

Release Notes

Axiom

Version 2022.2

The logo for AXIOM, featuring the word "AXIOM" in a bold, white, sans-serif font. The text is enclosed within a thin, light blue rectangular border that is slightly offset from the text, creating a subtle frame effect.

AXIOM

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About the release notes

Syntellis is pleased to announce the release of **Axiom Version 2022.2**. Each release of Axiom provides a variety of new features and enhancements to meet your needs. Many of these features and enhancements are a direct result of your feedback and suggestions.

The purpose of these release notes is to provide you with the following:

- High-level summary of new features and enhancements
- Information to know before upgrading
- Steps for preparing for and scheduling your upgrade
- List of fixed issues

These release notes cover the changes in the version 2022.2 release of the Axiom software platform. If you have licensed and installed products from our vertical product suites, please see the separate release notes for those products for more information.

New features and enhancements

This section provides an overview of the features and enhancements in this release.

Filter enhancements

▶ Add limit filter support in column value report parameter

You can use the new limit filter to broaden your ability to view data from any table in your organization. This powerful new filter lets you generate data sets in a single filter that wasn't possible before.

Axiom has two types of tables:

- Data tables contain transactional or budget data, such general ledger or budget tables.
- Reference tables (also called lookup or dimension tables) are single-key tables with values that point to other values.

An example of a reference table is the DEPT table, which contains keys for department-related data, such as department name, department description, and locations, such as WorldRegion and Country. Data tables contain data that is linked to a key.

A key in a dimension table can point to many data tables.

When you create a report, the tables you can use in the report are listed on the left side:

Limit filters must use a dimension table for the data context. Here we're using DEPT.

These additional dimension tables are all associated with DEPT, the data context for this filter. We've used Country and Region for this report.

Related tables are those tables that have Dept as one of its fields. We can use one or more of these tables in the report. For example, we could view data for several years of the budget to analyze budgeting trends by sales regions or for a specific budget item type, such as Facilities or IT.

Country	Region	YTD	Q1	Q4
	US West (United States Western Sales Region)	\$36,463	\$22,013	\$21,000
China	China (China Sales Region)	\$0	\$0	\$0
France	France (France Sales Region)	\$0	\$0	\$0
India	India (India Sales Region)	\$0	\$0	\$0
Italy	Italy (Italy Sales Region)	\$0	\$0	\$0
Singapore	Singapore (Singapore Sales Region)	\$0	\$0	\$0
	UK (United Kingdom Sales Region)	\$4,442	\$2,671	\$2,000
	US West (United States Western Sales Region)	\$2,643,900	\$1,582,343	\$1,600,000

Annotated view of tables

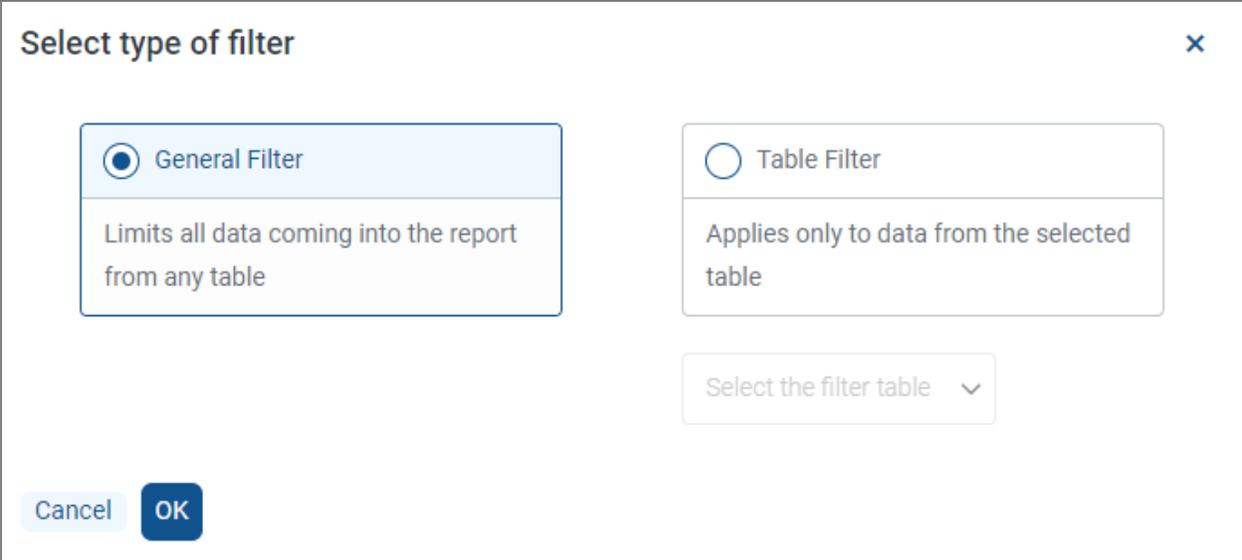
You can create a report based on the Encounter table, but without any filters.

ENTITY	CaseCount	TotalActualPayments	TotalCost	Revenue
0 (DEFAULT)	23.00	3,277.26	3,004.60	\$273
2000 (PORTLAND WILLAMETTE MEMORIAL HOSPITAL)	2,963,203.00	3,130,307,941.44	2,673,359,084.75	\$456,948,857
3000 (WILLAMETTE OUTPATIENT SERVICES)	144,917.00	18,169,865.04	23,983,405.25	(\$5,813,540)
4000 (PORTLAND HEALTH OREGON MEMORIAL HOSPITAL)	411,210.00	633,683,153.86	628,975,868.55	\$4,707,285
6200 (PORTLAND HEALTH MEDICAL GROUP)	6,221,148.00	780,725,966.76	1,104,813,871.87	(\$324,087,905)
7000 (PORTLAND HEALTH HOME CARE)	35,259.00	82,140,810.39	93,025,917.88	(\$10,885,107)

Report without filters

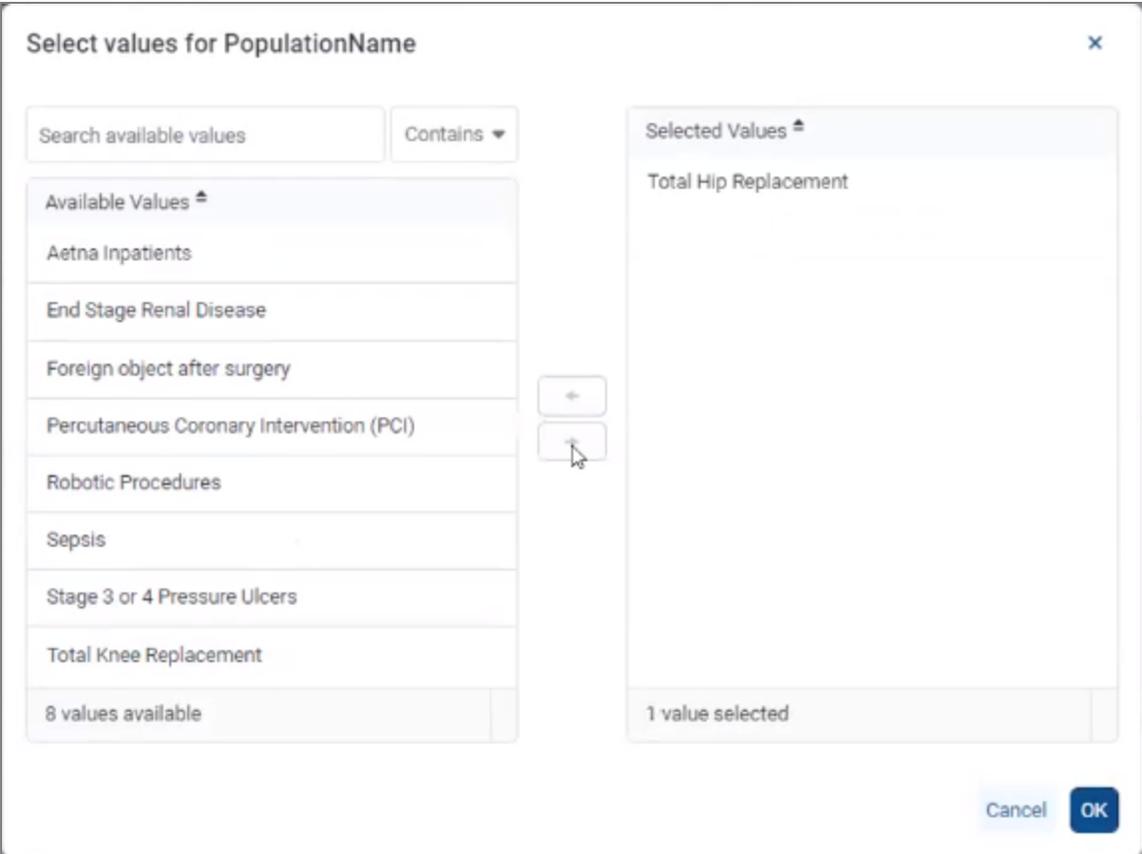
For this report, you can view information about a specific population group, such as patients who have had a total hip replacement.

For a limit report, select the **General Filter** option, which lets you limit data from any table.



Filter selection dialog

Here we define the population group of patients who've had total hip replacements:



Selecting value for PopulationName

After you finish creating the filter, review how the results have changed:

ENTITY	CaseCount	TotalActualPayments	TotalCost	Revenue
2000 (PORTLAND WILLAMETTE MEMORIAL HOSPITAL)	402.00	8,578,464.35	6,234,152.64	\$2,344,312
4000 (PORTLAND HEALTH OREGON MEMORIAL HOSPITAL)	1,543.00	27,014,203.56	21,841,291.14	\$5,172,912
Total	1,945.00	35,592,667.91	28,075,443.78	\$7,517,224

Completed limit filter report

The previous example uses a simple limit filter; however, filters can be as complex and detailed required.

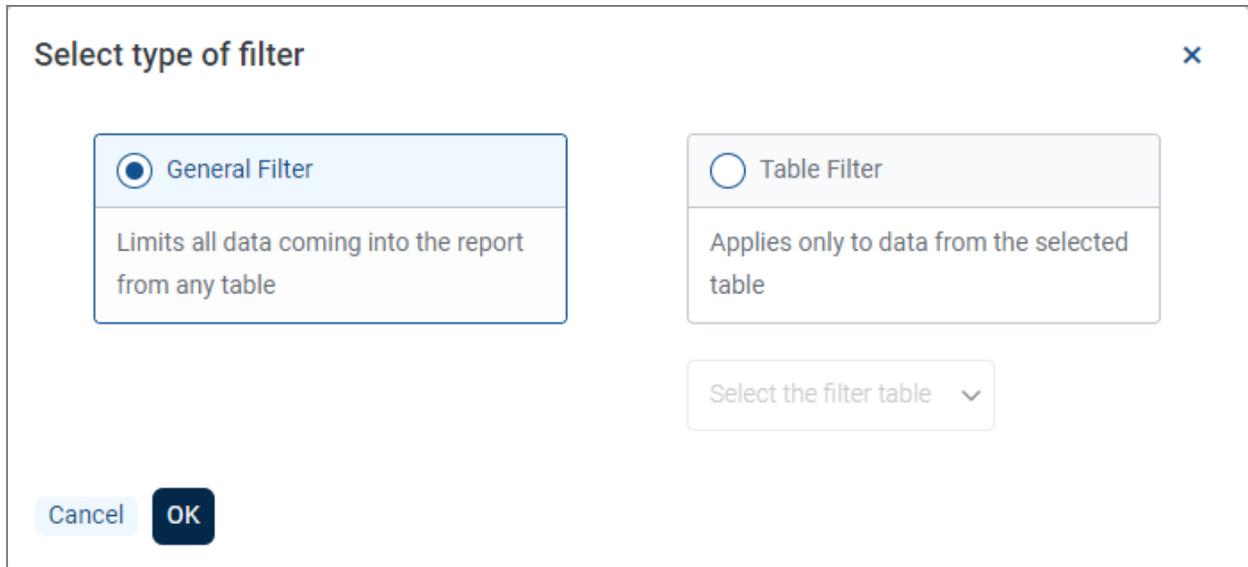
Notes to remember about filters:

- You cannot directly edit the SQL statement; instead use the filter and selection tools.
- Make sure the data context for your report is a dimension table. If you use data table as context, the report can only contain data from that data table.
- Always use the **General Filter** option when creating a limit filter.

► Improved filter creation experience

This feature changes how user create filters on the Filters tab of the Report Builder. Previously, users clicked the **Add** button with a drop-down menu to select General or Table-Specific to open the Filter Wizard.

Now the **Add** button opens an intermediary dialog. The dialog presents the General/Table-Specific choice with some explanatory text to help guide the selection. After selecting an option and clicking **OK**, you're presented with the Filter Wizard to create the filter.



Create filter popup windows

► Added support for manual entry when using filter wizard

You can now enter data manually when creating a wizard in addition to using the values included in the wizard. Manual entry includes typing values yourself or pasting from another source.

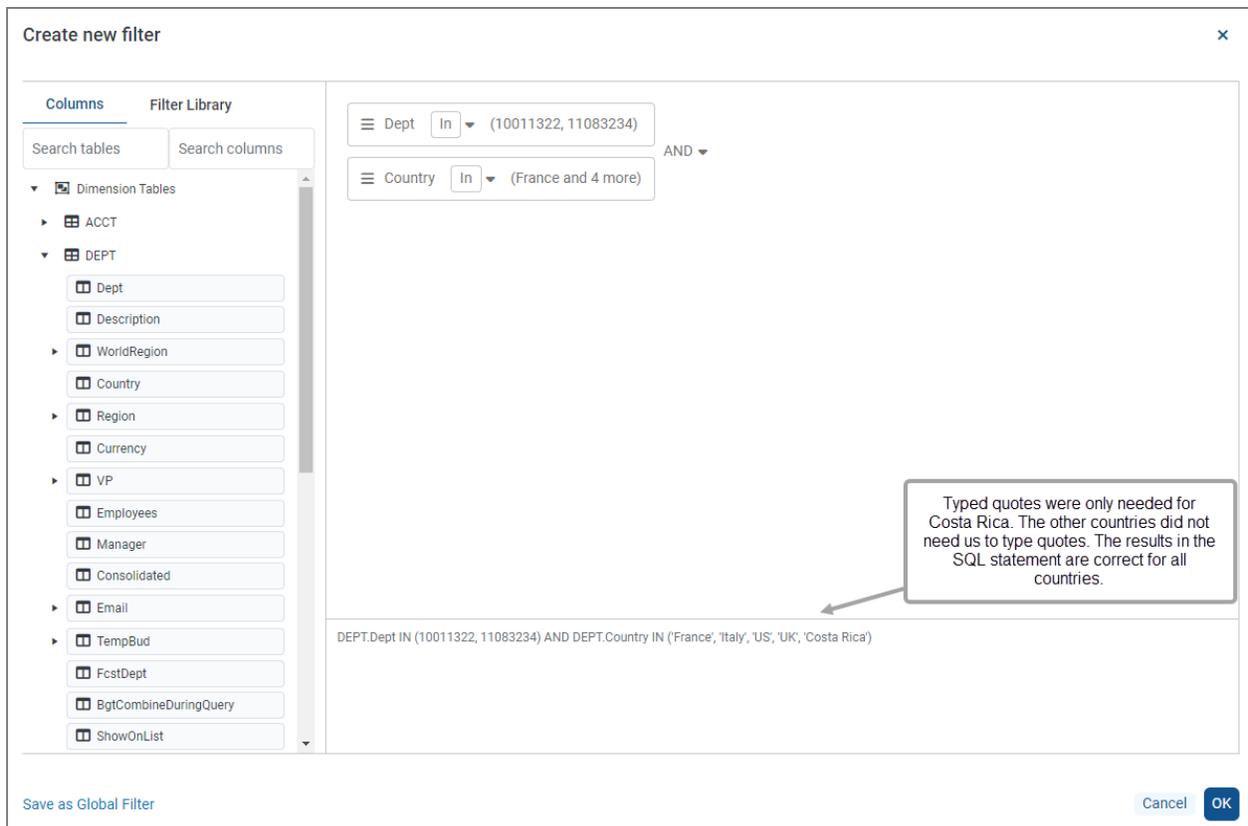
In this example, two departments were entered with a comma to separate the values. You can view the resulting SQL statement in the bottom pane of the page:



Filter wizard with manually entered numbers

You can paste values from other sources, such as spreadsheets. For pasted content, the filter wizard will recognize most filter delimiters (such as spaces and semi-colons) and correctly create the SQL statement. However, if you are typing values manually, use commas.

When you enter simple string values, you do not have to place the quotes around the string because they are added automatically. In this example, the string contains several countries (France, Italy, US, UK) without quotes. In the case of Costa Rica, you must add quotes because that country has two words.



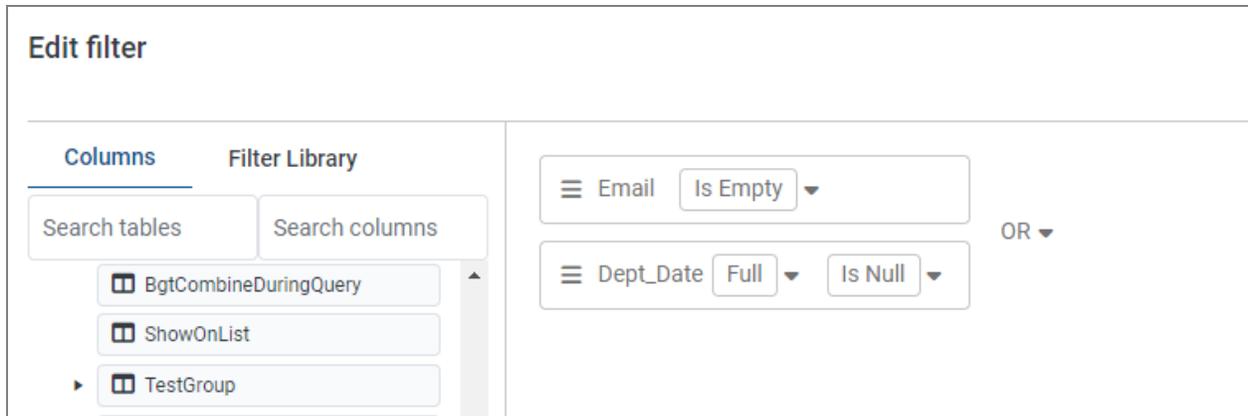
Filter wizard with manually entered strings

Notes about manual entries:

- If your string has leading or trailing spaces, use quotes that include those spaces (for example, ' a ').
- If you search for a value in a large table (such as the Encounter table), you can type the first few characters or numbers in the search field to retrieve those results more quickly.
- You cannot directly edit the SQL statement for your filter. If you need to make changes or additions, use the filter options to select or manually enter the values needed.

► Added support for isNull and isEmpty

The filter wizard now supports the use of **Is Null/Is Not Null** (for numeric values) and **Is Empty/Is Not Empty** (for strings). In this example, we used **Is Empty** for Email to see which people did not have an email address and **Is Null** for DEPT_DATE to see where date records using the FULL year option are not present.



Filter showing IsEmpty and IsNull

Report Builder enhancements

► Pre-aggregation calculations

You can pre-aggregate calculations in a calculated column. A pre-aggregate calculation is applied to data rows in the query before those rows are aggregated by the row dimension.

Budget for 2020						
Dept	Description	Q1	Q2	Q3	Q4	Total Yearly Budget
20000 (Corporate: Corporate)	Telephone	Column configured to sum each of the quarterly sums and pre-aggregated.			\$79,735	\$319,864
21000 (Corporate Administration)	Travel				\$78,089	\$313,350
22000 (Information Technologies)	Telephone				\$747,161	\$2,996,841
23000 (Purchasing & Materials Mgmt)	Utilities	\$22,013	\$21,815	\$21,650	\$21,723	\$87,201
24000 (Business Development)	Telephone	\$11,050	\$10,882	\$10,882	\$10,883	\$43,697
25000 (Finance)	Telephone	\$4,646	\$4,627	\$4,553	\$4,595	\$18,421
26000 (Portfolio Management)	Supplies	\$26,915	\$26,796	\$26,383	\$26,593	\$106,687
27000 (Human Resources)	Telephone	\$4,551	\$4,452	\$4,394	\$28,645	\$42,042
28000 (Facilities)	Utilities	\$228,515	\$227,814	\$227,743	\$227,778	\$911,850
29000 (Legal)	Telephone	\$286,236	\$307,796	\$301,139	\$304,462	\$1,199,633
40000 (Los Angeles - Store 3400)	Travel	\$103,373	\$101,809	\$101,806	\$101,815	\$408,803
40000 (Los Angeles - Store 3400)		\$0	\$0	\$0	\$0	\$0
40000 (Los Angeles - Store 3400)	Patent Royalties	\$689	\$689	\$674	\$680	\$2,732
40000 (Los Angeles - Store 3400)	Warehouse	\$92	\$92	\$90	\$92	\$366
42000 (Boston - Store 82)	Travel	\$187	\$186	\$186	\$307	\$866
		\$1,607,027	\$1,625,001	\$1,598,730	\$1,636,190	\$6,466,948

Example of report with pre-aggregated columns

Review the options for configuring this column.

Column Configuration

General
Advanced

Calculation

Q1 + Q4 + Q3 + Q2 ✎

Pre-Aggregation Calculation

Display Properties ^

Header

Total Yearly Budget

Column width 120px

Alignment

Default (Right) v

Hide column

Configuring column with a pre-aggregated calculation

In this example, the calculation adds the values Q1 through Q4, though complex calculations are supported. Click the pencil icon to open the Edit Calculated Column dialog box to enter your calculation.

Next, click the **Pre-Aggregation Calculation** button.

The last section lets you define data properties for the column:

NOTE: Pre-aggregation calculations can only use columns on the primary table or a lookup table. There are no controls/validations in the UI to enforce this — if your calculation is invalid you will get a runtime error when refreshing the report.

NOTE: Pre-aggregation calculations cannot reference post-aggregation calculations but they can reference valid pre-aggregation calculations.

Use of pre-aggregation calculations impacts the total row, if it is enabled. Behavior is as follows:

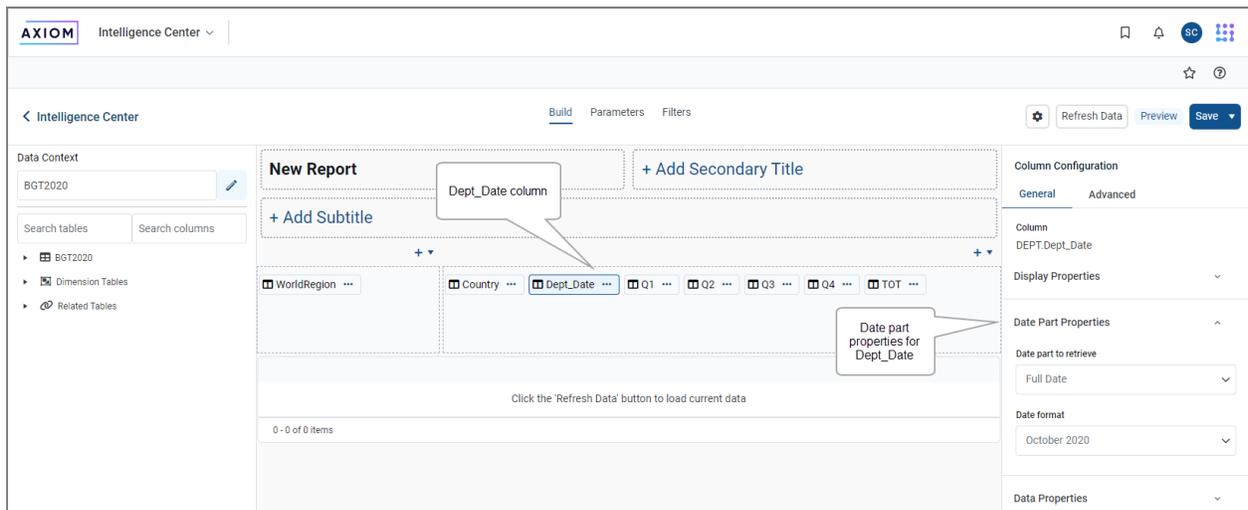
- Post-aggregation calculations: The calculation is performed on the total row values of the source columns.
- Pre-aggregation calculations: The values in the calculated column are summed for presentation on the total row.
- Pre-aggregation calculations can use alternate aggregations if desired. The field is unhidden for the calculated column when pre-aggregation is enabled. If an alternate aggregation is set and then pre-aggregation is disabled, the alternate aggregation field is re-hidden and ignored.

► DatePart support for ColumnValue and ColumnList report parameters

You can now use date parts with ColumnValue and Column List parameters.

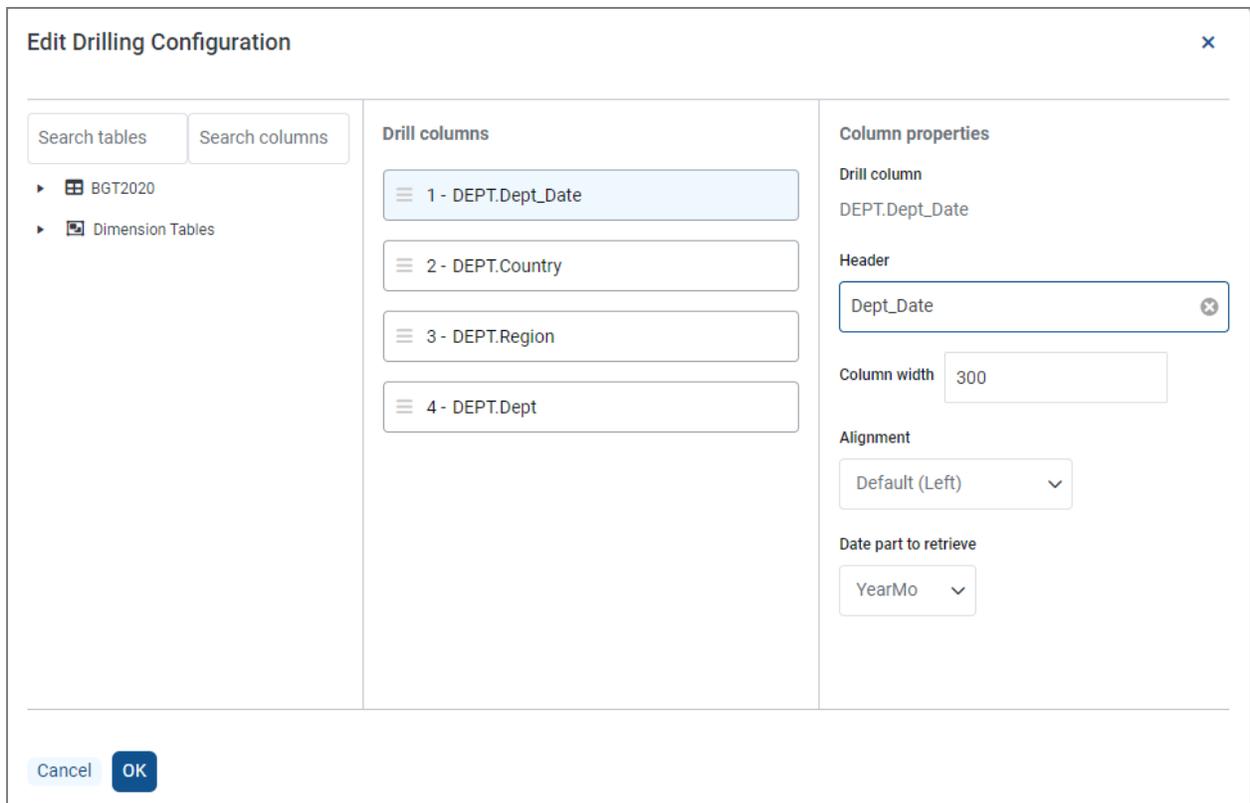
ColumnValue

Start with a report where you want to use a date part.



Sample report

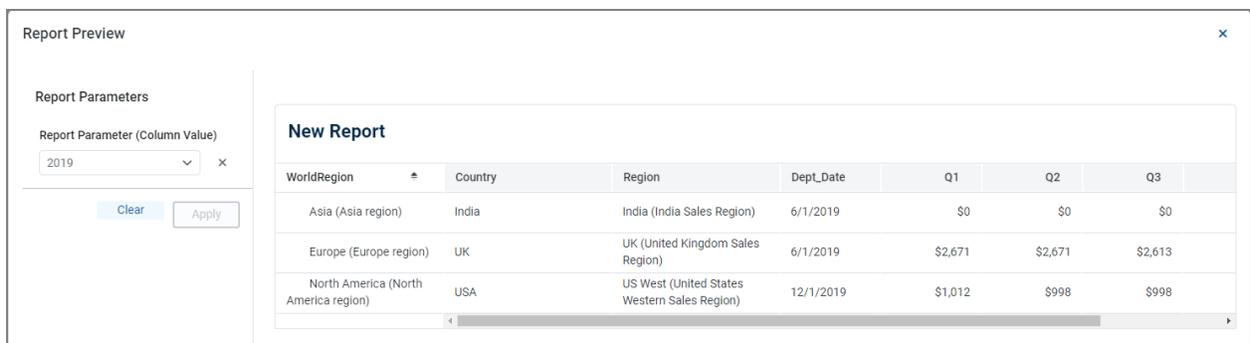
Click **Parameters** and select **ColumnValue** with the Static column option. The ColumnValue report parameter is listed in the All Parameters section. Click the **Edit** button next to the name of the select column to open a window where you can configure your parameter.



Select column dialog box

In this example, Year is selected as the date part to retrieve.

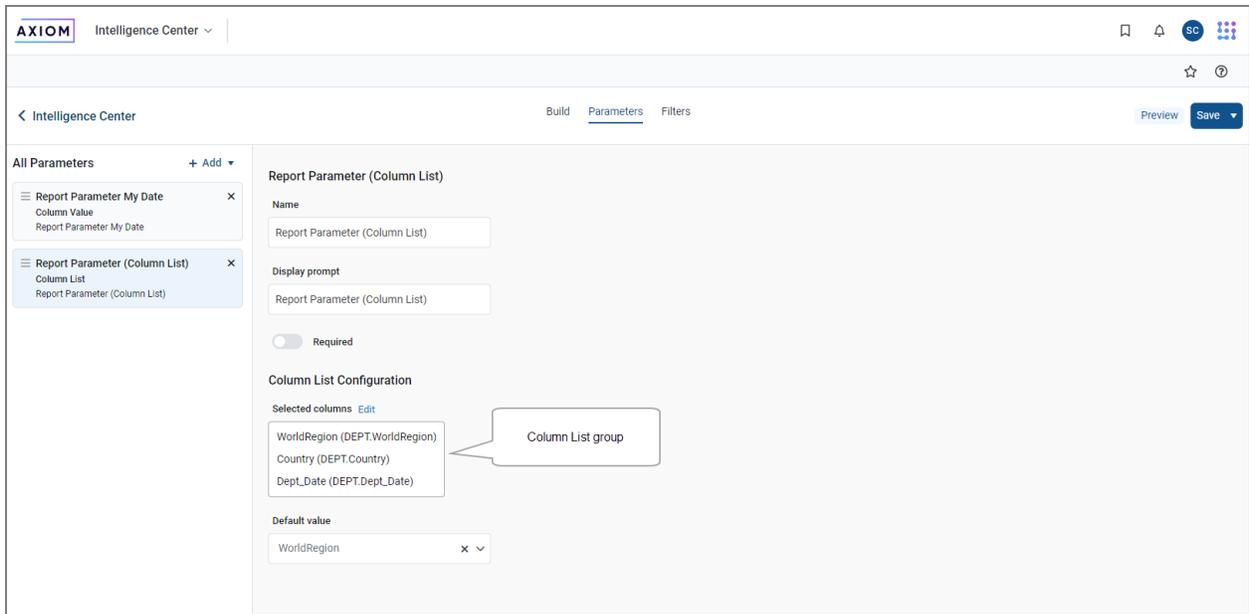
When you view the report, you can select date parts. In this example, you are viewing entries for the year 2019.



Sample report showing date parts in ColumnValue

ColumnList

You can use date parts in a report with a ColumnList, which is similar to ColumnName.

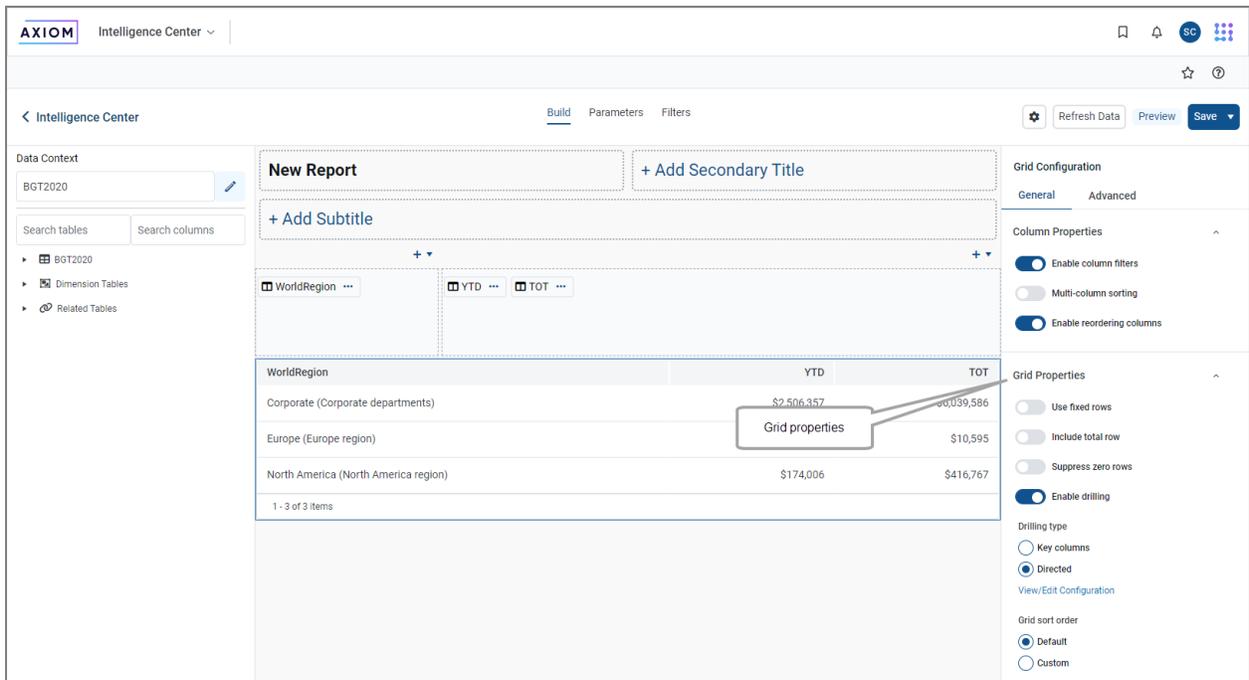


Dates parts in Column List

► DatePart support in drill column configuration

You can now configure the DatePart in a drill column configuration.

Star with a report, such as this one:



Enabling drill properties for data grid

In Grid Properties in the right sidebar, enable drilling and select the **Directed** drilling type to configure. Choose the **Directed** option and click **View/Edit Configuration** to get started.

For this report, drill down World Region at the following levels and set the data part to retrieve to retrieve YearMo.

Edit Drilling Configuration

Search tables Search columns

- ▶ BGT2020
- ▶ Dimension Tables

Drill columns

- ☰ 1 - DEPT.Dept_Date
- ☰ 2 - DEPT.Country
- ☰ 3 - DEPT.Region
- ☰ 4 - DEPT.Dept

Column properties

Drill column
DEPT.Dept_Date

Header
Dept_Date

Column width 300

Alignment
Default (Left)

Date part to retrieve
YearMo

Cancel OK

Editing drilling configuration

When you view the report, if you hover on Europe, the drill icon is displayed. When we click Europe, we see Dept_Date configured as YearMo and the drill results are grouped by that date part.

Report Preview

New Report

Drill Path ×

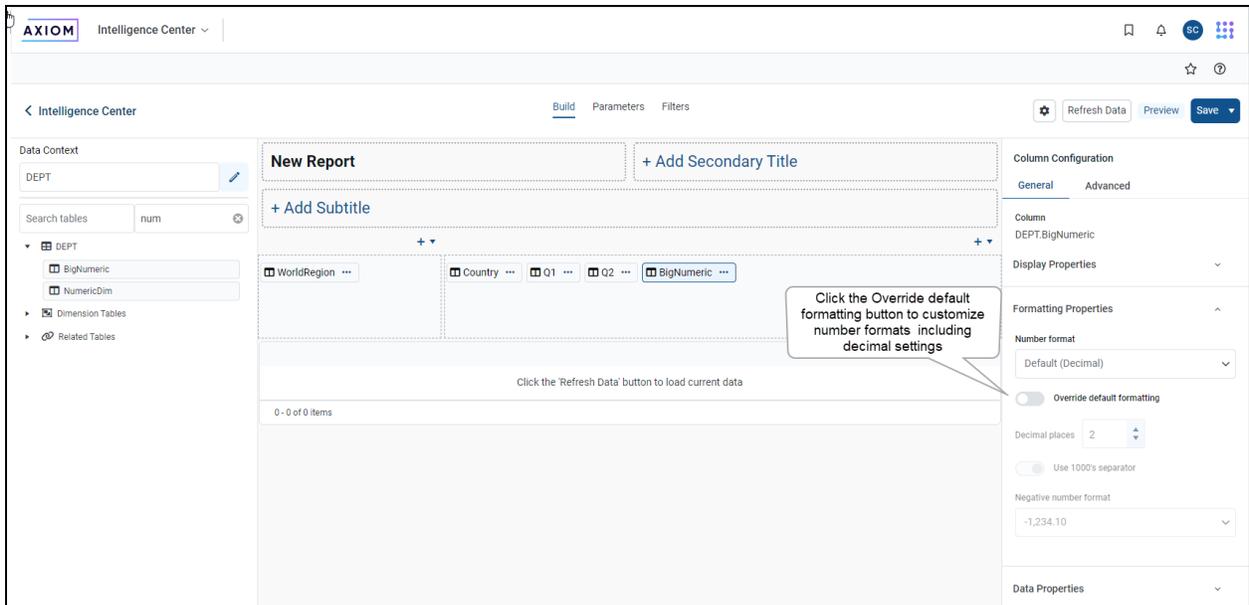
WorldRegion = Europe (Europe regi...
By Dept_Date

Dept_Date	YTD	TOT
201901	\$4,442	\$10,595
201906	\$0	\$0
Total	\$4,442	\$10,595

Example of drill with date part support

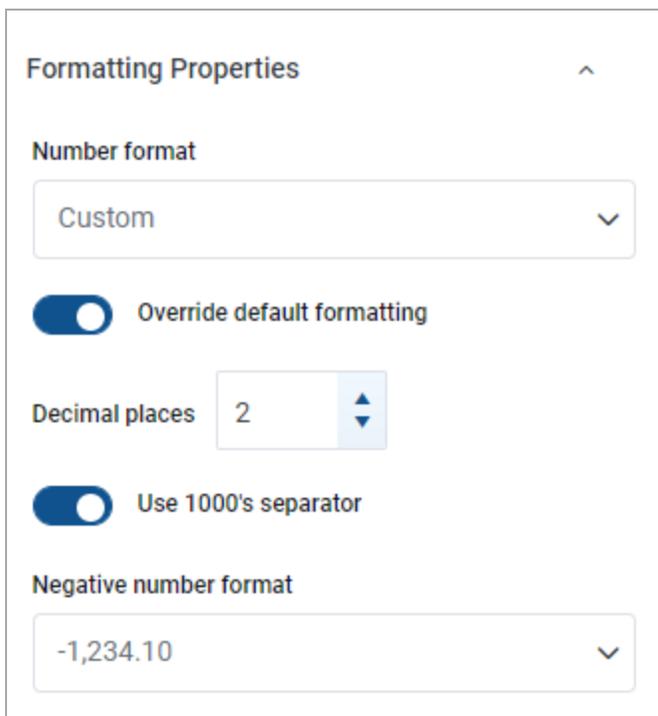
► Change numeric column formatting

You can now more easily change the format of numbers in your report. When you build a report, this feature is turned off:



Number formatting in report

Click the **Override default formatting** button to turn on:



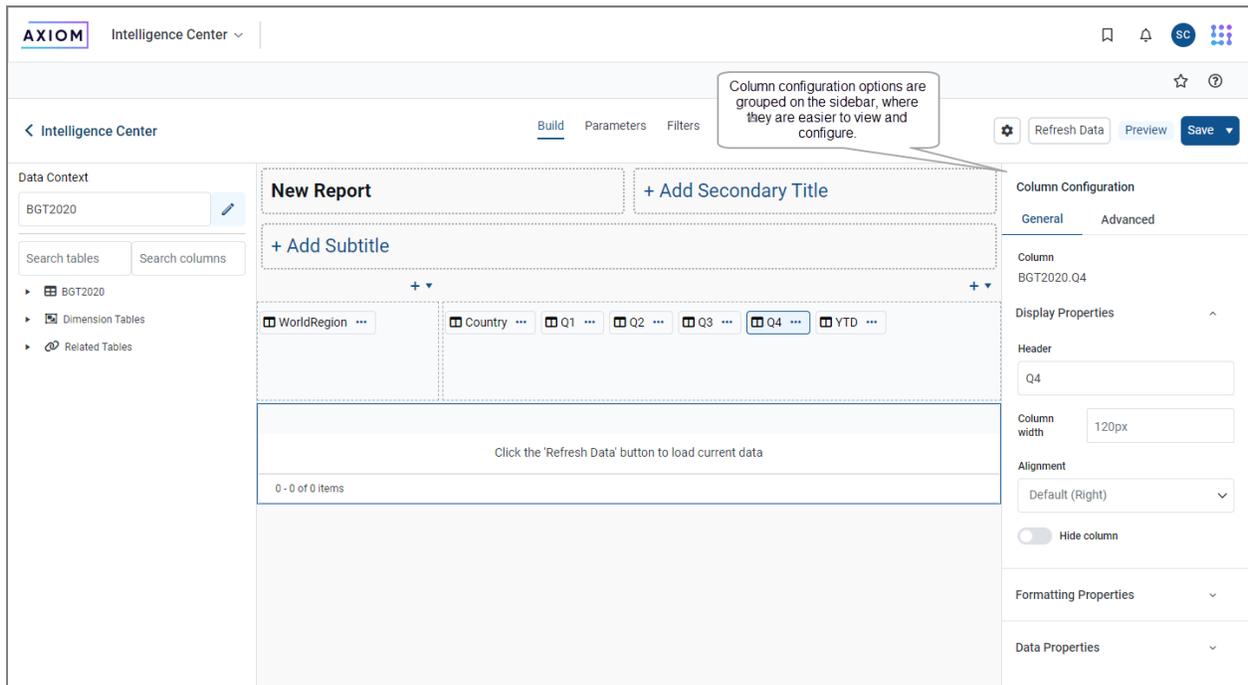
Number format section

Use the number format section to:

- Set the number of decimal places to use.
- Determine whether to use a 1000's separator, as in 12,000. You can turn off that button to not use a separator, as in 12000.
- Determine how to display negative numbers, such as -150.15 or (150.15.). Additionally, you can show the value in red.

▶ Grouping of column configuration properties in Report Builder

To improve the user experience, the column configuration properties have been grouped in the sidebar for ease in selecting and setting up properties.



Grouped column configuration properties

The column configuration section includes three areas for configuring different aspects of the column.

Use **Display Properties** to set a title for the column, the width or the column, and how the text is aligned. You can also choose to hide the column in the report.

Use **Formatting Properties** to show a description of the column, and choose how that description will be displayed.

Use **Data Properties** to choose how the data is aggregated. Options include:

- Max (the default option)
- Count

- Min
- DistinctCount

The Data Filter box lets you create a filter for the column.

▶ Disable dimension mapper with large reference tables

When building a fixed row structure with large tables (such as the Encounter table) dimension mapping is now disabled, as it can cause performance issues. Instead, you can use the filter wizard to define that row in a report.

Other enhancements

▶ Export audit logs to Microsoft Excel

To improve productivity and maximize your understanding of how Axiom is used, you can now export audit logs to Microsoft Excel for further analysis.

The Audit Manager page presents a list of the most recent activities that can be filtered by:

- date range
- activity type
- user
- document
- table

The screenshot shows the Axiom Audit Manager interface. At the top, there is a navigation bar with 'AXIOM' and several menu items: System Administration, Dashboard, Tools, Auditing, System Status, Infrastructure Section, and Software Configuration. Below this, there are tabs for 'Activities', 'User Sessions', and 'Export'. The main area contains a filter wizard with the following fields:

- From:** 2022-05-10 12:00 AM (with 'yesterday' and 'today' buttons)
- To:** 2022-05-11 12:00 AM
- Activity Types:** [Dropdown]
- User:** [Dropdown]
- Document:** [Dropdown]
- Table:** [Dropdown]
- Include scheduler clients

A callout box points to the filter fields with the text: "Use these options to determine which audit events show up. The Export button will download the audit list that is currently displayed."

Below the filters, a table titled "Filtered activities" shows 13 activities. The table has the following columns: Activity Type, Activity Name, User Session, Started, and Children.

Activity Type	Activity Name	User Session	Started	Children
Open Document	GetDocumentData	[Redacted]	2022-05-10 7:42:41 AM	0 children
Open Document	GetDocumentData	[Redacted]	2022-05-10 7:42:41 AM	0 children
Open Document	GetDocumentData	[Redacted]	2022-05-10 7:38:57 AM	0 children
Open Document	GetDocumentData	[Redacted]	2022-05-10 7:38:57 AM	0 children
Forms Page Request	ProductAreaHomePage1.xlsx	[Redacted]	2022-05-10 7:38:55 AM	1 child
Save Document	SaveDocument	unknown	2022-05-10 7:38:42 AM	0 children
Open Document	GetDocumentData	unknown	2022-05-10 6:52:16 AM	0 children
Open Document	GetDocumentData	unknown	2022-05-10 6:52:16 AM	0 children
Open Document	GetDocumentData	unknown	2022-05-10 6:52:16 AM	0 children
Open Document	GetDocumentData	unknown	2022-05-10 6:52:12 AM	0 children
Web Admin	ResetSystemViews	unknown	2022-05-10 6:50:21 AM	0 children
Open Document	GetDocumentData	UX Testing (uxtesting)	2022-05-10 3:23:42 AM	0 children
Open Document	GetDocumentData	UX Testing (uxtesting)	2022-05-10 1:23:34 AM	0 children

Audit manager page

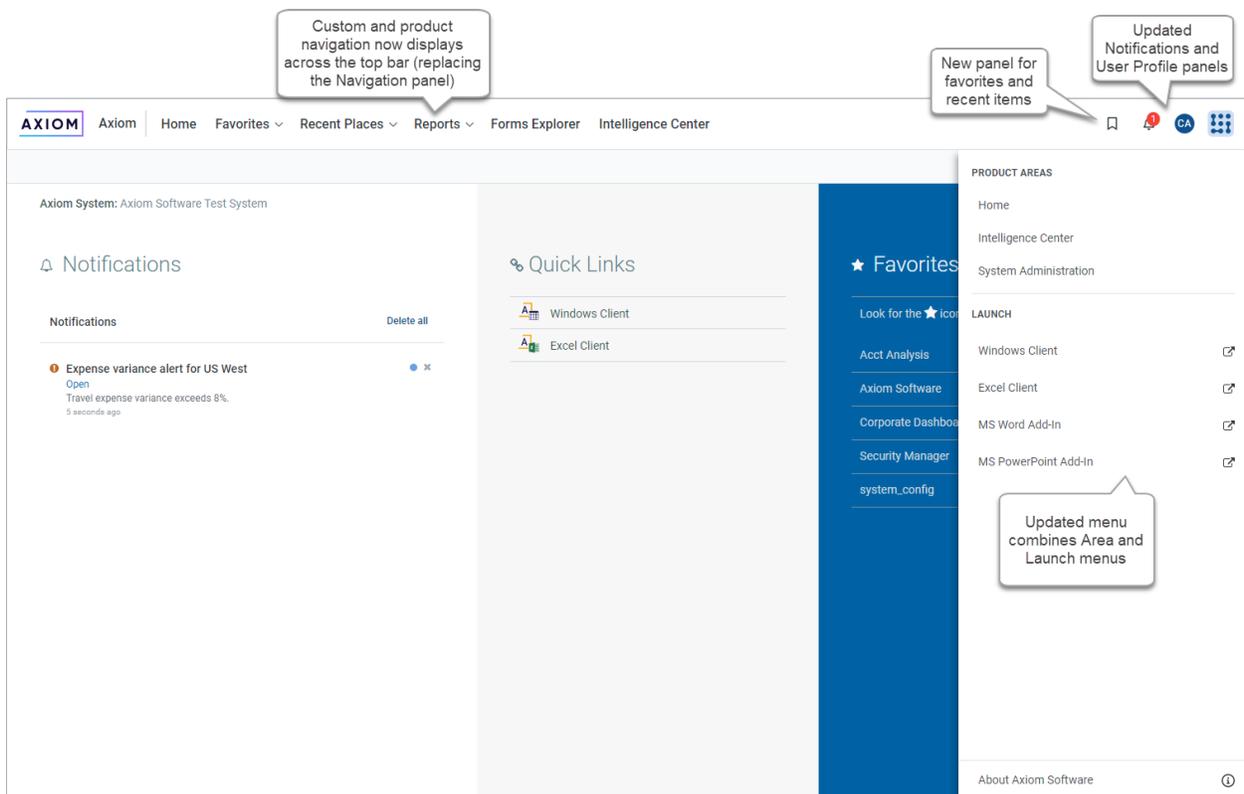
The list of activities is refreshed as you use the selectors. When you have defined the content you want to view, click **Export** to download the content as a comma-separated-value (.csv) file and open it in Excel.

New features and enhancements in previous release

The following features and enhancements were introduced in 2022.1.

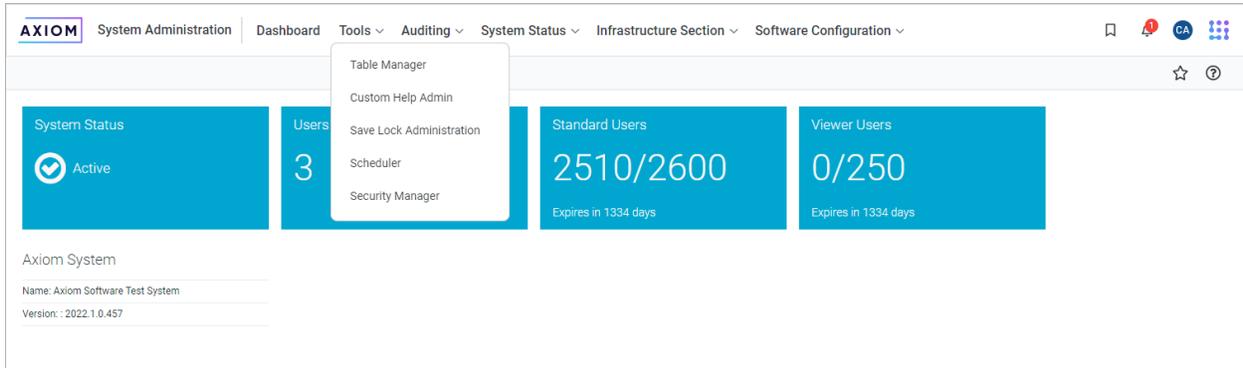
► Updated Web Client navigation

- Navigation menu now easily accessible across the top instead of within a side panel
- Area menu and Launch menu combined into a single menu for quick access to different product areas and applications
- New Bookmarks panel for easy access to favorites and recent items
- Streamlined and updated Notifications panel
- Overall presentation and styling updated to match current standards for user experience and design



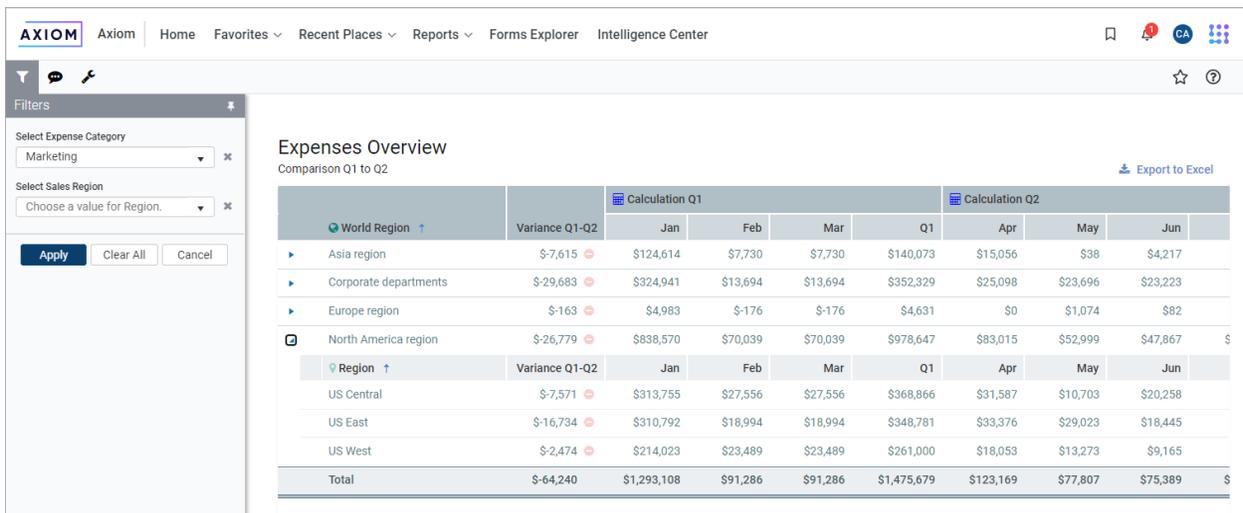
Example updated navigation bar

The navigation menu across the top is context-sensitive. For systems with installed products, it displays the menu for the current product area. If you are in the System Administration area, it displays the System Administration menu.



Example System Administration menu in updated navigation bar

The task bar below the navigation bar also has updated styling. All task bar features except the navigation panel continue to work the same way as they did before the update.



Example form showing updated task bar

The new navigation is automatically available in the Web Client. Your existing custom web navigation items will work seamlessly in this new environment. Although no manual adjustments are necessary for continued operation, custom clients may decide to make elective improvements to optimize the use of the new navigation. For more information, see [Updating your Web Client navigation bar](#).

► New Filter Wizard in the Report Builder

The Filter Wizard in the Report Builder has been redesigned to make it easier and more intuitive to create filters that impact report data. The new Filter Wizard is available to create report-level filters, as well as filters on individual columns, calculations, and column groups. Improvements include:

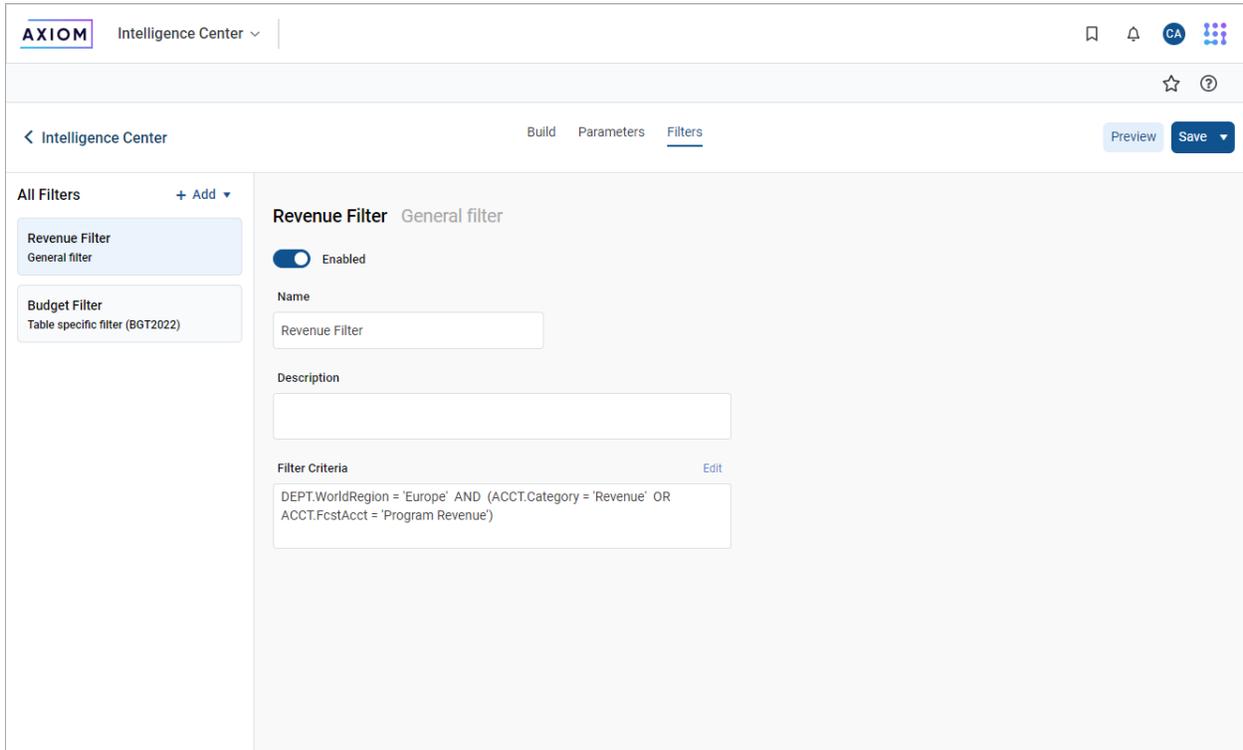
- Ability to quickly search for specific tables and columns within the wizard
- Enhanced ability to browse, search, and select existing values within a column to create the filter
- Intuitive and simplified presentation of each filter statement to more easily define, edit, and understand the complete filter
- Improved user experience for creating compound filter statements, including drag and drop design and visual representation of statements combined using AND/OR
- Ability to use predefined filter statements as global filters or as starting points for custom filters (see next section for more information)
- Improved context-sensitivity when defining filters for columns, calculations, and groups so that only tables relevant to the current context are shown

The screenshot shows the 'Edit filter' dialog with the following components:

- Columns:** Search tables, Search column...
- Filter Library:** Dimension Tables, ACCT, DEPT (with sub-items: Dept, Description, Template, WorldRegion, Country, Region, Currency, VP, Employees, Manager).
- Filter Builder:**
 - WorldRegion <> Europe
 - Description CONTAINS store
 - Group (OR):
 - Category = Revenue
 - FcstAcct = Program Revenue
- Preview:** DEPT.WorldRegion <> 'Europe' AND DEPT.Description LIKE '%store%' AND (ACCT.Category = 'Revenue' OR ACCT.FcstAcct = 'Program Revenue')
- Buttons:** Save as Global Filter, Cancel, OK

New Filter Wizard in the Report Builder

Additionally, report-level filters have been moved from their previous location in the Report Configuration panel to a separate Filter tab. This new location makes it easier to review and manage all of your report-level filters.



New Filters tab in Report Builder

For more information on using the new Filter Wizard in the Report Builder, see the following topic in Axiom Help: [Using the Filter Wizard in the Report Builder \(AX1698\)](#).

Filters created using the new Filter Wizard use a different underlying structure than existing filters. Your existing filters will be migrated to the new structure when the report is opened for the first time after upgrading to 2022.1. The vast majority of filters will be migrated without issue, however, there are a few existing filter configurations that will not migrate. For more information, see [Upgrade considerations for web report filters](#).

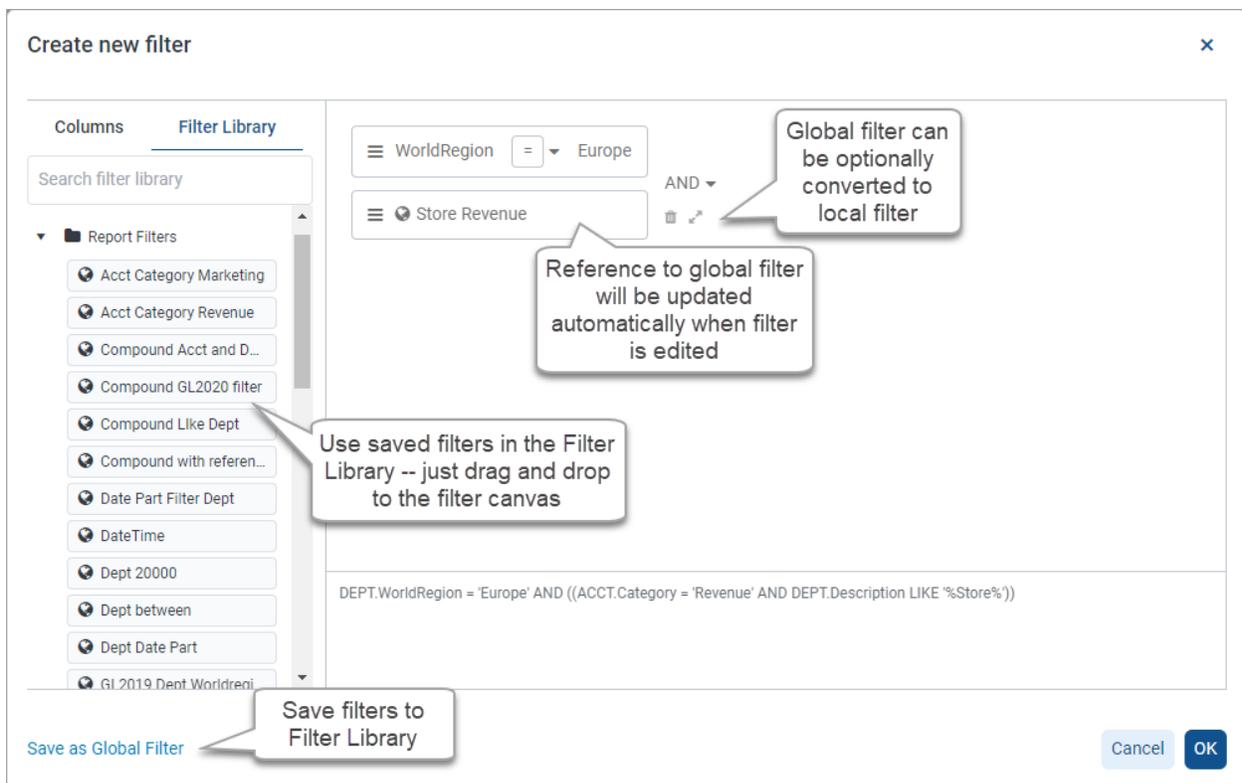
► Global filters in web reports

Web reports now support the concept of *global filters*. This means that the report can reference a filter stored in the centralized Filter Library instead of saving the filter directly in the report. If the global filter in the Filter Library is updated, the report will automatically use the updated filter criteria, without needing to edit the report.

For example, imagine that you are a healthcare organization and you want to filter various reports by codes relating to COVID-19. You create a filter with the codes and save the filter in the Filters Library, then reference the filter in the reports. Later, if you need to add a new code, you can edit the global filter. All reports that reference the global filter are now automatically filtered by the additional code.

Using the new Filter Wizard in the Report Builder, you can now:

- Create a filter and then save it to the Filter Library for future use
- Use a filter from the Filter Library to create a global filter in the report—both new-style filters and existing legacy filters can be used
- Combine global filters with "local" report-specific filters as needed
- Convert a global filter reference into a local filter within the report, so that the filter is no longer tied to the global filter in the Filter Library



Filter Library in new Filter Wizard to use global filters

Currently, any filter created and saved to the Filter Library from the new Filter Wizard can only be used in web reports. Future releases may expand the use of the new Filter Wizard to other areas of the application.

The term *legacy filters* refers to filters created using the previous version of the Filter Wizard and saved to the Filter Library. Only regular legacy filters can be used as global filters in web reports. Limit filters cannot be used at this time.

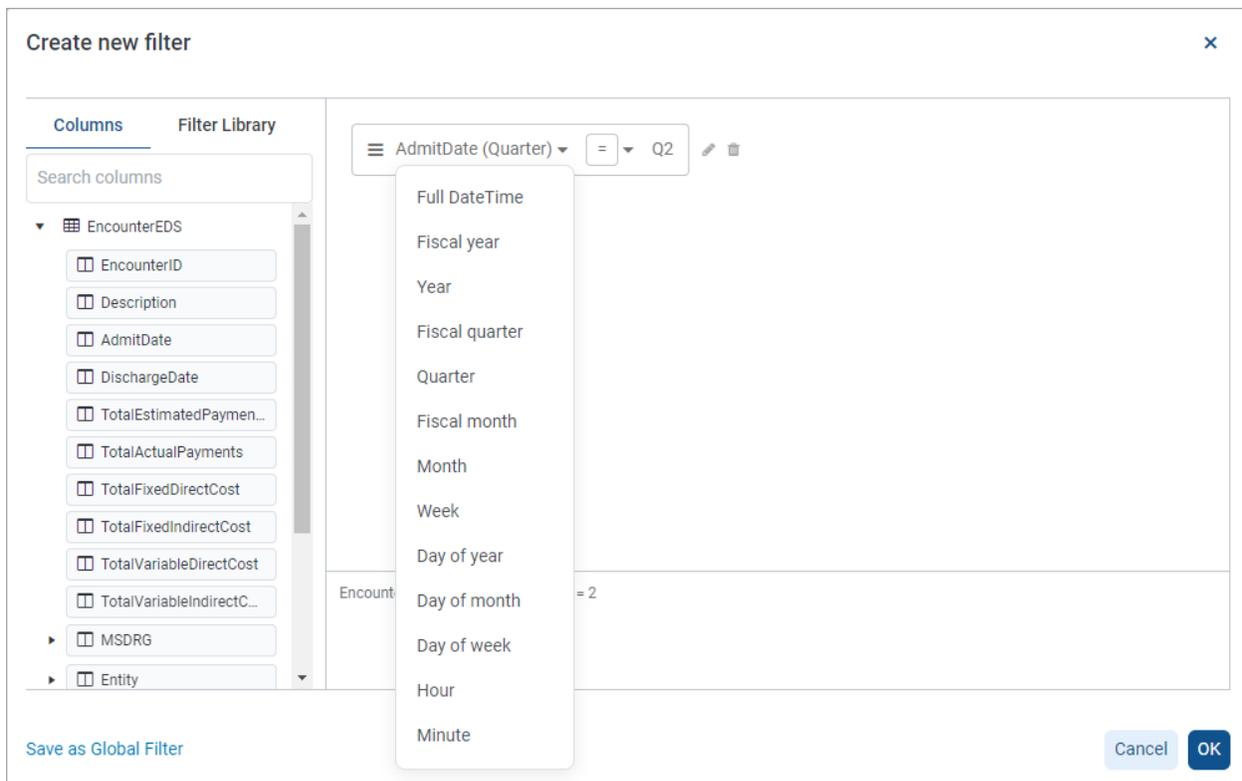
For more information on using global filters, see the following topic in Axiom Help: *Using global filters in the Report Builder (AX1708)*.

► Filter web reports by process columns and date parts

Using the new Filter Wizard in web reports, you can now filter the report by process columns or by date parts. Both of these options are new—it was not previously possible to create these types of filters in the legacy Filter Wizard.

Date part filters

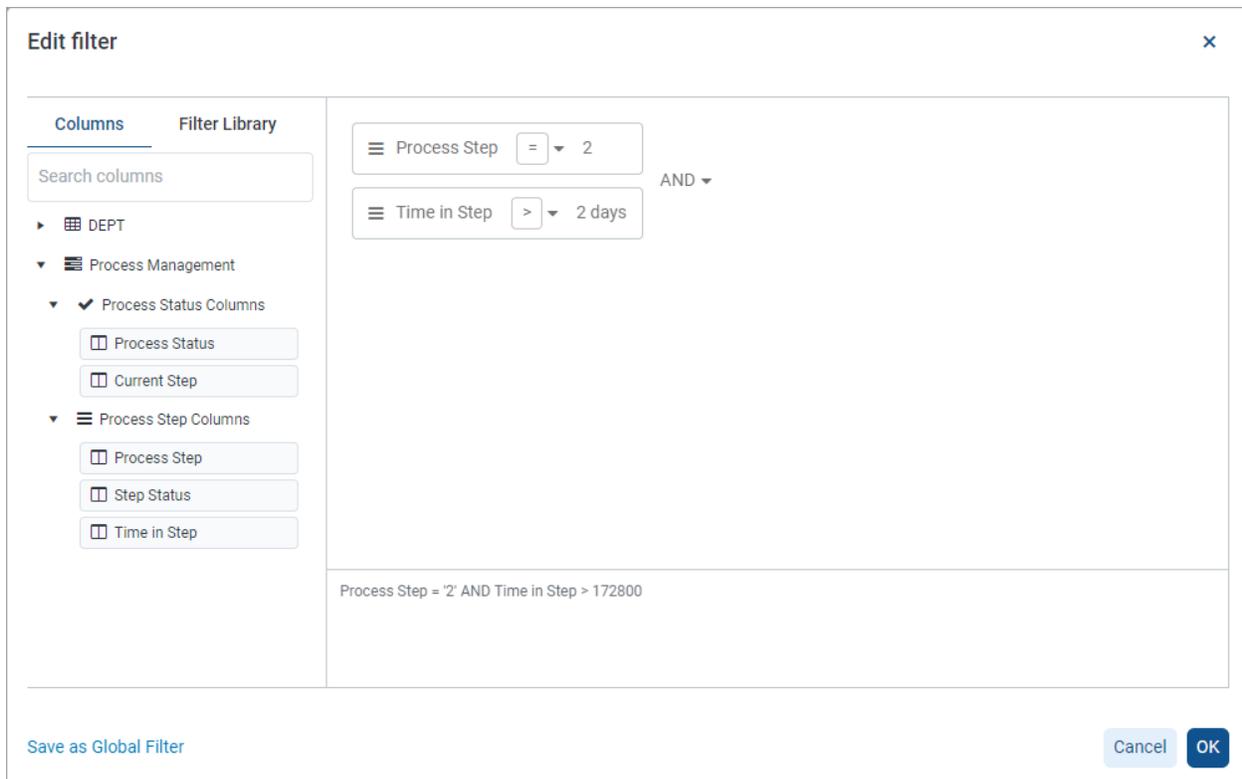
For Date and DateTime columns, you can specify a date part to base the filter on, instead of basing the filter on the full date or date-time. For example, you can specify Quarter as the date part and then create a filter to only show records where the date is in the second quarter. You can select any of the available date part options and use any of the valid values in the filter.



Date part selector for creating date part filters

Process management filters

If a report is configured to show process management columns, you can create a filter based on useful process information. For example, you can filter the report to only show plan files in a particular step or with a particular status, or in relation to the time spent in a step.



Process Management columns in the Filter Wizard

► Display hyperlinks in web reports

You can now display active hyperlinks in web reports, so that report viewers can use the hyperlinks to navigate to supporting detail or related information. This feature is intended for cases where each row of the report has a corresponding link, and these links can be generated dynamically based on a value relating to the current row data.

For example, if the rows of the report represent department codes or capital request codes that are active in a plan file process, you can dynamically generate a link to the process routing page for each code. Report viewers can click on the links to view the process details for particular codes as needed.

Process Status					
By Department					
Dept	Process Status	Current Step	Current Step Name	Total	More Information
21000 - Corporate Administration	Active	2	Management Approval	\$109,424	Open routing page for 21000
22000 - Information Technologies	Active	2	Management Approval	\$446,802	Open routing page for 22000
23000 - Purchasing & Materials Mgmt	Active	3	Management Edits	\$129,671	Open routing page for 23000
24000 - Business Development	Active	3	Management Edits	\$29,110	Open routing page for 24000
25000 - Finance	Active	2	Management Approval	\$169,733	Open routing page for 25000
26000 - Portfolio Management	Active	3	Management Edits	\$105,420	Open routing page for 26000
27000 - Human Resources	Active	2	Management Approval	\$113,366	Open routing page for 27000
28000 - Facilities	Active	3	Management Edits	\$851,278	Open routing page for 28000
29000 - Legal	Active	2	Management Approval	\$137,963	Open routing page for 29000
40000 - Los Angeles - Store 3400	Active	3	Management Edits	\$17,490,615	Open routing page for 40000
				\$118,326,278	

1 2 3 ... 25 items per page 1 - 25 of 59 items

Example report with a hyperlink column

You can define two different types of links in web reports. Hyperlinks are enabled and configured at the column level, in the **Column Configuration** properties.

- **Custom:** Link to any page in the Axiom system by entering a relative URL. Variables can be used in the URL so that it is unique per row of the report.
- **Plan File:** Link to any set of plan files in the Axiom system. When using this option, Axiom dynamically generates the URL to each plan file on a per row basis, given a file group context. The row dimension of the report must be the key column of the plan code table in order to generate the links.

Link Properties ^

Enable link

Link type
 ▼

URL Insert variable ▼

Link text Insert variable ▼

Link tooltip Insert variable ▼

Open link in new tab

Example hyperlink properties

For more information on using hyperlinks, see the following topic in Axiom Help: *Displaying hyperlinks in web reports (AX1696)*.

► Use date parts in Axiom queries

You can now report on Date and DateTime columns using date parts in Axiom queries. When using date parts—such as Year or Month—the column data is effectively transformed into the specified date part for purposes of the report. This allows you to not only display the specified date part, but also group, sort, and filter the query by the date part.

In order to use a date part, use the following syntax in the field definition of the Axiom query:

AxDatePart (ColumnName, DatePartName) : SpecialColumnName

- *ColumnName* is the table.column name, such as Encounter.AdmitDate.
- *DatePartName* is the name of the date part to return, such as Year, Month, YearMo, or Quarter. All of the date parts that are available for use in web reports are also available for use in Axiom queries.

- *SpecialColumnName* is an optional defined name for the transformed column, so that you can reference it in the sum by, data sort, or data filter for the Axiom query. The name can be omitted if you do not need to reference the column elsewhere.

For example, the following report uses date part syntax to group, sort, and filter the report by the YearMo date part:

The screenshot shows the Axiom Assistant interface. On the left, the 'Worksheet Settings for Sheet1' panel is open, displaying 'Axiom Queries' for 'Axiom Query #1'. The settings include:

- Primary Table: EncounterEDS
- Sum By: AdmitYearMo
- Data Filter: AdmitYearMo > 201901
- Data Sort: AdmitYearMo
- Sheet Sort: (empty)

The main area shows a spreadsheet with the following data:

	A	B	C	D	E	F	G
1							
2							
3				AxDatePart(EncounterEDS.AdmitDate,YearMo):AdmitYearMo		CostDetail.Amount	
4							
5							
6		[aq1]					
7		201902			201902	3342.61	
8		201903			201903	1362.85	
9		201904			201904	3368.68	
10		201905			201905	3532.98	
11		201906			201906	2184.88	
12		201907			201907	16660.39	
13		201908			201908	7048.43	
14		201909			201909	746.00	

Example Axiom query using date part syntax

For more information on using date parts in Axiom queries, see the following topic in Axiom Help: *Using date parts in Axiom queries (AX1511)*.

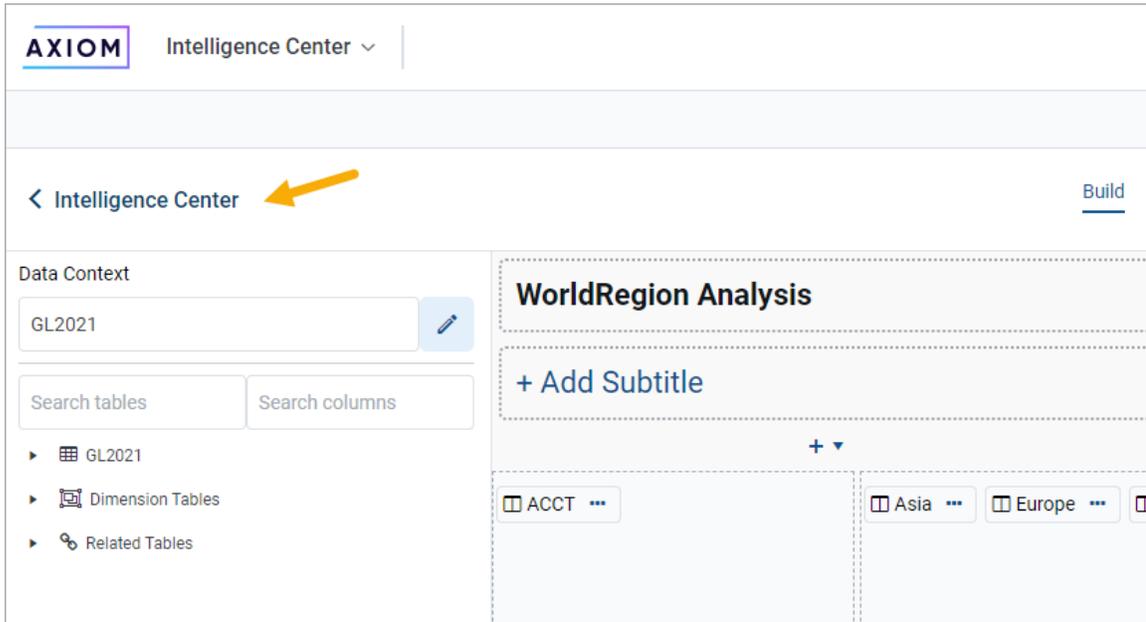
▶ Additional Report Builder enhancements

- Columns and column groups with filters now display with a filter icon in the Report Builder. This makes it easy for the report designer to see at-a-glance that a particular column or group is being filtered.

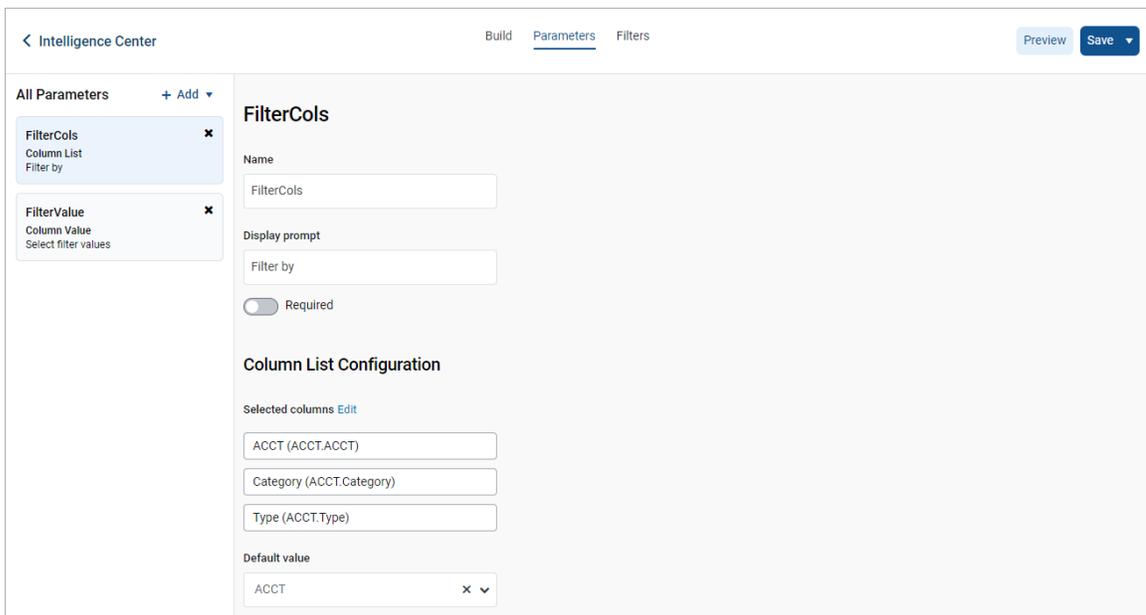
The screenshot shows the Report Builder interface for a report titled 'WorldRegion Analysis'. The table below has columns for 'ACCT', 'Asia', 'Europe', and 'North America'. Each column header has a filter icon (a downward arrow in a blue triangle). An orange arrow points to the filter icon for the 'Asia' column.

WorldRegion Analysis	Asia	Europe	North America
4000 - Revenue	\$1,985,992	\$136,110	\$12,467,659

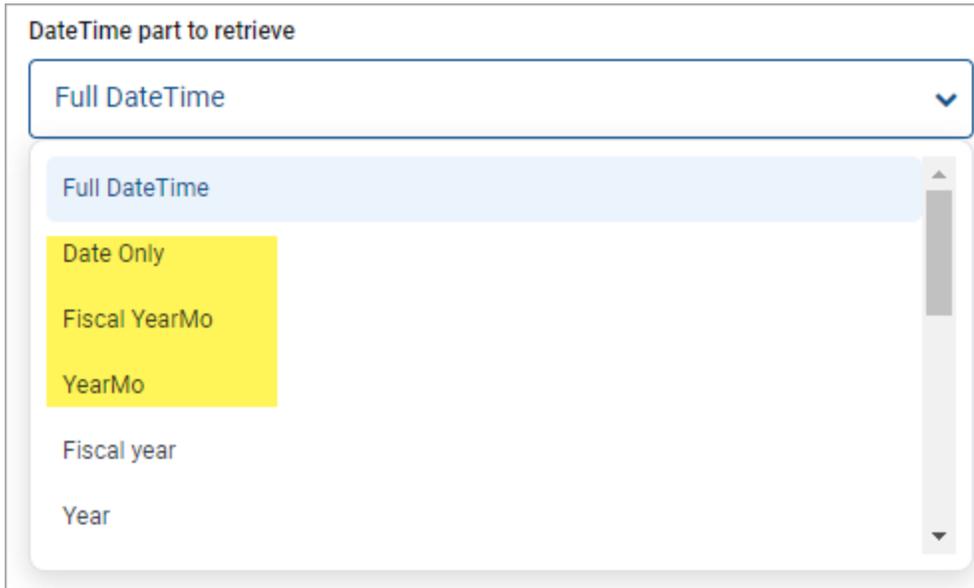
- An **Intelligence Center** breadcrumb is now available in the Report Builder, to quickly exit the report and navigate to the Intelligence Center.



- The **Parameters** tab of the Report Builder has been updated to match the styling of the new Filters tab. Previously each parameter had a set of general properties that displayed in a right-hand panel, and a set of parameter-specific properties that displayed in the middle panel. These properties have been combined into a single panel.



- Several new date parts are available for Date and DateTime columns. These date parts expand the available options to display, group, and filter by date and date-time values.



- You can now set default formats for Date and DateTime columns at the grid level of a web report, using the **Grid Configuration** settings. Any Date or DateTime columns that use the default formatting will inherit any changes made here.

► Additional enhancements

The Purge System Data task now deletes expired announcements when it runs. By default, the task deletes all announcements that are 30 days past their configured expiration date. This setting can be configured as needed using the **System.SystemDataPurge** system job.

What to know before upgrading

This section details the upgrade considerations and technical changes that apply when upgrading to version 2022.2. Please make sure to review this section carefully before upgrading.

Upgrade considerations

The following upgrade considerations apply when moving from the most recent Axiom release of 2021.3 to the new release of 2022.2. If you are upgrading from an earlier version, please also see the release notes for the interim versions for any additional upgrade considerations.

Removal of support for in-memory document reference tables

Description	<p>The ability to store document reference tables as in-memory tables has been removed. This feature was primarily intended as a proof-of-concept, and we do not believe it was ever implemented at a client site. It is being removed now because the feature does not align with our current performance optimization efforts and roadmap. Additionally, use of document reference tables has been increasingly de-emphasized over time, to the extent that many clients do not use document reference tables at all.</p> <p>IMPORTANT: The in-memory feature was only available to on-premise installations. This upgrade consideration does not apply to cloud systems.</p> <p>In the extremely unlikely event that any on-premise client has this feature enabled, it must be disabled before upgrading to 2022.1 or later. The upgrade to 2022.x does not support upgrading memory optimized tables.</p>
Notes for testing and review	<p>We do not believe this feature was ever implemented at a client site. If you are an on-premise client and you believe this feature might be enabled, please contact Axiom Support for assistance.</p>

Some filters will not migrate in web reports

Description	<p>Version 2022.1 introduces a new Filter Wizard for web reports. Due to the back-end changes necessary to support the new Filter Wizard, some existing filters in web reports will not migrate to the new structure.</p>
Notes for testing and review	<p>Please see the discussion in Upgrade considerations for web report filters for more details.</p>

Removal of duplicative process columns in the Report Builder

Description	<p>When creating a web report that includes Process Management columns, it was previously necessary to include the step name and step number columns separately. Going forward, these columns have been combined into a single step column that can be used to display the step name and number in various formats.</p> <ul style="list-style-type: none">• In the Process Status Columns node, the previous columns Current Step and Current Step Number are combined into a single column Current Step.• In the Process Step Columns node, the previous columns Step Name and Step Number are combined into a single column Process Step. <p>When using Current Step or Process Step, you can use the Show description and Description display format options in the Column Configuration panel to display just the step name, step number, or some combination of both.</p> <p>If you have existing reports that use the old columns, these reports will continue to work and the columns will return just the name or number as applicable.</p>
--------------------	--

Notes for testing and review	Nothing to test or review for this item.
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Removal of unnecessary items from System Administration menu

Description	<p>As part of the Web Client navigation updates introduced in 2022.1, a couple of unnecessary items were removed from the System Administration menu:</p> <ul style="list-style-type: none">• Home: The Home menu item is not necessary as part of the System Administration menu, because it is available elsewhere. You can use the Area menu to navigate to your home page (custom systems) or to a product home page (systems with installed products).• Forms Explorer: The Forms Explorer has been superseded by the Intelligence Center. Although the Forms Explorer page has not been removed from the application, it is a deprecated feature and may be removed in a future release.
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Notes for testing and review	Nothing to test or review for this item.
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References to raw table and column names no longer work

Description

Version 2022.1 changes the underlying table and column names in the database. If you have an import or an Execute SQL Command Scheduler task that references the raw table and column names from the database, these references will no longer work after upgrade to 2022.x. In previous versions, raw table and column names used a naming convention such as `tb###` or `col###`, where `###` is the table or column ID number.

The use of raw table and column names in SQL statements was and remains unsupported, however, the application did not prevent the execution of SQL statements that used these raw names. Therefore, in some cases, these raw names may be present in client systems.

If your system uses supported syntax to reference tables and columns in SQL statements, then the database naming changes will not affect the operation of your system. When using supported syntax in previous versions, tables were referenced as `{tablename}`, and columns were referenced as the column name or as `{tablename.columnname}`. These references will continue to work after upgrade.

Going forward, the supported syntax for tables has additional nuance that should be adopted when creating new SQL statements or editing existing SQL statements. This syntax works as follows:

- `{Read:Tablename}`: This syntax should be used when reading data from the table, which should be true for the vast majority of references.
- `{Write:Tablename}`: This syntax should be used when writing data to the table.
- `{Table:Tablename}`: This syntax should be used to return the underlying table object name in statements such as TRUNCATE or when seeding an identity value.

Existing `{tablename}` references will continue to work in SQL Server database environments.

Notes for testing and review

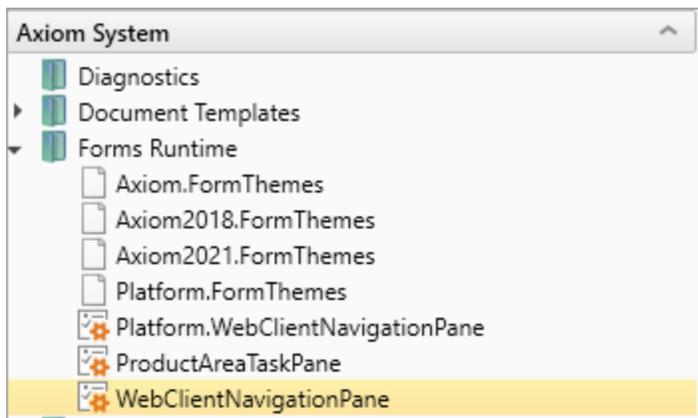
When your upgrade to 2022.1 or later is scheduled, the upgrade process will include a scan of your system to identify whether your system uses any of these unsupported table and column references. If any of these references are found, we will work with you to fix the references in the affected assets.

Updating your Web Client navigation bar

When you upgrade to version 2022.2 from 2021.3 or earlier, the contents of the Navigation panel now display as a menu in the navigation bar across the top of the page. To preserve backward-compatibility, the existing contents of the Navigation panel are displayed as-is—even though other changes to the Web Client navigation bar mean that some items in the menu are duplicative or may no longer be necessary. After upgrade, you may want to modify your navigation menu to optimize it for the new environment.

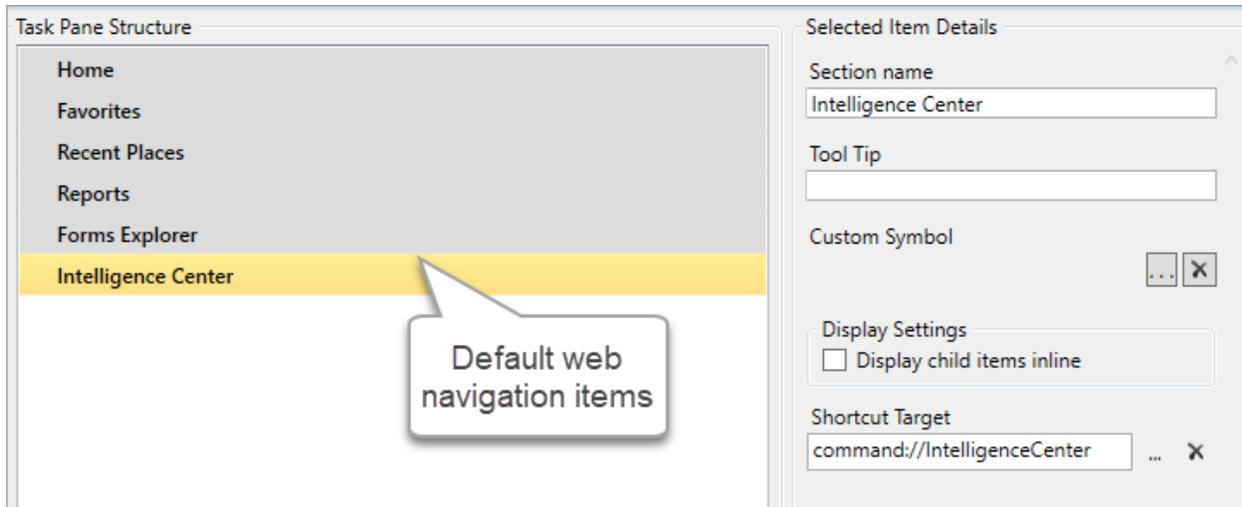
NOTE: This upgrade consideration only applies to custom Axiom systems. If your system uses upgradeable Axiom products, the contents of the navigation menu is controlled by those products.

For custom Axiom systems, the web navigation items are defined in the following file: `\Axiom\Axiom System\Forms Runtime\WebClientNavigationPane.axl`. This file can only be accessed by administrators.



Task pane file that defines the web navigation items for custom systems

By default, the `WebClientNavigationPane` file contains the following items to be displayed as the navigation menu.



Default navigation items

Note that many of these items are now easily available in other areas of the updated navigation bar:

- **Home** and **Intelligence Center** are available on the **Area** menu (the Syntellis icon on the far right of the navigation bar).
- **Favorites** and **Recent Places** are available on the new **Bookmarks** panel.
- Additionally, the **Forms Explorer** page has been deprecated and replaced by the Intelligence Center. Although the page still exists, there should be no reason to use it.

However, the `WebClientNavigationPane` file is customizable. Your organization may have edited this file to add, remove, or rename items. Because this file can be customized, Axiom does not overwrite it as part of system upgrades. You will see the same navigation items before and after the upgrade, just presented in a new location.

As part of your upgrade to 2022.2 from 2021.3 or earlier, we recommend that you review your `WebClientNavigationPane` file and decide what you want to display in your navigation bar going forward. For example:

- You can choose to do nothing and leave the navigation as is for now.
- You can edit your existing `WebClientNavigationPane` file as desired to remove any items that you find duplicative or unnecessary in the context of the updated navigation. This is the recommended approach if you have customized your `WebClientNavigationPane` file and you want to preserve those customizations while also making additional updates.

NOTE: If your `WebClientNavigationPane` file contains the **Forms Explorer** item, we recommend removing it. Although this page is still available now, it may be removed in a future release.

- You can replace your existing `WebClientNavigationPane` file with the new default navigation, using the system-delivered file `Platform.WebClientNavigationPane.axl`. Going forward, the new default navigation items for custom systems are simply Home and Reports.

If you want to replace your existing `WebClientNavigationPane` file to use the new default navigation:

1. In the **Axiom System > Forms Runtime** folder, delete **WebClientNavigationPane**.
2. In the same folder, right-click **Platform.WebClientNavigationPane** and select **Copy**.
3. Right-click the **Copy of Platform.WebClientNavigationPane** and select **Rename**. Change the name of the file to be **WebClientNavigationPane**.

Upgrade considerations for web report filters

Version 2022.1 introduced a new Filter Wizard for web reports. Due to the back-end changes necessary to support the new Filter Wizard, some existing filters in web reports will not migrate to the new structure. If a filter cannot be migrated, the report will display an error about the problem filter. You can edit the report to delete the filter and then re-create it using the new Filter Wizard as applicable.

Additionally, some existing filters will migrate and continue to work, but due to syntax issues these filters cannot be edited in the new Filter Wizard going forward. In this case you can leave the filter as-is or delete the filter, but you cannot edit the filter or create a new version of the same filter going forward.

The following sections provide more information on these filter migration issues. If your organization has created web reports in version 2021.1, 2021.2 or 2021.3, please review these sections to determine if any of your reports may be affected.

▶ Unsupported or invalid filter syntax

The previous Filter Wizard allowed input of any text string. This means that it was possible to create filters using invalid or unsupported syntax. Although in most cases an invalid filter would cause an error, in some cases it might have been silently ignored.

Filters using unsupported syntax may have had the intended effect in particular configurations, but are unsupported because they may not work in all configurations. For example, in the previous Filter Wizard it was possible to manually input a filter string that used math operators against multiple columns, and the report may have refreshed without error with this filter, but this is not supported filter syntax in Axiom.

If a filter statement is invalid or unsupported, the full statement will be carried over as-is to 2022.x. The report will return an error message about a filter that could not be migrated. In the new Filter Wizard, the filter statement will display as a non-editable block and will be flagged as invalid. To clear the error message, you can delete the filter and save the report.

KNOWN EXCEPTIONS:

- Filters that compare two columns using greater-than or less-than syntax are not officially supported, but will migrate as working filter statements if the rest of the filter uses valid and supported syntax. These filters will be applied to the report in the same way as previous versions. Once these filters are migrated, they cannot be edited, but they can be deleted. We may provide full support for this syntax in a future version, at which point the Filter Wizard will also be enhanced to allow creation of new column comparison filters.
- Filters that use greater-than, less-than, or BETWEEN syntax on string columns were not officially supported in previous versions, but are now supported and will migrate as working filter statements. These filters will be applied to the report in the same way as previous versions.

The new Filter Wizard does not allow creation of free-form filter statements. Therefore, these types of invalid or unsupported filter statements cannot be created going forward. Future versions of the Filter Wizard may provide official support for some of these currently unsupported filter statements.

► Filters on calculations or groups that use columns from multiple tables

In previous versions, if a calculation or group used columns from multiple tables, the Filter Wizard did not consistently constrain the list of valid tables for the context. In some cases you could create filters that were not valid on all of the tables referenced by the calculation or group, or were not valid in the context of the primary table specified as the Data Context for the report. Although some of these invalid filters would cause an error, in other cases the invalid filter was silently ignored on the tables where it could not be applied.

Starting with 2022.1, the Filter Wizard correctly constrains the valid list of tables based on the tables referenced by the calculation or group, and based on what is allowed by the primary table specified as the Data Context for the report. Going forward, it should not be possible to create a filter that is invalid based on the current configuration of the report.

If your report contains a filter on a calculation or group that does not follow these rules, the migrated filter will cause an error in the report. You can resolve the error as follows:

- Review the filter to determine the desired effect of the filter, then delete it from the calculation or group.
- If you can achieve the same filter result by following the valid table rules in the new Filter Wizard, you can simply create a new filter on the calculation or group.
- If the old filter is not possible using the new rules, you should evaluate what you were attempting to achieve and determine whether there is a better way to achieve it. For example, if you had a group with columns from two different data tables, and the group had a filter defined on one of the data tables, this filter is not valid because it cannot be applied to the second data table. In this situation, you may need to define the filter directly on the column instead of on the group, or perhaps separate the columns into two different groups.

▶ Column-only filters

In some cases, the previous Filter Wizard may have created filters that did not use fully qualified Table.Column syntax. It was also previously possible to manually input filters that did not use fully qualified syntax.

Going forward, all filters created in the new Filter Wizard use fully qualified syntax. Generally speaking, this means that all filters must begin on the affected table or on a dimension table of the affected tables.

Although column-only filters cannot be created in 2022.x, existing column-only filters will migrate and will work without error as long as the filter can be applied unambiguously to all affected tables. In the vast majority of cases, this means that if you had a working column-only filter in a previous version, that filter will migrate and work in 2022.x. The primary reasons that a migrated column-only filter would not work are:

- If the filter was on a calculation or group with multiple tables, and the filter cannot be applied to all of the tables, then the filter is invalid and will cause an error. A different filtering approach may be needed to achieve the desired effect (as discussed in the previous section).
- If the report was created in 2021.1 and never upgraded, and had a column-only filter defined in the Grid Configuration settings, this will be migrated as a General filter. If the column cannot be applied to all tables referenced in the report, the filter will cause an error. In this case you should evaluate whether the filter was intended as a General filter or a Table-Specific filter, and attempt to re-create it using fully qualified syntax in the new Filter Wizard.

If the migrated column-only filter works, and you later need to edit this filter, keep in mind that the new Filter Wizard is unable to show specific values in the column due to the unqualified column reference. In this case you can delete the existing filter and re-create it using the new Filter Wizard, which will allow you to select specific values in the column.

▶ Other filter migration notes

- If you have a dimension-level filter where the name of the validated column does not match the name of the lookup table, this filter will migrate and work. However, if you later need to edit this filter to select specific values in the column, the new Filter Wizard is unable to show these values due to the name mismatch. In this case you can delete the existing filter and re-create it using the new Filter Wizard, which will allow you to select specific values in the column.
- If you have an existing filter that references an empty string value, this filter will migrate and work. However, the new Filter Wizard does not currently have support for creating empty string filters such as `Request.Status<>' '`. Future versions of the Filter Wizard may add this support.
- If you have an existing filter against null values, this filter will migrate and work. However, the new Filter Wizard does not currently have support for creating null value filters such as `Request.StartDate IS NULL`. Future versions of the Filter Wizard may add this support.

Installation and technical changes

In order to upgrade to version 2022.2, your Axiom database must be at version 2020.4 or higher. This means that if you are upgrading from version 2020.3 or earlier, you must first upgrade the database to 2020.4 or higher before you can proceed with the 2022.2 upgrade. If you are an on-premise client, please see the *Installation Guide* for more information.

This note primarily applies to on-premise installations. If you have an Axiom Cloud system, Axiom Support will take care of the necessary updates when upgrading your system.

Preparing and scheduling upgrades

Syntellis strongly encourages clients to upgrade to the latest version, to keep your software current and to gain access to the new features and enhancements introduced in each release.

IMPORTANT: If your Axiom system includes installed vertical-specific products, please consult the release notes for the applicable product suite for further information and product-specific installation instructions.

1. **Review release notes:** Review this document to familiarize yourself with the new features and functionality, and any upgrade considerations.
2. **Schedule an installation date:** Submit a request to your organization's Axiom administrator to contact support@syntellis.com to schedule an installation date and time, with at least three days advance notice. The request should include the following information:
 - Desired Axiom platform version.
 - Indicate whether to first refresh the test sandbox with a copy of the production instance of Axiom and apply update(s) to it. If so, provide the earliest date that Syntellis can do this.
 - Propose an approximate two-hour downtime window when Syntellis can apply updates to the production instance of Axiom during regular business hours: Monday through Friday, 7 AM to 7 PM Central (except holidays recognized by Syntellis).

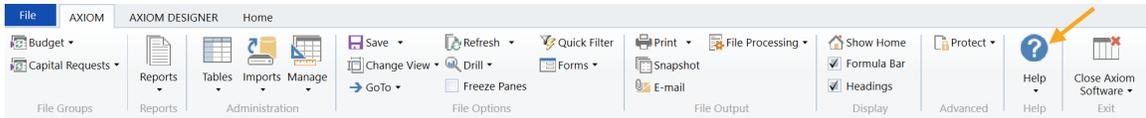
IMPORTANT: Although Syntellis strives to maintain backward-compatibility with each release, any upgrade has the potential to interrupt system functionality. The [Upgrade considerations](#) section details known impacts to existing functionality, however, other impacts may be unforeseen at the time of release, or may be particular to your system. We strongly recommend performing the upgrade first on a test sandbox and then testing critical system functionality.

Getting help and training

Syntellis provides world-class resources at your fingertips directly within Axiom. In Axiom Help you can find comprehensive software documentation—including detailed instructions, examples, and reference information—as well as a troubleshooting knowledge base, documents, videos, and release updates. You can also find links to our [Syntellis Academy](#) training site and our [Syntellis Central](#) client portal.

Axiom Help is accessible from either the Desktop Client (Excel and Windows) or the Web Client:

- **Desktop Client:** On the **Axiom** ribbon tab, click **Help**.



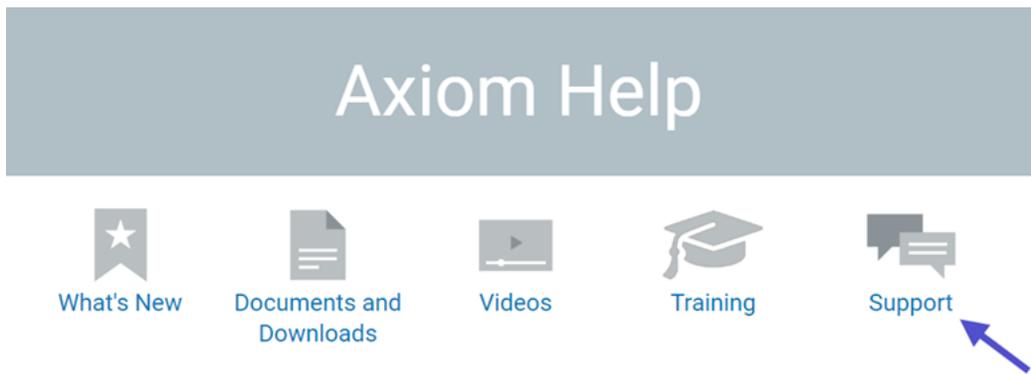
- **Web Client:** Click the question mark icon (?) in the top right of the gray task bar.



Context-sensitive help is also available throughout the software. In most dialogs, you can click the question mark icon (?) in the top right corner to access information about the current feature. Some pages in the Web Client also have context-sensitive help.

► Escalating to Axiom Support

As always, we appreciate your commitment to Syntellis. If you have any questions about upgrading to version 2022.2, please contact us via [Syntellis Central](#). You can go to the Syntellis Central site directly, or you can click the Support link on the Axiom Help home page.



Issues fixed in 2022.2

The following issues were fixed in versions 2022.1 and 2022.2.

Item	Description
35442	<p>Issue: When creating new plan files using Process Plan Files, the confirmation message incorrectly states that no plan files were created.</p> <p>Status: The confirmation message now correctly recognizes that plan files were created.</p>
37091	<p>Issue: If a general process definition references a file group that has been deleted, an object reference error occurs when attempting to open the process definition.</p> <p>Status: The process definition can be opened and the missing file group is noted in the dialog.</p>
58640	<p>Issue: If an Axiom function which opens a dialog (such as GetCalcMethod) is clicked many times in quick succession (more than double-click), the Excel Client may crash.</p> <p>Status: The Excel response that causes the crash is now detected and handled by the application, and logged in the client log. When this occurs, the dialog may simply not open, but the application remains responsive so that you can try again.</p>

Appendix: Version 2022.2 Patches

This section details the fixes and enhancements in patch releases for Axiom version 2022.2. For assistance with any patch, you can contact Support using [Syntellis Central](#).

Axiom patches are cumulative. All fixes and enhancements included in prior patches are included in the current patch.

▶ Current patch: 2022.2.15

The following issues were fixed in this patch:

- 135968: Fixed BI model task error when attempting to sync with PowerBI Premium Gen 2.

▶ Previous patch: 2022.2.14

The following issues were fixed in this patch:

- 147810: Selecting columns from external data sources does not include internal data sources where that column exists.
- 148538: Temp files are regularly cleaned up when exporting web reports.
- 149210: Fixed issue in the report filter wizard that prevented user from grouping conditions with ANDs/ORs.

▶ Previous patch: Patch 2022.2.13

The following issues were fixed in this patch:

- 132916: Scheduled jobs configured for a specific time zone are now re-scheduled based on that time zone.
- 145736: Updated the code signing certificate for on-premise installations. Please install the updated certificate before opening the desktop clients.

▶ Previous patch: 2022.2.12

The following issues were fixed in this patch:

- 145097: Fixed potential duplication error when using OData with pagination.
- 145645: Fixed issue that could cause the control sheet to be locked and unusable in the legacy report wizard.

▶ Previous patch: 2022.2.11

The following issues were fixed in this patch:

- 142816: Created scheduler task to rebuild table views which can be used when EDS uses a post-package task to add columns to some tables.
- 143200: Applied the UX design system theme to visualization reports.
- 144029: Fixed issue with table using the string "audit" in the tablename, causing failure of SystemDataPurgeTask in pre-patch systems.
- This patch also includes general security updates.

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