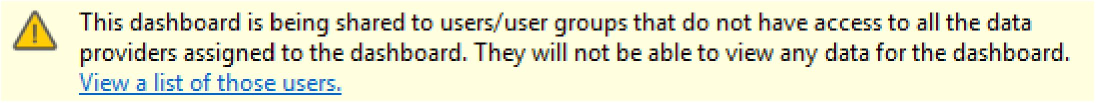
See:

- Adding or Removing Users and User Groups on page 409
- Changing Access Levels and Extra Permissions on page 411

Adding or Removing Users and User Groups

The list of users and User Groups that currently have access to the dashboard or report is displayed in the **Choose people to share this dashboard with** dialog box or the **Choose people to share this report with** dialog box.

If the dashboard is currently being shared with users or user groups that do not have access to all of the data providers assigned to the dashboard, a yellow warning banner is displayed along the top of the **Choose people to share this dashboard with** dialog box or the **Choose people to share this report with** dialog box.

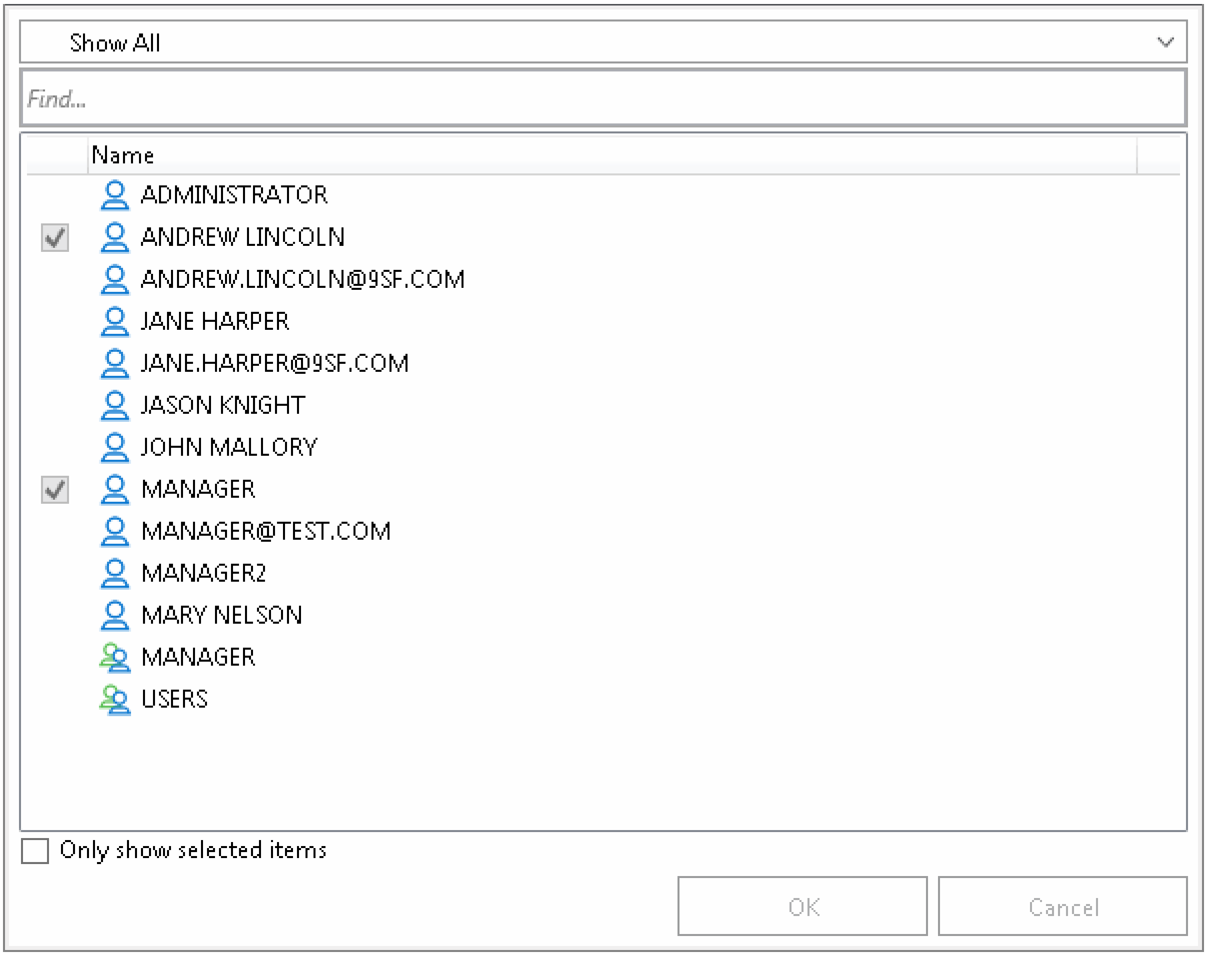


Click **View a list of those users** to display a list of the users and user groups that do not have access to certain data providers. Click **OK** to close the list. To add users and user groups to data providers, see Changing the Properties of Existing Data Providers on page 247.

Adding Users and User Groups

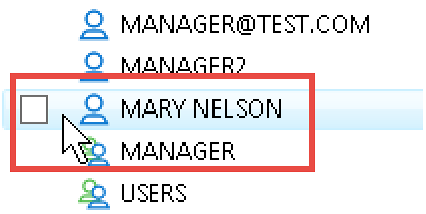
To add users and user groups:

1. Click **Add**. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only User Groups, select **User Group** from the drop-down list. To find a specific user or User Group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only show selected items**.

2. To grant access to the dashboard or report to a user or User Group, move the cursor over that user or User Group's row and select the check box that is displayed.



To remove a user or User Group's access, deselect the check box beside their name.

Note: Access cannot be changed for the owner.

3. Click **OK** to save your user selections.

Caution: When any dashboard or report is accessed by a user, data for all configured items (such as Document Types or Workflow queues) is returned, even if the user accessing the dashboard or report does not have access to those items in OnBase.

4. Click **Share** to save your changes and close the dialog box, or see Changing Access Levels and Extra Permissions on page 411 to make further configuration changes.

Removing Users and User Groups

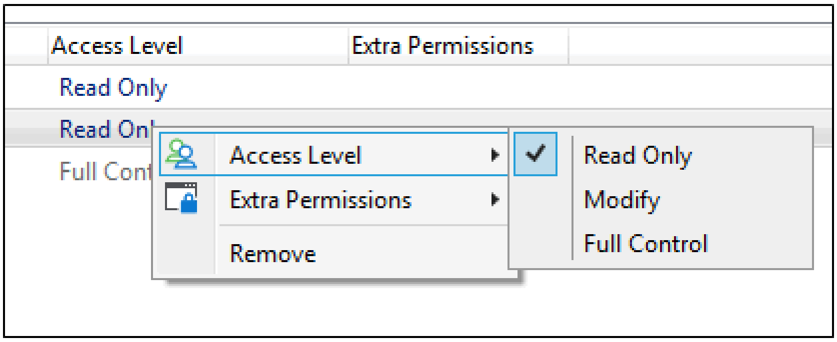
To remove a user or User Group from the dashboard or report, right-click the name of the user or user group in the list and select **Remove** from the right-click menu. You are not prompted to confirm this action.

Changing Access Levels and Extra Permissions

The list of users and user groups that currently have access to the dashboard or report is displayed in the **Choose people to share this dashboard with** dialog box or the **Choose people to share this report with** dialog box.

To change the access levels and extra permissions of users and User Groups:

1. To change a user or User Group's access level, right-click the user or User Group's name and select one of the **Access Level** options.

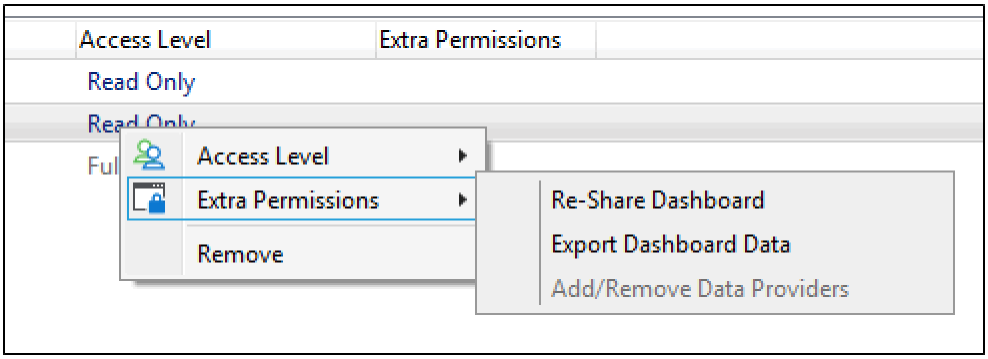


Access Level	Description
Read Only	The user or User Group can view the dashboard or report but cannot change or delete it
Modify	The user or User Group can view and modify the dashboard or report but cannot delete it.
Full Control	The user or User Group can view, modify, and delete the dashboard or report.

Note: The owner is the user who created the dashboard or report. Access cannot be changed for the owner.

2. To change a user's extra permissions, right-click the user's name and select one of the **Extra Permissions** options.

Note: If the user has **Full Control** access, all extra permissions are included by default and cannot be removed.



Extra Permissions	Description
Re-Share Dashboard **Re-Share Report**	The user can share the dashboard or report with other users.
Export Dashboard Data **Export Report Data**	The user can export the data that was used to create the dashboard or report.
Add/Remove Data Providers	The user can change the data providers used to retrieve data for the dashboard or report. This permission is only available to change if the user has **Modify** access.

3. Click **Share** to save your changes and close the dialog box.

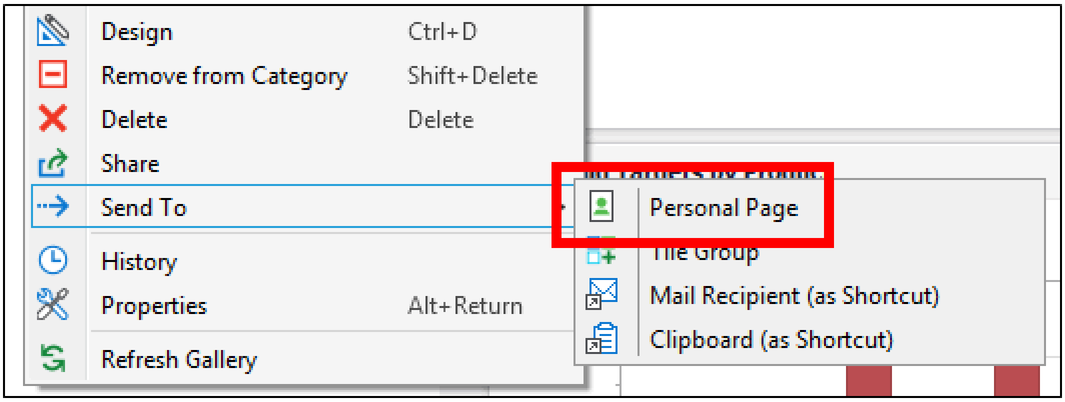
Adding Items to Your Personal Page

Dashboards, reports, and dashboard items can be added to your Personal Page in the Unity Client, allowing you to access these items quickly from a single page. When the dashboard or report is opened from your Personal Page, it is displayed in a new window.

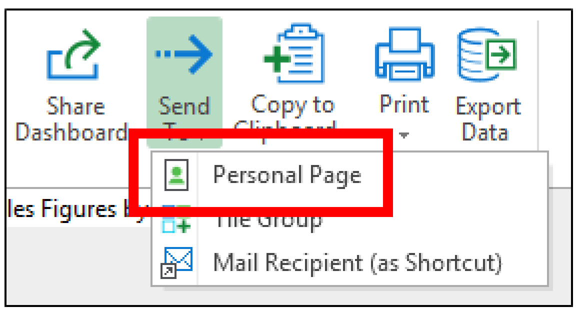
Note: Depending on your system's configuration, you may not be able to add items to your Personal Page. Contact your system administrator for information on your solution's configuration.

To add a dashboard, report, or dashboard item to your Personal Page, you can:

- Right-click the name of the dashboard or report in the **Gallery** pane and select **Send To | Personal Page**.



- Click **Send To | Personal Page** in the **Actions** ribbon group when the dashboard or report is active in the viewer.



- Right-click on the specific dashboard item in the item viewer and select **Send Item to Personal Page**.

Note: When a dashboard item is added to your Personal Page, the whole dashboard containing the dashboard item is added, with the selected dashboard item enlarged when the dashboard is displayed. The enlarged dashboard item can be closed and the dashboard used like normal.

Adding Items to a Tile Group

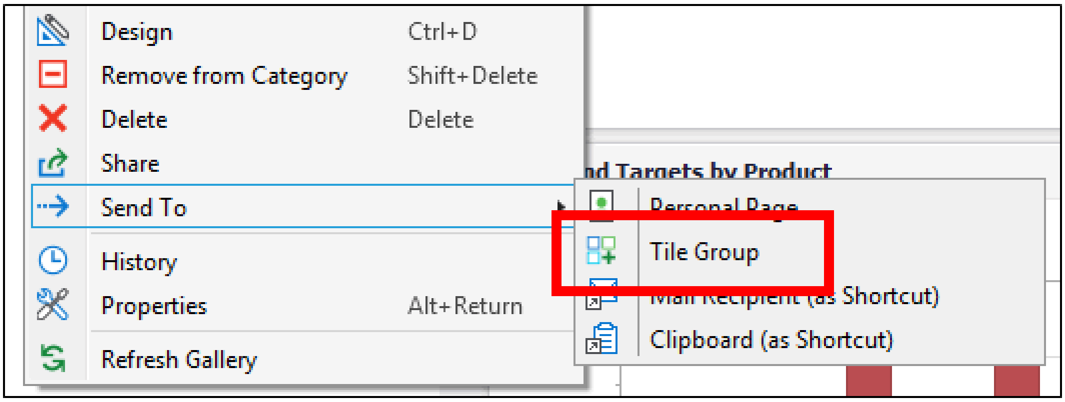
A dashboard, report, or dashboard item can be added to a Tile Group in the Unity Client, allowing users to access the dashboard, report, or dashboard item quickly. When the dashboard or report is opened from a tile, it is displayed in a new window.

See the **Unity Client** module reference guide for complete details on tiles and Tile Groups.

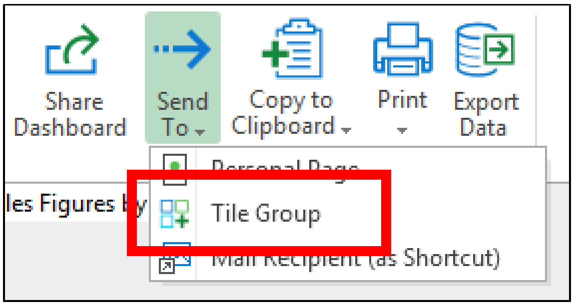
Note: Depending on your system's configuration, you may not be able to add items to a Tile Group. Contact your system administrator for information on your solution's configuration.

To add a dashboard, report, or dashboard item to a Tile Group:

1. Select one of the following options to access the **Add to Tile Groups** dialog box:
   - Right-click the name of the dashboard or report in the **Gallery** pane and select **Send To | Tile Group**.



   - Click **Send To | Tile Group** in the **Actions** ribbon group when the dashboard or report is active in the viewer.



   - Right-click on the specific dashboard item in the item viewer and select **Send Item to Tile Group**.

Note: If a dashboard item is added to a Tile Group, the whole dashboard containing the dashboard item is added, with the selected dashboard item enlarged when the dashboard is displayed. The enlarged dashboard item can be closed and the dashboard used like normal.

2. Select the Tile Group to add the dashboard, report, or dashboard item to.
3. Click **OK**.

Tip: See the **Unity Client** module reference guide for complete details on tiles and Tile Groups.

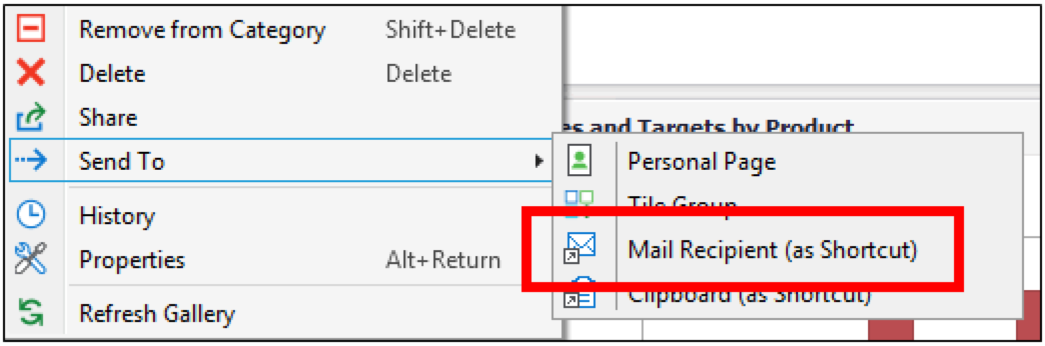
Sending Items to Email Recipients

A shortcut to a dashboard can be sent to email recipients allowing them to click the link and display the dashboard. The email is created in your default email program and contains a link to the dashboard.

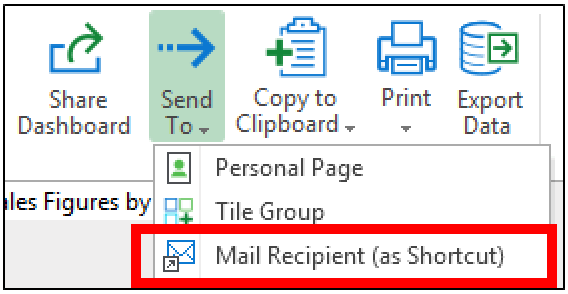
Note: In order to use the link, the recipient must have access to the OnBase Unity Client the dashboard is configured for and permission to view the dashboard.

To launch an email in your default email program that contains a link to a dashboard you can:

- Right-click the name of the dashboard in the **Gallery** pane and select **Send To | Mail Recipient (as Shortcut)**.



- Click **Send To | Mail Recipient (as Shortcut)** in the **Actions** ribbon group when the dashboard to send is active in the viewer.



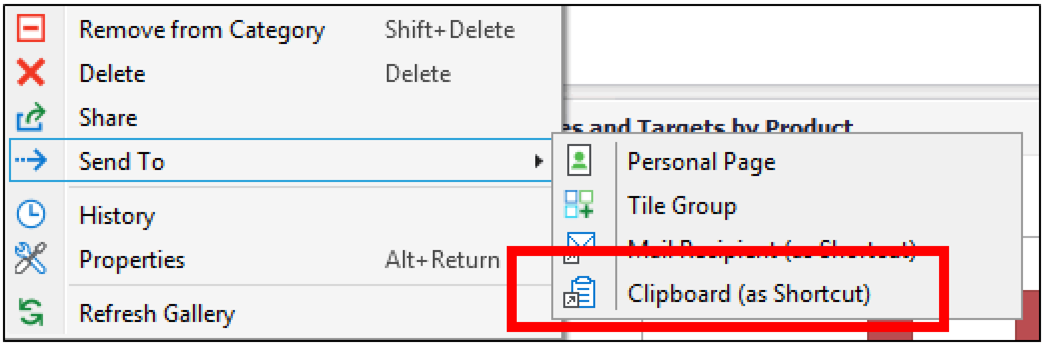
Tip: See also Copying Data or a Link to an Item to the Clipboard on page 416.

Copying Data or a Link to an Item to the Clipboard

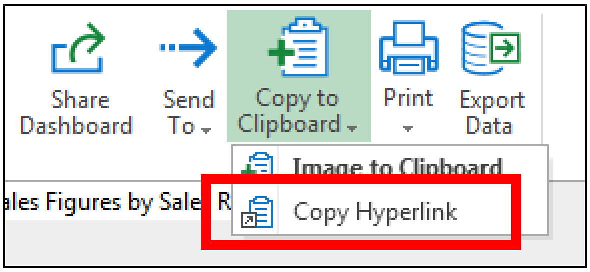
Dashboards and dashboard items can be placed in the operating system clipboard so they can be pasted into other applications. Dashboards can be copied as an image or a link and dashboard items can be copied as images.

To place a link to the dashboard in the clipboard:

- Right-click the name of the dashboard in the **Gallery** pane and select **Send To | Clipboard (as Shortcut)**.

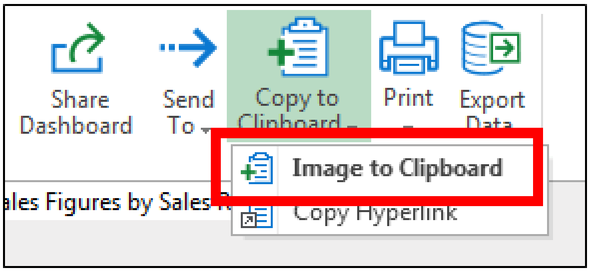


- Click **Copy to Clipboard | Copy Hyperlink** in the **Actions** ribbon group when the dashboard to copy is active in the viewer.

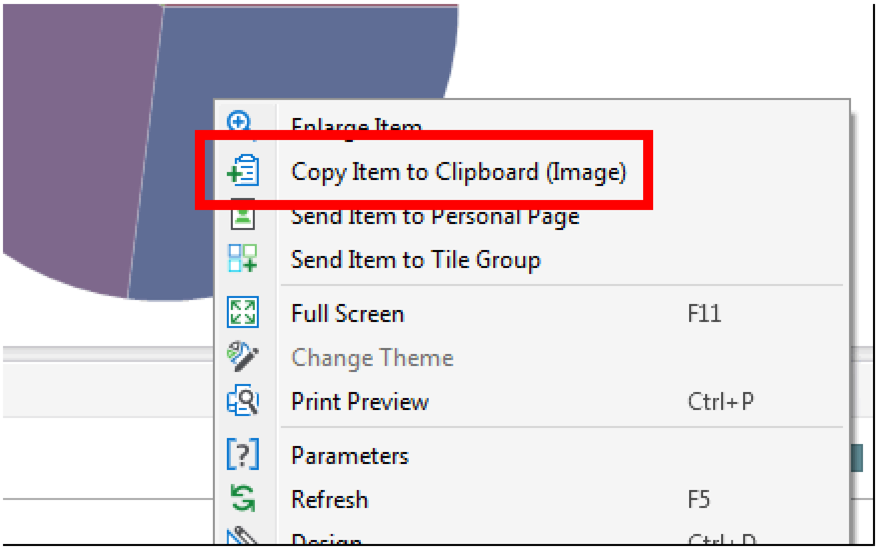


Note: In order to access a dashboard from the link, the user following the link must have access to the OnBase Unity Client that contains the dashboard and permission to view the dashboard.

To place an image of the dashboard in the clipboard, click **Copy to Clipboard | Image to Clipboard** in the **Actions** ribbon group when the dashboard to copy is active in the viewer.



To place an image of a specific dashboard item in the clipboard, right-click the dashboard item in the item viewer and select **Copy Item to Clipboard (Image)**.



Printing, Saving, or Archiving a View

A dashboard currently active in the item viewer can be printed to a printer, saved as a PDF or image file, or archived into OnBase. The view that is captured is the currently displayed view. To update the view of the dashboard to reflect the most recent data, click **Refresh** in the **View** ribbon group.

See:

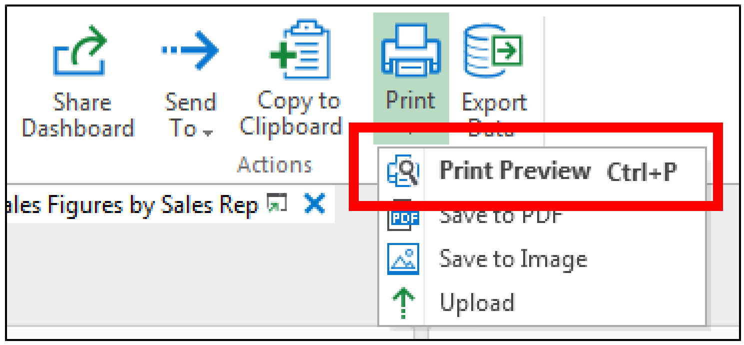
- Printing a Dashboard View on page 418
- Saving a Dashboard View on page 419
- Archiving a Dashboard View on page 421

Printing a Dashboard View

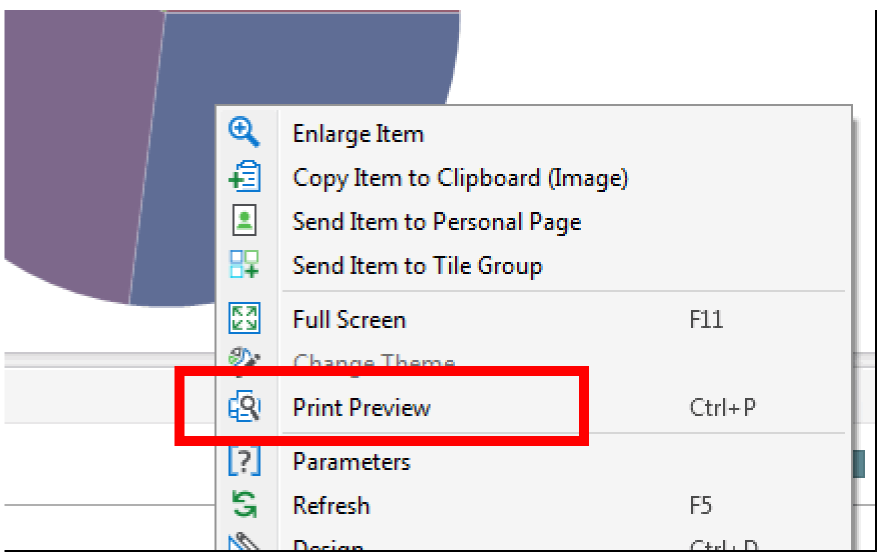
A dashboard currently active in the item viewer can be printed to a printer. The view that is printed is the currently displayed view. To update the view of the dashboard to reflect the most recent data, click **Refresh** in the **View** ribbon group.

To open the dashboard in the printer control layout so that it can be printed:

- Click **Print | Print Preview** in the **Actions** ribbon group when the dashboard to print is active in the viewer.



- Right-click any dashboard item for the dashboard in the item viewer and select **Print Preview**.



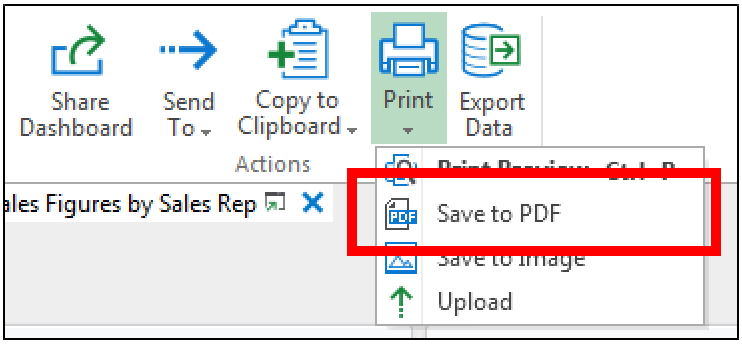
The dashboard is displayed in the print control layout. Adjust the print settings as required then click **Print**.

Saving a Dashboard View

A dashboard currently active in the item viewer can be saved as a PDF or image file. The view that is captured is the currently displayed view. To update the view of the dashboard to reflect the most recent data, click **Refresh** in the **View** ribbon group.

To save a dashboard view as a PDF:

1. Click **Print | Save to PDF** in the **Actions** ribbon group.



   The Microsoft Windows **Save As** dialog box is displayed.

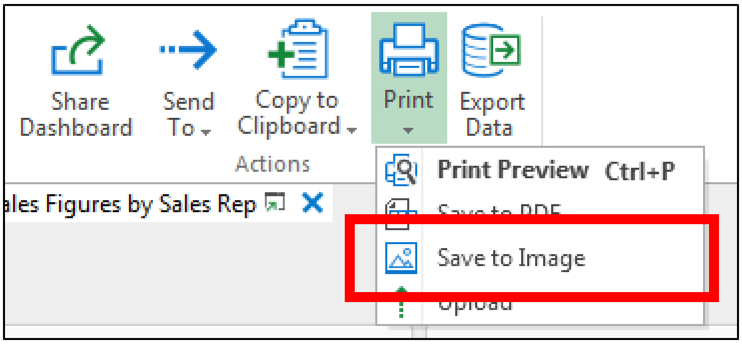
2. Browse to a location to save the file.
3. Enter a file name for the file in the field provided. By default, the name of the dashboard is used as the file name.

Note: Do not change the file type to anything other than **PDF (*.pdf)**.

4. Click **Save**. The dashboard is saved as a PDF at the location specified.

To save a dashboard view as an image file:

1. Click **Print | Save to Image** in the **Actions** ribbon group.



   The Microsoft Windows **Save As** dialog box is displayed.

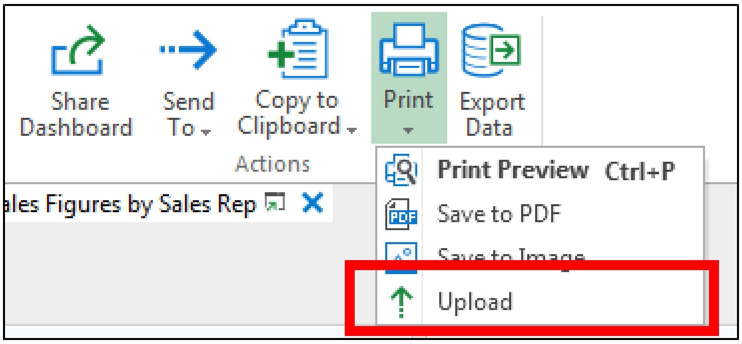
2. Browse to a location to save the file.
3. Enter a file name for the file in the field provided. By default, the name of the dashboard is used as the file name.
4. Select a file type for the image: **PNG (*.png)**, **JPEG (*.jpg; *.jpeg; *.jpe; *.jfif)**, or **TIFF (*.tif; *.tiff)**. By default the image is saved as PNG (*.png) file.
5. Click **Save**. The dashboard is saved as an image at the location specified.

Archiving a Dashboard View

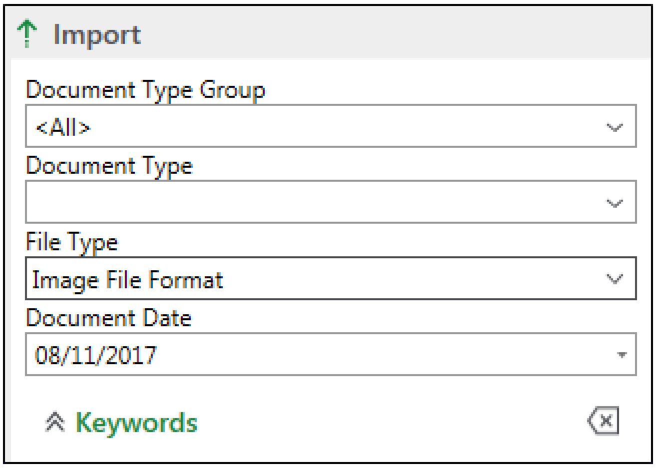
A dashboard currently active in the item viewer can be archived into OnBase as a PNG (*.png) image file. The view that is archived is the currently displayed view. To update the view of the dashboard to reflect the most recent data, click **Refresh** in the **View** ribbon group.

To archive a dashboard view into OnBase as a PNG (*.png) image file:

1. Click **Print | Upload** in the **Actions** ribbon group.



2. The Unity Client Import window is displayed.
3. In the left Import pane, select a **Document Type Group** and **Document Type** to archive the dashboard image under.



4. Enter values for the Keyword Types under **Keywords**. The Keyword Types available depend on the Document Type selected.

Tip: The **File Type** and **Document Date** are automatically selected for you and do not need to be changed.

5. Click **Import**. The dashboard image is archived in OnBase under the Document Type selected.

Exporting Data to Microsoft Excel

The data used to present the dashboard or report currently active in the item viewer can be exported to a Microsoft Excel file (*.xlsx). The exported data is based on the currently displayed view. To update the view of the dashboard or report to reflect the most recent data, click **Refresh** in the **View** ribbon group.

Tip: For more information on exporting individual dashboard items, see Exporting or Printing Individual Dashboard Items on page 423.

To export dashboard or report data to Microsoft Excel:

1. Either click **Export Data** in the **Actions** ribbon group or select **Export to Excel** or **Export Report to Excel** from the right-click menu within the dashboard or report.

   The **Save As** dialog box is displayed.
2. Browse to a location to save the file.
3. Enter a file name for the file in the field provided. By default, the name of the dashboard or report is used as the file name.

Note: Dashboard and report names may contain characters that are not allowed in file names. These characters include \, /, :, *, ?, ", <, >, and |. Remove any of these characters before trying to save the exported dashboard or report.

   Do not change the file type to anything other than **Excel Workbook (*.xlsx)**.
4. Click **Save**. The data used to create the dashboard or report view is saved as a Microsoft Excel file at the location specified.

Data from each data provider is added to a new sheet in the exported spreadsheet. For example, if a dashboard contains data from two data providers, the spreadsheet will contain two sheets, one with the data from each data provider.

The following considerations apply when exporting dashboard or report data to a Microsoft Excel spreadsheet:

- Special characters in data provider names (for example, "\/*:[]") are replaced with an underbar (_).
- Data provider names that are longer than 31 characters are truncated at 31 characters.
- Duplicate data provider names are given system-generated unique names.

- For any cells containing text, any text that would begin with an equal sign (**=**), a plus sign (**+**), a minus sign (**-**), or a commercial at sign (**@**), a single space will be added to the beginning of the cell. This is necessary to prevent the values from being executed when the spreadsheet is viewed.
- For cells that contain only numbers, negative numbers will have a single quotation mark (**'**) added to the beginning of the cell. This is necessary to prevent the values from being executed when the spreadsheet is viewed.

Note: Exporting a report using **Export Data** exports all of the available data for that report. To export a report using the column selections and groups in use in the report, right click on the report and select **Export Report to Excel**.

Exporting or Printing Individual Dashboard Items

The **Export To** action can be used to export individual dashboard items to an image, PDF, or spreadsheet, or to print the item. If the **Export To** action is available for an item, the button is displayed in the title of the dashboard item. The **Export To** action is not available for all items.

The dashboard item is exported or printed in the current viewing state. For example, if a dashboard item is an interactive item that can filtered to display a certain date range, only the date range currently displayed for the item is exported or printed.

Tip: See Using Interactive Dashboard Items on page 397 for more information on using interactive dashboard items.

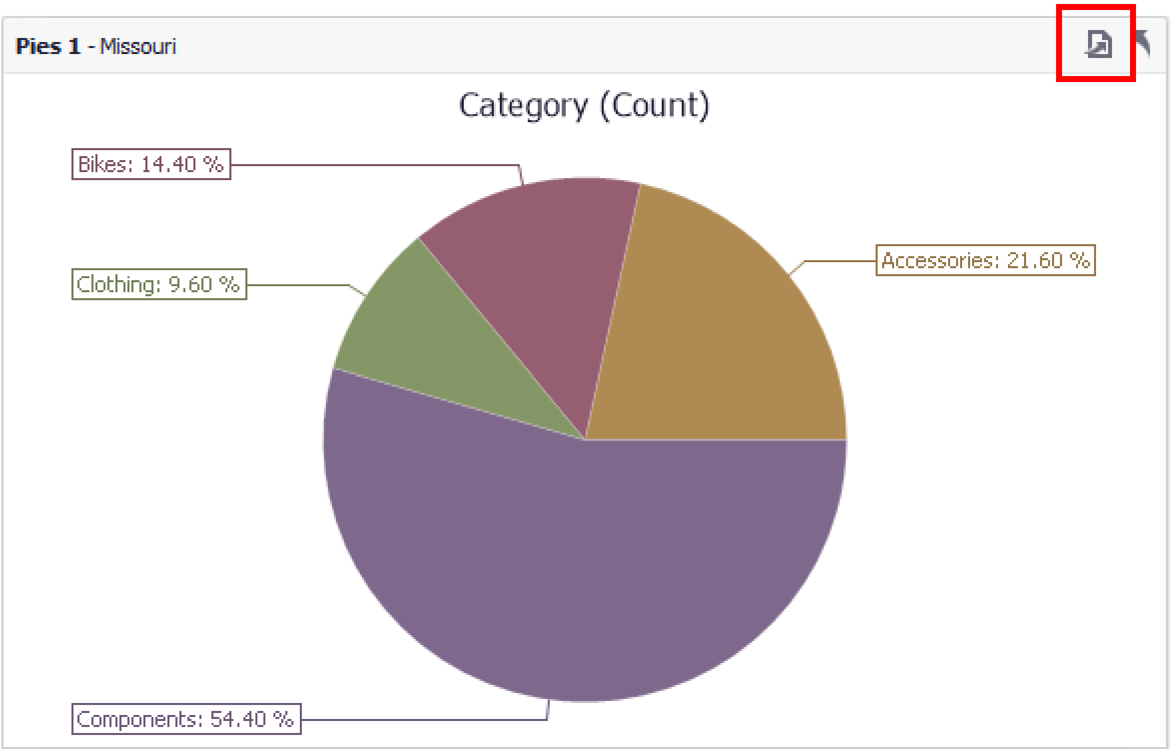
To export or print individual dashboard items, see:

- Printing Dashboard Items on page 424
- Exporting Dashboard Items as a PDF on page 425
- Exporting Dashboard Items as an Image on page 426
- Exporting Dashboard Items to Microsoft Excel or CSV on page 427

Printing Dashboard Items

To print a dashboard item:

1. Click the **Export To** button in the title of the dashboard item you want to print:



Note: The **Export To** action is not available for filter items.

2. Select **Print Preview**. The **Preview** dialog box is displayed.
3. Set the printing options to use.

   The **Preview** dialog box contains standard printing configuration options, such as orientation, paper size, and scale. You can also add a header and footer to the printed page.

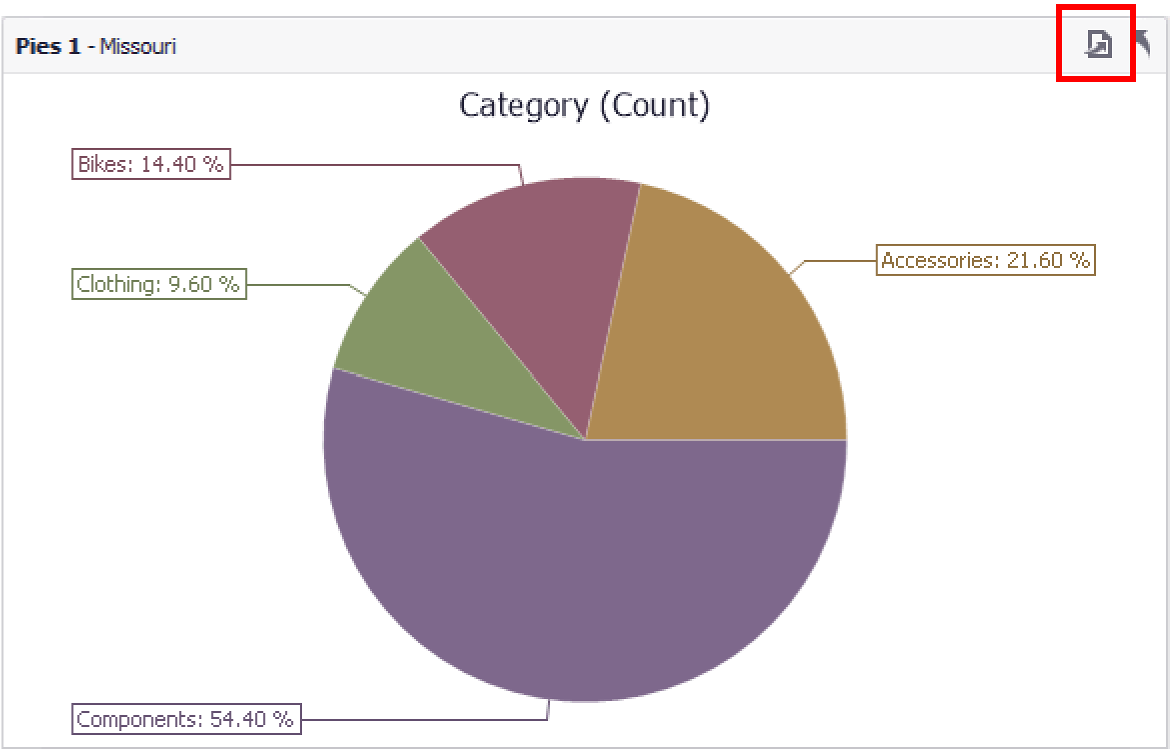
   To change the printed title of the dashboard item, click **Options** and edit the text in the **Title** field. By default, the title of the dashboard item as configured in Reporting Dashboards is used.
4. Click **Print** to select a printer, and adjust the options for the selected printer, before printing.

   Or click **Quick Print** to print the item using the default system printer and its default settings.
5. Click **Close** to close the **Preview** dialog box.

Exporting Dashboard Items as a PDF

To export a dashboard item as a PDF file:

1. Click the **Export To** button in the title of the dashboard item you want to export:



Note: The **Export To** action is not available for filter items.

2. Select **Export To PDF**. The **Export To PDF** dialog box is displayed.
3. Set the options to use when generating the PDF.

   The **Export To PDF** dialog box contains standard configuration options, such as orientation, size, and scale.

   To change the printed title of the dashboard item, edit the text in the **Title** field. By default, the title of the dashboard item as configured in Reporting Dashboards is used.
4. Click **Export**. The **Save As** dialog box is displayed.
5. Select the location to save the file.
6. Type a file name in the field provided. By default, the **Title** value is used as the file name.

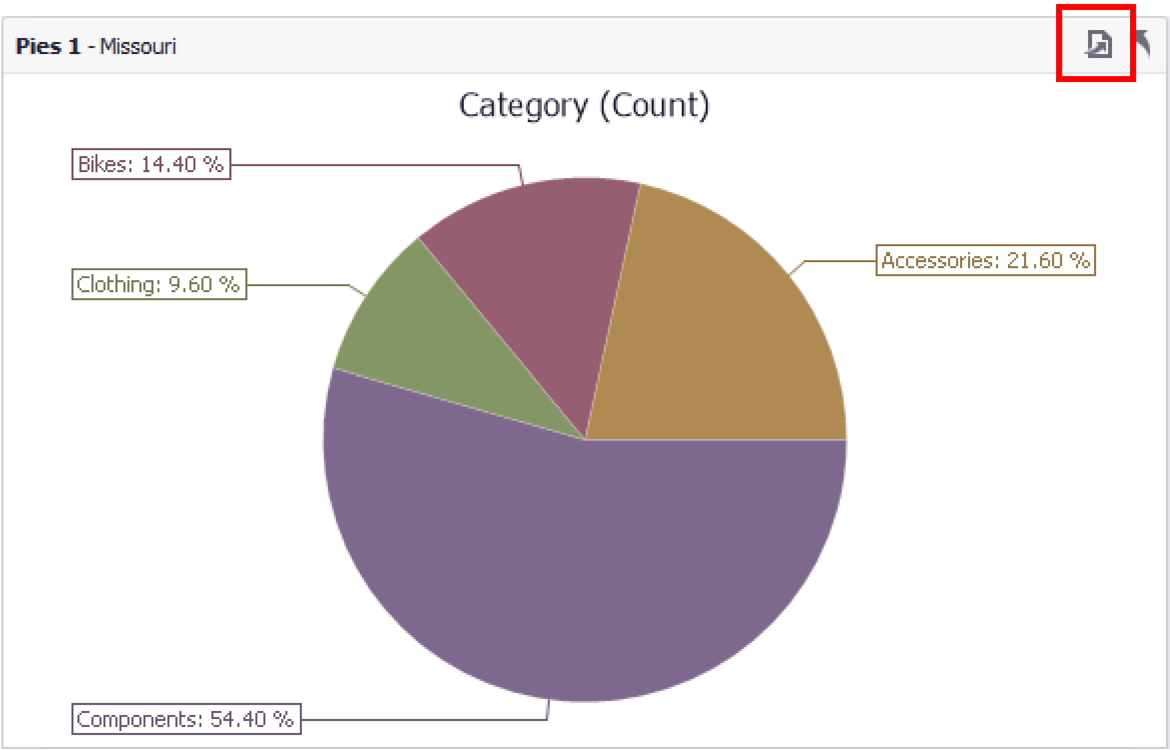
Note: Titles may contain characters that are not allowed in file names, such as *. Remove any illegal file name characters before trying to save the exported item.

7. Click **Save**.

Exporting Dashboard Items as an Image

To export a dashboard item as an image:

1. Click the **Export To** button in the title of the dashboard item you want to export:



Note: The **Export To** action is not available for filter items.

2. Select **Export To Image**. The **Export To Image** dialog box is displayed.
3. Set the options to use when generating the image.

   The **Export To Image** dialog box contains standard configuration options, such as image resolution and file type.

   To change the printed title of the dashboard item, edit the text in the **Title** field. By default, the title of the dashboard item as configured in Reporting Dashboards is used.
4. Click **Export**. The **Save As** dialog box is displayed.
5. Select the location to save the file.
6. Type a file name in the field provided. By default, the **Title** value is used as the file name.

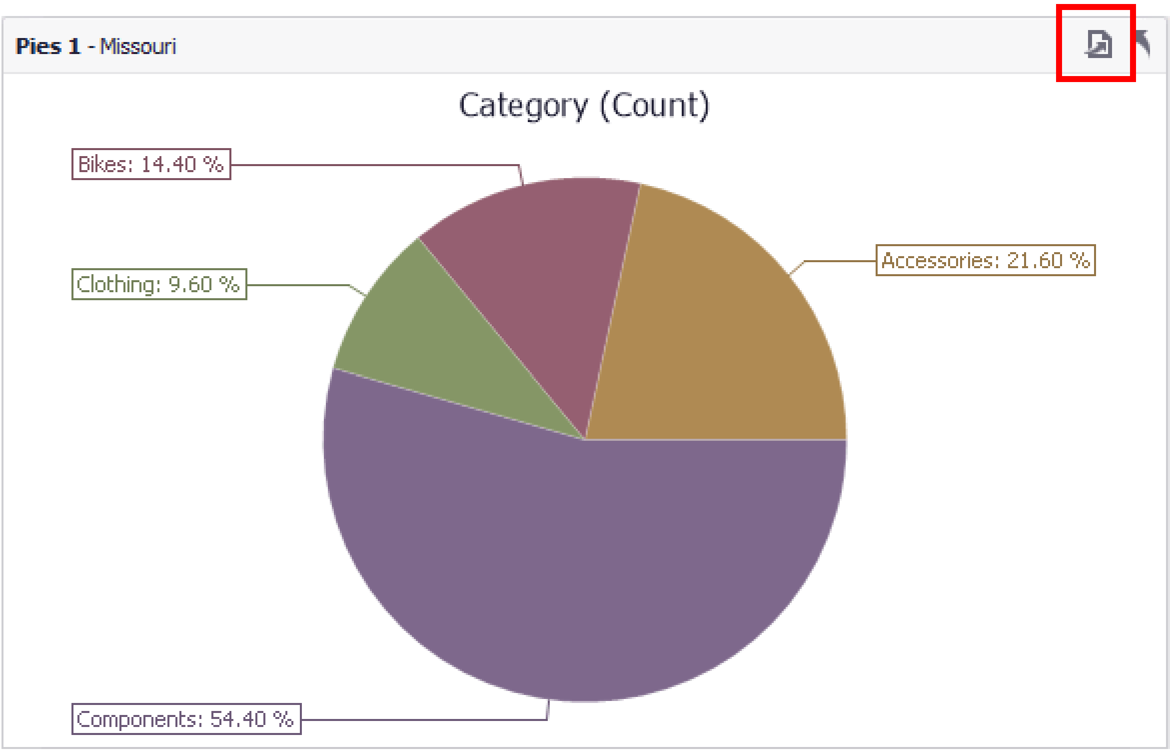
Note: Titles may contain characters that are not allowed in file names, such as *. Remove any illegal file name characters before trying to save the exported item.

7. Click **Save**.

Exporting Dashboard Items to Microsoft Excel or CSV

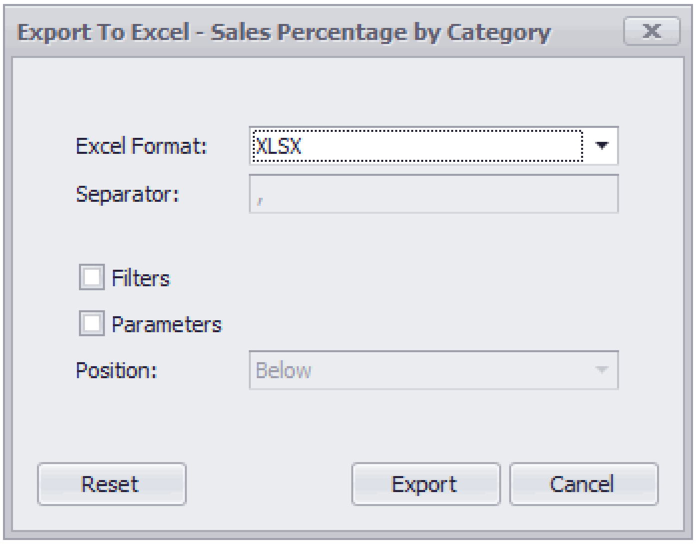
To export a dashboard item as a Microsoft Excel spreadsheet or CSV file:

1. Click the **Export To** button in the title of the dashboard item you want to export:



Note: The **Export To** action is not available for filter items.

2. Select **Export To Excel**. The **Export To Excel** dialog box is displayed.



3. Select a file format from the **Excel Format** drop-down list.
4. If **CSV** is selected as the format, enter the separator character to use in the **Separator** field. The default character is a comma (,).

Note: The Separator field is only enabled if CSV is the selected format.

5. Select **Filters** to include the filters applied to the data item in the spreadsheet.
6. Select **Parameters** to include the parameters applied to the data item in the spreadsheet.
7. If Filters or Parameters is selected, select where in the spreadsheet to put the information from the **Position** drop-down list.

Note: The Position drop-down list is only enabled if Filter or Parameters is selected.

8. Click **Export**. The **Save As** dialog box is displayed.
9. Select the location to save the file.
10. Type a file name in the field provided. By default, the **Title** value is used as the file name.

Note: Titles may contain characters that are not allowed in file names, such as *. Remove any illegal file name characters before trying to save the exported item.

11. Click **Save**.

Note: Graphical representations of the data, such as pie charts and bar charts, are not preserved. Data is saved to Excel in grid format for all data items.

Maintenance and Design

Dashboards and reports can be added and configured from both the Gallery and Administration areas. For more information on adding and configuring dashboards, see Dashboard Maintenance and Design on page 24. For more information on adding and configuring reports, see Report Maintenance and Design on page 150

Category Administration

Categories allow similar or related dashboards to be grouped together in the Gallery view, making them easier to find.

See:

- Creating New Categories on page 429
- Changing Existing Categories on page 435

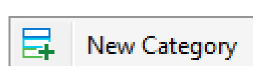
Creating New Categories

The Create Category Wizard is used to create new categories. Categories allow similar or related dashboards to be grouped together in the Gallery view, making them easier for users to find.

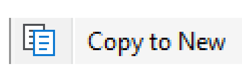
The process is the same for copying an existing category or creating a completely new category, except the options are pre-configured with the information from the category that was copied if you choose to copy an existing category. The pre-configured options for copied categories can be changed or edited to reflect the requirements of the new category, unless otherwise noted.

To create a new category:

1. Launch the Create Category Wizard by right-clicking anywhere in the Gallery pane and selecting **New Category**:

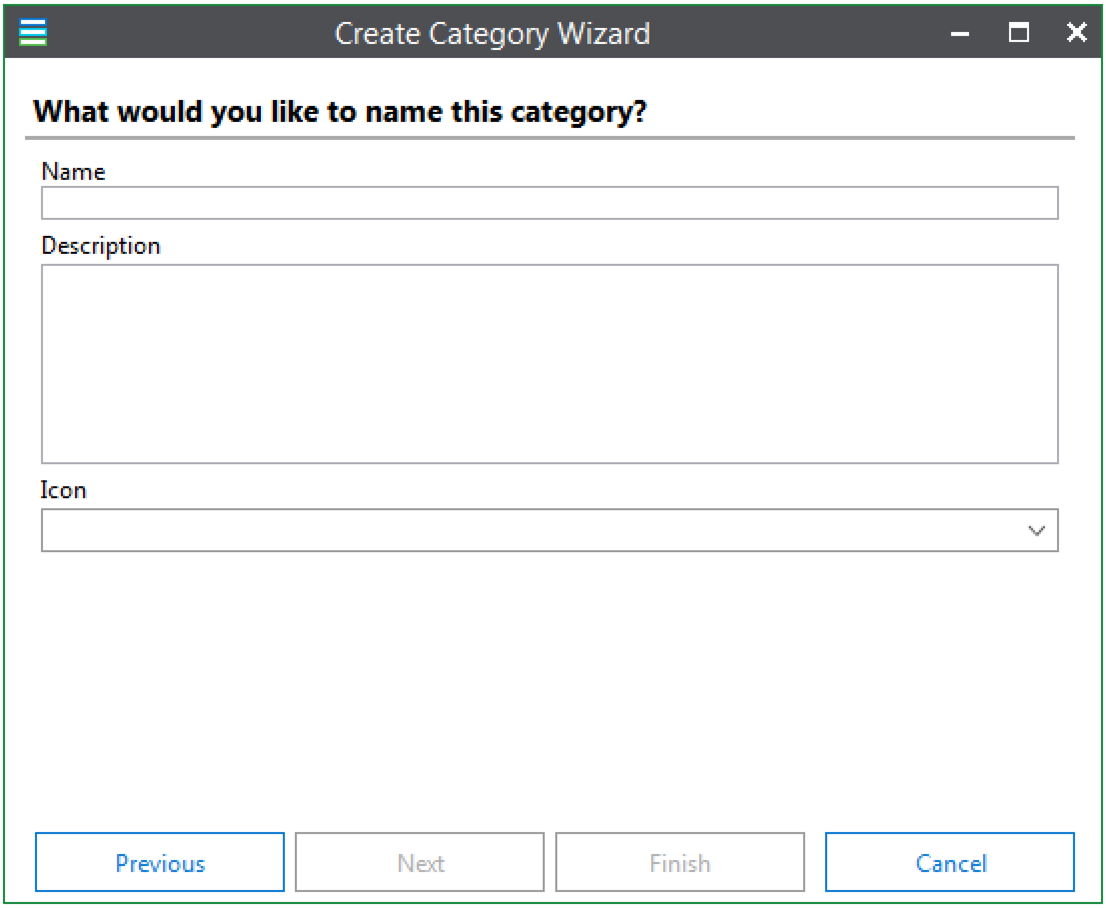


To copy an existing category, right-click the category to copy in the Gallery and select **Copy to New**:



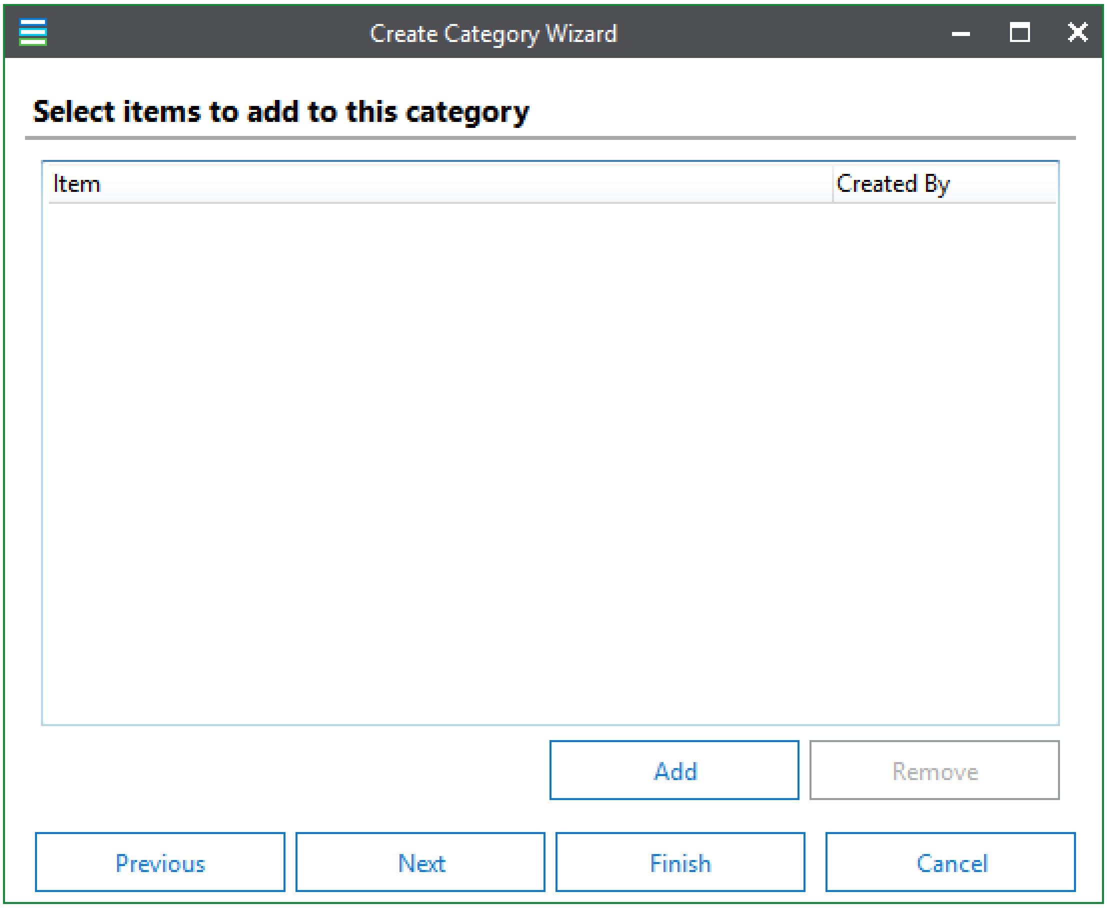
The **What would you like to name this category?** dialog box is displayed.

Note: When a category is copied, the options in the remaining dialog boxes are pre-configured with the information from the category that was copied. Unless otherwise noted, the pre-configured options can be changed or edited to reflect the requirements of the new category.

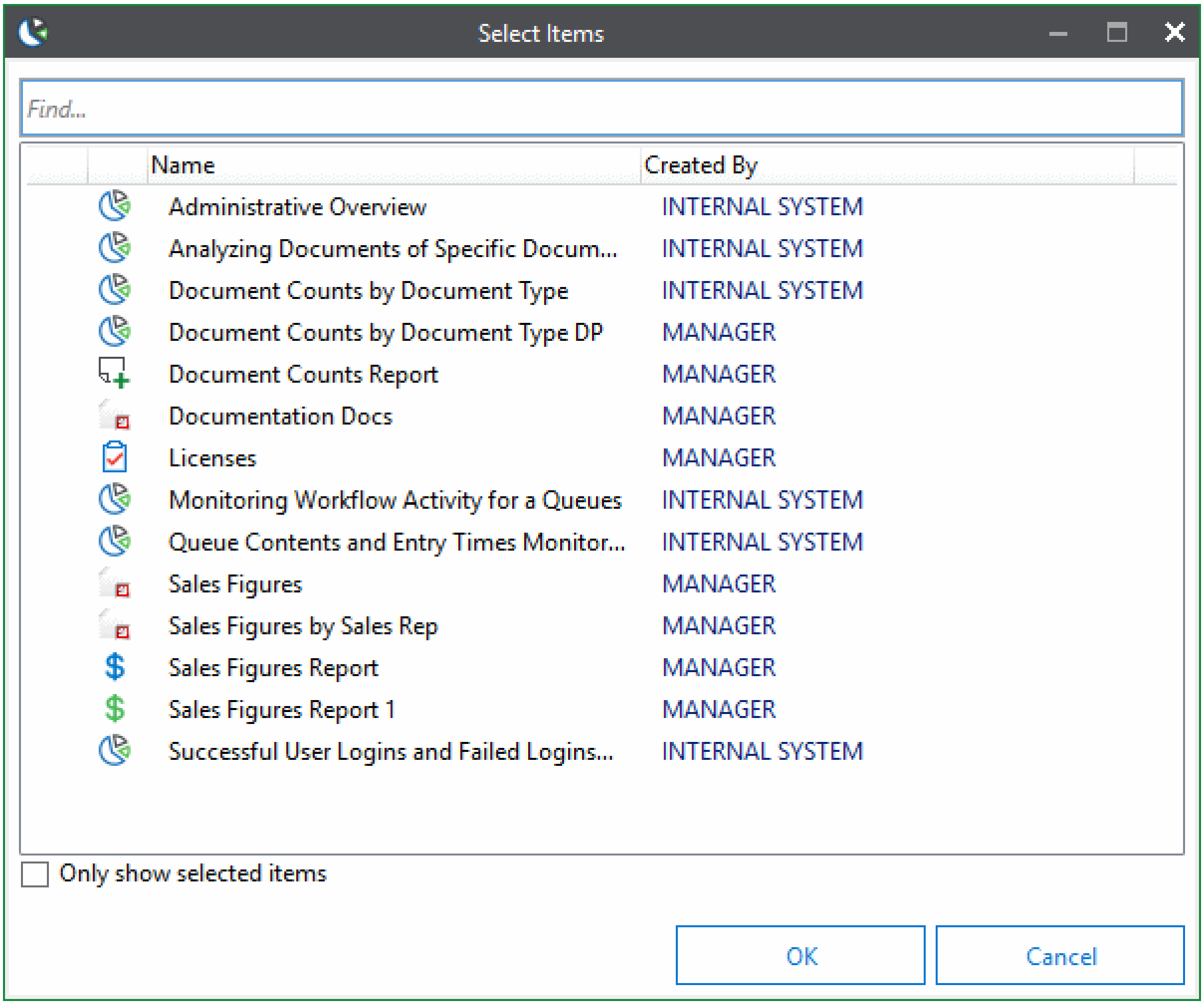


2. Type a name for the category in the **Name** field. The name must be unique compared to other categories created by the same user, but may share a name with categories created by other users. The name should logically describe the kinds of dashboards or reports that will be assigned to it.
3. Type a description of the category in the **Description** field. The description should briefly explain what the intended purpose of the category is and what type of dashboards or reports a user can expect to see under it.
4. Select an icon for the category from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find categories more easily if there are multiple categories available.

5. Click **Next**. The **Select items to add to this category** page is displayed.

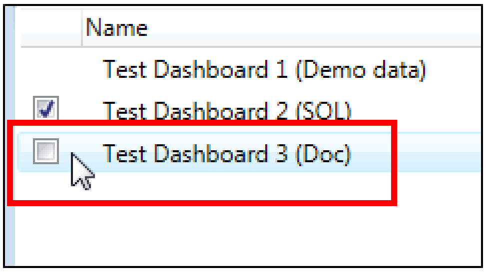


6. To add dashboards or reports to the category, click **Add**. The **Select Items** page is displayed.

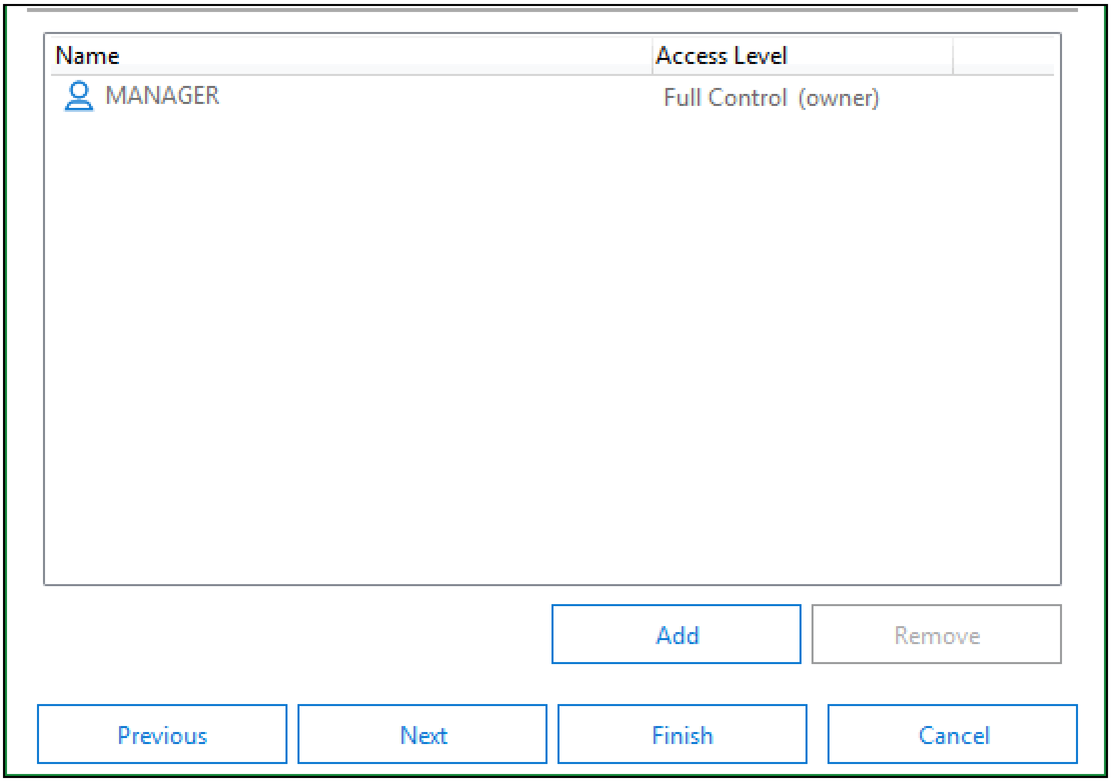


Tip: To show only previously selected item, select **Only Show Selected Items** at the bottom of the main pane. To find a specific item, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

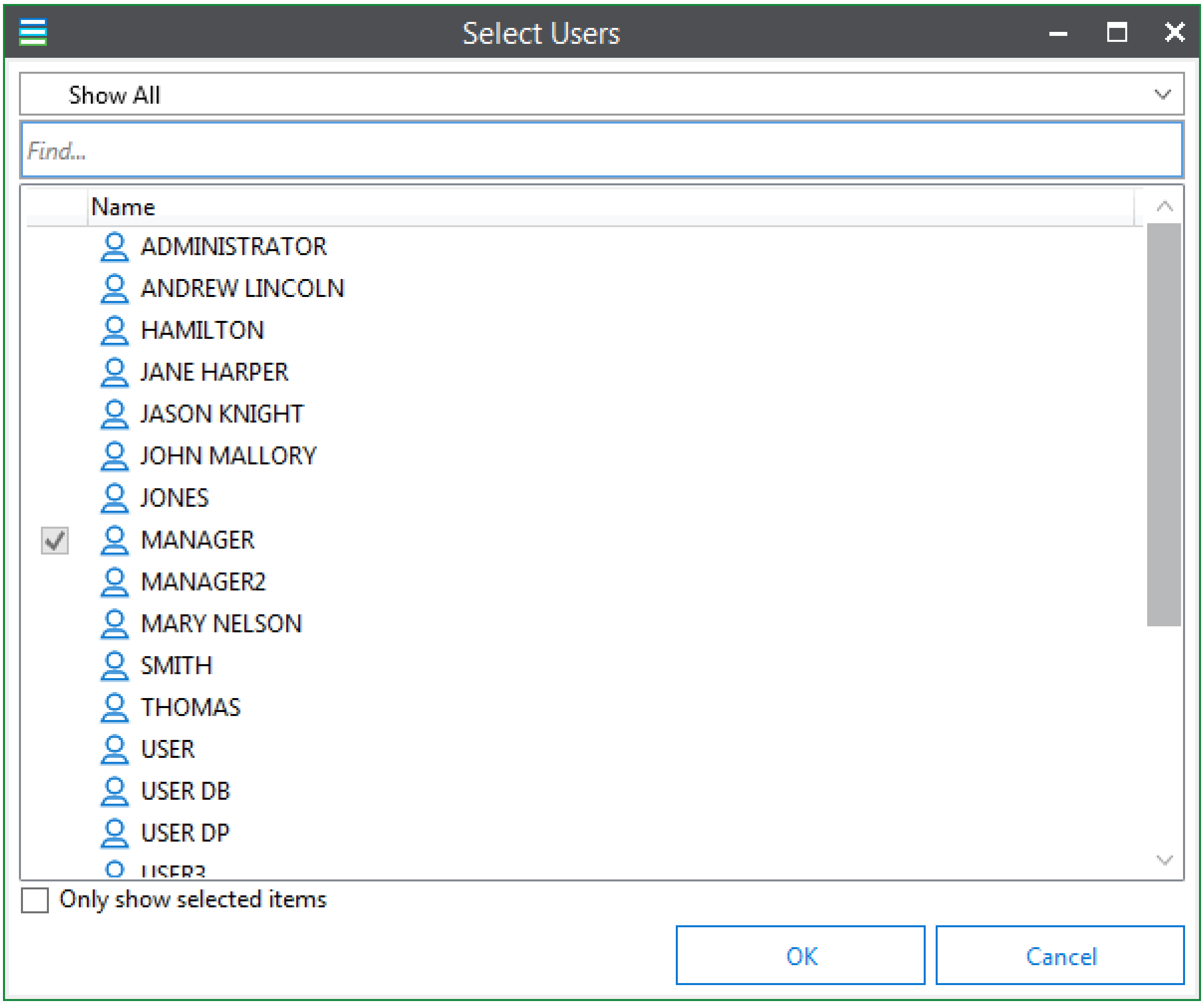
7. To select a dashboard or report, move the cursor over the row for that item and select the check box that is displayed.



   To remove a dashboard or report, deselect the check box beside the name of the item.
8. Click **OK**. The **Select items to add to this category** dialog box is displayed, which lists the dashboards selected.
9. To remove dashboards from the category, select the dashboard to remove and click **Remove**. You are not prompted to confirm this action.
10. Click **Next**. The **Who would you like to have access to this category?** page is displayed.

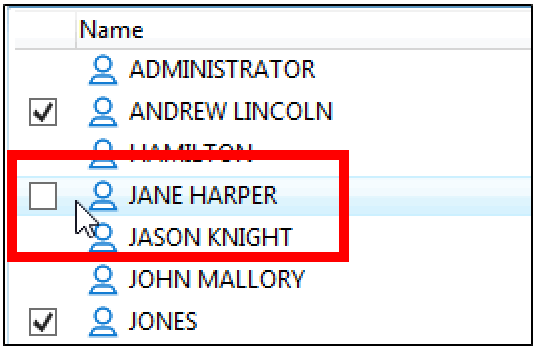


11. To grant access to a new user, click **Add**. The **Select Users** dialog box is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only user groups, select **User Group** from the drop-down list. To find a specific user or user group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only Show Selected Items** at the bottom of the main pane.

12. To select a user, move the cursor over that user's row and select the check box that is displayed.



To remove a user's access, deselect the check box beside the user's name.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

13. Click **OK** at the **Select Users** dialog box to save your user selections.
14. To change a user's access level, right-click the user's name in the **Who would you like to have access to this category?** dialog box and select **Full Control**:
    - If the user currently has Execute Only access, they are granted Full Control.
    - If the user currently has Full Control, their access level is reduced to Execute Only.

    Full Control allows the user to configure the settings for the category, including user access. **Execute Only** allows the user to use, but not configure, the category.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

15. To remove a user, right-click the right-click the user's name in the **Who would you like to have access to this category?** page and select **Remove**. You are not prompted to confirm this action.
16. Click **Next**. The **Summary** dialog box is displayed. Review the information in main pane to confirm that the category is correctly configured. If not, click **Previous** to return to the various configuration dialog boxes so that changes can be made.
17. Click **Finish**. The category is saved and is available for use with dashboards and reports.

Changing Existing Categories

Existing categories can be changed to add or remove dashboards or users, or change the name, icon, and description to better reflect the purpose of the category.

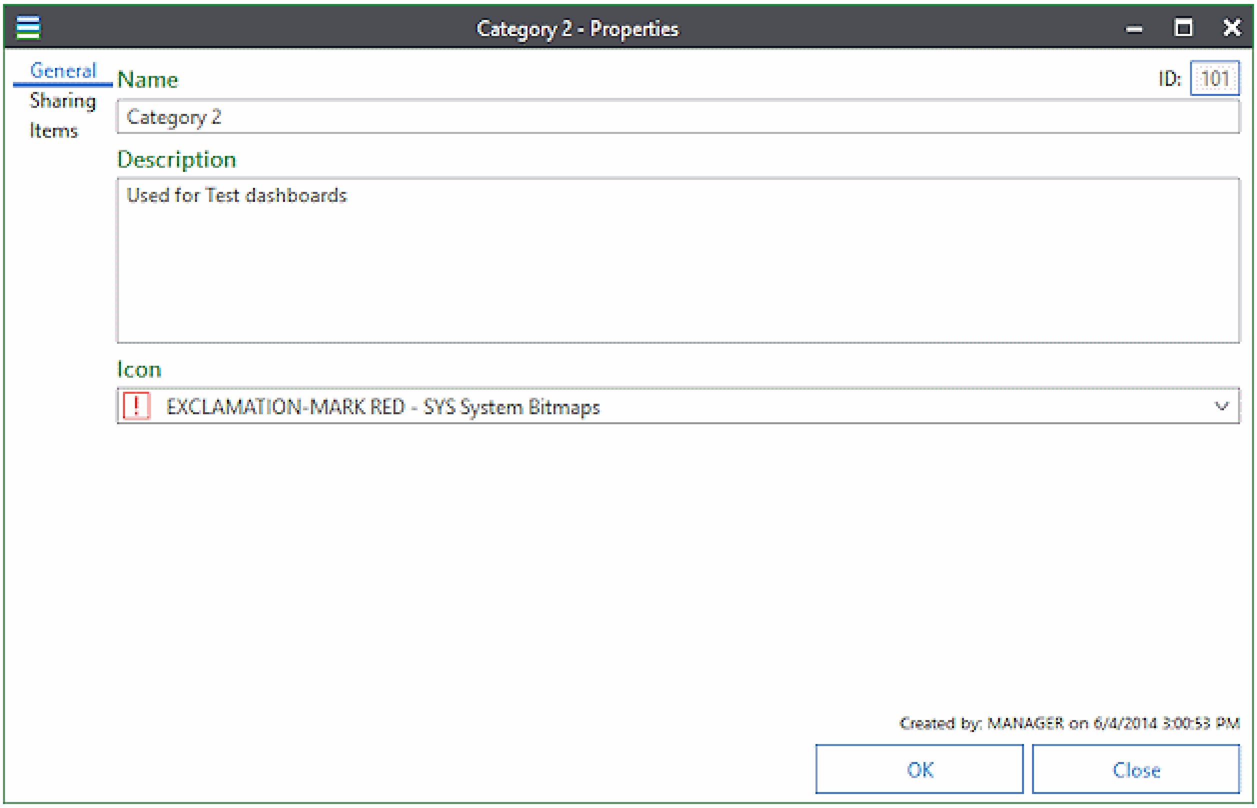
To change an existing category, right-click the name of the category to change in the Gallery and select **Properties**:

The category **Properties** dialog box is displayed. Click the tab that corresponds to the items to change:

- **General:** Change the name, description, and icon. See Changing the General Properties of a Category on page 437.
- **Sharing:** Change the users who have access to the category and their level of access. See Changing User Assignments for a Category on page 438.
- **Dashboards:** Change the dashboards that are assigned to the category. See Changing Dashboard Assignments for a Category on page 442.

Changing the General Properties of a Category

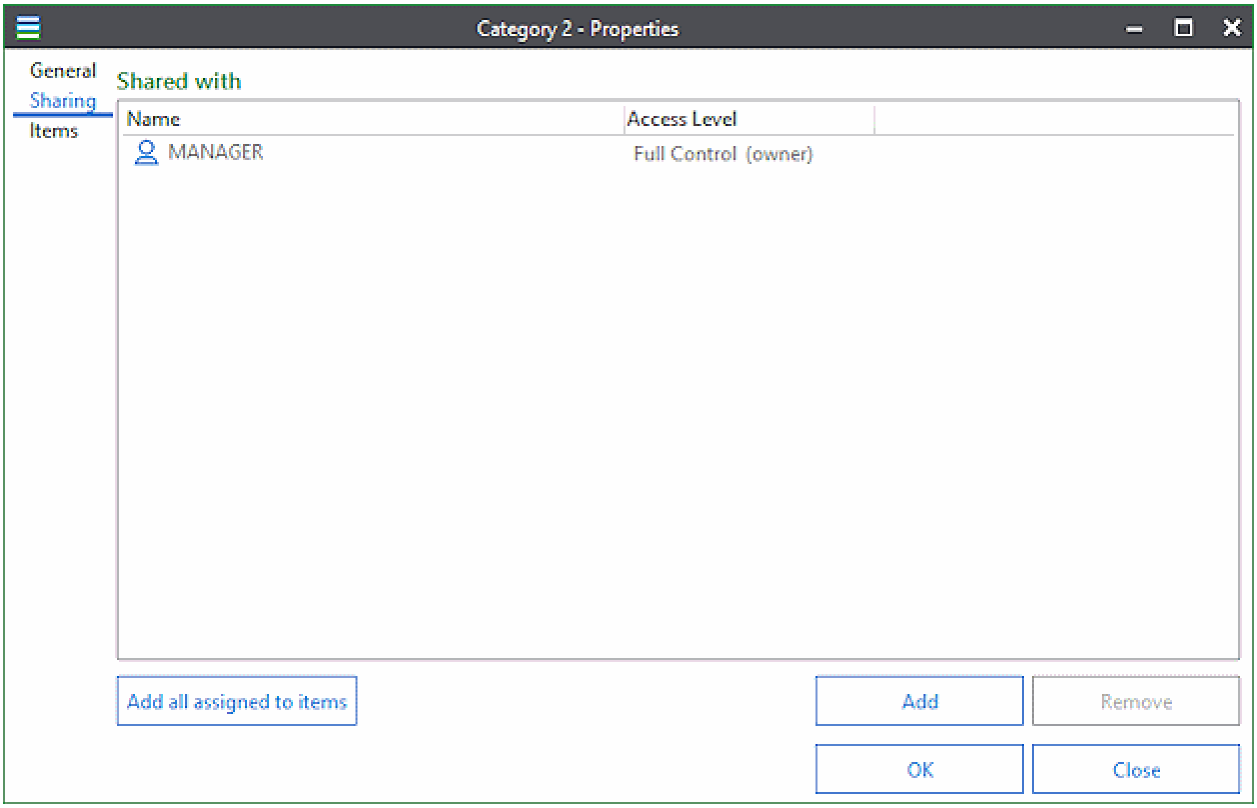
The **General** tab of the category **Properties** window is where you can change the name, description, and icon.



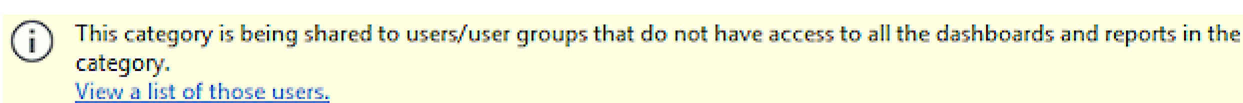
1. Update the name for the category in the **Name** field. The name should be unique and logically describe the kinds of dashboards and reports that will be assigned to it.
2. Update the description of the category in the **Description** field. The description should briefly explain what the intended purpose of the category is and what type of dashboards and reports a user can expect to see under it.
3. Select an icon for the category from the **Icon** drop-down list. This list is populated with the available system icons. You do not have to select an icon, but icons can help users find categories more easily if there are multiple categories available.
4. Click **OK** to save your changes and close the **Properties** window.

Changing User Assignments for a Category

The **Sharing** tab of the category **Properties** window is where you can change the users who have access to the category and their level of access.



If the category is currently being shared with users who do not have access to all of the dashboards or reports assigned to the category, a yellow warning banner is displayed along the top of the **Sharing** tab.



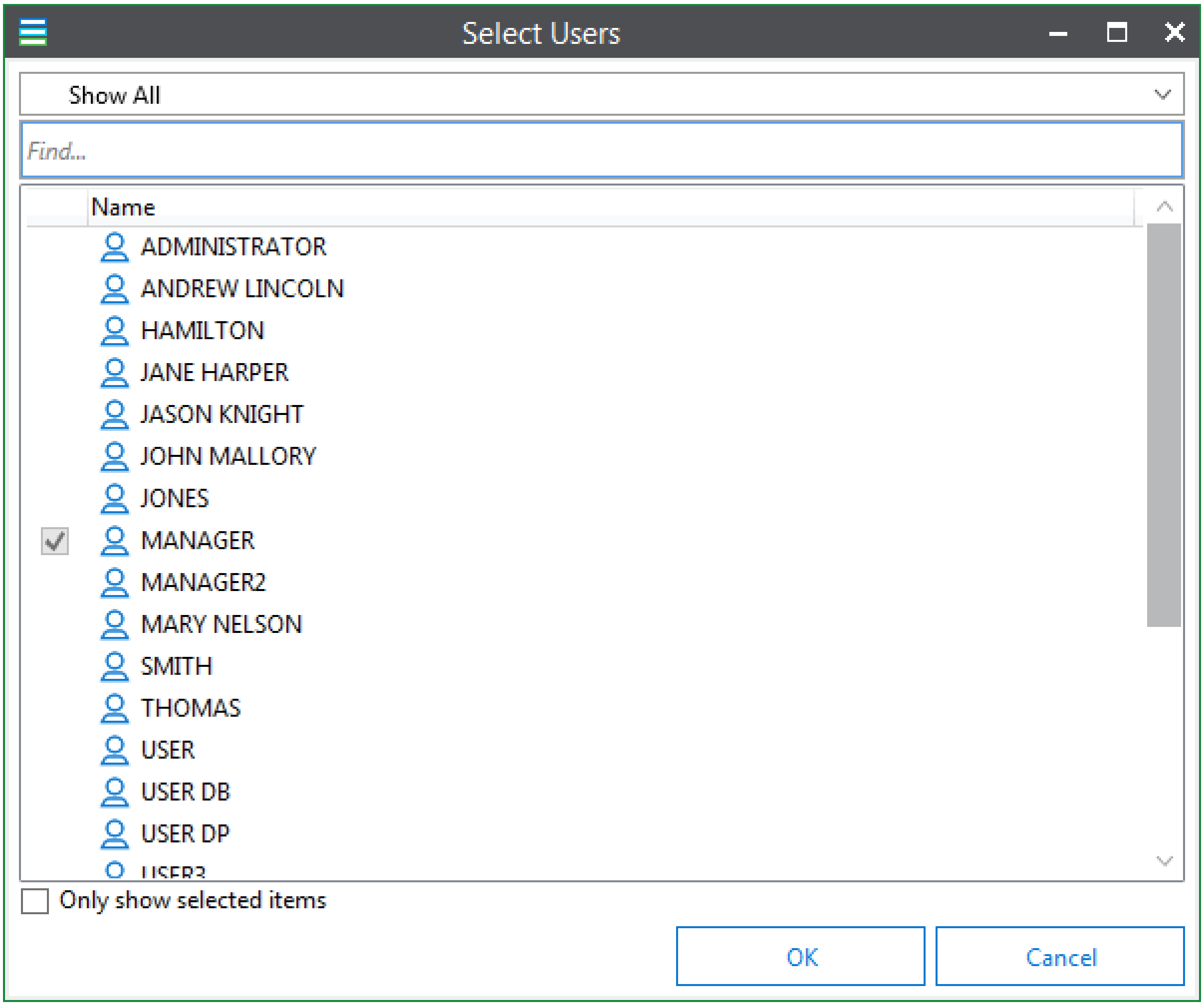
Click **View a list of those users** to display a list of the users and user groups that do not have access to certain data providers. From this list, you can grant access to these users and user groups by clicking the check box near their name. Click **OK** to close the list. To add users and User Groups to dashboards, see Adding Users or User Groups to the Dashboard on page 41. To add users and User Groups to reports see Adding Users or User Groups to the Report on page 166.

To give access to the category to all users and User Groups with access to at least one of the dashboards or reports assigned to the category, click the **Add all assigned to items** button at the bottom of the **Sharing** tab.

Note: Users and User Groups are not assigned to dashboards or reports using this button, they are only assigned to the category. To add users and User Groups to dashboards, see Adding Users or User Groups to the Dashboard on page 41. To add users and User Groups to reports, see Adding Users or User Groups to the Report on page 166.

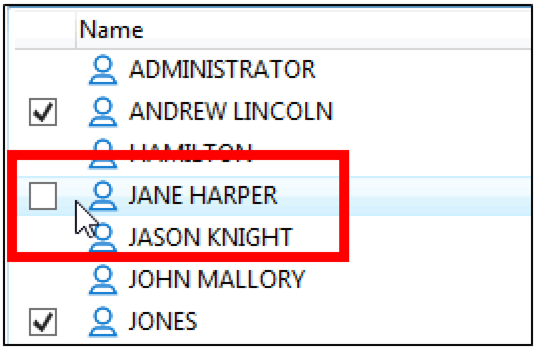
To add or remove users and User Group assignments for the category and change their level of access:

1. To grant access to a new user, click **Add**. The **Select Users** window is displayed. Only users and users groups with access to Reporting Dashboards are listed.



Tip: To show only users, select **Specific User** from the drop-down list, and to show only user groups, select **User Group** from the drop-down list. To find a specific user or user group, type the first few letters of the name or the full name in the **Find...** field and the list is filtered accordingly. To show only previously selected users, select **Only Show Selected Items** at the bottom of the main pane.

2. To select a user, move the cursor over that user's row and select the check box that is displayed.



   To remove a user's access, deselect the check box beside the user's name.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

3. Click **OK** at the **Select Users** dialog box to save your selections.
4. To change a user's access level, right-click the user's name in the **Shared with** pane and select **Full Control**:
   - If the user currently has Execute Only access, they are granted Full Control.
   - If the user currently has Full Control, their access level is reduced to Execute Only.

   Full Control allows the user to configure the settings for the category, including user access. **Execute Only** allows the user to use, but not configure, the category.

Note: The owner is the user who created the category. Access cannot be changed for the owner.

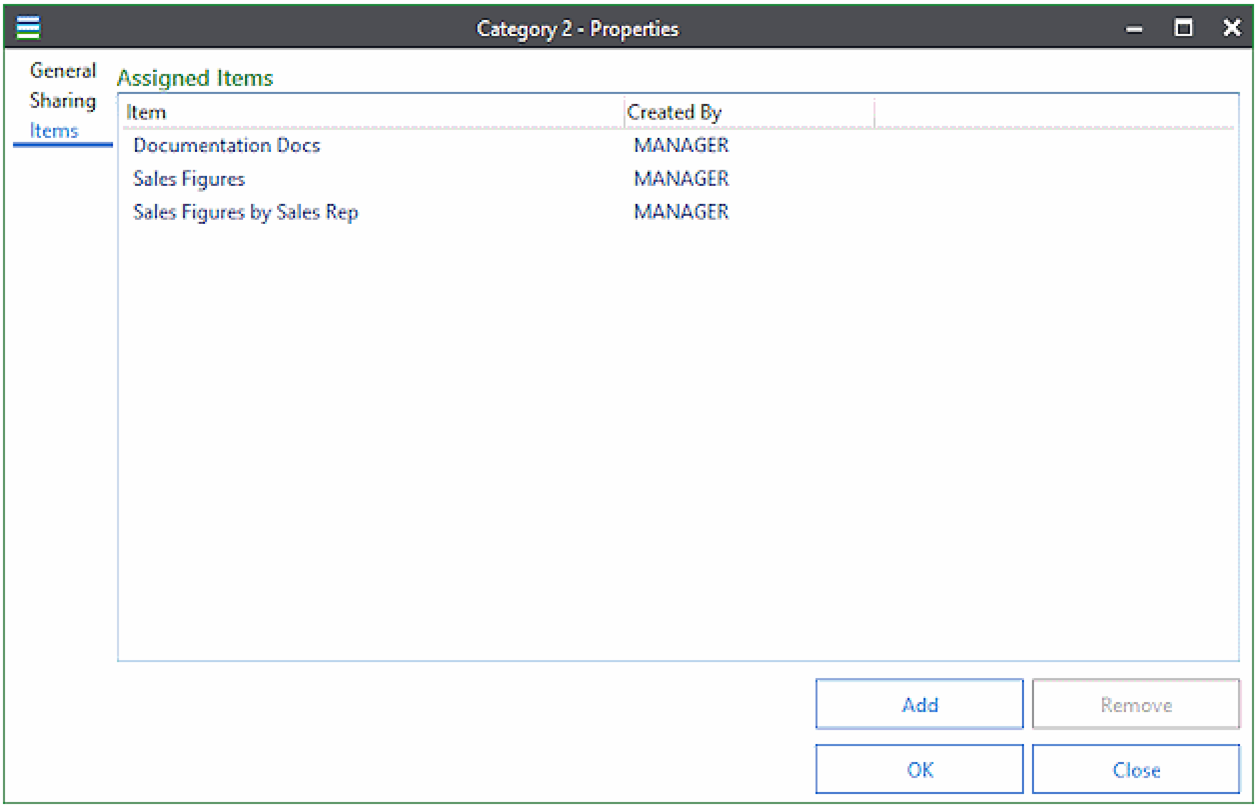
5. To remove a user, select the user's name in the **Shared with** pane and click **Remove**. You are not prompted to confirm this action.

Note: The owner is the user who created the category. The owner cannot be removed.

6. Click **OK** to save your changes and close the properties dialog box.

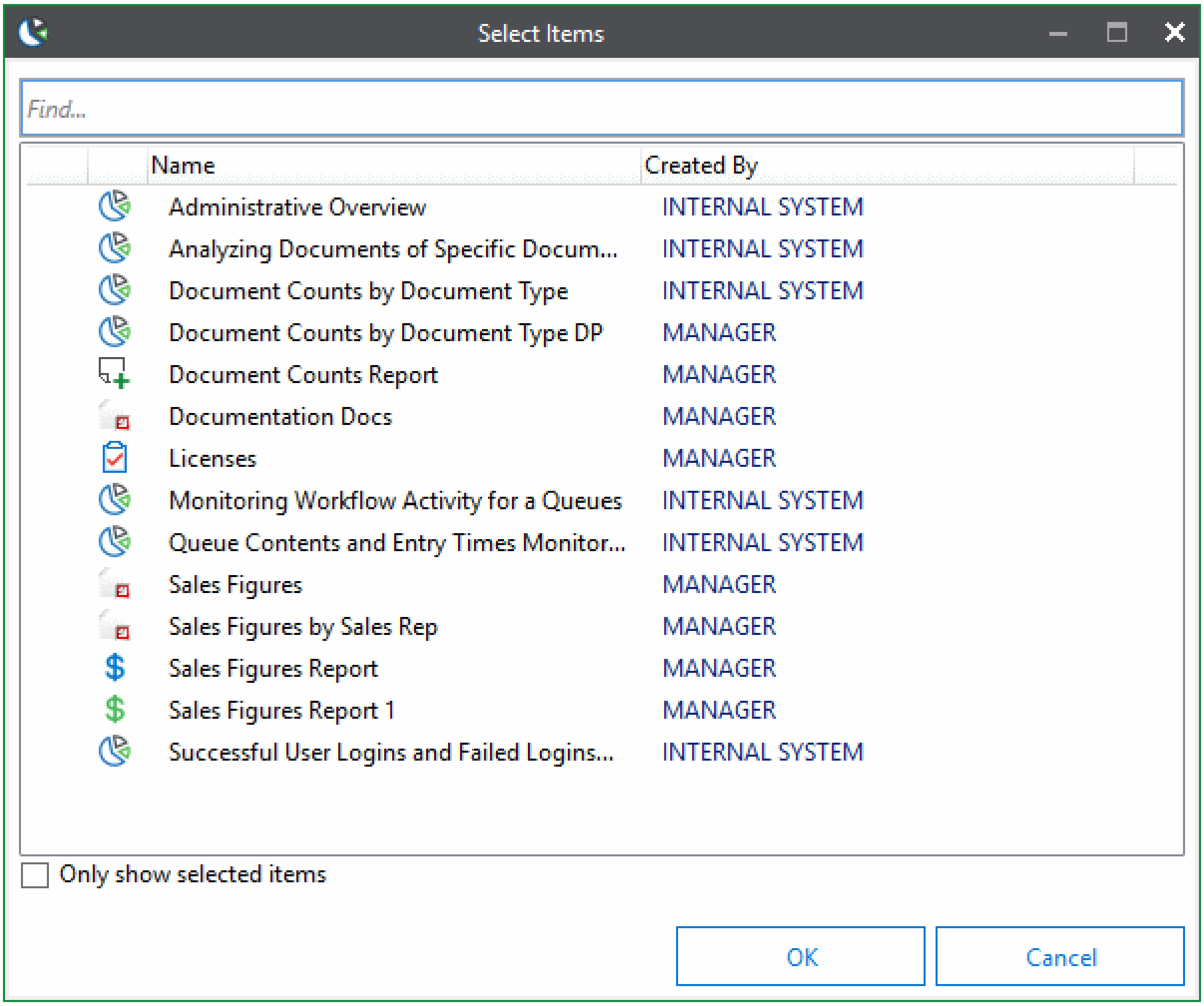
Changing Dashboard Assignments for a Category

The **Items** tab of the category **Properties** window is where you can change the dashboards and reports that are assigned to the category.



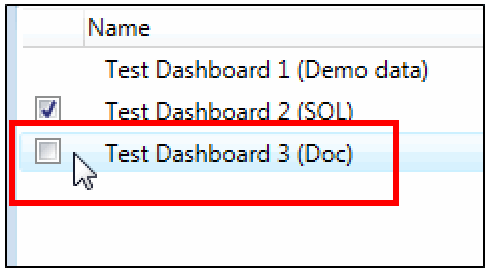
To add dashboards or reports to the category:

1. Click **Add**. The **Select Items** window is displayed.



Tip: To show only previously selected dashboards or reports, select **Only Show Selected Items** at the bottom of the main pane. To find a specific dashboard or report, type the first few letters of its name or its full name in the **Find...** field and the list is filtered accordingly.

2. To select a dashboard or report, move the cursor over the row for that item and select the check box that is displayed.



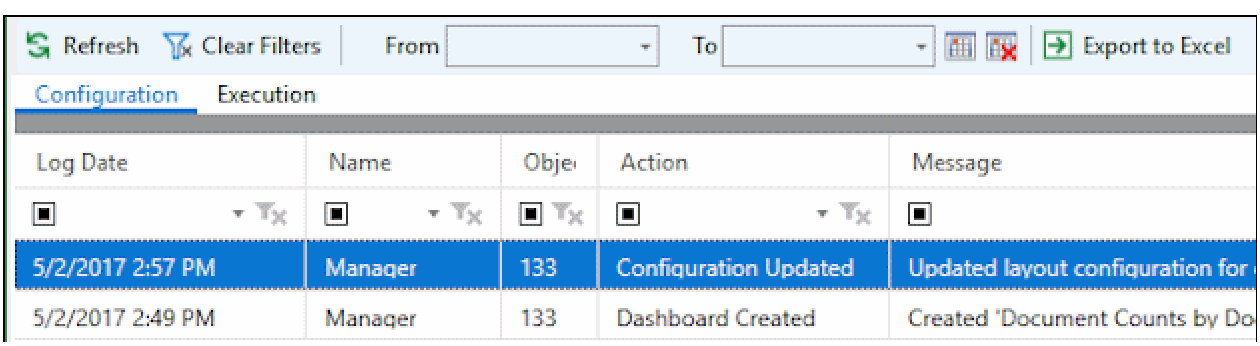
3. Click **OK** at the **Select Items** window to save your selections.
4. To remove an item from the list of assigned dashboards and reports, select the item to remove in the **Assigned items** pane and click **Remove**. You are not prompted to confirm this action.
5. Click **OK** to save your changes and close the **Properties** window.

Viewing History Logs

The history log for the active dashboard or report can be accessed to review configuration changes made to the dashboard or report. The history log also includes an access log to see who has used the log.

To view the history log for the active dashboard or report, click **History** in the **Gallery** ribbon group.

The **History** window is divided into **Configuration** and **Execution** tabs.

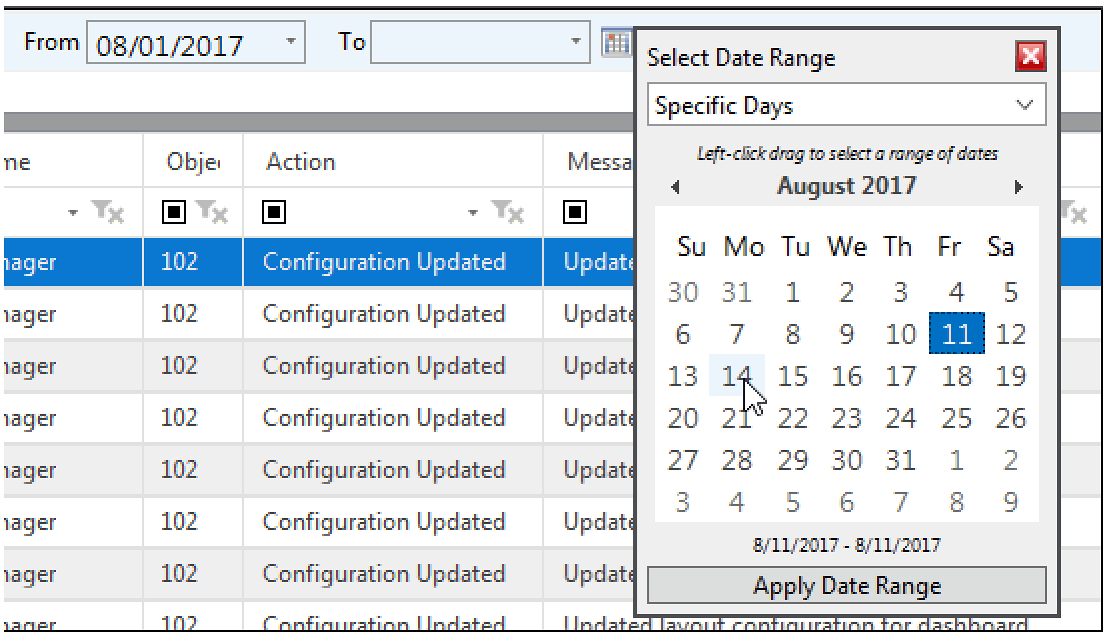


- The **Configuration** tab lists changes made to the configuration of the selected item and who made them, including changes to the sharing permissions of the item.
- The **Execution** tab lists who has accessed the selected item and when they accessed it.

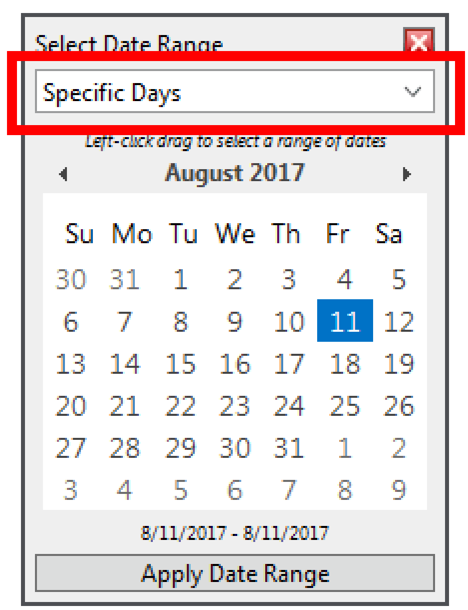
The actions toolbar allows you to refresh and filter the information displayed.

Click **Refresh** to refresh the history log to reflect changes to the filters.

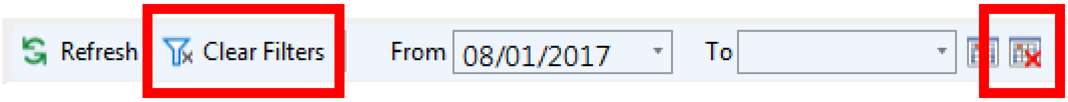
To filter the history log to show only a specific date range, select the date to start the range in the **From** field and the date to end the range in the **To** field.



To automatically populate the date range, click the calendar icon at the right of the date range fields and select one of the options, then click **Apply Date Range**.



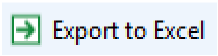
To clear the selected dates, click **Clear Filters** or the clear calendar icon.



Note: Administrators are able to purge the history logs. If a history log has been purged, no information is displayed.

Export History to Excel

Click **Export to Excel** to export the history to a file that can be viewed in Microsoft Excel. This file can be used outside of Reporting Dashboards for further analysis.



This will open a dialog box to select the location to save the file. Once the file is saved, it will open in Microsoft Excel.

Scheduling Report Exports to a Spreadsheet

The Unity Scheduler can be configured to run a task that queries Reporting Dashboards data providers and exports the data returned to a Microsoft Excel spreadsheet.

For complete information on scheduling tasks in the Unity Scheduler, see the **Unity Scheduler** module reference guide or help files.

Dashboards and reports can be viewed in the OnBase Web Client and Unity Client.

Tip: Dashboards and reports can also be viewed from web browsers, including mobile web browsers, using the additional Reporting Dashboards Web Viewer, which is separate from the OnBase Web Client. This allows users who do not have access to the Unity Client or Web Client to view dashboards. See Reporting Web Viewer on page 341.

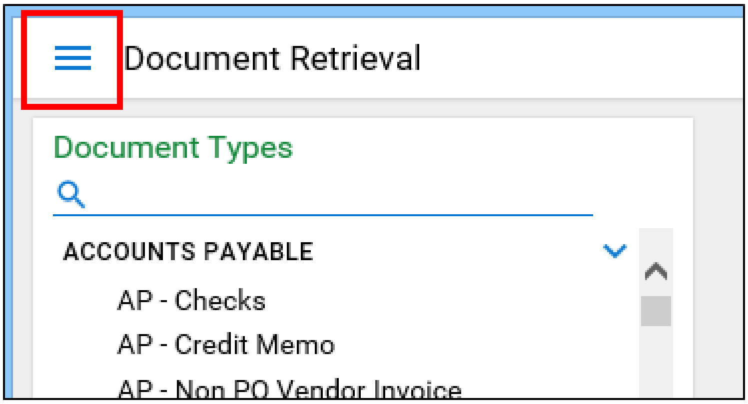
The dashboard and report viewer in the Web Client has limited functionality. It is not intended as a replacement for the Unity Client dashboard and report viewer. Advanced features such as drill-down items and master filtering are available, and items can be exported as images or PDFs, but the following common features are not available in the Web Client viewer, as well as other features not listed:

- Zooming and enlarging items
- Printing options
- Using display actions to open documents in OnBase
- Uploading dashboard views to OnBase
- Modifying dashboards
- Saving customizations to items, such as item widths

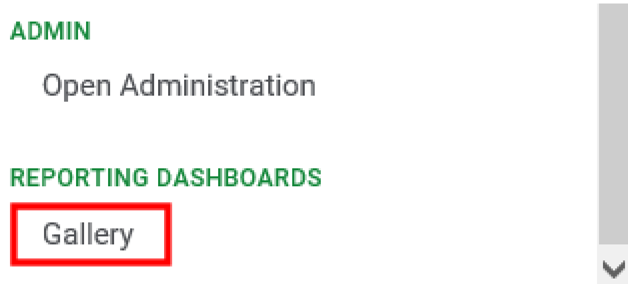
Note: For full functionality, Reporting Dashboards must be accessed using the Unity Client. To access dashboards and reports in the Unity Client, see the module reference guide or Unity Client help files.

To view dashboards and reports in the Web Client:

1. Launch the OnBase Web Client.
2. Click the menu button at the left side of the navigation toolbar.



3. Scroll down to the **Reporting Dashboards** section.
4. Click **Gallery**.



The Gallery is displayed. See Using the Web Client Viewer on page 450.

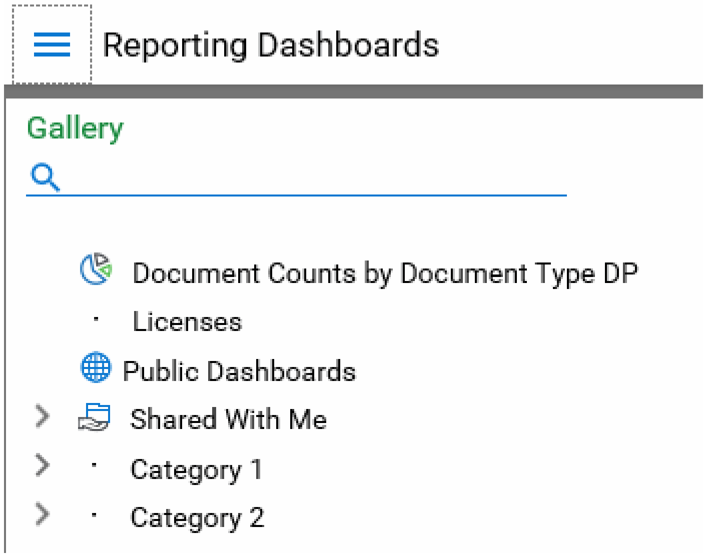
Gallery Overview

Dashboards and reports are used to display data returned from a configured data provider. The graphical dashboard items of a dashboard allow users to quickly identify relevant information and trends surrounding the data managed by the data provider. Reports allow a user to select columns of data to show from the data provider, while also allowing sorting and grouping of that data.

The **Gallery** area allows you to access dashboards and reports you have created, as well as public items and items that are shared with you.

Note: Full Reporting Dashboards functionality, such as managing categories and creating new dashboards and reports, is only available in the Unity Client. The Web Client can only be used to view dashboards and reports.

In the **Gallery** pane, dashboards and reports that you have created that are not assigned to a category are listed first.You can search for available dashboards and reports by typing terms next to the magnifying glass. Available items are automatically filtered based on your terms.

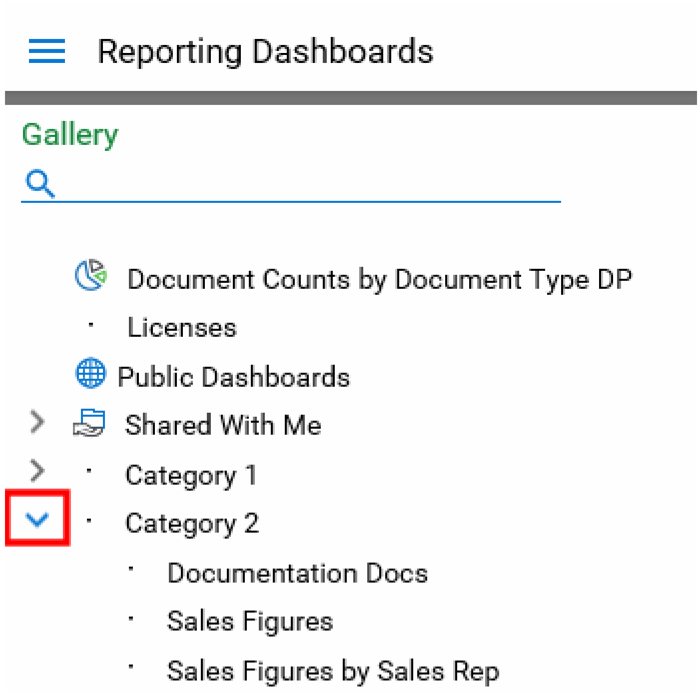


The **Public Items** category includes public dashboards that all users have access to.

The **Shared With Me** category contains dashboards that are not public but that have been shared with you.

Beneath the **Shared With Me** category your custom categories are listed, which contain the dashboards and reports you assigned to them.

To expand or collapse a category, click the arrow at the left of the name of the category.



To refresh the Gallery with any changes that may have occurred since it was first opened, right click in the Gallery and select **Refresh**.

Tip: To create a new category, you must access Reporting Dashboards functionality in the Unity Client.

To view a dashboard, click the name of it in the Gallery. To view a dashboard in a new window, right click the name of the dashboard and select **Open in a New Window**. See Using the Web Client Viewer on page 450.

Using the Web Client Viewer

The Web Client viewer displays the dashboard or report currently selected.

Note: The viewer in the Web Client has limited functionality. For full functionality, Reporting Dashboards must be accessed using the Unity Client.

This section includes the following information:

- Viewing Dashboards and Reports on page 451
- Using Interactive Dashboard Items on page 452
- Exporting Item Views on page 464

Viewing Dashboards and Reports

To view a dashboard or report, click its name in the **Gallery** pane. Some dashboards and reports require runtime parameters to be filled in before they can be displayed. The **Parameters** dialog box is automatically displayed when the item is first accessed. Input the parameters, then click **OK**.

Note: If the amount of data returned for a dashboard or report is limited by the configuration of the data provider, this limit is displayed in the lower right corner of the dashboard viewer when the amount of data included in the dashboard is less than the total amount of data available.

The following sections contain more detail on viewing dashboards and reports:

- Viewing and Changing the Parameters of a Dashboard or Report on page 451
- Using Interactive Dashboard Items on page 452

Viewing and Changing the Parameters of a Dashboard or Report

Some dashboards and reports require runtime parameters to be filled in before they can be displayed. The **Parameters** dialog box is automatically displayed when the item is first accessed. Input the parameters, then click **OK**.

Tip: To refresh the dashboard or report without making parameter changes, click the name of the dashboard again in the **Gallery** pane or click the **Refresh** icon in the upper right of the viewer.

To see an overview of the current parameters, place the cursor over the **i** icon beside the parameters button in the upper right of the item view:

To change the dashboard or report parameters:

1. Click **Parameters** in the upper right of the item view.

   The **Parameters** dialog box is displayed.
2. Update the parameters for the data in the items that you want to filter, limit, or otherwise update. The parameters that accept user input for all data providers assigned to the dashboard or report are included in the dialog box.

3. Select the **Save Parameters** option to replace any saved parameters settings for the dashboard or report with the current selection. If the box is not checked, no parameters will be saved.
4. Click **OK**. The item is automatically refreshed. Changing parameters clears existing filters.

Note: If the amount of data returned for a dashboard or report is limited by the configuration of the data provider, this limit is displayed in the lower right corner of the item viewer when the amount of data included in the dashboard or report is less than the total amount of data available.

Using Interactive Dashboard Items

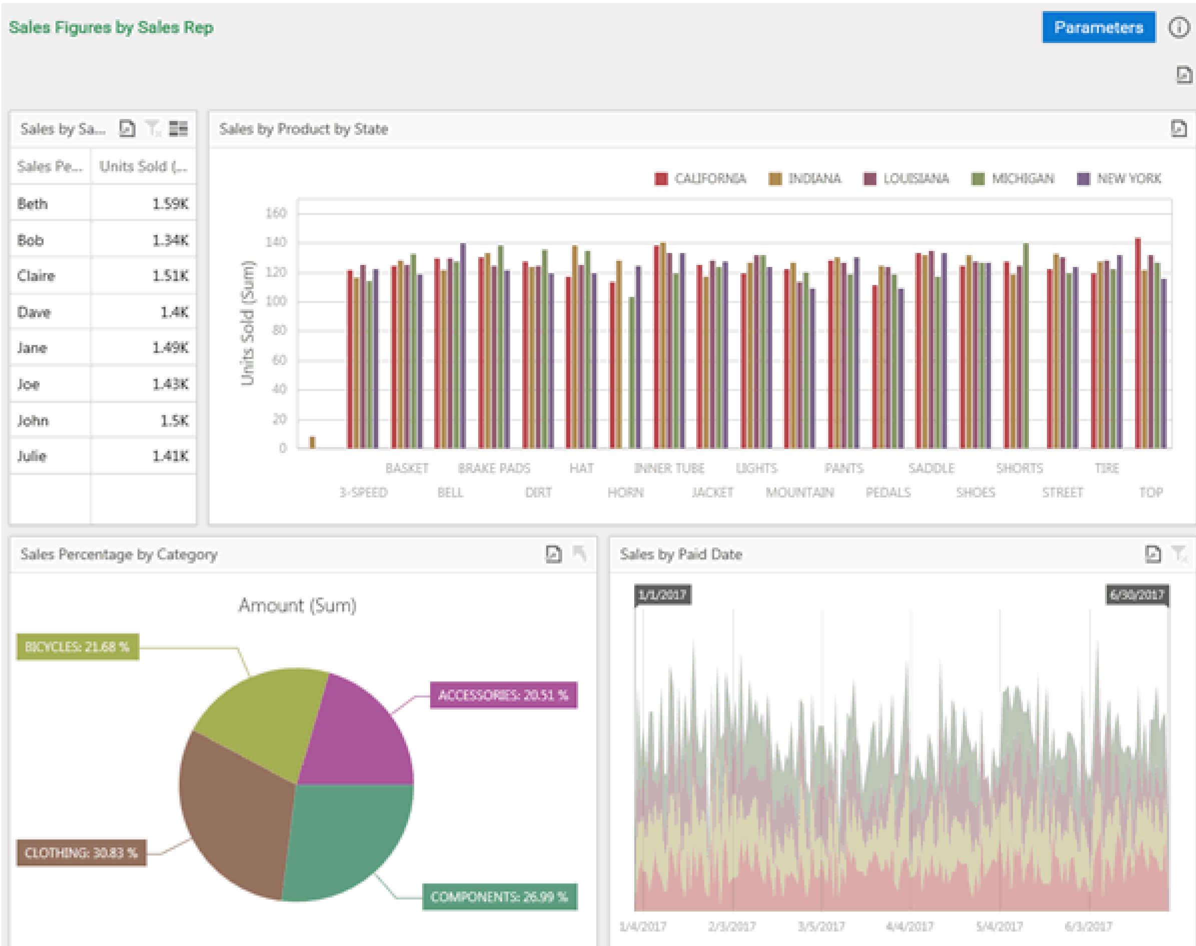
Dashboard items within a dashboard may be configured to update other dashboard items; control the level of detail displayed through drill-down and range-filtering functionality; and open related documents or execute other external functionality through display actions.

Note: Interactivity is not available with all dashboard items. The interactivity of dashboards items is dependent on how the dashboard has been configured.

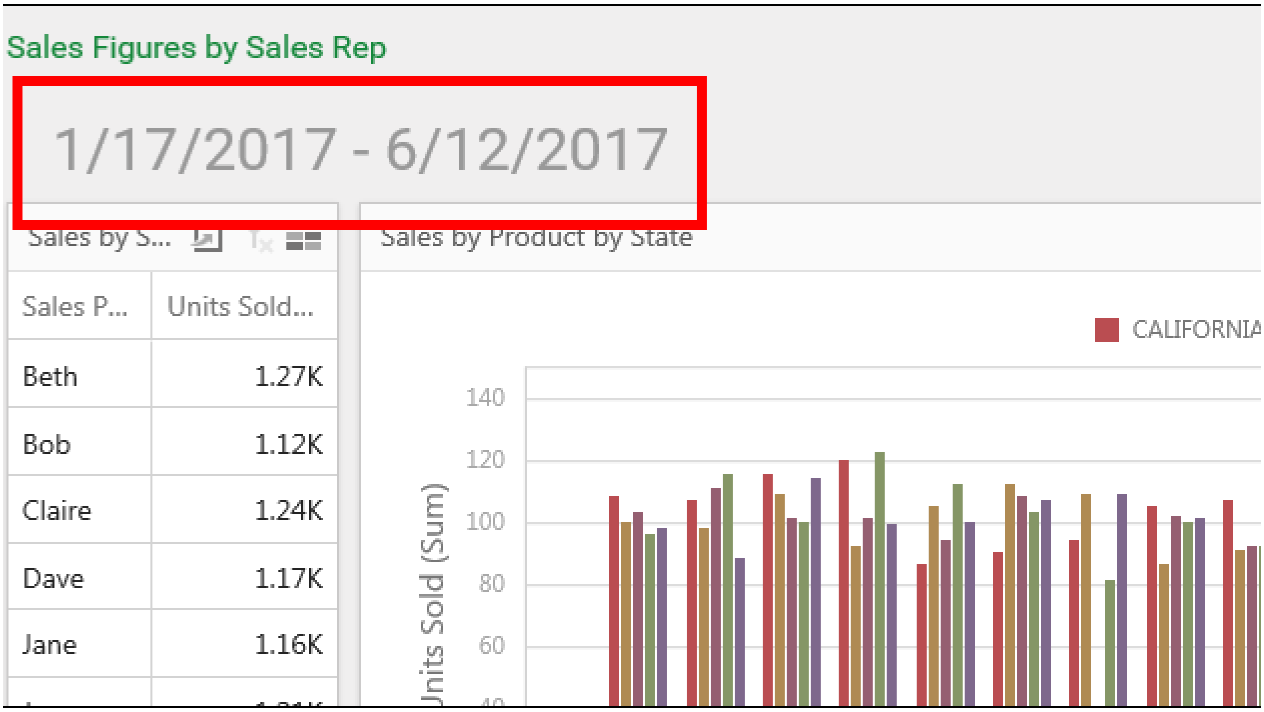
See:

- Using Master Filters to Update Related Dashboard Items on page 455
- Displaying Detailed Data About Specific Elements in Dashboard Items on page 456
- Limiting the Range of the Data Displayed in Related Dashboard Items on page 458
- Executing Display Actions on page 460

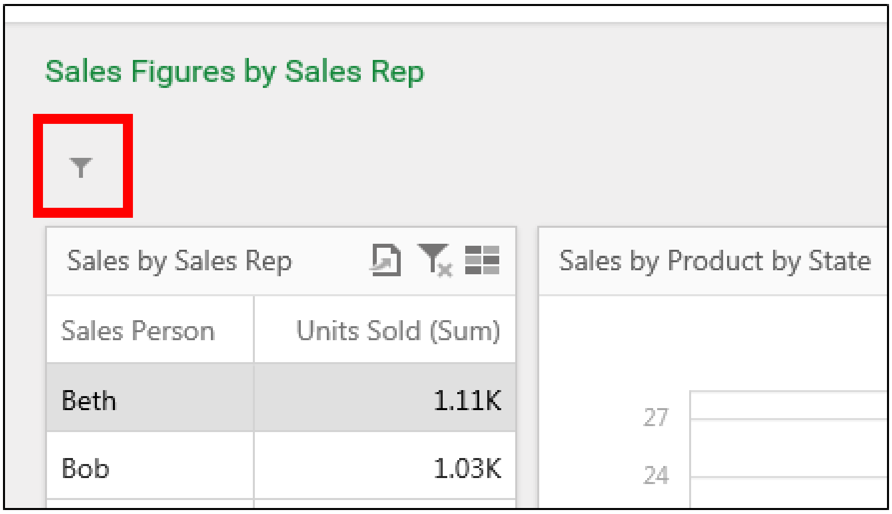
The examples in the following sections use this example dashboard, illustrated here with no interactive filters applied:



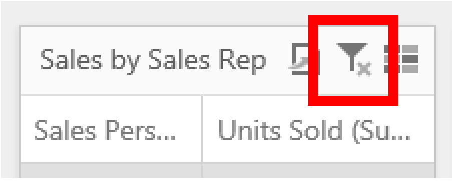
If a single interactive filter is applied, the filter is displayed in the title of the dashboard:



If multiple interactive filters are applied to the dashboard, move the cursor over the filters icon and detailed information regarding the applied filters is displayed:



To remove a filter applied to the dashboard, click the **Clear Master Filter** button on each dashboard item you want to remove the filter for:

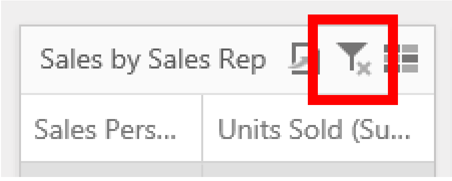


Using Master Filters to Update Related Dashboard Items

Master filtering allows the elements in one dashboard item in a dashboard to update the data in another dashboard item on the same dashboard. For example, a grid showing total sales counts by sales representative can be used to update a chart showing sales counts by state for the selected sales representative.

Note: Master filters are not available with all dashboard items. The interactivity of dashboards items is dependent on how the dashboard has been configured.

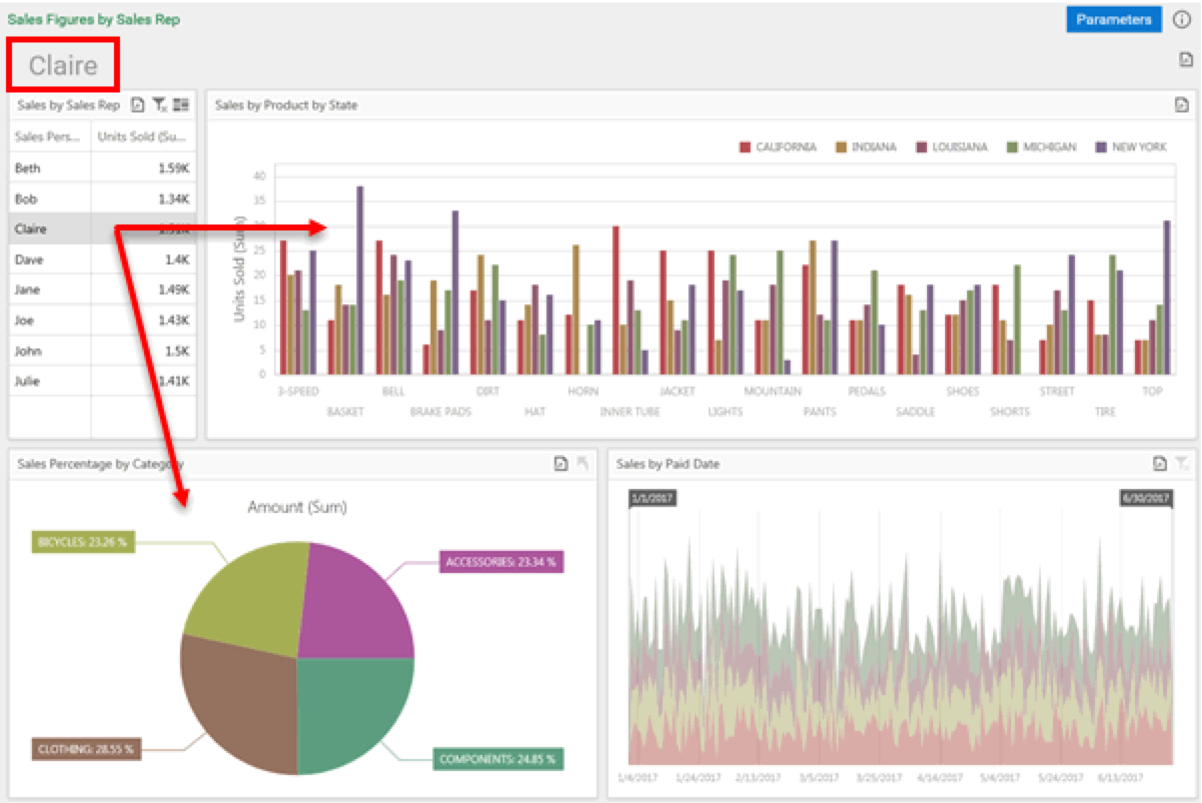
Dashboard items that can be used as master filters show the master filter icon in the caption for the dashboard item.



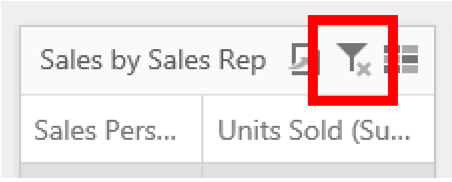
Note: The icon is shaded lighter if the master filter is not currently applied. The icon is not visible if the dashboard item is configured to hide the dashboard item caption, but the master filter still functions.

To apply the master filter, click one of the elements in the dashboard item. All related dashboard items in the dashboard are updated to reflect only the data for the element clicked, unless a dashboard item has been configured to be excluded from master filtering.

For example, the pie chart and line graph in this dashboard are updated to reflect the data for the specific sales representative when the name of that sale representative is clicked in the grid.



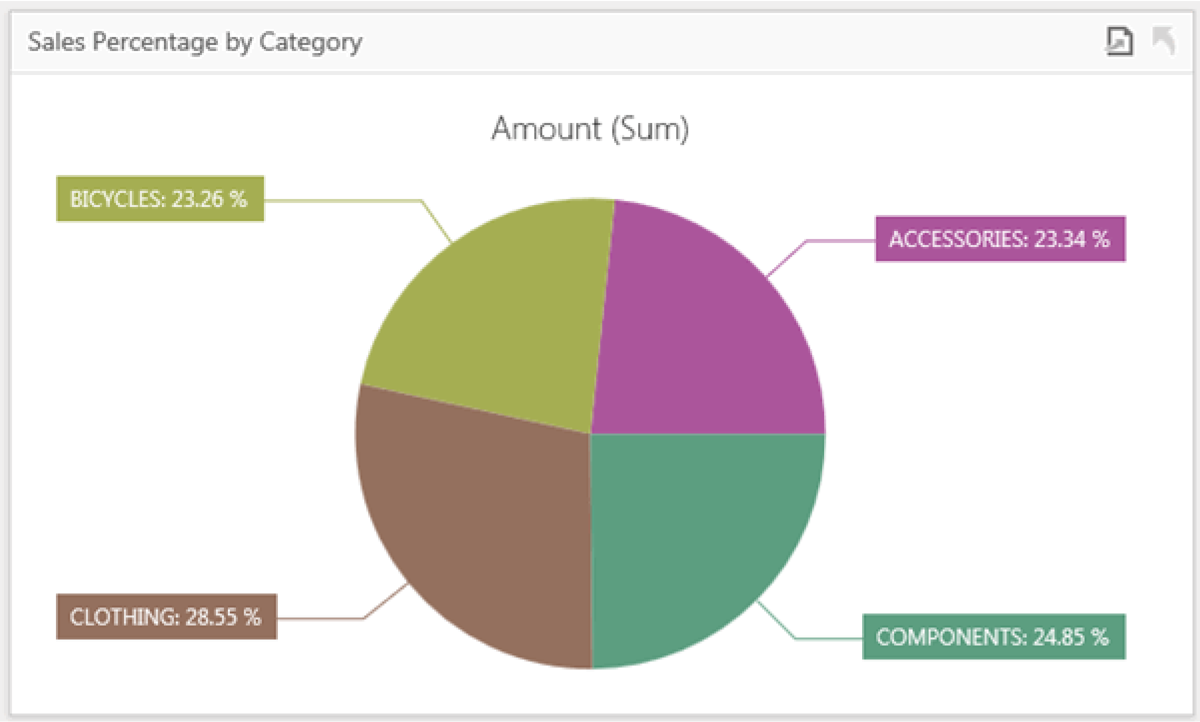
To remove the filter, click the **Clear Master Filter** button for the dashboard item:



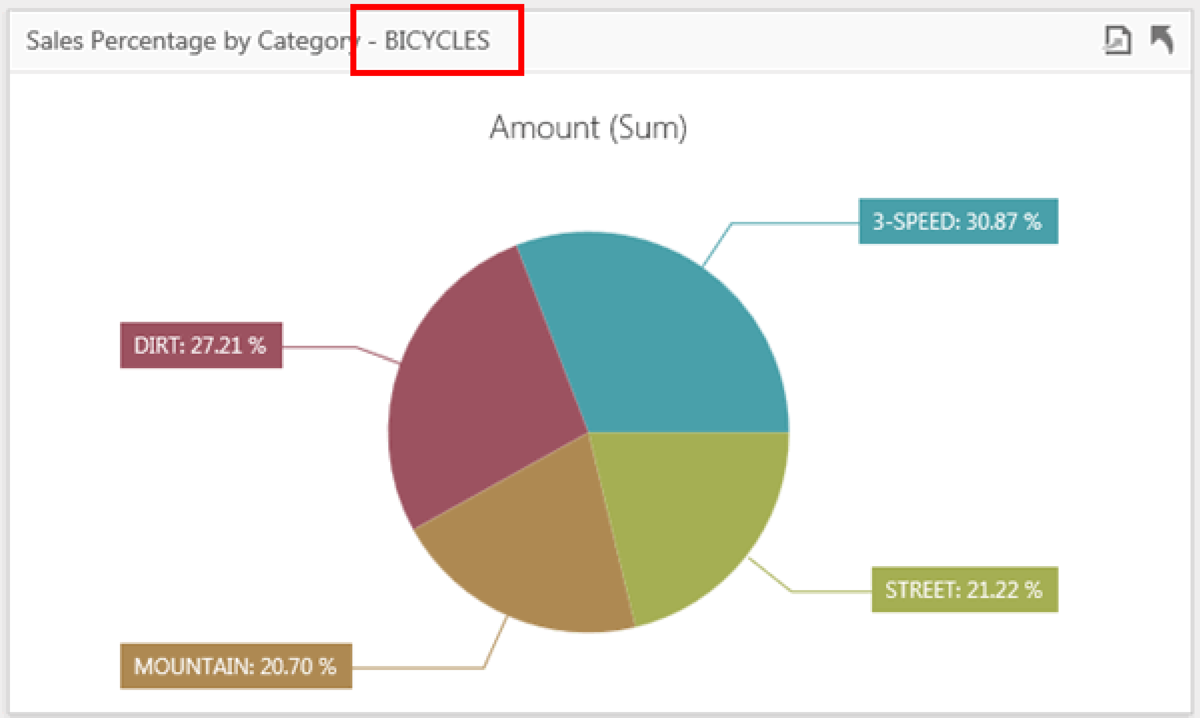
Displaying Detailed Data About Specific Elements in Dashboard Items

If a dashboard item is configured to use drill-down functionality you can control the level of detail displayed in that dashboard item. To drill down to more detailed data levels, click one of the elements in the dashboard item.

For example, this pie chart displays sales percentage by category:



But it can be drilled down to show sales percentage by product in each category by clicking a category wedge in the pie chart:



To move back up to a less detailed level in the drill-down data, click the **Drill Up** button at the right end of the caption for the dashboard item.

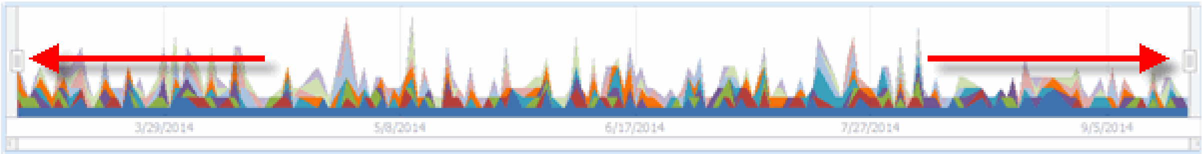
Note: The **Drill Up** button is disabled if the display is currently at the top level, and the button is not visible if the dashboard item is configured to hide the caption. To remove the drill-down view when the caption is hidden, refresh the dashboard by clicking its name in the **Gallery** pane (refreshing the dashboard removes all applied filters).

Limiting the Range of the Data Displayed in Related Dashboard Items

Range filtering allows you to control with a simple sliding scale how much data is displayed for dashboard items that the range filter is configured to interact with.

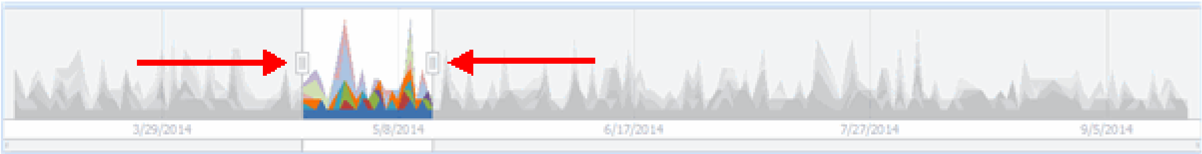
For example, limiting the sales counts displayed to a specific date range can be changed dynamically using a graphical range filter.

Dashboards that include range filtering functionality contain a range filter dashboard item, distinguished by the range start and end markers on it:

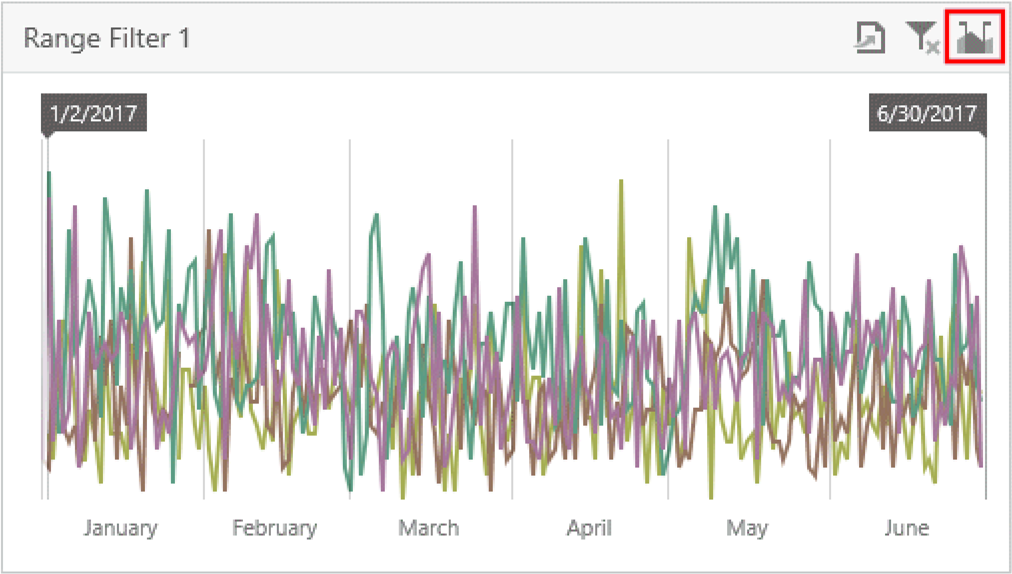


Note: Range filters are only available if the dashboard has been designed to include them.

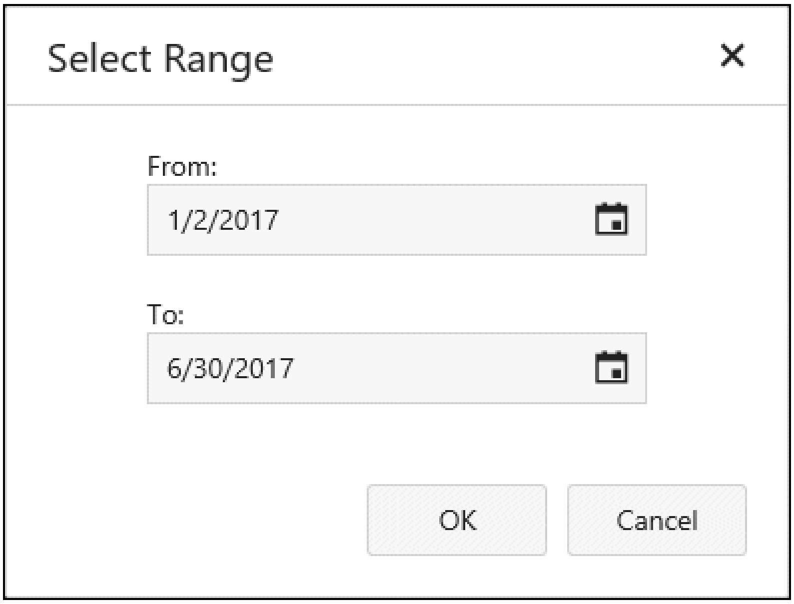
To adjust the range of the filter, click and drag the left and right filter end points to points on the range filter that define the start (left) and end (right) points of the range.



Alternately, you can click the range icon in the upper right of the range filer to manually enter dates for the filter.

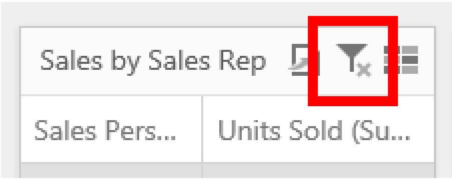


The **Select Range** dialog box is displayed.



You can type the desired dates into the **From:** and **To:** fields or click on the calendar icon to bring up a calendar to select dates from. Once the desired dates are selected, click **OK**. The related dashboard items are updated to reflect the new range.

To remove the filter, click the **Clear Master Filter** button for the dashboard item:



Executing Display Actions

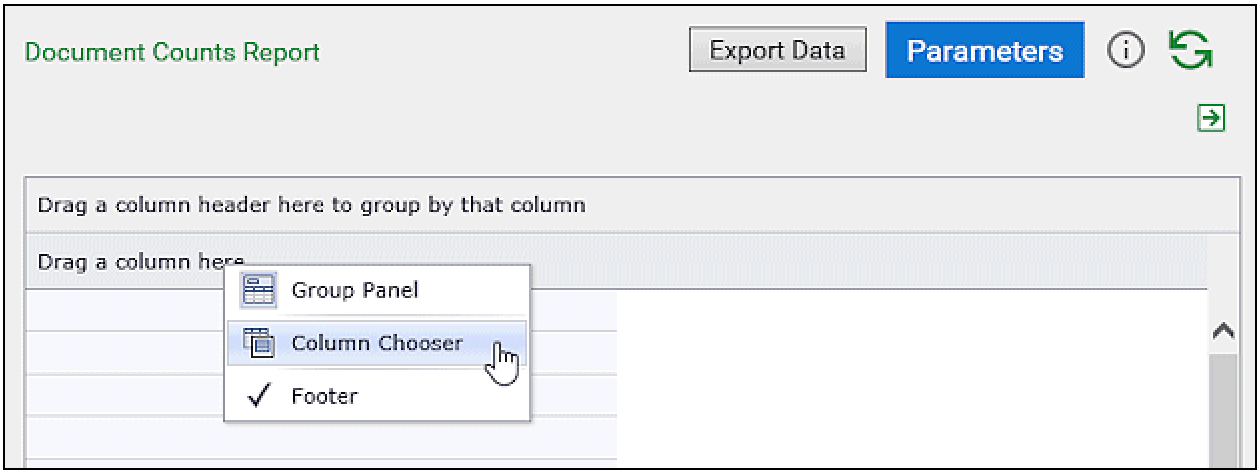
Display actions are specifically configured for the data available in a dashboard item and may include actions such as opening related documents or a Workflow queue.

Note: If a display action is configured to display a Document Type that you do not have the rights to access, you will be unable to view the document but will be able to see its metadata. If you need to see the entire document, please contact your administrator.

Using Columns and Groups in Reports

The **Column Chooser** dialog box is used to select the columns of data that are displayed in the report for grouping and sorting the data. The columns available in the **Column Chooser** dialog box are determined by the display columns configured for the data provider associated with the report.

When you open a report, the **Column Chooser** dialog box is displayed if no columns have been previously selected for the report. To open the **Column Choose**r dialog box, right-click at the top of the report in the columns panel and select **Column Chooser**.



For more information on using the Column Chooser dialog box, see:

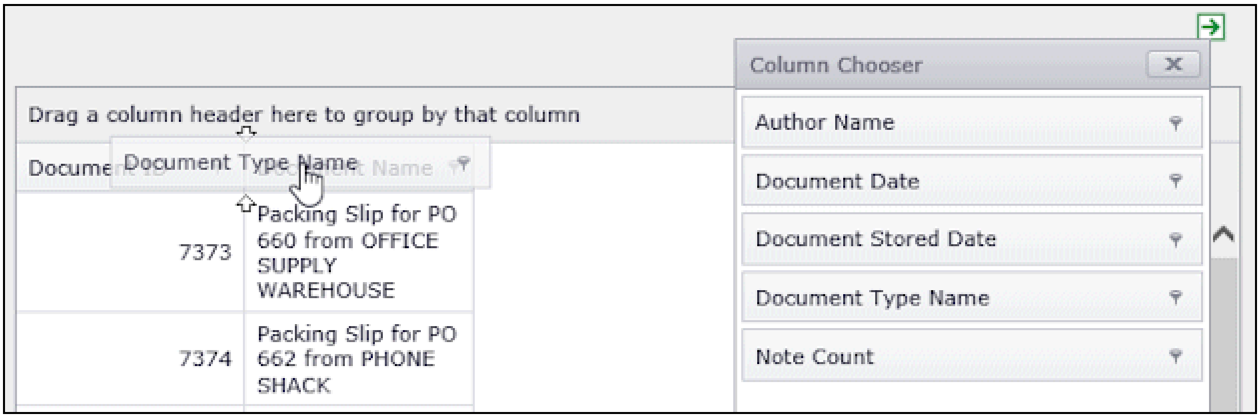
- Adding Columns Using Column Chooser on page 461
- Grouping Data Using Columns on page 462
- Adding Summaries to Groupings in Reports on page 464

Adding Columns Using Column Chooser

When creating a new report, no columns are included to start. To add columns to a report:

1. Right-click at the top of the report and select **Column Chooser**. The **Column Chooser** dialog box appears.
2. Drag the name of the column to the top of the report from the **Column Chooser** dialog box to the **Drag a column here...** panel.

   If columns are already in the report, drop the new column near the columns that are already included in the report. Two arrows appear when dragging a column to display between other columns.

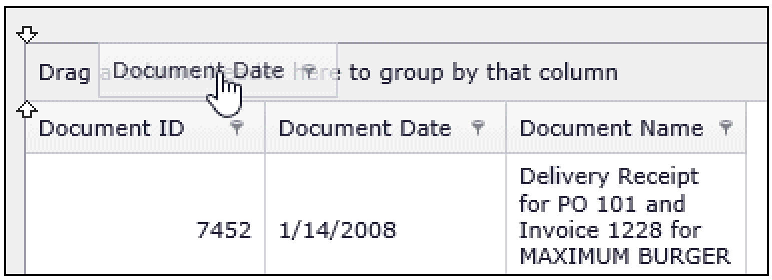


Grouping Data Using Columns

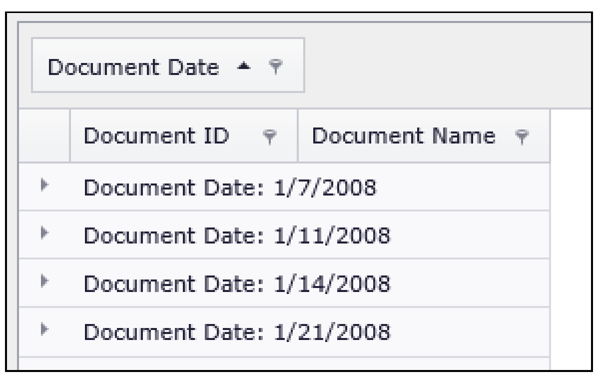
Once you have added columns to a report, the data in the report can be grouped according to any column header. To group data in a report:

1. Drag the name of a column from the header row of the report or the **Column Chooser** dialog box and drop it into the **Drag a column header here to group by that column** area. The order in which the columns are added to the area at the top will determine the way in which they are grouped.

   For example, in a report that contains columns for **Document ID**, **Document Date**, and **Document Name**, you can group the results by the **Document Date** column by dragging the column name to the top.

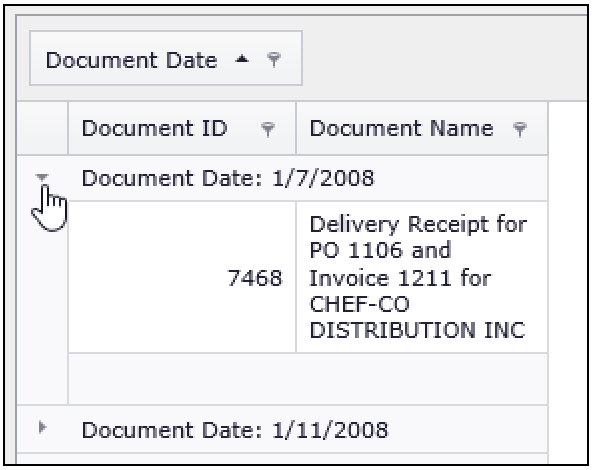
   

   This groups the data by the document date, with the remaining two columns (**Document ID** and **Document Name**) under each date. Any rows that do not contain a date are grouped together as well.

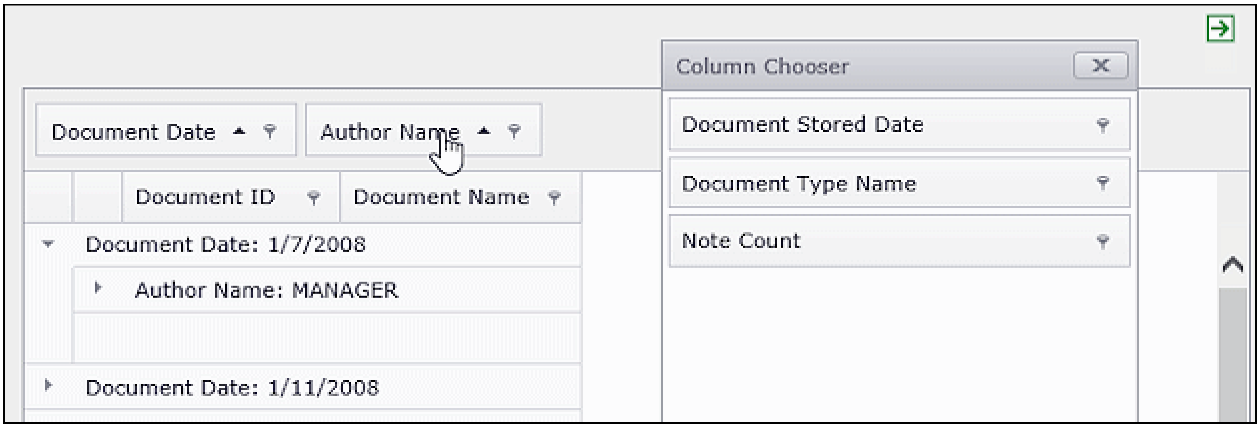
2. Click on the arrow next to the grouping to expand the grouping ans see all rows associated with that group in the report.

   For example, you can click the arrow near the document date groups to see all rows associated with that date.



3. Add additional groupings as needed by dragging in other column from the report or the the **Column Chooser** dialog box.

   For example, you can add the **Author Name** column to the grouping area to add another level of grouping to the results, which displays all document IDs and document names by a specific author.



4. Click the arrow next to the grouping at the top of the report to sort the data contained in a group in ascending or descending order.
5. Drag the grouping at the top of the report to the left or right of the other grouping categories to change the order of the groupings. The leftmost group is always the broadest grouping, with each additional grouping to the right being a subgroup.

Adding Summaries to Groupings in Reports

Once you add groupings to a report, you can add summaries to the group's heading. To add summaries:

1. Right- click the grouping and selecting **Group Summary** from the menu**.**
2. Select an option from the list to summarize the grouping. These options include:

Option	Description
Sum	The summary shows the sum of all values in the column for a group. By default, **Sum** is selected. For non-numeric data, the sum is shown as **0**.
Min	The summary shows the minimum value for the column in a group.
Max	The summary shows the maximum value for the column in a group.
Count	The summary shows the total count of rows within a group.
Average	The summary shows the average value for the column in a group.
None	No summary will be displayed.

Exporting Item Views

A dashboard or dashboard item currently active in the dashboard viewer can be saved as a PDF, image file, or spreadsheet. Reports can be exported to spreadsheets for use in Microsoft Excel. The view that is captured is the currently displayed view. The full set of data in the data provider associated with the dashboard or report can also be exported. To refresh the item to reflect the most recent data, click the name of the dashboard in the **Gallery** pane or click the Refresh icon in the upper right of the viewer. Refreshing clears all applied filters.

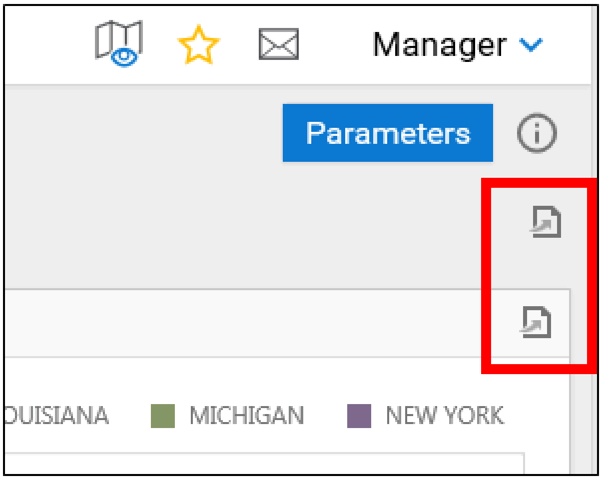
For more information on exporting item views, see:

- Exporting Dashboard Data to PDF or Image on page 465
- Exporting Dashboard Data to Microsoft Excel or CSV on page 466
- Exporting Report Data to Microsoft Excel or CSV on page 467
- Exporting Data Providers to Microsoft Excel on page 468

Exporting Dashboard Data to PDF or Image

To export dashboard data as a PDF or image file:

1. Click the **Export To** button in the dashboard title to export the entire dashboard, or click the **Export To** button in the title of a dashboard item to only export that item.



Note: Some dashboard items may not allow exports or may not be configured for exports.

2. Select the export option from the list:
   - Export To PDF
   - Export To Image

   The **Export To** dialog box is displayed.
3. Enter a file name for the exported file in the **File Name** field. By default, the title of the dashboard or dashboard item is used as the file name.

Note: Dashboard titles may contain characters that are not allowed in file names. Illegal characters are replaced with an underbar (_) in the exported file name.

4. Select **Show Title** to include the title of the dashboard or dashboard item in the exported document.
5. If **Show Title** is selected, enter the title to include in the **Title** field. By default, the title of the dashboard or dashboard item is used as the file name.
6. To print the state of any applied filters, select an option from the **Filter State** drop-down list. **Below** adds the filter state immediately under the dashboard. **Separate Page** prints the filter state on its own page.

Note: The **Separate Page** option is only available when exporting to PDF.

7. If you are exporting to image:
   - Select a file form for the image from the **Image Format** drop-down list: **PNG**, **GIF**, or **JPG**. By default, the image is saved as a PNG file.
   - Enter a resolution for the image in the **Resolution (dpi)** field. The default resolution is 96dpi.
8. If you are exporting to PDF:
   - Select a **Page Layout** from the options provided: **Portrait**, **Landscape**, or **Auto**. By default, **Auto** is selected and the best orientation for the size of the dashboard or dashboard item and the page size selected is used.
   - Select a page size from the **Size** drop-down list. The sizes available are standard print sizes.
   - Select a **Size Mode** from the options provided. **Stretch** resizes the image to fill the page height and width, and may change the aspect ratio of the image. **Zoom** resizes the image to only fill the page width, which preserves the aspect ratio.

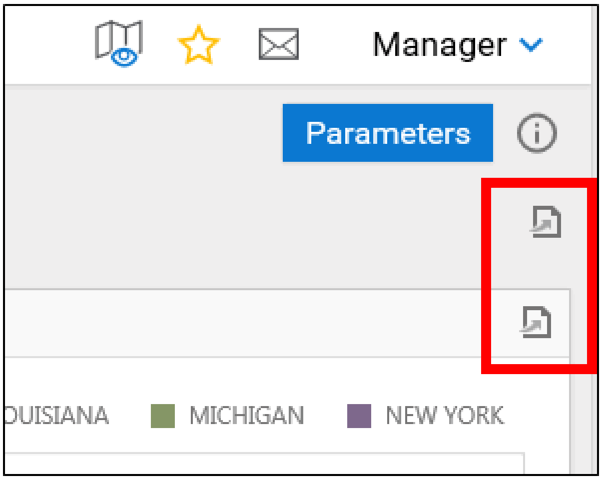
Note: If **Stretch** is selected for the size mode, the filter state is always printed on a separate page because **Stretch** sets the dashboard view to fill the page.

9. Click **Export**. The file is created and your are prompted by your browser to open or save the file.

Exporting Dashboard Data to Microsoft Excel or CSV

To export dashboard data as a spreadsheet:

1. Click the **Export To** button in the dashboard title to export the entire dashboard, or click the **Export To** button in the title of a dashboard item to only export that item.



Note: Some dashboard items may not allow exports or may not be configured for exports.

2. Select **Export To Excel**. The **Export To Excel** dialog box is displayed.

3. Enter a file name for the exported file in the **File Name** field. By default, the title of the dashboard or dashboard item is used as the file name.

Note: Dashboard titles may contain characters that are not allowed in file names. Illegal characters are replaced with an underbar (_) in the exported file name.

4. Select a file format from the **Excel Format** drop-down list.
5. If **CSV** is selected as the format, enter the separator character to use in the **Separator** field. The default character is a comma (,).

Note: The Separator field is only enabled if CSV is the selected format.

6. Select **Filters** to include the filters applied to the data item in the spreadsheet.
7. Select **Parameters** to include the parameters applied to the data item in the spreadsheet.
8. If Filters or Parameters is selected, select where in the spreadsheet to put the information from the **Position** drop-down list.

Note: The Position drop-down list is only enabled if Filter or Parameters is selected.

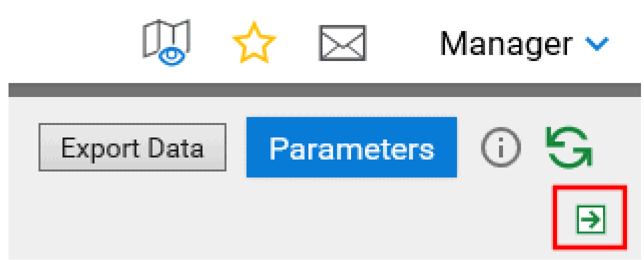
9. Click **Export**. The file is saved to the **Downloads** folder of the user currently logged in to the workstation. For example, **C:\Users\JohnDoe\Downloads**.

Note: Graphical representations of the data, such as pie charts and bar charts, are not preserved. Data is saved to Excel in grid format for all data items.

Exporting Report Data to Microsoft Excel or CSV

To export report data as a spreadsheet:

1. Click the **Export Report To Excel** button in the report title. The **Export To Excel** dialog box is displayed.



2. Enter a file name for the exported file in the **File Name** field. By default, the title of the report is used as the file name.

Note: Report titles may contain characters that are not allowed in file names. Illegal characters are replaced with an underbar (_) in the exported file name.

3. Select a file format from the **Excel Format** drop-down list.

4. If **CSV** is selected as the format, enter the separator character to use in the **Separator** field. The default character is a comma (,).

Note: The Separator field is only enabled if CSV is the selected format.

5. Select **Filters** to include the filters applied to the data item in the spreadsheet.
6. Select **Parameters** to include the parameters applied to the data item in the spreadsheet.
7. If Filters or Parameters is selected, select where in the spreadsheet to put the information from the **Position** drop-down list.

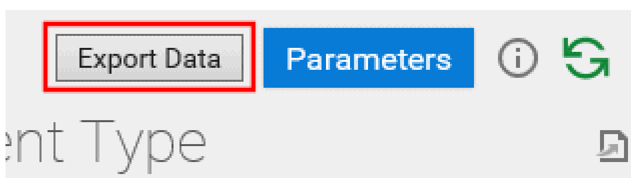
Note: The Position drop-down list is only enabled if Filter or Parameters is selected.

8. Click **Export**. The file is saved to the **Downloads** folder of the user currently logged in to the workstation. For example, **C:\Users\JohnDoe\Downloads**.

Exporting Data Providers to Microsoft Excel

To export the data contained in a data provider as a spreadsheet:

1. Click the **Export Data** button above the report or dashboard title.



2. A .xslx file containing all of the data in the data provider is saved to the **Downloads** folder of the user currently logged in to the workstation. For example, **C:\Users\JohnDoe\Downloads**.

Note: Dashboard and report titles may contain characters that are not allowed in file names. Illegal characters are replaced with an underbar (_) in the exported file name.

REPORTING DASHBOARDS USAGE

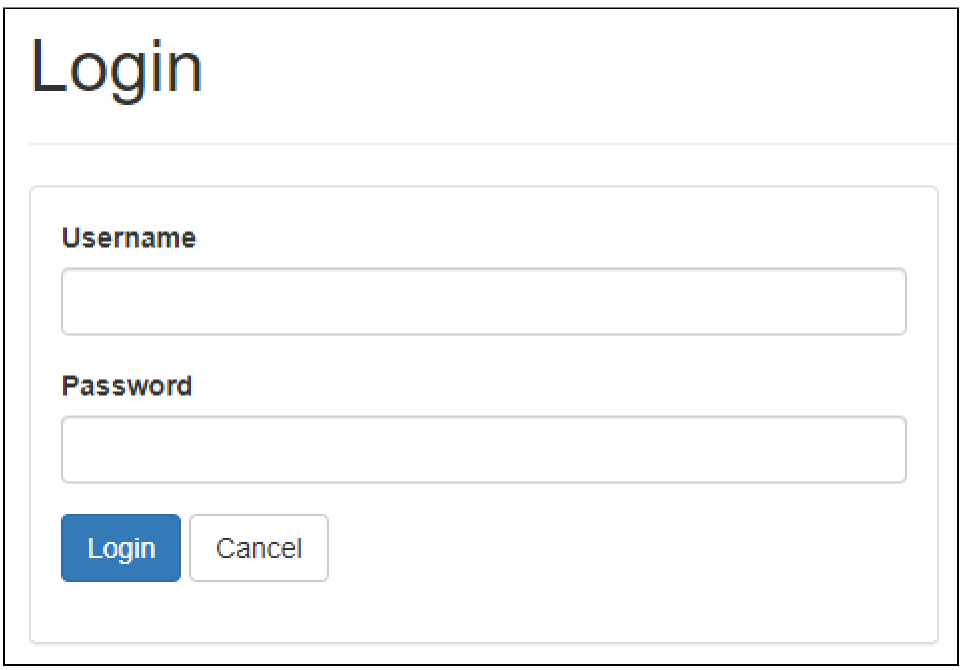
The Reporting Dashboards is used to design and manage dashboards, offering functions similar to the Dashboard Designer in Unity.

Logging Into the Reporting Dashboards

The Reporting Dashboards uses the Hyland IdP for access. The Hyland IdP must be previously configured for usage during the installation of the Reporting Dashboards. For more information on this installation, see the Identity and Access Management module reference guide.

To log into the Reporting Dashboards:

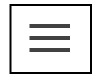
1. Navigate to the website provided for the Reporting Dashboards. If you are not currently logged in, the **Login** page is displayed.



2. Enter your username into the **Username** field.
3. Enter your password into the **Password** field.
4. Click **Login**. You are logged in and the Reporting Dashboards is displayed.

Navigating the Reporting Dashboards

The Reporting Dashboards is navigated using the **Dashboard Menu**. To display the **Dashboard Menu**, click the dashboard menu button once logged in.



The available options in the **Dashboard Menu** include:

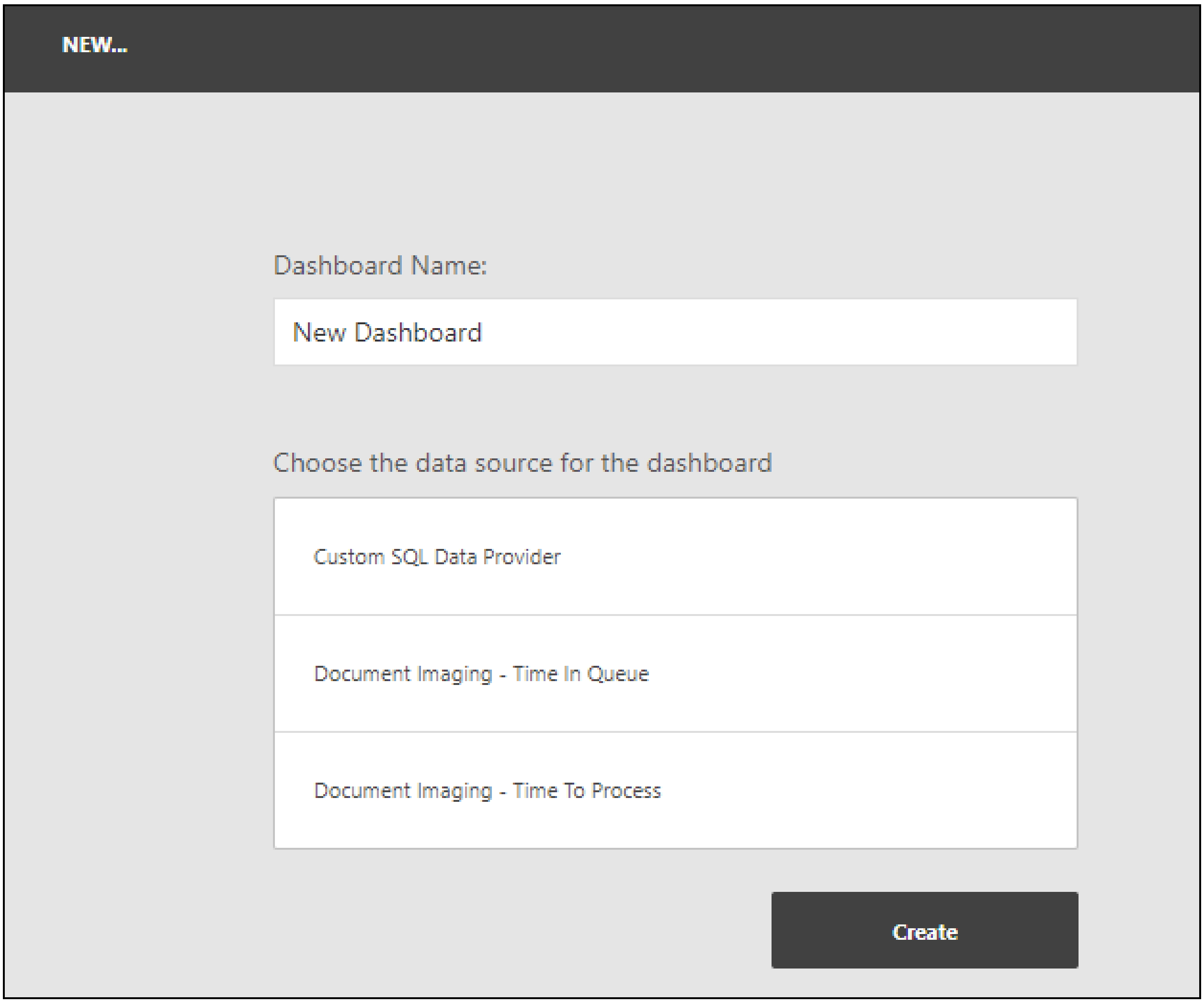
Option	Description
New...	Create a new Reporting Dashboard. For more information on this option, see Creating a New Reporting Dashboard on page 471.
Open...	Open an existing Reporting Dashboard to view and edit. For more information, see Opening an Existing Reporting Dashboard on page 472.
Save	Save the currently open Reporting Dashboard. This option is only available if a Reporting Dashboard is currently open in the Reporting Dashboards. For more information, see Saving a Reporting Dashboard on page 472.
Data Sources	Select and manage a Data Source to use for the currently open Reporting Dashboard. This option is only available if a Reporting Dashboard is currently open in the Reporting Dashboards. For more information, see Managing Data Sources on page 473.
Title	Edit the title of the currently open Reporting Dashboard. This option is only available if a Reporting Dashboard is currently open in the Reporting Dashboards. For more information, see Editing the Title of a Reporting Dashboard on page 480
Currency	Edit the options for currency used in the active Reporting Dashboard. This option is only available if a Reporting Dashboard is currently open in the Reporting Dashboards. For more information, see Editing Currency Options on page 482.
Color Scheme	Change the color scheme for the active Reporting Dashboard. This option is only available if a Reporting Dashboard is currently open in the Reporting Dashboards. For more information, see Editing the Color Scheme on page 483.

To close the **Dashboard Menu**, click the **X** at the top of the menu.

Creating a New Reporting Dashboard

New reporting dashboards can be created in the Reporting Dashboards. To create a new dashboard:

1. Either click **Create** from the main screen with no dashboard loaded, or select **New...** from the **Dashboards Menu**. The **New...** screen is displayed.



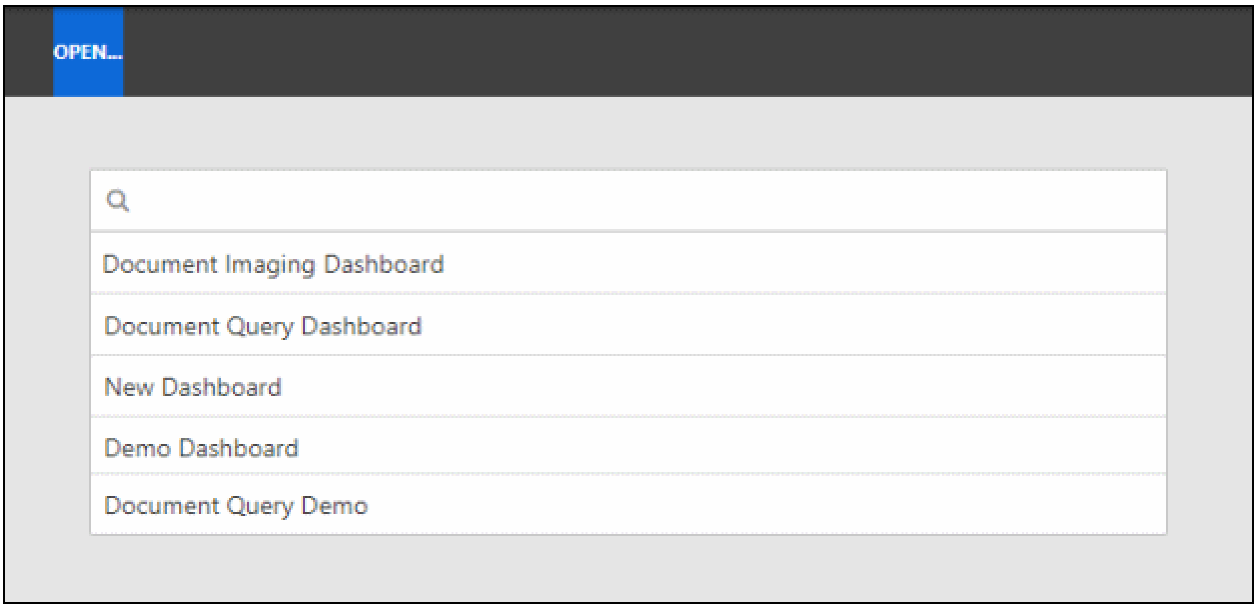
2. Enter the name of the dashboard into the **Dashboard Name** field. By default, the name "New Dashboard" is entered in the field.
3. Select a data source from the list of available data sources. For more information on configuring data sources, see the **Reporting Dashboards** module reference guide.
4. Click **Create**. The **Dashboard Parameters** dialog box is displayed.
5. Select the desired parameters for the dashboard. Parameters are configured with the data source.
6. Click **Submit** to create the dashboard. A blank dashboard is created.

Once a dashboard has been created, items must be added for display. For more information on these items, see Adding Items to a Reporting Dashboard on page 485.

Opening an Existing Reporting Dashboard

Existing dashboards can be opened in the Reporting Dashboards. To open an existing dashboard:

1. Select **Open...** from the **Dashboards Menu**. The **Open...** screen is displayed.



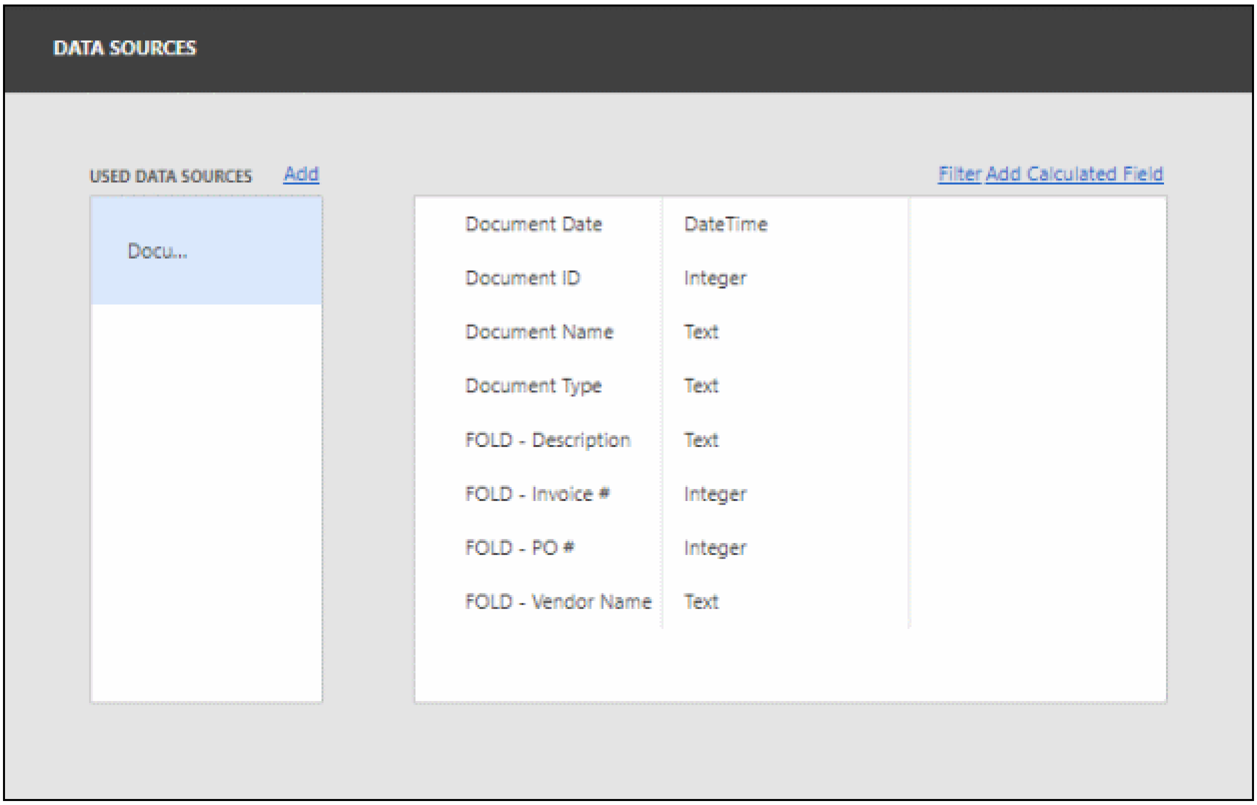
2. Find the desired dashboard from the list of available dashboards, or type the name of a dashboard into the search bar to find it to filter the list of dashboards.
3. Click the dashboard you want to open. The Reporting Dashboard is displayed.

Saving a Reporting Dashboard

After making any changes to a dashboard, you must save the dashboard. To save a dashboard, select **Save** from the **Dashboards Menu**. The dashboard is saved.

Managing Data Sources

The data sources used for a dashboard can be changed, added, or removed in the Reporting Dashboards. To manage data sources for an open dashboard, select **Data Sources** from the **Dashboards Menu**. The **Data Sources** screen is displayed.



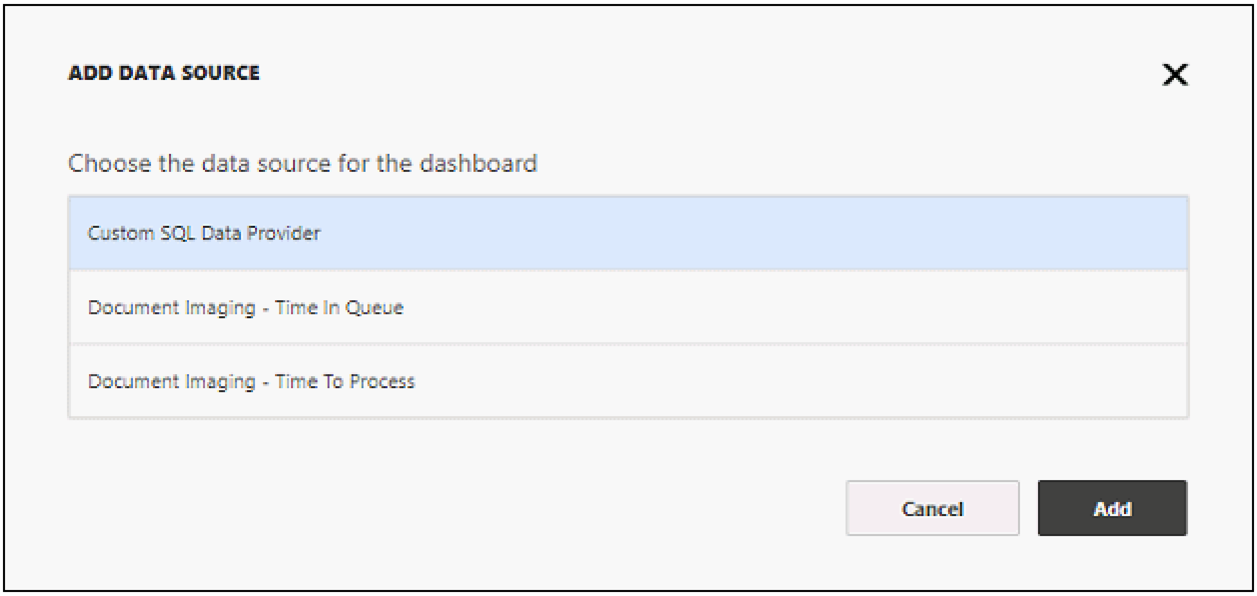
From this screen, several actions can be performed, including:

- Adding a Data Source on page 474
- Removing a Data Source on page 474
- Filtering a Data Source on page 475
- Adding a Calculated Field on page 479

Adding a Data Source

To add a new data s ource from the **Data Sources** screen:

1. Click **Add**. The **Add a Data Source** dialog box is displayed.



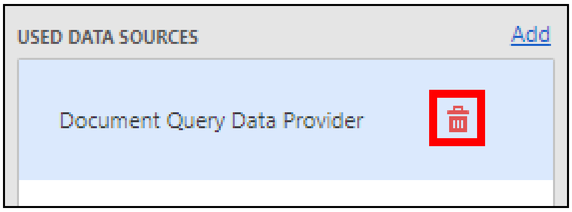
2. Select the desired data source from the list of available data sources.
3. Click **Add**. The dialog box is closed and the selected Data Source is added to the **Used Data Sources** list.

For information on removing a data source, see Removing a Data Source on page 474.

Removing a Data Source

To remove a data source from the **Data Sources** screen:

1. Hover over the desired data source in the **Used Data Sources** list. A trash can icon is displayed.



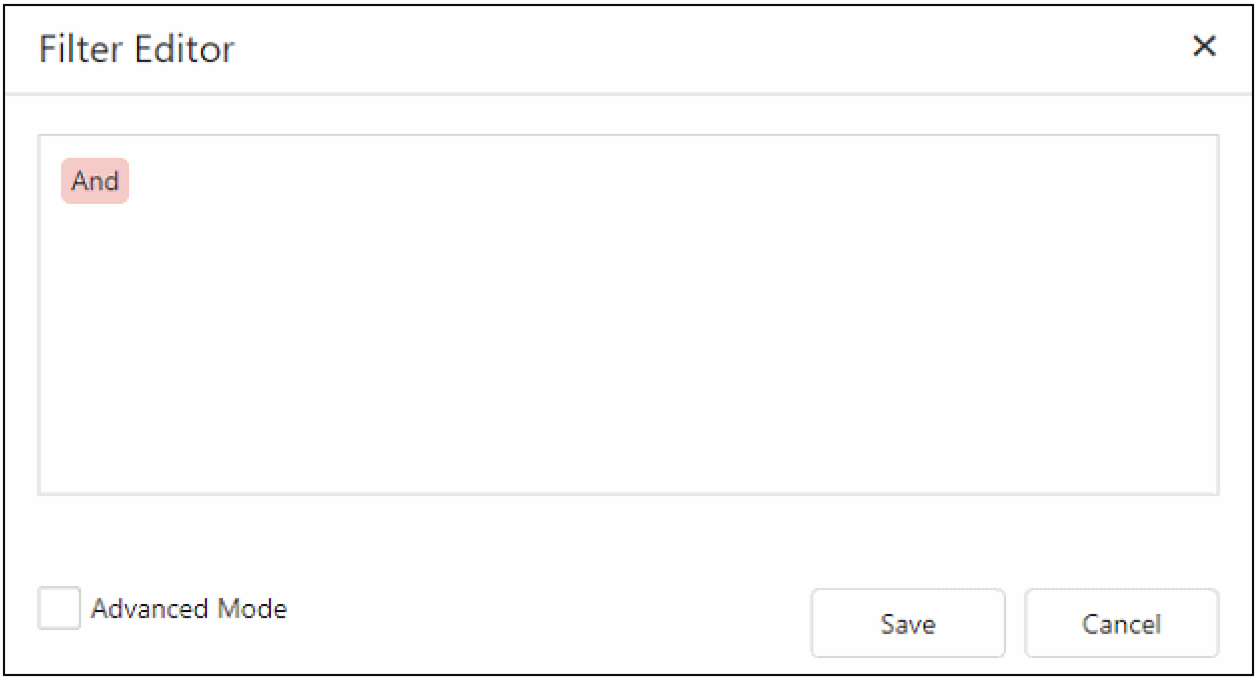
2. Click the trash can icon. The data source is removed from the **Used Data Sources** list.

If you have removed the last data source from the **Used Data Sources** list, you must add a new data source for the list to function. For information on adding data sources, see Adding a Data Source on page 474.

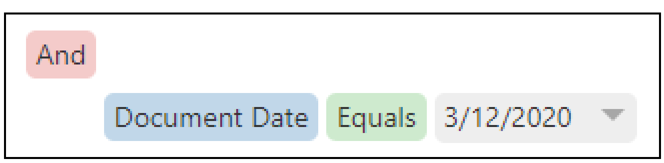
Filtering a Data Source

Data sources can be filtered to only show data that meets configured conditions. To filter a data source from the **Data Sources** screen:

1. Click **Filter**. The **Filter Editor** dialog box is displayed.



2. Hover near **Add** and click the **+** symbol.
3. Select either **Add group** to add a new group of conditions or **Add condition** to add a new condition.
   j. If you selected **Add group**, a new **Add** is created, allowing for additional conditions to be added as a sub group.
   k. If you selected **Add condition**, a new condition is added.



4. Click the separate fields to select values for the filter.
   a. The blue field is the keyword being filtered for. Clicking this field allows you to select from the keywords available in the data source.
   b. The green field is the parameter comparison, and includes the different options depending on the type of keyword. For normal parameter comparison options, see Parameter Comparison Options on page 476. For date range parameter options, see Date Range Parameter Options on page 477.
   c. The gray field is the list of available values for the selected keyword.
5. If you want to edit the filter in Advanced Mode, click the **Advanced Mode** check box.

6. If multiple conditions are included, you must select how the conditions are being compared. Available condition operators include:
   - **And:** All conditions are true.
   - **Or:** One or more of the conditions are true.
   - **Not And:** All conditions are false.
   - **Not Or:** One or more of the conditions are false.
7. Once all conditions have been created, click **Save**. The **Filter Editor** is closed.

Parameter Comparison Options

The following filtering options are available to compare a parameter to its value:

Option	Description
Equals	The parameter has this exact value.
Does not equal	The parameter does not have this exact value.
Is greater than	The parameter value is greater than this value.
Is greater than or equal to	The parameter value is greater than or equal to this value.
Is less than	The parameter value is less than this value.
Is less than or equal to	The parameter value is less than or equal to this value.
Is between	The parameter value is between these two values (a second value must be entered if this option is selected).
Is not between	The parameter value is not between these two values (a second value must be entered if this option is selected).
Contains	The parameter value contains this value. This allows a string contained in another string to be included.
Does not contain	The parameter value does not contain this value. This allows all strings that contain another string to be excluded.
Begins with	The parameter value starts with this letter or string.
Ends with	The parameter value ends with this letter or string.
Is like	The parameter is similar to this value.
Is not like	The parameter is not similar to this value.
Is null	The parameter has no value.
Is not null	The parameter has any value.

Option	Description
Is any of	The parameter is any of the listed values. You can add more than one value by clicking the **+** that is displayed at the end of the condition line. This is the same as separate conditions compared using the OR operator.
Is none of	The parameter is not any of the listed values. You can add more than one value by clicking the **+** that is displayed at the end of the condition line. This is the same as separate conditions compared using the NOT OR operator.
Is blank	The parameter has a value that is empty.
Is not blank	The parameter has any value that is not empty.

Date Range Parameter Options

The following options are available when filtering parameters with date range values:

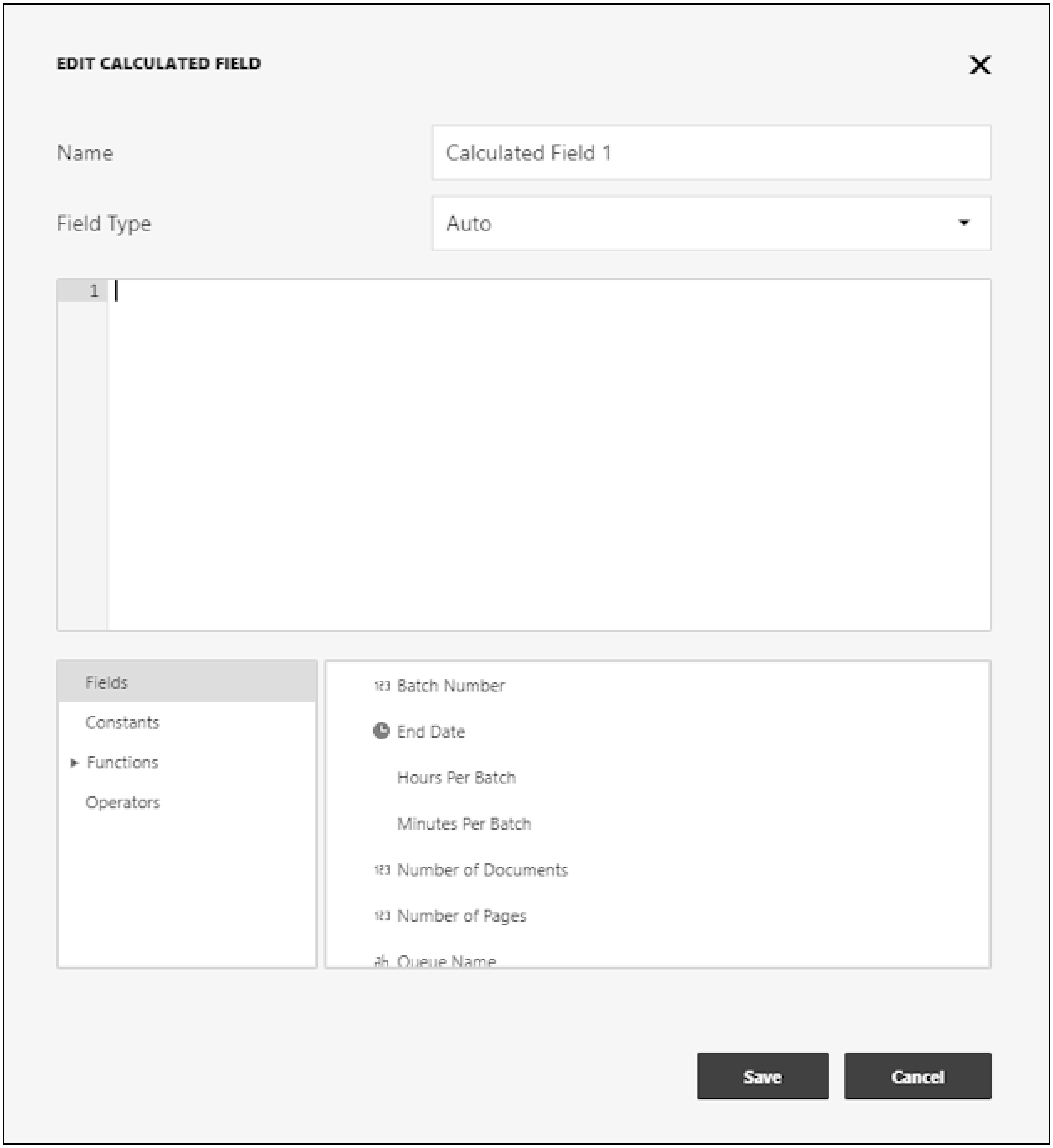
Option	Description
Is beyond this year	Dates that follow the current year.
Is later this year	Dates of the current year starting from the following month.
Is later this month	Dates of the current month that follow the next week.
Is later this week	Dates of the current week starting from the day after tomorrow.
Is next week	Dates that belong to the following week.
Is tomorrow	Tomorrow.
Is today	Today.
Is yesterday	Yesterday.
Is earlier this week	Dates of the current week that are prior to yesterday.
Is last week	Dates of the previous week.
Is earlier this month	Dates of the current month that are prior to the previous week.
Is earlier this year	Dates of the current year that are prior to the current month.
Is prior to this year	Dates that are prior to the current year.
Empty	Does not specify any condition.
Beyond	Dates that belong to the month in three-months time and beyond.

Option	Description
ThisWeek	Dates that belong to the current week.
ThisMonth	Dates that belong to the current month.
MonthAfter1	Dates that belong to the following month.
MonthAfter2	Dates that belong to the month in two-months time.
MonthAgo1	Dates that belong to the previous month.
MonthAgo2	Dates that belong to the month two months ago.
MonthAgo3	Dates that belong to the month three months ago.
MonthAgo4	Dates that belong to the month four months ago.
MonthAgo5	Dates that belong to the month five months ago.
MonthAgo6	Dates that belong to the month six months ago.
Earlier	Dates that belong to the month seven months ago and earlier.

Adding a Calculated Field

Calculated field can be added to data sources in the Reporting Dashboards. To add a calculated field to a data source from the **Data Sources** screen:

1. Click **Add Calculated Field**. The **Edit Calculated Field** dialog box is displayed.



2. Enter a name for the calculated field in the **Name** field.

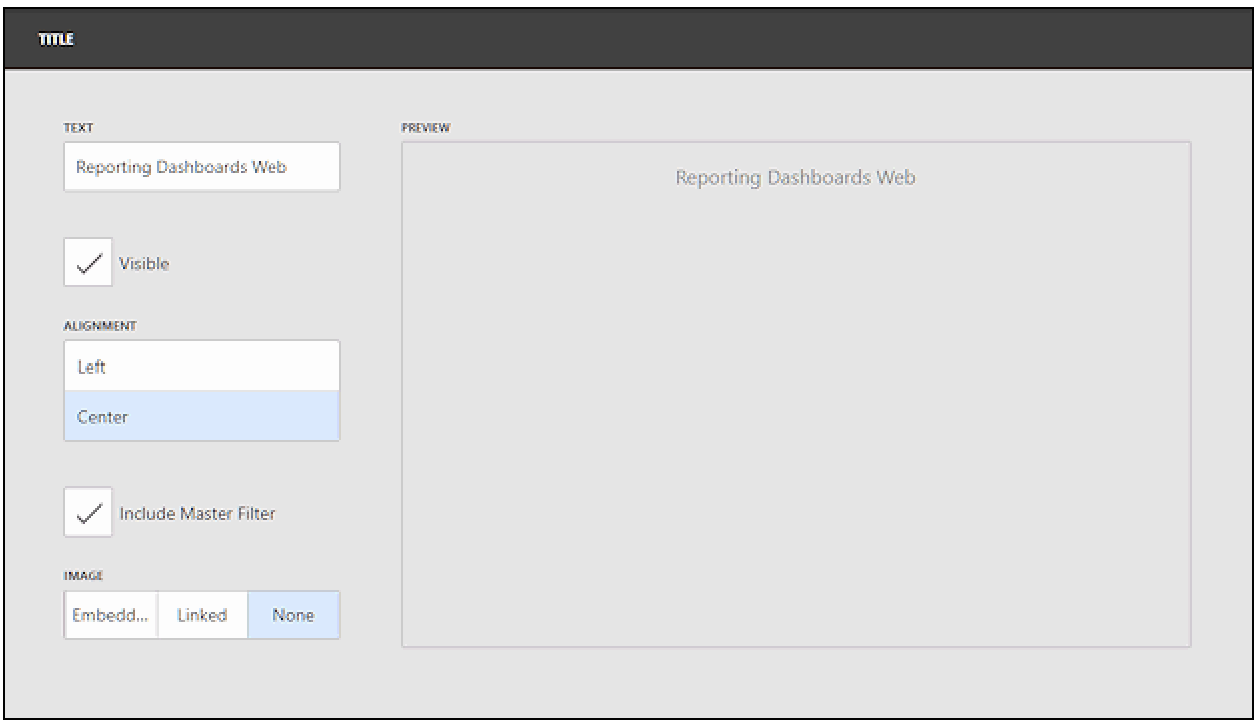
3. Select the type of calculated field from the **Field Type** drop down menu. Available types include **String**, **Integer**, **Decimal**, **Boolean**, **DateTime**, **Object**, and **Auto**. By default, **Auto** is selected.
4. Enter the desired function. Various fields and variables can be selected from the list below the expression field.
5. Once you have entered the function, click **Save** to store the calculated field. The dialog box is closed.

Calculated fields can be edited by clicking the pencil icon next to the field, or deleted by clicking the trash can icon.

Editing the Title of a Reporting Dashboard

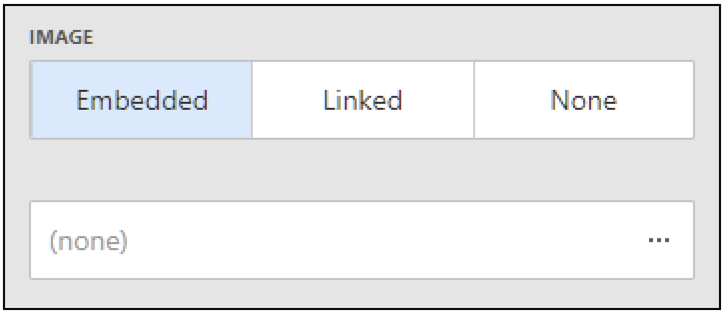
Once a dashboard has been created, you can change the title and change several options in the **Title** screen. To change the title of a dashboard:

1. Select **Title** from the **Dashboards Menu**. The **Title** screen is displayed.

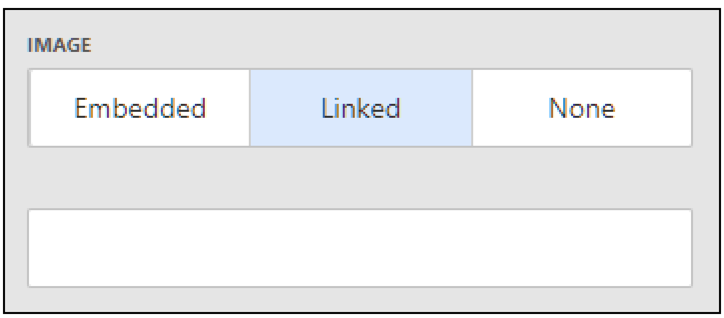


2. Type the new title for the dashboard into the **Text** field.
3. Click the **Visible** check box to determine if the title is shown in the dashboard. If checked, the title is shown.
4. Select the alignment of the title by choosing either **Left** or **Center** under **Alignment**.
5. Enable the **Include Master Filter** option to enable the use of a Master Filter with the dashboard.
6. To include an image with the title, select one of the following options under Image:

- **Embedded**: Select this option to upload and embed an image in the title. Once selected, you are asked to confirm the parameters for the dashboard. Click **Submit** to confirm and a field is displayed where you can select the image location.



  Click the **...** to select an image. Once the image is selected, click **OK** and the image is uploaded.
- **Linked**: Select this option to display an image hosted online. Once selected, you are asked to confirm the parameters for the dashboard. Click **Submit** to confirm and a field is displayed where you can enter the image location.



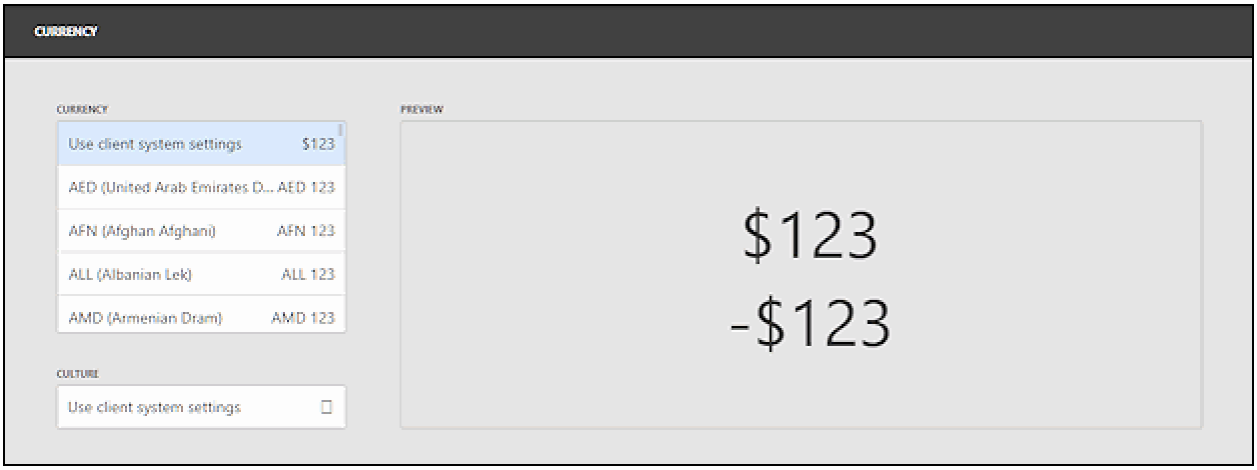
  Enter the address of the image in the field.
- **None**: Select this image to display no image with the title. This is the default option.

7. Once all options have been selected, close the **Dashboard Menu** to be returned to the dashboard.

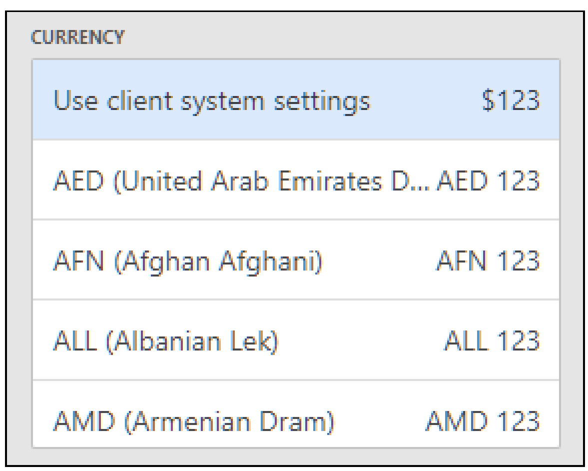
Editing Currency Options

Once a dashboard is created, you can change what currency units are used throughout the dashboard using the **Currency** screen. To change the currency units used in a dashboard:

1. Select **Currency** from the **Dashboards Menu**. The **Currency** screen is displayed.



2. Select the currency used throughout the dashboard from the **Currency** list. By default, **Use client system settings** is selected.

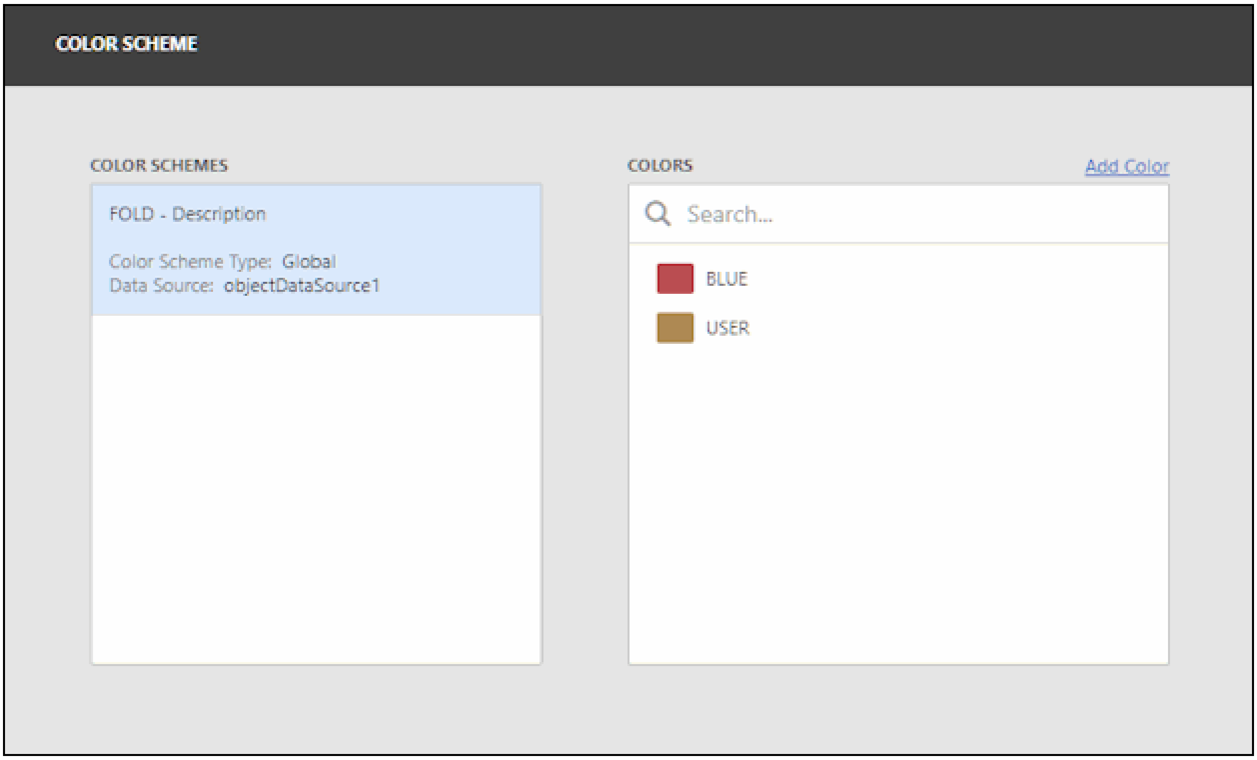


3. Once a currency is selected, cultural options may be available. Select the desired option from the Culture drop down list. By default, **Use client system settings** is selected.
4. Once all options have been selected, close the **Dashboard Menu** to be returned to the dashboard.

Editing the Color Scheme

Color schemes in use for a dashboard can be edited using the **Color Scheme** screen. To change the color scheme used in a dashboard:

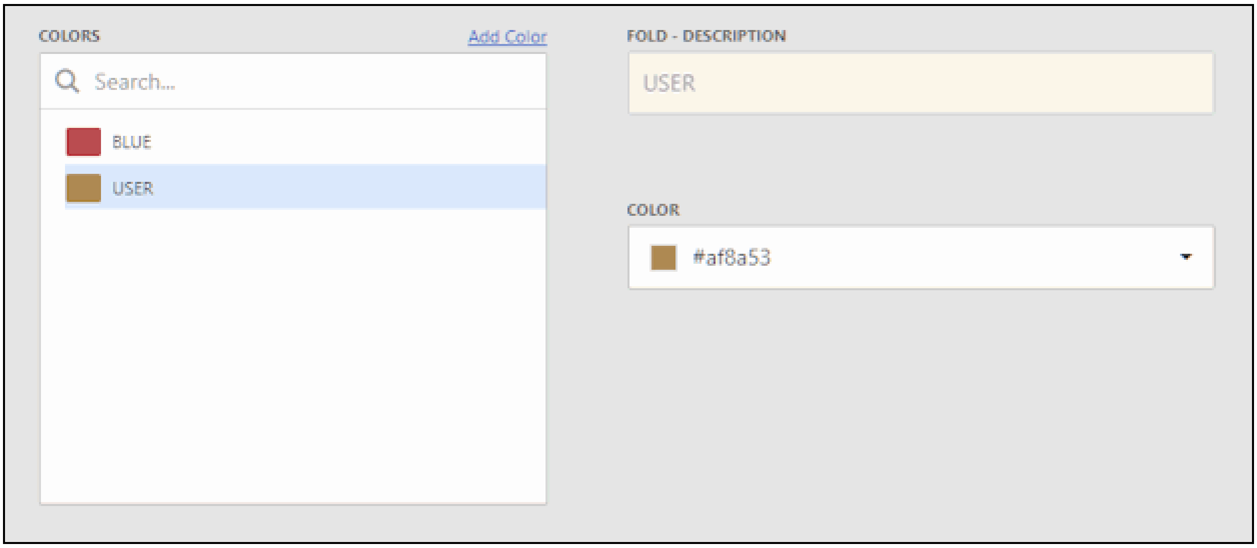
1. Select **Color Scheme** from the **Dashboards Menu**. The **Color Scheme** screen is displayed.



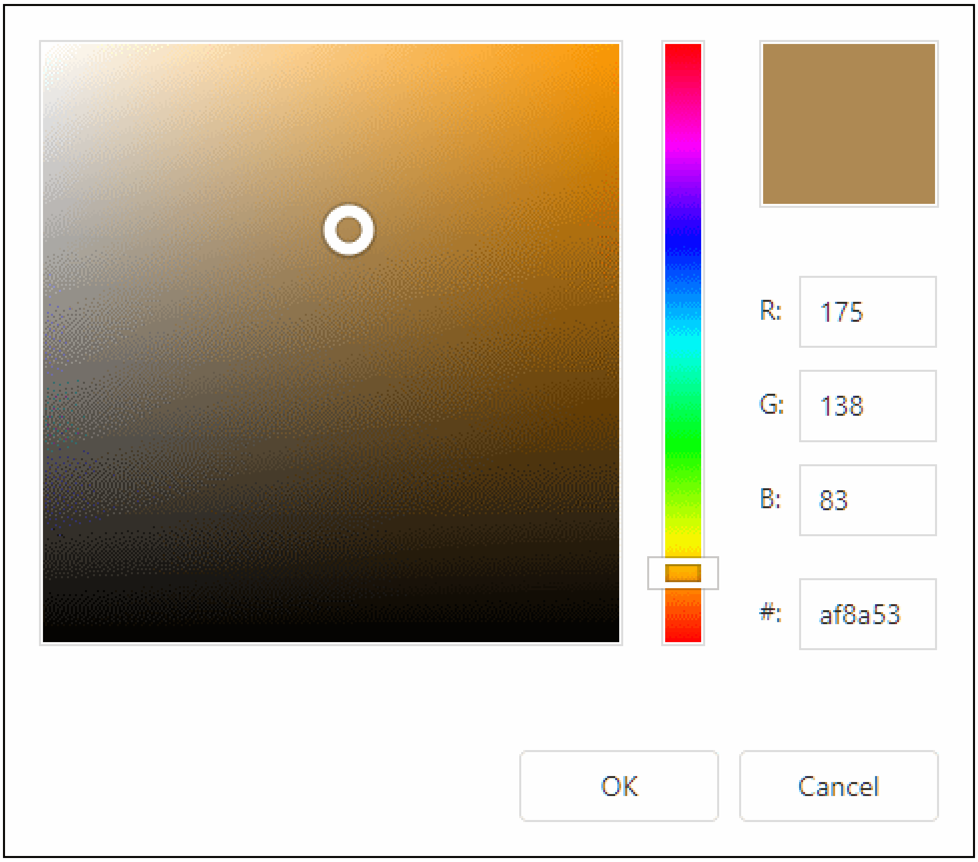
2. Select a color scheme to edit. Color schemes include the global color scheme as well as any color schemes that have been added individual items.

Note: If you have not added any items to the dashboard, no color scheme is available to edit.

3. Search for a color by entering the value associated with the color into the **Search** field, or select the color from the list of available options. The color options are displayed.



4. To change the color, click on the down arrow near the hex value for the color in the **Color** field. The color selection options are displayed



5. To select a color:

- Pick the color using the palette selection tools.
- Enter the RGB values for the color in the **R:**, **G:**, and **B:** fields.
- Enter the hex value for the color in the **#:** field.

6. Once you have selected the proper color, click **OK** to close the color selection options.
7. Once all colors have been configured, click the **X** near **Dashboard Menu** to return to the dashboard.

Adding Items to a Reporting Dashboard

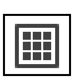
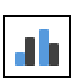
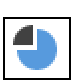
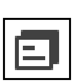
Reporting Dashboard items are visual tools to display information on a Reporting Dashboard. Items that can be added to a Reporting Dashboard are divided into three groups:

- Common Items on page 485
- Maps Items on page 487
- Filters Items on page 488
- Layout Items on page 488

For information on configuring items, see Configuring Items on page 489.

Common Items

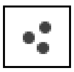
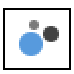
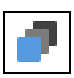
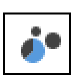
Common items include many of the graphs and charts associated with Reporting Dashboards. Each common item includes several variables such as columns, values, and arguments that must be configured for the item to display. These items include:

Item	Description
Grid 	Inserts a grid that displays data in tabular form. Variables for this item include: • **Columns**: The data displayed as a column within the table.
Chart 	Inserts a visual digram with an X-Y axis. Variables for this item include: • **Arguments**: The data used for the X axis of the chart. Typically a sub-group within a bigger group. • **Values**: The data used for the Y axis of a chart. Typically a numeric measurement.
Pies 	Inserts a diagram that displays the contribution of each part to a total. • **Arguments:** The column used to divide the pie graph into wedges • **Values:** The column used to produce the sum total.
Cards 	Inserts a visual diagram of the difference between two values, presented as cards that show an absolute and percent-based variation. • **Actual**: Data used to track progress toward a total. • **Target:** Data used as the target total. • **Series**: Data used to break totals into separate cards.

Item	Description
Text Box	Inserts a text box to display specific text as configured.
Bound Image	
Pivot	Inserts a pivot grid display. Pivot grid displays are a way to present multi-dimensional data in a two-dimensional grid display. Variables for this item include: • **Values**: Data used to calculate totals. • **Columns**: Data used as column headings. • **Rows**: Data used as row headings.
Treemap	Inserts a visual diagram that sorts data into nested rectangles as part of a whole. For example, various product lines can be visualized as a portion of a company's entire profit or sales. Variables for this item include: • **Values**: Data used to determine the size of the rectangles. • **Arguments**: Data used to sort larger categories of rectangles.
Scatter Chart	Inserts a visual diagram with two axes using the size of points on that diagram to indicate a third value. For example, margin averages, sales, and overall profits for a company's different product categories. Variables for this item include: • **X-axis**: Data used for the horizonal axis of the diagram. • **Y-axis**: Data used for the vertical axis of the diagram. • **Weight**: Data used to determine the size of the data points. • **Argument**: Data used to color and differentiate data points.
Gauges	Inserts a visual diagram of data representing a scale and a data point on that scale. For example, progress toward a sales goal.Variables for this item include: • **Actual**: Data used to track progress toward a total. • **Target:** Data used as the target total. • **Series**: Data used to break totals into separate gauges.
Image	Inserts an image file for display as part of the dashboard. Images can be linked to other images already hosted online or uploaded from a system and embedded.

Maps Items

Map items include graphs and charts that display with maps. Each map item includes several variables such as columns, values, and arguments that must be configured for the item to display. These items include:

Item	Description
Geo Point Map 	Inserts visual callouts of specific data items on a map. Variables for this item include: • **Latitude**: Data representing the geographical latitude of the location. • **Longitude**: Data representing the geographical longitude of the location. • **Values**: Data that represents the amount being shown at each location.
Bubble Map 	Inserts visual callouts of specific data items on a map sized based on data. Variables for this item include: • **Latitude**: Data representing the geographical latitude of the location. • **Longitude**: Data representing the geographical longitude of the location. • **Weight**: Data that represents the amount being shown at each location, which is reflected in the size of each bubble.
Choropleth Map 	Inserts a visual diagram of where on a map the data is relevant. Maps are colored by area based on the returned values to show geographical patterns surrounding the data. Variables for this item include: • **Attribute**: Data to group the total by on the map. • **Maps:** Data representing the total amount in each group.
Pie Map 	Inserts visual callouts of specific data items on a map as pie charts for each location. Variables for this item include: • **Latitude**: Data representing the geographical latitude of the location of each pie chart. • **Longitude**: Data representing the geographical longitude of the location of each pie chart. • **Argument:** The column used to divide each pie chart into wedges • **Values:** The column used to produce the sum total for each pie chart.

Filters Items

Filter items allow for the creation of interactive dashboard items that can be used to limit the detail and scope of data displayed on other items on the dashboard. Each filter item includes several variables that allow for data to be displayed according to those settings. These items include:

Item	Description
Range Filter	Inserts a sliding scale that allows you to control the data displayed in dashboard items. Variables for this item include: • **Values**: Data used for the vertical axis of the range filter. • **Argument**: Data used for the horizontal axis of the range filter. This is the value the range filtering is performed on. • **Series**: Data that creates the chart display being filtered.
Combo Box	Inserts a drop down menu that can be used to filter data to only show information relevant to the selected option. Variables for this item include: • **Dimensions**: Data used to generate the list of options in the drop down menu.
List Box	Inserts a list of all values for a type of data with check boxes that can be selected to show only the selected values. • **Dimensions**: Data used to generate the list of values to display with check boxes.
Tree View	Inserts a list of all values for a type of data with subtypes under each. Check boxes can be selected to show only the selected values. • **Dimensions**: Data used to generate the list of values to display with check boxes. Each dimension added after the first acts as a subcategory for the previous dimension.

Layout Items

Layout items are used to control the overall layout of the dashboard. Layout items have no variables, but can be used to group other items together. These items include:

Item	Description
Group	Inserts a container that can be used to group other items together.

Configuring Items

Once an item has been added to a dashboard, it must be configured to properly display the desired information. Items are configured by clicking the item to open the item tool menu. This menu contains the following options:

Binding

You can configure the bindings for a dashboard item by clicking the **Binding** icon.

Clicking this icon opens a menu for selecting the data used for the item based on the available variables for that item. See the item description for more information on each variable available.

Filtering for items can be configured by clicking **DATA & FILTERING**, which opens a separate pane. To edit filter criteria, select **Click to set Filter Criteria**. The **Filter Editor** dialog box is displayed. For more information on filtering, see Filtering a Data Source on page 475.

Additionally, some item types allow additional copies of the item to be added by clicking the **Add Pane** icon.

Additional variables may appear for each new pane added.

Interactivity

You can configure the interactivity of a dashboard item by clicking on the Interactivity icon.

Opens a menu to select interactive options for the dashboard item. These include:

- **Master Filter Mode**: Select between **None**, **Single,** or **Multiple** Master Filters.
- **Drill Down**: Select **On** or **Off** to enable drill down for the item.
- **Target Dimensions**: Select the target dimensions for drilling down from the available options for the item.
- **Ignore Master Filters**: Select **On** or **Off** to enable the use of Master Filters for the the item.
- **Cross-Data-Source Filtering**: Select **On** or **Off** to enable the use of cross-data-source filtering for the item if available.

Options

You can configure various options for the item, including captions, labels, legends, and coloring, by clicking the **Options** icon.

The available options depend on the type of item selected, but can include:

- Common on page 490
- Axis on page 490
- Legend on page 491
- Coloring on page 491
- Color Scheme on page 491

Common

Common options include an on/off toggle for the caption for the item, and a text field to enter the caption. Additionally, **Common** can include an option to rotate the item.

Axis

Axis options allow for the display and labeling of axes in any item that includes them. Axis options include:

- **Reverse**: An on/off toggle that allows you to reverse the axis.
- **Visible**: An on/off toggle that allows for the display of the axis.
- **Title**: An on/off toggle that displays the title of the axis.
- **Title Text**: A text field to enter a title for the axis. The title is only displayed if the **Title** toggle is set to **On**.
- **Enable Zooming**: An on/off toggle that allows the user to zoom in along the select axis.
- **Limit Visible Points**: An on/off toggle that limits the number of visible points on the axis.
- **Visible Points Count**: A selectable number that determines how many visible points are shown if the **Limit Visible Points** toggle is set to **On**.
- **Logarithmic Scale**: An on/off toggle that allows for the display of the axis in a logarithmic scale.
- **Logarithmic Scale Base**: A drop-down menu to select the base used for the logarithmic scale. This option is only enabled if **Logarithmic Scale** is set to **On**.

- **Format Type**: A drop-down menu to select how the data is displayed. Available formats include:
  - **Auto**: Automatically formats the data based on the keyword type.
  - **General**: Formats the data as general text.
  - **Number**: Formats the data as a number.
  - **Currency**: Formats the data as a currency.
  - **Scientific**: Formats the data according to scientific notation.
  - **Percent**: Formats the data as a percentage.
- **Unit**: A drop down list that selects the basic unit displayed, from ones through billions. This option can also be set to **Auto**.
- **Precision**: A selectable number that determines how many decimal places are displayed, if decimal values are used.
- **Include Group Separator**: An on/off toggle to include separators between groups in the axis.
- **Currency**: A drop-down menu to select the unit of currency used. This option is only available if **Currency** is selected as a **Format Type**.

Legend

Legend options allow for the display of a legend for the item. Legend options include:

- **Show Legend**: A Yes/No toggle to display a legend for the item.
- **Inside Diagram**: A Yes/No toggle to display the legend inside of outside the diagram in the item.
- **Position**: A drop-down menu to select the position of the legend in the item.

Coloring

Coloring options allows you to choose how the chart is colored based on the configured variables. The coloring options include:

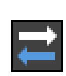
- **[Variable Name]**: Changes the coloring based on that particular variable. Can be set to **Auto**, **Off**, or **On**.
- **Measures Coloring**: Changes the coloring based on measurements. Can be set to **Auto**, **Off**, or **On**.

Color Scheme

Color Scheme options allow for the editing of the color scheme for the dashboard. Select the colors from the list to edit them, or search for colors using the **Search** function. The **Color Scheme Type** can also be selected, between **Global** and **Local**. Global color schemes apply to all items in a dashboard. Local color schemes are only for a single item.

Convert To

You can convert an item from one type to another by clicking on the **Convert** icon.



Clicking the **Convert** icon brings up a menu that includes all item types with only the current type grayed out. To change the item type, select a different item type from this menu.

Note: Once the item type is changed, the available variables may change and/or need to be reconfigured. For information on configuring variables, see Binding on page 489.

Remove

You can remove an item from the dashboard by clicking on the **Remove** icon.

Note: There is no confirmation when removing an item. Be certain you want to remove an item before clicking the icon.