Release Notes

Axiom
Version 2022.4

AXIOM

Contents

About the release notes

Syntellis is pleased to announce the release of **Axiom Version 2022.4**. This release is limited to **cloud customers only**. Due to the significant architectural changes we are making to enable cloud-based functionality, we are not yet releasing an on-premises update. We do not have a timeline for when the next on-premises update will be available, as it depends on the speed with which we can complete these cloud-based enhancements. In the interim, we will continue to update Axiom Version 2022.3 with patches to address any defects, security remediation, and necessary key features.

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 2022.4 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.

▶ File group security enhancements

You can now use Save Type 4 to make quick bulk edits to file group security or automate file group security changes as part of a user on-boarding process. This feature takes functionality that was previously available only in the Security Manager and makes it available in a file group security report. You can manage all principal or role-based access to file groups and plan files from this table.

Save tags exist for principals and for roles.

Example file group security report

Editing filters

Any changes you make also take effect in the Security Manager and the Audit Manager.

▶ Audit Manager enhancements

The Audit Manager displays file group security changes and OData requests.

You can drill down into the plan file permission details in the Audit Manager Activities tab.

Drill-down in the Audit Manager

Axiom lets you see the specific changes that were made to plan file permissions on the drill-down page.

What to know before upgrading

This section details the upgrade considerations and technical changes that apply when upgrading to version 2022.4. 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 2022.2 to the new release of 2022.4. 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	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.
	IMPORTANT: The in-memory feature was only available to on-premises installations. This upgrade consideration does not apply to cloud systems.
	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.
Notes for testing and review	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.

Some filters will not migrate in web reports	
Description	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.
Notes for testing and review	Please see the discussion in Upgrade considerations for web report filters for more details.

Removal of duplicative process columns in the Report Builder

Description

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.

- 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**.

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.

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.

Notes for testing and review

Nothing to test or review for this item.

Removal of unnecessary items from System Administration menu

Description

As part of the Web Client navigation updates introduced in 2022.1, a couple of unnecessary items were removed from the System Administration menu:

- **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.

Notes for testing and review

Nothing to test or review for this item.

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 2022.4 from 2021.3 or earlier, the contents of the Navigation panel are now displayed 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 might include items in the menu that are duplicated 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.
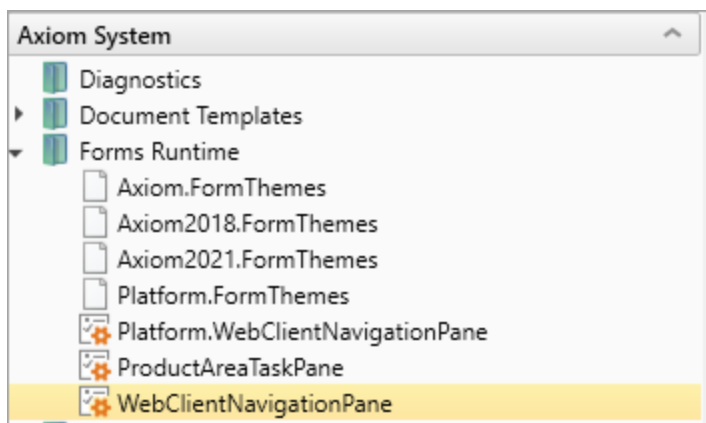
Task pane file that defines the web navigation items for custom systems

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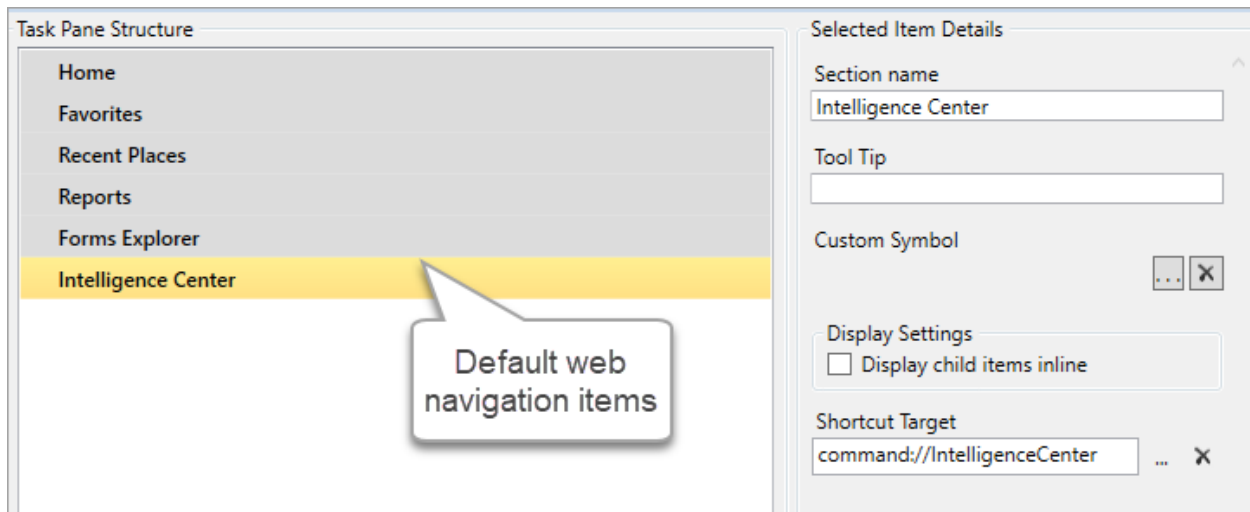
Default navigation items

Note that many of these items are now 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.

- The **Forms Explorer** page has been deprecated and replaced by the Intelligence Center. Although the page still exists, you should not need to use it.

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 the system upgrades. The same navigation items are available before and after the upgrade and presented in a new location.

As part of your upgrade to 2022.4 from 2021.3 or earlier, we recommend that you review your WebClientNavigationPane file and decide what you want to be displayed 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 to remove any duplicate items or items that you find unnecessary in the context of the updated navigation. This action is the recommended approach if you have customized your WebClientNavigationPane file and you want to preserve those customizations while also making additional updates.

> **NOTE:** As a best practice, if your WebClientNavigationPane file contains the **Forms Explorer** item, consider 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 **Home** and **Reports**.

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**.

4. Change the name of the file to **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 2022.4, 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 2022.4 upgrade. If you are an on-premise client, please see the *Installation Guide* for more information.

This release is only for Axiom Cloud systems. 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 five business 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**.
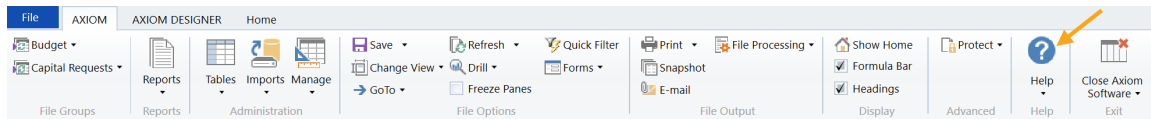
- **Web Client**: Click the question mark icon (**?**) in the top right of the gray task bar.
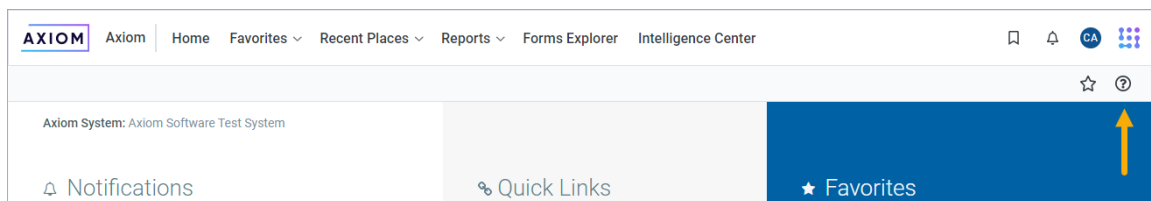
Context-sensitive help is also available throughout the software. In most dialogs, you can click the question mark icon (**?**) in the top right corner to access information about the current feature. Some pages in the Web Client also have context-sensitive help.

▶ Escalating to Axiom Support

As always, we appreciate your commitment to Syntellis. If you have any questions about upgrading to version 2022.4, 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.
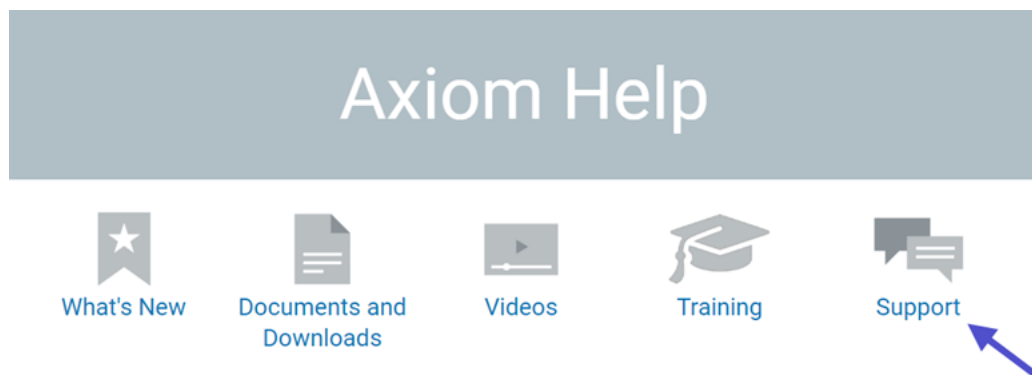
Issues fixed in 2022.4

The following issues were fixed in 2022.4:

Item	Description	
2747	Issue:	Could not update the database user in Axiom Software Manager when performing an upgrade.
	Status:	Resolved
2869	Issue:	Creating a shortcut folder that pointed to its own target folder caused multiple issues.
	Status:	Resolved
2955	Issue:	When using the multi-file import, if the file contained a string key column with a blank value, the error was not reflected in the import results.
	Status:	Resolved
3744	Issue:	Conditional filters did not roll forward with the user workflow.
	Status:	Resolved
4147	Issue:	No ribbons were loaded for internal users when the AxiomMain tab was not in the Sample Ribbon library.
	Status:	Resolved
4232	Issue:	Changes to conditional assignments in duplicate process management steps were applied to the original steps as well as the duplicate steps.
	Status:	Resolved
4554	Issue:	An encryption key error was returned when attempting to use the plan file attachments importer with a system that used blob storage.
	Status:	Resolved

Appendix: Version 2022.4 Patches

This section details the fixes and enhancements in patch releases for Axiom version 2022.4. For assistance, 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: 2022.4.14

The following issues were fixed in this patch:

Item	Description
50401	**Summary**: After a Microsoft update, panes were no longer frozen in the Budget Security Update utility of the Excel Client. **Resolution**: Updated Axiom rendering in Excel.
50894	**Summary**: After a Microsoft update, panes were no longer frozen when Axiom displayed refresh variables. **Resolution**: Updated Axiom rendering in Excel.
18472	**Summary**: When sharing web reports, the Select User dialog was not populating email addresses after selecting users. **Resolution**: Updated dialog behavior and formatting.
45118	**Summary**: The Axiom 2022.4 Sofware Development Kit (SDK) was not updated to include the Data Model Manager. **Resolution**: Built an updated SDK, version 1.22.7.

▶ Previous patch: 2022.4.13

The following issues were fixed in this patch:

Item	Description
11164	Summary: Cells containing user data could become misaligned with the selected cell when users opened or closed Microsoft Excel panes. Resolution: Improved layout calculations so user input aligns with the selected cell.

Item	Description
34963	Summary: The Sort Data option was disabled for tables with over 100,000 rows. Resolution: Added the AllowSortDataAboveThreshold configuration, which allows clients to decide whether to grant the ability to sort large tables with over 100,000 rows. The configuration defaults to **False**. If set to **True**, the Sort Data option is enabled, but extended processing times may occur.
19174	Summary: Cost model table replication failed due to SQL server limitations. Resolution: Changed the replication process to occur in batches while results are accumulated.

▶ Previous patch: 2022.4.12

The following issues were fixed in this patch:

Item	Description
3441	Summary: The user interface (UI) did not communicate the 50,000 record limit for GetDataElement searches. Resolution: Added UI text to explain search record limitations.
12263	Summary: When an Extract Transfer Load (ETL) process was run with partial success, users could have encountered a snowflake replication error. Resolution: Fixed the error blocking modification time from being updated, which prevented the replication.

▶ Previous patch: 2022.4.11

The following issue was fixed in this patch:

- 9425: Initiative Dashboard data changed to incorrect data when users clicked the folder icon.