Intelligence Center and Web Reports Guide

Axiom Version 2021.2



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Introduction

The Intelligence Center and web reports provide fully web-enabled reporting functionality for Axiom. This guide discusses how to use the Intelligence Center, and how to create and use web reports.

Intended audience

This guide is intended for all users of Axiom, from users who only consume existing reports to web report creators.

What is covered in this guide?

This guide covers the following:

- Using the Intelligence Center to find, open, and create reports
- Using existing web reports to view and explore data
- Creating new web reports using the Report Builder
- Configuring report components in the Report Builder
- Configuring report drilling in the Report Builder
- Creating fixed row structures for use in web reports

What is not covered in this guide?

The following related topics are not covered in this guide:

• Table setup and administration. Creating web reports requires general knowledge of your system's data structures, including the available tables and columns and their relationships. For more information, see the System Administration Guide.

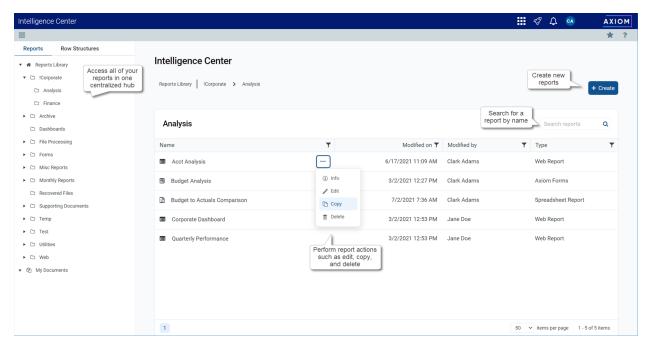
All documentation for Axiom can also be accessed using the Axiom Help Files.

Intelligence Center

The Intelligence Center is a centralized hub where you can view any report that you have access to in the Axiom Reports Library—including web reports, Axiom forms, visualization reports, and spreadsheet reports.

Using the Intelligence Center, you can:

- · View any report you have access to, regardless of the report type
- · Create new web reports (all clients) and visualization reports (clients with certain product licenses)
- · Open reports for editing, in the appropriate editor for the report type
- Perform other report management activities, such as creating and deleting folders, copying and deleting reports, and editing report names and descriptions

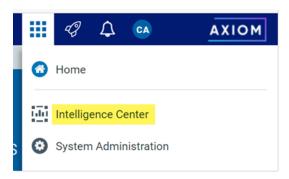


Example Intelligence Center

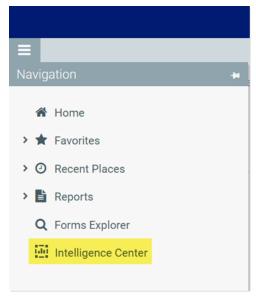
Accessing the Intelligence Center

All users can access the Intelligence Center in the Web Client browser:

• Click the menu icon in the Global Navigation Bar. From the Area menu, select Intelligence Center.

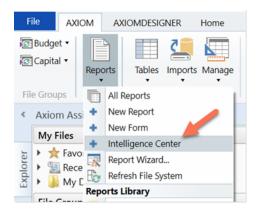


The Intelligence Center may also be accessible from other areas of the Web Client, such as in the lefthand Navigation panel, or from links in product-specific pages.



Intelligence Center in the default Navigation panel

In the Desktop Client, you can open the Intelligence Center from the Reports menu. By default this menu is present on the Axiom tab. If your system has installed products, it may be available to you on the Main tab.



Intelligence Center on the default Reports menu

Opening reports

You can open any report that displays in the Intelligence Center. The Intelligence Center is automatically filtered to only show the reports that you have access to.

To open a report from the Intelligence Center:

- 1. In the left-hand panel, select the **Reports** tab if it is not already selected.
- 2. Do one of the following to locate the report that you want to open:
 - Use the folder tree in the left-hand panel to navigate to the folder where the report is located.

OR

Use the Search box to search for the report by name.

For more information on how to search, filter, and sort the Intelligence Center, see Intelligence Center overview.

- 3. Once the report displays in the Intelligence Center grid, click on the report name to open it.
 - Web reports open in the same browser tab.
 - Other web-enabled reports open in a new browser tab. This applies to Axiom forms, visualization reports, and deprecated web reports.
 - If the report is a spreadsheet report, Axiom attempts to launch the Axiom Desktop Client and open the report. This works as follows:
 - The launch routine uses the Axiom Windows Client by default.
 - If an Axiom client is already open, the launch routine is skipped and the report is opened in that client—regardless of whether the open client is the Excel Client or the Windows Client. Therefore, if you want to open reports in the Excel Client, you must launch the Excel Client first using the Quick Launch menu, then you can open spreadsheet reports from the Intelligence Center.

NOTE: You must have the appropriate security permissions to use the Axiom Desktop Client in order to open a spreadsheet report. If you do not have either the Windows Client Access permission or the Excel Client Access permission, then spreadsheet reports are hidden in the Intelligence Center because you cannot launch the client to view them.

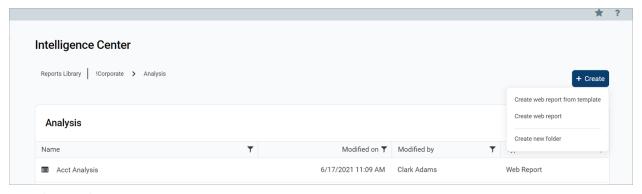
If other types of files are present in the Reports Library—such as PDF, Word, or PowerPoint—these files can also be opened from the Intelligence Center if you have a program capable of reading the file type. Axiom attempts to open the file using the same routine that opens the Axiom Desktop Client.

Creating new reports

Using the Create button at the top right of the Intelligence Center, you can create new reports and new fixed row structures for use in web reports. This button is context-sensitive, depending on what area you have selected from the left-hand panel.

To create a new report, select the Reports area from the left-hand panel, then click the Create button. Select one of the following:

- Create web report: This option opens the web Report Builder so that you can create a new web report from scratch. For more information, see Creating new web reports.
- · Create web report from template: This option creates a new web report using a template provided by an installed product. See Creating new web reports from template.
- Create new visualization: This option creates a new visualization report. This option is only available in systems where visualization reporting is licensed and enabled.

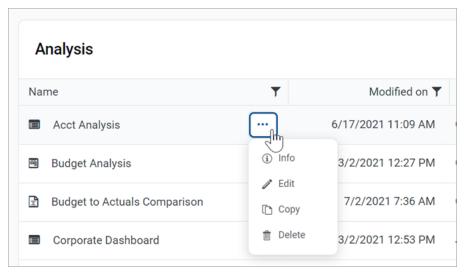


Example Create button to create a new report

To create a new fixed row structure, select the Row Structures area from the left-hand panel and then click Create. For more information, see Creating fixed row structures.

Other Intelligence Center actions

In the Intelligence Center, you can use the Actions menu to perform other report and folder management activities. To view the available actions, navigate to the item that you want to work with, then hover your cursor over the three dots icon in the right-hand side of the Name column. Actions are available for report files, report folders, and fixed row structures.



Example Actions menu

The following actions are available:

Action	Description	More Information
Info	Opens the Settings panel for the current item, displaying the item name and description.	 Changing folder names and descriptions Changing report names and descriptions Changing fixed row structure names and descriptions
Edit	Opens the current item in the appropriate editor.	Editing reportsEditing fixed row structures
Сору	Generates a copy of the current item. Only available for fixed row structures and web reports.	Copying web reportsCopying fixed row structures
Delete	Deletes the current item.	Deleting reportsDeleting foldersDeleting fixed row structures

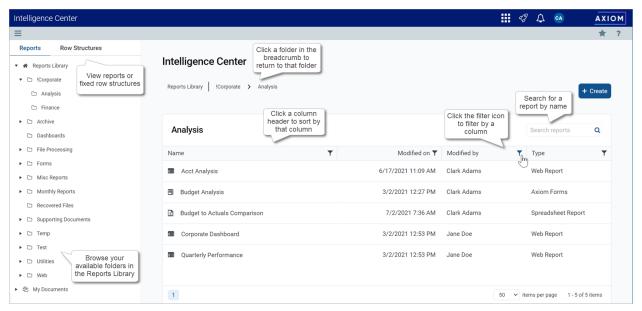
You can also create new folders by clicking Create > Create new folder while you are in the Reports area.

Intelligence Center overview

The Intelligence Center is organized into two main areas. To view an area, select the area name from the left-hand panel:

- The Reports area, which contains the Reports Library folder tree and your My Documents folder
 (if you have access to it). You can click on folders in this section to navigate through the folder
 tree. Once a folder is selected, the contents of that folder display in the report grid. You can click
 on a subfolder name to open that subfolder, or you can click on a report name to open that
 report.
- The Row Structures section, which contains fixed row structures for use in web reports. This section does not have subfolders. You can click on the parent Fixed Row Structures folder to view the available fixed row structures, and click on a name to open that structure.

As you navigate, a breadcrumb displays at the top of the report grid. You can click on a folder name in the breadcrumb to move to that folder location.



Navigating the Intelligence Center

Searching the Intelligence Center

You can use the Search box at the top right of the Intelligence Center to find a report or a fixed row structure. The search matches on name only. The search box is context-sensitive as follows:

- If the currently selected area is Reports, then the search can be used to find reports in the Reports Library and your My Documents folder.
- If the currently selected area is Row Structures, then the search can be used to find fixed row structures.

To search for an item by name:

• Type your search text into the Search box, and then click the magnifying glass or hit the Enter key to search.

The grid updates to show a list of all reports or fixed row structures that match your search text. You can open an item or perform other actions using this list. You can also filter and sort this list as described in the following sections.

To clear a search:

Click the X icon in the right side of the Search box.

Your search text is cleared, and you are returned to the folder location that you were viewing when you started the search.

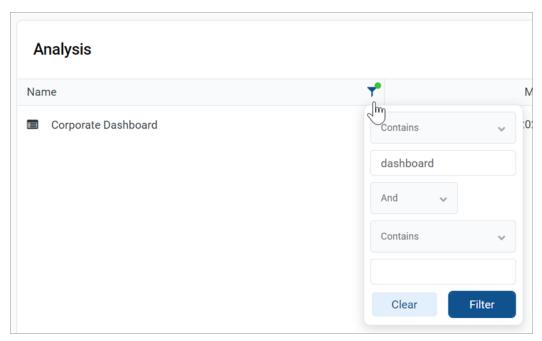
Filtering the grid

When you are viewing a folder in the Intelligence Center (or when viewing search results), you can filter the contents by any column in the grid. For example, you can filter to show all reports of a certain type, or to show all reports created after a certain date.

To filter the grid based on a column:

- 1. Click the filter icon in the column header to show the filter options.
- 2. Set the filter options as desired. You can set up to two filter options, combined with either AND or OR.
- 3. Click Filter.

The grid updates to only show items that meet the filter. Additionally, a green dot displays by the filter icon in the column header to indicate that the grid is filtered by this column.



Example Intelligence Center column with a defined filter

If multiple columns are filtered, the filters are combined using AND—meaning the grid only shows items that match all of the filters.

The column filter is retained until you clear it, or until you navigate to a new folder location. If you have filtered the search results, clearing the search results also clears the filter.

To clear a filter:

- 1. Click the filter icon in the column header to show the filter options.
- 2. Click Clear.

The grid updates to clear the filter.

Sorting the grid

When you are viewing a folder in the Intelligence Center (or when viewing search results), you can sort the list by any column in the grid.

To sort the grid by a column, click on the column header. Each click toggles between ascending sort, descending sort, and no sort. If the grid is currently sorted by a column, the sort direction is indicated by an arrow on the column header (up for ascending, down for descending).

The sort is reset when you move to a new folder location. If you have sorted the search results, clearing the search results also clears the sort.

NOTE: The grid can only be sorted by one column at a time. If you have sorted by a column and then you click the column header of a different column, the sort on the original column is cleared and replaced by the new column sort.

Managing report files in the Intelligence Center

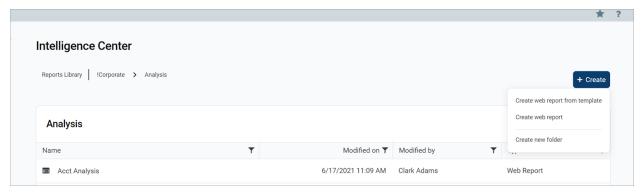
Using the Intelligence Center, you can create, edit, copy, and delete reports in the Reports Library. You can also edit report names and descriptions.

Creating new reports

Using the **Create** button at the top right of the Intelligence Center, you can create new reports and new fixed row structures for use in web reports. This button is context-sensitive, depending on what area you have selected from the left-hand panel.

To create a new report, select the **Reports** area from the left-hand panel, then click the **Create** button. Select one of the following:

- **Create web report**: This option opens the web Report Builder so that you can create a new web report from scratch. For more information, see Creating new web reports.
- Create web report from template: This option creates a new web report using a template provided by an installed product. See Creating new web reports from template.
- Create new visualization: This option creates a new visualization report. This option is only available in systems where visualization reporting is licensed and enabled.



Example Create button

To create a new fixed row structure, select the **Row Structures** area from the left-hand panel and then click **Create**. For more information, see <u>Creating fixed row structures</u>.

Different security permissions are required to create new web reports versus visualization reports. These security requirements are noted in the relevant topics.

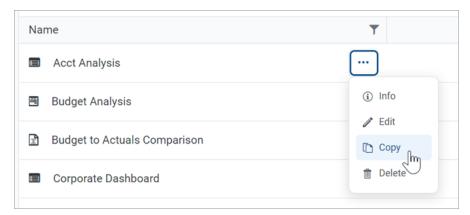
Copying reports

In the Intelligence Center, you can copy existing reports to create new reports. Currently, this functionality is only available for web reports, and only web reports that were created in the Report Builder. Web reports created from template cannot be copied.

In order to copy a web report, you must be an administrator or have the Create Web Reports security permission. You must also have read/write access to the current folder, because the copy is created in the current folder.

To copy a report from the Intelligence Center:

- 1. In the Intelligence Center, locate the web report that you want to copy. You can use folder navigation to find the report, or use the Search box at the top of the page.
- 2. Once the web report displays in the Intelligence Center grid, hover your cursor over the Name column to make the three-dots icon visible. Click the icon then select Copy from the menu.



If the Copy action is present but disabled, then you cannot copy this report because you do not have the appropriate security permissions.

- 3. In the Copy Report dialog, enter a name for the copy. By default, the name is Copy of OriginalReportName.
- 4. Click OK.

The copy is created in the current folder, with the specified name.

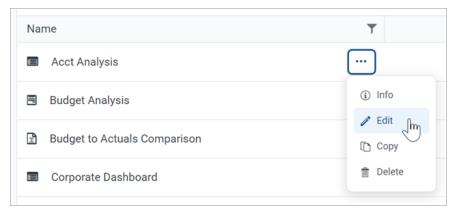
Editing reports

You can open a report for editing from the Intelligence Center if the report is eligible to be edited, and you have read/write permissions to the report.

To edit a report from the Intelligence Center:

1. In the Intelligence Center, locate the report that you want to edit. You can use folder navigation to find the report, or use the Search box at the top of the page.

2. Once the report displays in the Intelligence Center grid, hover your cursor over the Name column to make the three-dots icon visible. Click the icon then select **Edit** from the menu.



- 3. The report is opened for editing as follows, depending on its file type:
 - Web reports are opened in the Report Builder, in the current browser tab.
 - Visualization reports are opened in the Visualization Report Editor, in a new browser tab.
 - **Spreadsheet reports** and **Axiom forms** are opened in the Axiom Desktop Client, as spreadsheet report files. This works as follows:
 - The launch routine uses the Axiom Windows Client by default.
 - If an Axiom client is already open, the launch routine is skipped and the report is opened in that client—regardless of whether the open client is the Excel Client or the Windows Client. Therefore, if you want to open reports in the Excel Client, you must launch the Excel Client first using the Quick Launch menu, then you can open spreadsheet reports from the Intelligence Center.

NOTE: You must have the appropriate security permissions to use the Axiom Desktop Client in order to open a spreadsheet report. If you do not have either the **Windows Client Access** permission or the **Excel Client Access** permission, then spreadsheet reports are hidden in the Intelligence Center because you cannot launch the client to view them.

Why is the Edit action missing for some reports?

The following report types *cannot* be opened for editing from the Intelligence Center. The Edit action does not display for these files:

- Web reports built from template: If a web report is built from a template, the report is tied to that template and cannot be separately edited. For more information, see Creating new web reports from template.
- **Deprecated web reports**: The prior implementation of web reporting is deprecated. To edit a deprecated web report, click the file name to open the report, then click the wrench icon in the toolbar to open the legacy web report editor.

• Other non-report file types: The Reports Library can be used to store other non-report, non-Axiom file types, such as PDF, DOC, PPT, JPG, and others. These file types cannot be edited in Axiom.

Why is the Edit action disabled for some reports?

If the Edit action is present but disabled, this means that although the report type is eligible to be edited, it is not possible for you to edit this particular report. One of the following reasons may apply:

- You do not have edit permissions (Read/Write access) to the file.
- The file is product-controlled and therefore cannot be edited.
- The file is configured to prevent editing (applies to certain visualization reports).

Changing report names and descriptions

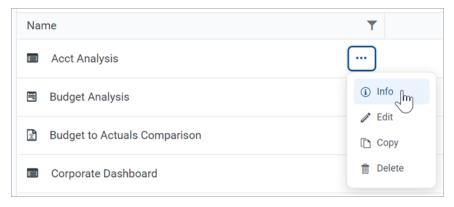
If you have read/write access to a report, then you can rename the report or change its description.

NOTES:

- In systems with installed products, the names and descriptions of product-controlled reports cannot be edited.
- If you have read/write access to a report file, but read-only access to its folder, then you cannot edit the report name.

To change a report name and/or description:

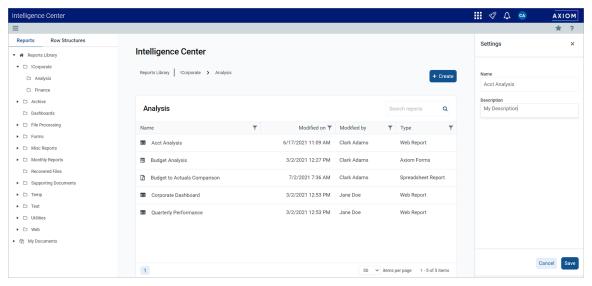
- 1. In the Intelligence Center, locate the report that you want to edit. You can use folder navigation to find the report, or use the Search box at the top of the page.
- 2. Once the report displays in the Intelligence Center grid, hover your cursor over the Name column to make the three-dots icon visible. Click the icon then select Info from the menu.



The Settings panel opens along the right-hand side of the page.

3. In the Settings panel, edit the report Name or Description as needed, then click Save.

The name can be up to 250 characters, and the description can be up to 2000 characters.



Example Settings panel

If the report name and description cannot be edited, then the **Apply** button is not available. This may occur because you do not have the necessary permissions, or because the report belongs to an installed product.

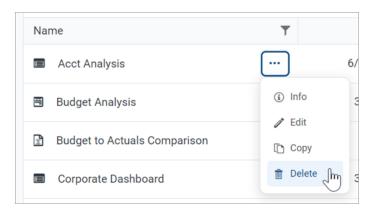
Deleting reports

If a report is no longer needed, you can delete it using the Intelligence Center. In order to delete a report (or any other file that resides in the Reports Library), you must have read-write access to the file and to the folder it resides in.

NOTE: In systems with installed products, product-controlled reports cannot be deleted.

To delete a report:

- 1. In the Intelligence Center, locate the report that you want to delete. You can use folder navigation to find the report, or use the Search box at the top of the page.
- Hover your cursor over the row with the report, hover your cursor over the Name column to make the three-dots icon visible. Click the icon then select Delete from the menu.



If the report cannot be deleted, the Delete action is disabled. This may occur because you do not have the necessary permissions to delete the report, or because the report belongs to an installed product.

3. When you are prompted to confirm that you want to delete the report, click **OK**.

The report is deleted from the system and no longer displays in the Intelligence Center. If the report was deleted in error, an administrator may be able to restore the report using the **Restore Deleted Files** feature in the Desktop Client.

Managing folders in the Intelligence Center

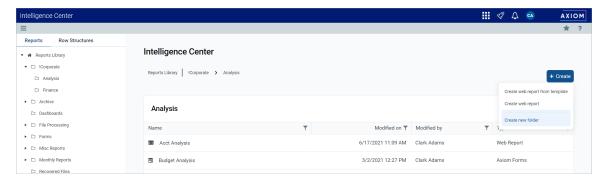
Using the Intelligence Center, you can create, rename, and delete folders in the Reports Library.

Creating new folders

You can create new folders as needed in the Intelligence Center. In order to create a folder, you must have read-write access to the parent folder.

To create a folder:

- In the Intelligence Center, navigate to the folder location where you want to create a new folder.
 For example, if you want to create a new top-level folder in the Reports Library, select the Reports Library. If you want to create a new subfolder within a folder, then select that folder.
- 2. Click Create > Create new folder.



3. In the Create new folder dialog, enter a name for the new folder, then click OK.

The new folder is created in the current location.

Changing folder names and descriptions

If you have read/write access to a folder, then you can rename the folder or change its description.

NOTE: In systems with installed products, the names and descriptions of product-controlled folders cannot be edited.

To change a folder name and/or description:

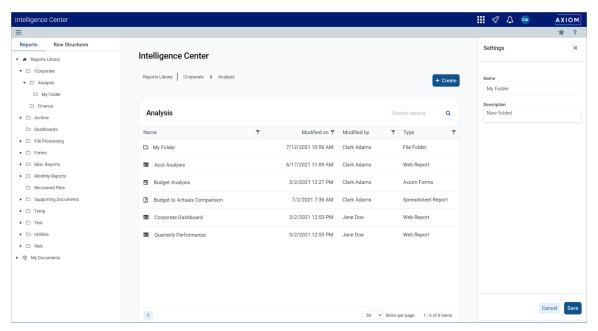
- 1. In the Intelligence Center, navigate to the parent folder of the folder that you want to rename, so that the folder you want to rename displays in the Intelligence Center grid.
- 2. Hover your cursor over the row with the folder, so that the three dots icon is visible the **Name** column. Click the icon then select **Info** from the menu.



The Settings panel opens along the right-hand side of the page.

3. In the Settings panel, edit the folder Name or Description as needed, then click Apply.

The name can be up to 250 characters, and the description can be up to 2000 characters.



Example Settings panel

If the folder name and description cannot be edited, then the **Apply** button is not available. This may occur because you do not have the necessary permissions, or because the folder belongs to an installed product.

Deleting folders

If a folder is no longer needed, you can delete it using the Intelligence Center. In order to delete a folder, the folder must be empty and you must have read-write access to the folder.

NOTE: In systems with installed products, product-controlled folders cannot be deleted.

To delete a folder:

- 1. In the Intelligence Center, navigate to the parent folder of the folder that you want to delete, so that the folder you want to delete displays in the Intelligence Center grid.
- 2. Hover your cursor over the row with the folder, so that the three dots icon is visible the **Name** column. Click the icon then select **Delete** from the menu.



If the folder cannot be deleted, the Delete action is disabled. This may occur because you do not have the necessary permissions to delete the folder, or because the folder belongs to an installed product.

The folder is deleted from the system and no longer displays in the Intelligence Center. There is no confirmation dialog before deleting an empty folder. If the empty folder was deleted in error, you can create a new folder with the same name.

Web Reports

Axiom web reports provide a fully browser-based reporting option for Axiom data. You can create, edit, and view web reports all within the Axiom Web Client.

Web reports are designed to be intuitive for report designers to build, and easy for report viewers to use. The Intelligence Center provides a centralized hub to create new web reports and to view any report that you have access to.

Web reports support two different ways to display reporting data in a grid:

- Dynamic rows: Dynamically display data rows based on a specified dimension or grouping.
- **Fixed rows**: Use predefined fixed row structures to organize data rows into sections with headers, totals, and subtotals.

Web reports can be created from scratch using the Report Builder, or you can create them from templates provided by installed Axiom products.

Opening web reports

In order to open an existing web report, you must have at least read-only access to the report, as defined in Axiom security. Web reports can be opened from either the Web Client or the Desktop Client.

This topic discusses the default ways to access and view web reports. Your system may be designed so that you can open web reports in other ways, such as:

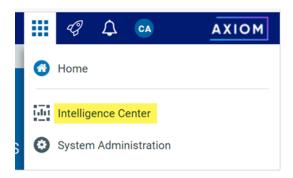
- Using the Navigation panel in the Web Client
- Using links within your home page or product pages
- Using links within a task pane or ribbon tab in the Desktop Client

Opening web reports from the Intelligence Center

The Intelligence Center in the Web Client is a hub where you can access all of your available reports, regardless of the report type. The Intelligence Center is automatically filtered to show only the reports that you have access to.

To open a web report from the Intelligence Center:

1. Click the menu icon in the Global Navigation Bar. From the Area menu, select Intelligence Center.



- 2. In the left-hand panel, select the **Reports** tab if it is not already selected.
- 3. Do one of the following to locate the report that you want to open:
 - Use the folder tree in the left-hand panel to navigate to the folder where the report is located.

OR

• Use the Search box to search for the report by name.

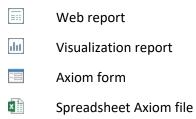
For more information on how to search, filter, and sort the Intelligence Center, see Intelligence Center overview.

4. Once the report displays in the Intelligence Center grid, click on the report name to open it.

The report opens in the current browser tab. You can now view and explore the data using various features. For more information, see Viewing and exploring data in web reports.

Opening web reports from the Desktop Client

You can open a web report from the Reports Library in the Desktop Client (Excel Client or Windows Client). You can differentiate web reports from other types of Axiom reports using the following icons:



To open a web report from the Desktop Client:

1. On the Axiom tab, in the Reports group, click Reports to bring up the Reports menu.

NOTE: In systems with installed products, this feature may be present on a different ribbon tab, such as the **Main** tab.

TIP: You can also open reports from the Explorer task pane or Axiom Explorer.

2. Use the Reports Library folders at the bottom of the menu to navigate to the specific web report that you want to open, and then click on it.

The web report opens in the Web Client using your default browser. You can now view and explore the data using various features. For more information, see Viewing and exploring data in web reports.

Viewing and exploring data in web reports

Once a web report is opened, you may have access to a variety of features to view and explore the data in the report, including filtering, sorting, and drilling.

Drilling data

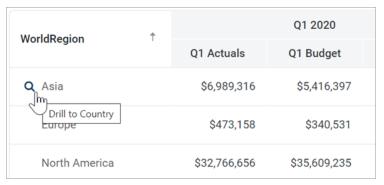
If the web report has been configured to enable drilling, you can drill any data row in the report. Total rows, subtotal rows, and section header rows are not drillable.

To drill a data row:

1. Hover your cursor over the far left column in the report so that a magnifying glass icon appears on the row.

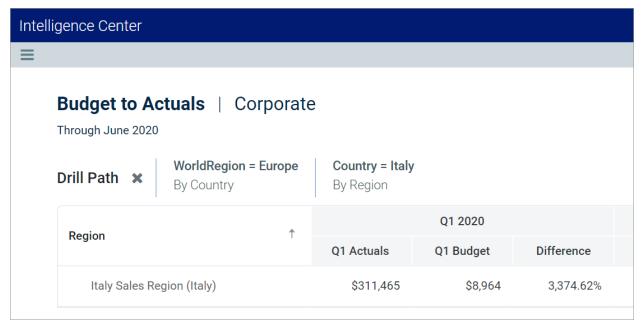
The tooltip for the magnifying glass will be either "Drill" (if multiple drill paths are available) or "Drill to <path>" (if a single drill path is available). For example, the tooltip will say "Drill to Acct" if the Acct drill path is the only available drill path.

- 2. Click the icon to drill the row.
 - If multiple drill paths are available, these paths display in a menu when you click the icon. Click the drilling path that you want to view.
 - If a single drill path is available, that path is automatically used when you click the icon to drill.



Hover and click to drill

The drill results are presented within the current tab, replacing the original report. The current row being drilled and the current drill level display at the top of the drill results.



Example drill results with drilling path displayed at the top

You can continue drilling the drill results if additional drill paths are available. You can return to a previous path by clicking on that path name in the header. When you are finished viewing the drill results, you can click the X icon in the drill path to clear the drill and return to the original report.

Adjusting column width and order

You can make minor adjustments to the column display as follows:

- To change the column width, hover your cursor along the right edge of the column header, then drag to make the column thinner or wider.
- To reorder columns, click on a column header and then drag it to a new location. Note that columns cannot be moved in or out of a column group (meaning a set of columns grouped under header text). If a column belongs to a column group, you can change its order within the group but you cannot drag it out of the group.

Sorting data

If the web report uses a data grid with dynamic rows, then you can sort the data by any column in the grid. To sort the grid by a column, click on the column header. Each click toggles between ascending sort, descending sort, and no sort. If the grid is currently sorted by a column, the sort direction is indicated by an arrow on the column header (up for ascending, down for descending).

The web report may only allow sorting by a single column, or it may allow sorting by multiple columns. This is configured by the report designer. If the grid uses single-column sorting, then it is not possible to clear the sort on a column. Instead you must click on a different column to change the sort to use that column.

If the web report uses a fixed row structure, then the row values are fixed in position and cannot be sorted.

Filtering by column data

If the web report uses a data grid with dynamic rows, you may be able to filter the report by the column data. For example, you might want to filter a column to hide zero-value records, or to show all records above or below a certain value. You might want to filter a dimension column to hide or show certain dimensions (such as departments, accounts, and so on). The report designer determines whether a column is enabled for filtering.

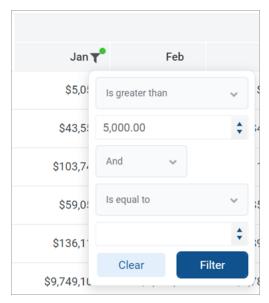
If a column allows filtering, the filter icon displays in the column header when you hover your cursor over the column header.



Filter icon for a column with filtering enabled

To filter the report based on a column:

- 1. Click the filter icon in the column header to show the filter options.
- 2. Set the filter options as desired. You can set up to two filter options, combined with either AND or OR.



Example filtering options

3. Click Filter.

The report updates to only show records that meet the filter. Additionally, the filter icon in the column header remains visible to indicate that the grid is filtered by this column.

The filter is retained until you clear it, or until the report is refreshed with new data.

To clear a filter:

- 1. Click the filter icon in the column header to show the filter options.
- 2. Click Clear.

The grid updates to clear the filter. The filter icon is now only visible when hovering over the column header.

Viewing paged data

If the web report uses dynamic rows, the data is paged to show a specified number of records per page. If the data in the grid exceeds the page limit, you can move between pages using the page controls at the bottom left of the grid.



Page controls for data grids

- Click a page number to move directly to that page.
- Click the single arrow buttons to move one page back or forward.
- Click the double arrow buttons to move to the first page or the last page.

By default, the data grid shows 25 records per page. You can use the drop-down list next to the page controls to change this to 50, 100, or 500 as needed.

Saving a PDF copy of a web report

You can save a PDF copy of a web report locally, or save it to the Axiom repository.

Any user who can view the report can save a PDF copy to a local folder location. In order to save a PDF copy to the Axiom repository, you must have read/write access to at least one folder in the Reports Library.

To save a PDF copy of a web report:

- 1. In the Intelligence Center, locate the report in the folder tree and click on the report name to open it.
- 2. Click the PDF button located in the top right of the gray task bar.



- 3. In the Export to PDF dialog, enter a file name into the File name field. By default, the file name is the same as the web report file name.
- 4. Select the export destination from the **Export to** drop-down:
 - My computer: Save the PDF to your computer.
 - Axiom repository: Save the PDF to a folder in the Axiom Reports Library, or to your My Documents folder.

NOTES:

- If you save the PDF to a folder in the Reports Library, any user with at least read-only access to that folder will be able to view the PDF. You should be sure that it is acceptable for users with permission to the target folder to view the data in the PDF.
- If you do not have read/write access to any folders in the Axiom repository, then the **Export to** option is not available and does not display in the dialog. The PDF will be automatically saved to your computer.
- 5. If you are saving to the Axiom repository, select an **Output folder**:
 - Click the folder icon b to the right of the field.
 - In the Choose output folder dialog, select a folder in the Reports Library. The dialog only shows folders where you have read/write access to that folder or a child folder.

NOTE: If you have access to the My Documents folder, then you can also save reports to that location for your personal use.

Click OK to choose the folder and return to the Export to PDF dialog.

The path to your selected folder now displays in the **Output folder** field.

- 6. In the Configuration Settings section, select the following:
 - Layout: Select the page size for the PDF. You can choose from the following standard page sizes: A3, A4, A5, Legal, Letter, or Tabloid. Letter is the default size.
 - Orientation: Select the orientation for the PDF, either Portrait or Landscape. Portrait is the default orientation.
- 7. Click Export to create the PDF.
 - If you are saving to the Axiom repository, and you used a file name that already exists in
 the target folder, you are prompted to choose whether or not to overwrite the existing file.
 If you choose not to overwrite, you are returned to the Export to PDF dialog so that you
 can use a different name and/or output folder.
 - If you are saving to your computer, the exact behavior is determined by your browser settings. The default behavior for most browsers is to save the file to the **Downloads** folder on your computer.
 - In either case, a notification message displays at the top of the page to indicate whether the PDF creation succeeded or failed.

Export behavior

When you create the PDF, the web report contents are handled as follows:

- If the grid in the web report has paged data, the grid is expanded so that all rows display in the PDF. Column headers do not repeat on multiple pages.
- If you have sorted, filtered, or drilled the data displayed in the report, these changes are reflected in the PDF. The exception is if you have reordered columns—columns display in their original order.

Exporting grid data in a web report to Excel

You can export grid data in a web report to a spreadsheet, so that you can further examine the data using spreadsheet features. You can save the spreadsheet locally, or save it to the Axiom repository.

Any user who can view the report can save the spreadsheet export locally. In order to save the spreadsheet export to the Axiom repository, you must have read/write access to at least one folder in the Reports Library.

To export grid data to an Excel spreadsheet:

- 1. In the Intelligence Center, locate the report in the folder tree and click on the report name to open it.
- 2. Click the Excel icon located in the top right of the gray task bar.



- 3. In the Export to Excel dialog, enter a file name into the File name field. By default, the file name is the same as the web report file name.
- 4. Select the export destination from the **Export to** drop-down:
 - My computer: Save the spreadsheet to your computer.
 - Axiom repository: Save the spreadsheet to a folder in the Axiom Reports Library, or to your My Documents folder.

NOTES:

- If you save the spreadsheet to a folder in the Reports Library, then any user with at least read-only access to that folder will be able to view the spreadsheet. You should be sure that it is acceptable for users with permission to the target folder to view the data in the spreadsheet.
- If you do not have read/write access to any folders in the Axiom repository, then the **Export to** option is not available and does not display in the dialog. The spreadsheet will be automatically saved to your computer.
- 5. If you are saving to the Axiom repository, select an Output folder:
 - Click the folder icon to the right of the field.
 - In the **Choose output folder** dialog, select a folder in the Reports Library. The dialog only shows folders where you have read/write access to that folder or a child folder.

NOTE: If you have access to the My Documents folder, then you can also save reports to that location for your personal use.

Click OK to choose the folder and return to the Export to Excel dialog.

The path to your selected folder now displays in the Output folder field.

- 6. Click **Export** to create the spreadsheet.
 - If you are saving to the Axiom repository, and you used a file name that already exists in the target folder, you are prompted to choose whether or not to overwrite the existing file. If you choose not to overwrite, you are returned to the Export to Excel dialog so that you can use a different name and/or output folder.
 - If you are saving to your computer, the exact behavior is determined by your browser settings. The default behavior for most browsers is to save the file to the **Downloads** folder on your computer.
 - In either case, a notification message displays at the top of the page to indicate whether the spreadsheet creation succeeded or failed.

Export behavior

When the grid data is exported, the behavior is as follows:

- The full data contents of the grid are exported (all rows).
- By default, the basic number format applied to the column is preserved in the export. The
 exception is negative numbers, which will always be shown using a minus sign regardless of the
 configured format. Other formats such as background colors and borders are not applied to the
 exported data.

- User changes to the grid—such as changing the sort order, filtering a column, or drilling—are preserved. The exception is reordered columns—columns are exported in their original order.
- Column group headers are omitted from the export. Additionally, if a column has a 2-row header, only the first row of that header is exported.

Managing Web Reports

Using the Intelligence Center in the Axiom Web Client, you can create, edit, copy, and delete web reports as needed. Web reports are designed to be intuitive for report builders to create, and easy for end users to consume.

Creating new web reports

To create a new web report, select the Reports area from the left-hand panel of the Intelligence Center, then click Create. From the Create menu, select one of the following:

- New web report: This option opens the Report Builder so that you can create a new web report from scratch.
- New web report from template: This option creates a new web report based on a template provided by an installed product.

If you want to create a web report that uses a fixed row structure, the fixed row structure must be defined separately and then assigned to the report. Using the Intelligence Center, you can create, edit, and delete fixed row structures. For more information, see Managing Fixed Row Structures.

In order to create a web report, you must be an administrator or have the Create Web Reports security permission. You must also have read/write access to at least one folder in the Reports Library.

Copying web reports

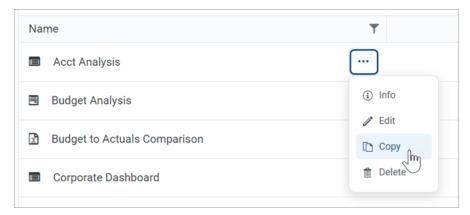
In the Intelligence Center, you can copy existing web reports to create new reports. In order to copy a web report, you must be an administrator or have the Create Web Reports security permission. You must also have read/write access to the current folder, because the copy is created in the current folder.

NOTE: Only web reports created in the Report Builder can be copied. Web reports created from template cannot be copied.

To copy a web report from the Intelligence Center:

1. In the Intelligence Center, locate the web report that you want to copy. You can use folder navigation to find the report, or use the Search box at the top of the page.

2. Once the web report displays in the Intelligence Center grid, hover your cursor over the Name column to make the three-dots icon visible. Click the icon then select **Copy** from the menu.



If the Copy action is present but disabled, then you cannot copy this report because you do not have the appropriate security permissions.

- 3. In the Copy Report dialog, enter a name for the copy. By default, the name is Copy of OriginalReportName.
- 4. Click OK.

The copy is created in the current folder, with the specified name. If you want to save a copy in a different folder, then you can **Edit** the report instead and use **Save As** within the Report Builder.

TIP: You can also copy a web report in the Desktop Client, using Axiom Explorer or the Explorer task pane.

Editing web reports

You can open a web report for editing from the Intelligence Center if the report is eligible to be edited, and you have read/write permission to the report.

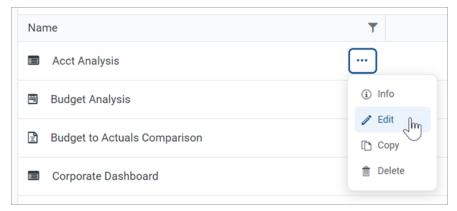
NOTE: Only web reports created in the Report Builder can be edited. Web reports created from template cannot be edited.

Only one user at a time can open a web report for editing in the Report Builder. However, other users can continue to view the report as normal.

To edit a web report from the Intelligence Center:

1. In the Intelligence Center, locate the web report that you want to edit. You can use folder navigation to find the report, or use the Search box at the top of the page.

2. Once the web report displays in the Intelligence Center grid, hover your cursor over the **Name** column to make the three dots icon visible. Click the icon then select **Edit** from the menu.



If the Edit action is present but disabled, then you cannot edit this report. This may be because the report belongs to an installed product and cannot be edited, or because you do not have read/write access to the report, or because the report was created from template.

The report opens in the Report Builder, in the current browser tab. You can now edit it as needed. For more information, see Using the Report Builder.

Changing web report names and descriptions

If you have read/write access to a web report, then you can rename the report or change its description.

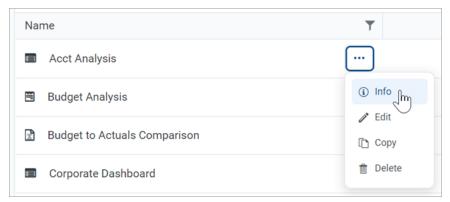
NOTES:

- In systems with installed products, the names and descriptions of product-controlled reports cannot be edited.
- If you have read/write access to a report file, but read-only access to its folder, then you cannot edit the name or description.

To change a web report name and/or description:

1. In the Intelligence Center, locate the web report that you want to edit. You can use folder navigation to find the report, or use the Search box at the top of the page.

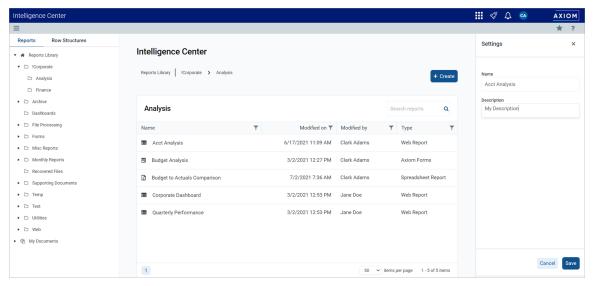
2. Once the web report displays in the Intelligence Center grid, hover your cursor over the **Name** column to make the three-dots icon visible. Click the icon then select **Info** from the menu.



The Settings panel opens along the right-hand side of the page.

3. In the Settings panel, edit the web report Name or Description as needed, then click Apply.

The name can be up to 250 characters, and the description can be up to 2000 characters.



Example Settings panel

If the web report name and description cannot be edited, then the **Apply** button is not available. This may occur because you do not have the necessary permissions, or because the report belongs to an installed product.

Deleting web reports

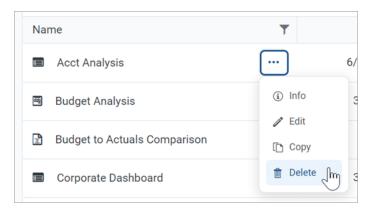
You can delete a client-created web report if it is no longer needed. You must have read/write access to the report and its folder in order to delete a report. Product-controlled web reports cannot be deleted.

Reports can be deleted from the Intelligence Center in the Axiom Web Client, or from Axiom Explorer in the Axiom Desktop Client.

TIP: If a report is deleted in error, an administrator may be able to restore the report using the **Restore Deleted Files** feature in the Axiom Desktop Client.

To delete a web report from the Intelligence Center:

- 1. In the Intelligence Center, locate the web report that you want to delete. You can use folder navigation to find the report, or use the Search box at the top of the page.
- 2. Once the web report displays in the Intelligence Center grid, hover your cursor over the Name column to make the three-dots icon visible. Click the icon then select **Delete** from the menu.



If the report cannot be deleted, the Delete action is disabled. This may occur because you do not have the necessary permissions to delete the report, or because the report belongs to an installed product.

3. When you are prompted to confirm that you want to delete the report, click OK.

The report is deleted from the system and no longer displays in the Intelligence Center.

To delete a web report from Axiom Explorer:

- 1. Launch the Desktop Client.
- 2. On the Axiom tab, in the Administration group, click Manage > Axiom Explorer.

NOTE: If your system uses installed Axiom products, you can access this feature from the **Admin** tab. Click **System Browser** to open Axiom Explorer.

TIP: You can also use the Explorer task pane to delete a web report.

- 3. Navigate to the Reports Library, and then locate the web report that you want to delete.
- 4. Right-click the report and then select **Delete**.
- 5. When you are prompted to confirm that you want to delete the report, click Yes.

The report is deleted from the system and no longer displays in Axiom Explorer.

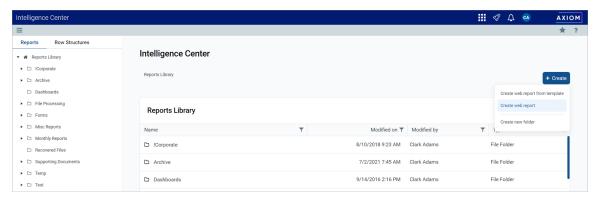
Creating new web reports

Using the Intelligence Center, you can create new web reports from scratch so that you can build the report as needed.

In order to create a web report, you must be an administrator or have the **Create Web Reports** security permission. In order to save the new report you must have read/write access to at least one folder in the Reports Library or access to the My Documents folder. If you do not have permission to create web reports, then the option to create a new web report will not be available from the **Create** button in the Intelligence Center.

To create a new web report:

1. In the Intelligence Center, click Create > Create web report.



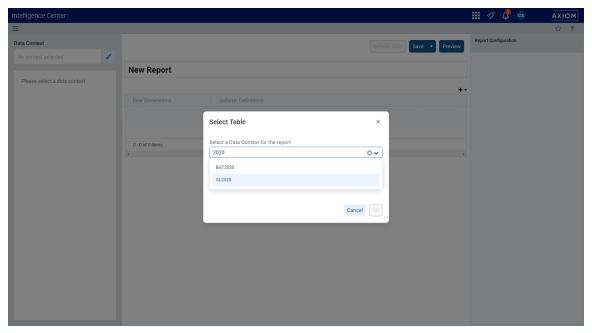
NOTE: The **Reports** area must be selected in the left-hand panel of the Intelligence Center in order to create a new web report.

The Report Builder opens in the current browser tab, displaying a new blank report.

2. In the **Select Table** dialog, select a primary table to determine the data context for the report, then click **OK**.

The *data context* determines the overall pool of data that is eligible to be included in the report. The selected primary table determines which other tables are eligible for inclusion in the report, based on lookup relationships and shared dimensions. All table columns and filters used in the report must be compatible in the context of the primary table.

You can select a table from the drop-down list directly, or type into the box to search for a table name. The search uses "contains" matching to return any tables that contain the search text within the table name. Tables that start with the search text are listed first, followed by tables that contain the search text anywhere in the table name. In the following screenshot, the text 2020 has been used to search for tables with the year 2020 in the name.



Selecting a primary table for the data context

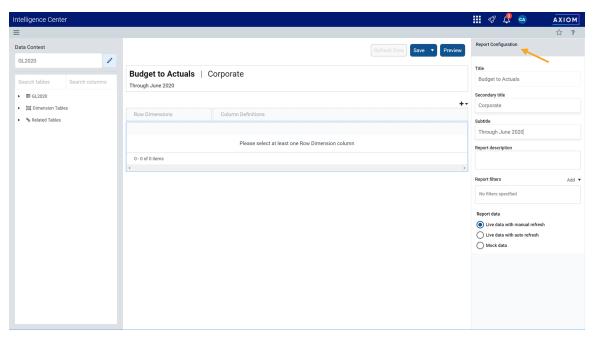
Although you can click **Cancel** at this point, most activities in the Report Builder require a data context to be selected.

Once a table is selected for the data context, you can work with the report in the Report Builder. The Report Builder consists of three main areas as follows:

- The **Data Panel** on the left side is where you select the data to include in your report.
- The **Report Canvas** in the middle is where you build the report. Columns can be dragged and dropped from the Data Panel to the Report Canvas. You can also create calculations to display in the report columns, and define column groups.
- The **Configuration Panel** on the right side is where you define properties for the report, the data grid, and the individual columns. You can configure properties such as report titles, drilling and filtering options, and column formatting.

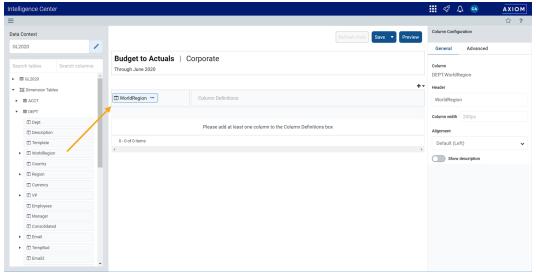
For more information on using the Report Builder, see Using the Report Builder.

 In the Report Configuration panel along the right side of the page, define the report titles and description as needed. For more information, see Defining report titles and description for a web report.



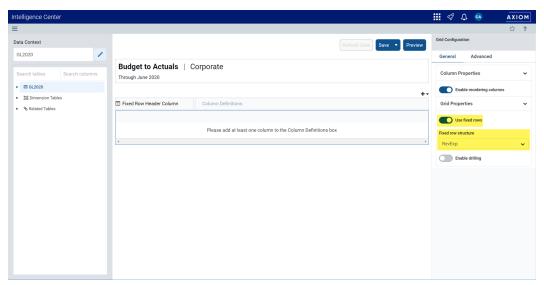
Defining titles for the report

- 4. Define the rows of the report by doing one of the following, depending on whether you want to generate the rows dynamically or use a fixed row structure:
 - **Dynamic rows**: In the Data Panel, locate the table column that you want to use as the row dimension. Drag and drop the column to the **Row Dimensions** box in the Report Canvas. For more information, see Specifying the row dimension for a web report.



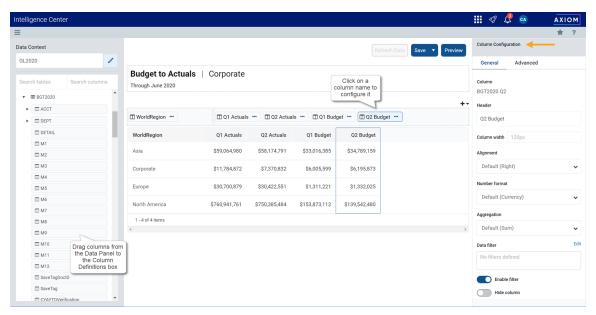
Dragging and dropping a column to use as the row dimension

• Fixed rows: Select the grid placeholder text in the Report Canvas so that the Grid Configuration properties load into the Configuration Panel. On the General tab, enable Use fixed rows then select an existing Fixed row structure. For more information, see Specifying the fixed row structure for a web report.



Specifying a fixed row structure to define the rows

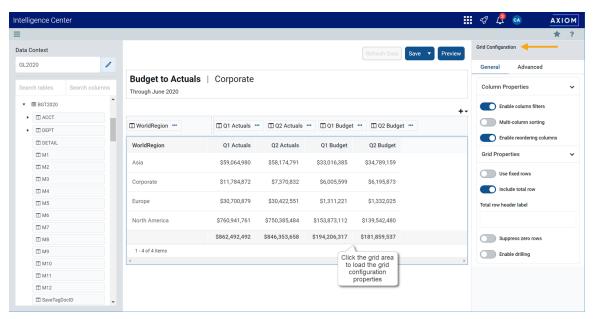
- 5. Use the Data Panel to locate the data columns that you want to display in the report, then drag and drop those columns out to the Column Definitions box in the Report Canvas. Once the columns are added to the grid, you can configure data and display properties for each column.
 - For more information, see Adding data columns and calculated columns to a web report and Configuring column properties for a web report.



Adding and configuring data columns

NOTE: To populate the grid with data after adding columns to the Column Definitions box, click the **Refresh Data** button. By default, the Report Builder uses live data, but you must manually refresh in order to see the result of any data changes. For more information, see Changing data display options for the Report Builder.

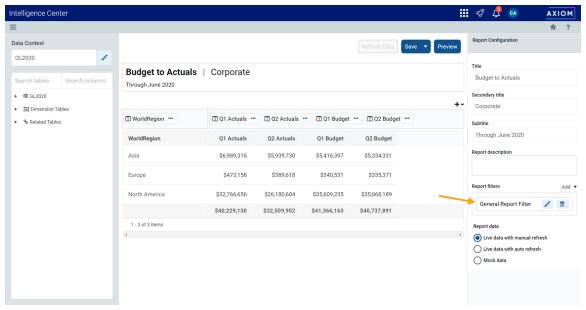
6. Select the grid in the report canvas so that the configuration panel changes to show the Grid Configuration settings. Define the grid settings as needed, such as to enable the total row or enable drilling options. For more information, see Configuring grid properties in a web report. In the following example, the total row was enabled for the grid.



Configuring grid properties

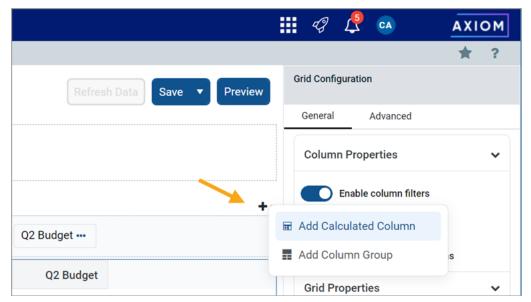
7. Click the report titles to re-load the Report Configuration properties, then define report-level filters as needed to limit the data shown in the report. For more information, see Defining report-level data filters for a web report.

In the following example, a general filter was added to exclude the Corporate world region value from the report and to only show data for revenue accounts.



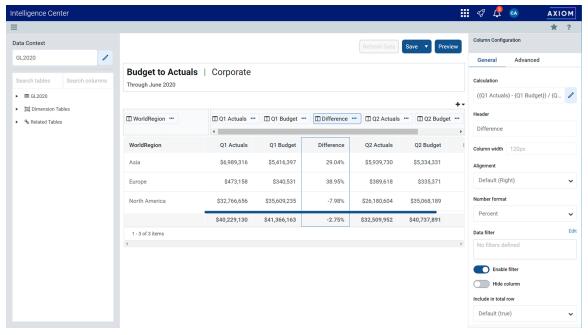
Defining a report-level filter to limit data in the report

 Use the plus icon at the top right of the Column Definitions box to add calculated columns to the grid as needed. For more information, see Adding data columns and calculated columns to a web report.



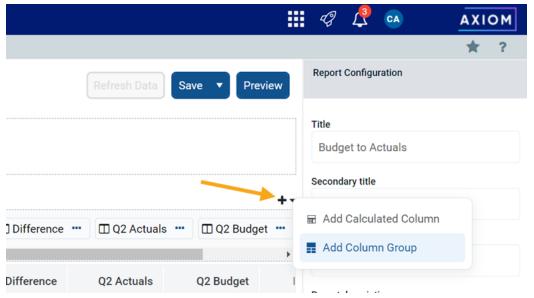
Click the plus icon to add a calculated column

In the following example, two calculated columns have been added to calculate the difference between actuals and budget for each quarter.



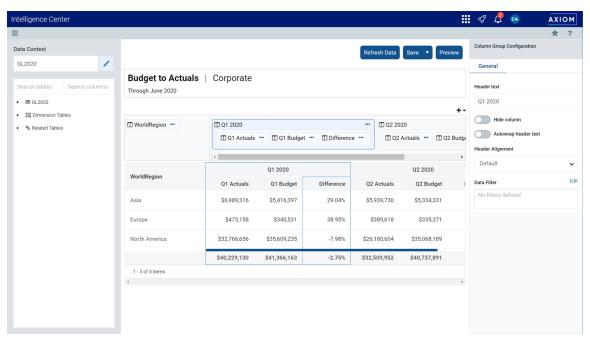
Adding and configuring calculated columns

9. Use the plus icon at the top right of the **Column Definitions** box to add column groups to the grid as needed. Using column groups, you can display multiple columns grouped underneath a header. For more information, see Defining column groups for a web report.



Click the plus icon to add a column group

In the following example, two column groups have been added for Q1 and Q2.



Adding and configuring column groups

- 10. Click Save to save the report.
- 11. In the Save Report As dialog, complete the following fields and then click Save:

Item	Description
File name	The name of the report file. This is the name that users will see in the Intelligence Center.
Description	Optional. A description of the report. Currently, descriptions do not display in the Intelligence Center, but they can be viewed in the Axiom Desktop Client using Axiom Explorer.
Save to folder	The folder in the Axiom repository where you want to save the report.
	 Click the folder icon to the right of the field.
	 In the Choose output folder dialog, select a folder in the Reports Library. You can only select folders where you have read/write access to the folder. If a folder name displays with a lock icon, this means you have read-only access to that folder and therefore cannot save a new report there.
	NOTE: If you have access to the My Documents folder, then you can also save reports to that location for your personal use.
	Click OK to choose the folder and return to the save dialog.
	The path to your selected folder now displays in the field.

If you use a file name that already exists in the target folder, you will be prompted to choose whether or not to overwrite the existing file. If you choose not to overwrite, you are returned to the Save Report As dialog so that you can use a different name and/or output folder.

Keep in mind that many of these steps can be done in any order. You can configure the grid settings before defining report titles, and so on. The main dependency is that you must select a primary table for the data context before you can begin adding columns to the report.

Creating new web reports from template

Using the Intelligence Center, you can create new web reports from a template. Currently, templates are only provided by installed Axiom products. For more information about any templates provided by your installed products, see the separate product documentation.

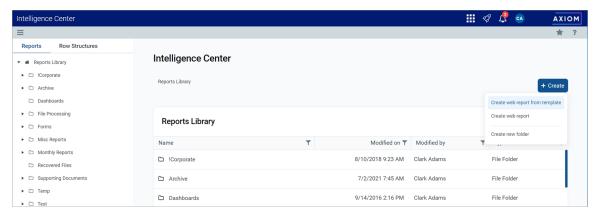
Some report templates require a fixed row structure to define the row dimensions and sections of the report. If you want to create a new web report from a template that requires a fixed row structure, this row structure must already exist so that you can assign it to the report when you create it. For more information, see Managing Fixed Row Structures.

Web reports created from template remain linked to that template. If a template changes, that change is automatically available in all reports created from that template.

In order to create a web report, you must be an administrator or have the **Create Web Reports** security permission. In order to save the new report you must have read/write access to at least one folder in the Reports Library or access to the My Documents folder. If you do not have permission to create web reports, then the option to create a new web report from template will not be available from the **Create** button in the Intelligence Center.

To create a new web report from template:

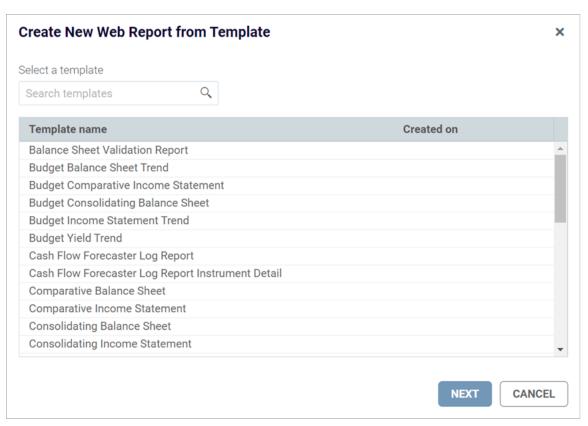
1. In the Intelligence Center, click Create > Create web report from template.



NOTE: If your system does not have any product-delivered templates available, then this option will not be present on the **Create** menu.

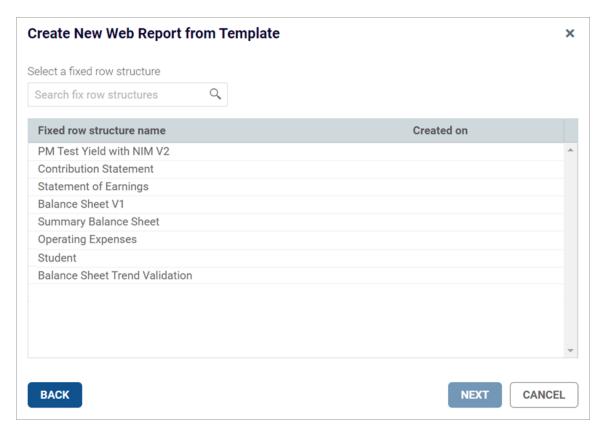
The Create New Web Report from Template dialog opens to walk you through the report creation process.

2. On the template screen, select the template that you want to use to create the report, and then click **Next**.



Example template screen showing product-delivered templates

3. On the fixed row structure screen, select the fixed row structure to use in the report, and then click Next. If the template you selected does not use a fixed row structure, then this screen does not display and you can skip to step 4.



Example screen showing fixed row structures

NOTE: If no fixed row structures are listed, then your system does not have any available fixed row structures. You must create one before you can create a web report using the selected template. You can click Back to select a different template, or you can click Cancel to exit the dialog and return to the Intelligence Center. For more information, see Managing Fixed Row Structures.

4. On the final screen, complete the following fields to save the new report, and then click **Create**.

Item	Description
Name	The name of the report file.
Description	Optional. A description for the report.

Item	Description
Save report in	The folder in the Axiom repository where you want to save the report.
	 Click the folder icon to the right of the field.
	 In the Choose output folder dialog, select a folder in the Reports Library. You can only select folders where you have read/write access to the folder. If a folder name displays with a lock icon, this means you have read-only access to that folder and therefore cannot save a new report there.
	NOTE: If you have access to the My Documents folder, then you can also save reports to that location for your personal use.
	Click OK to choose the folder and return to the save dialog.
	The path to your selected folder now displays in the field.

The report is opened in the current browser tab. You can now review the data using a variety of tools available to web reports, such as sorting, filtering, and drilling. For more information, see Viewing and exploring data in web reports.

Once a report is created from template, it cannot be edited—for example, to choose a different fixed row structure. If you want to use a different fixed row structure, create a new report from template again. Remember that any changes to the template or to the fixed row structure will automatically flow through to all reports that use the template or the fixed row structure.

Using the Report Builder

Using the Report Builder, you can create and edit web reports using a drag-and-drop interface. Web reports are intended to be intuitive for report builders to create and easy for report viewers to use.

Web reports support two different ways to display reporting data in a grid:

- Dynamic rows: Dynamically display data rows based on a specified dimension or grouping.
- Fixed rows: Use predefined fixed row structures to organize data rows into sections with headers, totals, and subtotals.

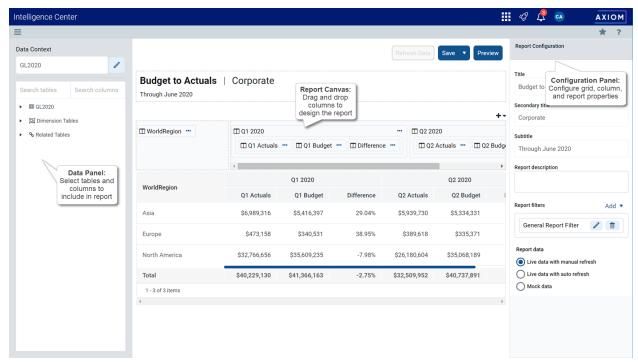
The Report Builder opens when you do either of the following:

- Create a new web report from the Intelligence Center.
- Edit an existing web report from the Intelligence Center.

Overview of Report Builder

The Report Builder has three main areas:

- The Data Panel on the left side is where you select the data to include in your report.
- The Report Canvas in the middle is where you build the report. Columns can be dragged and dropped from the Data Panel to the Report Canvas. You can also create calculations to display in the report columns, and define column groups.
- The Configuration Panel on the right side is where you define properties for the report, the data grid, and the individual columns. You can configure properties such as report titles, drilling and filtering options, and column formatting.



Overview of the Report Builder

As you build and configure the report, a preview of the grid displays in the Report Canvas area. Several options are available to control how data is shown in this grid. For more information, see Changing data display options for the Report Builder.

Building a report in the Report Builder

The following is an overview of how to build a report in the Report Builder:

- Define a data context: Each report must have a specified primary table to determine the data context for the report. Once the data context is defined, you can build the report using columns from the primary table and from related tables.
- Define the grid rows: Web reports can use dynamically generated rows based on a dimension, or they can use a fixed row structure. Do one of the following depending on the type of report that you want to make:
 - For dynamic rows, add a row dimension to the grid by dragging and dropping a table column.
 - For fixed rows, specify a fixed row structure by modifying the grid properties.
- Add data columns and calculated columns: Drag and drop table columns out to the grid to define the data columns for the report, and define calculated columns as needed. You can also define column groups to create grouped headers in the report.

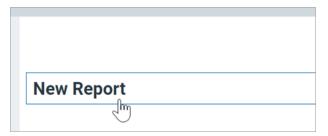
- Configure report-level properties:
 - Define general report properties: You can define report title text and an optional report description.
 - Define report filters: You can define general and table-specific filters to limit the data shown in the report grid.
- Configure grid properties: Configure grid properties such as the total row and user interaction options, including enabling and configuring drilling options as needed.
- Configure column properties: Configure properties for each column such as alignment, width, number format, and column filters.

Changing data display options for the Report Builder

As you build and configure the report, a preview of the grid displays in the Report Canvas area. This grid accurately reflects report configuration details such as column headers, column width, and number format. Additionally, you can choose how data displays in the Report Builder.

To change how data displays in the Report Builder:

1. In the Report Canvas area, click on the title text to load the Report Configuration properties. For example, if the report currently uses the default name of New Report, click on the New Report text or next to it.

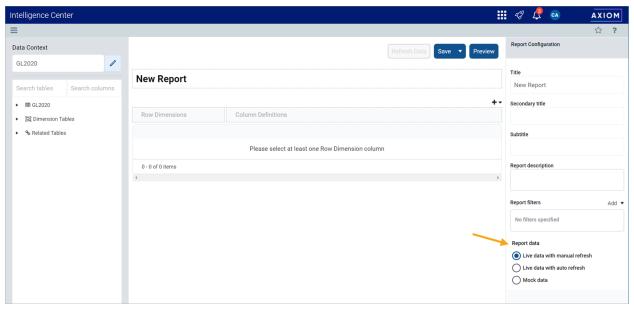


Click on the title text to load the Report Configuration properties

If you are in a brand new report, the Report Configuration properties display by default when you first enter the Report Builder. However, as soon as you drag and drop a column to the Row Definitions box or the Column Definitions box, the column becomes selected which causes the Column Configuration properties to display. In this case you need to click on the report title to return to the Report Configuration properties.

- 2. Select one of the following options for Report data:
 - · Live data with manual refresh (default): Live data is shown in the grid, however, you must manually refresh the data after making configuration changes that affect the data shown. This is for performance reasons, so that you do not have to wait for data queries to complete in order to continue working on your report. When using this option, data updates are handled as follows:

- If you add a new column, or make a configuration change that would affect the data shown in the column, the column will be blank. To populate the grid for data in this column, click the Refresh Data button.
- If you make a configuration change that would affect the data shown in the entire grid, the grid will be blank. To populate the grid with the current data, click the Refresh Data button.
- Live data with automatic refresh: Live data is shown in the grid, and the data automatically updates after you make any configuration changes. Generally speaking, this option should only be used when the report queries a small set of data so that updates will be quick, or when you do not expect to be making many configuration changes that affect data.
- Mock data: Mock data is shown in the grid. When using this option, you can get a basic idea of how the report columns and format will display to the user, without viewing actual data. This is a good option if you do not need to made configuration changes that affect the data, or if you do not need to view the data while you are making these changes.



Data display options for the Report Builder

The Refresh Data button is only available when using Live data with manual refresh, and this button only becomes active when configuration changes have been made that affect data.

Even if you are viewing live data, keep in mind that the grid shown in the Report Canvas is simply meant as a guide to help you build the report—it is not intended to be a fully functional representation of the report. If you want to see how the report will display to end users, click the **Preview** button.

NOTE: The **Report data** option is not saved in the report, and your selection is not saved for future Report Builder sessions. Every Report Builder session defaults to using live data with manual refresh.

Previewing a report

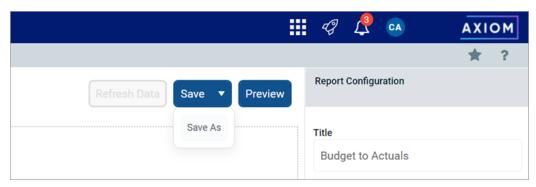
If you want to see how the report will display to end users in the report viewer, click the **Preview** button at the top of the Report Canvas.

The report preview opens in a separate dialog that overlays the Report Builder. Using this preview, you can view the report data and try out end-user features like sorting, filtering, and drilling the report. When you are done viewing the preview, click **Close** at the bottom of the dialog to return to the Report Builder (or click the **X** in the top right corner).

Saving a report

Use the **Save** button at the top of the Report Canvas to save the report. If the report is a brand new report, you will be prompted to define a name and folder location for the report. Otherwise, the existing report is saved.

If you have opened an existing report for editing and you want to save a copy of it with a new name, click the down arrow to the right of the Save button and select **Save As**.



Save button with Save As option

NOTE: The Create Web Reports security permission is required in order to use Save As.

If you have made changes to the report but have not yet saved, you will be prompted to save when you attempt to close the browser tab or navigate to a new location.

Defining the data context for a web report

The *data context* for a web report determines the overall pool of data that is eligible to be included in the report. To define the data context, you select a *primary table* as the "base" table for the report. This primary table then determines which other tables are eligible for inclusion in the report, based on lookup relationships. All table columns used in the report must be compatible in the context of the primary table.

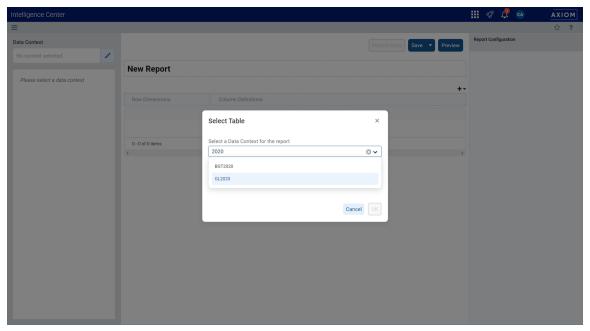
In the Report Builder, the primary table for the data context is specified in the left-hand Data Panel. You must select the primary table before you can drag and drop any table columns out to the grid.

To select a primary table for the data context:

There are two ways to select a primary table for the data context.

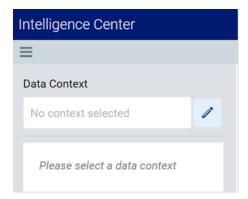
• When you create a brand new report, you are automatically prompted to select a primary table for the data context.

You can select a table from the drop-down list directly, or type into the box to search for a table name. The search uses "contains" matching to return any tables that contain the search text within the table name. Tables that start with the search text are listed first, followed by tables that contain the search text anywhere in the table name. In the following screenshot, the text 2020 has been used to search for tables with the year 2020 in the name.



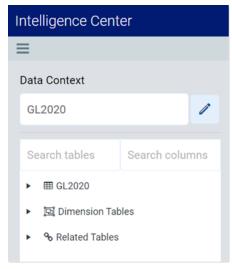
Example Select Table prompt when creating a new report

• If you are already in the Report Builder, then you can define or change the primary table using the Data Context box at the top of the Data Panel. Click the Edit icon for to open the Select Table dialog (as shown in the previous screenshot).



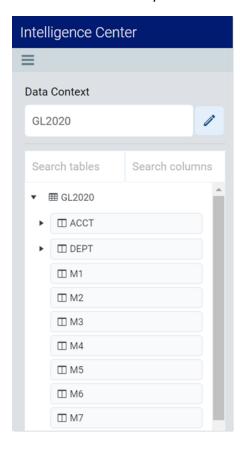
Once you have selected a table, that table name is shown in the **Data Context** box, and the Data Panel populates to show a table tree in three expandable/collapsible sections:

- *TableName*: The selected table and its columns. This table is the primary table.
- **Dimension Tables**: Reference tables that the primary table looks up to. If the reference tables have lookups to other reference tables, these multi-level reference tables are accessible through the first-level reference tables.
- **Related Tables**: The contents of this section depend on the type of table selected as the primary table.
 - If the primary table is a data table, then this section contains other tables that look up to one or more of the same reference tables as the primary table.
 - If the primary table is a reference table, then this section contains tables that look up to the reference table.



Example Data Panel with a defined data context

You can expand these tables to view the columns, and then drag and drop columns out to the Report Canvas area so that they can be used as row dimensions or data columns.



In this example, we have selected GL2020 as the primary table. GL2020 is a data table that looks up to reference tables Dept and Acct. The table tree is populated as follows:

- **GL2020**: This node contains all columns in GL2020, as well as columns in the lookup tables Dept and Acct.
- **Dimension Tables**: This node contains the lookup reference tables Dept and Acct. If the reference tables look up to other downstream reference tables (multi-level lookups), those downstream reference tables can be used through these tables.
- Related Tables: This node contains other tables that also look up to Dept or Acct (or to a multilevel lookup through Dept or Acct). This may include tables such as GL2021, BGT2021, and BGT2020.

When you save the report, the data context is saved for that report and will be reloaded into the Data Panel whenever the report is opened in the Report Builder.

NOTES:

- When choosing the data context, the list of tables is automatically filtered to only show tables
 that you have access to. If you have the Administer Tables security permission, all tables will
 be shown. This means it can be possible to select a primary table where you do not have
 access to any of the data in the table. You can build the report but it will not populate with
 data.
- Certain tables can be restricted from showing the in the Report Builder using the system
 configuration setting TablesRestrictedFromReportWriter. If a table that you have access to is
 not available, it has likely been restricted using this setting.

Changing the data context

You can change the data context freely until you have done either of the following:

- Dragged and dropped columns out to the grid setup boxes in the Report Canvas
- Selected a fixed row structure for use with the report (when using the **Use fixed rows** option in the Grid Configuration properties)

You can still change the data context if needed, but any newly selected primary table must be compatible with the table columns you have already added to the grid, and with the fixed row structure you have selected (if applicable). If the newly selected primary table is not compatible, an error will occur when the Report Builder tries to refresh the grid in the Report Canvas. At this point you have the choice of selecting a different primary table that is compatible (which may mean returning to the original primary table), or removing the incompatible columns from the grid, or choosing a different fixed row structure.

Other settings that must be compatible with the primary table include columns selected as drilling columns for a Directed drilling configuration. If you change the primary table and any of these settings are incompatible with the new primary table, an error will occur.

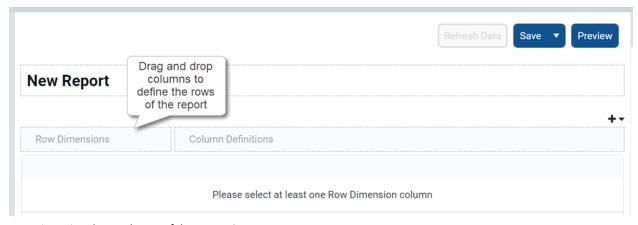
If you change the data context and save the report, the new primary table is now saved for the report and will be reloaded into the Data Panel whenever the report is opened in the Report Builder.

Specifying the row dimension for a web report

The row dimension for a web report defines the summation level for the row data. For example, you may want the rows in your grid to show data by department, region, entity, account, or some combination of dimensions. You specify a table column to use as the row dimension, and then the rows in the grid are dynamically generated based on the unique values in that column.

NOTE: If you want your report to use a static row structure with multiple sections instead of dynamically generating the rows, then use a fixed row structure instead of a row dimension.

The row dimension for the report is placed in the left-hand box at the top of the Report Canvas, known as the **Row Dimensions** box. The report grid cannot render until you specify either a row dimension or a fixed row structure.



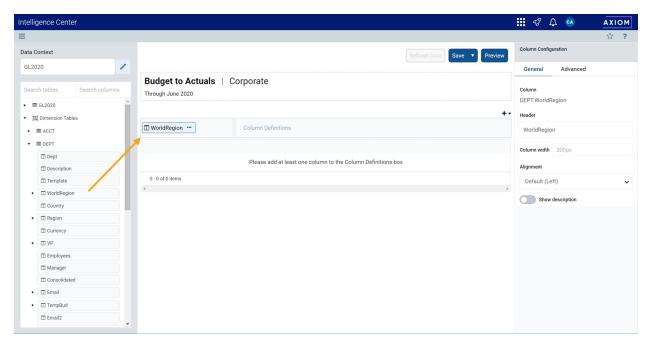
Row Dimensions box at the top of the Report Canvas

Web reports can have multiple row dimensions. If two or more row dimensions are specified, then each row in the report represents a unique combination of the dimensions. For example, if the row dimension is just Dept, then each row shows data for a department. If the row dimension is Dept and Acct, then each row shows data by the unique combinations of department and account.

To specify a row dimension for a web report:

- 1. In the Data Panel of the Report Builder, expand the table tree until you locate the column that you want to use as a row dimension.
 - If the Data Panel is empty, this means you must select a primary table first.
- 2. Drag and drop the column to the Row Dimensions box at the top of the Report Canvas.
- 3. Select the column name in the Row Dimensions box, and then use the **Column Configuration** panel to configure display properties such as column width, alignment, header text, and formatting. For more information, see Configuring column properties for a web report.
- 4. If multiple columns are present in the Row Dimensions box, you can drag and drop them within the box so that they display in the desired order within the grid.

Once a row dimension is specified, the Data Panel updates to remove any tables that are incompatible with the specified row dimension. You can now build out the data columns of the report by dragging and dropping columns from the Data Panel, and by creating calculated columns. For more information, see Adding data columns and calculated columns to a web report.



Defining a row dimension for a web report

NOTE: If you drag and drop a validated column from a data table to use as the row dimension, such as GL2020. Dept, this column reference is automatically updated to point to the lookup table instead, meaning Dept.Dept. This is done so that the column reference is compatible with other data tables that reference the same lookup table.

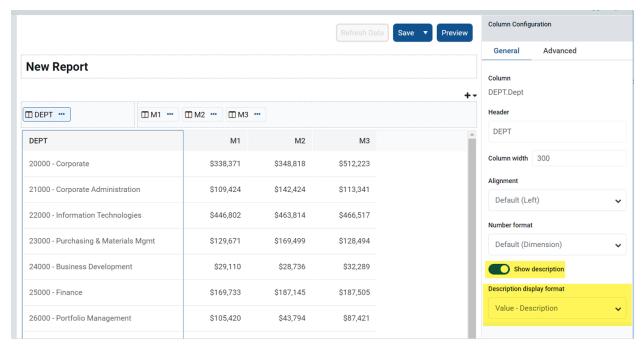
Displaying descriptions for the row dimension

In many cases your row dimension will be a code, such as a department code or an account code, and you want to display the description for the code next to it.

To display descriptions on a dimension column:

- 1. Select the row dimension column in the Row Dimensions box.
- 2. In the Column Configuration settings, on the General tab, enable Show description.
- 3. From the Description display format list, select the desired display format.

In the following example, the Dept column has been configured to show descriptions using the Value -Description format. If you select a format that shows descriptions first, such as Description (Value), then the rows will be sorted by the descriptions instead of the underlying values.



Example row dimension column configured to show descriptions

Although you can add the description column to the grid as a separate column instead of using the **Show description** option, this may not always achieve the desired results. For example:

- If you add the description column as a row dimension, then it will display next to the dimension values but it will cause the data to be additionally grouped by the description values. This is not recommended because the additional grouping is unnecessary, and in some cases may not produce the desired results (for example, if descriptions are not unique).
- If you add the description column as a regular column, then the descriptions will not be frozen next to the dimension codes for scrolling purposes.

Filtering the row dimension

In some cases you want the report to display a subset of values from the row dimension column, instead of all values. To filter the row dimension values, use the Report Configuration properties to define a general filter for the report.

For example, if the row dimension is Dept but you want the report to only display departments that belong to a specific entity, define a general filter such as Dept.Entity='Entity 1'. This will filter the grid so that it only shows data that belongs to Entity 1, including the row dimension values. Department codes that do not belong to Entity 1 will not be included in the data query.

Changing the row dimension

You can change the row dimension at any time by dragging and dropping additional columns to the **Row Dimensions** box, or by removing existing row dimensions.

To remove a row dimension, click the three-dots icon to the right side of the column name and then select **Delete Column**. If you remove the only row dimension, the grid in the Report Canvas cannot be rendered until you specify a new one.

If you change the row dimension after adding data columns and calculated columns, or if you change the primary table after specifying a row dimension, it is possible that some of the selections may be incompatible with each other. In this case, an error will display when the Report Builder attempts to refresh the data in the Report Canvas. You may have to remove incompatible columns, change the row dimension, or change the primary table in order to restore a valid grid configuration.

If you decide that you want to change the report to use a fixed row structure instead of a row dimension, use the **Grid Configuration** properties to enable fixed rows and then choose a fixed row structure. For more information, see Specifying the fixed row structure for a web report. Any columns currently placed in the Row Dimensions box will be ignored while fixed rows are enabled for the report.

Specifying the fixed row structure for a web report

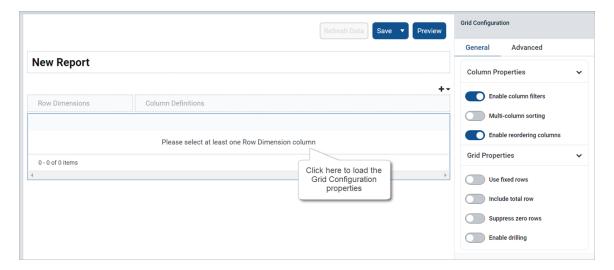
Web reports can optionally use fixed row structures to define the data sections in the report. Instead of dynamically generating the rows based on a table column, fixed row structures individually define each row of data, including section headers, subtotals, and totals.

Fixed row structures are defined separately so that you can reuse them in different web reports, and so that you can update the row structure in one place and have the changes propagate to all reports that reference the fixed row structure. The fixed row structure that you want to use in the web report must already exist—they cannot be created or edited in the Web Report Builder. For more information, see Managing Fixed Row Structures.

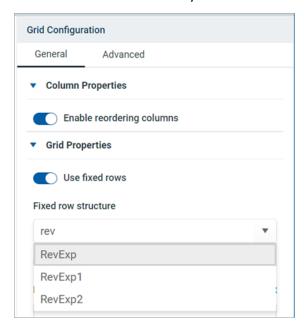
The fixed row structure is specified in the Configuration Panel, using the **Grid Configuration** properties. The grid in the Report Canvas cannot render until you specify either a fixed row structure or a row dimension.

To specify a fixed row structure for a web report:

1. In the Report Canvas of the Report Builder, click the grid area below the column setup boxes. This area displays with placeholder text until either a row dimension or a fixed row structure is specified.

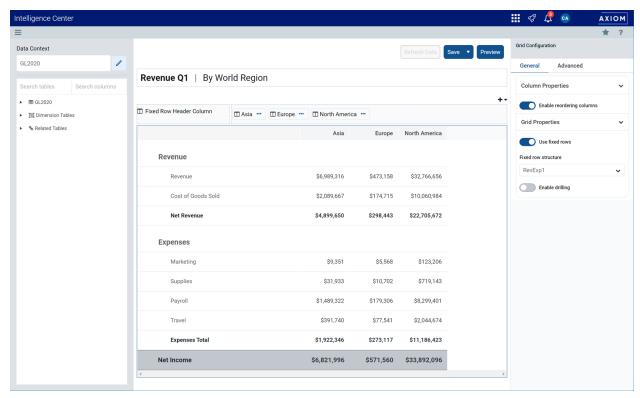


- 2. In the Grid Configuration properties, enable Use fixed rows.
- 3. From the **Fixed row structure** drop-down list, select an existing fixed row structure. You can type into the box to filter the list by name.



After selecting a fixed row structure, the Report Canvas area updates as follows:

- The Row Dimensions box updates to show a placeholder column named Fixed Row Header
 Column. This column is the column that holds the section titles and data row labels as defined in
 the fixed row structure. You can select this placeholder column in order to configure certain
 display details about this column within the web report.
- Once you have dragged and dropped at least one data column to the Column Definitions box, you
 can use Refresh Data to update the grid and show the sections and rows as defined in the fixed
 row structure.



Example web report using a fixed row structure

NOTES:

- If you want to make changes to the fixed row structure, you must edit the structure in the separate fixed row structure editor. Any changes made to the row structure will automatically apply to any web report that uses the fixed row structure.
- If you decide that you want to use dynamically generated rows instead of a fixed row structure, you can simply disable Use fixed rows and then drag a column to the Row Dimension setup box. For more information see Specifying the row dimension for a web report.

Impact on Grid Configuration options

When **Use fixed rows** is enabled for the grid, multiple grid configuration options become unavailable because they do not apply to web reports that use fixed row structures. If these options were configured before fixed rows were enabled for the grid, the configuration will be ignored.

- Enable column filters: End users cannot filter columns when using fixed rows.
- Multi-column sorting: End users cannot sort columns when using fixed rows.
- Include total row (and related settings): This option does not apply because fixed row structures have their own defined subtotal and total rows.
- **Suppress zero rows**: This option does not apply to fixed row structures; all configured rows will display regardless of whether they return all zero data.

Configuring the Fixed Row Header Column

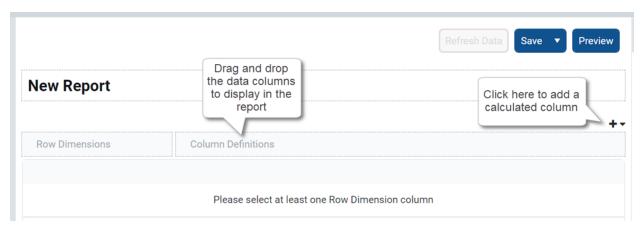
Most of the display details for the Fixed Row Header Column are configured within the fixed row structure and therefore cannot be changed within the web report. However, if you select the **Fixed Row Header Column** item in the Row Dimension setup box, you can configure the following:

Item	Description
Column width	The column width of the column in the grid, in pixels. Enter the desired column width as a whole integer between 30 and 600.
	The default width of the Fixed Row Header Column is 400.

Adding data columns and calculated columns to a web report

When creating a web report, you can add as many columns as needed to define the data that you want to display in the report. You can also define calculated columns, such as to show the difference between two columns.

The data columns and calculated columns for the grid are placed in the right-hand box at the top of the Report Canvas, known as the **Column Definitions** box. This box defines the columns to display in the report. Although it is possible to add columns and calculated columns to the Column Definitions box before specifying a row dimension or a fixed row structure, the grid in the Report Canvas will not populate until the rows are defined.



Column Definitions box at the top of the Report Canvas

Adding data columns

To display data in the report, you can drag and drop table columns from the Data Panel to the Column Definitions box in the Report Canvas. The Data Panel displays the tables and columns that are eligible to be included in the report, based on the selected data context (primary table) and the specified row dimension.

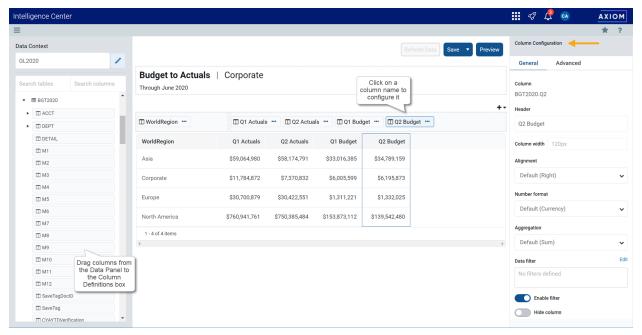
To add a data column to a web report:

- 1. In the Data Panel of the Report Builder, expand the table tree until you locate the column that you want to add to your report. You can also use the search boxes at the top of the panel to find a particular table or column by name.
- 2. Drag and drop the column to the Column Definitions box at the top of the Report Canvas.

NOTE: When using the default behavior, the new column will render as blank in the report until you click **Refresh Data**.

- 3. If the column is not in the desired location within the grid, drag and drop it within the Column Definitions box to reorder the columns.
- 4. Use the Column Settings in the Configuration Panel to configure display properties for the column, such as column width, alignment, header text, and formatting. For more information, see Configuring column properties for a web report.

By default, when you drag and drop a column to the grid, that column is selected and its column properties display in the Configuration Panel. You can return to the column properties at any time by clicking the column name in the Column Definitions box.



Example web report after adding data columns

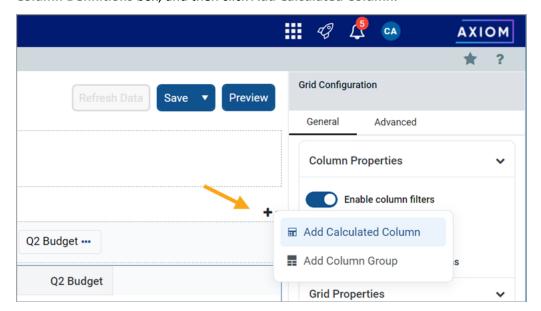
NOTE: If Use fixed rows is enabled for the grid, currently the Report Builder does not dynamically update the tables listed in the Data Panel based on the specified fixed row structure. If you drag and drop a column from a table that is not valid in the context of the fixed row structure, a generic error will occur when the Report Builder attempts to populate the grid.

Adding calculated columns

Calculated columns can be used to display totals, differences, percentages, and other calculations within a column of the report. Calculations can be based on columns from related tables that are eligible to be included in the report.

To add a calculated column to a web report:

1. In the Report Canvas of the Report Builder, click the plus sign in the top right corner of the Column Definitions box, and then click Add Calculated Column.



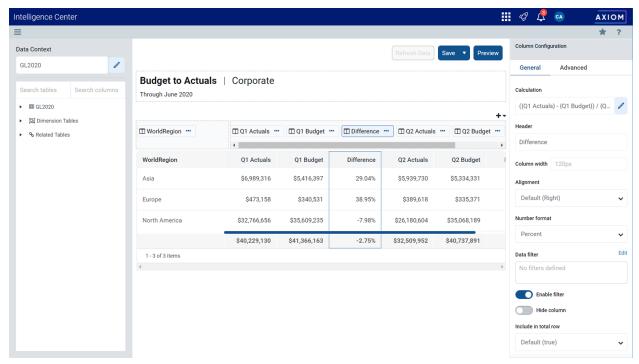
- 2. At the top of the Add Calculated Column dialog, define the following properties:
 - Header: Enter the column header text for the calculated column. This is effectively the name of the calculated column. By default, the header text is "Calculation".
 - Numeric type: Select the desired numeric type for the calculated column. If this is left at **Default**, the default numeric type for calculated columns is Currency.



You can change these properties later using the Column Configuration properties in the Configuration Panel.

- 3. To create the calculation, drag and drop columns from the table tree on the left to the calculation canvas. See Defining calculations for more information.
- 4. When you are finished creating the calculated column, click OK.
 - The calculated column is added to the Column Definition box. By default, the new column is blank until you click **Refresh Data**.
- 5. If the calculated column is not in the desired location within the grid, drag and drop it within the Column Definition box to reorder the columns.
- 6. Use the **Column Configuration** properties in the Configuration Panel to configure display properties for the column, such as column width and alignment. For more information, see Configuring column properties for a web report.

By default, when you define a calculated column, that column is selected and its column properties display in the Configuration Panel. You can return to the column properties at any time by clicking the column name in the Column Definitions box.



Example web report after creating a calculated column

Defining calculations

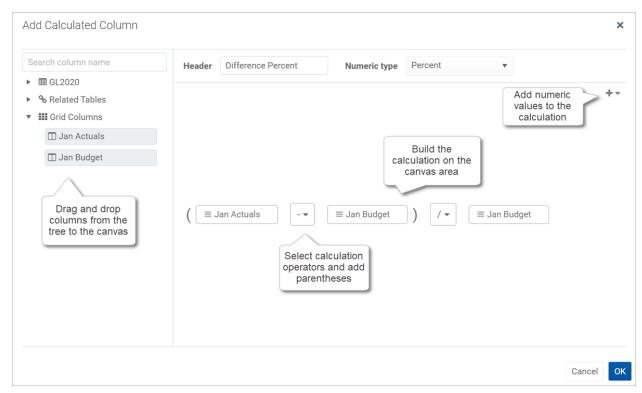
Using the **Add Calculated Column** dialog, you can build a calculation based on columns from related tables that are eligible to be included in the report. The column does not have to be present in the grid in order to be used in a calculation. Numeric values can also be used in the calculation.

The left-hand side of the dialog lists a table tree of available columns, while the right-hand side of the dialog—the calculation "canvas"—is where you build the calculation. To start the calculation:

- Drag and drop two columns out to the canvas. The two columns are separated by an operator selector.
- Select the desired operator.

You can continue building the calculation by dragging and dropping additional columns and selecting the operator. You can also do the following:

- **Numeric values**: To add a numeric value to the calculation, click the plus icon at the top right of the dialog. You can then move, reorder, or delete the numeric value just like columns.
- **Reorder items**: To change the order of columns in the calculation, drag and drop them on the canvas.
- Parentheses: To add parentheses to a part of the calculation, select Add Parentheses from the
 operator selector. The two columns affected by the operator will become enclosed in
 parentheses.
- **Delete items**: To delete an item, hover your cursor over the column and then click the trash can icon.



Example calculation in the calculation editor

Calculations can use the following operators: addition (+), subtraction (-), multiplication (*), and division (/). Use parentheses to determine calculation order, such as: (GL2021.Q1-BGT2021.Q1) /BGT2021.Q1.

Calculations can use the following columns:

- Numeric columns from the primary table, whether or not those columns are also in the grid.
- Numeric columns from related tables, whether or not those columns are also in the grid.
- Numeric columns from the grid, including other calculated columns. Grid columns display using the header text defined for the column.

If you use a table column from the grid instead of from the table itself, then the calculation will use the column as it is configured to display in the grid. For example, if the grid column has a column filter or uses an alternate aggregation, the calculation will be based on that modified version of the column.

NOTES:

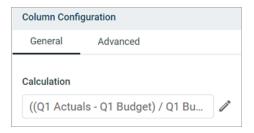
- If you drag and drop a column from the primary table or a related table, it displays on the
 canvas using the column name only—such as M1. You can hover your cursor over the column
 box to see a tooltip with the full table.column name—such as GL2021.M1. If you drag and
 drop the column from the Grid Columns node, then it will display using the defined header
 text for the column.
- If you use a grid column in the calculation, then the grid column cannot be deleted from the grid because deleting it would cause the calculation to become invalid. An error message will display if you attempt to delete a referenced column from the grid. To resolve the issue, you can do one of the following: edit the calculation to remove the reference, delete the calculated column, or configure the grid column as hidden so that it can still be referenced in the calculation but not display in the report.

Editing calculated columns

You can edit an existing calculated column to change the calculation.

To edit a calculated column in a web report:

- 1. In the Report Canvas of the Report Builder, click the calculated column in the Column Definitions box.
- 2. On the General tab of the Column Configuration properties, click the Edit icon the right of the Calculation box.



3. In the Edit Calculated Column dialog, edit the calculation as needed, then click OK.

Additional column actions

Once data columns and calculated columns have been added to the grid, you can further adjust them as follows:

• **Reorder columns**: To reorder a column in the grid, drag and drop it to any location in the Column Definitions box. Note that you cannot drag and drop a column from the Column Definitions box to the Row Definitions box. If you accidentally dragged a column to the wrong box, you must remove the column and then drag and drop it again from the Data Panel.

- Remove columns: To remove a column from the grid, click the three-dots icon to the right of the
 column name and then select Delete Column. Use caution before removing a calculated
 column—if you later decide you want to re-add the column, you will need to re-create the
 calculation from scratch.
- Copy columns: To copy a column in the grid, click the three-dots icon to the right of the column name and then select Clone Column. A copy of the column is created to the right of the original column. The new column has the same properties as the original column, except that the text (Copy) is appended to the header text. You can modify the new column as needed in order to differentiate it from the original, such as to define a filter for the column, or to modify the calculation.

NOTE: If you copy a table column in the grid (as opposed to a calculated column), it is not possible to point the column to a different table column. The purpose of copying a table column is to display multiple instances of the same table column, but using different filters or different aggregation types.

- **Group columns**: If you want a set of columns to display under a group header, you can define a column group and then add the columns to that group. For more information, see Defining column groups for a web report.
- Configure columns: To configure display properties for a column, select the column name in the Column Definitions box, then use the Column Configuration properties in the Configuration Panel. For more information, see Configuring column properties for a web report.

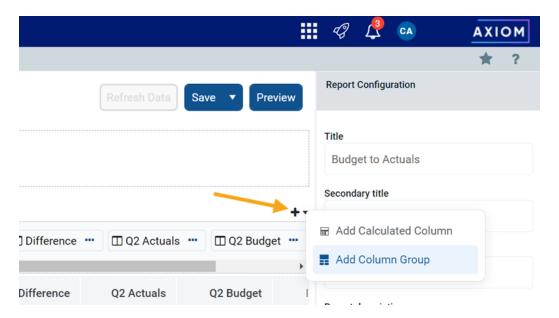
Defining column groups for a web report

You can define column groups in web reports so that certain columns can display together under a group header. For example, your report might have several actuals columns followed by several budget columns, and you want these columns to display under the group headers "Actuals" and "Budget".

To define a column group, first you add the group "container" to the Column Definitions box of the grid, then you add table columns to the group container.

To define a column group:

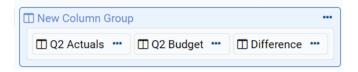
1. In the Report Canvas of the Report Builder, click the plus sign in the top right corner of the Column Definitions box, and then click **Add Column Group**.



A new empty column group is added to the Column Definitions box.

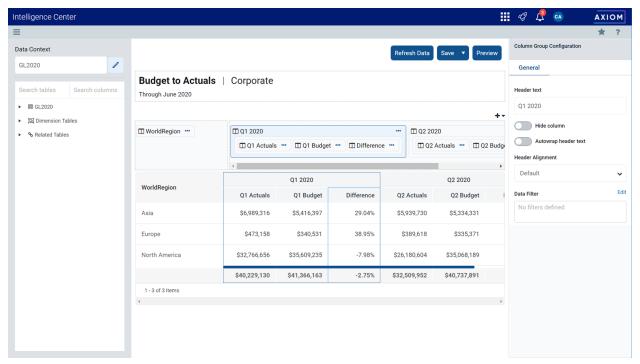


2. Drag and drop the desired columns into the column group. Columns must first be added to the Column Definitions box before they can dragged and dropped into a column group. It is not possible to drag and drop a table column directly from the Data Panel into a column group.



3. Select the column group box, and use the **Column Group Configuration** panel to define the header text and other properties. See the following section for more information on the available properties.

The column group displays in the grid with its child columns underneath.



Example web report with column groups

Once a column group has been created, you can work with it as follows:

- **Reordering groups**: To reorder a column group, drag and drop the group to another location within the Column Definitions box.
- **Deleting groups**: To delete a column group, click the three-dots icon in the top right corner of the group box and then select **Delete Group**. However, if you still want to use the columns in the group, you should drag and drop the columns out of the group before deleting the group. If you delete the group with columns in it, all of the columns will be deleted as well.
- Copying groups: To copy a column group, click the three-dots icon in the top right corner of the group box and then select Clone Group. A copy of the group is created to the right of the original group, including copies of the child columns within the group. The new group has the same properties as the original group, except that the text (Copy) is appended to the header text. You can modify the new group as needed in order to differentiate it from the original, such as to define a filter for the group, or to populate the group with different child columns.
- Configuring groups: To configure display properties for a column group, select the group in the Column Definitions box, then use the Column Group Configuration properties in the Configuration Panel.
- **Nested groups**: Currently, nested groups are not allowed. You cannot drag and drop a group within another group.

You can work with columns within the group as follows:

- Adding columns: You can continue to add columns by dragging and dropping them into the group box. You can also copy columns within the group.
- Removing columns: You can drag and drop columns out of the column group box to remove them from the group. If you don't want the column to be in the report at all, you can delete the column as normal.
- **Reordering columns**: You can reorder columns in the group by dragging and dropping them within the group box.
- **Configuring columns**: Columns in a column group can be configured as normal. Select the column box within the group box to bring up the **Column Configuration** properties in the Configuration Panel.

Column group properties

The following column group properties are available for web reports on the **General** tab of the **Column Group Configuration** panel:

Item	Description
Header	The header text to display on the group header. Enter the desired header text.
Hide column	Specifies whether the column group is hidden in the report:
	 If enabled, then the group is hidden in the report. The group remains visible in the Column Definitions box so that you can continue to configure the group as needed. If disabled (default), then the group is visible.
Autowrap header text	Specifies whether header text wraps:
natowiap ficader text	 If enabled, then header text that exceeds the group width will wrap. If disabled (default), then header text that exceeds the group width is truncated. The user can resize the group wider to view the full header text.
Header alignment	The alignment of the header text over the columns in the group. Select one of the following: Default, Left, Right, Center . Group headers use center alignment by default.

Item	Description
Data filter	Optional. Defines a filter to limit the data shown in the columns within this group. This is equivalent to defining the same data filter at the column level for each column in the group.
	Click the Edit button to open the Filter Wizard and define a filter. Once you have defined a filter, it displays in the Data filter box.
	If you want to change or remove the filter, click the Edit link again and change or delete the filter within the Filter Wizard. The Data filter box is not directly editable.
	Data filters defined at the group level are combined with any filters defined at the column level. If the group contains calculated columns, the group filter is applied to all columns referenced in the calculation. If the calculation references grid columns, the group filter is combined with any other filters applied to the grid columns (either at the column level or at the group level, if the column belongs to a different group). Additionally, if a data filter is defined at the report level, it is also applied. All relevant filters are combined using AND to determine the data that can display in a particular column.

Defining report titles and description for a web report

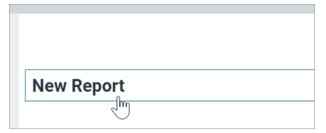
Using the general **Report Configuration** properties in the Configuration Panel, you can define a title, subtitle, and secondary title for the web report. You can also define an optional report description.



Example titles as they display in a rendered report

To configure report titles and description for a web report:

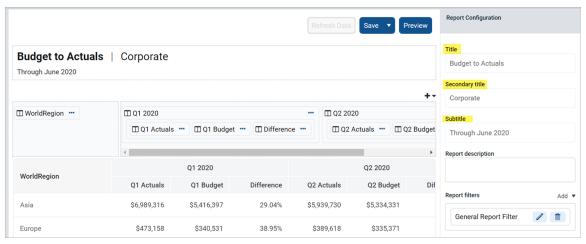
1. In the Report Canvas of the Report Builder, click on the title text to load the Report Configuration properties. For example, if the report currently uses the default name of New Report, click on the New Report text or next to it.



Click on the title text to load the Report Configuration properties

If you are in a brand new report, the Report Configuration properties display by default when you first enter the Report Builder. However, as soon as you drag and drop a column to the Row Definitions box or the Column Definitions box, the column becomes selected which causes the Column Configuration properties to display. In this case you need to click on the report title to return to the Report Configuration properties.

2. In the Report Configuration panel, complete the report properties as needed.



Title-related report configuration properties

The following title and description properties are available:

Item	Description
Title	The main title for the report. This text displays at the top of the report, over the grid.

Item	Description
Secondary title	Optional. The secondary title for the report. If defined, this text displays in the same line as the main title, separated by a horizontal pipe character. For example:
	Title Secondary Title
Subtitle	Optional. The subtitle for the report. This text displays in smaller font underneath the main title.
Description	Optional. A description for the report.

NOTE: Currently, it is not possible to use variables in web report titles.

Defining report-level data filters for a web report

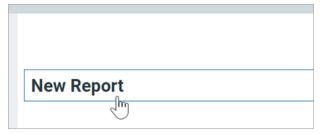
Using the Report Configuration properties in the Configuration Panel, you can define report-level filters to limit the data shown in the report.

You can use two types of filters:

- General filters: General filters are based on reference tables, and impact all tables in the report that look up to the reference tables used in the filter.
- Table-specific filters: Table-specific filters only impact a single specific data table used in the report.

To define report filters for a web report:

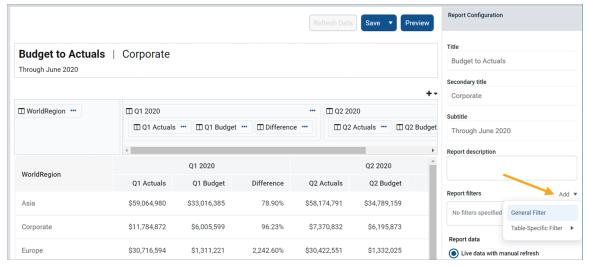
1. In the Report Canvas of the Report Builder, click on the title text to load the Report Configuration properties. For example, if the report currently uses the default name of New Report, click on the New Report text or next to it.



Click on the title text to load the Report Configuration properties

If you are in a brand new report, the Report Configuration properties display by default when you first enter the Report Builder. However, as soon as you drag and drop a column to the Row Definitions box or the Column Definitions box, the column becomes selected which causes the Column Configuration properties to display. In this case you need to click on the report title to return to the Report Configuration properties.

- In the Report Configuration panel, click Add over the Report Filters box, then do one of the following:
 - Click General Filter to create a general filter.
 - Click **Table-Specific Filter** > **TableName** to create a table-specific filter. All data tables used in the report are listed on this menu.



Creating a report-level data filter

- 3. In the Filter Wizard, create your filter as needed, then click OK. Note the following:
 - If you are defining a general filter, the Filter Wizard only shows reference tables that the primary table looks up to.
 - If you are defining a table-specific filter, the Filter Wizard only shows the table that you selected from the menu.
 - After building the filter, remember to click Apply to move the filter from the Preview box
 to the Filter box at the bottom of the dialog. A filter statement must be present in the
 Filter box when you click OK, or else the saved filter will be blank. If you are creating a
 compound filter, you can click And or Or to append the preview filter to any currently
 existing filter in the Filter box.
 - You can manually type a filter statement in the Filter box (or load a saved filter), but that
 filter must follow the same rules as any filter that you would create using the current Filter
 Wizard context. If the filter statement is not valid within the current context, it may have
 no effect on the report or cause an error when viewing the report.

The filter is added to the **Report filters** box. You can hover your cursor over the filter name to view details about the filter, such as whether it is a general or table-specific filter, and to view the actual filter statement.

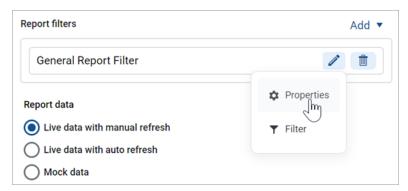


If desired, you can edit the filter properties to give the filter a specific name, define an optional filter description to document the purpose of the filter, and toggle the filter as enabled or disabled. You can also edit the filter statement.

Editing existing filters

You can edit general filter properties and you can edit the filter criteria statement.

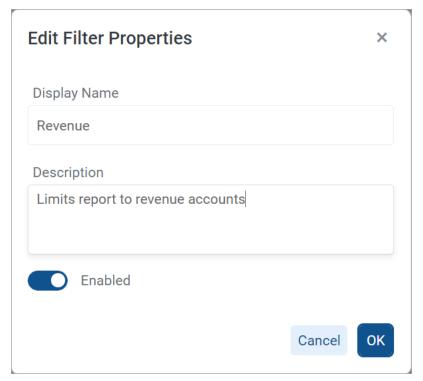
To edit an existing filter:



If you are editing the filter properties, edit the following fields in the **Edit Filter Properties** dialog as needed, then click **OK**:

Item	Description
Display Name	The display name of the filter. By default, the filter displays in the Report filters box as follows:
	General filters display using the name General Report Filter.
	 Table-specific filters display using the name TableName Filter.
	You can change this name to something more descriptive or specific if you choose. If you change the name so that it is no longer obvious whether the filter is general or table-specific, then you can still view this information using the filter tooltip (as shown in the previous section).

Item	Description
Description	Optional. If desired, you can define a description to document the purpose and scope of the filter.
Enabled	By default, filters are enabled and will impact the data shown in the report. If desired, you can toggle the filter to disabled in order to keep the filter in the report properties for future use, but temporarily disable it. When you are ready to use the filter again, you can toggle it back to enabled.
	While the filter is disabled, it shows as grayed out in the Report filters section. The filter will not be applied to the data queries in the report.



Example filter properties

If you are editing the filter, the Filter Wizard opens with the current filter shown in the **Filter** box. You can manually adjust the current filter, or you can create a new filter using the wizard to overwrite the existing filter, or you can create a new filter using the wizard and append it to the existing filter using **And** or **Or**. Remember that whatever filter statement is in the Filter box when you click **OK** will become the new filter.

Deleting existing filters

You can delete a report filter if it is no longer needed. Remember that you can disable the filter instead, if you want to temporarily remove the filter without deleting it from the report (see the previous section).

To delete an existing filter:

- 1. Click the Delete icon in next to the filter name.
- 2. When prompted to confirm the deletion, click **OK**.

The filter is deleted from the report.

General filter notes

General filters are based on reference tables (also often known as dimension tables):

- If the primary table is a data table, you can define a general filter using any reference table that the primary table looks up to.
- If the primary table is a reference table, you can define a general filter using the primary table.

When creating the filter, you can use any column on the reference table, including multi-level lookups through the reference table. For example, if the primary table looks up to Dept, the filter could be Dept.Dept=24000 or Dept.Region='West' or Dept.Region.RegionType=1.

The general filter applies to all tables in the report that look up to the reference table (as well as the reference table itself). For example, imagine that you have a report that compares GL2021 to BGT2021. You want to define a filter so that the report only shows data for the West Region. In this case you can define a general filter on the Dept table of Dept.Region='West'. Since both tables look up to the Dept table, the general filter will apply to both tables and limit the data in the report.

NOTES:

- If the primary data table looks up to multiple reference tables, the general filter can be a compound filter that uses multiple reference tables. In this case, the filter will only apply to data tables that look up to both reference tables. For example, imagine you define a general filter of Dept.Region='West' and Acct.Category='Revenue'. If the report contains a table that only looks up to the Acct table but not the Dept table, then the filter will not apply to that table and no error will occur.
- If you define a general filter and then change the primary table of the report to a table that has different reference table lookups, the filter will not cause an error. If the existing filter does not apply to any tables in the report, it will simply be ignored.

► Table-specific filter notes

Table-specific filters apply only to the selected table for the filter. All other tables are unaffected by the filter.

The table-specific filter can use any column in the table, including multi-level lookups. For example, if the selected table is BGT2020, the filter could be BGT2020.m1<>0 or

BGT2020.Acct.Category='Revenue'.

Table-specific filters can only be defined on data tables used in the report. If you want to define a filter on a reference table, it must be a general filter.

NOTE: If you define a table-specific filter and then later edit the report configuration so that the table no longer has any columns in the report, the filter will not cause an error. It will simply be ignored.

Configuring grid properties in a web report

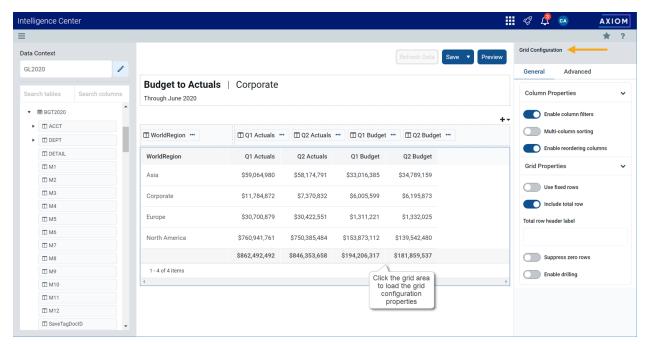
The grid properties define the available features and the overall presentation of data in a web report. Using the grid properties, you can configure:

- User interaction properties such as whether users can filter columns, sort columns, and reorder columns
- Display properties such as whether the grid has a total row and whether rows with all zero values display
- Drilling properties such as what type of drilling is enabled and configuration for directed drilling

In the Report Builder, the grid properties are defined in the right-hand Configuration Panel.

To configure grid properties for a web report:

- 1. In the Report Canvas of the Report Builder, click the grid that displays below the column setup boxes.
- 2. In the right-hand Configuration Panel, complete the Grid Configuration properties as needed.



Example Grid Configuration properties

The grid configuration properties are separated into two tabs:

- General: Basic grid properties that should be reviewed and configured for all web reports.
- Advanced: Advanced grid properties such as default column formats for the grid.

General grid properties

The following grid properties are available for web reports on the **General** tab of the **Grid Configuration** panel:

Column Properties

Item	Description
Enable column filters	Specifies whether users can filter columns in the grid. Only applies to grids with dynamic rows; users cannot filter columns in grids where Use fixed rows is enabled.
	 If enabled (default), then filter icons display on columns where Enable filter is enabled in the column configuration properties. Report users can use these icons to filter the data shown in the column. If Enable filter is disabled on a column, the filter icon is not available for that column.
	 If disabled, then filter icons do not display on any columns, regardless of whether Enable filter is enabled for the column.

Item	Description
Multi column sorting	Specifies whether users can sort by multiple columns in the grid. Only applies to grids with dynamic rows; users cannot filter columns in grids where Use fixed rows is enabled.
	 If enabled, then users can sort the grid by multiple columns. If the grid is already sorted by a column and a user clicks another column to sort, then the grid is first sorted by the most recent column and then sorted by the original column. Columns will remain sorted until the user toggles the sort disabled for that column.
	 If disabled (default), then users can sort the grid by a single column. If the grid is already sorted by a column and a user clicks another column to sort, then the sort is disabled on the original column and the grid becomes sorted by the most recent column.
	Users can sort columns by clicking on the column header. Each click toggles through sort ascending, sort descending, and no sort.
	NOTE: The ability to clear the sort is only available if multi-column sorting is enabled. Otherwise, clicking a column header will toggle between sort ascending and sort descending. You can click a different column header to sort by that column, but you cannot clear the sort.
Enable reordering columns	Specifies whether users can reorder columns in the grid.
	 If enabled (default), then users can drag and drop columns within the grid to temporarily reorder them.
	 If disabled, then users cannot reorder columns in the grid.

Grid Properties

Item	Description
Use fixed rows	 Specifies whether the grid uses dynamic rows or a fixed row structure. If enabled, then the grid uses a fixed row structure to define the rows. Select the structure using the Fixed row structure field. For more information, see Specifying the fixed row structure for a web report.
	 If disabled (default), then the grid dynamically generates rows based on a table column specified as the row dimension. The row dimension is specified by dragging and dropping the desired table column into the Row Dimensions box at the top of the Report Canvas. For more information, see Specifying the row dimension for a web report.

Item	Description
Fixed row structure	Specifies the fixed row structure to use in the grid. Only applies when Use fixed rows is enabled.
	Select an existing fixed row structure to define the rows of the grid. You can type into the box to filter the list of fixed row structures by name.
	Fixed row structures can be created from the Intelligence Center. For more information on creating fixed row structures, see Managing Fixed Row Structures.
Include total row	Specifies whether a total row is present on the grid. Only applies to grids with dynamic rows; if Use fixed rows is enabled then the grid uses subtotal and total rows as defined in the fixed row structure.
	 If enabled, then a total row displays at the bottom of the grid. If the grid data is paged, the total row shows the total of all rows across all pages.
	Use the Total row header label field to define label text for the total row, such as "Total". This text displays in the last row dimension column.
	Columns displaying numeric, non-dimensional data are included in the total row by default. If desired, you can exclude a numeric column from the total row using the column configuration properties.
	 If disabled (default), then the grid does not have a total row.
Suppress zero rows	Optional. Specifies whether data rows with all zeros are suppressed from showing in the grid. Only applies to grids with dynamic rows; all zero rows cannot be suppressed in grids where Use fixed rows is enabled.
	Non-key columns that meet both of the following criteria are evaluated to determine whether a row should be hidden:
	 The column data type is Integer (all types) or Numeric.
	 The column is from the primary table or an additional data table.
	If the primary table is a data table, Integer and Numeric columns on lookup reference tables are ignored—meaning these columns may have values, but the row is still suppressed if all applicable data table columns have zero values. There is one exception: reference table columns are considered if the column classification is Values and the numeric type is Currency.
	Calculated columns defined in the grid are not evaluated for this purpose and do not prevent a row from being suppressed.

Item	Description
Enable drilling	Specifies whether users can drill down rows in the grid to view the underlying data.
	 If enabled, then users can drill rows in the grid. Use the Drilling type property to specify what type of drilling options are present:
	 Key columns (default): Users can drill down to the key column level of the data. These drilling options are automatically generated based on the validated key columns of the primary table. No additional setup is required.
	 Directed: Users can drill down predefined drilling paths. Use the View/Edit Configuration link underneath the Directed option to configure the drilling paths.
	For more information, see Configuring drilling for web reports.
	 If disabled (default), then users cannot drill rows in the grid.

NOTE: If you created a web report using the Report Builder in version 2021.1, that report may have had a defined **Data Filter** in the Grid Configuration properties. These filters are now defined at the report level, in the Report Configuration properties. Any existing grid filter will be automatically converted to a general report filter. In rare cases, this conversion may result in report errors if the grid-level filter is not valid as a general report filter. If this occurs, you can delete the converted filter and re-create it as a table-specific filter.

Advanced grid properties

The following grid configuration properties are available for web reports on the **Advanced** tab of the **Grid Configuration** panel:

Default column formats

Use this section to view and define default column formats for the grid based on column data type. All columns added to the grid will inherit the settings defined here. By default, columns will continue to inherit any changes made to the default column formats unless the format has been overridden at the column level.

For example, the default alignment for String columns is Left. When String columns are added to the grid, they are configured to use the Default alignment, meaning Left. If desired, you can change the default alignment for String columns to Center, and all String columns in the grid that are using the Default alignment will now update to use Center alignment. However, if you have manually configured a particular String column to use Right alignment instead of the Default alignment, that column will continue to use its configured alignment of Right.

Item	Description
Data type	Select a column data type to view and edit the default column formats for that type. The following data types are available:
	 String: Columns containing text or alphanumeric values. Includes table columns using the String data type.
	 Date: Columns containing dates. Includes table columns using Date or DateTime data types.
	 Boolean: Columns containing True or False values. Includes table columns using the Boolean data type.
	 Dimension: Columns containing numeric dimension codes. Includes table columns using Numeric, Integer, or Identity data types, where the Column Classification is Dimension.
	 Decimal: Columns containing decimal numeric values. Includes table columns using the Numeric data type, where the column has a Numeric Type of Number.
	 Number: Columns containing whole integer numeric values. Includes table columns using Integer or Identity data types, where the Column Classification is Value.
	 Currency: Columns containing currency numeric values. Includes table columns using the Numeric or Integer data types, where the column has a Numeric Type of Currency.
	 Percent: Columns containing percent numeric values. Includes table columns using the Numeric or Integer data types, where the column has a Numeric Type of Percent.
	Additionally, when you create a calculated column, you can specify its data type as one of the numeric data types. The column will then use the default column formats for that data type. The default data type for calculated columns is Currency.
	NOTE: Columns that would normally be treated as Number data type are treated as Dimension data type if they are used as row dimension columns or drill columns.
Column width	The default column width for the selected Data Type , in pixels. Enter the desired column width as a whole integer between 30 and 600.
	The default width for each data type is as follows:
	 Currency, Decimal, Percent, Date, Boolean: 120
	Number: 150
	String, Dimension: 200

Item	Description
Alignment	The default alignment of the column values for the selected Data Type . If you want to change the default alignment for a data type, select one of the following: Left , Right , Center .
	The default alignment for each data type is as follows:
	String, Date, Boolean, Dimension: Left
	 Decimal, Number, Currency, Percent: Right

Numeric properties

Use this section to view and define default number formats for the grid based on column data type. All columns added to the grid will inherit the settings defined here. By default, columns will continue to inherit any changes made to the default number formats unless the column has been configured to use a custom format.

For example, the default number format for the Currency data type uses 0 decimal places, with a thousands separator, and a negative number format of red parentheses. When a Currency column is added to the grid, the contents automatically display using this number format. If desired, you can update the default number format for Currency so that it uses 2 decimal places, and all columns using the Currency number format will now update to show 2 decimal places. This applies to columns that use the Currency number format by default, as well as columns that you have manually configured to use the Currency format. However, if you have changed a column so that it now uses a Custom number format instead of the Currency number format, then it will continue to use its custom configuration.

This section only applies to numeric data types. It does not display for data types such as String or Date.

Item	Description
Decimal places	The number of decimal places used by the selected Data Type . Enter any whole number from 0 to 10. You can also use the arrow keys to move the number up or down.
	The default number of decimal places for each numeric data type is as follows:
	Currency: 0
	Decimal, Percent: 2
	The Number data type does not use decimals.
Use 1000's separator	Specifies whether the selected Data Type uses a thousands separator:
	 If enabled (default), numbers show with a thousands separator, such as 1,000.
	• If disabled, numbers do not use a thousands separator, such as 1000.

Item	Description
Negative number format	The format used by the selected Data Type to display negative numbers. Select the desired format from the drop-down list. Available formats use the minus sign, or parentheses, or red text (or a combination of these formats).
	The default negative number format for each numeric data type is as follows:
	Decimal, Number, Percent: Minus sign
	Currency: Red text in parentheses

Frequently asked questions

Can I disable paging for a dynamic row grid?

Currently, if the grid uses dynamic rows then the grid is automatically paged if it exceeds 25 rows. This paging cannot be disabled. However, keep in mind that when the grid is exported to PDF or Excel, the paging is automatically disabled and the export file will show all rows.

How do I define a grid-level filter to limit the data in the report?

If you want to filter the data in the grid, you can define a report-level filter. Select the report title on the Report Canvas to load the Report Configuration properties, then use the Report filters section to define one or more filters.

Because currently web reports can only contain a single grid, defining a report-level filter is effectively the same as defining a grid-level filter.

Configuring column properties for a web report

The column properties define the presentation of each column in the grid. Using the column properties, you can configure:

- · Display properties such as header text, column width, alignment, and number formatting
- Data properties such as column filters, alternate aggregation, and display formats for data
- Grid behavior properties such as inclusion in the total row, and whether end users can sort and filter using the column

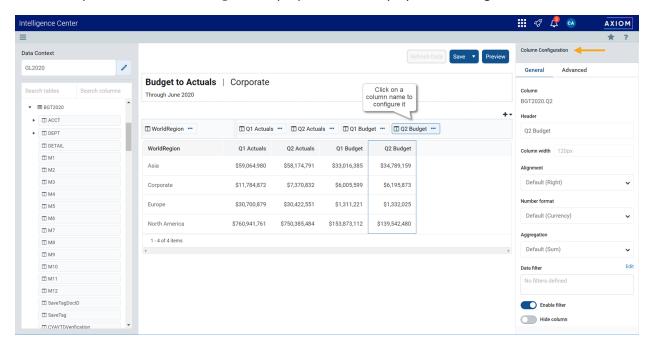
In the Report Builder, the column properties are defined in the right-hand Configuration Panel. The column properties can be defined for both table columns and calculated columns.

To configure column properties for a column in a web report:

1. In the Report Canvas of the Report Builder, click a column name in either the Row Dimensions box or the Column Definitions box to select that column.

You must select the column name in the setup boxes and not the column name in the grid below. Selecting a column name in the preview grid causes the Grid Configuration to display instead of the Column Configuration.

2. Complete the Column Configuration properties that display in the Configuration Panel.



The column configuration properties are separated into two tabs:

- **General**: Basic column properties that should be reviewed and configured for all columns in the grid.
- Advanced: Advanced column properties to be configured as needed.

General column properties

The following column properties are available for web reports on the **General** tab of the **Column Configuration** panel. These properties apply to table columns and to calculated columns.

Item Description The following information displays at the top of the panel to identify the Column or • Column: If the column is a table column, the full Table.Column path Calculation displays for your reference. **Column Configuration** General Advanced Column BGT2020.Q2 • Calculation: If the column is a calculated column, a text representation of the calculation displays for your reference. You can click the Edit icon to the right of the box to open the Edit Calculated Column dialog and edit the calculation as needed. **Column Configuration** General Advanced Calculation ((Q1 Actuals - Q1 Budget) / Q1 Bu... Header The header text to display on the column header. Enter the desired header text. If the column is a table column, the column name is used as the header text by default. • If the column is a calculated column, the text "Calculation" is used as the header text by default. Column width The width of the column in the grid, in pixels. Enter the desired column width as a whole integer between 30 and 600. The default width depends on the column data type, and is configured at the grid level. If you do not enter a custom width, then the default width displays in the Column width box in gray text. If you leave this default width and the grid-level defaults are changed, then column will update to use the new default width. For more information, see Default column formats.

Item	Description
Alignment	The alignment of the column values. Select one of the following: Default, Left, Right, Center.
	The default alignment depends on the column data type, and is configured at the grid level. If a column is set to use Default and the grid-level defaults are changed, the column will update to use the new default alignment. For more information, see Default column formats.
Number Format	The number format used by the column. Only applies to columns that hold numeric data. Select one of the following:
	 Default: The column uses the default number format as defined for the column's data type at the grid level. If a column is set to use Default and the grid-level defaults are changed, the column will update to use the new default number format. For more information, see Numeric properties.
	 Currency, Decimal, Number, Percent, or Dimension: The column uses the default number format as defined for the selected data type. For example, you may have a column that is natively a Decimal column, but you want it to display using Currency format in a particular report.
	If a column is assigned to a different number format, it will also inherit the default column width and alignment set for the associated data type, if the column is using the default column with and alignment.
	 Custom: The column uses a custom number format as defined in the column properties. If Custom is selected, then several additional properties become available to configure the number format. In this case, the column is no longer tied to any particular default number format.
	 Decimal places: Specify the number of decimal places to display, from 0 to 10.
	 Use 1000's separator: Specify whether the number uses a thousands separator or not.
	 Negative number format: Specify the format to use for negative numbers.
Aggregation	The aggregation type used to aggregate data queried from the database column. Does not apply to calculated columns or to columns used as row dimensions.
	If you want to override the default aggregation type for a database column, select an aggregation type.

Item	Description
Data filter	Optional. Defines a filter to limit the data shown in this column. The column-level data filter should be used instead of a grid-level data filter when you want the filter to impact just this column.
	Click the Edit button to open the Filter Wizard and define a filter. Once you have defined a filter, it displays in the Data filter box.
	If you want to change or remove the filter, click the Edit link again and change or delete the filter within the Filter Wizard. The Data filter box is not directly editable.
	Data filters defined at the column level are combined with any filters defined at the column group level and at the grid level. All relevant filters are combined using AND to determine the data that can display in a particular column.
	NOTES:
	 If a data filter is defined for a calculated column, the filter is applied to the columns referenced in the calculation.
	 Column-level data filters cannot be defined for columns used as row dimensions. To limit the rows shown in the grid, use a report-level filter in the Report Configuration properties.
Enable filter	Specifies whether end users can filter based on the column contents.
	 If enabled (default), and if Enable Column Filters is enabled in the Grid Configuration properties, then a filter icon is available on the column in the rendered report. Users can use this column to filter the grid based on the column contents.
	 If disabled, then the filter icon is not available on the column.
	This property does not apply to columns used as row dimensions. It also does not apply to any column in the grid if Use fixed rows is enabled in the Grid Configuration properties . Fixed row reports do not support enduser column filtering.
Hide column	Specifies whether the column is hidden in the report:
	 If enabled, then the column is hidden. The column remains visible in the Report Builder so that you can continue to configure the column as needed.
	 If disabled (default), then the column is visible.

Item	Description
Show description	Specifies whether you want descriptions to display for dimension values. This option only applies to key columns, alternate key columns, and validated columns that have an associated description column.
	 If enabled (default), then descriptions display alongside the dimension values or instead of the dimension values. For example, if the column is Acct then you likely want the account descriptions to display along with the account codes.
	When this option is enabled, the Description display format field becomes available. Select the desired display format from this list. By default, the format Description (Value) is used.
	 If disabled, then only the dimension values display. For example, if the column is Acct then only the account codes will display.
	NOTE: If the dimension table has multiple description columns (meaning columns where Describes Key is True), then the first description column is used.
Include in total row	Specifies whether the column is included in the total row, if a total row is enabled in the Grid Configuration properties. Select one of the following:
	 Default: The column is included or not based on its data type. All numeric columns are included by default unless they are the Dimension data type. All other non-numeric columns are not included by default, unless you change the aggregation so that the column returns a number (such as using Count aggregation on a String column).
	 Include: Override the default behavior and include the column in the total row.
	 Exclude: Override the default behavior and exclude the column from the total row.
	This option does not apply if Use fixed rows is enabled in the Grid Configuration properties. Columns will be included or excluded in subtotal or total rows using the default behavior.

► Advanced column properties

The following column configuration properties are available for web reports on the Advanced tab of the Column Configuration panel:

Header Properties

Item	Description
Header text (row 1)	The header text to display on the column header. Enter the desired header text.
	NOTES:
	 This is the same property that displays on the General tab as Header. The header text can be edited from either tab.
	 The (row 1) label only displays if Multi-row header has been enabled. In this case, the property defines the header text for the top row of the multi-row header.
Header text (row 2)	The header text to display on the second row of the column header. Enter the desired header text.
	This property is only available if Multi-row header has been enabled.
Multi-row header	Specifies whether the column header has multiple rows:
	 If enabled, then the header text property updates so that there are two properties: Header text (row 1) and Header text (row 2). The default header text populates row 1. You can define additional text to display on row 2.
	• If disabled (default), then only one row of header text can be defined.
	Keep in mind that enabling a multi-row header is different than wrapping header text. If you enable multi-row headers, then you can define two separate rows of header text. A line break separates each row. If autowrap is enabled, then each row of header text wraps individually.
	If you just want a single row of header text that wraps, you can leave this option disabled and then enable Autowrap header text .
Autowrap header text	Specifies whether header text wraps:
	 If enabled, then header text that exceeds the column width will wrap. If Multi-row header is enabled, both rows of header text will wrap individually.
	 If disabled (default), then header text that exceeds the column width is truncated. The user can resize the column wider to view the full header text.

Item	Description
Header alignment	The alignment of the header text. Select one of the following: Default , Left , Right , Center . All column headers use Default alignment by default.
	By default, the header text uses the same alignment as the column contents (as determined by the Alignment property on the General tab). If you leave the header alignment set to Default, then the header alignment will adjust to match the column alignment. If, however, you want the header alignment to be different than the column alignment, you can configure this property.

Frequently asked questions

I defined a column filter but it isn't impacting the grid data as I expected—why do I still see rows that don't match the column filter?

A column filter only filters the data coming into that specific column. If you want to define a filter that impacts the entire report, including the row data, then you should define a filter at the report level. Select the report title and then use the Report Configuration properties to define one or more Report filters.

To illustrate the difference, imagine the following uses of a filter to only show data from the West region:

- **Report**: When the general filter <code>Dept.Region='West'</code> is defined for the report, the entire grid is filtered to only show data from the West region. Row dimension values (such as departments) will only display if they belong to the West region, and column data is limited to only show data for the West region.
- Column: When the filter <code>Dept.Region='West'</code> is defined on a column, that single column is filtered to only show data from the West region. Other columns and row dimension values are not limited by this filter. You might do this if you want to create a report that shows the different region data in different columns, such as to compare data from the West, East, North, and South regions side-by-side.

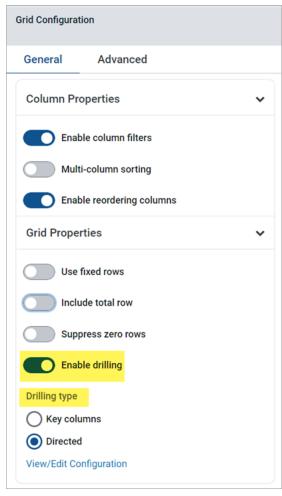
Configuring drilling for web reports

You can enable two types of drilling for web reports:

- **Key columns**: Users can drill to view the underlying data based on the key columns of the table specified as the **Data Context**. This option provides limited "out-of-the-box" drilling functionality that does not require any further setup.
- Directed: Users can drill to view the underlying data based on predefined drilling paths. The
 report designer defines the available drilling paths and can configure certain display attributes for
 the drill.

To enable either drilling option:

- 1. In the Report Builder, select the grid so that the **Grid Configuration** properties display in the Configuration Panel.
- 2. On the General tab of the Grid Configuration properties, enable Enable Drilling.
- 3. For Drilling type, select either Key columns or Directed.
- 4. If you selected **Directed**, click the **View/Edit Configuration** link to define the directed drilling paths.



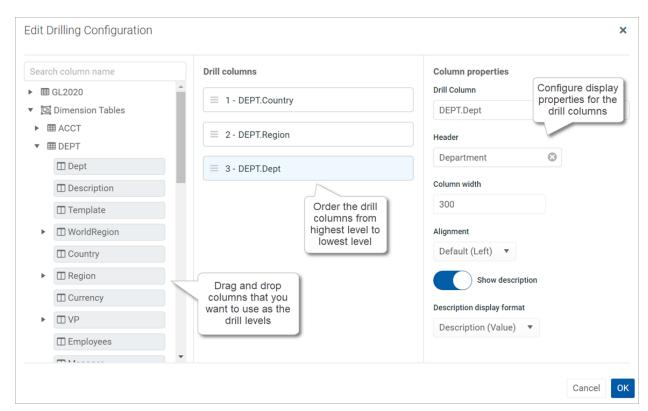
Example drill options enabled for the grid

Configuring directed drilling paths

Use the Edit Drilling Configuration dialog to define the drilling paths for directed drilling.

To define drilling paths:

- 1. In the Grid Configuration properties, click the View/Edit Configuration link under the Directed drilling option.
- 2. Drag and drop columns from the table tree to the **Drill Columns** area in the middle of the dialog. The available columns for drilling depend on the table specified as the primary table for the data context:
 - If the primary table is a data table, then you can use any column on the primary table or on a lookup reference table (the Dimension Tables).
 - If the primary table is a reference table, then you can only use column paths that originate from the primary table. The Dimension Tables node is not present, but you can still use columns from those tables by expanding the primary table and selecting the desired columns through the primary table.
- 3. Place the drill columns in the desired order for the directed drilling. Users can drill from the column at the top of the list down to the column at the bottom of the list. Generally speaking, the lowest level of detail should be at the bottom—for example: VP > Director > Manager > Dept.
 - To reorder columns, click the handle on the left side of the column box to drag and drop the column to a new position.
 - To remove a column, hover your cursor over the column and then click the X on the right side of the column box.
- 4. Select each drill column and configure the drill properties in the right side of the dialog. See the following table for information on these properties.
- 5. Click **OK** to complete the drill configuration and return to the Report Builder.



Example drilling configuration dialog

Drill Column Properties

Item	Description
Drill column	The full Table.Column path of the drill column displays for your reference, so that you know which column you are configuring.
Header	Header text for the column in the drill results. Enter the desired text. The column name is used by default.
Column width	The width of the column in the drill results, in pixels. Enter the desired column width as a whole integer between 30 and 600.
	By default, the width is 300 for all drill columns, regardless of data type.
Alignment	The alignment of the column values. Select one of the following: Default , Left , Right , Center .
	The default alignment depends on the column data type. If a column is set to use Default and the grid-level defaults are changed, the column will update to use the new default alignment. For more information, see Default column formats.

Item	Description
Show description	Specifies whether you want descriptions to display for dimension values. This option only applies to key columns, alternate key columns, and validated columns that have an associated description column.
	 If enabled (default), then descriptions display alongside the dimension values or instead of the dimension values. For example, if the column is Acct then you likely want the account descriptions to display along with the account codes.
	When this option is enabled, the Description display format field becomes available. Select the desired display format from this list. By default, the format Description (Value) is used.
	 If disabled, then only the dimension values display. For example, if the column is Acct then only the account codes will display.
	NOTE: If the dimension table has multiple description columns (meaning columns where Describes Key is True), then the first description column is used.

Using directed drilling

If directed drilling is enabled and configured, you can drill down the predefined drilling paths to view the underlying data. Directed drilling works as follows:

• When you view the report, you can hover your cursor over a row to show the magnifying glass icon on the left side of the row.

WorldRegion ↑		Q1 2020
WorldRegion	Q1 Actuals	Q1 Budget
Q Asia	\$6,989,316	\$5,416,397
Drill to Country Europe	\$473,158	\$340,531
North America	\$32,766,656	\$35,609,235

- Click the magnifying glass to drill to the first level of the drill. This is the column positioned at the top of the **Drill Columns** list in the **Edit Drilling Configuration** dialog. The drill results open in a new browser tab.
- From here, you can continue to drill by hovering over a row and clicking the magnifying glass to go to the next level of the drill. All subsequent drills are performed in the same browser tab.
- Once you reach the final level of the drill, no more drilling options are available and the magnifying glass no longer displays.

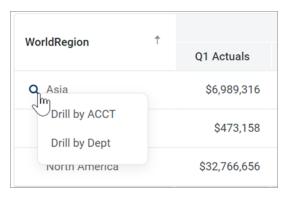
Using key column drilling

If key column drilling is enabled, you can automatically drill to the key column level to view the underlying data. The available key columns are determined as follows:

- If the primary table used as the data context is a data table, you can drill to the validated key columns on the table. However, any key column used as a row dimension will not be available for drilling, since the report already shows data at that level.
- If the primary table used as the data context is a reference table, you can drill to the key of the reference table, unless the key is used as the row dimension.

When you view the report, you can hover your cursor over a row to show the magnifying glass icon on the left side of the row. From here you can drill as follows:

- If there is only one available key for drilling, click the magnifying glass to drill.
- If multiple keys are available for drilling, click the magnifying glass to show a list of the available keys, then click on the key you want to drill.



The drill results open in a new browser tab. If multiple keys were available for drilling, you can optionally drill the drill results to view the other key(s).

If no keys are available for drilling, then the magnifying glass does not display when you hover your cursor over the row.

Presentation of drill results

When you drill, the drill results display in the same browser tab, replacing the original report grid. The data contents of the drill results are as follows:

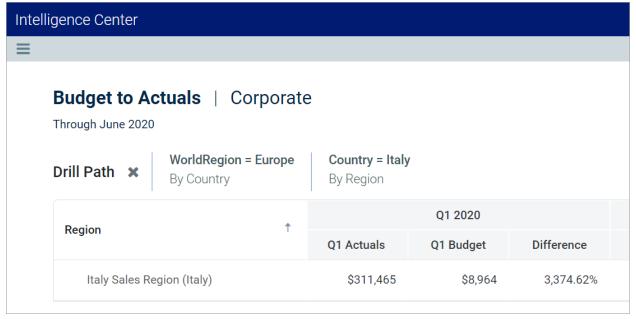
- The row dimension(s) of the original report are removed from the grid and replaced with the current drill column. The drill column is either the current column of a directed drilling path, or the selected key column.
- All other columns of the report are included in the drill results and show data for the current drill level.
- If the drill results contain multiple rows of data, the grid includes a total row. If the drill results contain a single row of data, the total row is omitted.

• Drill results are paged if the results contain many rows.

The current drill path displays along the top of the page. The drill path identifies the row that was drilled and the current drill level. If you have drilled the drill results, the previous drill levels also display in the drill path. You can click a previous drill level to return to that level, or you can click the X icon to clear the drill and return to the original report grid.

The drill column displays as follows:

- For key column drilling, the column alignment and width are determined by the column data type. The header text is the key column name. Key column values are presented as Description (Value).
- For directed drilling, the column alignment, width, and header text are as configured in the Edit Drilling Configuration dialog.



Example drill results with drilling path displayed at the top

Managing Fixed Row Structures

Fixed row structures can be used to define data sections for a web report, including section headers, data rows, subtotals, and totals. Fixed row structures are defined separately so that you can reuse them with different web reports, and so that you can update the row structure in one place and have the changes propagate to all reports that reference the structure.

Fixed row structures can be used with "custom" web reports created in the Report Builder, and with web report templates provided by installed Axiom products. The fixed row structure defines the data sections in the report, while the web report defines other report properties such as the data columns, filters, and drilling options.

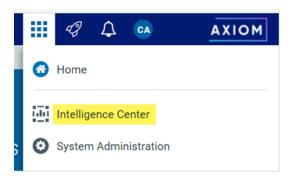


Example report using a fixed row structure

You can define as many different fixed row structures as you need. A row structure can be used with any web report where the structure's row dimensions are compatible with the report's columns, filters, drilling options, and any other report property that impacts queried data. Row structures can be created, edited, and deleted using the Intelligence Center.

To access the Intelligence Center:

 Click the menu icon in the Global Navigation Bar. From the Area menu, select Intelligence Center.



Fixed row structures are not file-based—they are stored directly in the database. There is no file type or library folder for fixed row structures, and you cannot see them in Axiom Explorer. The only place to view and manage fixed row structures is using the Intelligence Center.

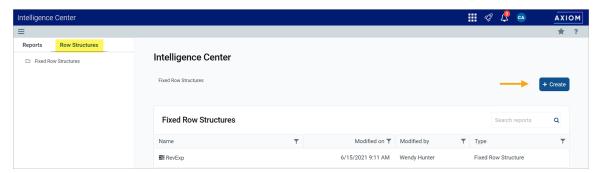
Creating fixed row structures

You can create new fixed row structures as needed for use in web reports.

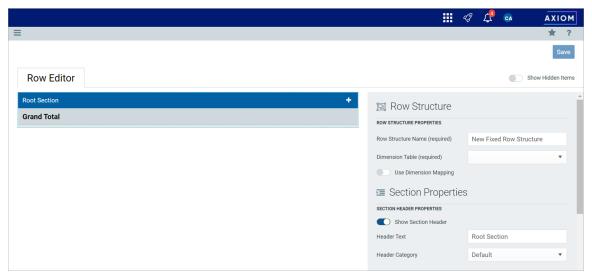
In order to create a fixed row structure, you must be an administrator or have the **Create Web Reports** security permission. If you do not have permission to create web reports, then the option to create a new fixed row structure will not be available in the Intelligence Center.

To create a new fixed row structure:

 In the Intelligence Center, select the Row Structures area from the left-hand panel, then click Create.



The row structure editor opens in the current browser tab, showing a new blank row structure. The row structure starts with just a top-level section header and a grand total row.



Example new blank row structure

2. In the top of the right-hand panel, complete the following required properties for the row structure:

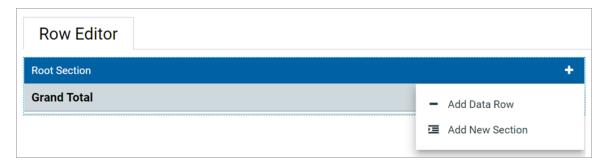
Item	Description
Row Structure Name	Enter the name of the row structure. The name identifies the row structure so that users can select it when creating a new fixed report.
Dimension Table	Specify the dimension table to use for the Filter Wizard when defining row data. For example, if rows will be defined using accounts or account groupings, select the ACCT table.
Use Dimension Mapping	Enable this toggle switch if you want to map specific items in the dimension table to specific rows in the structure. When using dimension mapping, all row data is defined at the key column level of the dimension table, and each dimension item can only be assigned to a single row. The toggle switch shows as green when enabled and as gray when disabled.
	If this option is not enabled, then row data is determined by defining filter criteria statements at the row and section level. For more information, see Using dimension mapping versus row filters in a fixed row structure.



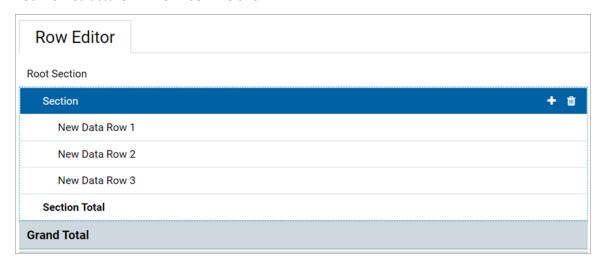
Example required properties with dimension mapping enabled

Once these items are completed, you can use the **Save** button to save the row structure.

 In the left-hand row editor, add sections and data rows as desired to create the overall row structure. Think of the Root Section as the overall "wrapper" in which all row sections are placed.
 To create the first row section, click the plus icon on the Root Section header and then select Add New Section.



Your row structure will now look like this:



You can then continue to add data rows or additional sections:

- **To add a section**, select the section header where you want to add the section, then click the plus icon > **Add New Section**. The new section is added as a subsection to the current section. By default, all new sections contain a section header row, three data rows, and a total row. You can add or remove data rows as needed.
- To add a data row within a section, select the section header where you want to add the data row, then click the plus icon > Add Data Row. The new data row is added to the current section.

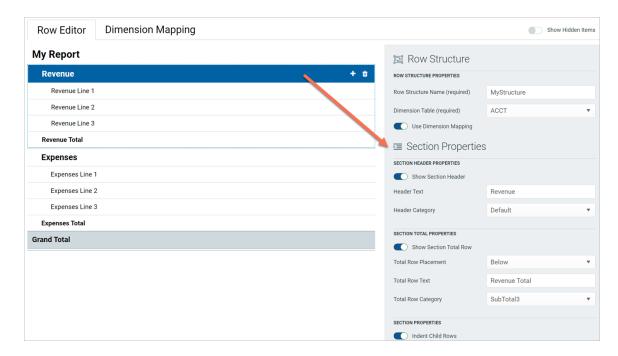
When you add a new data row or section, it is always added at the bottom of the current section. You can drag and drop the row or section to a different location within the section as needed (but not to a different section).

If a data row or a section is not needed, select the row or section header and then click the trash can icon. The row or section is deleted from the row structure.

NOTE: Header rows and total rows cannot be deleted from a section. The trash can icon on a section header row is used to delete the entire section, not the header row. If you do not want a particular section to display a header row or a total row, you can hide these rows on a per section basis using the Section Properties.

- 4. For each section in the report—including the Root Section—configure the properties for that section. To configure a section, select the section header and then complete the Section Properties in the right-hand panel. The section properties control the following:
 - Visibility, text, and style of the section header row
 - Visibility, text, placement, and style of the section total row
 - Whether data rows are indented from the parent section
 - Whether section data is added or subtracted when calculating the parent total
 - An optional data filter to apply to all data rows in the section (only available if the structure does not use dimension mapping)

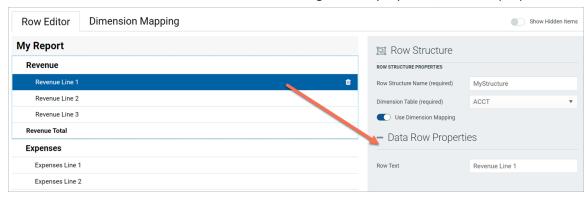
For more information on all of the section properties, see Section properties.



In most cases, the row structure immediately updates to reflect section properties that affect the display. For example, if you define header text, that text is immediately shown on the row structure. However, if you hide the section header row, the row will continue to display in the row structure unless you disable the option **Show Hidden Items**. This option is located at the top right of the row editor, under the Save button. By default, the row editor continues to show hidden section headers so that you can use the Add Data Row and Add New Section actions on the header row.

5. For each data row in the report, configure the properties for that row. To configure a row, select the row and then complete the **Row Properties** in the right-hand panel.

At minimum, the row properties define the label text for the row. If the structure does not use dimension mapping, then the row properties also define a data filter to determine the data to be shown on the row. For more information on defining the row properties, see Row properties.



- 6. If **Use Dimension Mapping** is enabled for the row structure, click the **Dimension Mapping** tab to map dimension elements to each row. This mapping determines the data to be shown on each row, instead of defining a filter. For more information on mapping dimension elements, see **Using** the Dimension Mapping editor.
- 7. Click **Save** to save the row structure.

The new row structure can now be used when creating or editing web reports.

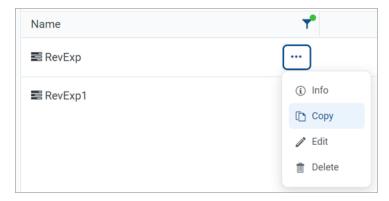
Copying fixed row structures

You can copy existing fixed row structures as needed to create additional fixed row structures.

In order to copy a fixed row structure, you must be an administrator or have the **Create Web Reports** security permission. If you do not have permission to create web reports, then the Copy action is disabled.

To copy a fixed row structure:

- 1. In the Intelligence Center, select the Fixed Row Structure area from the left-hand panel.
- 2. Locate the fixed row structure that you want to copy, then hover your cursor over the **Name** column to make the three dots icon visible. Click the icon then select **Copy** from the menu.



3. In the Copy Fixed Row Structure dialog, enter a Name for the new fixed row structure, then click OK. By default, the name is Copy of *OriginalName*.

The fixed row structure is copied with the specified name. You can now open this fixed row structure for editing.

Editing fixed row structures

Any user can edit a fixed row structure. The Create Web Reports permission is not required.

Keep in mind that when a row structure is assigned to a report, that report always uses the most current version of the row structure. Any edits that you make to a row structure are immediately available in any reports that use the row structure.

To edit a fixed row structure:

- 1. In the Intelligence Center, select the Fixed Row Structure area from the left-hand panel.
- 2. Locate the fixed row structure that you want to edit, then click on the row structure name to open it.

TIP: You can also select **Edit** from the actions menu (using the three dots icon) to edit the fixed row structure.

The row structure opens in the row structure editor, in the current browser tab.

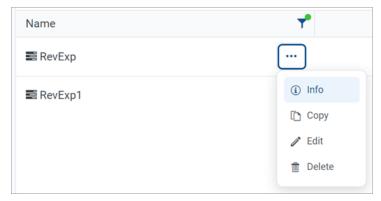
- 3. Using the row structure editor, make changes to the row structure as needed.
- 4. Click Save to save your changes.

Changing fixed row structure names and descriptions

You can rename a fixed row structure or change its description. If existing reports use the fixed row structure, those reports will continue to reference the renamed structure.

To change a fixed row structure name and/or description:

- 1. In the Intelligence Center, select the Fixed Row Structure area from the left-hand panel.
- 2. Locate the fixed row structure that you want to edit, then hover your cursor over the **Name** column to make the three dots icon visible. Click the icon then select **Info** from the menu.



The Information panel opens along the right-hand side of the page.

 In the Information panel, edit the fixed row structure Name or Description as needed, then click Apply.

The name can be up to 250 characters, and the description can be up to 2000 characters.

Deleting fixed row structures

Any user can delete a fixed row structure. The **Create Web Reports** permission is not required. If the fixed row structure was used by any web reports, those reports will no longer function correctly until they are edited to use a different fixed row structure.

IMPORTANT: If the deleted fixed row structure was used by a web report built from a template, that report will no longer work. Currently, there is no way to edit the row structure assignment for template-based reports. If the report is still needed, it must be re-created from template with a different fixed row structure.

To delete a fixed row structure:

- 1. In the Intelligence Center, select the Fixed Row Structure area from the left-hand panel.
- 2. Locate the fixed row structure that you want to delete, then hover your cursor over the **Name** column to make the three dots icon visible. Click the icon then select **Delete** from the menu.



3. When you are prompted to confirm that you want to delete the structure, click OK.

The structure is deleted from the system and no longer displays in the Intelligence Center.

Using the Row Editor

Using the Row Editor, you can define fixed row structures for use in web reports. Fixed row structures define the following:

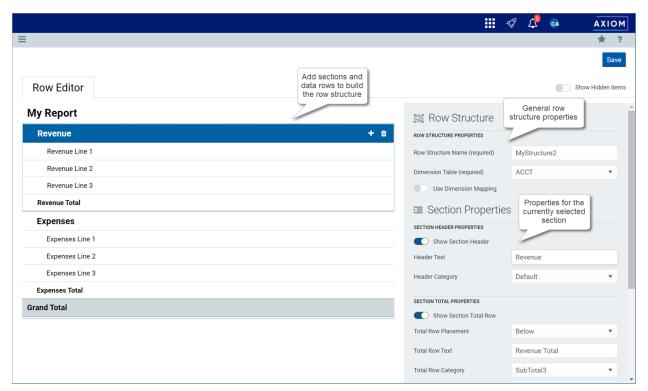
- The sections to be displayed in the report, including section titles and subtotal rows
- The data rows to be displayed within each section

When you use the Intelligence Center to create a new fixed row structure or to edit an existing fixed row structure, it opens in the fixed row structure editor.

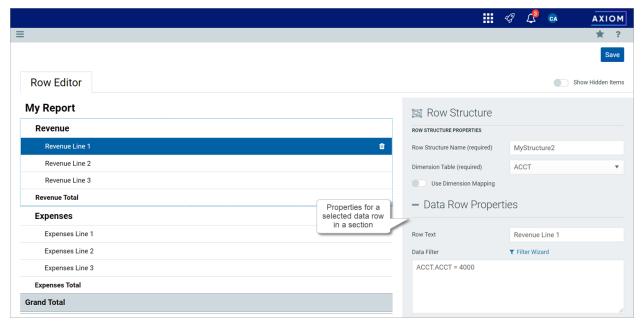
Overview

By default, the Row Editor consists of two primary areas:

- The section editor on the left-hand side, where you can add, reorder, and remove sections and data rows
- The property editor on the right-hand side, where you can define properties for the overall row structure, the selected section, or the selected row

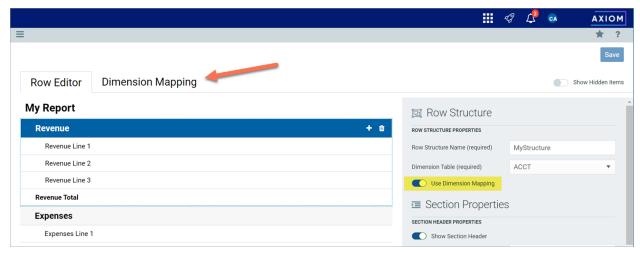


Row structure editor with a selected section



Row structure editor with a selected data row

If the row structure is configured to **Use Dimension Mapping** to define the row data, then another area is available via the **Dimension Mapping** tab. You can use the Dimension Mapping area to map dimension items to individual data rows. For more information on using dimension mapping, see **Using the Dimension Mapping editor**.



Row structure editor with Dimension Mapping tab

To save the row structure after making changes, use the **Save** button located at the top right of the editor.

Certain parts of the row structure can be configured as hidden, such as section header rows or total rows. By default, these hidden items no longer display in the editor. If you need to view these items so that you can work with them and configure them, you can toggle the option **Show Hidden items** at the top right of the editor.

Using dimension mapping versus row filters in a fixed row structure

When you build a fixed row structure, there are two different ways to define the data to be shown each in row:

- Filters: Each row can have a filter criteria statement that defines the data for that row. For example, Acct.Acct=4100 or Acct.Category='Revenue'.
- **Dimension mapping**: Each row can be assigned one or more items in a specified dimension. For example, if Acct is the specified row dimension, then you can view the list of accounts and map them to specific rows in the report as needed.

The filter option is the most flexible way to build a fixed row structure, because:

- You can use any valid filter criteria statement to define the data in each row, including compound statements using AND or OR, and referencing any table (not just the specified dimension table).
- You can define filters at the section level, which then combine with all row-level filters in the section.
- You can repeat dimension elements within the row structure—for example, to create multiple sections that show revenue for different regions or lines of business.

However, because the filter option is more flexible, it also requires a more advanced level of knowledge about your data structures. You must take care not to create invalid or conflicting filters, and make sure that your filters result in the data that you want to display in the report.

In contrast, the dimension mapping option is the easiest to set up, because:

- You are presented with a full list of all items in the specified dimension, which you can search and filter as needed.
- To assign an item to a row in the report, you simply select the item and then click the arrow button to move it over to the row. Each row can be assigned as many items in the dimension as needed.
- It is very easy to see exactly which dimension items will display on each row, and to see which items have not yet been assigned to rows.

However, the dimension mapping option is less flexible. Rows can only display data from the specified row dimension, and each item in the dimension can only be assigned to a single row.

Row structure properties

The following required properties at the top of the right-hand pane apply to the entire row structure.



Example Row Structure properties area

Item	Description
Row Structure Name	The name of the row structure. The name identifies the row structure so that it can be selected when creating or editing a web report.

Item Description **Dimension Table** The primary dimension table to be used on the data rows. You can select any reference table in your system. This selection is used as follows: • By default, it determines the table available to the Filter Wizard when defining filters for sections and data rows. For example, if the dimension table is Acct, then you can use the Filter Wizard to build filters based on Acct. **NOTE:** When using filters to define the data in sections and rows, the dimension table is simply a default table. If you want to define a filter using a different dimension, then you can manually enter a filter criteria statement using that dimension. • If Use Dimension Mapping is enabled, then it determines the dimension table for the row mappings. For example, if the dimension table is Acct, then you can map one or more accounts to each data row. In this case, data rows can only use the dimension table. **Use Dimension** Specifies whether the data in data rows is defined by using filters or by using dimension mapping. By default, this is disabled, so data is defined using filters. Mapping If instead you want to use dimension mapping for the rows, click the toggle switch to enable this option. The toggle switch shows as green when enabled and as gray when disabled. If Use Dimension Mapping is enabled, the row structure editor updates as follows: A new tab named Dimension Mapping becomes available next to the Row **Editor** tab. You can use this tab to define dimension mappings for the rows. Typically, you should define the sections and rows in the structure first, then go to the **Dimension Mapping** tab to assign mappings to each row. • The Filter fields in the Section Properties and the Row Properties become hidden, because they do not apply when using dimension mapping. If a filter is defined for a section or a row before dimension mapping is enabled, the

filter is retained in the properties (assuming it was saved) but it will be

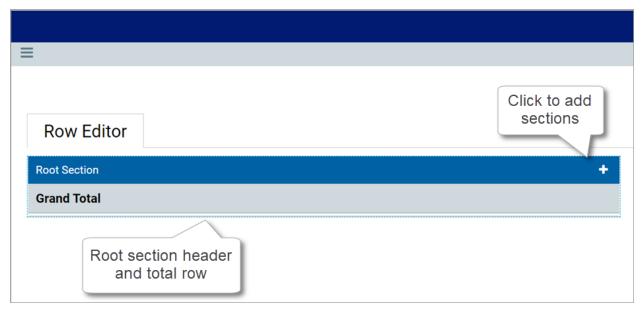
For more information on the differences between using filters or dimension mapping to define data rows, see Using dimension mapping versus row filters

ignored in reports.

in a fixed row structure.

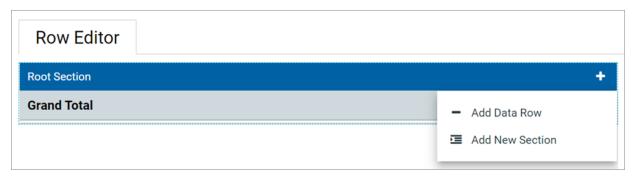
Adding, removing, and reordering sections

Using the **Row Editor** tab, you can build your row structure by adding, removing, or reordering sections. Each row structure starts with a top-level root section that includes an optional header and an optional grand total.



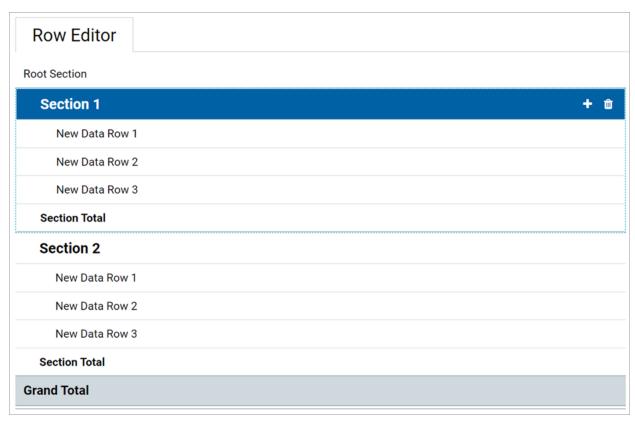
Row editor with starting root section

To add new sections to the row structure, select the section header row—the **Root Section** row—and then click the plus sign and select **Add New Section**.



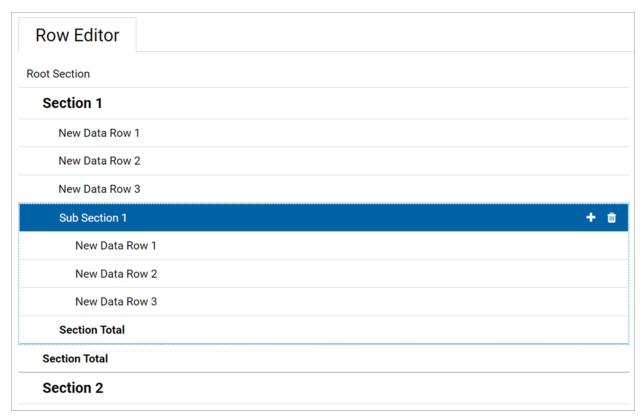
Option to add a new section

The new section is added within the root section. You can continue to add as many sections as needed at this level.



Row editor with two newly added sections

To add subsections within a section, select the section header row for any section, and then click the plus sign and select **Add New Section**. The new subsection is added to the current section. You can nest as many section levels as you need by adding subsections to sections.



Row editor with newly added subsection

Newly added sections use default text and styling, which can be configured for each section. Each newly added section consists of the following by default:

- A header row to display optional header text for the section. If you do not want a header row to display for a particular section (including the root section), you can hide it by disabling Show Section Header when configuring the section properties.
- Three **data rows** to display queried data in the section. You can add or remove data rows as needed.
- A **total row** to display the totaled data for the section. If you do not want a total row for this section (including the root section), you can hide it by disabling **Show Section Total Row** when configuring the section properties.

Once you have added sections, you can make further section changes as follows:

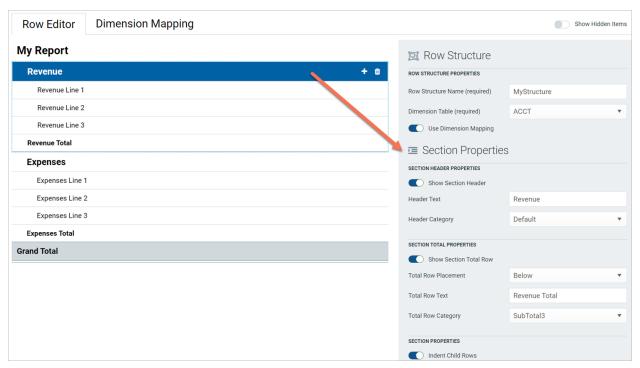
• **To reorder sections**: Select the header row of a section and then drag and drop it to a new location within the same level of the structure. For example, if you have three sections at the same level, you can drag and drop these three sections to change their order. But you cannot drag and drop one of these three sections to a lower level or a higher level.

• **To delete a section**: Select the header row of the section and then click the delete icon (trash can). The section and all of its subsections are deleted. Note that the root section is required and cannot be deleted.

IMPORTANT: Make sure you no longer need the section before clicking the delete icon. The section will be deleted immediately with no confirmation prompt. If you deleted a section by accident, then you can exit the row structure editor without saving, but you will also lose any other unsaved changes that you have made during the current session.

Section properties

To configure the properties for a section, select the section header and then complete the **Section Properties** in the right-hand pane.



Example Section Properties area

Section Header Properties

Item	Description
Show Section Header	Specifies whether the section header row is visible when the row structure is used in a report. By default, this option is enabled, so the section header row is visible. If you do not want this section to have a header row, disable this option. The toggle switch shows as green when enabled and as gray when disabled.
	If this option is disabled, then the remaining section header properties become hidden because they do not apply. Note that you may want to define header text before disabling the option, to make it easier to identify the section when working within the row structure editor.
	NOTE: If you hide the section header, then you will no longer be able to select the header row in the editor for purposes of adding rows or subsections, configuring the section, reordering the section, or removing the section. If you need to work with the section header row, you can enable the option Show Hidden Items , located at the top right of the editor. This will cause all hidden items to show in the row structure, so that they can be selected and configured.
Header Text	The text to display on the section header row. By default, this is set to "Root Section" for the root section header and "Section" for all other newly added sections. The header text should be edited to reflect the data shown in this section.
Header Category	 The style to use on the section header row. The style determines display attributes such as font size and font weight. Select one of the following: Header1 through Header6: These styles apply specific formatting to the header row. Although Header1 is designed to be used as the top-level section header, followed by Header2, and so on, you can assign these styles to any section header row as needed. Default: Axiom automatically applies the appropriate header style depending on the section's placement in the row structure hierarchy. The header row for the root section uses Header1, sections in the next level use Header2, and so on. By default, the header category is set to Header1 for the root section header,
	and Default for all newly added sections.

Section Total Properties

Item	Description
Show Section Total Row	Specifies whether the section total row is visible when the row structure is used in a report. By default, this option is enabled, so the section total row is visible. If you do not want this section to have a total row, disable this option. The toggle switch shows as green when enabled and as gray when disabled.
	If this option is disabled, then the remaining section total properties become hidden because they do not apply.
Total Row Placement	The location of the total row in the section, either Below the data rows or Above the data rows. The total row is located below the data rows by default.
Total Row Text	The text to display on the section total row. By default, this is set to "Grand Total" for the root section total and "Section Total" for all other newly added sections.
Total Row Category	 The style to use on the section total row. The style determines display attributes such as font size, font weight, shading, and borders. Select one of the following: Grand Total or Total: These styles are intended to be used for "final" total rows. Both styles use shading and top and bottom borders. The bottom border of the Grand Total is a double border.
	 SubTotal1 through SubTotal4: These styles are intended to be used for subtotal rows. These options provide varying combinations of bold and regular text, shading or no shading, and border or no border.
	By default, the total row category is set to Grand Total for the root section total row, and Subtotal3 for all newly added sections.

Section Properties

Item	Description
Indent Child Rows	Specifies whether the rows in this section are aligned with the section header row or indented. By default, this is enabled, so the rows are indented. If instead you want the rows to be aligned with the section header row, disable this option. The toggle switch shows as green when enabled and as gray when disabled.

Item Description

Parent Total Row Behavior

Specifies how the data in this section is treated when computing the total row of the parent section. Select one of the following:

- Add: The data in this section is added when computing the parent total. This
 is the default behavior.
- **Subtract**: The data in this section is subtracted when computing the parent total.
- **Ignored**: The data in this section is ignored when computing the parent total. You might do this if the rows in this section contain supporting detail that should not impact the overall totals.

Although this option displays on the root section, it does not apply because the root section does not have a parent section.

For example, imagine that you have a parent section with two subsections. Subsection A totals 5000, and Subsection B totals 1000.

- If both subsections are set to add, then the total of the parent section is 6000.
- If Subsection A is set to add but Subsection B is set to subtract, then the total of the parent section is 4000.
- If Subsection A is set to add but Subsection B is set to ignore, then the total of the parent section is 5000.

Section Data Filter

Optional. A data filter to apply to all of the data rows in this section, including any subsections. This is intended to be used when all rows in the section need to be filtered by a particular dimension or grouping, so that you do not need to repeat that dimension grouping on each individual data row. Only applies when **Use Dimension Mapping** is disabled.

Enter the filter criteria statement to apply to the data rows in this section. Section data filters use normal filter syntax for Axiom. Although you can use the Filter Wizard to create the filter criteria statement, it is limited to creating filters based on the specified dimension table for the row structure. In many cases the section data filter needs to use a different dimension, so you must manually create the filter criteria statement.

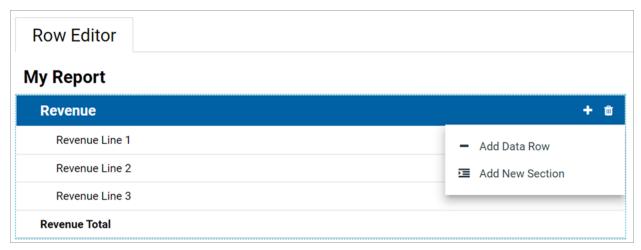
For example, imagine that you want to show revenue accounts in the rows of your report, but you want to split the data into two sections reflecting two different sales regions. You can create two sections and define section filters for each, such as <code>Dept.Region='East'</code> and <code>Dept.Region='West'</code>. All of the data rows in those sections will be filtered by the specified region in addition to the specific account filters listed on each row.

Adding, removing, and reordering data rows

Using the **Row Editor** area, you can add data rows to a section, remove unneeded rows, and reorder rows. Each data row represents a record of data that you want to query from the database and display within the report.

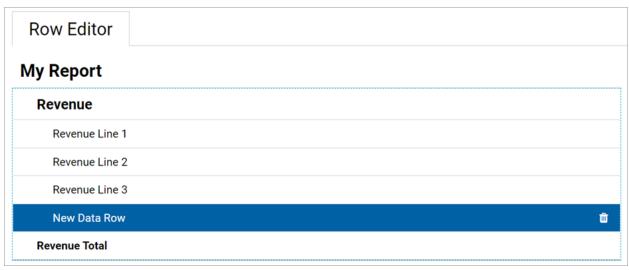
To add new data rows to a section:

• Select the section header row, then click the plus sign and select Add Data Row.



Option to add a new data row

The new row is added to the bottom of the section. You can continue to add as many new rows to the section as needed.



Section with a newly added data row

Once you have added data rows, you can make further row changes as follows:

- **To reorder rows**: Select the data row that you want to move, and then drag and drop it to a new location within the same section. For example, if you want a newly added row to be at the top of the section instead of the bottom, then you can drag and drop it to that location. But you cannot drag and drop the row to a different section, not even to subsections of the current section.
- To delete a row: Select the data row that you want to delete and then click the delete icon (trash can). The row is deleted.

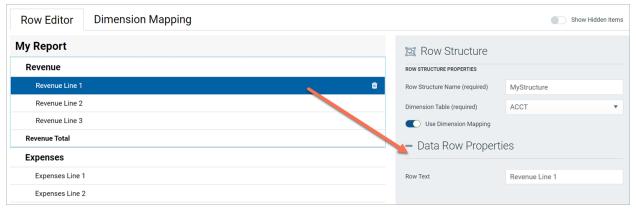
IMPORTANT: Make sure you no longer need the row before clicking the delete icon. The row will be deleted immediately with no confirmation prompt. If you deleted a row by accident, then you can exit the row structure editor without saving, but you will also lose any other unsaved changes that you have made during the current session.

Only data rows can be individually added, deleted, and reordered. Section header rows and section total rows are not considered to be data rows and are managed as part of the section. Note the following:

- The delete icon on section header rows does not delete the header row; it deletes the entire section. If you do not want a particular section to have a header row, you can configure the section to hide the header row.
- Section total rows do not have delete icons. If you do not want a particular section to have a total row, you can configure the section to hide the total row.
- Section header rows are always located at the top of the section. When you drag and drop a
 section header row you are moving the entire section, not just the header row. It is not possible
 to move just the header row.
- Section total rows can be located at either the top or bottom of the section, but not by dragging and dropping. When you configure the section, you can specify the location of the total row.

Row properties

To configure the properties for a data row, select the row and then complete the **Row Properties** in the right-hand pane.



Example Row Properties area

Item	Description
Row Text	The text to display on the data row. By default, this is set to "New Data Row". The row text should be edited to reflect the data shown on this row.
	For example, if this row is going to display data for the Travel account, the row text should be something like "Travel" or "Account 5000 - Travel".
Data Filter	A filter criteria statement to define the data to query into this row. Only applies when Use Dimension Mapping is disabled. If dimension mapping is enabled, then use the Dimension Mapping tab to map the data for this row.
	Row filters use normal filter syntax for Axiom. You can type the filter, or you can use the Filter Wizard to create a filter based on the specified Dimension Table for the row structure.
	For example, if the data filter is Acct.Category='Revenue', then this row will display data for all revenue accounts when this row structure is used in a report. The specific data returned will depend on the data columns used in the report, and any other filters applied to the report.
	Each row's data filter is independent from any other row, and does not need to use the same grouping level or even the same dimension as other rows. For example, one row can be Acct.Acct=4000, while another row is Acct.Category='Marketing', and a third row is Fcst.Acct=670. However, keep in mind the following:
	 If you use the Filter Wizard to make the filter, it is limited to the table selected as the Dimension Table for the row structure. If you want to use a different table for a particular row, you must manually write the filter.
	 Although there are no restrictions on the individual row filters, all of the filters used must be compatible with the eventual primary table selected for the report, when the fixed row structure is used in a report.

If the row uses a data filter, then the row's data filter will be combined with any upstream section data filters (using AND). For example, imagine the row structure has sections and rows configured as follows:

Parent Section Filter Dept.Company='Company A'

Current Section Filter Dept.Region='US West'

Row Filter Acct.Acct=4000

Then the data for this row is determined as follows:

Dept.Company='Company A' AND Dept.Region='US West' AND Acct.Acct=4000

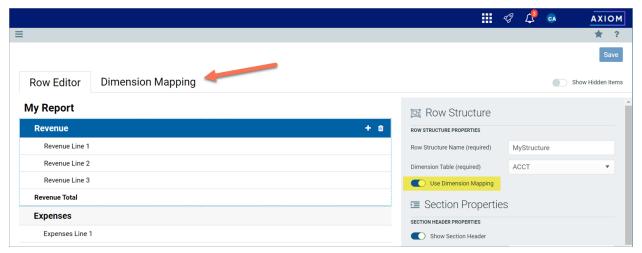
Using the Dimension Mapping editor

Using the Dimension Mapping editor, you can assign dimension items to specific rows of a fixed row structure. When the row structure is used in a web report, the rows will display data for the assigned dimension items.

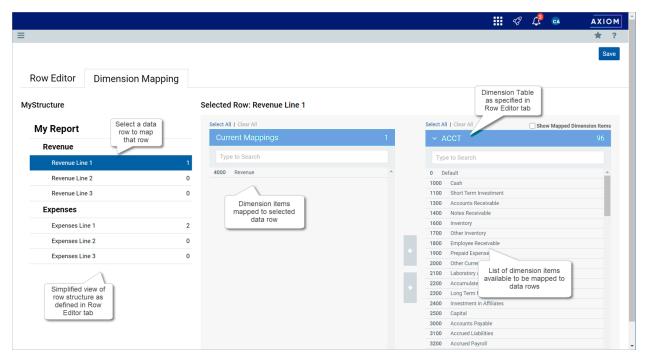
For example, if the row dimension is Acct, you can assign one or more accounts to each row in the row structure. If a row is assigned Acct 4000, then that row will display data for Acct 4000, for each of the columns used in the report.

Dimension Mapping editor overview

The Dimension Mapping editor is only accessible when creating or editing a row structure. If **Use Dimension Mapping** is enabled for the row structure, then a **Dimension Mapping** tab displays next to the **Row Editor** tab. You can click this tab to open the Dimension Mapping editor and assign dimension items to each row.



Dimension Mapping tab available in row structure when Use Dimension Mapping is enabled



Example Dimension Mapping editor

- The left side of the Dimension Mapping editor displays a simplified view of the row structure
 defined on the Row Editor tab. You can select a data row in the row structure in order to map
 dimension items to that row.
 - Each data row must be assigned at least one dimension item when using dimension mapping. It is not possible to mix use of data filters and dimension mappings.
 - The number to the left of the row label shows how many dimension items have been assigned to that row.
- The two columns on the right side of the Dimension Mapping editor are used to map dimension items.
 - The Current Mappings column in the middle of the page shows the dimension items mapped to the currently selected data row.
 - The dimension column on the right side of the page shows the remaining unmapped dimension items. The dimension used for the mappings is determined by the specified Dimension Table in the Row Editor tab. In this example, the dimension table is Acct and the column shows the list of accounts defined in that table.
 - You can use the arrow buttons between the columns to move dimension items from the dimension column to the Current Mappings column and vice versa.

Each dimension item can only be assigned to a single row in the row structure. Once a dimension item is moved to the Current Mappings column, it is removed from the list of unmapped dimension items and cannot be assigned to another row.

Assigning dimension items to data rows

Each data row in the row structure must be assigned at least one dimension item. When the row structure is used in a report, the dimension mappings determine what data displays in each row.

To assign one or more dimension items to a data row:

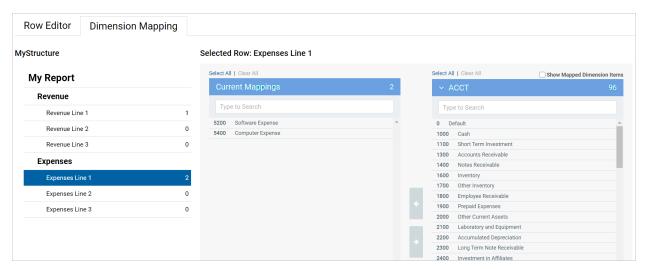
- 1. In the row structure on the left side of the page, select the data row that you want to map. If any dimension items are already mapped to this row, those dimension items display in the Current Mappings column.
- 2. In the dimension column on the right side of the page, select the dimension item or items that you want to map to the data row.
 - Click a dimension item once to select it. If you select a dimension item by accident, click it again to de-select it.
 - Note that using the Shift key or the CTRL key to select multiple dimension items at once
 does not work here. You must individually click on each dimension item that you want to
 assign.

You can search and filter the dimension list to help find the desired dimension items.

3. Once all of the dimension items that you want to assign are highlighted, click the left arrow to move the selected dimension items to the **Current Mappings** column.

If you want to remove a mapped dimension item from a data row, you can select the item in the Current Mappings column and then click the right arrow to move it back to the dimension column.

In the following example, two accounts have been mapped to the Expenses Line 1 data row. When this row structure is used in a report, this row will display summed data for the Software Expense and Computer Expense accounts. (In a real report, the label text for this data row would likely be defined as "Software and Computer Expenses" or something similar.)



Example data row with mapped dimension items

The two accounts that are mapped to this data row no longer display in the dimension column and cannot be mapped to any other row. You can optionally enable **Show Mapped Dimension Items** to see all items in the dimension column, but mapped items will display as grayed out and cannot be selected.

Searching and filtering the dimension column

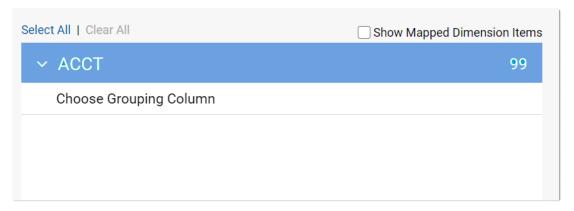
You can search and filter the dimension column to more easily find the dimension items that you want to map.

- You can type into the search box at the top of the column to find items by dimension value. The search matches any dimension value that contains the search text. Currently, the description text is not included in the search.
- You can select a grouping column so that the dimension column is filtered to only show values for a particular grouping. For example, you may have a grouping column of Category, which you can use to show accounts within a particular category—such as Revenue, Capital, or Marketing.

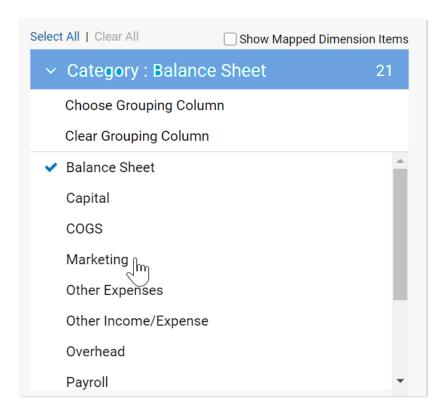
If you use **Select All** when the list is filtered by a search or by a grouping value, then only the currently visible items are selected. This can be a convenient way to find, select, and map multiple dimension items at a time.

To filter the dimension column by a grouping value:

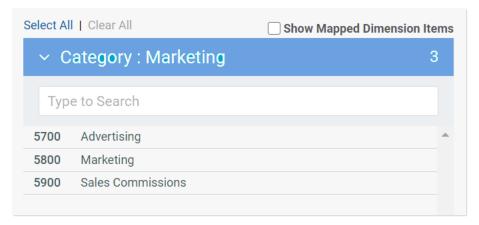
1. Click the down arrow icon in the column header, and then click Choose Grouping Column.



- 2. In the Choose a Grouping Column dialog, select the grouping column that you want to use, and then click OK.
 - The dimension column becomes filtered by the first value in the selected grouping column. This value displays in the column header.
- 3. To filter the dimension column by a different value in the grouping column, click the down arrow icon in the column header, and select the desired value.
 - In the following example, "Balance Sheet" was the automatically-selected value from the grouping column, and we are now going to select "Marketing" instead.



The dimension column is now filtered to only show accounts that belong to the Marketing category.



If you want to clear the grouping column filter, click the down arrow icon in the column header, and select **Clear Grouping Column**.

Production reporting for web reports

Using production reporting features with web reports, you can generate and deliver report "snapshots" to various audiences as needed.

- You can perform multipass processing on a web report over a specified dimension, such as by department, region, or entity. The report is iteratively refreshed—one "pass" for each value of the dimension—and during each pass a filter is automatically applied to limit the data to the current dimension value.
- The output of each pass is a filtered PDF or Excel "snapshot" of the report. This static snapshot is then saved to a target folder location—either a local folder in your network or the Axiom repository—and/or emailed to a specified recipient. Folder locations and email recipients can be determined dynamically so that the location and recipient changes as needed for each pass.
- Multiple PDF or Excel snapshots can be optionally collected into larger "report books" and then
 dynamically saved and/or emailed as needed. For example, you might process three different
 web reports by entity, and then collect the three resulting entity snapshots into a single file per
 entity.

To perform multipass processing on a web report, use the Scheduler task **Web Report Processing**. This task will process a target report by a specified dimension, and then save and/or email the output files as configured in the task.

To collect output files into report books, use the File Collect option of File Processing. To do this, you must create a spreadsheet report, enable it for file processing, and then configure file collect options. Once it is configured, file collect processing can be run manually in the Desktop Client, or can be run using the Scheduler task **File Processing**.

IMPORTANT: In phase one of production reporting for web reports, processing is only supported for web reports created from product-delivered templates. Ad hoc web reports created in the Report Builder cannot be processed yet. Support for ad hoc report processing is planned for an upcoming phase two.

Setting up web report processing

You can perform production reporting for web reports using multipass processing. The report can be processed multiple times over a dimension, generating a filtered PDF or Excel copy of the report for each value of the dimension. The report copies can be saved to a designated location and/or emailed to designated recipients.

To perform multipass processing on a web report, use the Scheduler task **Web Report Processing**. When you set up this task, you configure the following:

- The web report to process. You can process any web report created from a product-delivered template.
- The output format of the processing. Each pass will generate a filtered PDF or Excel output file. The name of the file can be set dynamically using processing variables and job variables.
- The delivery option for the processing. Each output file can be saved to a folder location, emailed to a recipient, or both.
 - If the output is saved, you specify the location of the target folder (local or Axiom repository) and the folder path. The folder path can be set dynamically using processing variables and job variables.
 - o If the output is emailed, you specify the recipients of the email, and the email subject and body text. The recipients can be manually entered into the task settings (and can optionally use job variables), or you can specify a table column to dynamically look up the recipients. Recipients can be email addresses, or you can list user and role names to look up email addresses from Axiom security. The email subject and body text can be set dynamically using processing variables and job variables.
- The dimension to process. You can specify any dimension that will be compatible against the data queried in the target web report. The web report will be processed once for each value in the dimension. If desired, you can define a filter to limit the dimension values to process.

Configuring a web report processing task

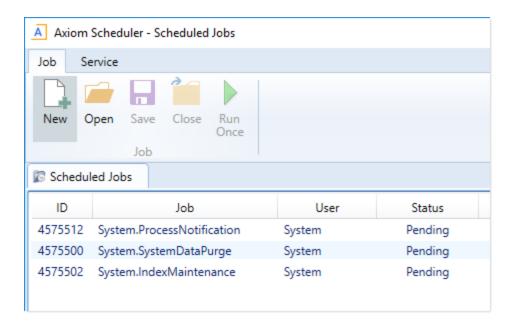
In order to create a Scheduler job with a Web Report Processing task, you must be an administrator or a user with the **Scheduled Jobs User** permission. You must also have read/write access to at least one folder in the Scheduler Jobs Library to save the job. Scheduler jobs can only be created in the Desktop Client.

To create a Scheduler job with a web report processing task:

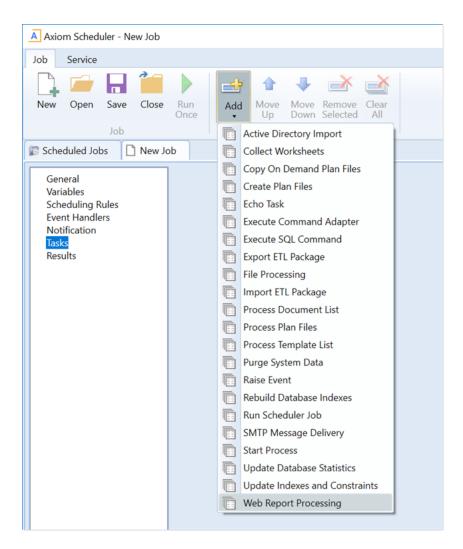
1. On the Axiom tab, in the Administration group, click Manage > Scheduler.

NOTE: In systems with installed products, this feature may be located on the **Admin** tab. In the **System Management** group, click **Scheduler**.

2. In the Scheduler dialog, on the Job tab, click New.



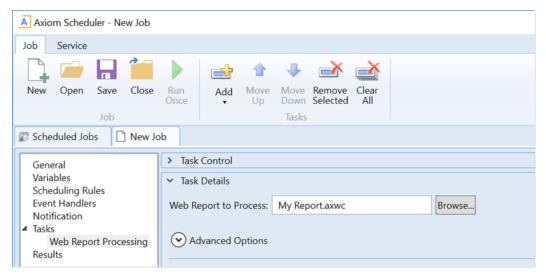
3. Select the Tasks section of the job, then on the Job tab, click Add > Web Report Processing.



- 4. Select the Web Report to Process. This is the report that will be processed by the task.
 - Click the **Browse** button to open the Axiom Explorer dialog.
 - Navigate to the web report that you want to process, then select the report and then click
 Open.

The selected report is listed in the Web Report to Process box.

IMPORTANT: Remember, only web reports that are created from a product-delivered template can be processed. The Axiom Explorer dialog is filtered to only show reports that were created from template.



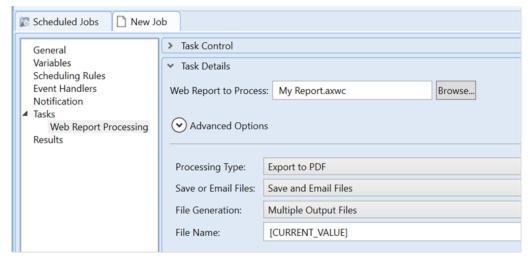
Example task with report selected for processing

5. Complete the general processing properties that determine the processing type and the output:

Item	Description
Processing	Select one of the following to determine the output format of each pass:
Туре	 Export to Excel (default): The contents of the report are exported to a spreadsheet (XLSX) file. The output uses the same behavior as when you export to spreadsheet while viewing the web report.
	• Export to PDF: The report is saved as a PDF file. The output uses the same behavior as when you save to PDF while viewing the web report.
Save or Email Files	Select one of the following to determine the delivery method for the output:
	 Save Files (default): The output files are saved to the specified output folder.
	 Email Files: The output files are emailed to the specified recipients. The output files are not saved anywhere on the file system.
	Save and Email Files: The output files are both saved and emailed.

Item Description File Generation Select one of the following to determine whether the output is saved as a single file or multiple files: • Multiple Output files (default): The results of each pass are saved as individual output files. For example, if the multipass settings result in 10 passes, then 10 output files are created (one file for each pass). • Single Output File: The results of each pass are collected into a single output file. For example, if the multipass settings result in 10 passes, then the results of all 10 passes are placed in a single output file. If the output type is Excel, then each pass is a separate sheet in the Excel file. If the output type is PDF, then the PDF for each pass is combined into one large PDF file. File Name Specify how the output file (or files) should be named. You can do the following: You can use processing variables and/or Scheduler job variables to generate dynamic file names. You can type a "hard-coded" file name. If the task will generate multiple output files, then the file name (or the output folder path) must use a processing variable so that the output of each pass is unique. If the task will generate a single output file, then variables are not required. To use a processing variable, you can type the variable or you can click the the variable that you want to use. For example, you could set the file name to Income Statement [Current Value]. If the report is being processed by region to multiple output files, this will generate file names such as Income Statement West, Income Statement East, and so on (where "East" and "West" are region names). **NOTE:** Processing variables and Scheduler variables use different syntax. Processing variables are enclosed in square brackets. Scheduler job variables are enclosed in curly brackets.

Item Description **Sheet Name** Specify how the sheet for each pass should be named. This property only applies when the processing type is Export to Excel. You can do the following: You can use processing variables and/or Scheduler job variables to generate dynamic sheet names. You can type a "hard-coded" sheet name. If the task will collect all of the output into a single spreadsheet file, then the sheet name must use a processing variable so that the output of each pass is unique. If the task will generate multiple output files, then variables are not required. To use a processing variable, you can type the variable or you can click the pencil icon / to open a text editor. From the Insert Variable list, select the variable that you want to use. For example, you could set the sheet name to [Current Value]. If the report is being processed by region, this will generate sheet names such as West, East, and so on (where "East" and "West" are region names). **NOTE:** Processing variables and Scheduler variables use different syntax. Processing variables are enclosed in square brackets. Scheduler job variables are enclosed in curly brackets.



Example task with general processing properties configured

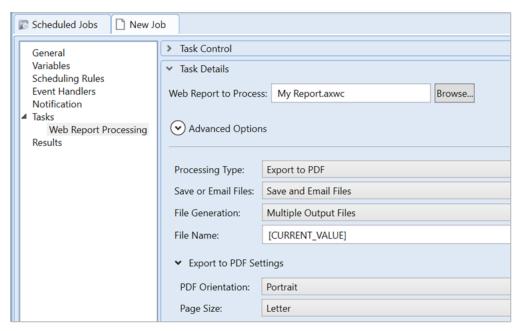
6. Depending on the selected processing type (PDF or Excel), complete the properties specific to that processing type:

Export to PDF Settings

Item	Description
PDF Orientation	Select the orientation for the PDF, either Portrait or Landscape . Portrait is the default orientation.
Page Size	Select the page size for the PDF. You can choose from the following standard page sizes: A3, A4, A5, Legal, Letter, or Tabloid. Letter is the default size.

Export to Excel Settings

Item	Description
Include Column Headers	Specifies whether column headers are included in the file output. By default this is set to On , which means column header text is included in the first row of the spreadsheet. Column grouping headers and multi-row headers are not included.
	If this option is set to Off , then column headers are omitted from the file output and the data starts in the first row of the spreadsheet.
Include total row	Specifies whether the total row is included in the file output. By default this is set to On , which means that the total row is included in the spreadsheet.
	If this option is set to Off , then the total row is omitted from the file output.
	NOTE: This option only applies when the web report being processed is a dynamic row report with the total row enabled. If the web report being processed uses a fixed row structure, then the total and subtotal rows defined in the fixed row structure are always included in the spreadsheet.



Example task with PDF-specific settings

7. If the processing is set to Save Files or Save and Email Files, complete the Output File Settings:

Item	Description
Output To	Select one of the following:
	 Local File System (default): The output location is outside of Axiom, to a location on your local network share. The specific path is detailed in the Output Folder setting. Access to output files is not controlled by Axiom.
	 Axiom Repository: The output location is the Axiom file system, within the Reports Library. The specific path is detailed in the Output Folder setting. Access to output files is controlled by security access to the designated folder within Axiom.

Item

Description

Output Folder

Specify the folder location for the file output. You can type a folder path, or you can click the folder icon to browse to the folder location. The browse dialog will display either your local file system or the Axiom file system, depending on what you selected for **Output To**.

The output folder can be made dynamic as follows:

- If File Generation is set to Multiple Output Files, then processing variables can be used in the output folder path. For example, you can include [Current_Value] in the output folder path, and this will be replaced with the current multipass value. Processing variables are not valid in the output folder path if the task is configured to generate a single output file.
- Scheduler job variables can be used in the output folder path.

NOTE: Processing variables and Scheduler variables use different syntax. Processing variables are enclosed in square brackets. Scheduler job variables are enclosed in curly brackets.

Local file system

The output folder location must be entered as a UNC path, and must be accessible by the Scheduler service user account (for on-premise systems) or the Axiom Cloud Integration Service (for cloud systems).

The ability to save files to the specified location and access them after saving is controlled by local network security.

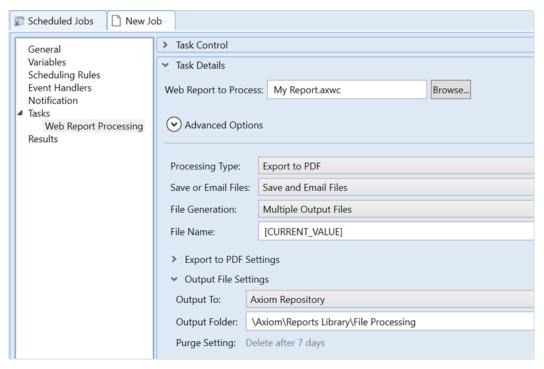
Axiom repository

The specified location in the Axiom file system must be within the Reports Library, and the location must use the full path (meaning:

\Axiom\Reports Library\...). The ability to save files to the specified location and to create new folders (if necessary) depends on the Axiom security permissions for the user processing the file. Users can only create new folders if they have read/write permissions to the parent folder, and they can only create new files if they have read/write permissions to the target folder.

Once the files are created within the Axiom file system, access to those files is dependent on the user's permissions to the output folder. Typically you should create the output folder in advance (or if you want to create output folders on-the-fly, create a parent folder to hold the output folders), and then set permissions for that folder as appropriate in Axiom security, so that the appropriate users will be able to access the files after they are created.

Item	Description
Remote Data Connection	This option only applies when the file output is being saved to your local file system, and only for Axiom Cloud systems that are using remote data connections.
	Select the name of the remote data connection to use for the file processing operation. The designated remote data connection will be used to access the local file system and save output file(s) to the designated location.
	A remote data connection is required to save files locally from an Axiom Cloud system. For more information, see the section on remote data connections in the <i>Scheduler Guide</i> .
Purge Setting	This option only applies when the file output is being saved to the Axiom Repository.
	If you want the file output to be automatically deleted after a specified period of time, then click the pencil icon / to open the Choose Date dialog.
	No purge date (default): File output is not automatically deleted.
	 Static purge date: Select a specific date, after which the output will be deleted.
	 Relative purge date: Specify a number of days to keep the output after it has been generated. The output will be deleted after the specified number of days have passed.



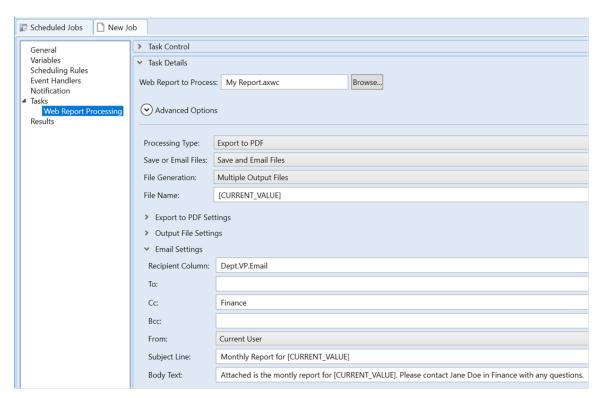
Example task saving output to the Axiom Repository

8. If the processing is set to Email Files or Save and Email Files, complete the Email Settings:

Item	Description
Recipient column	Optional. Specify a table column that holds the desired email recipients for each pass. This option only applies if File Generation is set to Multiple Output Files , so that each pass will be sent a separate email.
	You can type the name of a table column, or click the column button to select a column from the multipass table or a lookup table. (You must select a multipass column first before you can use the column button to select a column.) For example, if the multipass column is Dept.VP, the recipient column might be Dept.VP.Email.
	The specified column can contain any of the following: email addresses, user login names, and/or role names. The column can contain multiple values separated by a semicolon. The recipients listed in the column will be used as the To address for the email (in addition to any recipients listed directly in the To field). If the column contains a user login name, that user's email address as defined in security will be used. If the column contains a role name, the email will be sent to all users in the role.
	To verify that the recipient column will resolve as you expect for each pass, you can click the Preview Multipass List button in the Multipass Data Settings section. The specified recipient column displays in this preview so that you can see the recipient column values associated with the multipass column values.
	NOTE: The recipient column must have a one-to-one relationship with the values in the specified multipass column.
То	Specify the To recipient(s) for the email. This is required if a recipient column is not specified. If a recipient column is specified, the recipients listed here will be added to the recipients listed in the column for each pass.
	You can type one or more email addresses, user login names, and/or role names. Separate multiple recipients with semicolons. If a user login name is listed, that user's email address as defined in security will be used. If a role name is listed, the email will be sent to all users in the role.
	NOTE: If File Generation is set to Multiple Output Files , the recipients in the To field will receive a separate email for each pass. The only way to dynamically send the emails to different recipients per pass is to use the Recipient Column option.
СС	Optional. Specify the CC recipient(s) for the email. This field follows the same rules as the To field.

Item	Description
ВСС	Optional. Specify the BCC recipient(s) for the email. This field follows the same rules as the To field.
From	Select one of the following to specify the From address for the email:
	 Current User: The email will be sent from the user who executes the Scheduler job.
	• System User: The email will be sent from the designated From user for Scheduler. This is the same value returned by the {Scheduler.FromEmailAddress} job variable.
Subject Line	Enter the subject line for the email. Processing variables can be used in the subject line when File Generation is set to Multiple Output Files.
	To use a processing variable, you can type the variable or you can click the pencil icon / to open a text editor. From the Insert Variable list, select the variable that you want to use.
	For example, you could set the subject line to Monthly report for [Current_Value] in order to include the current pass value in the subject line.
Body Text	Enter the body text for the email. Processing variables can be used in the body text when File Generation is set to Multiple Output Files.
	To use a processing variable, you can type the variable or you can click the pencil icon / to open a text editor. From the Insert Variable list, select the variable that you want to use.

Scheduler job variables can be used in any of the email settings except the From setting.



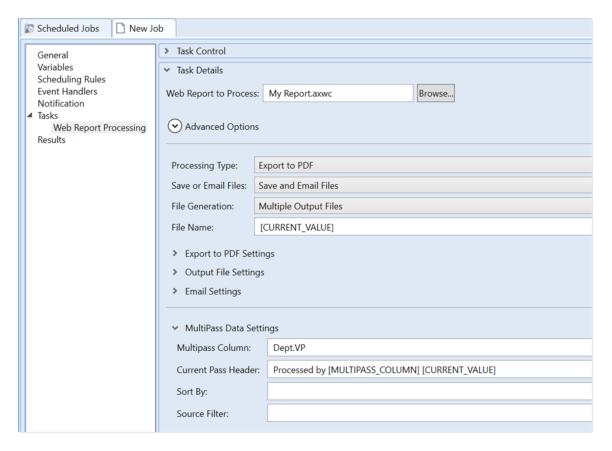
Example task looking up email addresses from a recipient column

9. Complete the multipass settings for processing:

Item	Description
Multipass Column	Specify the column to use for multipass processing. You can type a Table.Column name, or click the column icon III to select the column from a dialog. You can select any column on a data or reference table, though typically processing is performed by a dimension such as Dept.Dept, or a grouping such as Dept.Region.
	The report will be processed once for each unique value in the specified column (except for any values excluded by the Source Filter). A filter is applied to the data query in the report so that the data is limited to the current pass value. For example, if you are processing by Dept.Dept, then the report will be processed once for each department, and the report data will be limited to only the data for that department.
	Keep in mind the difference between processing by a data table column such as GL2021.Dept, versus a dimension table column such as Dept.Dept. When processing by GL2021.Dept, the report will be processed by each department with data in the GL2021 table. When processing by Dept.Dept, the report will be processed by each department in the Dept table.
	To verify the list of values for processing, click the Preview Multipass List button to view the list of items. The first 100 values are shown, in the order they will be processed. If the task configuration includes a Recipient Column (in the email settings) or a Sort By column, these columns are also shown in the preview.

Item	Description
Current Pass Header	Optional. Define a header to display in the report output file. This option only applies if the processing type is Export to PDF .
	The current pass header should use processing variables to display information about the current pass. To use a processing variable, you can type the variable or you can click the pencil icon to open a text editor. From the Insert Variable list, select the variable that you want to use.
	For example, you can define a header such as:
	Processed by [MULTIPASS_COLUMN] [CURRENT_VALUE]
	When processing by Dept.Dept, this would resolve such as Processed by Dept 22000
	By default, if the current pass header is left blank, then the PDF output will not include a header to indicate the current pass information. However, it is possible that the template used to create the report may have been designed with a dynamic header that will display this information.
Sort By	Optional. Specify one or more sort columns for the list of multipass values. You can type a Table.Column name, or click the column icon to select the column from a dialog. You can also optionally specify Asc or Desc after the column name (ascending order is used if not specified). For example: Dept.Dept Desc. Separate multiple values with semicolons.
	By default, the values are sorted by the multipass column in ascending order. The Sort By field only needs to be used if you want the values to be sorted in descending order instead, or if you want the values sorted by a different column in the same table.
	The processing order is only relevant when File Generation is set to Single Output File , since it determines the order of each individual pass within the single file. When outputting to Multiple Output Files , the order is still used during processing but it has no useful impact on the outcome.
Source Filter	Optional. Specify a filter to limit the multipass list of items. You can type a filter, or you can click the filter icon $\sqrt[\infty]{}$ to use the Filter Wizard.
	When the multipass list of values is generated, any value that does not meet the source filter will be excluded from processing.
	By default, all values in the specified multipass column are processed if the source filter is left blank.

Scheduler job variables can be used in any of the multipass settings.



- 10. Complete the remaining task and job settings as desired. For more information, see the Scheduler documentation. Note the following:
 - Generally speaking, the Advanced Options displayed at the top of the Web Report
 Processing task should only be modified as advised by Axiom Support.
 - If you want to schedule the job for execution at a later date and/or time, including setting up recurring execution, use the **Scheduling Rules** section of the job.
 - If you want to use Scheduler job variables in any task settings, these variables should be defined in the **Variables** section of the job.
 - It is recommended to review the **Notification** settings for the job and adjust them as needed. By default, Scheduler jobs are configured to send an email to the user who executed the job when the job completes, regardless of the job status.
- 11. On the Job tab, click Save to save the job.
- 12. In the Axiom Explorer dialog, select a folder location in the Scheduler Jobs Library and define a name for the job, then click **Save**.

If the job settings included an active scheduling rule, this rule is evaluated when the job is saved and the next scheduled execution is added to the Scheduler job queue.

Executing web report processing

Once you have set up a Scheduler job with a Web Report Processing task, you can execute the web report processing by executing the Scheduler job. Scheduler jobs can be executed on demand by using the **Run Once** feature within Scheduler, or you can schedule the job for future execution by defining and saving a scheduling rule in the job. Scheduler jobs can also be executed on demand using RunEvent, such as to kick off the Scheduler job from a custom task pane, Axiom form, or spreadsheet Axiom report.

When web report processing is executed, the following occurs:

- The list of multipass values to process is obtained using the Multipass Column limited by the Source Filter, sorted in the default or specified sort order.
- The specified report is processed once for each value in the multipass list.
 - The report data query is filtered by the current pass value and the report data is refreshed.
 - A PDF or Excel copy of the report is generated, depending on the specified Processing Type.
- If the File Generation is Multiple Output Files, then the output file for each pass is saved and/or emailed according to the task configuration.
- If the File Generation is Single Output File, then the result of each pass is saved in temporary storage and then merged into a single file once all passes are complete. This single file is then saved and/or emailed according to the task configuration.

Each pass of multipass processing can succeed or fail independently without affecting the other passes. For example, imagine the multipass list has 10 items. Pass 1 fails because the specified recipient column does not contain a valid email address, user name, or role for the pass 1 value. This pass-level failure does not stop passes 2-10 from being processed. The job status will report partial success in this case.

A Scheduler job can contain multiple Web Report Processing tasks, followed by a File Processing task to collect the various output files into "report books", and then save and/or deliver the collected books. For more information, see Setting up file collect with web report processing.

Using processing variables

The following processing variables can be used in various settings within the Web Report Processing task, in order to dynamically change the setting using information for the current pass.

Item	Description
[CURRENT_VALUE]	This variable returns the current multipass processing value. For example, if you are processing by Dept.Dept, and the current pass is for department 20000, the variable will be replaced by the value "20000" for this pass.
	This variable is typically used in settings such the file name, sheet name (when generating Excel output), and folder path.
[CURRENT_PASSNUMBER]	This variable returns the current pass number. For example, if the current pass is number 20 of 35 passes, the variable will be replaced by the value "20" for this pass.
[MULTIPASS_COLUMN]	This variable returns the name of the multipass column. For example, if you are processing by Dept.Dept, the variable will be replaced by the value "Dept" for all passes.
	This variable could be used whenever you want to reference the name of the dimension processed. For example, instead of just referencing the current value in the file name, you might want to reference the column name and the value. A variable construction like [MULTIPASS_COLUMN] [CURRENT_VALUE] would resolve to "Dept 20000" when processing by Dept.Dept and the current pass is for department 20000.

Processing variables can only be used in certain settings, and sometimes only when the output is multiple files (versus a single file). See the documentation for each individual setting to see if processing variables are supported in that setting.

NOTE: Processing variables and Scheduler variables use different syntax. Processing variables are enclosed in square brackets. Scheduler job variables are enclosed in curly brackets.

Using Scheduler job variables in task settings

Scheduler job variables can be used in any Web Report Processing task setting that you can directly type into, such as the file name, sheet name, folder path, and various email settings. To use a Scheduler job variable, you first define the variable on the Variables tab of the job, then you enter the variable in the desired setting using curly brackets. For example, if the variable name as defined on the Variables tab is columname, then enter {columname} in the task setting. When the job is executed, the variable in curly brackets will be replaced by the current value of the variable.

Scheduler job variables are useful when you want a task setting to change dynamically based on a variable value that gets passed to the Scheduler job. Various processes in Axiom can trigger a Scheduler job for execution and pass variable values to the job. Additionally, previous tasks in the job can set a variable value that is then passed to subsequent tasks in the job.

NOTE: Processing variables and Scheduler variables use different syntax. Processing variables are enclosed in square brackets. Scheduler job variables are enclosed in curly brackets.

Using Scheduler job variables to pass refresh variable values

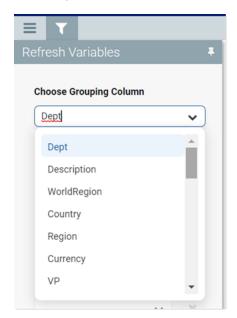
If the web report uses refresh variables, Scheduler job variables can be used to pass variables to these variables. For example, in some cases the report may require certain refresh variables to be set before data can be queried. In this case, the Scheduler job must pass values for these required refresh variables. The refresh variables will be used to refresh data for each pass, in addition to the multipass filter for the current pass.

In order to pass a Scheduler job variable value to the report as a refresh variable value, special syntax is used for the job variable:

ReportVariable. Variable ID

Where ReportVariable is a dedicated keyword that tells processing to apply the variable as a report parameter, and VariableID is the name of the specific report parameter.

For example, the report may contain a refresh variable that specifies the grouping level (row dimension) of the report. This refresh variable takes values such as Dept, WorldRegion, Country, and so on.



Example refresh variable

In this example, the ID of this refresh variable is <code>groupingColumnVar</code>. Therefore to pass a value to this refresh variable, a Scheduler job variable named <code>ReportVariable.groupingColumnVar</code> can be used. This variable must be assigned a value that exactly corresponds to a value that can be selected for the refresh variable within the Refresh Variables panel.



When this report is processed, the value for this refresh variable will be set to Region.

NOTES:

- The processing variable [Current_Value] can be used as the variable value, if it will resolve to a valid value for the refresh variable. In this case, the value of the variable will change dynamically for each pass.
- Because the variable IDs are not exposed on the report, this feature is primarily useful for product developers to deliver a pre-configured Scheduler job with a product.

Setting up file collect with web report processing

You can combine web report processing with the File Collect feature to create and deliver "report books". For example, you may have three different reports that you want to process by region, then you want to collect the output into region-specific report books to deliver to each regional manager.

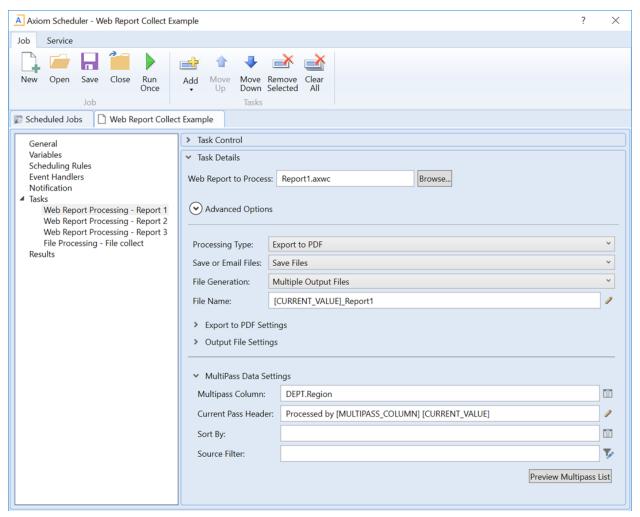
This process works as follows:

- You set up multiple Web Report Processing tasks in Scheduler to process the web reports and save the output to a designated location. The output can be PDF or Excel.
- You set up File Collect in a separate spreadsheet utility to collect the output from the Web Report Processing tasks. This configuration specifies:
 - The type of files to collect, PDF or Excel.
 - The source folder(s) from which to gather the files to collect.
 - The file filter to specify the files to collect.
 - The file name of the output file, and the file type if applicable—PDF files can only be collected as PDF, but Excel files can be collected as either PDF or Excel.
 - The delivery method of the output file—save only, email only, or save and email—as well as the output folder and email settings (as applicable).
 - Optional common files to include in each output file, such as a cover page.
 - Optional multipass column to perform the file collect operation iteratively over a dimension

You set up a File Processing task in Scheduler and configure it to run the File Collect report utility.
 Typically all of the tasks would be in a single Scheduler job, so that the Web Report Processing tasks are run first, then the File Processing task runs afterward to perform the final collect operation.

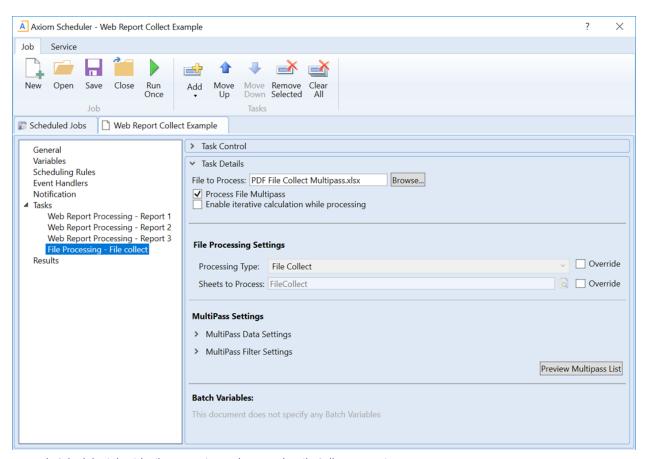
File Collect is an option of File Processing. It can be used to collect any PDF or Excel files, regardless of how they are generated. For more information on how to configure file collect, see the File Collect documentation.

The following example shows a Scheduler job with three Web Report Processing tasks and one File Processing task. The three Web Report Processing tasks are used to process three different web reports by region and then save the output files to a designated folder in the Axiom repository.



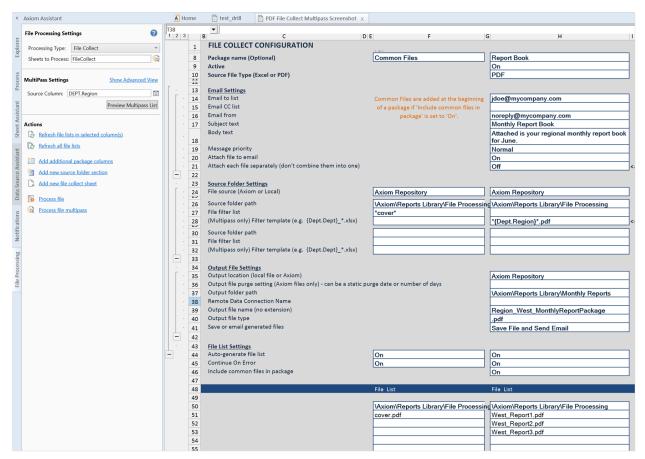
Example Scheduler job with multiple Web Report Processing tasks

The File Processing task is used to run the File Collect report utility once all of the Web Report Processing tasks are completed. Note that the File Processing task simply points to the spreadsheet report that contains the File Collect configuration; the settings are not defined within the Scheduler job.



Example Scheduler job with File Processing task to run the File Collect operation

The following screenshot shows an example of how the File Collect settings could be configured within the spreadsheet report. The File Collect operation will be performed using multipass processing by region. The file filter will collect all files in the source folder location based on the current pass region name, then save and email the output file. The email address and file name settings use a formula with a GetCurrentValue function in order to dynamically set the email address and file name for each pass.



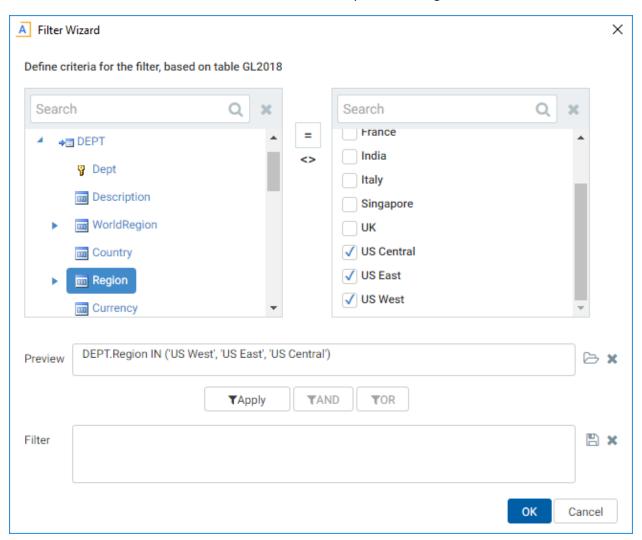
Example File Collect configuration to collect the PDF output into a PDF report book



Reference

Using the Filter Wizard

The Filter Wizard is available in various locations to assist you in building a valid filter criteria statement.



Example Filter Wizard

The tables available in the wizard depend on the current context. For example, if you are creating a data filter for a web report, the wizard only shows valid tables in relation to the specified primary table. In other areas, the tables in the wizard may be limited based on other factors.

To create a filter:

1. In the left-hand side of the dialog, select the table column on which you want to base the filter.

For example, if you want to create a filter such as DEPT. DEPT>=5000, then you must select the DEPT column from the DEPT table.

To find the desired table and column, you can filter the list by typing into the Search box. The filter matches based on table and column names.

Once you select a table column, the values in that column display in the right-hand side of the dialog.

TIP: Alternatively, you can use the folder icon to the right of the **Preview** box to load a previously saved filter from the Filters Library. If you do this, your selected filter is placed in the Preview box, overwriting any current content in the preview. Skip to step 4.

2. In the right-hand side of the dialog, select the value(s) on which you want to base the filter.

You can type into the filter box below the list of values to filter the list. Your current typed value is always placed at the top of the list. You can select this typed value regardless of whether it currently matches an actual value in the column. This behavior is to allow you to create a filter for empty tables, or for tables where the value you want to filter on is not yet present in the column. This is why you may see the "no matches" message but still have one value in the list—your typed value.

3. In the space between the two selection boxes, select the operator to use for the filter criteria statement, such as equals, not equals, greater than, or less than. By default, the filter statement uses equals (=).

Note the following about filter operators:

- Greater than / less than options are only available if the column data type holds numbers or dates.
- If multiple items are selected, then IN and NOT IN syntax is automatically used for equals and not equals respectively.
- If the column is a string column and the value contains an apostrophe (such as O'Connor), the wizard automatically converts this value to double apostrophes so that it is valid for use in the filter (O''Connor). Apostrophes in string values must be escaped this way so that they are not interpreted as the closing apostrophe for the filter criteria statement.
- The LIKE operator is supported, but is not available for selection in the Filter Wizard. You must manually edit the filter criteria statement if you want to use it. Only advanced users with knowledge of valid SQL LIKE syntax should do this.

4. Review the filter criteria statement in the **Preview** box to ensure that it is as intended. If you need to make changes, you can manually edit the statement, or you can start again with a new statement. If you want to clear the statement, click the **X** icon to the right of the Preview box.

For more information on valid syntax, see Filter criteria syntax.

- 5. If no filter is currently present in the **Filter** box, click **Apply** to move the filter down to the Filter box. If a filter is currently present in the Filter box, you can do one of the following:
 - Click Replace to overwrite the current filter with the preview filter.
 - Click AND or OR to add the preview filter to the current filter. This creates a compound criteria statement.

You can repeat the filter creation process as many times as necessary to create the desired statement. You can also manually modify the filter in the Filter box as needed, such as to add parentheses to group statements.

6. When the filter in the Filter box is complete, click **OK**.

TIP: If you want to save the filter you have created for future use, click the save icon to the right of the Filter box. You can select a folder location in the Filters Library (or My Documents if applicable), and specify a name for the filter. This option is only available if you have read/write access to at least one location where filters can be stored.

Filter criteria syntax

Several areas of Axiom use criteria statements to define a set of data. The syntax for these criteria statement is as follows:

```
Table.Column='Value'
```

- Table is the name of the database table.
- Column is the name of the column in the database table.
- Value is the value in the column.

If the column is String, Date, or DateTime, the value must be placed in single quotation marks as shown above. If the column is Numeric, Integer (all types), Identity, or Boolean, then the quotation marks are omitted.

For example:

- To filter data by regions, the filter criteria statement might be: DEPT.Region='North'. This would limit data to only those departments that are assigned to region North in the Region column.
- To filter data by a single department, the filter criteria statement might be: DEPT.Dept=100. This would limit data to only department 100.

If the table portion of the syntax is omitted, then the table is assumed based on the current context. For example, if the filter is used in an Axiom query, then the primary table for the Axiom query is assumed. If the current context supports *column-only syntax*, and the specified column is a validated key column, then the lookup table is assumed.

Operators

The criteria statement operator can be one of the following: =, >,<,<>,<=,>=. Greater than or less than statements can only be used with numeric values. For example:

```
ACCT.Acct>1000
```

SQL IN and LIKE syntax can also be used. For example:

```
DEPT.Region IN ('North','South')
```

Compound criteria statements

You can use AND and OR to combine multiple criteria statements. If you are creating long compound criteria statements with multiple ANDs or ORs, you can use parentheses to group statements and eliminate ambiguity. For example:

```
(DEPT.Region='North' OR DEPT.Region='South') AND (ACCT.Acct=100 OR ACCT.Acct=200)
```

NOTES:

- When filtering on multiple values in the same column, you must use OR to join the
 statements, not AND. In the example above, if the statement was instead

 DEPT.Region='North' AND DEPT.Region='South', that statement would return no
 data because no single department belongs to both the North and South regions. When you
 use OR, the statement will return departments that belong to either the North or the South
 regions.
- Alternatively, you can use the SQL IN syntax to create a compound statement for values in the same column. For example, the statement DEPT.Region='North' OR

 DEPT.Region='South' can also be written as DEPT.Region IN ('North', 'South').

 The Filter Wizard uses IN syntax by default.

Using criteria statements in functions

If you are using a criteria statement in a function, such as GetData, you must place the entire criteria statement in double quotation marks. For example:

```
=GetData("Bud1", "DEPT.Region='North'", "GL1")
```

You can also place the criteria statement in a cell and then use a cell reference in the function. In this case, you do not need to use double quotation marks in the function, unless you are concatenating text and cell reference contents within the function.

Referencing blank values in filters

If a string column contains a blank value, you may want to create a filter that includes or excludes records with these blank values. For SQL Server, the blank value is stored as an empty string. This empty string is indicated with empty quotation marks in the filter. For example: ACCT.CMAssign='' or ACCT.CMAssign<''!

If you use the Filter Wizard to construct the filter, it will automatically use the appropriate syntax.

Referencing values with apostrophes in filters

If a string column contains a value with an apostrophe (such as O'Connor), then that apostrophe must be escaped with another apostrophe so that it is not read as the closing apostrophe for the filter criteria statement. For example:

```
Dept.VP='O'Connor'
```

Invalid. This construction does not work because Axiom reads it as Dept.VP='O' and then does not know what to do with the rest of the text.

```
Dept.VP='O''Connor'
```

Valid. The extra apostrophe tells Axiom that the apostrophe is part of the string value and is not the closing apostrophe.

NOTE: This syntax must use two apostrophe characters in sequence and *not* a double quotation mark. If you create the filter using the Filter Wizard, Axiom will construct the appropriate syntax for you.

▶ Referencing Date or DateTime values in filters

If your locale uses a date format where the first value is the day, filters using that date or date-time value will not process correctly. Instead, the date or date-time value must be in standard format. Standard format is YYYY-MM-DDTHH: MM: SS for DateTime and YYYY-MM-DD for Date.

If you use the Filter Wizard to construct the filter, it will automatically convert the date or date-time value to the appropriate syntax.

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