SALIENT® MANAGEMENT COMPANY

March 14, 2022

Salient Dashboards™

User Manual: Building Dashboards

Version 7.80

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About Salient Dashboards

Salient Dashboards enables your team to create and access interactive, consolidated visualizations of decision support intelligence in a browser for consumption from any computer or mobile device.

Like Salient's other applications, dashboards start with UXT® technology, which transforms huge volumes of data into a highly-optimized analytical data mart. Salient Dashboards provides role-based access to dashboard building, viewing, and exploring capabilities. Dashboard Designers can create and publish dashboards in "edit" mode (see page 23) using a variety of widget types (Comparative, Trend, Scattergram, etc.) and options to provide the exact information users need—from an overview of the entire organization down to a single fact. Users can then view and interact (see page 22) with the customized dashboards. Power Viewers and Dashboard Designers can go on to perform their own data investigation in "explore" mode (see page 24). Portal dashboards (see page 19) provide easy access to dashboards. In addition, a mobile application is available to provide access on mobile devices. For additional capabilities, you may want to install and use Salient's advanced analytical workstation, Salient Interactive Miner™ (SIM).
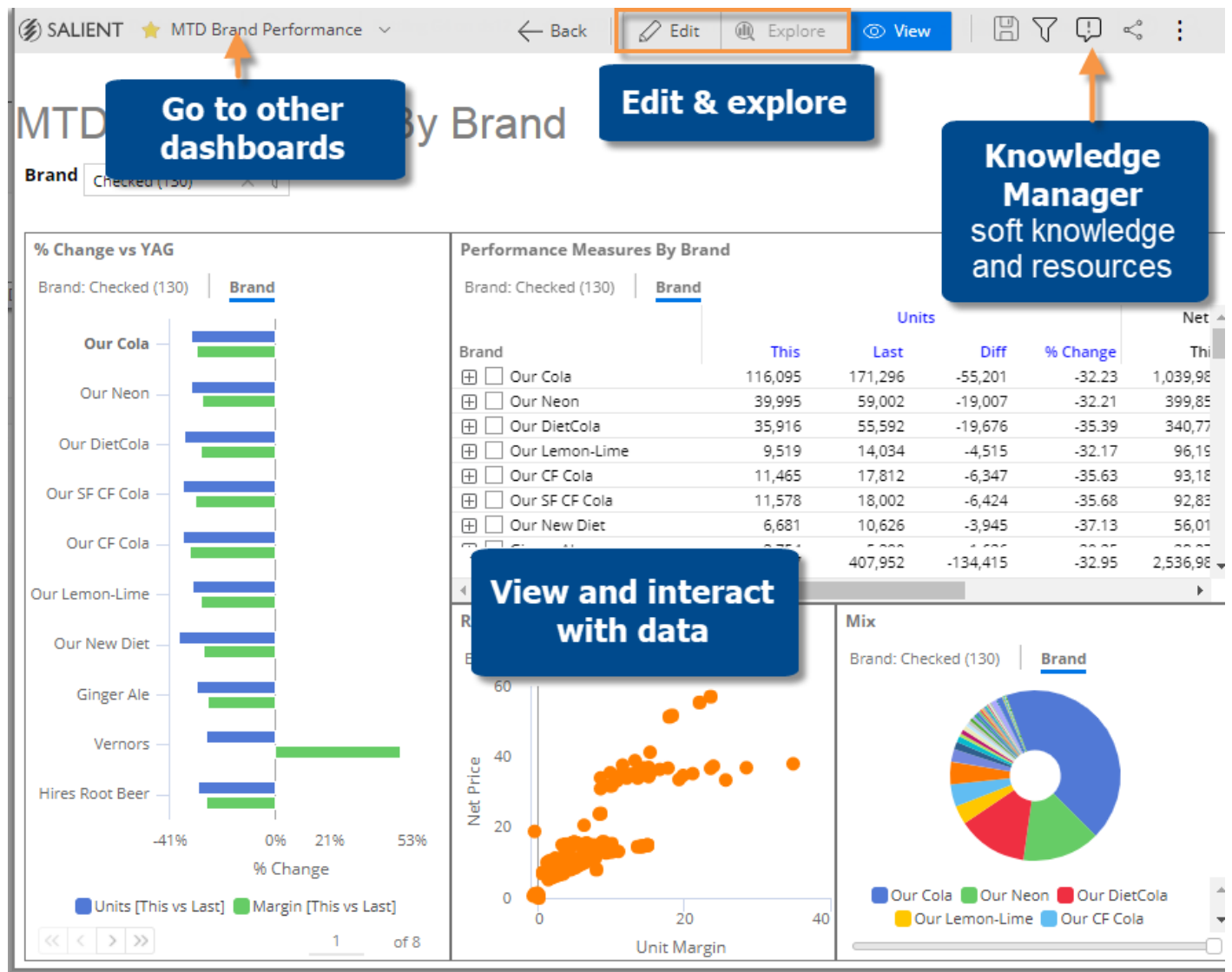
What's new in Version 7.80

Flexible date lookups (v7.80.002+)

Your organization can create date lookup tables to allow Dashboard Designers to replace calendar dates with dates that are more meaningful. For example, a lookup table could be used to compare calendar dates with specific business days during the previous timeframe. If configured, date lookups are available in the Advanced date setup (see page 173) area.

Improved dashboard design

Streamlined design process

A unified design process (see page 40) within the dashboard browser application lets you control how dashboards appear across different devices. In edit mode, you can build a desktop/tablet layout for browser-based viewing and a phone layout for the mobile app. The desktop/tablet layout may also be used in the mobile app to optimize display on wide screens. Each layout stores its own arrangement of widgets along with other settings.
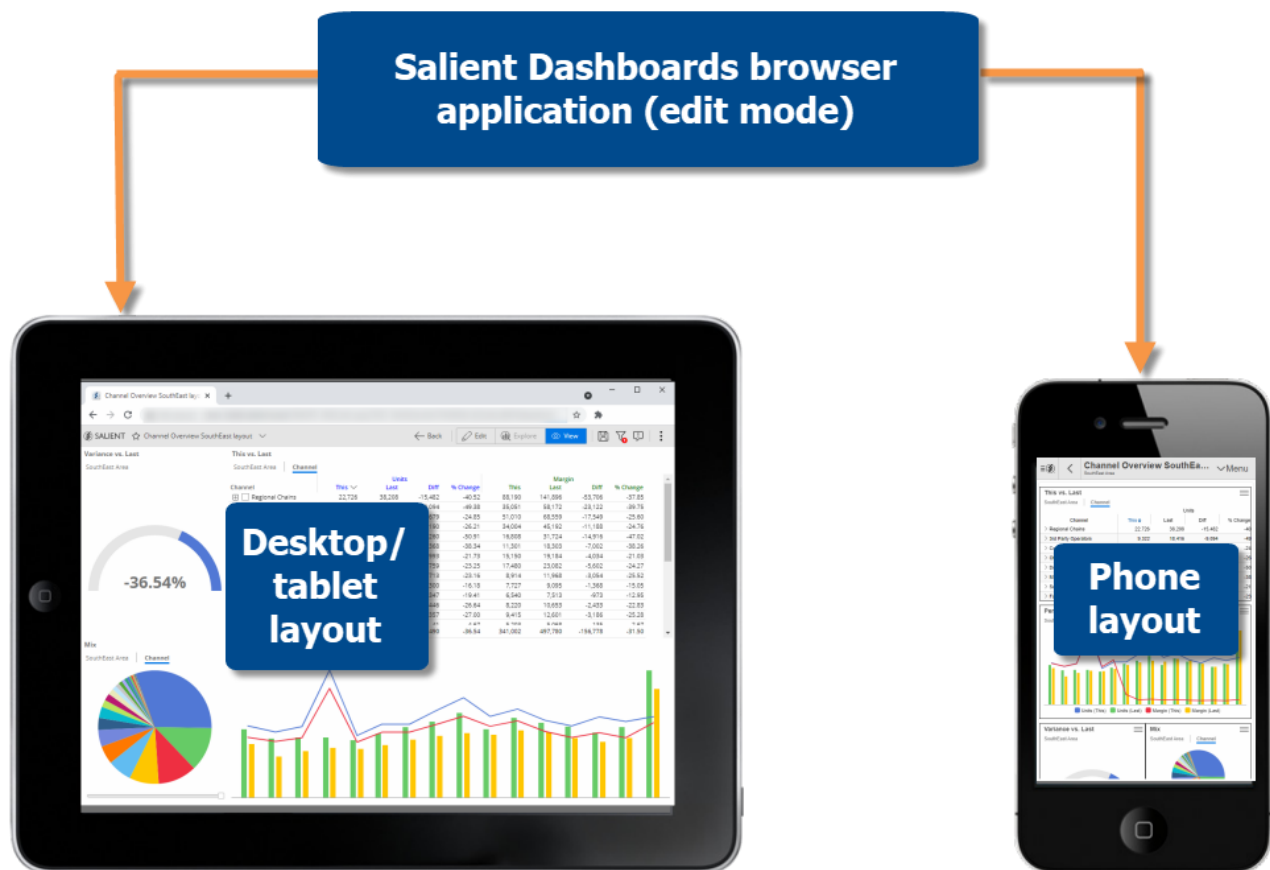
If you wish, you can transition your existing dashboards to the new layouts (see page 46). Some adjustments may be necessary, but, in general, the new layouts will keep your design work from previous versions. Existing dashboards from previous versions will be unaffected unless you choose to upgrade them.

Smart layout transitioning on mobile screens

A dashboard can automatically transition to the desktop/tablet layout on large tablets and/or rotated screens in the Salient mobile app. For example, a phone could show widgets in a single column in portrait orientation and switch to a two-column layout when rotated. This feature requires minimal setup in the desktop/tablet layout (see page 41).

More types of design widgets in mobile

Enhance mobile dashboards with more types of widgets. The Salient mobile app can now display:

- Tabs (see page 47) - maximize screenspace and organize data. In addition, tabs can have their own independent display settings for mobile.

- Buttons (see page 53) - provide quick-pick options for filtering, selecting dates, opening other dashboards, and more.

- Text/HTML (see page 51) - provide instructions, labels, and other content.

- Images (see page 59) - include logos, icons, and other custom images.

Buttons, text/HTML and image widgets can be turned on/off for mobile in general settings (see page 249) of edit mode.

Dynamic desktop layouts

This version offers a new dynamic layout (see page 41) that automatically resizes widgets based on the screen or browser size to provide a better viewing experience on different devices. Existing dashboards will not be affected unless you switch them from a fixed layout to a dynamic layout.
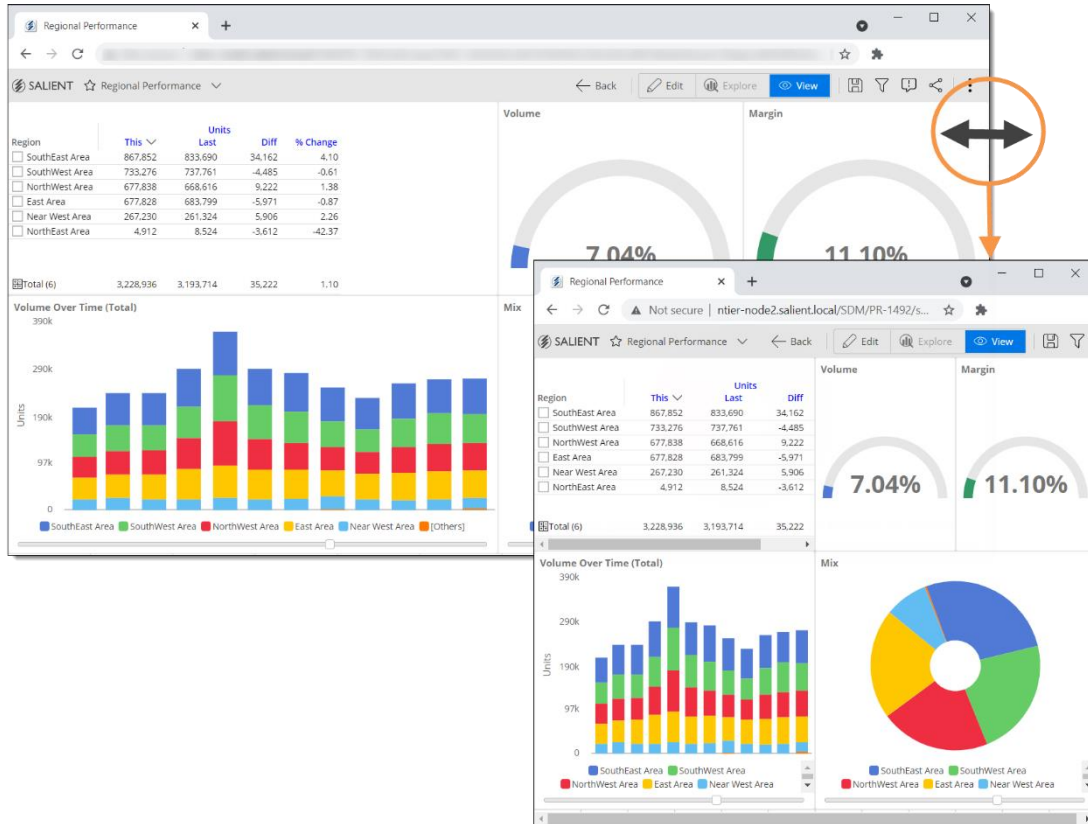
Overview of the UXT Data Model

Salient's unique technology platform, UXT, makes it possible to investigate instantly into the factual history of transactions... to drill through layers of data down to short lists of people, places and things who are presently adding or subtracting value. Salient Dashboards is an interactive, intuitive web-based solution for querying and displaying the UXT analytical data mart.

Before you get started, you should have a basic understanding of the UXT data model and how the screen presents information. The data cubes, keys, dimensions, and measures shown in your solution depend on your data model and licensing agreement.

Data cubes: What does UXT track?

UXT can track information about nearly any activity or process. For organizational purposes, data from each activity typically resides in its own repository, or "data cube (see page 287)." For example, sales data might belong in its own cube, while data associated with a machine repair function might be included in a separate repairs data cube. Depending on the type of activity modeled, a data cube can represent transactions or causal (non-transactional) information about conditions. Relating causal facts (see page 161) to transactional facts can reveal relationships important to many decisions. By definition, data cubes are separate from each other and may come from entirely different sources; however, the UXT model enables the joining of data cubes for the seamless integration (see page 14) of all activities.

If your organization uses a simple data configuration (for example, only sales), you shouldn't need to worry about data cubes and how to switch between them. In fact, you might not even see or need to use the data cube menu. If the configuration has multiple data cubes, then you need to know which data cube you are looking at, how to switch between them (see the following picture) in order to access other dimensions (i.e., attributes) and measures.
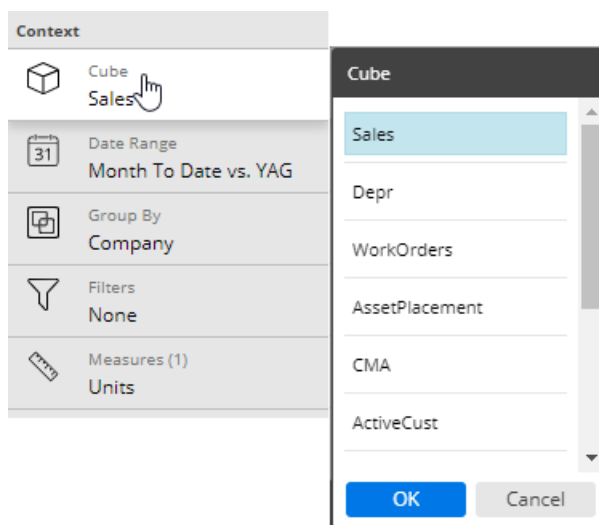
Keys and dimensions: Who? What? Where?

Who bought? Who sold? Where are they located? What did they buy? In other words, what are the key entities involved in the transactions. UXT uses the term "key (see page 289)" to classify these entities. For example, a Sales data cube may include a Customer key (who bought) and a Product key (what they bought). You can list out key members (see page 188) to answer these questions.

As a whole, a key is a master list of the things, places, and people involved in your organization's transactions. For example, a Customer key would hold all your organization's customers. In this case, each individual customer is a member of the key, otherwise known as a key member.

In the UXT model, each key member is classified by attributes, for example, a customer belongs to a chain, channel, city, company, etc. The UXT system calls these attributes "dimensions (see page 287)". Dimensions provide numerous ways of grouping and looking at the data. The dimension that is currently used to group the data is called the "Group By." A dimension may be unique to a key (e.g., the brand dimension might be associated with only the product key); it might be shared among keys (e.g., the region dimension might be associated with customer and asset keys); or it might be independent of any keys (e.g., budget data).

Each dimension, or attribute, is broken down into categories, called dimension members, such as specific regions, channels, or packages.

Tips:

- If a key has a long list of associated dimensions, your administrator may create logical keys to help group them by type. For example, a geographic logical key might include dimensions related to geographic location, such as state, county, and city. Logical keys appear in menus and dialogs just like regular keys.

- Your dataset may include allocation keys and dimensions (requires additional licensing) to describe and group trade spending and other off-invoice data. Allocation keys and dimensions are not available in some modes of analysis (see page 167).

Measures: How many? How much? How long? How often? Why?

Salient Dashboards answers these questions and many more. The data or "measures" in UXT are organized into various data categories. Depending on your organization's data model, you may see all or just a few of these data categories. Your organization may use different terms for these categories, but their meaning should remain the same. To help you understand and recognize types of data, Salient Dashboards may use a unique color for each category.

This summary should give you a general understanding of how Salient Dashboards displays different types of information, but your administration should provide you more detailed information of the data modeled in your system.

Category	Explanation
Volume or **Quantities**	How many? This category represents the volumetric aspect of transactions. Some examples include sales units, promoted units, and returns.
Revenue or **Income**	How much income is generated? This category represents financial revenue data, such as gross revenue and net revenue.
Cost	How much did it cost? This category represents financial cost or expense data. Examples include cost of goods sold and handling costs.
Margin	How much profit was generated after one or more costs were subtracted? This category also represents financial data. Examples include gross margin, net margin, and unit margin.
Frequency	How often did it happen? The category reveals information about frequency and cycles. For example, how often are customers buying or how often are we repairing assets?
Duration	How long did it last? This category represents a duration associated with transactions, such as travel hours, labor minutes, or number of days.
Causal	What were the constraints, limits, and environmental conditions (see page 161)? This type of data doesn't add up over time, but instead describes conditions that affect performance, such as unique counts (see page 162) of customers or products, shelf space, temperature, and number of assets placed at a customer location.

In addition, other classifications of measures related to format (percent, total currency, Boolean, etc.), additive (see page 286) versus non-additive (see page 289), allocated data (see page 286), and internal functions such as temporal (see page 291), day counts (see page 287), and sum (see page 291) across members (used to calculate mix) may be available in your dataset and can belong to multiple categories discussed above.

Integration of data

UXT can join data from separate activities and different sources, such as sales accounting systems, work orders, payroll, demographic data, survey information, scanner records, and more. This seamless joining of data can happen when different types of transactions share common attributes or keys. For example, your organization might sell to a group of customers, perform repairs for those same customers, and track the money owed (accounts receivables) by those customers. UXT can bring all this data together to show the value of each customer.

As you work in Salient Dashboards, you might consider what other information you would like to bring into the system. Contact Salient if you have any questions about this data integration.

Getting Started

System requirements

Requirements for edit and explore modes

As Salient Management continues to develop and release Salient Dashboards, we strive to create a single, comprehensive application that can be used across multiple platforms. Salient Dashboards performs well on most modern desktop browsers and on iPad®. Due to the wide variety of available browsers, performance may vary between browsers and users may encounter minor display differences. Please report any issues to Salient Support.

Tested desktop browsers:

- Microsoft Windows®
  - Google Chrome™
  - Firefox®
  - Microsoft Edge®

- Apple Macintosh®
  - Safari®

iPad:

Salient recommends using iOS 9 or higher. Edit mode is not fully touch-enabled. If you experience problems with touch-activated actions, refer to the following section "Tips for using browser-based dashboards on touch-based devices."

Requirements for view mode

Salient Dashboards view mode performs well on iPad, the desktop browsers listed above, and Android tablets. View mode has been tested on Chrome for Android and Safari for iOS. View mode should work on any modern device with a WebKit-based browser, such as smartphones and modern tablets.

Browser-based dashboards are not fully touch-enabled. If you experience problems with touch-activated actions, refer to the following section "Tips for using browser-based dashboards on touch-based devices."

Additional requirements for browser-based dashboards

- Intranet or Internet access to the web server.

- Cookies and JavaScript must be enabled.

- Pop-up blocking should be selectively disabled for the Salient Dashboards web page.

- The browser should be at 100% zoom.

- A screen size of 7 inches or larger is recommended.

Tips for using browser-based dashboards on touch-based devices

- A click event has priority over drag event for elements that allow both (such as the 1st By dimension).

- To focus on a different member in a graph, tap on the member.

- To view a tooltip on a graph, tap and hold for two to three seconds on the item.

- To scroll through a menu, touch the blank space next to the text as opposed to the text itself.

- You cannot upload files for Knowledge Manager or Image Manager using iPad. We recommend switching to a desktop browser for file uploads.

- Resize a widget by modifying its settings rather than clicking and dragging its edges.

Mobile app requirements

The Salient Dashboards mobile app is touch-enabled and optimized for viewing dashboards on mobile devices. The mobile app is downloaded and installed separately. We recommend running the mobile app on android (v 5+) or Apple® (9+) operating systems. See the document *Setting Up Mobile Dashboards* for more information.

Known issues

- Users may encounter performance issues on browsers and devices older than the versions listed in this document.

- Edit mode may not display correctly if accessed via Remote Desktop.

- The Search bar in online help does not display correctly in old versions of iPad/iPhone.

- You cannot upload files for Knowledge Manager or Image Manager using iPad.

- When using Firefox, we do not recommend using iframes in content widgets.

Web server requirements

The Salient Dashboards web server application has its own requirements, including additional licensing, as discussed in the *Salient Dashboards Installation and Configuration Manual.*
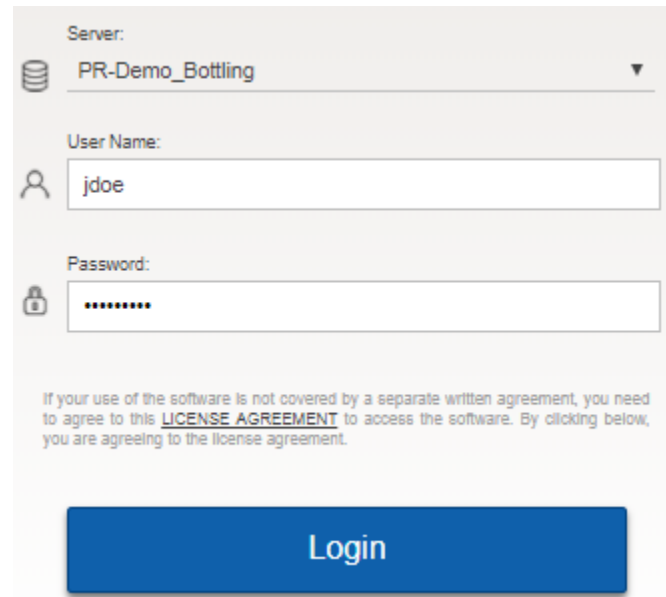
Log in

Before you can use Salient Dashboards, you must log into a dataset. Contact your administrator if you don't know your user name and password or the login page URL.

To log in

1. In your web browser (see page 15), go to the address of the Salient Dashboards login page.

2. From the **Server** menu, select a dataset.

3. For classic login (i.e., credentials entered directly in Salient Dashboards), enter your user name and password. Then, click **Login**.

Server:

🗄 PR-Demo_Bottling ▼

User Name:

👤 jdoe

Password:

🔒 ••••••••

If your use of the software is not covered by a separate written agreement, you need to agree to this LICENSE AGREEMENT to access the software. By clicking below, you are agreeing to the license agreement.

Login

External/SSO authentication: Click the **SSO Login** button. If you are not already logged in, the next screen will allow you to enter your user name and password and **Sign in**.

LDAP login (i.e., machine login used for authentication): The user name and password entries may not be needed.

Tips:

- The portal dashboard (see page 19) opens after login unless you have entered a URL for a specific dashboard or changed the home page in user preferences (see page 255).

- In general, Salient recommends Google Chrome™; however, other browsers are supported (see page 15).

- A dataset may be configured for a specific language. In this case, the login page will immediately switch to that language after it is selected.

- The first login is typically the slowest due to the downloading and caching of application files.

- Do not attempt to log in to the same dataset more than once at the same time using the same user ID. Multiple logins are not supported (see page 281).

- You can log out at any time by clicking ⋮ in the upper-right corner of the dashboard screen and selecting **Logout**.

Passwords

Change your password

You may want to change your password after you log in for the first time. In addition, you may be required to change your password occasionally for security purposes. In this case, a message notifies you of the required password change. SIM and Salient Dashboards share user IDs and associated passwords for a dataset; therefore, changing your password in one application changes your password for the others.

To change your password

1. In the upper-right corner of the screen, click ⋮ and select **Edit Password**.

2. In the **Old Password** box, type your previous password.

3. In the **New Password** box, type a new password that is no longer than 16 characters and consists entirely of English ASCII characters.

4. In the **Retype Password** box, retype the new password.

5. Click **OK**.

You are notified if the password does not meet the requirements (see page 18) set by your system administrator.

User name password requirements

The password security requirements for your Salient user name depend on the level (see below) selected by your administrator. In addition, your administrator may override some of these settings. You are notified when changing your password (see page 18) if a password does not meet the necessary requirements. Contact your administrator for more information.

Security level	Minimum size	Case sensitive	Can be the same as previous password	Can be the same as user ID	# of character types[1]
Weak	1	No (forced to upper-case)	Yes	Yes	Any combination
Moderate	4	Yes	Yes	Yes	At least 2 types
Strong	8	Yes	No	No	At least 3 types
Maximum[2]	10	Yes	No	No	All 4 types

1 - Possible character types include upper-case letters, lower-case letters, numbers, and special characters

2 - The maximum password strength has the following additional requirements: no more than two repeating characters; at least three letters.

Portal dashboard

After initial login, you typically see a portal dashboard that provides fast and easy access to dashboards. Salient Dashboards come with a default portal dashboard, which your organization can customize (see page 274). A portal dashboard has buttons or links to open dashboards. The links may be organized into tabs (e.g., recent, favorite, all, etc.).
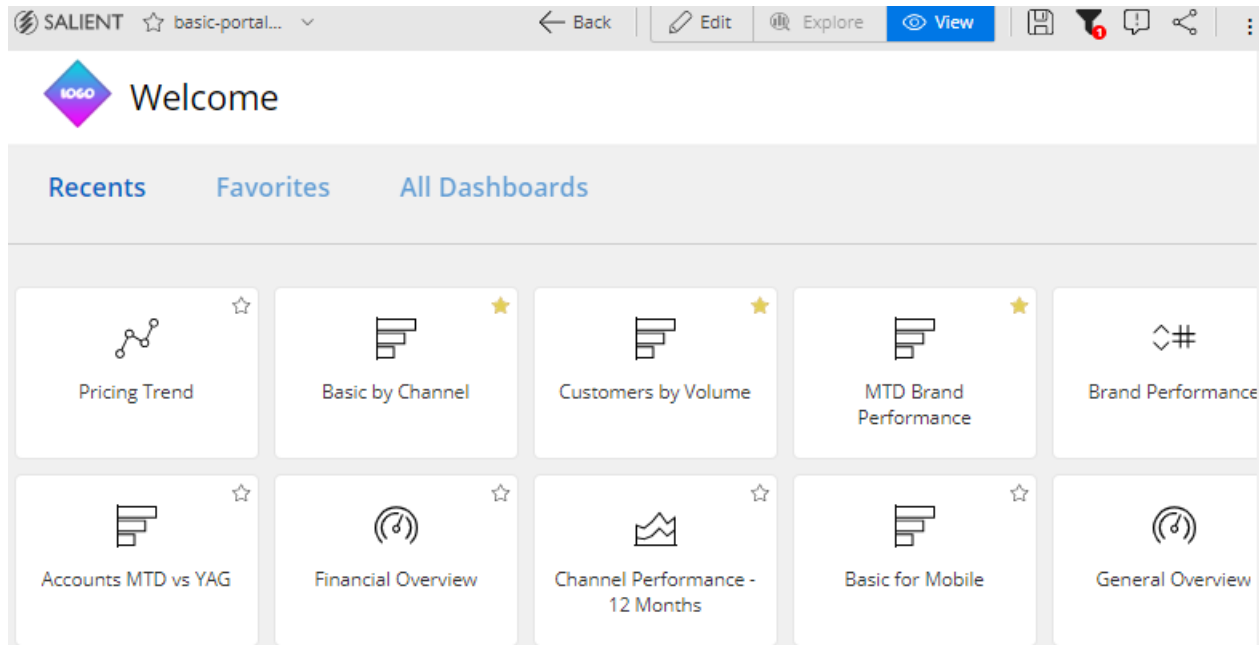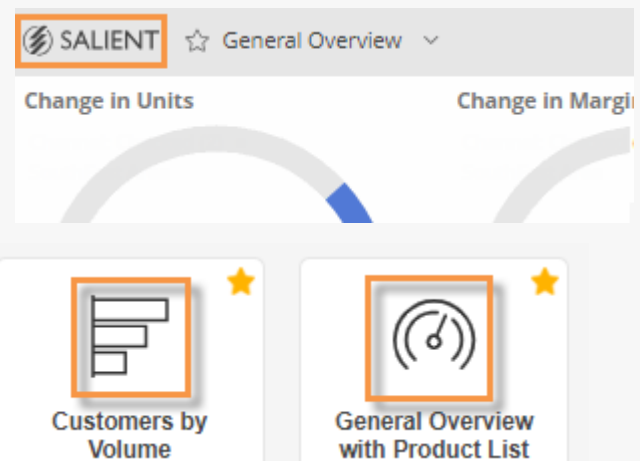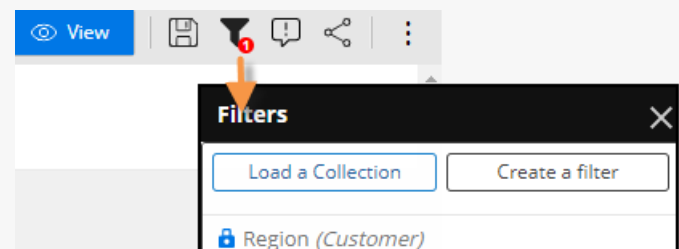

Tips:

If global filters are applied, the filter button at the top of the screen has a red icon. You can open the filter panel to see which filters are on.

You can go to the portal from any dashboard by clicking **Salient** in the upper-left corner.

By default, the image used to represent the dashboard is based on the first type of widget in the dashboard. If you prefer, you can assign a different image, called a badge (see page 253), in dashboard settings of edit mode.

Tips:

If you wish, you can bypass the portal to go directly to your home dashboard or a blank dashboard upon login. This option is available in user settings (see page 255).

User account settings control which dashboards are available: only published dashboards for regular dashboard viewers; published and private dashboards for Power Viewers; and published, unpublished, and private for Dashboard Designers.

How to open a dashboard

In a browser window: Use any of the following methods to open a dashboard.
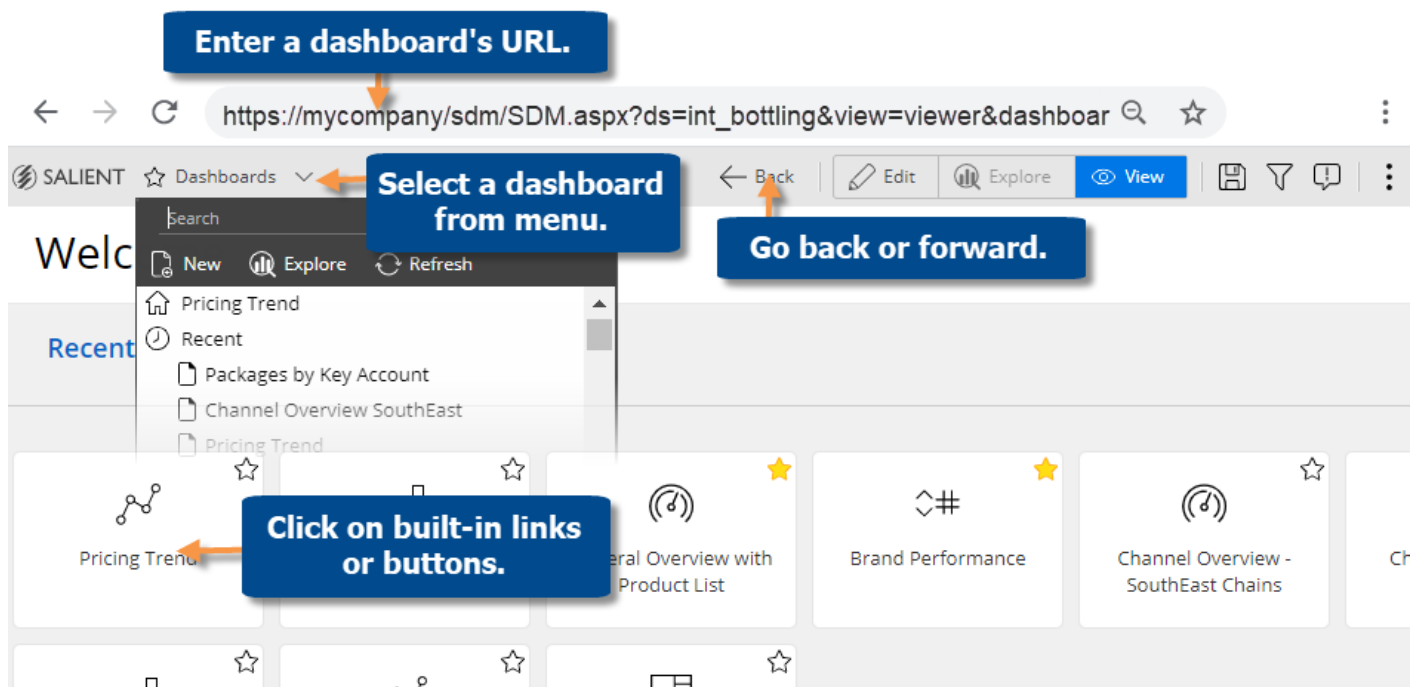
Built-in links	Click on buttons, links, icons, etc., in the portal or other dashboards.
Dashboards menu	Open the dashboards menu at the top of the screen and then search for a dashboard or locate it by category and folder. Click on the dashboard name to open it.
URL	Go directly to a specific dashboard by entering its URL or marking it as a favorite in your browser. This may be the dashboard's permanent URL (see page 258) or a temporary URL created by sharing a dashboard (see page 257).
Back & forward buttons	Go back and forward to dashboards you visited within a Salient Dashboards session. Click the browser's back and forward buttons or use the back button in the dashboard toolbar. Note that the history is cleared when you go to another page.

In the mobile app:

Optionally, access dashboards through the mobile app for optimal viewing on mobile devices. Additional installation and setup are required.

Tip: These methods open dashboards that are stored on the server. Alternatively, you can open dashboards stored in a dashboard (.sdm) file (see page 273).

The Dashboards screen

View mode

Opening a dashboard typically takes you to view mode, where you can interact with the data and navigate to other dashboards. Depending on your user rights, you may be able to go to edit mode (see page 23) where you can edit the dashboard, or further investigate any widget in explore mode (see page 24).

Tip: The server status icon displays for a short time after opening a dashboard and when the server status changes (● = active server; ○ = suspended server). You can mouseover either of these icons to see when the last data update occurred.)

Edit mode

Edit mode has the same elements as view mode (see page 22) plus the following tools for designing interactive dashboards: a button to add a variety of widgets; a toolkit to configure widgets by grouping the data, adding measures, etc.; a configurable workspace for laying out widgets, text boxes, etc. You must have Dashboard Designer licensing to access edit mode.

Tips:

Initially, edit mode may open to a blank canvas. Follow the steps in this document to create a dashboard.

The server status icon displays for a short time after opening a dashboard and when the server status changes (🟢 = active server; 🟡 = suspended server). You can mouseover either of these icons to see when the last data update occurred.)
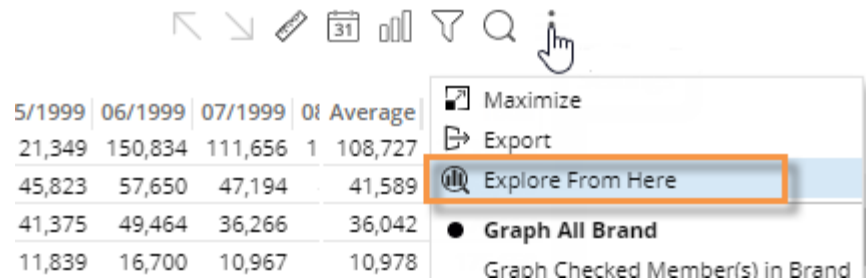
Explore mode

Explore mode provides additional capabilities for data investigation beyond those available in view mode. Users can change the analysis type, group the data by another attribute (any available in the dataset), add measures besides those that were built into the dashboard, and more. Explore mode does not allow users to build and format complex dashboards. To access explore mode, you must be a Power Viewer or Dashboard Designer. Administrators can turn off this capability.

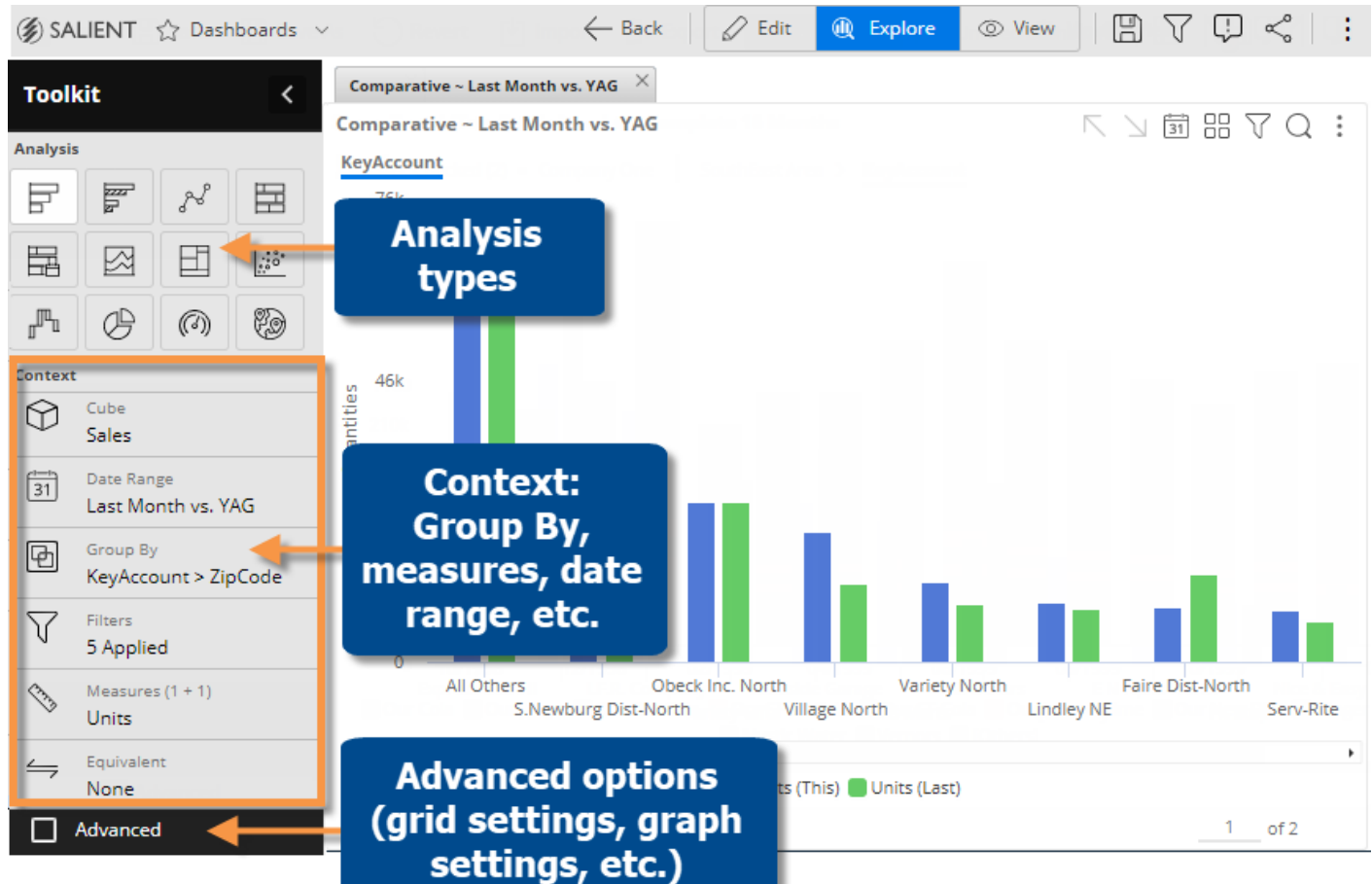## To start exploring from a widget

When viewing a dashboard, you can expand any of its widgets in explore mode to dig deeper into the data.

Click ⋮ in the upper-right corner of a widget (visible on mouseover) to open the menu.

Select **Explore From Here**.

The widget is maximized within its own tab in explore mode. Additional options to investigate the data (see below) are available in the toolkit on the left side of the screen.

Go straight to explore mode

If you prefer, you can start exploring from a default view rather than picking a widget
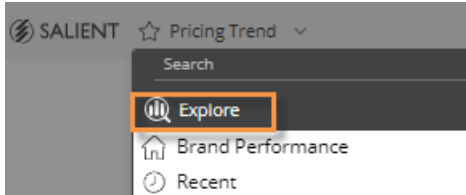
In the dashboards screen, open the dashboards menu and select **Explore**.

The default starting point is a simple comparative, unless your organization has customized its own starting point.

What you can do in explore mode

Explore mode offers the same options for interacting with the data that are available in view mode plus the following:

- Change the analysis type.
- Add any measures (see page 150). In key lists, you may also add descriptions and dimensions.
- Select any dimension as the Group By or Filter By.
- Highlight data (see page 227).
- Duplicate a widget (see page 63).
- Access advanced options (general settings, grid settings, graph settings, and navigation links).

When you are finished exploring

When you are done exploring, you can:

- Use the browser's back button to go back to your previous dashboard/mode.
- Save your changes in a new dashboard. The resulting dashboard will use the same formatting as explore mode (i.e., maximized widgets in a tabs).
- Switch to edit mode (Dashboard Designers only). This will convert the widget(s) to a regular dashboard that can be formatted and modified.

Workspace

The workspace in edit mode allows you to bring facts together and arrange them using the desired date options, chart formats, and more. You simply drag and drop your desired widgets, filters, and more onto the workspace, customize them, move them, and resize them until the dashboard meets your exact needs. For each dashboard, the workspace can display two different arrangements of widgets—one for the desktop/tablet layout and another for the phone layout.

The workspace has its own settings, including layout and dashboard settings. To select the workspace, click on the workspace background or select it from the menu at the top of the toolkit.
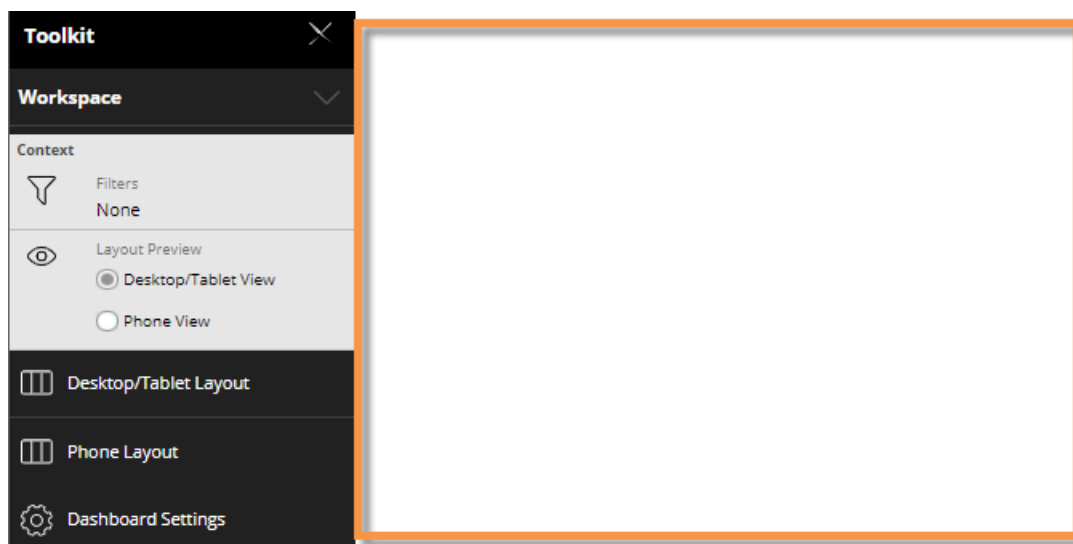
Toolkit panel
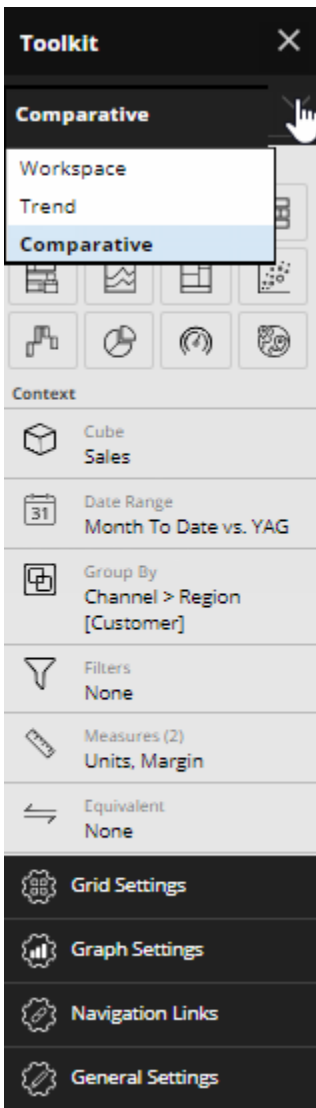
The toolkit panel located on the left side of Salient Dashboards in edit or explore mode lets you configure widgets and dashboard settings.

From the menu at the top of the toolkit, pick the component to configure (e.g., Comparative widget).

For analysis widgets, you can modify:

- Analysis - Change the analysis type (see page 64).
- Context - Choose context settings, including date range, Group By, measures, filters, etc.
- Grid Settings - Select the grid type (swapped, scorecard, etc.), choose page size, and more.
- Graph Settings - Select graph options such as color, type, orientation, page size, etc.
- Navigation Links - Embed links to published dashboards.
- General Settings - Enable/disable options for viewers, enter a title, etc.

For the workspace, you can edit:

- Filters - Choose filters for the entire dashboard.
- Layout View - Choose which layout (see page 40) to view/modify.
- Desktop/tablet layout - Change settings for the desktop/tablet layout
- Phone layout - Change settings for the mobile layout.
- Dashboard settings - Choose settings (see page 253) that affect the dashboard.

You may need to click on an area of the toolkit to expand it.

Widget buttons

The widget toolbar buttons in the widget's upper-right corner (on mouseover) let you change and interact with the widget.
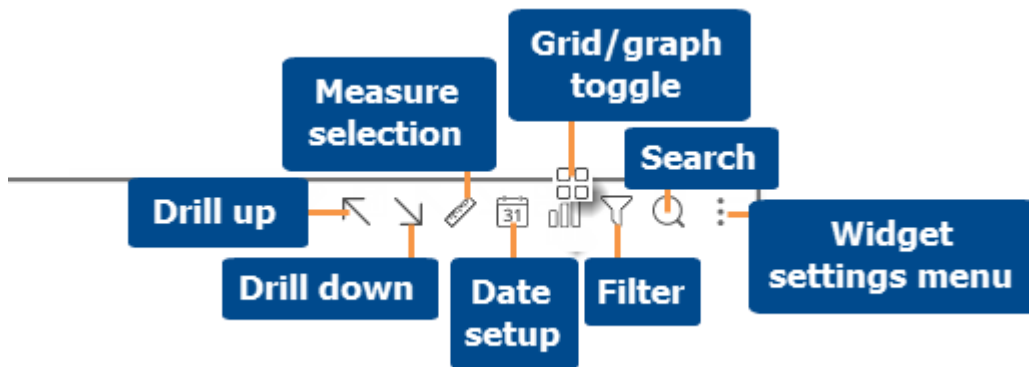

- Measure selection requires Power Viewer licensing or higher. In addition, the widget must include multiple measures.
- Date setup, grid/graph toggle, and filters may be disabled for view mode.
- Drill down is only enabled if the widget has multiple "Group Bys" and you have selected or checked at least one member.
- Drill up is only enabled if the widget has at least one downlevel filter.

Widget menu

You can click ⋮ in the upper-right corner of a widget (visible on mouseover) to open a menu. The available options depend on your rights, dashboards mode, and the widget type. For example:
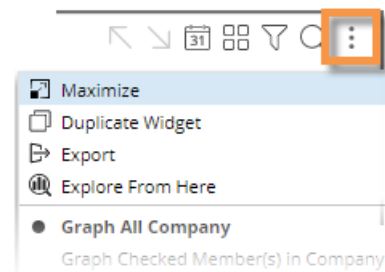

- ⤢ Maximize - Enlarges the widget to the maximum extent of the dashboard.
- ⤡ Restore Down - Returns a maximized widget to its original size.
- ⧉ Duplicate Widget (see page 63) (not available in view mode) - Create a widget exactly like the original. In explore mode, the widget will be expanded in a new tab.
- ⤒ Export (see page 262) data to UXT, Excel, or CSV (if enabled)
- ⊕ Explore From Here - Expand the widget in explore mode (see page 24), which maximizes the widget and provides capabilities for data analysis and investigation (e.g. change analysis type, add measures, etc.).
- 🔔 Notify (see page 265) - Create rules for sending data-based notifications (additional rights required).
- </> Custom View (see page 146) - Create a data-based visualization using HTML and JavaScript.
- Graph options - Graph all, graph checked, percent change, actual value, etc. (affects graphs only)

- This and Last, This Only, Last Only (affects graphs only)

- Axis Management (for Trend, Comparative, and Multi Comparative graphs)

- Doughnut, Funnel, Pie, Stacked Area, Line, Vertical, Horizontal, etc. (i.e., graph type)

- ✕ - Close Widget (not available in view mode)

Breadcrumb path

The breadcrumb path at the top of the widget shows how data is grouped (i.e., Group By) as well as filters applied to the widget (including workspace filters, widget filters, and downlevel filters).In general, you can click on parts of the breadcrumb path to make changes (e.g., clear or change a filter). Changing the Group By requires Power Viewer licensing or higher.
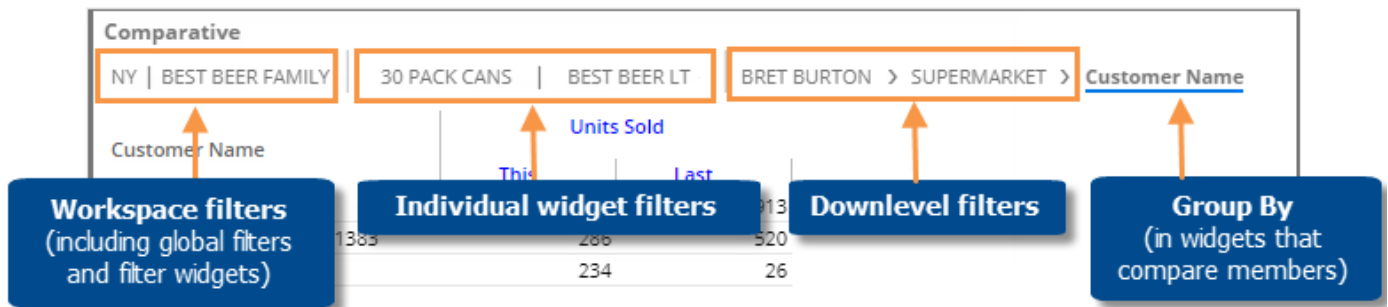
> **Tip:** The breadcrumb path may be disabled by the Dashboard Designer.

Mouse shortcuts

Mouse shortcuts let you click, double-click, etc., on parts of the screen to access information or perform an action quickly.

In this documentation, the following symbols indicate the type of actions to perform with the mouse:

- ⌖ Place your cursor over the location.

- 🖱 Click the left mouse button or "left-click."

- 🖱x2 Click the left mouse button two times or "double-click."

- 🖱 Click the left mouse button and hold as you draw a box.

- 🖱 Click the left mouse button and drag.

- Ctrl+🖱 Press the specified key as you click.

General mouse shortcuts for grids

General mouse shortcuts for graphs

Salient online help

Salient's online help system provides step-by-step instructions for nearly every function available.

To open help, click ⋮ in the upper-right corner and select **Help**.

Conventions in Salient online help

- Click means move the cursor to the named location or control, and then click and release the primary mouse button, which is normally the left button 🖱.
- Press, on the other hand, implies a sustained action with an on-screen or keyboard control.
- Highlight or select means to point to a menu or dialog item, then click on it.
- Keyboard shortcut combinations joined with a dash (Ctrl-C, for example) indicate that you are to press those keyboard keys in combination.

Select the home dashboard

You can select a home dashboard to make it easy to access. The home dashboard will appear at the top of the dashboards menu. In addition, you can change user preferences (see page 255) to go straight to the home dashboard upon login.

To select the home dashboard

1. Click the drop-down at the top of the screen to open the dashboards menu.

2. Locate the dashboard and place the mouse over it.

3. Click the ... button that appears.

4. In the pop-up menu, select Set as Home.

5. If prompted, click **Yes** to confirm the change.
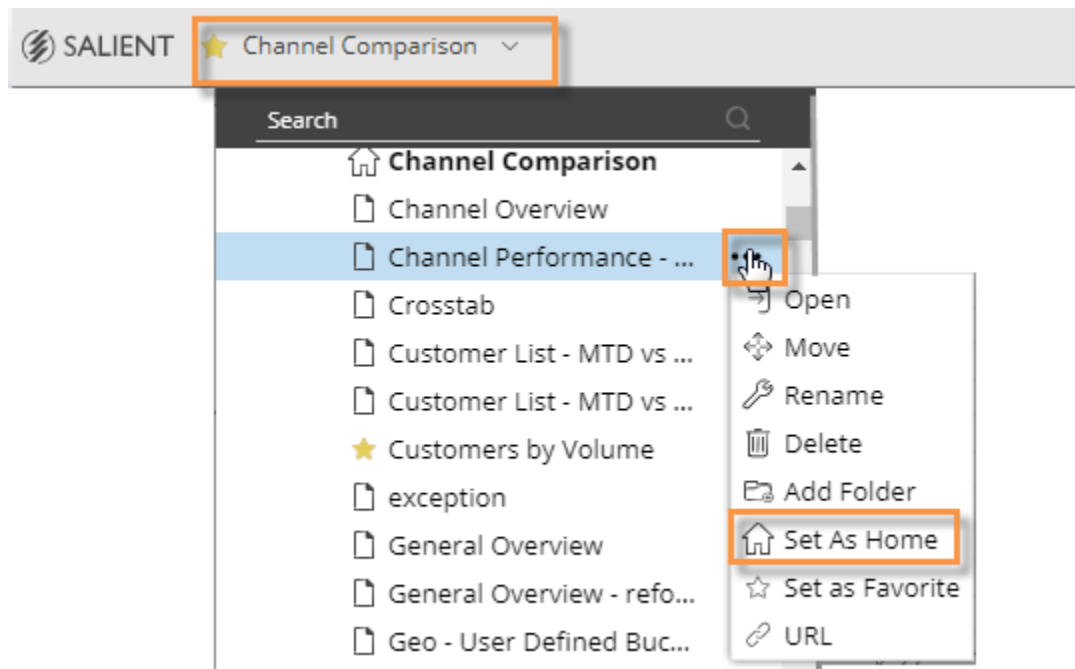
Tip: You can also make a dashboard the home dashboard when you save it (see page 256).

Capabilities in Salient Dashboard modes

When creating dashboards, you should understand what selections will be available to users. Capabilities depend on licensing and other user account settings.

	Basic view mode	Power view mode	Explore mode	Edit mode
Required licensing	Dashboard Viewer or higher	Power Viewer or higher	Power Viewer or higher	Dashboard Designer
Choose a starting point:				
Open a dashboard (see page 20)	✓	✓	✓	✓
Start with a blank dashboard				✓
Explore (see page 24) from a widget or default starting point			✓	
Dashboard design:				
Add a widget (see page 62)				✓
Duplicate a widget (see page 63)			✓	✓
Layout settings (desktop/tablet and phone) (see page 40)				✓
Position and size widgets in layouts				✓
Maximize widgets	✓	✓	✓	✓
Switch between grids and graphs (see page 69)	✓ (if enabled)	✓ (if enabled)	✓	✓
Select a graph format (see page 69) (line, bar, etc.)	✓	✓	✓	✓
Change the analysis type of a widget			✓	✓
Dashboard settings (member coloring, Knowledge Manager settings, etc.) (see page 253)				✓
Create custom views (see page 146)			✓	✓

|	Basic view mode	Power view mode	Explore mode	Edit mode
Measure selection:				
Add measures (see page 150)			✓	✓
Add descriptions and dimensions to key lists			✓	✓
Select measures (see page 152) (i.e., show/hide)		✓	✓	✓
Insert difference/percent change (see page 154), mix (see page 154), and average (see page 155) columns	✓	✓	✓	✓
Move columns (see page 152)	✓	✓	✓	✓
Select equivalents	✓	✓	✓	✓
Create groups of measures (see page 156)			✓	✓
Edit data family display names (Comp., Multi Comp., and Trend graphs only)		✓	✓	✓
Edit measure display names (all analysis types)			✓	✓
Expand a calculated measure (see page 155)	✓	✓	✓	✓
Select the data in graphs (see page 158)	✓	✓	✓	✓
Change the currency (in preferences)	✓	✓	✓	✓
Date range selection:				
Quick-pick date presets (month-to-date, last month, last week, etc.)	✓ (if enabled)	✓ (if enabled)	✓	✓
Basic date selection (see page 169) (resolution, start date, end date, comparison date range, most recent/most recent complete, matching timeframes)	✓ (if enabled)	✓ (if enabled)	✓	✓
Advanced date options (see page 173) (offset, fixed/moving, etc.)		✓ (if enabled)	✓	✓
End date selection (see page 178)	✓	✓	✓	✓

	Basic view mode	Power view mode	Explore mode	Edit mode
Group By:				
Group by selection (see page 29)		✔ (limited)	✔	✔
Expand members (see page 194)	✔	✔	✔	✔
Check members (see page 195)	✔	✔	✔	✔
Search (see page 196)	✔	✔	✔	✔
Switch between data cubes (see page 186)			✔	✔
Custom groups (see page 189)	✔ (if configured)	✔ (if configured)	✔	✔
Record-level details (see page 192)	✔ (if configured)	✔ (if configured)	✔	✔
Filter:				
Apply widget filters (see page 208)	✔ (if enabled)	✔ (if enabled)	✔	✔
Apply workspace filters (see page 201)	✔ (if enabled)	✔ (if enabled)	✔	✔
Add a filter widget (see page 206)				✔
Drill down along a pre-configured drill path (see page 210)	✔ (if enabled)	✔ (if enabled)	✔	✔
Flexible drill down within a dashboard (see page 210) (i.e., change By as you go)		✔ (if enabled)	✔	✔
Custom drill-down to another dashboard (see page 214)	✔ (if configured)	✔ (if configured)	✔	✔
Configure custom drill-downs (see page 215)			✔	✔
Import a filter via a text file (see page 225)	✔	✔	✔	✔
Apply a collection as a filter (see page 217)		✔	✔	✔

	Basic view mode	Power view mode	Explore mode	Edit mode
Create and edit classic collections (see page 219)		✔	✔	✔
View data that is filtered by collections	✔	✔	✔	✔
Customize widgets:				
Sort (see page 195)	✔	✔	✔	✔
Configure highlighting (see page 227)	✔ (limited)	✔ (limited)	✔	✔
General widget settings (transparency, borders, etc.) (see page 249)			✔	✔
Grid settings (page size, grid type, etc.) (see page 232)			✔	✔
Graph settings (page size, show/hide legend, etc.) (see page 234)	✔ (limited)	✔ (limited)	✔	✔
Visual options (see page 236) for graphs (color, style, etc.)	✔ (limited)	✔ (limited)	✔	✔
Reference lines (see page 239)	✔ (limited)	✔ (limited)	✔	✔
Geo setup (see page 136)		✔	✔	✔
DeltaMap/Mondrian setup (see page 117)	✔	✔	✔	✔
Widget menu (This or Last, graph format, etc.) (see page 28)	✔	✔	✔	✔
Trend/Comp./Multi Comp. axis management (see page 244)	✔ (limited)	✔	✔	✔
Change the currency (in preferences) (see page 255)	✔	✔	✔	✔
Save and share:				
Save as private dashboard		✔	✔	✔
Save as unpublished dashboard (i.e., global but not published)				✔

	Basic view mode	Power view mode	Explore mode	Edit mode
Save as published dashboard (see page 256)		✓ (if allowed)	✓ (if allowed)	✓
Share a dashboard URL (see page 257)	✓	✓	✓	✓
Export (see page 262)	✓ (if enabled)	✓ (if enabled)	✓	✓
Set up data-based notifications (if allowed) (see page 265)	✓	✓	✓	✓
Print (see page 264)	✓	✓	✓	✓
Use Knowledge Manager (see page 276)	✓	✓	✓	✓

Overview of dashboard creation

The following is a general process for creating dashboards.
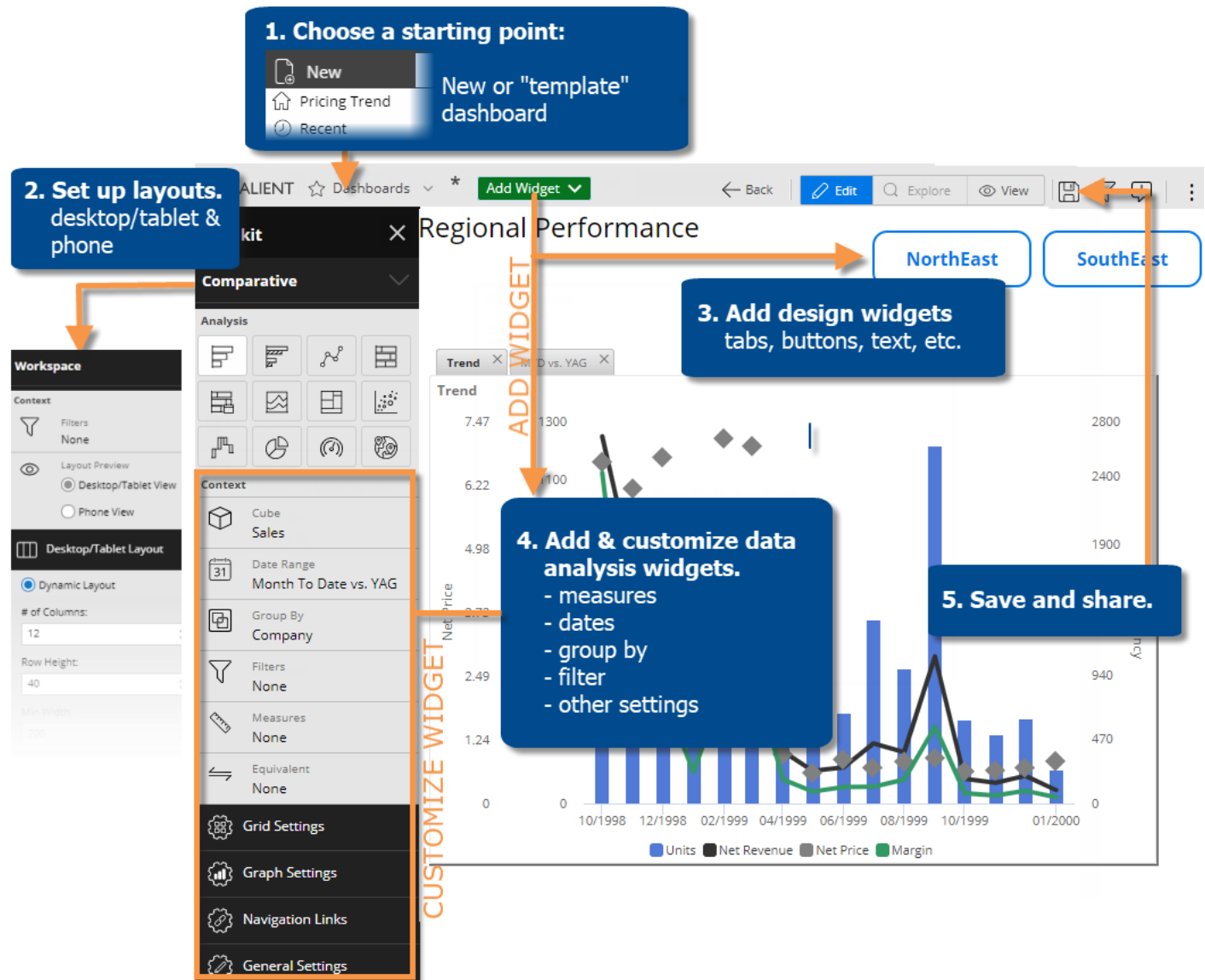
1. Choose a starting point for dashboard creation.

This may be a blank dashboard or a dashboard with similar characteristics to the one you want to create (i.e., template).

2. Set up layouts.

Set up layouts (see page 40) for optimal display on different devices. In general, the desktop/tablet layout will be used when viewing a dashboard in a browser window, and the phone layout (optional) will be used in the Salient mobile app.

3. Add design widgets.

You can add widgets, such as tabs (see page 47), images (see page 59), text/HTML (see page 51), buttons (see page 53), lines (see page 57), dashboard widgets (see page 58), and Knowledge Manager widgets (see page 61), that help with the overall design. These widgets may be added before or after analysis widgets. Some design widgets do not display in the Salient mobile app.

4. Add and customize data analysis widgets.

These widgets display data to help users make better decisions. A variety of analysis types are available. For each widget, perform the following steps:

> **Tip:** If a similar widget already exists in the dashboard, you can duplicate it to eliminate some setup.

    i.   Add a data widget (see page 62).

    ii.   Add measures (see page 150).

    iii.   Select the dates (see page 169) (Dates may be linked across the dashboard.)

    iv.   Group by attributes (see page 183).

    v.   Filter (see page 198) (Filters may be applied to the entire dashboard at once via workspace filters.)

    vi.   Customize by sorting (see page 195), highlighting (see page 227), changing widget settings (see page 249), etc.

    vii. Place the widget in the desired location for each layout (see page 40). To switch between desktop/tablet and phone layouts, go to workspace settings in the toolkit and make your selection under **Layout View**.

5. Save and share the dashboard.

We recommend saving the dashboard as you build it to avoid losing any changes (e.g., save as private until you are ready to share it). When the dashboard is finished, save it in the desired location (see page 256). Other users have access to "published" dashboards. You may also share a dashboard's URL, create links to the dashboard, or use other methods of sharing.

General Dashboard Design

Layout settings

A dashboard can have two separate layouts to optimize its appearance on different devices.

Desktop/tablet layout (see page 41)

This layout is used any time the dashboard is opened in a browser whether it is on a desktop, tablet, or phone.

The desktop/tablet layout may also be used in the mobile app on wide screens (e.g., tablet or landscape orientation) depending on layout settings. This capability requires a dynamic layout, which provides automatic widget sizing based on the browser window or screen.
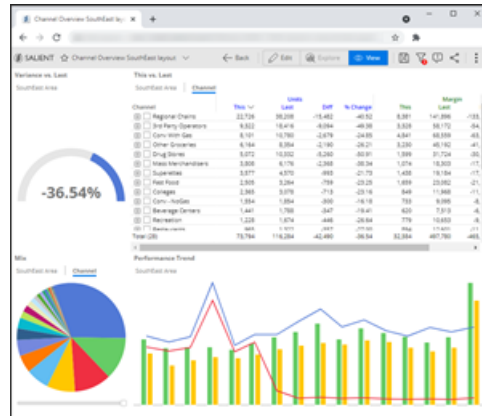
Phone layout (see page 44)

If enabled, this layout controls the dashboard's appearance in the Salient mobile app on a phone or tablet below a specified screen size.

The phone layout is new in V7.80+. If you wish, you can upgrade existing dashboards to use the phone layout (see page 46).

Each layout stores its own arrangement of the dashboard's widgets in addition to other settings as explained below. As you design dashboards, you should consider the best placement of each widget in both layouts. When you add a widget, you should modify the desktop/tablet layout and phone layout (if used) by placing the new widget in the desired location in the first layout, switching layouts (under Layout View), placing the widget in the second layout, and then saving your changes.

> **Tip:** If you want to reuse layout settings in new dashboards, you can apply the desired settings to a blank or template dashboard and then use it as a starting point when creating a dashboard.

Desktop/tablet layout

To set up the desktop/tablet layout

1. In edit mode, open the dashboard you want to design, or start a new dashboard.

2. Select the workspace by clicking in a blank area of the dashboard or selecting **Workspace** in the toolkit menu.

3. Under **Layout View**, choose **Desktop/Tablet**.
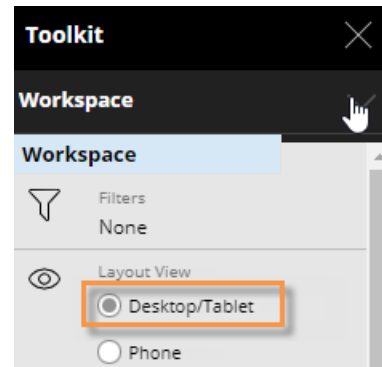
4. In the **Desktop/Tablet Layout** section of the toolkit, choose a dynamic layout or fixed layout and select from the following options.

Option 1: Dynamic layout

In a dynamic layout, the widgets will dynamically resize relative to the width of the browser window or screen.

# of columns - Choose the number of columns (i.e., vertical grid) for arranging widgets. (Widgets can span multiple columns.) A larger number will provide more precise control over the layout; however, an unreasonably large number may affect performance.

Row height - Choose the row height (i.e., horizontal grid) in pixels. A smaller number will provide more precise control over the layout. (A widget can span multiple rows.)

> **Tip:** For **# of columns** or **Row height**, you can enter a number, use the arrow buttons to increase/decrease the number, or click the **2x** or **1/2** buttons. However, these methods affect existing widgets differently (see page 40).

General Dashboard Design
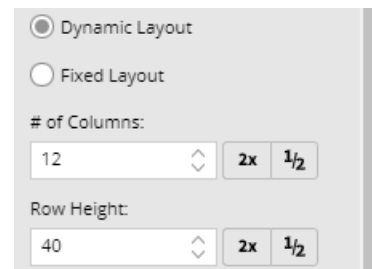
For **Min width** and **Max width**, specify the minimum and maximum width (in pixels) of the dashboard. Widgets will dynamically resize when the browser window or screen is within this range.

Gutter Spacing - To add space between columns, enter a horizontal (H) value in pixels. To add space between rows, enter a vertical (V) value in pixels. Gutter spacing can be used to add a uniform amount of space between widgets. Note that widgets that span multiple rows/columns will also include the gutters.

Dashboard Margin - To add space on the sides of the dashboard, enter a horizontal (H) value in pixels. To add space at the top of the dashboard, enter a vertical (V) value in pixels.

To use this layout in the Salient mobile app, check the **Show This View in App** box and enter a screen width (in pixels) above which the mobile app will use the desktop/tablet layout. The mobile app will switch the phone layout (see below) when the screen width is below this value (e.g. on a phone).

Option 2: Fixed layout

In a fixed layout, the dashboard and widgets will remain the same size regardless of the width of the browser window.

Page size - Select the width and height in pixels of the dashboard. To select a custom size, select Set Custom Size and then enter your own values.

Grid spacing - Salient Dashboards snap widgets to a grid when you move or resize them. The grid spacing is the number of pixels between grid points.

Background Image - Optionally, select a background image for the dashboard. The dashboard will repeat the background image to fill the dashboard area.
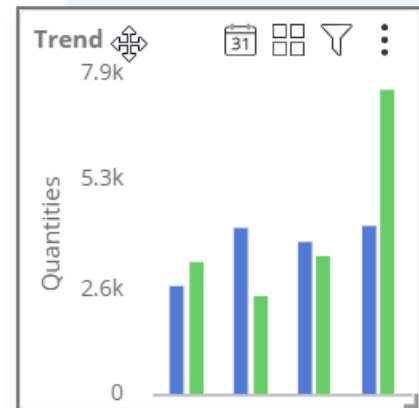

5. Add and arrange widgets in the workspace.

    • To move a widget, drag and drop it in the desired location.

    • To resize a widget, drag and drop one of its handles.

    Widgets will snap to columns and rows in a dynamic layout. In a fixed layout, widgets will snap to the grid.
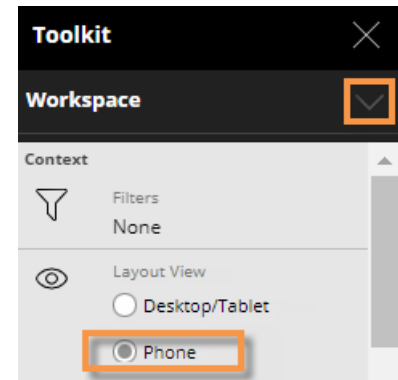
6. Save the dashboard.

Phone layout

To set up the phone layout

1. Select the workspace by clicking in a blank area of the dashboard or selecting **Workspace** in the toolkit menu.

2. Under **Layout View**, choose **Phone**. This will open the **Phone Layout** section where you can choose settings.

3. Choose the **# of Columns** (i.e. vertical grid) for arranging widgets. (Widgets can span multiple columns.) A larger number will provide more precise control over the layout; however, an unreasonably large number may affect performance. You can enter the number, use the arrow buttons to increase/decrease the number, or click the **2x** or **1/2** buttons. However, these methods affect existing widgets differently, as explained below (see page 45).

4. Choose the **Row Height** (i.e. horizontal grid) in pixels. A smaller number will provide more precise control over the layout. (A widget can span multiple rows.) You can enter the number, use the arrow buttons to increase/decrease the number, or click the **2x** or **1/2** buttons. However, these methods affect existing widgets differently, as explained below (see page 45).

5. **Gutter Spacing** - To add space between columns, enter a horizontal (H) value in pixels. To add space between rows, enter a vertical (V) value in pixels. Gutter spacing can be used to add a uniform amount of space between widgets. Note that widgets that span multiple rows/columns will also include the gutters.

6. **Dashboard Margin** - To add space on the sides of the dashboard, enter a horizontal (H) value in pixels. To add space at the top of the dashboard, enter a vertical (V) value in pixels.

7. **Important:** Make sure the **Show This View in App** box is checked to enable the phone layout in the mobile app. Depending on the desktop/tablet settings, the mobile app may switch from the phone layout to the desktop/tablet layout (see above) when the screen width is above a specified width (e.g., on a large tablet or when a device rotates).
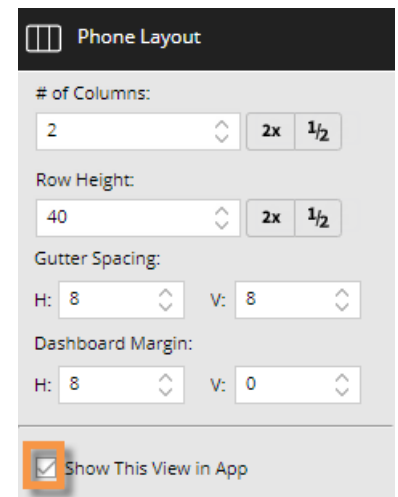
   If the **Show This View in App** box is cleared, the mobile app will use the default one-pane layout or the layout defined in the mobile app itself if one exists.

To set up the phone layout

8. Add and arrange widgets in the workspace. Widgets will snap to columns and rows as you move or resize them.

    • To move a widget, drag and drop it in the desired location.

    • To resize a widget, drag and drop one of its handles.
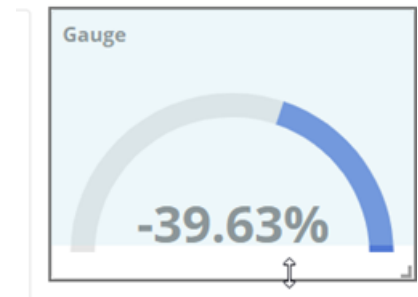
9. (*Optional*) Customize design widgets for the mobile app:

    Tab widgets (see page 47) - These widgets will display in the mobile app. You can choose a different tab style for the phone layout than the desktop/tablet layout if you wish.

    Buttons, images, and text/HTML widgets - You can show or hide each of these widgets. Go to the widget's general settings (see page 249) and check or clear the **Show in Mobile** option. Note that clearing this option will remove the widget from the phone preview as well as the mobile app itself.

    Line, dashboard, and Knowledge Manager widgets - These widgets will not display in the mobile app.

10. Save the dashboard.

Options for changing number of columns and row height

To keep widgets in approximately the same position

Click 2x to double the value or 1/2 to halve the value. This will adjust the number of columns/rows in existing widgets proportional to the total columns/rows in the dashboard; therefore relative widget widths will stay approximately the same and the widget arrangement will not change significantly in most situations. (Some rounding may occur.) For example, a widget that spans 6 out of 12 columns or 50% would span 12 out of 24 columns or 50%.

To shrink/grow widgets

Enter a value in the corresponding box or use the arrows. This will not adjust the number of columns/rows in existing widgets; therefore, their relative widths and heights will change as compared to the total columns/rows in the dashboard. For example, a widget that spans 6 out of 12 columns or 50% would span 6 out of 24 columns or 25%.
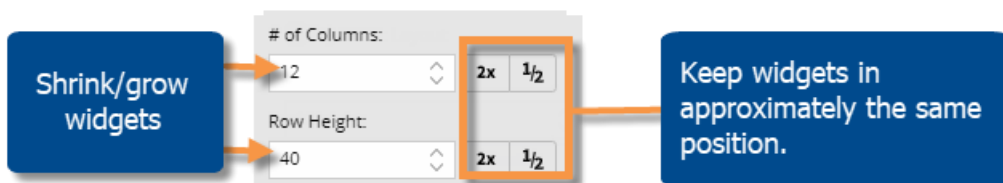
Upgrading mobile layouts for existing dashboards

In versions prior to V7.80, the mobile layout could not be designed in the browser-based interface; instead, the mobile app used a separate layout that was defined within the mobile app itself or a default one-pane layout. When you upgrade to V7.80+, you can choose from the following options for existing dashboards:

- *Keep the default one-pane layout or mobile layout from the previous version* - No action is required. Simply leave the **Show This View in App** box cleared in the Phone Layout and Desktop/Tablet sections of the toolkit.

- *Switch to the new layouts* - This method allows you to take advantage of the new streamlined design process and automatically transition between phone and desktop/tablet layouts based on screen size. Refer to the following instructions.

To upgrade existing dashboards to the new layout(s) for mobile

1. Open the dashboard in edit mode.
2. Select the workspace.

3. If you want to show the desktop/tablet layout on wide screens (e.g., tablets or landscape orientation) in Salient Mobile, do the following.

    - Select **Desktop/Tablet** layout under **Layout View** in the toolkit.

    - Choose a **Dynamic Layout.** The dashboard will be converted from a fixed layout to a dynamic layout. Some widgets may change their position slightly to accommodate the dynamic layout.

    - Configure layout settings (see page 40).

    - Checkmark the **Show This View in App** box and choose the width at which to transition from the phone layout (defined in the next step) to the desktop/tablet layout.

    - Reposition widgets as desired.

4. Configure and enable the phone layout:

    - Select **Phone** layout under **Layout View** in the toolkit. Salient Dashboards will show the phone layout. By default, the phone layout arranges widgets one above the other to optimize display on narrower screens.

    - Under Phone Layout, checkmark the **Show This View in App** box. This will already be checked if you have configured the desktop/tablet layout to show in the mobile app on wide screens (step 3).

    - Configure layout settings (see page 40).

    - Reposition widgets as desired. The arrangement can be different than the Desktop/Tablet layout.

5. Save your changes.

Design widgets

Tab group

The tab group widget can organize a dashboard and maximize screen space by providing a tabbed or carousel view of multiple widgets. The user simply clicks to switch between the tabs. Each tab can have one or more widgets. Tab groups are available in browser-based dashboards as well as the mobile app.

Tab format
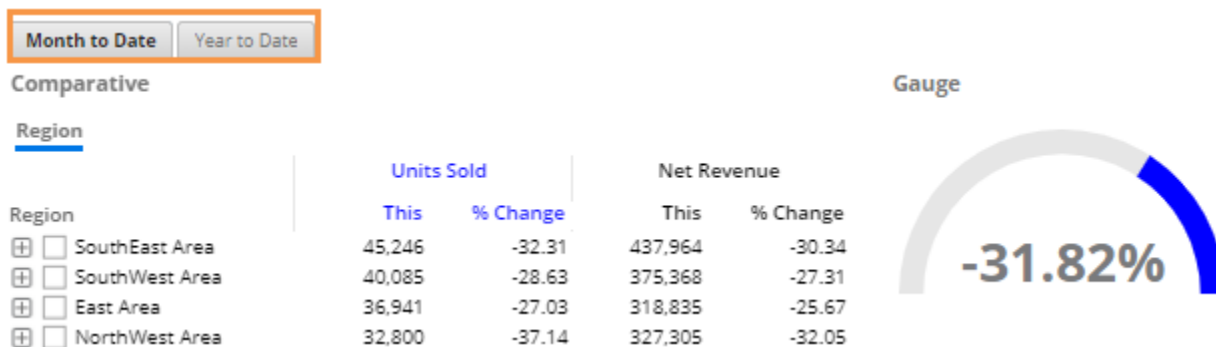
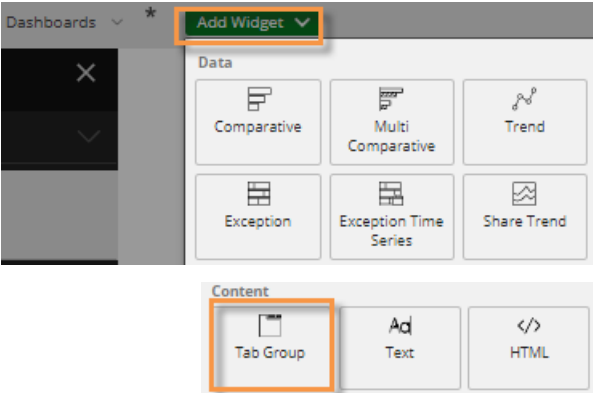## Carousel format

To add a tab group

1. Click the **Add Widget ∨** button at the top of the screen.

2. In the pop-up window, click and drag Tab Group onto the workspace.

3. The tab group has two tabs when you first add it. To add additional tabs, click the ⋮ button in the upper-right corner (visible on mouseover) and select **Add Tab**, or click ⊕ in the tab settings area (see the next step).

To add a tab group

4. Configure display options for the tab group.

   i. Click **Tab Settings** in the toolkit (the tab group must be selected). The pop-up window will list all widgets in the dashboard.

   ii. Hover over the tab group and click ⚙.

   iii. Select from the following options.

   Type - Tabs or carousel

   Style - A variety of styles are available. These may be configured by your administrator.

   Show border in viewer

   Single widget (in desktop/tablet layout only) - This option facilitates the creation of a simple tabbed view by allowing one widget per tab, automatically maximizing each widget in its tab, and populating the tab name with the widget title.

   iv. (Optional) To use different display settings in the desktop/tablet and phone layouts, switch the layout type (under Layout View in the toolkit) and repeat step 4, selecting your preferred type and style for the layout.
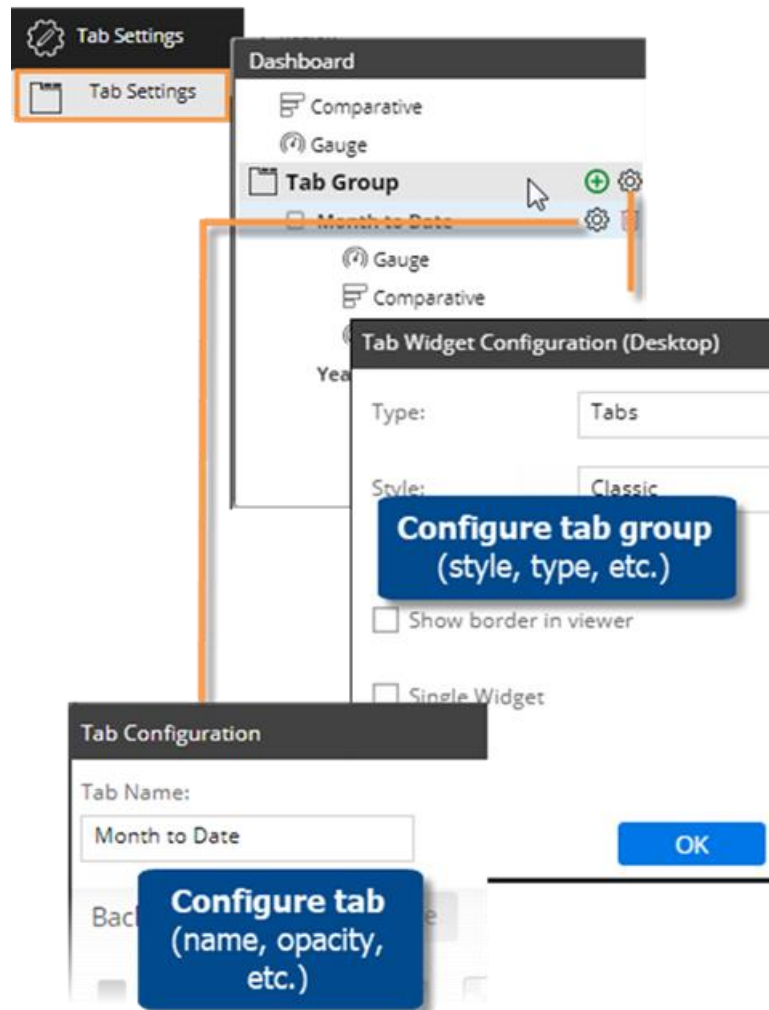
5. Configure tabs within tab group.

   i. In the pop-up window, hover over the tab and click ⚙.

   ii. Enter a tab name and choose display settings, including the background color, if desired.

To add a tab group

6. Add widgets to the tabs using either of the following methods.

   • In the workspace, select the tab and then drag a widget onto it.

   • In the tab settings pop-up window (see step 5), drag the name of a widget onto the row of a tab.
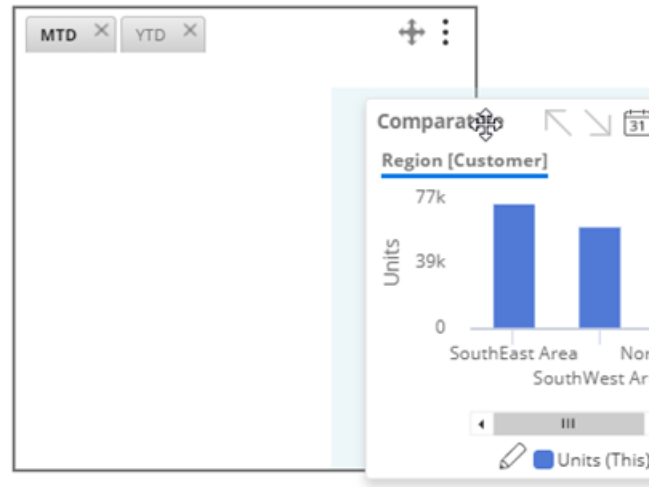
7. Position and size the tab group and its widgets.

   • To move the tab group, drag and drop the ✛ icon.

   • To resize the tab group, drag its border or enter a precise size in the tab group's general settings (see page 249).

   • Position each widget within the tab group as desired by dragging and dropping or entering values in the widget's general settings.

   • Repeat this step for the desktop/tablet layout and phone layout (if used). Each layout can store a different tab group size and position as well as arrangement of widgets within each tab. To switch between layouts, go to the Workspace area of the toolkit and choose the layout under Layout View.
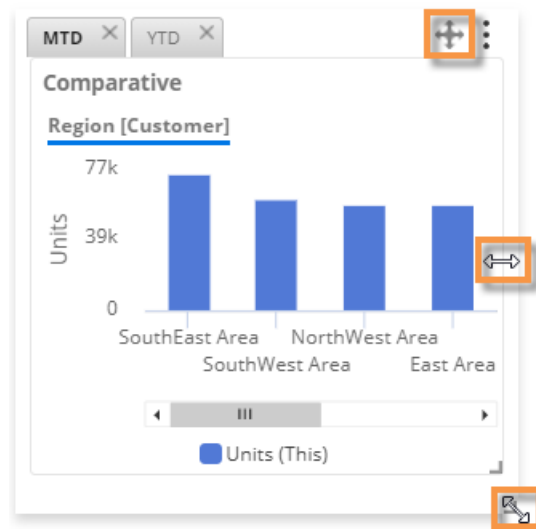
Tip: To change the layout of the tab group (# of columns, row height, etc.), change the layout settings (see page 40) of the dashboard itself. In a dynamic layout, the tab group uses a "mini-layout" with the same settings. For example, if the dashboard has 12 columns, the tab group will have 12 columns within its allocated space. Likewise, the tab group will have the same margins and padding as the dashboard. In a fixed layout, the grid spacing will affect the tab group.

Text and HTML widgets

Text and HTML widgets show text or other content. These widgets can include hyperlinks and embedded content from other web pages. The only difference between HTML and text widgets is that the default editor is source (i.e., code) mode for HTML widgets and WYSIWYG mode (i.e., formatting controls) for content widget.

Text/HTML widgets are available in browser-based dashboards and the mobile app (if turned on as explained in step 7). Due to the flexibility of text and HTML content widgets, we cannot guarantee their appearance, especially for information pasted into the editor, on all browsers. As always, you should preview a dashboard before publishing it.

To add a text or HTML widget

1. Click the ⎡Add Widget ⌄⎤ button at the top of the screen.

2. In the pop-up window, click and drag Text or HTML onto the workspace, depending on your preferred edit mode (WYSIWYG for text or source code for HTML).

3. Click **Add Content** in the widget, or click the ⋮ button at the top of the widget and then select **Edit**.
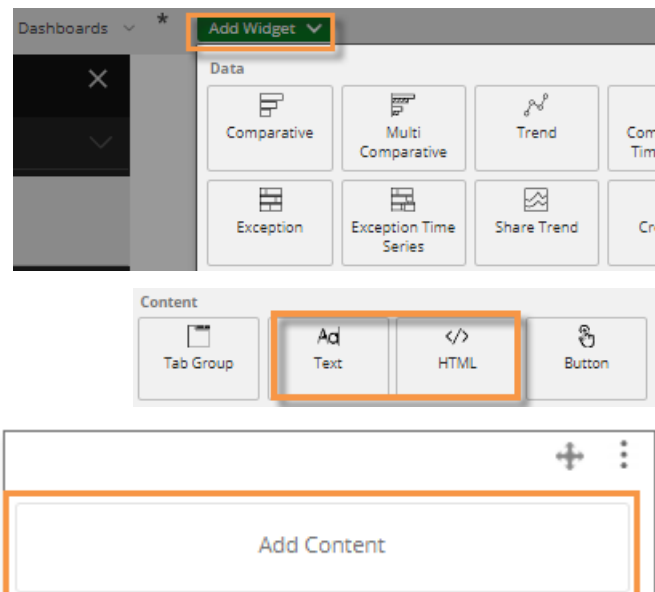
4. Depending on the edit mode, enter text or HTML code into the **Content Editor**. See the following table for more information.

   To switch between modes, click [✎] on the Content Editor toolbar.

5. Click **OK**.

Content Editor (WYSIWYG mode):
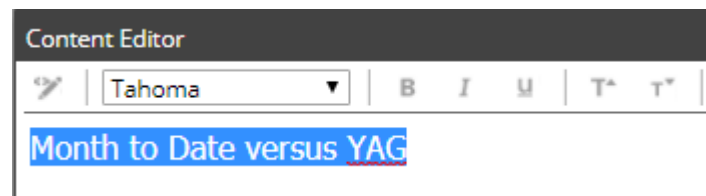
Content Editor (source edit mode):
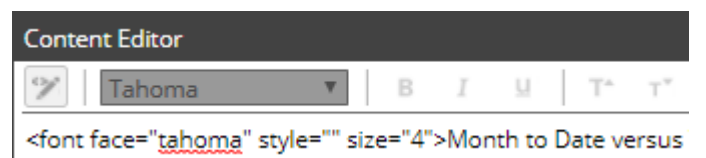
To add a text or HTML widget

6. To customize display settings, go to General Settings in the toolkit, where you can choose a style, turn on/off borders, select transparency, etc.

7. To allow the text/HTML widget to be shown in the mobile app, checkmark the **Show in Mobile** box in General Settings. To hide the widget in the mobile app, clear this option.
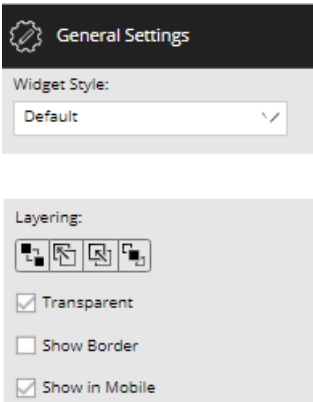
8. Position and size the widget in the desktop/tablet layout. If the phone layout (see page 40) is enabled and the widget is on in mobile as explained in step 7, you should also position the widget in the phone layout.
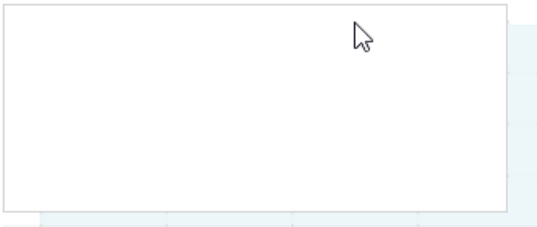
   • Drag and drop the ✛ icon to move the widget.

   • To resize the widget, drag its borders or enter a precise size in general settings (see page 249).

To switch between layouts:
Go to the Workspace area of the toolkit and choose the layout under **Layout View**. You can then position the widget in the selected layout.

Edit mode	Explanation
WYSIWYG mode (i.e., source edit mode off) **Tip:** This is the default mode for text widgets.	Enter text and format it with standard controls: • To change the font type, select the text and click the font drop-down menu. • To apply formatting, select the text and click the appropriate button in the toolbar. • To add a hyperlink, select the text, click the 🔗 button, enter the full URL (including http:// or another URL prefix) in the prompt window, and click OK. You may need to allow scripted windows in order to use this feature. A hyperlink must be confined to a single line of text. Hyperlinks created using this method open in a new window by default.

| Edit mode	Explanation
Source edit mode **Tip:** This is the default mode for HTML widgets.	Enter or copy HTML code into the **Content Editor**. You can embed web content, such as videos, web pages, etc., and more. No server-side scripting like ASP should be used when editing the source code. IFrames are supported. In addition, if you want styles to be visible across all browsers, we recommend using in-line styles instead of style sheets

Button widgets

You can add a button(s) to allow users to quickly go to a URL, open a dashboard (with or without filters applied), filter the current dashboard, turn on equivalents, or change the date range.

Button widgets are available in browser-based dashboards and the mobile app (if turned on as explained in step 4).

To add a button widget

1. Click the ![Add Widget] button at the top of the screen.

2. In the pop-up window, click and drag Button onto the workspace.

Tip: The button should be automatically selected so that you can customize it in the next step. If the button is not selected, click on it and, in the prompt, choose not to execute the action at this time.
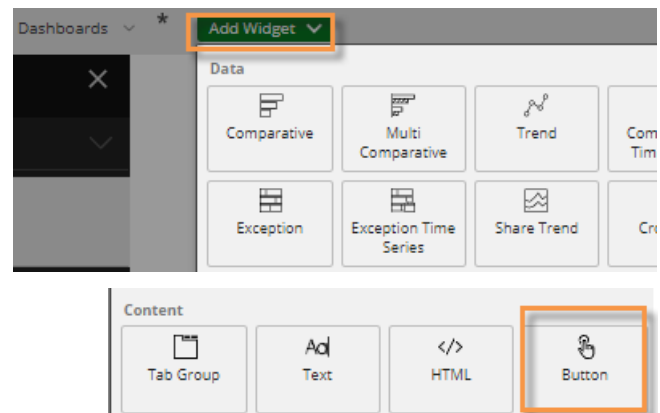
To add a button widget

3. In the toolkit, configure button settings:

   - Enter the button label and apply text formatting as desired.

   - Customize the button appearance by choosing a background color, border, and image (optional). If you choose an image, you can select its size and position relative to the button label. You may also be able to change the widget style under general settings.

   - Choose an action (URL, Dashboard, Date Range, or Filter) and enter settings (see below).

   Tips:

   • To create a button that goes to a different mode (e.g., explore mode), choose URL and enter an appropriate URL (see page 275).

   • Any widget can ignore filter, date, or equivalent buttons if you wish. Select the widget, go to general settings, and then clear the option for the type of button to ignore.
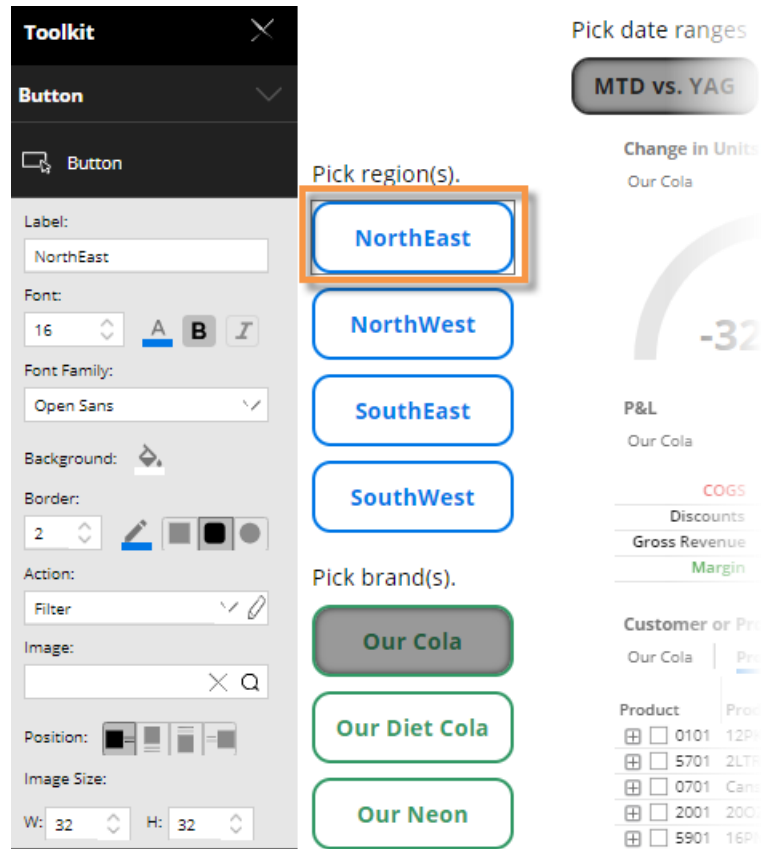
4. To show the button in the mobile app, checkmark the **Show in Mobile** box in General Settings. To hide the button in the mobile app, clear this option.

Action	Explanation
URL	A URL button opens a URL in either a new browser tab or the current browser tab.
	To configure a URL button:
	i. From the Action menu, select **URL**. If URL is already selected, click ✎ to edit settings.
	ii. In the pop-up window, enter the URL and click OK.
	iii. Check or clear the **Open in New Tab** option at the bottom of the button settings.

Action	Explanation
Dashboard	A dashboard button opens another dashboard in either a new browser tab or the current browser tab. To configure a dashboard button: i. From the Action menu, select **Dashboard**. If Dashboard is already selected, click ✎ to edit settings. ii. In the pop-up window, locate the dashboard and select it. Keep in mind that users must have the necessary rights to a dashboard (e.g. only you will be able to open your private dashboards). iii. The button can apply a filter(s) to the dashboard that it opens. To apply a filter, click the Filters area in the button settings; then choose the filter to apply. iv. Check or clear the **Open in New Tab** option at the bottom of the button settings.
Date Range	A date range button changes the dashboard date range, which affects all data widgets that have linked dates (i.e., "use dashboard date" is on in general settings). When the button is on, it will be shaded. Selecting another date button will turn off the first. To configure a date range button: i. From the Action menu, select **Date Range**. If Date Range is already selected, click ✎ to edit settings. ii. In the pop-up window, select date settings (see page 169), including resolution, number of dates, and comparison dates (optional), to be applied when a user clicks the button. Keep the following in mind. - The button will only affect widgets that use the dashboard date. - Some widget settings may change if they do not make sense for the applied date range. For example, a percent change graph will switch to an actual value graph if a single date (no comparison) is applied. - If the button will affect time-series widgets, the date range should include multiple dates.

Action	Explanation
Filter	A filter button does one of the following: • Toggles a workspace filter on and off in the current dashboard. This type of button will affect all widgets that use workspace filters (as defined in general settings). For example, you might create a series of buttons to filter on different regions. • Toggles equivalents (see page 159) on and off. This type of button will affect widgets that use an equivalent selector (as defined in general settings). When a filter button is on, it will be shaded. Users can only turn on one button at a time within a given dimension. Likewise, only one equivalent button may be on at a time. Turning on a different button within the "set" will turn the first button off. To allow users to filter on multiple members of the same dimension at once, you can configure buttons for those specific combinations via collections or by selecting multiple members. To configure a filter button: i. From the Action menu, select **Filter**. If Filter is already selected, click ✎ to edit settings. ii. Do the following depending on type of filter button: *For a workspace filter based on one or more specific members:* - In the pop-up window, click **Create Filter.** - Select the dimension. - Choose the member(s) to filter on. To import a list of members (see page 225), click ⬓ at the top of the window. *For a collection-based workspace filter:* - In the pop-up window, click **Load a Collection**. - Locate the collection. *For an equivalent button:* - In the pop-up window, click **Create Filter**. - Select **Equiv**. - In the pop-up window, click the menu and choose the equivalent table.

Line widgets

You can add lines to organize or enhance a dashboard. Line widgets will be hidden in the mobile app.

To add a line

1. Click the Add Widget button at the top of the screen.

2. In the pop-up window, click and drag Line onto the workspace.

> **Tip:** The new widget should be automatically selected so that you can format it. If the line widget is not selected, click on it.
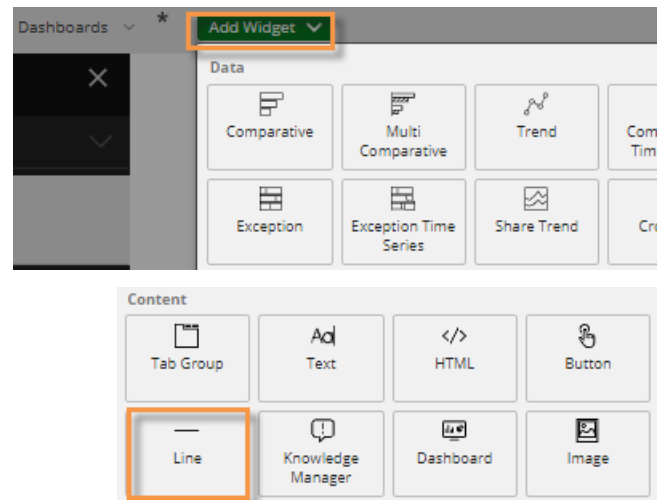
3. In the toolkit, configure line settings:

    - Choose a line direction.

    - Choose a line thickness and color.

> **Tip:** To change the line length, click and drag in the workspace or go to general settings. You may also be able to change the widget style under general settings.
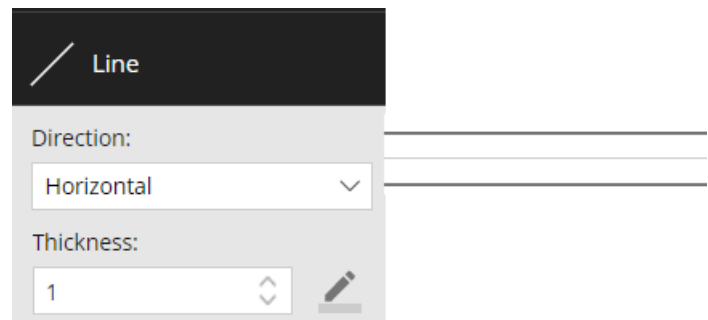
Dashboard widgets

A dashboard widget provides a set of links to other dashboards, such as recent dashboards, favorite dashboards, all dashboards, published dashboards, or a custom assortment of dashboards. Dashboard widgets will be hidden in the mobile app.

To add a dashboard widget

1. Click the button at the top of the screen.

2. In the pop-up window, click and drag Dashboard onto the workspace.

> **Tip:** The new widget should be automatically selected so that you can customize it in the next step. If the widget is not selected, click on it.
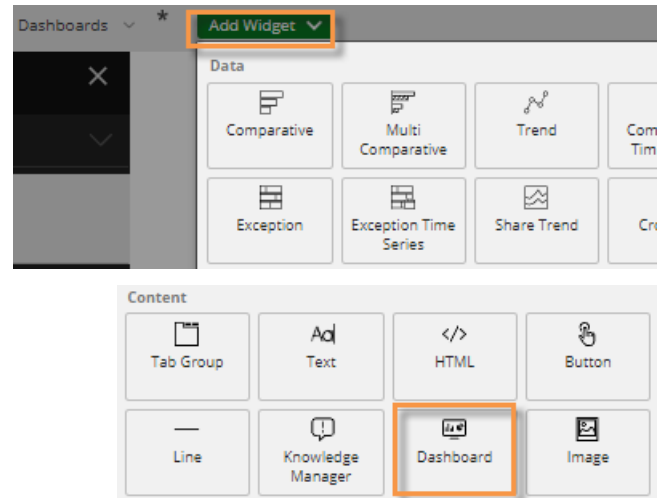
3. From the **Filter** menu in the toolkit, select the type/category of dashboards for which to provide links:

   - **Favorites** or **Recent** shows a simple list or tile array.

   - **All**, **Published**, **Unpublished**, or **Private** reflects the folder structure; users will be able to navigate to folders and select dashboards.

   - **Custom** provides links to specific dashboards. After selecting this option, you can select the dashboards from the pop-up window.

   Keep in mind that a user must have the necessary rights to a dashboard to open it.

4. In the toolkit, select formatting options, including the layout (list or tile), style, font, and background. In addition, you can show or hide the following: icons (i.e. badges, chart symbols, and folder icons), outline, search bar, and favorite stars.

   The **Show Path in Title** option affects widgets that include the dashboard folder structure (e.g., All). If enabled, the widget title will reflect path of the current folder.
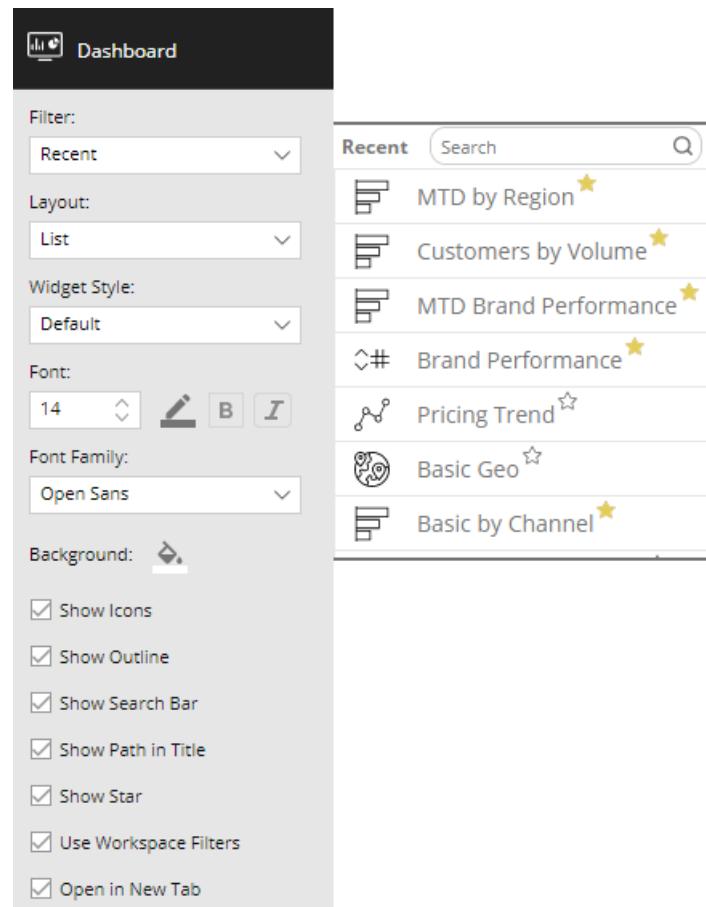
To add a dashboard widget

5. If you want to carry forward any applied workspace filters to the linked dashboards, check the **Use Workspace Filters** box. This would allow a user to narrow down on a business segment, and then continue their investigation in another dashboard.

6. To open linked dashboards in a new browser tab, check the **Open in New Tab** box. Or, clear this option to open dashboards in the same browser tab.

7. To apply additional formatting options, such as a widget style, title, transparency, and border, go to General Settings in the toolkit.

Image widgets

Image widgets allow you to add images to a dashboard. Image widgets are available in browser-based dashboards and the mobile app (if turned on as explained in step 7).

To add an image

1. Click the [Add Widget ∨] button at the top of the screen.

2. In the pop-up window, click and drag Image onto the workspace.

3. Click **Add Image** in the widget, or click the ⋮ button at the top of the widget and then select **Edit**.
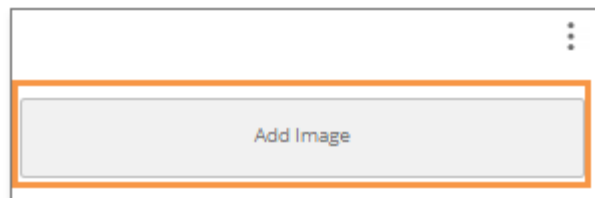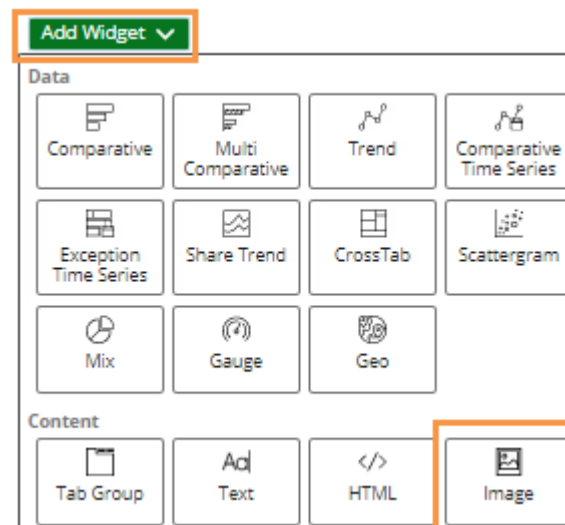
To add an image

4. This opens the image manager, which stores all images used in dashboards. Select an image or click Add Image to upload a new image. Salient Dashboards support the following types of images: .jpg, .jpeg, .jpe, .jif, .jfif, .jfi, .gif, .png, .apng, .tiff, .tif, .svg, .svgz, .bmp, and .dib. The image file type must be supported by the web browser used.
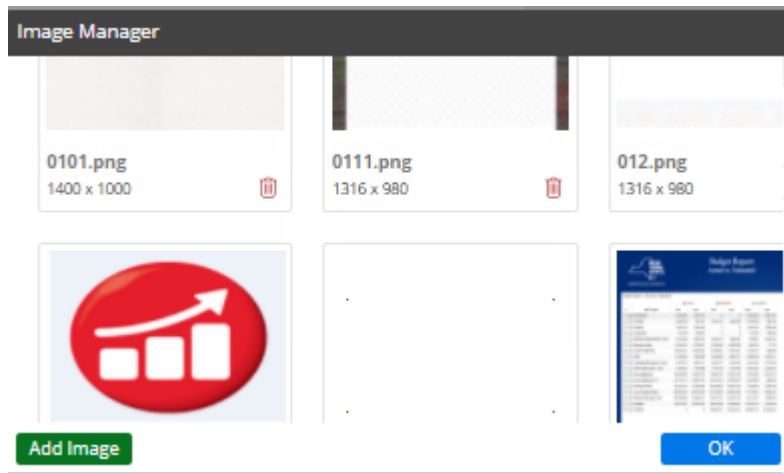
5. Click OK.

6. To customize display settings, go to General Settings in the toolkit, where you can choose a style, turn on/off borders, select transparency, etc.

7. To allow the image to be shown in the mobile app, checkmark the **Show in Mobile** box in General Settings, or leave this option cleared to hide the image in the mobile app.
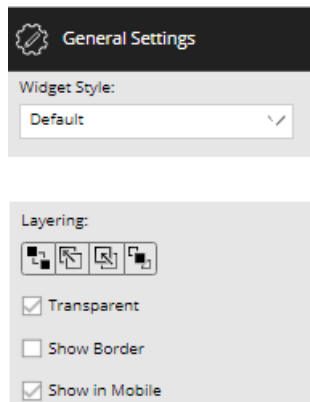
8. Position and size the image in the desktop/tablet layout. If the phone layout (see page 40) is enabled and the widget is on in mobile as explained in step 7, you should also position the widget in the phone layout.
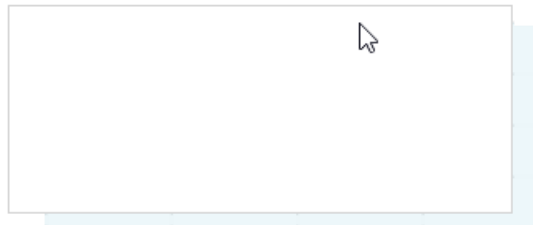
   • Drag and drop the ✛ icon to move the widget.

   • To resize the widget, drag its borders or enter a precise size in general settings (see page 249).

To switch between layouts:
Go to the Workspace area of the toolkit and choose the layout under **Layout View**. You can then position the widget in the selected layout.

Knowledge Manager widgets

Knowledge Manager widgets can display the general overview or resources (see page 279) from Knowledge Manager. Knowledge Manager widgets will be hidden in the mobile app.

To add a Knowledge Manager widget

1. Click the [Add Widget ∨] button at the top of the screen.

2. In the pop-up window, click and drag Knowledge Manager onto the workspace.

> **Tip:** The new widget should be automatically selected so that you can configure it. If the widget is not selected, click on it.
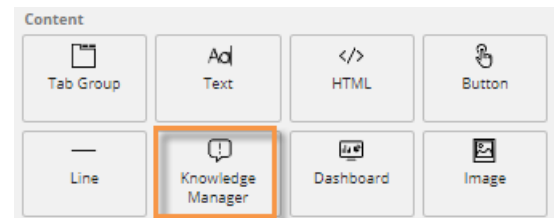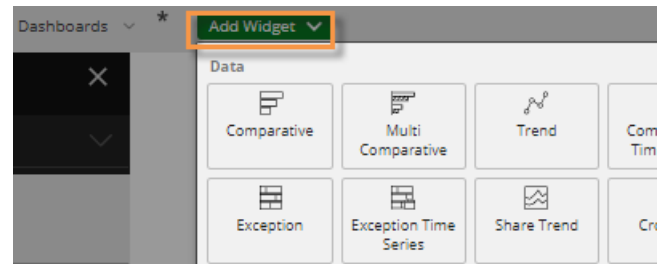
3. In the toolkit, choose to display the general overview or general resources. If you want to display both, simply add another Knowledge Manager widget.

4. To select a widget style, turn on/off borders, or turn on/off transparency, select the widget and go to General Settings in the toolkit.
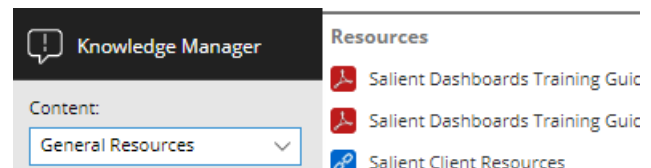
Data Analysis Widgets

Add a data analysis widget

Many different types of analysis widgets (see page 64) are available to help you survey and investigate the data.

To add a data analysis widget

1. Click the **Add Widget ∨** button at the top of the screen.

2. In the pop-up window, click and drag the button of the analysis type onto the workspace. If you prefer, you can click the analysis button to place it in the upper-left corner.

3. Adjust the widget's size and position in the desktop/tablet layout and phone layout (if used). Each layout (see page 40) can store a different size/position for the widget.

   • Drag and drop to move the widget.

   • To resize the widget, drag its borders or enter a precise size in general settings (see page 249).

   • To switch between layouts (e.g., switch from desktop/tablet to phone), go to the Workspace area of the toolkit and choose the layout under **Layout View**. You can then position the widget for that layout.
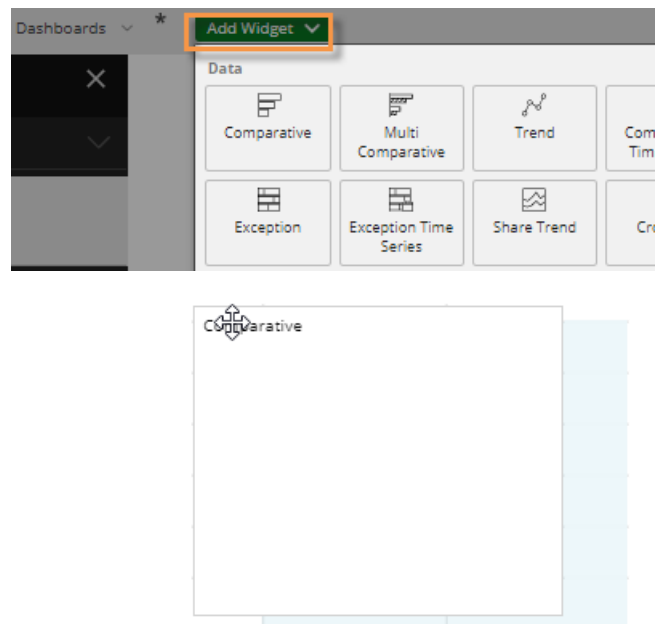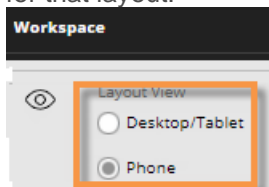
After adding the widget, you can add the desired measures (see page 150), select the By (see page 183), change the date range (see page 169), switch between numbers and graphs (see page 69), and more.

> **Tips:**
>
> - To control the order of overlapping widgets, go to general settings where you can send a widget to the back or front.
>
> - General settings provide additional design options for widgets, such as widget styles, transparency, borders, and customized titles.

Tips:

Analysis type

You can change the analysis type of an existing widget by clicking on it and then clicking in the analysis area of the toolkit.
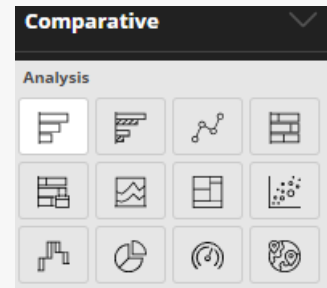
Default context settings

When you add a widget, it inherits the context settings (date, By, and drill-downs) of the most recently selected widget; therefore, you may want to click on a widget with similar settings (if one exists) prior to adding a widget. You can also duplicate a widget (see page 63).

Duplicate a widget

You can duplicate or "clone" a widget, for example, if you want to create a widget with similar settings to an existing one. When you duplicate a widget in explore mode (see page 24), the new widget will be maximized in its own tab.

To duplicate a widget

1. Select the widget you want to duplicate.

2. On the widget title bar, click the ⋮ menu button and then select ⧉ Duplicate Widget.

3. Make changes to the new widget as desired.

Overview of analysis types

You can choose from various analysis types depending on what you want to find out about the data and how you want to display it. Most analysis types are available as either a grid or graph.

Analysis type	Examples
⬚ _Comparative (see page 70)_ Comparison of members for one or two date ranges; any number of measures	
⬚ _Comparative Time Series_ Trend over time for two date ranges; any number of measures **Tip:** This option in the Add Widget menu adds a Trend widget (see page 82) for two date ranges (This and Last).	

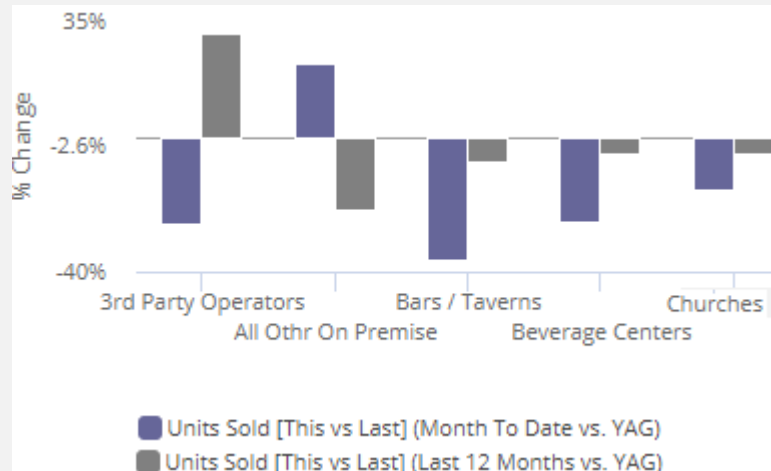| Analysis type	Examples
▦ *Crosstab (see page 112)* Comparison grid or graph that organizes data by two different attributes (i.e., dimensions) to examine cross-sections of data.	
▦ *Multi Comparative (see page 75)* Comparison of members for any number of date ranges; any number of measures	

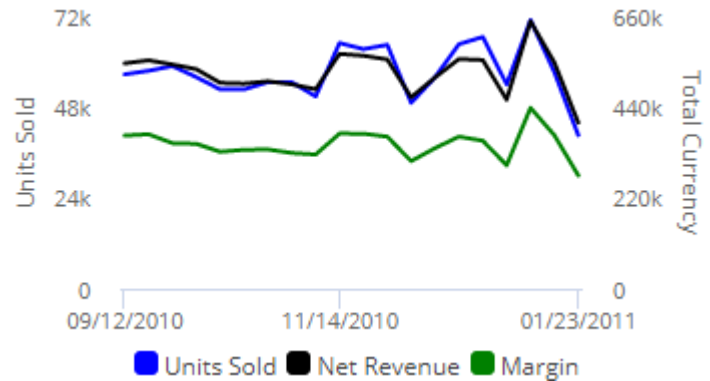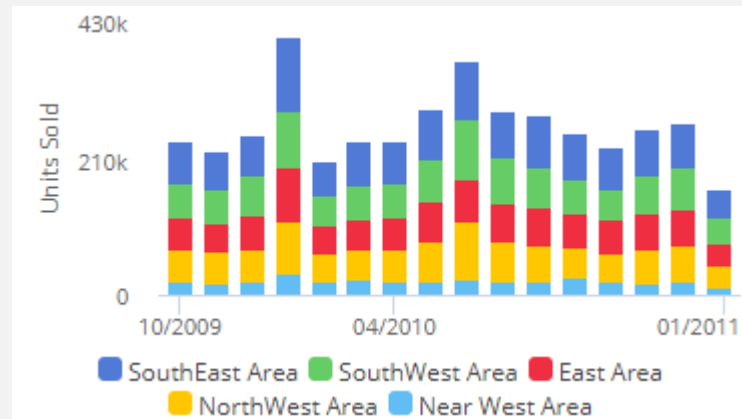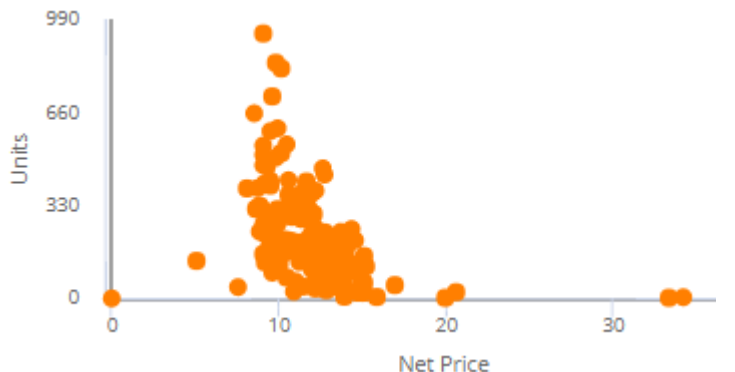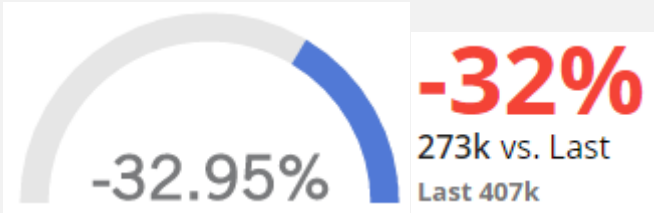| Analysis type	Examples
Trend (see page 82) Trend over time for one or two date ranges for multiple measures **Tip:** This option in the Add Widget menu adds a Trend widget for one date range (This).	 	Date	Units Sold	Avg List Price per Unit	Margin
---	---	---	---
12/12/2010	55,849	12.56	340,300
12/19/2010	64,570	12.49	368,206
12/26/2010	66,486	12.50	358,264
1/2/2011	53,978	12.48	298,829
1/9/2011	70,920	12.40	437,850
1/16/2011	57,179	12.80	371,473
1/23/2011	40,547	13.01	274,320
Total	4,290,796	12.33	24,743,785	
Share Trend (see page 101) Comparison trend for multiple members; either actual values or percent of the total for single measure	
Exception (see page 89) Pass and fail of key members for an exception test (e.g., customers with units >=1)		Channel	Totals	Passed	% Passed	Failed	% Failed
---	---	---	---	---	---
All Othr On Premise	1,122	69	6.1	1,053	93.9
Industrial	578	206	35.6	372	64.4
Schools	459	206	44.9	253	55.1
Recreation	444	55	12.4	389	87.6
Restaurants	411	161	39.2	250	60.8
Fast Food	395	166	42.0	229	58.0
Other Groceries	283	161	56.9	122	43.1
Colleges	262	28	10.7	234	89.3
Bars / Taverns	212	101	47.6	111	52.4
Total (38)	5,863	1,915	32.7	3,948	67.3	
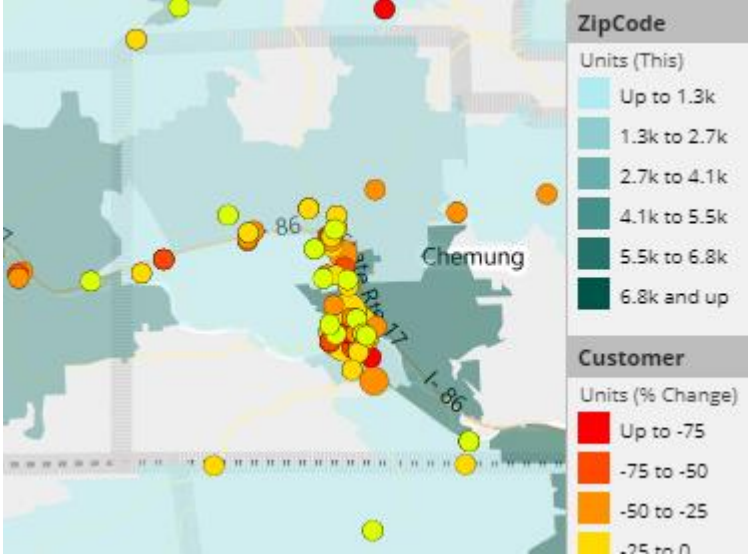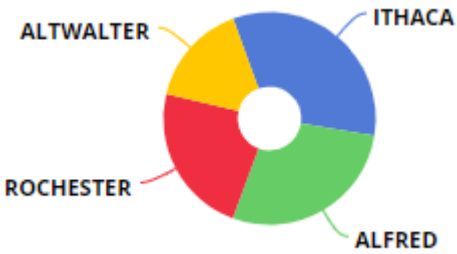
Analysis type	Examples
Exception Time Series (see page 95) Pass and fail of key members for an exception test over time	
Scattergram (see page 107) Plot of key members (e.g., customers) for two measures to show trends and outliers	
Waterfall (see page 122) How the components of a calculated measure affect its make-up	

Analysis type	Examples
🌐 *Geo (see page 135)* Map showing data values and/or change since another date range	
🕑 *Gauge (see page 130)* A simple visual tool showing performance; single measure	
📊 *Mix* (see page 126) Percent of the total for multiple members for one or two date ranges; any number of measures	

Tips:

- To prevent users from viewing data that doesn't make sense in a particular context, some types of data may be unavailable depending on the analysis type. Likewise, some analysis types may be unavailable depending on the type of data (see page 167).

- To view record-level data similar to that in SIM's Line Item or Time in Place analysis, you can group the data by Record Details (see page 192).

- Custom views (see page 146) may be configured to show representations of data beyond the graphs and grids shown here.

Switch between grid and graph formats

Various grid and graph formats are available for each analysis type.

To toggle between a grid and a graph

On the title bar of the widget, click ◻▥ (visible on mouseover) to change from grid to graph or ▦ to change from graph to grid of numbers. (This button may be deactivated in general settings (see page 249).)


	Units Sold			
	This	Last	Mix (This)	Mix (Last)
rea	1,145,423	1,012,078	26.9	25.8
Area	968,805	907,021	22.8	23.2
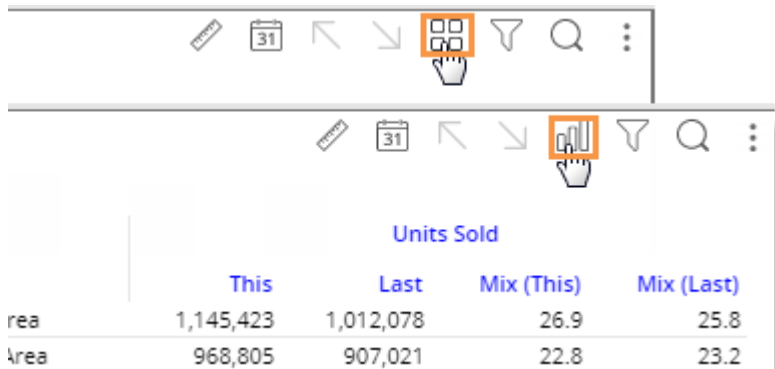
To select a graph format

For graphs, click ⋮ in the upper-right corner of the widget (visible on mouseover) to select from available graph formats for the analysis type (e.g. percent change, actual value, bar, pie, etc.). Additional options are available in graph settings.
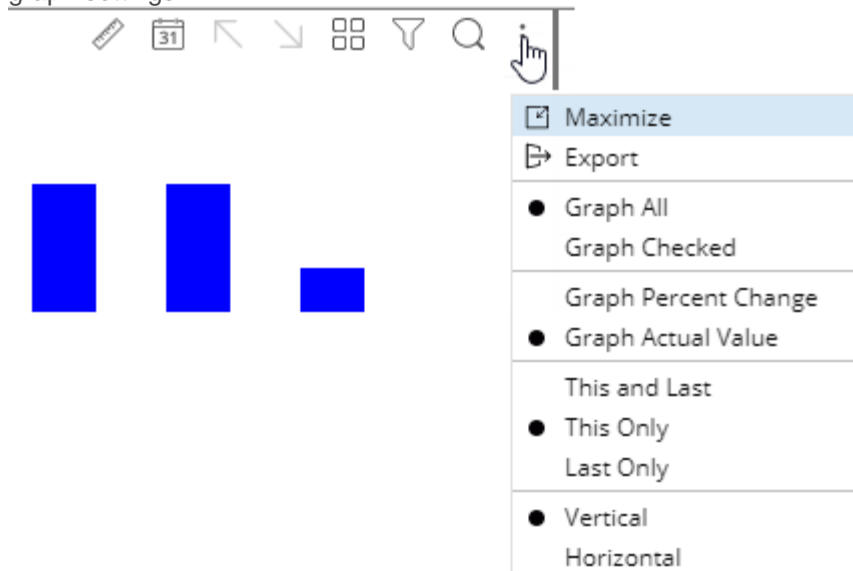
Tip: If the widget uses custom programming (i.e., custom view), the graph/grid button is not available.

Comparative widget

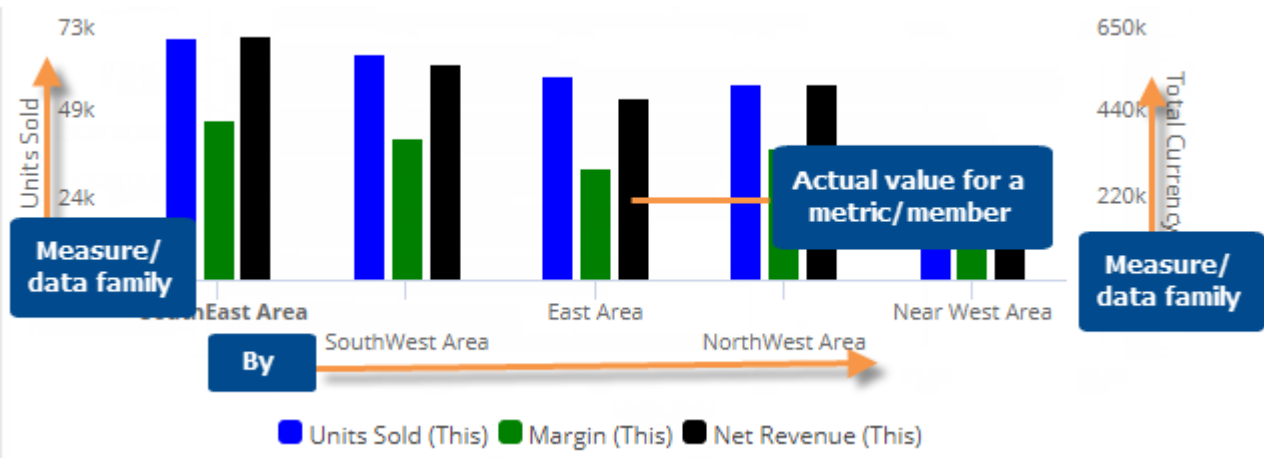| Comparative Overview	
Description	Comparison of members for one or two date ranges; any number of measures
Examples	
Date setup	This widget shows results for one or two date ranges. Click on 📅 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options for "This" date range (see page 169). Optionally, choose an earlier date range (Last) for comparison.
Measure setup	The widget can show any number of measures. To show/hide measures (see page 152), click ✏ in the widget toolbar (visible on mouseover). Only measures that have been added to the widget will be available for selection using this tool. To add measure(s) (see page 150), click the Measures area of the toolkit. Graphs are limited to the measures that use the "Show on graph" setting. This setting is on for all measures by default, but can be turned on/off for any measure.
Group By	This analysis compares members of the Group By (see page 183).
Formats	Percent Change graph (see page 71) Actual Value graph (see page 71) Grid (see page 73)

Comparative graph

This graph shows either actual values or the percent change for each member of the "Group By" attribute or list so that you can compare them. This graph shows any number of measures.
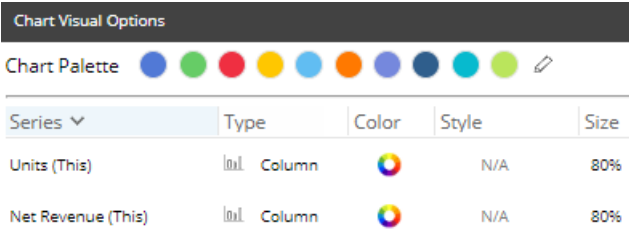
Actual value comparative graph
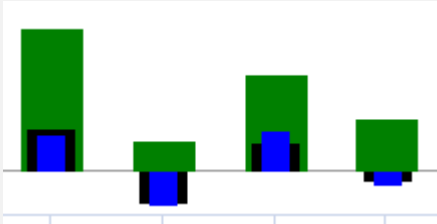
Percent change comparative graph

Comparative graph options	Explanation
Compare checked or all members	If you have checked members, you can display only the checked (see page 195) members or compare all members (i.e., based on sort). Click ⋮ in the upper-right corner to access these options.

Comparative graph options	Explanation
Percent Change or Actual Value (only for comparisons of two date ranges)	Click ⋮ in the upper-right corner to choose between a graph of actual values or percent change between date ranges. (See the previous examples.)
This and Last, This only, or Last only (only for actual value graphs that compare two date ranges)	Click ⋮ in the upper-right corner and choose the timeframe(s) for which you want to display data.
Vertical or horizontal	Click ⋮ in the upper-right corner to switch between vertical and horizontal formats.
Axis management	Click ⋮ in the upper-right corner and select Axis Management (see page 244). You can then customize axis settings, such as location, title, scale, and tick interval.
Key descriptions (for key graphs only)	If the graph compares key members, you can select which descriptions (name, ID, address, etc.) are used for labels by switching to a grid, clicking the drop-down arrow on the description heading, and checking the **Show On Graph** box.
Visual options (see page 236) (colors, type, size, etc.)	To access visual options in view mode, click ✎ in the graph legend (visible on mouseover). Visual options are also available under graph settings in explore or edit mode. In visual options, choose a color palette and configure each measure by selecting its type (column, marker, or line), size, etc.
In graph settings:	
- # of members per page	In graph settings (see page 234), set the **Graph Page Size** equal to the maximum number of members to show on one page. If the context has more 1st By members than the selected page size, then you can use the arrows ⟨⟨ ⟨ ⟩ ⟩⟩ at the bottom of the widget to go to additional pages. If the widget size does not fit the page size, then you can scroll to see additional members on the page.

Comparative graph options	Explanation
- Overlapping bar graph	To turn on an overlapping bar graph, go to graph settings (see page 234) and clear the **Enable Column Grouping** box. Then, in Visual Options, adjust the bar size so that the top bar is the thinnest and the bottom bar is the widest. For example:
- Data labels	In graph settings (see page 234), check or clear the **Enable Data Labels** option.
- Show Totals	In graph settings (see page 234), check the **Show Graph Total** option to include a bar representing the total of all members.

Comparative grid
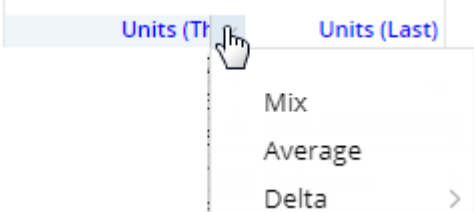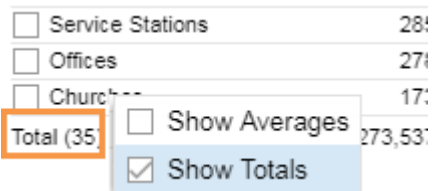
This grid shows multiple measures for the members of the By dimension. The grid can either show a single date range or two date ranges (This and Last).

Single date range

This and Last date ranges

Comparative grid options	Explanation
Difference, percent change, mix, etc.	You can insert these columns by placing your cursor over a heading, clicking the drop-down arrow, and selecting the column to add.
Expand members	You can click ⊞ to expand a member into the 2nd By if one has been defined.
Total and average rows	To show or hide a total row and/or average row, click on the Total/Average row in the grid. These rows show totals or averages for all members in the context—not just the current page. You can also show or hide these rows in grid settings (see page 232).
Highlight data	In edit or explore mode, you can highlight data (see page 227) based on custom criteria and/or percent of the total (i.e. heatmap). To access highlight settings, place your cursor over a column heading, click the drop-down arrow, and select Highlighting from the menu.
In grid settings:	
- Swapped and scorecard formats	The standard grid shows measures in columns. You can switch to a different type (see page 233) (e.g., swapped columns/rows or scorecard) under grid settings.

Comparative grid options	Explanation
- Grid page size	In grid settings (see page 232), you can choose how many members of each dimension to show at once. For the 1st By, this setting controls the maximum number of members on each page. For expanded data (e.g., 2nd By), members over this number will be truncated. Because an expanded grid includes multiple dimensions, the total number of rows may exceed the grid page size.
In dashboard settings:	
Heading colors	By default, the heading colors represent the measure categories (e.g., blue for volume); you can turn off the colors in dashboard settings (see page 253) if you wish to simplify the grid.

Multi Comparative

Multi Comparative Overview	
Description	Comparison of members for any number of date ranges; any number of measures
Example	

Multi Comparative Overview
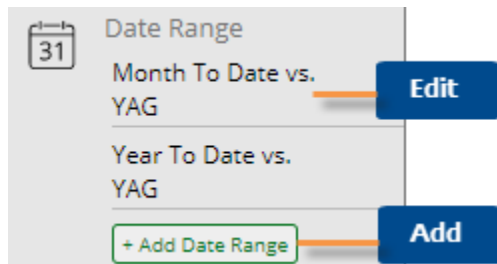
Date setup	This widget shows results for any number of <u>date ranges</u> (see page 169). Each date range can be compared to an earlier date range (i.e., Last). The default Multi Comparative includes Month to Date (MTD) and Year to Date (YTD) versus a year ago (YAG).
	Click on 📅 in the widget toolbar (visible on mouseover) to change any of the pre-configured date ranges or their comparison date ranges.
	In the date range dialog, you can name the date range and select from pre-configured or custom date options. The name will appear in column headings and graphs.
	Date ranges can be added in explore or edit mode. Click Add Date Range in the toolkit.
	To delete a date range, click Delete at the bottom of the date dialog:

Multi Comparative Overview	
Measure setup	The widget can show any number of measures. By default, all the widget's measures will appear under each date range; however, users can hide/show any of these measures for any or all date ranges (if enabled) (see page 152). To add measure(s), clicking the Measures area of the toolkit (in explore or edit mode). In explore or edit mode, you can selectively remove measures for any date range (in the Measures dialog). Users can further limit the measures that appear in graphs using the **Show on graph** setting in grid format.
Group By	This analysis compares members of the Group By (see page 183).
Formats	Grid (see page 80) Percent Change Bar graph (see page 78) Actual Value Bar graph (see page 78)
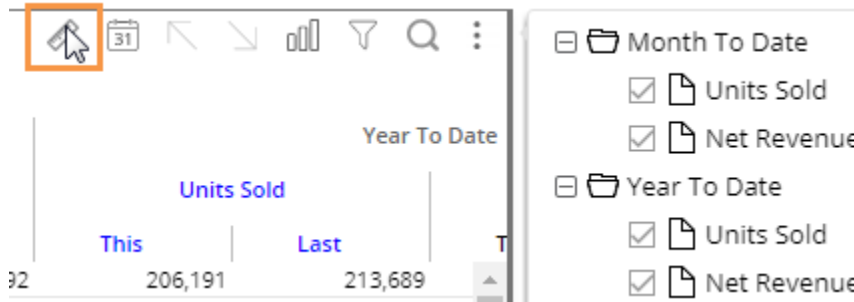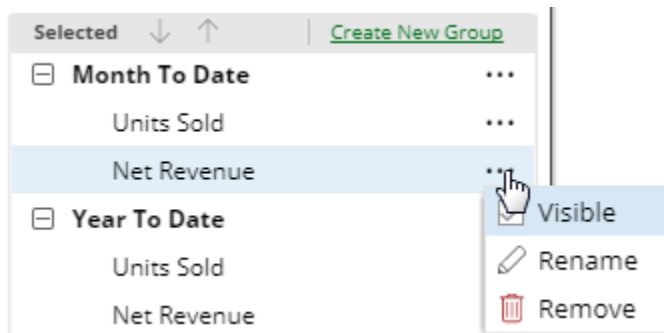
Multi Comparative graph

This graph shows either actual values or the percent change for each member of the "Group By" attribute or list. The graph can show any number of measures and date ranges.
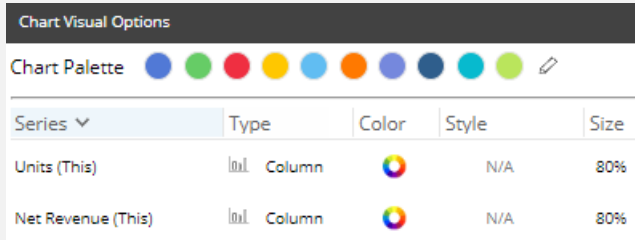
Actual value Multi Comparative graph
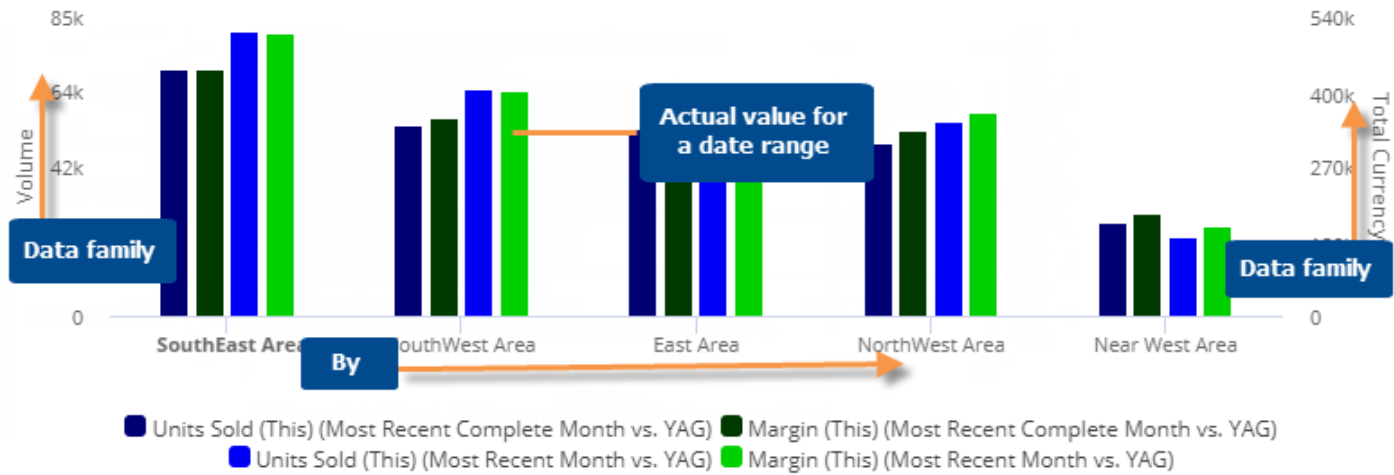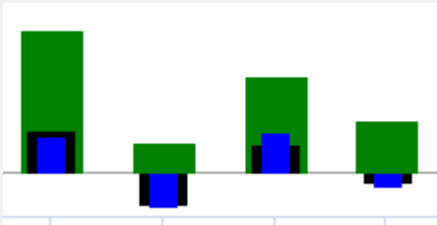
Percent change Multi Comparative graph

Multi Comparative graph options	Explanation
Compare checked or all members	If you have checked members, you can display only the checked (see page 195) members or compare all members (i.e., based on sort). Click ⋮ in the upper-right corner to access these options.
Percent Change or Actual Value (only for comparisons of two date ranges)	Click ⋮ in the upper-right corner to choose between a graph of actual values or percent change between date ranges. (See the previous examples.)

Multi Comparative graph options	Explanation
This and Last, This only, or Last only (only for actual value graphs that compare two date ranges)	Click ⋮ in the upper-right corner and choose the timeframe(s) for which you want to display data.
Vertical or horizontal	Click ⋮ in the upper-right corner to switch between vertical and horizontal formats.
Axis management	Click ⋮ in the upper-right corner and select Axis Management (see page 244). You can then customize axis settings, such as location, title, scale, and tick interval.
Visual options (see page 236) (colors, type, size, etc.)	To access visual options in view mode, click ✎ in the graph legend (visible on mouseover). Visual options are also available under graph settings in explore or edit mode. In visual options, choose a color palette and configure each measure by selecting its type (column, marker, or line), size, etc.
Key descriptions (for key graphs only)	If the graph compares key members, you can select which descriptions (name, ID, address, etc.) are used for labels by switching to a grid, clicking the drop-down arrow on the description heading, and checking the **Show On Graph** box.
In graph settings:	
- # of members/page	In graph settings (see page 234), set the **Graph Page Size** equal to the maximum number of members to show on one page. If the context has more 1st By members than the selected page size, then you can use the arrows ‹‹ ‹ › ›› at the bottom of the widget to go to additional pages. If the widget size does not fit the page size, then you can scroll to see additional members on the page.

Multi Comparative graph options	Explanation
- Overlapping bar graph	To turn on an overlapping bar graph, go to graph settings (see page 234) and clear the **Enable Column Grouping** box. Then, in Visual Options, adjust the bar size so that the top bar is the thinnest and the bottom bar is the widest. For example:
- Data labels	In graph settings (see page 234), check or clear the **Enable Data Labels** option.
- Show Totals	In graph settings (see page 234), check the **Show Graph Total** option to include a bar representing the total of all members.

Multi Comparative grid

The Multi Comparative can show any number of measures and date ranges. By default, the Multi Comparative includes Month to Date (MTD) and Year to Date (YTD) versus a year ago (YAG); however, you can customize the date ranges and add more date ranges.

Multi Comparative grid options	Explanation
Difference, percent change, mix, etc.	You can insert these columns by placing your cursor over a heading, clicking the drop-down arrow, and selecting the column to add.
Expand members	You can click ⊞ to expand a member into the 2nd By if one has been defined.
Total and average rows	To show or hide a total row and/or average row, click on the Total/Average row in the grid. These rows show totals or averages for all members in the context—not just the current page. You can also show or hide these rows in grid settings (see page 232).
Highlight data	In edit or explore mode, you can highlight data (see page 227) based on custom criteria and/or percent of the total (i.e. heatmap). To access highlight settings, place your cursor over a column heading, click the drop-down arrow, and select Highlighting from the menu.

In grid settings:

- Swapped and scorecard formats	The standard grid shows measures in columns. You can switch to a different type (see page 233) (e.g., swapped columns/rows or scorecard) under grid settings.
- Grid page size	In grid settings (see page 232), you can choose how many members of each dimension to show at once. For the 1st By, this setting controls the maximum number of members on each page. For expanded data (e.g., 2nd By), members over this number will be truncated. Because an expanded grid includes multiple dimensions, the total number of rows may exceed the grid page size.

In dashboard settings:

Heading colors	By default, the heading colors represent the measure categories (e.g., blue for volume); you can turn off the colors in dashboard settings (see page 253) if you wish to simplify the grid.

Trend widget

Trend Overview	
Description	Trend over time for one or two date ranges for multiple measures
Examples	One date range: Two date ranges (i.e., Comparative Time Series):
Date setup	This analysis shows data for each date (day, week, month, etc.) in the date range(s) (see page 169). Click on 🗓 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options.
Measure setup	The widget can show any number of measures. To show/hide measures (see page 152), click ✏ in the widget toolbar (visible on mouseover). Only measures that have been added to the widget will be available for selection using this tool. To add measure(s) (see page 150), click the Measures area of the toolkit. Graphs are limited to the measures that use the "Show on graph" setting. This setting is on for all measures by default, but can be turned on/off for any measure.

Trend Overview	
Filter By	This widget aggregates data for all members unless a filter is applied. To select the specific widget filters that will be available, click on Filter By in the toolkit (located under Context). Workspace filters may also filter the data. Filter By Region > Sales Manager
Formats	Grid (see page 86) Graph (see page 83)

Trend graph

The Trend graph shows changes in performance by graphing measures over one or two date ranges. When two date ranges are selected, the graph can either show actual values or percent change.
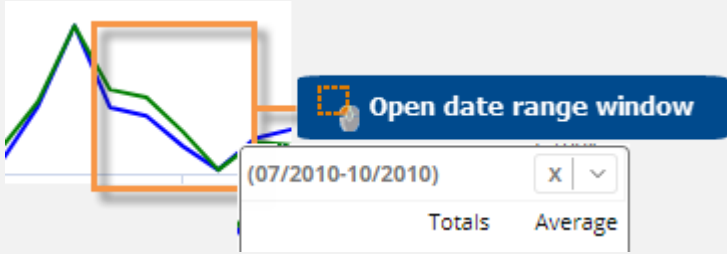
Actual value graph
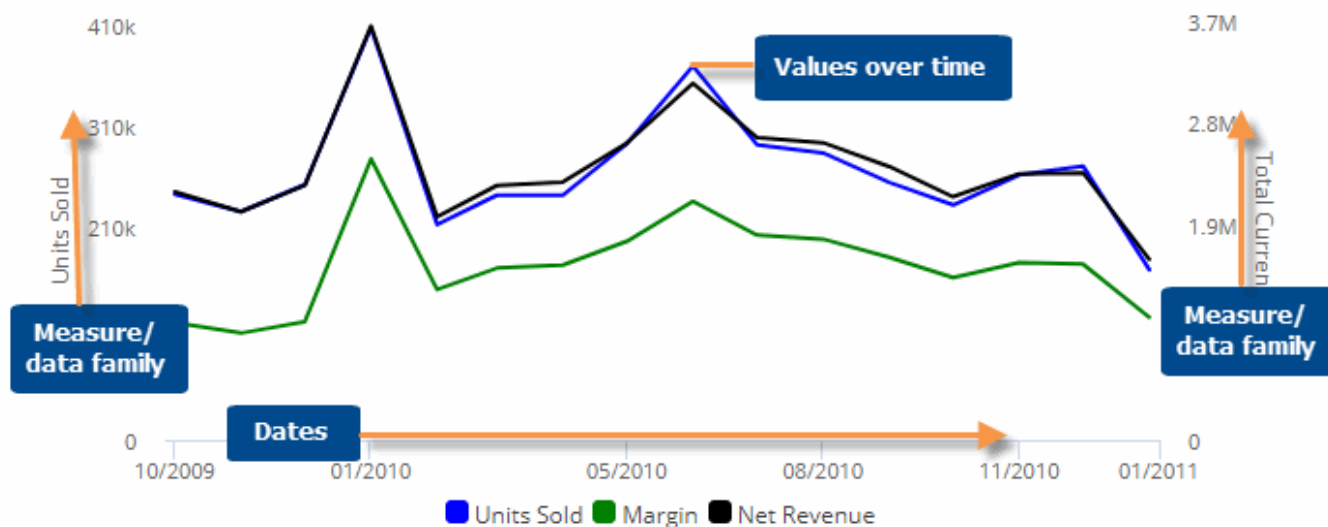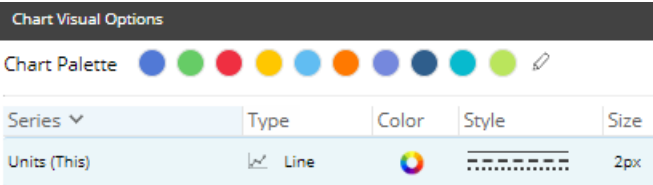
Percent change graph

This graph is only available when comparing two date ranges.

Trend graph options	Explanation
Open Comparative for date	You can click on a date to open a Comparative widget for that date. For this option to be available in view mode, the "allow spawning" option must be on in dashboard settings (see page 253).
Select dates (i.e. rubber-band)	In Select mode, you can view data totals and averages for a subset of the date range (e.g., just a few weeks) in a pop-up window. Click ⋮ in the upper-right corner to turn on Select mode. Then, click and drag around the dates you want to see. Consider the following when selecting dates: • Verify that the dates shown at the top of the window match the desired date range. • If date selection is not working as expected, make sure that you are in select mode and not zoom mode

Trend graph options	Explanation
Zoom	In Zoom mode, you can zoom in on a subset of the date range (e.g., just a few weeks). Click ⋮ in the upper-right corner to turn on Zoom mode. Then, click and drag to zoom. To zoom back out, click **Reset zoom**.
Actual Value or Percent Change (only for comparisons of two date ranges)	Click ⋮ in the upper-right corner to choose between a graph of actual values or percent change between date ranges. (See the previous examples.)
This and Last, This only, or Last only (only for actual value graphs that compare two date ranges)	Click ⋮ in the upper-right corner and choose the timeframe(s) for which you want to display data.
Axis management	Click ⋮ in the upper-right corner and select Axis Management (see page 244). You can then customize axis settings, such as location, title, scale, and tick interval.
Visual options (see page 236) (colors, line/area/column/marker, size, etc.)	To access visual options in view mode, click ✏ in the graph legend (visible on mouseover). Visual options are also available under graph settings in explore or edit mode. In visual options, choose a color palette and configure each measure by selecting its graph type, style, etc.
In graph settings:	
- Dynamic scaling	By default, the vertical axes start at zero and extend beyond the maximum values; however, in graph settings (see page 234), you can turn on Dynamic Scaling to start at the minimum value and go to the maximum value. This makes it easier to see fluctuations in the data. For example:
- Data labels	In graph settings (see page 234), check or clear the **Enable Data Labels** option.

Trend grid
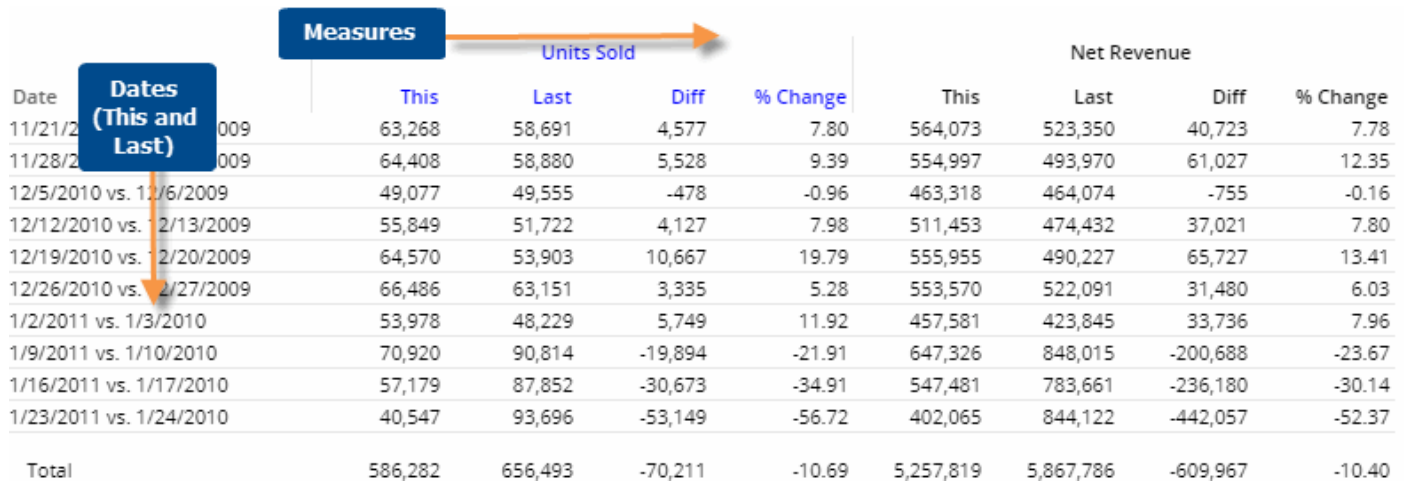
The Trend grid shows measures for each date in the date range(s).

Single date range
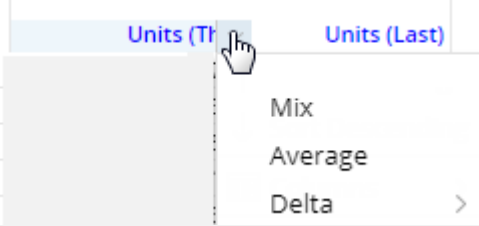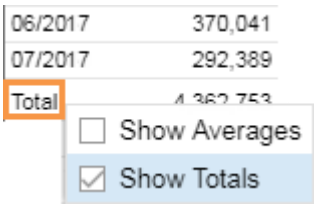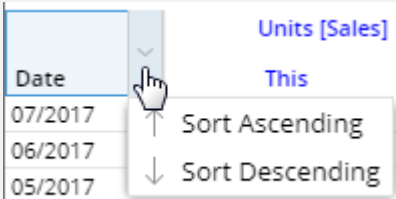
Date	Units Sold	Net Revenue	Margin
11/21/2010	63,268	564,073	375,351
11/28/2010	64,408	554,997	368,084
12/5/2010	49,077	463,318	308,954
12/12/2010	55,849	511,453	340,300
12/19/2010	64,570	555,955	368,206
12/26/2010	66,486	553,570	358,264
1/2/2011	53,978	457,581	298,829
1/9/2011	70,920	647,326	437,850
1/16/2011	57,179	547,481	371,473
1/23/2011	40,547	402,065	274,320
Total	586,282	5,257,819	3,501,632

Two date ranges (This and Last)
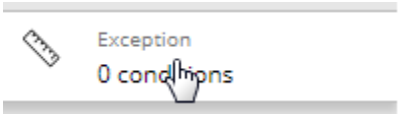
Date	Units Sold				Net Revenue			
	This	Last	Diff	% Change	This	Last	Diff	% Change
11/21/2... 009	63,268	58,691	4,577	7.80	564,073	523,350	40,723	7.78
11/28/2... 009	64,408	58,880	5,528	9.39	554,997	493,970	61,027	12.35
12/5/2010 vs. 12/6/2009	49,077	49,555	-478	-0.96	463,318	464,074	-755	-0.16
12/12/2010 vs. 12/13/2009	55,849	51,722	4,127	7.98	511,453	474,432	37,021	7.80
12/19/2010 vs. 12/20/2009	64,570	53,903	10,667	19.79	555,955	490,227	65,727	13.41
12/26/2010 vs. 12/27/2009	66,486	63,151	3,335	5.28	553,570	522,091	31,480	6.03
1/2/2011 vs. 1/3/2010	53,978	48,229	5,749	11.92	457,581	423,845	33,736	7.96
1/9/2011 vs. 1/10/2010	70,920	90,814	-19,894	-21.91	647,326	848,015	-200,688	-23.67
1/16/2011 vs. 1/17/2010	57,179	87,852	-30,673	-34.91	547,481	783,661	-236,180	-30.14
1/23/2011 vs. 1/24/2010	40,547	93,696	-53,149	-56.72	402,065	844,122	-442,057	-52.37
Total	586,282	656,493	-70,211	-10.69	5,257,819	5,867,786	-609,967	-10.40

Trend grid options	Explanation
Open Comparative for date	You can double-click on a date to open a Comparative widget for that date. For this option to be available in view mode, the "allow spawning" option must be on in dashboard settings (see page 253).
Mix, percent change, difference, etc.	You can insert these columns by placing your cursor over a heading, clicking the drop-down arrow, and selecting the column to add. If you insert mix, keep in mind that the mix values represent the percent of the total of the date range, not the percent of the total of all members.
Total and average rows	To show or hide a total row and/or average row, click on the Total/Average row in the grid. These rows show totals or averages (see page 165) across all dates in the date range and are calculated differently depending on the type and meaning of the data. You can also show or hide these rows in grid settings (see page 232).
Sort by data or date	You can sort by date (ascending/descending) or by data. Click the heading by which you want to sort.

Trend grid options	Explanation
Highlight data	In edit or explore mode, you can highlight data (see page 227) based on custom criteria and/or percent of the total (i.e. heatmap). To access highlight settings, place your cursor over a column heading, click the drop-down arrow, and select Highlighting from the menu.
In grid settings:	
Swapped and scorecard formats	The standard grid shows measures in columns. You can switch to a different type (see page 233) (e.g., swapped columns/rows or scorecard) under grid settings.
In dashboard settings:	
Heading colors	By default, the heading colors represent the measure categories (e.g., blue for volume); you can turn off the colors in dashboard settings (see page 253) if you wish to simplify the grid.

Exception widget

Exception Overview	
Description	Pass and fail of key members for an exception test (e.g., customers with units >=1)
Examples	
Date setup	This widget shows results for one or two date ranges. Click on 🗓 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options for "This" date range (see page 169). Optionally, choose an earlier date range (Last) for comparison.
Group By	This analysis compares members of the Group By (see page 183).
Measure setup	The Measures area of the toolkit (available in edit or explore mode) does not affect the Exception grid or graph but, instead, controls which measures are included in a key list (passing or failing members) created from the Exception widget. Measures Units Sold
Exception conditions	This widget uses test criteria (single or multiple measures) to determine which members pass and fail. To define the test criteria (see page 90), click the Exception area of the toolkit (in edit or explore mode). Exception 0 conditions
Formats	Graph (see page 91) Grid (see page 93)

Select exception conditions

The following instructions explain how to define test conditions to determine which members pass/fail in an Exception (see page 93) or Exception Time Series (see page 98) widget.

To set exception test criteria

1. Select the Exception or Exception Time Series widget. If the dashboard does not already have one of these widgets, you can add one (see page 62).

2. Under Context in the toolkit, click on the Exception section. This opens a pop-up dialog, where you can define the test criteria to determine which members pass or fail.

3. Choose **Single** to set a single criterion for the test (for example, Units of 1 or more) or **Multiple** for multiple test criteria (for example, Units of 100 or more and a percent change in Units of more than 20%).

4. Perform the following tasks depending on whether you've selected a single or multiple test.

5. Click OK when you are done defining the conditions.

Test type	Instructions
Single	i. From the **Data Type** drop-down menu, select the measure on which you want to test.
	ii. From the **Test Type** menu, choose to test based on the actual Value, Difference, or Percent Change (depending on the time comparison).
	iii. Click on the button of the operator (=, >=, Range, etc.) to use for comparing the key member's value, difference, or percent change to the specified value or range in order to determine if the key member passes. The symbol != represents not equal to.
	iv. In the **Value** data window(s), type a number(s) with which to compare the data values.

Test type	Instructions
Multiple	 • To add a test criterion, click **Add**. In the **Exception Setup** dialog, complete the tasks listed previously under the Single test to define the test criterion. Then, click **OK**. Repeat to add multiple criteria. • Choose **AND** if the key members must meet all the criteria listed, or choose **OR** if the key members must only meet one of the criteria to pass the test. • To delete a test criterion, highlight its row and click **Delete**. • To edit an existing test criterion, highlight its row and click **Edit**.

Exception graph

This graph shows the percent of key members that pass or fail the exception test (see page 90) within each By member. If the graph compares two date ranges, a second set of bars show Last date range.
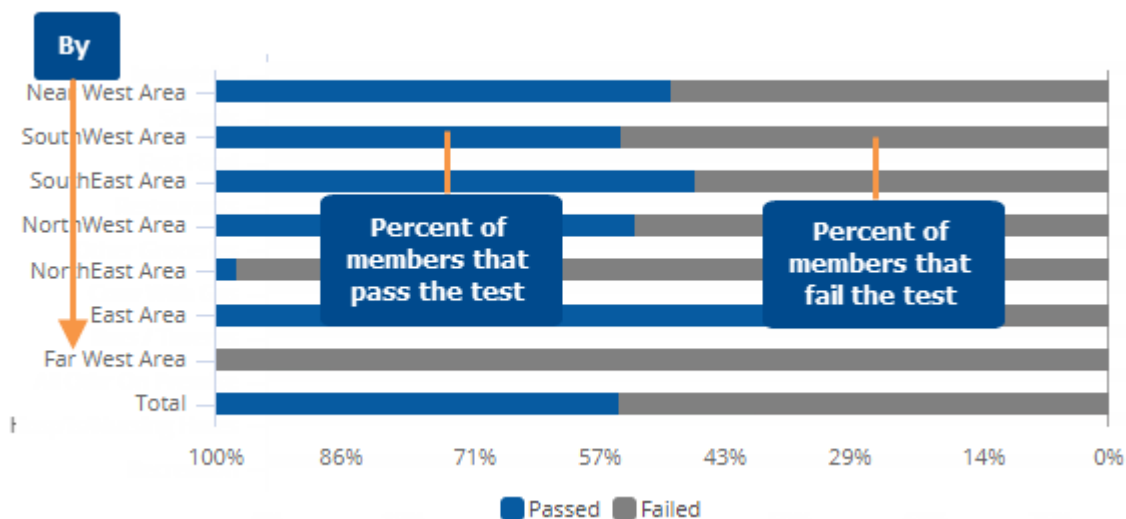
Exception graph options	
# of members/page	In <u>graph settings</u> (see page 234), set the **Graph Page Size** equal to the maximum number of members to show on one page. If the context has more 1st By members than the selected page size, then you can use the arrows 〈〈 〈 〉 〉〉 at the bottom of the widget to go to additional pages. If the widget size does not fit the page size, then you can scroll to see additional members on the page.
Data labels	In <u>graph settings</u> (see page 234), check or clear the **Enable Data Labels** option.
Show Totals	In <u>graph settings</u> (see page 234), check the **Show Graph Total** option to include a bar showing passing and failing percent for all members of the By.

Exception grid

The Exception grid shows the number and percent of passing and failing key members (e.g., customers) in each member of the By. The numbers are based on an exception test (see page 90). If you compare two date ranges, the grid includes This and Last and may also show difference and percent change.
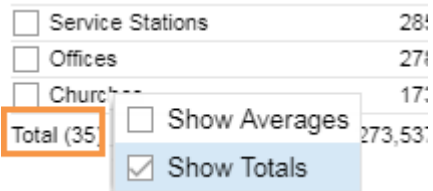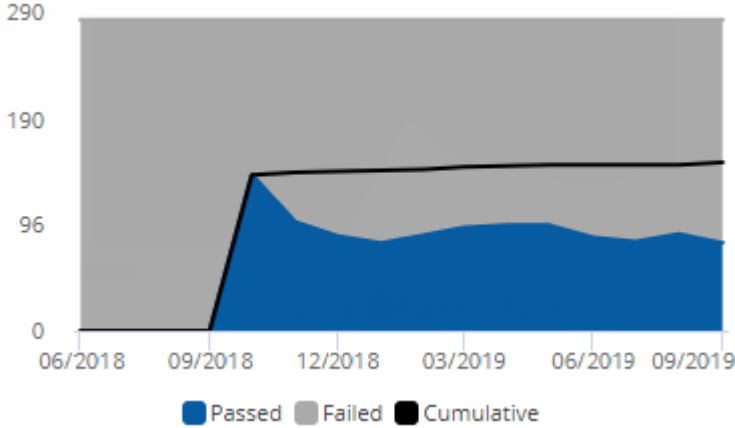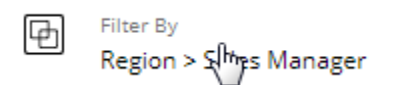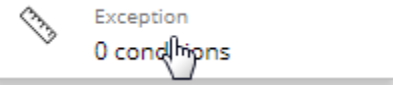
Channel	Totals	Passed	% Passed	Failed	% Failed
⊞ ☐ Industrial	578	206	35.6	372	64.4
⊞ ☐ Schools	459	206	44.9	253	55.1
⊞ ☐ Fast Food	395	166	42.0	229	58.0
⊞ ☐ Restaurants	411	161	39.2	250	60.8
⊞ ☐ Other Groceries	283	161	56.9	122	43.1
⊞ ☐ Conv With Gas	197	136	69.0	61	31.0
⊞ ☐ Bars / Taverns	212	101	47.6	111	52.4
⊞ ☐ All Othr On Premise	1,122	69	6.1	1,053	93.9
⊞ ☐ Hosp'ls/Nursing Hmes	126	59	46.8	67	53.2
⊞ ☐ Recreation	444	55	12.4	389	87.6
⊞ ☐ Clubs	115	55	47.8	60	52.2
Total (38)	5,863	1,915	32.7	3,948	67.3

Exception grid options	Explanation
List passing/failing members	You can double-click to list passing or failing key members (e.g., customers).
Expand members	You can click ⊞ to expand a member into the 2nd By if one has been defined. (The 2nd By cannot be a "list" for this option.)

Exception grid options	Explanation
Total and average rows	To show or hide a total row and/or average row, click on the Total/Average row in the grid. These rows show totals or averages for all members in the context—not just the current page. You can also show or hide these rows in grid settings (see page 232).
In grid settings:	
Grid page size	In grid settings (see page 232), you can choose how many members of each dimension to show at once. For the 1st By, this setting controls the maximum number of members on each page. For expanded data (e.g., 2nd By), members over this number will be truncated. Because an expanded grid includes multiple dimensions, the total number of rows may exceed the grid page size.

Exception Time Series widget

Exception Time Series Overview	
Description	Pass and fail of key members for an exception test over time A common use is a penetration analysis to see number of buying customers over time for a new or other product.
Example	
Date setup	This analysis shows data for each date (day, week, month, etc.) in the date range(s) (see page 169). Click on 📅 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options.
Filter By	This widget aggregates data for all members unless a filter is applied. To select the specific widget filters that will be available, click on Filter By in the toolkit (located under Context). Workspace filters may also filter the data. Filter By Region > Sales Manager
Measure setup	The Measures area of the toolkit (in edit or explore mode) does not affect the Exception Time Series grid or graph but, instead, controls which measures are included in a key list (passing or failing members) created from the widget. Measures Units Sold
Exception conditions	This widget uses test criteria (single or multiple measures) to determine which members pass and fail. To define the test criteria (see page 90), click the Exception area of the toolkit (in edit or explore mode). Exception 0 conditions

Exception Time Series Overview	
Formats	Graph (see page 96) Grid (see page 98)
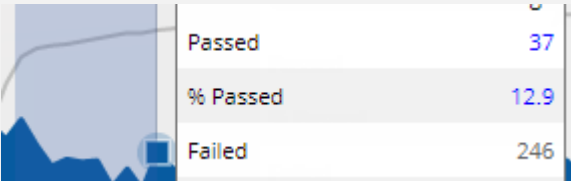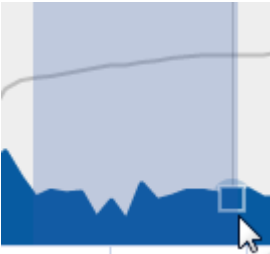
Exception Time Series graph

This graph shows the number of passing/failing key members (see page 289) (e.g., customers) for each date in the date range as well as the cumulative members. If the graph compares two date ranges, an additional line shows the number of passing key members during Last date range.

Exception Time Series graph options	Explanation
Open Exception for date	You can click on a date (on passing or cumulative line) to open a comparative Exception widget for that date. For this option to be available in view mode, the "allow spawning" option must be on in dashboard settings (see page 253).

Exception Time Series graph options	Explanation
Select dates (i.e. rubber-band)	In Select mode, you can view passing, failing, and cumulative numbers for a subset of the date range (e.g., just a few weeks) in a pop-up window. Click ⋮ in the upper-right corner to turn on Select mode. Then, click and drag around the dates you want to see. Passed 37 % Passed 12.9 Failed 246 Consider the following when selecting dates: • Verify that the dates shown at the top of the window match the desired date range. • If date selection is not working as expected, make sure that you are in select mode and not zoom mode • If the selection area includes the last date on the graph, make sure that you select from left to right and select all the way to the right graph axis.
Zoom	In Zoom mode, you can zoom in on a subset of the date range (e.g., just a few weeks). Click ⋮ in the upper-right corner to turn on Zoom mode. Then, click and drag to zoom. To zoom back out, click **Reset zoom**.

Exception Time Series graph options	Explanation
In graph settings: Data labels	In graph settings (see page 234), check or clear the **Enable Data Labels** option.

Exception Time Series grid

This grid shows the number and percent of passing/failing key members (e.g., customers) for each date in the date range.

Exception Time Series grid options	Explanation
Open Exception for date	You can double-click on a date to open a comparative Exception widget for that date. For this option to be available in view mode, the "allow spawning" option must be on in dashboard settings (see page 253).

Exception Time Series grid options	Explanation
In grid settings: Swapped and scorecard formats	The standard grid shows measures in columns. You can switch to a different type (see page 233) (e.g., swapped columns/rows or scorecard) under grid settings.
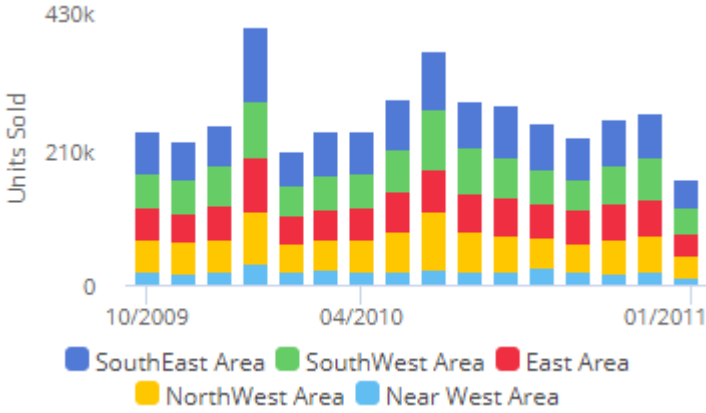
About average, cumulative, and participation in Exception Time Series

The following rows and columns provide additional insight into passing/failing numbers over time.

Column/row	Explanation
Cumulative	Unique key members who met the test criteria any time prior to or on a given day, month, week or period. (These calculations consider This date range only.) In the following example, 93 customers purchased the first week. Ninety customers purchased the following week; of those, 50 were new customers to bring the cumulative number to 143.
Average	The average number and percent of passing or failing key members per week, month, or period. For example, on average 22.6% customers bought each week.
Net Cumulative	Key members that passed or failed based on the totals for the whole date range. This number is usually the same as or close to the Cumulative value for the last date, but you might see small differences due to negative values. The Net Cumulative percent represents the cumulative passing and failing members over the total members.
Participation	Measures the regularity with which key members passed. This number is calculated by dividing the Average Passed % by the Net Cumulative %. So, a high participation means that the members who passed at least once passed regularly; a low participation means that those members passed infrequently. For example, the following numbers view shows a Participation of 44%. In other words, the customers who purchased any time during the date range bought the product nearly half of the time.

Date	Passed	% Passed	Failed	% Failed	Cumulative Passed	% Passed
1/10/17	93	17.1	451	82.9	93	17.1
1/17/17	90	16.5	454	83.5	143	26.3
1/24/17	89	16.4	455	83.6	169	31.1
1/31/17	112	20.6	432	79.4	183	33.6
2/7/17	102	18.8	442	81.2	195	35.8
2/14/17	114	21.0	430	79.0	207	38.1
2/21/17	115	21.1	429	78.9	217	39.9
2/28/17	122	22.4	422	77.6	223	41.0
3/7/17	115	21.1	429	78.9	229	42.1
3/14/17	115	21.1	429	78.9	231	42.5
Average	123	22.6	421	77.4		
Net Cumulat	278	51.1	266	48.9		
Participation		44.2				

Share Trend widget

Share Trend Overview	
Description	Comparison trend for multiple members; either actual values or percent of the total for single measure
Example	
Date setup	This analysis shows data for each date (day, week, month, etc.) in the date range(s) (see page 169). Click on ⬜ in the widget toolbar (visible on mouseover) and select from pre-configured or custom options.
Measure setup	This widget only shows one measure at a time; however, if the widget has multiple measures; users can select (see page 152) which of these to show (if enabled). In edit or explore mode, you can add measure(s) by clicking the Measures area of the toolkit. To add multiple measures, check the **Enable Multiple Measures** box at the bottom of the measures areas.
Group By	This analysis compares members of the Group By (see page 183).
Formats	Stacked Area graph (see page 102) Line graph (see page 102) Stacked Bar graph (see page 102) Marker graph (see page 103) Grid (see page 105)

Tip: On some browsers, many dates in the date range may cause unusually slow response times in the Share Trend. If this occurs, reduce the number of dates.

Share Trend graph

This graph shows how a measure changes over time for each member of the "Group By" attribute. The stacked area and stacked line graphs also show the total of all members over time.

Stacked Area
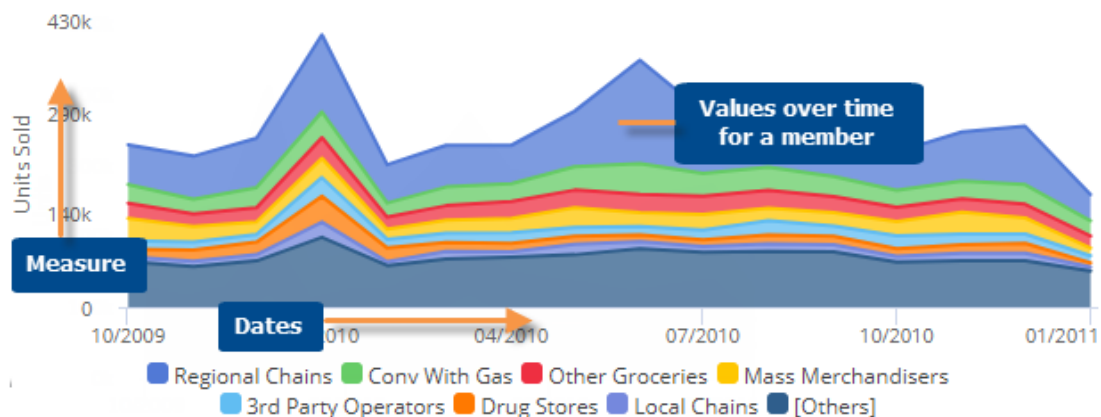
Line
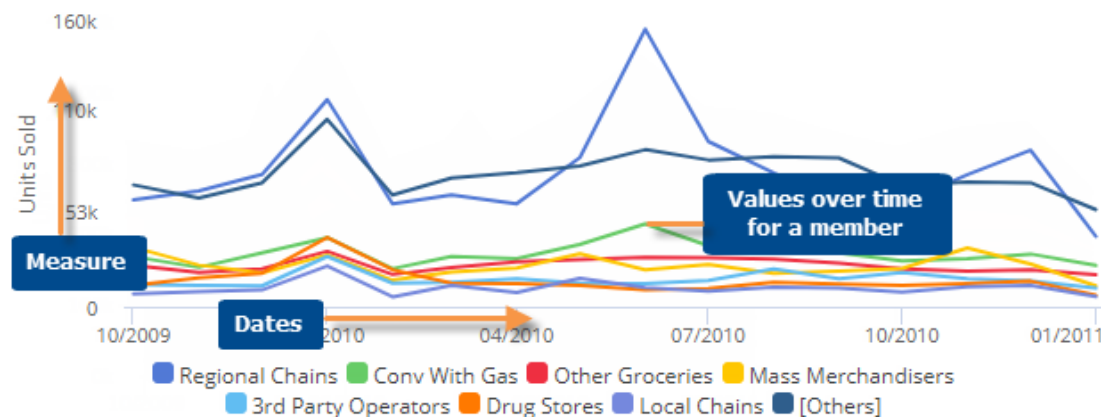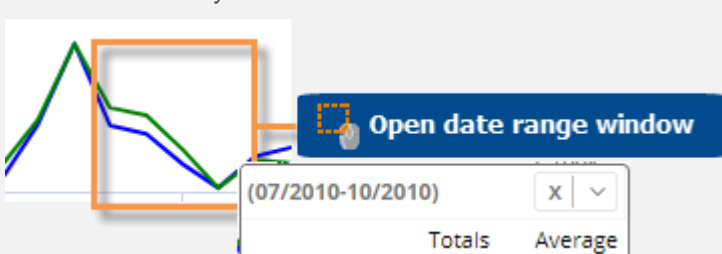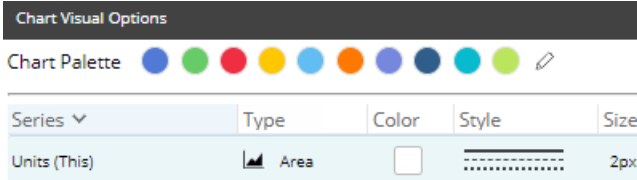
Stacked Bar

Marker

Option	Explanation
Open Comparative for date	You can click on a date to open a Comparative widget for that date. For this option to be available in view mode, the "allow spawning" option must be on in <u>dashboard settings</u> (see page 253).
Select dates (i.e. rubber-band)	In Select mode, you can view data totals and averages for a subset of the date range (e.g., just a few weeks) in a pop-up window. Click ⋮ in the upper-right corner to choose Select mode. Then, click and drag around the dates you want to see. Consider the following when selecting dates: • Verify that the dates shown at the top of the window match the desired date range. • If the selection area includes the last date on the graph, make sure that you select from left to right and select all the way to the right graph axis.
Zoom	In Zoom mode, you can zoom in on a subset of the date range (e.g., just a few weeks). Click ⋮ in the upper-right corner to choose Zoom mode. Then, click and drag to zoom. To zoom back out, click **Reset zoom**.

Option	Explanation
Compare checked or all members	If you have checked members, you can display only the checked (see page 195) members or compare all members (i.e., based on sort). Click ⋮ in the upper-right corner to access these options.
Chart format (Stacked Area, Line, Stacked Bar, or Marker)	Click ⋮ in the upper-right corner to choose one of these formats. (See the previous examples.)
Actual Value or Percent	Click ⋮ in the upper-right corner to choose between a graph of actual values or percent of the total (i.e. mix). The percent option does not allow graphing of measures calculated with multiplication or division.
Show Others (for actual values only)	The graph groups all members not shown into its own category (Others). You can show or hide the Others by clicking ⋮ in the upper-right corner (visible on mouseover) and selecting **Show Others**.
# of members/page	To show more or fewer members in the graph at one time, click and drag the slide control ⟳ in the bottom-left corner of the widget.
Visual options (see page 236) - colors, type, size	To access visual options in view mode, click ✎ in the graph legend (visible on mouseover). Visual options are also available under graph settings in explore or edit mode. In visual options, choose a color palette and configure the graph components (type, style, size). **Chart Visual Options** Chart Palette ● ● ● ● ● ● ● ● ● ● ✎ Series ⌄ Type Color Style Size Units (This) ▰ Area ☐ ········· 2px **Tip:** To assign consistent colors to members across the dashboard, go to member coloring (see page 245) in dashboard settings.
In graph settings:	
- Dynamic scaling	By default, the vertical axes start at zero and extend beyond the maximum values; however, in graph settings (see page 234), you can turn on Dynamic Scaling to start at the minimum value and go to the maximum value. This makes it easier to see fluctuations in the data. For example: 380k 300k 230k
- Data labels	In graph settings (see page 234), check or clear the **Enable Data Labels** option.

Share Trend grid

The Share Trend grid shows data for each member of the "Group By" attribute for each day, week, month, or period in the date range.

Actual Value

Percent

Share Trend grid options	Explanation
Actual Value or Percent	Click ⋮ in the upper-right corner to choose between a graph of actual values or percent of the total (i.e. mix). See the previous examples. The percent option does not allow graphing of measures calculated with multiplication or division.

Share Trend grid options	Explanation
Open Comparative for date	You can click on a date heading to open a Comparative widget for that date. For this option to be available in view mode, the allow spawning option must be on in dashboard settings (see page 253).
Expand members	You can click ⊞ to expand a member into the 2nd By if one has been defined.
Total and average rows	To show or hide a total row and/or average row, click on the Total/Average row in the grid. These rows show totals or averages (see page 165) across all dates in the date range and are calculated differently depending on the type and meaning of the data. You can also show or hide these rows in grid settings (see page 232).
Highlight data	In edit or explore mode, you can highlight data (see page 227) in the grid. To access highlight settings, place your cursor over a column heading, click the drop-down arrow, and select Highlighting from the menu.
In grid settings:	
- Swapped and scorecard formats	The standard grid shows dates columns and members in rows. You can swap columns and rows in the grid types area (see page 233) under grid settings.
- Grid page size	In grid settings (see page 232), you can choose how many members of each dimension to show at once. For the 1st By, this setting controls the maximum number of members on each page. For expanded data (e.g., 2nd By), members over this number will be truncated. Because an expanded grid includes multiple dimensions, the total number of rows may exceed the grid page size.

Scattergram widget

Scattergram Overview	
Description	Plot of key members (e.g., customers) for two measures to show trends and outliers
Example	
Date setup	This widget shows results for a single date range (see page 169). Click on 📅 in the widget toolbar (visible on mouseover) and select from pre-configured or custom date options.
Filter By	This widget aggregates data for all members unless a filter is applied. To select the specific widget filters that will be available, click on Filter By in the toolkit (located under Context). Workspace filters may also filter the data. Filter By Region > Sales Manager
Measure setup	This widget shows two measures—one along the x-axis and another along the y-axis. If the widget includes more than two measures, users can select which of these measures to show using the measure selection tool (if enabled) (see page 152). To add data fields, click the Measures area of the toolkit (edit or explore mode). Measures Units Sold The order controls which measure is shown along each axis: first measure along the x-axis and the second measure along the y-axis.
Scatter By	The Scatter By controls the key that is plotted on the Scattergram. A point will represent each member of this key (e.g., customer) in a Point Scattergram. Click on Scatter By in the toolkit (edit or explore mode) to change the key.
Formats	Graph (see page 108) Grid (see page 110)

Scattergram graph
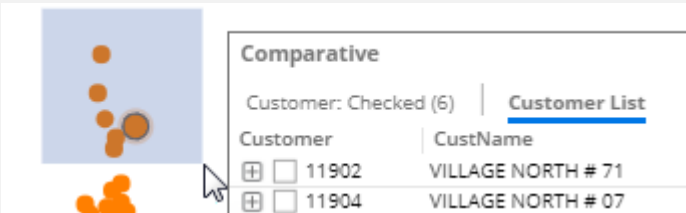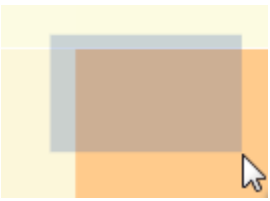
This graph plots key members (e.g., customers), allowing you to see where they fall in the relationship of any two measures. Typically, you see members clustered along a line or curve. The key members that fall far away from the line or cluster may need your attention. The regular format of the Scattergram is a point graph; however, the Scattergram switches to a block format if it contains many members. The default threshold for the block Scattergram is 25,000 members, but can be changed by your administrator.

Scattergram point graph
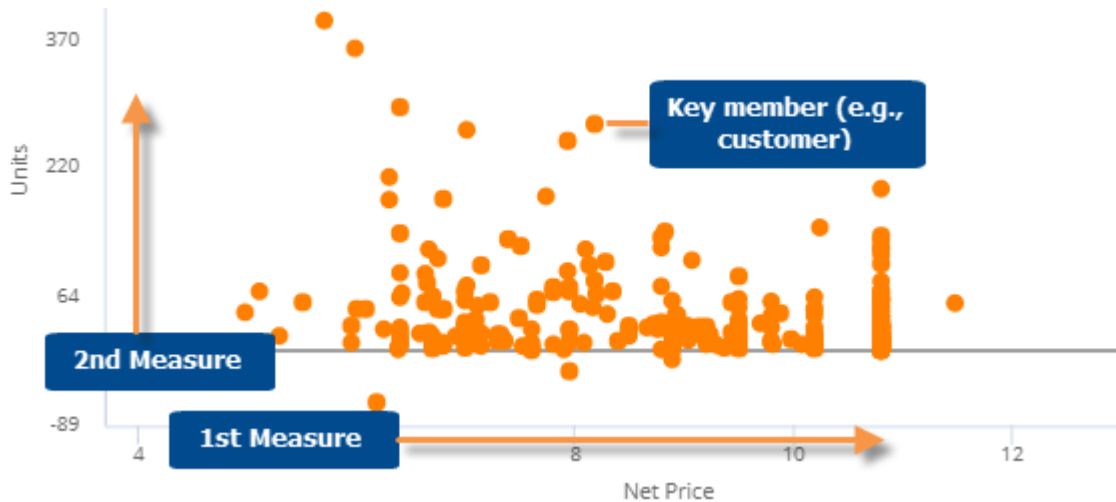
Scattergram block graph

Scattergram graph options	Explanation
Zoom (Point Scattergram only)	In zoom mode (available in point mode only), you can zoom in on any area of the scattergram (e.g., on a cluster of points). Click ⋮ in the upper-right corner to turn on Zoom mode. Then, click and drag to zoom. Click Reset to go back to the original Scattergram.
Select key members (i.e., rubber-banding)	In select mode, you can select and list any key members to learn more about them. Click ⋮ in the upper-right corner to turn on Select mode. Then, click and drag to draw a box around the points or blocks you want to list. For the rubber-banding capability to be available in view mode, the "allow spawning" option must be on in dashboard settings (see page 253).
Filter (block mode only)	In filter mode (available in block mode only), you can select an area of the Scattergram to focus on. All other data will be temporarily filtered out. Click ⋮ in the upper-right corner to turn on Filter mode. Then, click and drag to draw a box around the area you want to filter on. To return to the original Scattergram, click ⋮ in the upper-right corner and select Clear Filter.

Scattergram graph options	Explanation
In general settings: Include Nulls	By default, the Scattergram shows only the key members with data for the selected date range; in other words, it removes null key members. You can include the key members without data by turning on **Include Nulls** in general settings (see page 249).

Scattergram grid

This grid counts the key members that fall into ranges for two measures.

Scattergram grid options	Explanation
List key members in range	You can double-click on a number in order to list the selected key members in a pop-up window. For the pop-up window capability to be available in view mode, the "allow spawning" option must be on in dashboard settings (see page 253).
In settings:	
Include Nulls	By default, the Scattergram shows only the key members with data for the selected date range; in other words, it removes null key members. You can include the key members without data by turning on **Include Nulls** in general settings (see page 249).

Scattergram grid options	Explanation
Heading colors	By default, the heading colors represent the measure categories (e.g., blue for volume); you can turn off the colors in dashboard settings (see page 253) if you wish to simplify the grid.

Crosstab widget

Crosstab Overview	
Description	Comparison grid or graph that organizes data by two different attributes (i.e., dimensions) to examine cross-sections of data.
Example	
Date range setup	This widget shows results for one or two date ranges. Click on the 📅 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options for "This" date range (see page 169). Optionally, choose an earlier date range (Last) for comparison.
Group By and Cross By	This analysis compares members of two Bys at once (1st By (see page 183) and Cross X By). To select a 1st By, assign it to number 1 in the Group By area. To select a Cross By, assign it to "X." **Tip:** Selecting a key list as a Group By allows it to be used as a widget filter; however, data cannot be grouped at the key-list level in a Crosstab.
Measures	The grid format shows all measures that have been added to the widget. In graph setup; you can select any of the added measures to control the size and/or color of the graph components. To add a measure(s), click the Measures area of the toolkit (edit or explore mode)

Crosstab Overview	
Formats	Crosstab grid (see page 120) DeltaMap graph (see page 113) Mondrian graph (see page 114) Stacked Bar graph (see page 115) Unstacked Bar graph (see page 113)

Crosstab graph

This graph can be in the following formats: DeltaMap (see page 113), Mondrian (see page 114), Stacked Bar (see page 115), and Unstacked Bar (see page 115).

DeltaMap

In this graph, major sections represent the members of the first dimension (1st By); these blocks are then divided into subsections that represent the Cross (x) By within the By (e.g., brands within each area). The block size represents a measure (e.g., how much volume) and the color represents another measurement (% change, difference, values, etc.) or a static color. The traditional DeltaMap uses coloring to indicate change so that you can spot the most significant increases and decreases (i.e., largest blocks with the coloring you are concerned about).
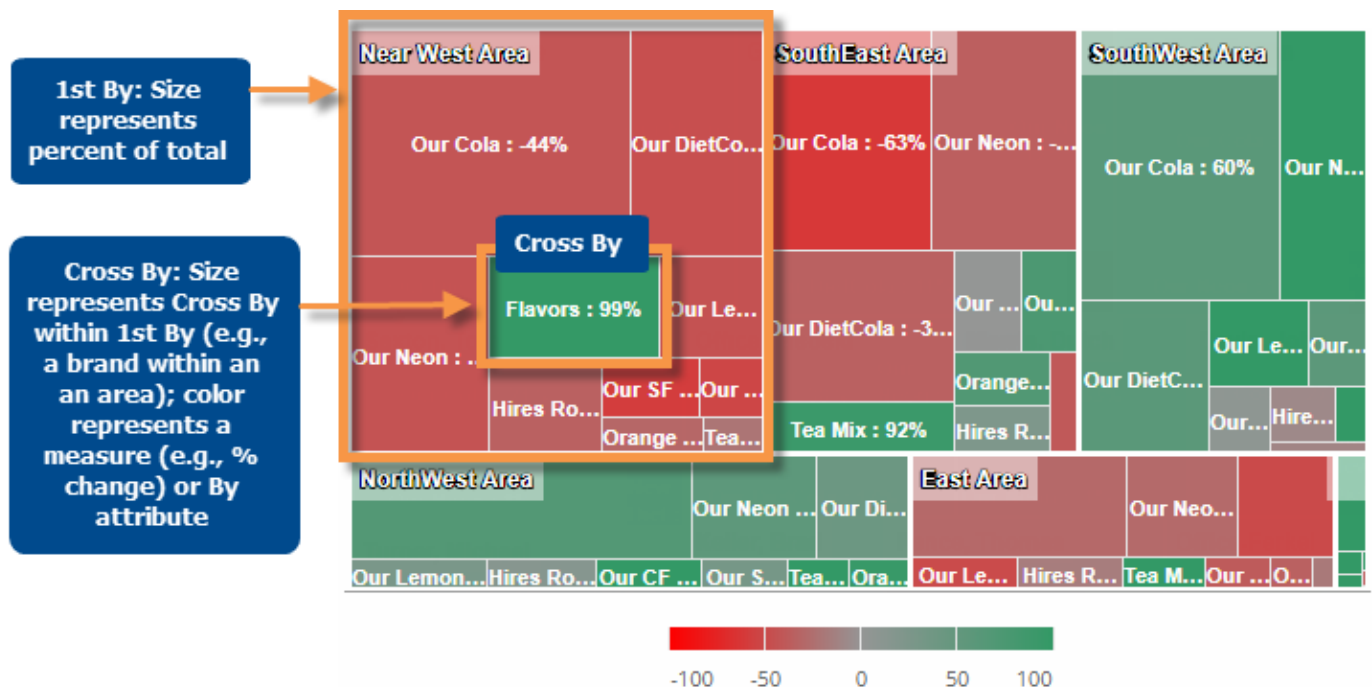
Mondrian

In this graph, each bar represents a member of the first dimension (1st By). The bar width shows the mix (percent of total) for a measure. The bars are then subdivided according to the Cross (x) By (e.g., brands within each area) where the size shows the mix within that category. The colors represent a measure (% change, difference, values, etc.) or a static color based on attribute. The traditional Mondrian uses static coloring to show the top members within each bar.
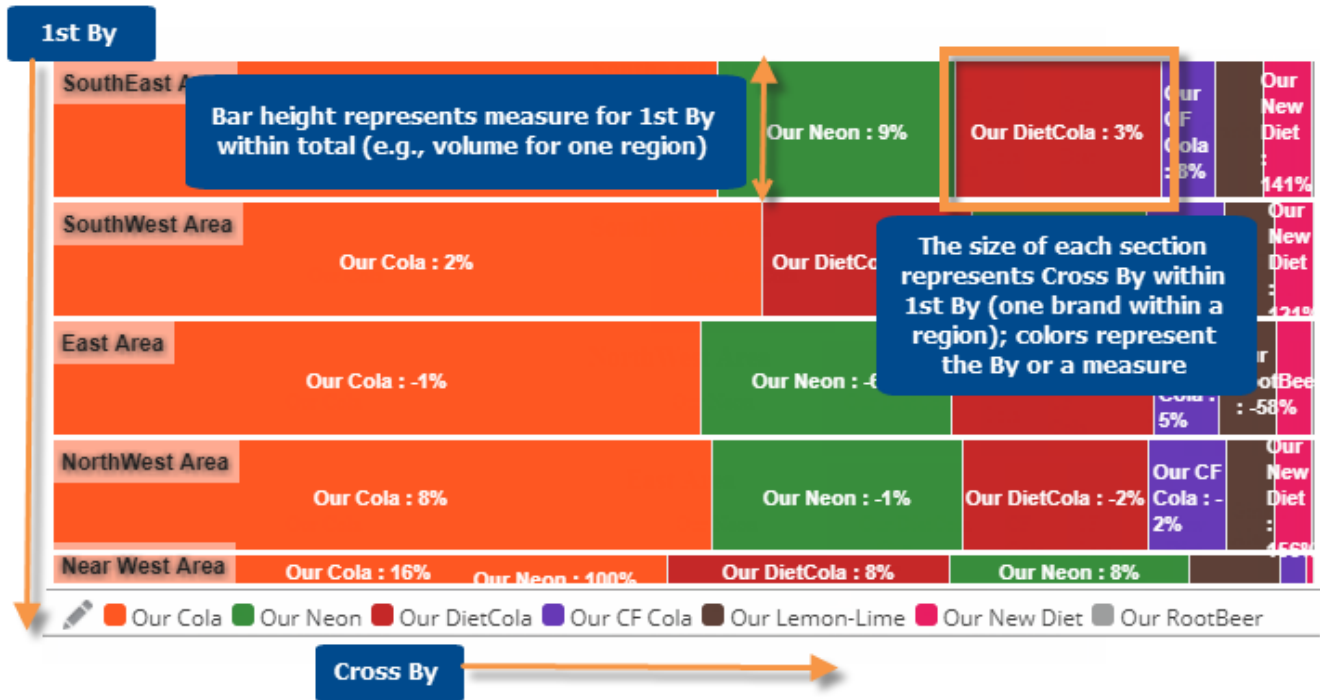
Stacked Bar

This graph shows each 1st By member as a bar broken down into segments based on the Cross (x) By. The segments and total bar length are sized based on a measure, so you can see the most significant 1st By and Cross By members. The color can represent attributes (i.e. Cross By members) or a measure (% change, difference, values, etc.).
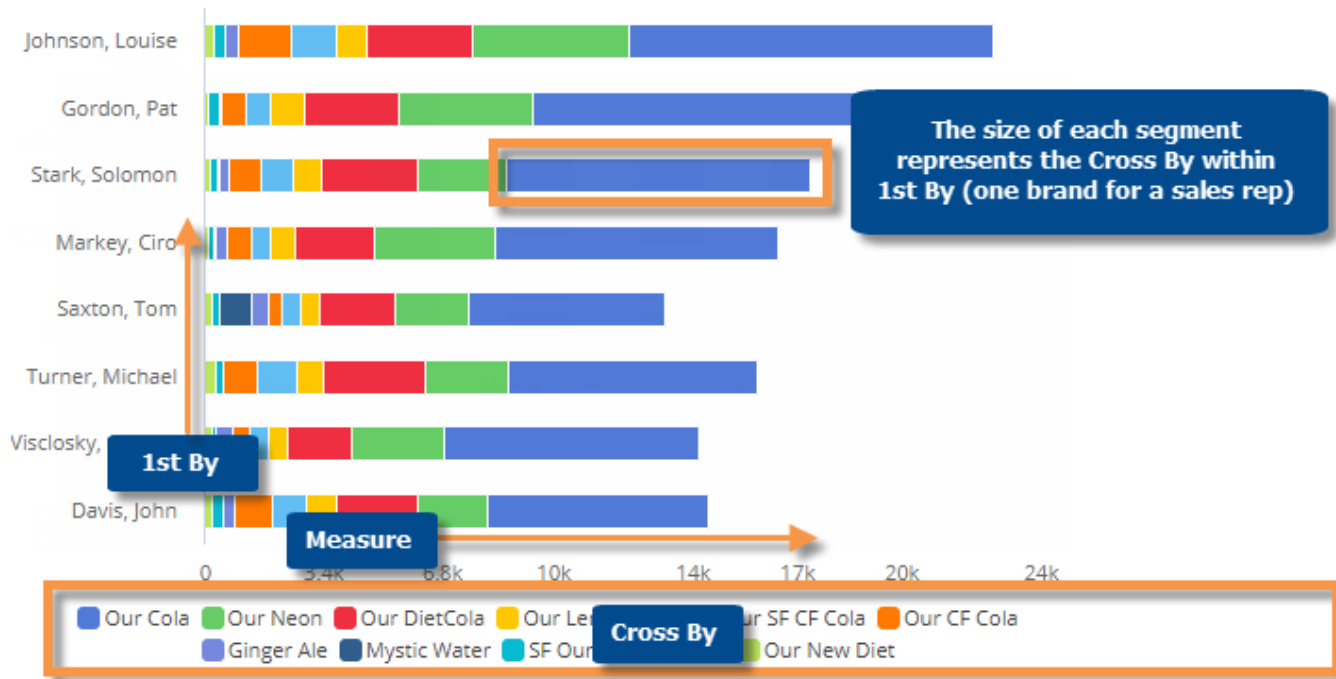
Unstacked Bar

This graph shows a group of bars for each member of the 1st By; the bars represent the Cross (x) By within the 1st By so its easy to compare individual cross-sections of data. The color can represent attributes (i.e. Cross By members) or a measure (% change, difference, values, etc.).
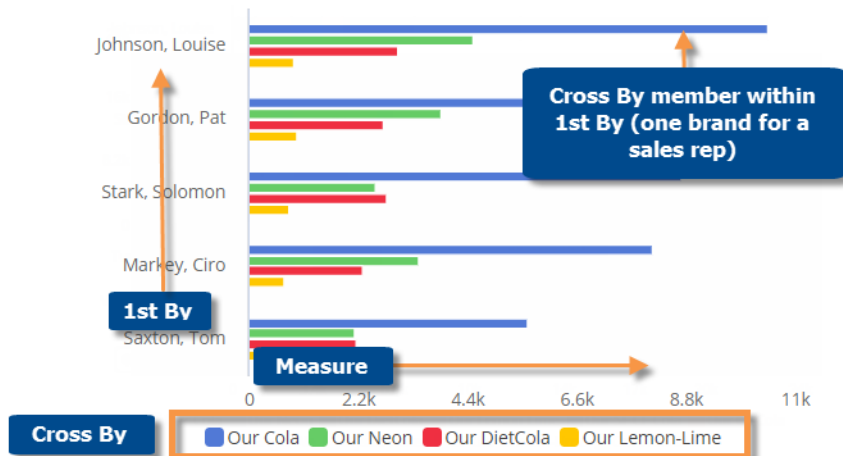
Crosstab graph options	Explanation
DeltaMap, Mondrian, Stacked Bar, or Unstacked Bar	To switch between graph formats, click ⋮ in the upper-right corner and select from the menu.

Crosstab graph options	Explanation
Compare checked, focus, or all members	If you have checked members, you can display only the checked (see page 195) members or compare all members (i.e., based on sort). Click ⋮ in the upper-right corner to access these options. You can also graph just the selected member using the **Graph** option in this menu.
Vertical or Horizontal	Click ⋮ in the upper-right corner to switch between vertical and horizontal formats.
Color and size setup (i.e., visual options)	Place the cursor over a graph section to see details about what the size and color represent. You can click ✐ in the legend to change these settings (see page 117).
In settings:	
- # of members/page	*1st By members:* In graph settings (see page 234), choose the Graph Page Size to control the maximum number of 1st By members per page. *Cross By members:* In grid settings (see page 232), choose the Column Page Size to control the maximum number of Cross By members per page.
- Show labels	You can turn on/off labels using the **Enable Data Labels** option under graph settings (see page 234). The labels show whatever data is currently used to color the graph.
- Show/hide negative data (affects DeltaMap and Mondrian only)	In graph settings (see page 234), you can choose to include or exclude negative data. To show negative data, check **Graph Positive and Negative Data** (on by default). In this case, any negative data will be outlined in red in the graph. To hide negative data, clear **Graph Positive and Negative data**.
- Lock CrossBy	In general settings (see page 249), you can turn on the **Lock Crossby** setting to prevent users from changing the Cross By in view mode. This setting also affect drilling in Crosstab graphs: • If the Cross By is locked, drilling down will occur one dimension at a time. The Cross By will stay the same. • If the Cross By is unlocked, drilling down on a graph component narrows down two levels at once (1st By and Cross By) and the Cross By changes.

Configure size and color in Crosstab graphs

The size of blocks, bars, or bar segments in Crosstab graphs (DeltaMap, Mondrian, or Stacked/Unstacked Bar) represent a measure. The colors in these graphs can represent attributes (i.e., members) or a measure. You can configure these settings in Visual Options, which you can access by placing your cursor over the graph legend and clicking ✎.
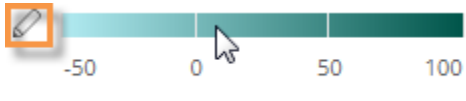
To configure size in Crosstab graphs

1. In Visual Options, click under the size column.

2. Under Measure, select the measure to use for sizing the blocks, bars, or bar segments in the graph. This menu includes measures that have already been added to the widget. In explore or edit mode, you can click ✎ to select a different measure.

3. Under Data Type, select the specific format (values for This, values for Last, Diff, % Change, etc.) to use for determining size.

To configure color in Crosstab graphs

In Visual Options, click under the color column. Then select from the following options.
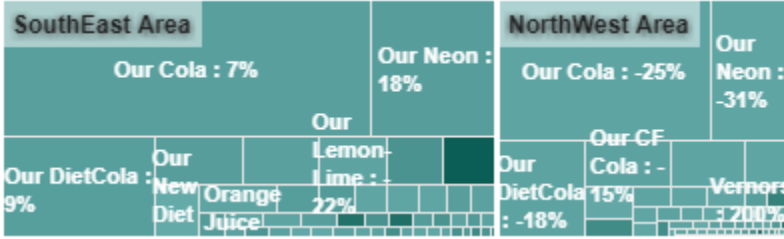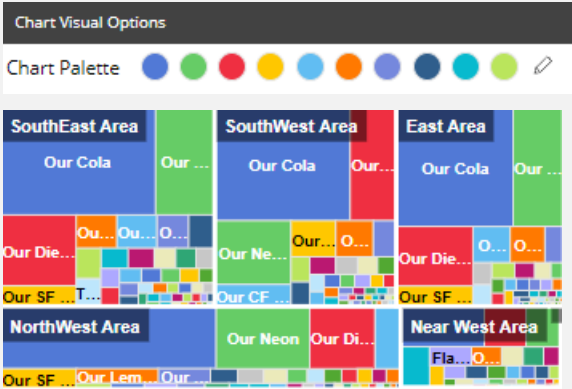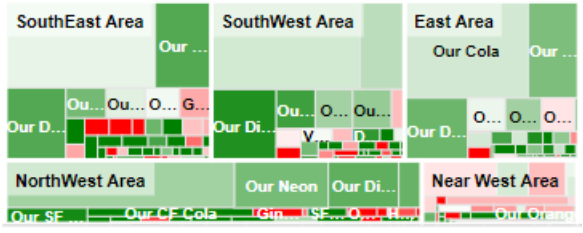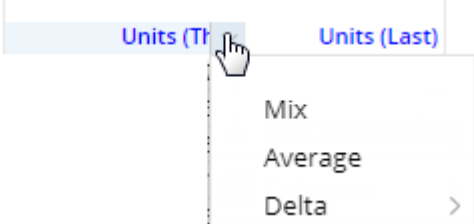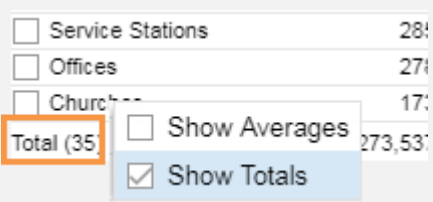
Color option	Explanation
Auto	This option shows percent change between This and Last for the currently selected measure using a teal color gradient. The darkest blocks have the highest percent change.
Static	This option uses a color to represent each attribute (i.e. member). You can color members of the 1st By or Cross By. If you select the Cross By, it's easy to see who or what had the highest values across the 1st By (e.g., Our Cola in each region). The static option will use member colors if they have been defined in dashboard settings (see page 245); otherwise, the colors will be based on the color palette in visual options (see page 236).

Color option	Explanation
Variable	This option lets you select a measure, format (value, % change, difference, etc.), and color gradient. Measure: Data Type: Units This [color bar red to green] ☑ 3 Color Stops ☐ Align Zero Reverse ☑ Custom Range Min: Center: Max: -25 0 25 • Measure - This menu includes measures that have already been added to the widget. In explore or edit mode, you can click ✎ to select a different measure. • Data Type - Select values for This, values for Last, Diff, % Change, etc. • Colors - Click each stop in the color bar to define the color. [color bar with stops] • 3 color stops - Optionally, choose this option to use three colors in the gradient. Or, leave this cleared to use a two-color gradient. • Align zero - Optionally, use this option to force the middle color to represent zero. This is useful when graphing percent change or difference. • Custom range - Optionally, set custom minimum, center, and maximum values for the range. For example, your typical percent change might range from -25% to 25%. For example:

Crosstab grid

Tip: The selected sort method affects the order of members of the 1st By and Cross By.

Crosstab grid options	Explanation
Difference, Percent Change, and Mix columns (in comparisons of two date ranges)	You can insert these columns by placing your cursor over a heading, clicking the drop-down arrow, and selecting the column to add.
Total and average rows	To show or hide a total row and/or average row, click on the Total/Average row in the grid. These rows show totals or averages for all members in the context—not just the current page. You can also show or hide these rows in grid settings (see page 232).
Highlight data	In edit or explore mode, you can highlight data (see page 227) in the grid. To access highlight settings, place your cursor over a column heading, click the drop-down arrow, and select Highlighting from the menu.

Crosstab grid options	Explanation
In settings:	
Grid page size	In grid settings (see page 232), you can choose how many members of each dimension to show at once. For the 1st By, this setting controls the maximum number of members on each page. For expanded data (e.g., 2nd By), members over this number will be truncated. Because an expanded grid includes multiple dimensions, the total number of rows may exceed the grid page size. The Column Page Size in grid settings controls how many members of the Cross By to show on one page. You cannot see members of the Cross By beyond this number.
Lock Crossby	In general settings (see page 249), you can turn on the **Lock Crossby** setting to prevent users from changing the Cross By in view mode.

Waterfall widget

Waterfall Overview	
Description	How the components of a calculated measure affect its make-up
Examples	
Date setup	This widget shows results for one or two date ranges. Click on 📅 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options for "This" date range (see page 169). Optionally, choose an earlier date range (Last) for comparison.
Filter By	This widget aggregates data for all members unless a filter is applied. To select the specific widget filters that will be available, click on Filter By in the toolkit (located under Context). Workspace filters may also filter the data. Filter By Region > Sales Manager
Measure setup	This widget shows a calculated measure and each of its components. You can add a single calculated measure by clicking the Measures area of the toolkit (edit or explore mode). Measures Units Sold
Formats	Actual Value Waterfall graph (see page 123) Difference Waterfall graph (see page 124) Grid (see page 125)

Waterfall graph

The Waterfall graph shows a calculated measure and its components. The following formats are available:

Actual Value

The Actual Value Waterfall graph shows how a calculated measure is increased or decreased by each of its component measures for a single date range. The last bar represents the final calculated value. The preceding bars show each of the component measures in the calculation. The graph makes it easy to see how much each component impacts the calculated value.
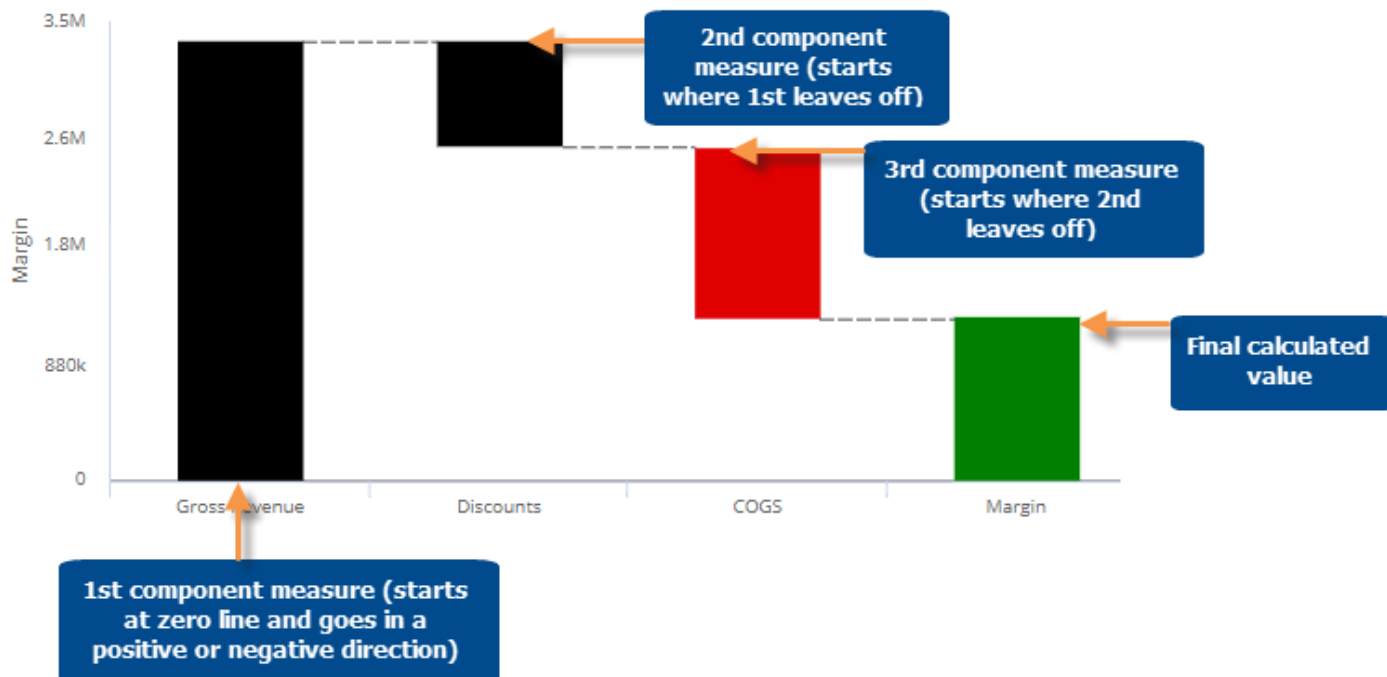
Difference

The Difference Waterfall graph shows a calculated value for two date ranges, and how much each of the component measures affected the change. This graph makes it easy to see what component values have changed the most/least and, therefore, affected the final value.
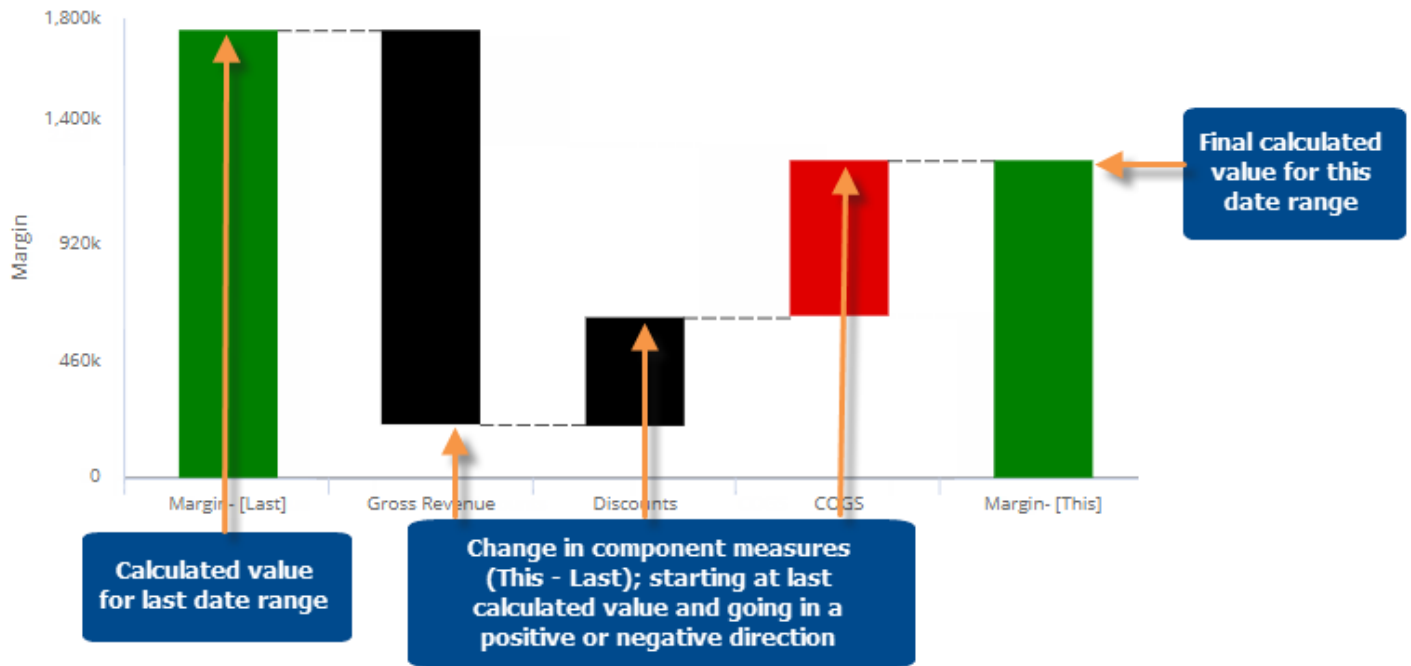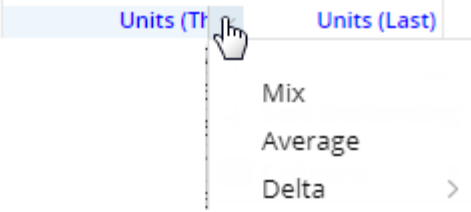
Waterfall graph options	Explanation
Actual Value or Difference	Click ⋮ in the upper-right corner to choose the format: Actual values for each component measure or the Difference between This and Last for each component measure. See the previous examples.
This only or Last only (only for actual value graphs)	Click ⋮ in the upper-right corner and choose the timeframe(s) for which you want to display data.
Normal or Reverse	Click ⋮ in the upper-right corner to choose the display order for the component measures: Normal shows the components in the same order that they are listed in the formula; Reverse shows the component measures in reverse order.

Waterfall graph options	Explanation
In graph settings: Show labels	You can turn on/off labels using the **Enable Data Labels** option under graph settings (see page 234). The labels show the values or difference for the calculated and component measures.
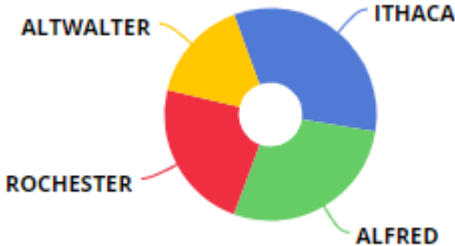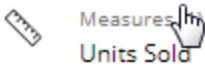
Waterfall grid

The Waterfall grid shows a calculated measure and each of its component measures. It includes columns for This date range, Last date range, difference, and percent change.
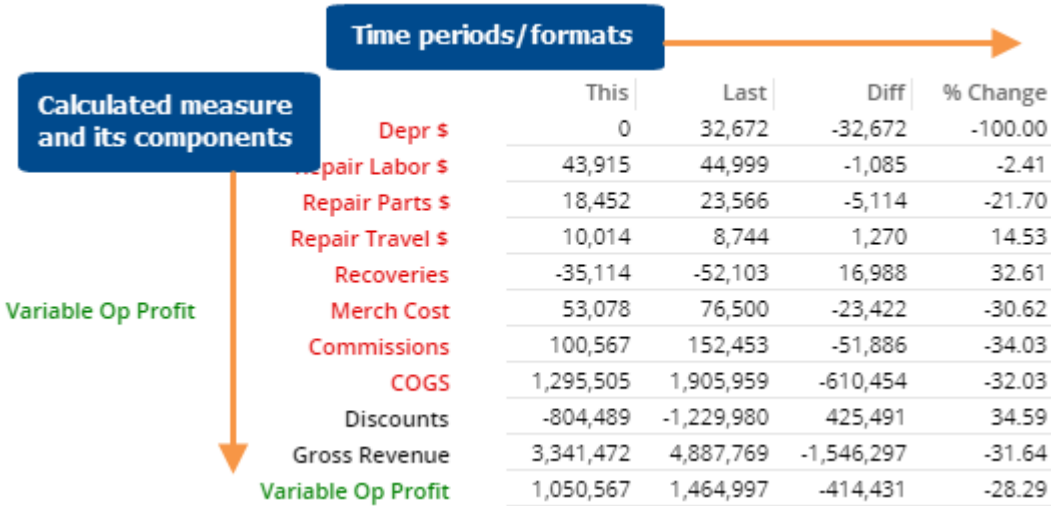
Waterfall grid options	Explanation
Difference, percent change, mix, etc.	You can insert these columns by placing your cursor over a heading, clicking the drop-down arrow, and selecting the column to add.
In settings:	
- Scorecard or scorecard swapped	The standard grid shows measures in rows. You can swap columns and rows in the grid types area (see page 233) in grid settings.
- Heading colors	By default, the heading colors represent the measure categories (e.g., blue for volume); you can turn off the colors in dashboard settings (see page 253) if you wish to simplify the grid.

Mix widget
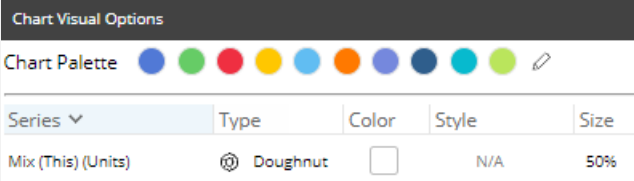
Mix Overview	
Description	Percent of the total for multiple members for one or two date ranges; any number of measures
Example	
Date setup	This widget shows results for one or two date ranges. Click on 📅 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options for "This" date range (see page 169). Optionally, choose an earlier date range (Last) for comparison.
Measure setup	The grid format can show any number of additive (see page 286) measures. The graph is limited to one measure at a time (defaults to first measure). To select the measures (see page 152)to show/hide, click ✎ in the widget toolbar (visible on mouseover). Only measures that have been added to the widget will be available for selection using this tool. To add measure(s) (see page 150), click the Measures area of the toolkit (in explore or edit mode). Measures Units Sold
Group By	This analysis compares members of the Group By (see page 183).
Formats	Graph (Doughnut, Funnel, or Pie) (see page 127) Grid (see page 128)

Mix graph

The Mix widget shows the percent of the total or "mix" for each member.

Mix graph options	Explanation
# of members shown (i.e., pie slices)	To show more or fewer members in the graph at one time, click and drag the slide control ⬤ in the bottom-left corner of the widget.
This or Last data (only in comparisons of two date ranges)	Click ⋮ in the upper-right corner and choose the timeframe(s) for which you want to display data.
Show/hide members	Click on the member in the legend to toggle it on/off in the graph.
Show/hide "Others"	The graph groups all members not shown into its own category (Others). You can show or hide the Others by clicking ⋮ in the upper-right corner (visible on mouseover) and selecting **Show Others**.
Doughnut, Funnel, or Pie	Click ⋮ in the upper-right corner of the graph (visible on mouseover) to access these graph types:
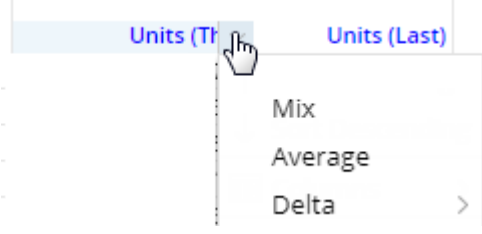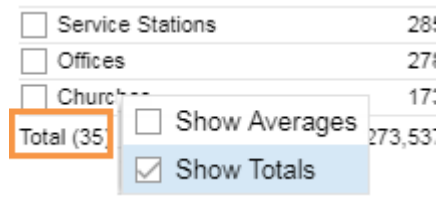
Mix graph options	Explanation
Visual options (see page 236) - colors, graph type, etc.	To access visual options in view mode, click ✎ in the graph legend (visible on mouseover). Visual options are also available under graph settings in explore or edit mode. In visual options, choose a color palette and configure the graph type. For doughnut, you can also choose the size of the hole. **Chart Visual Options** Chart Palette ● ● ● ● ● ● ● ● ● ● ✎ | Series ∨	Type	Color	Style	Size
Mix (This) (Units)	⊚ Doughnut	☐	N/A	50%	 **Tip:** To assign consistent colors to members across the dashboard, go to member coloring (see page 245) in dashboard settings.
In graph settings: Labels and/or legend	In graph settings (see page 234), you can enable data labels showing percent amounts and/or name labels showing member names. You can also show or hide the legend.

Mix grid
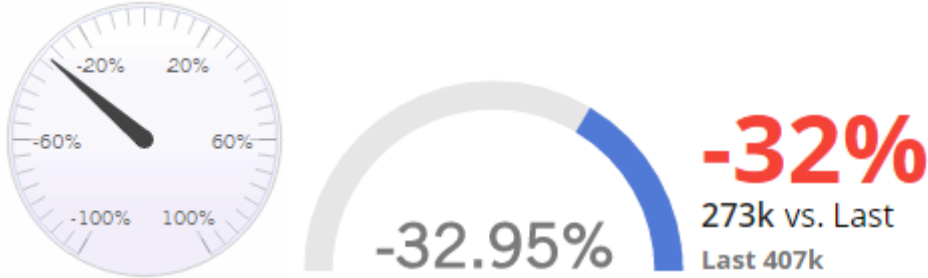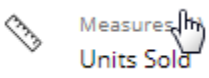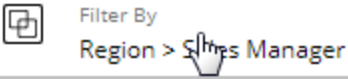
The Mix grid shows the percent of the total or "mix" and values for each member of the "Group By" attribute.

	This	Last	Mix (This)	Mix (Last)	This	Last	Mix (This)	Mix (Last)
By	**Measures (values and mix)**			→	**Margin**			
Channel	This	Last	Mix (This)	Mix (Last)	This	Last	Mix (This)	Mix (Last)
Regional Chains	39,267	67,832	23.3	27.4	197,187	363,638	18.2	23.5
Conv With Gas	23,061	27,020	13.7	10.9	186,013	209,995	17.2	13.6
Other Groceries	17,859	20,742	10.6	8.4	136,059	155,294	12.6	10.0
Mass Merchandisers	11,629	16,978	6.9	6.9	55,338	78,245	5.1	5.1
3rd Party Operators	10,394	13,914	6.2	5.6	59,943	75,432	5.5	4.9
Superettes	8,146	10,800	4.8	4.4	46,517	63,807	4.3	4.1
Industrial	7,419	8,778	4.4	3.5	47,875	64,165	4.4	4.2
Fast Food	6,580	6,736	3.9	2.7	52,834	56,894	4.9	3.7
Drug Stores	6,516	13,546	3.9	5.5	33,614	69,074	3.1	4.5
Local Chains	5,746	16,652	3.4	6.7	32,452	80,982	3.0	5.2
Beverage Centers	5,346	7,152	3.2	2.9	27,693	37,207	2.6	2.4
Restaurants	3,682	3,764	2.2	1.5	36,273	37,822	3.3	2.4
Conv. NoGas	3,625	4,758	2.1	1.9	27,116	35,792	2.5	2.3
Total (33) — **Total # of members**	247,354		100.0	100.0	1,083,643	1,545,439	100.0	100.0

Mix grid options	Explanation
Difference and percent change (only in comparisons of two date ranges)	You can insert these columns by placing your cursor over a heading, clicking the drop-down arrow, and selecting the column to add. Units (Th... Units (Last) Mix Average Delta > Mix columns are included by default.
Expand members	You can click ⊞ to expand a member into the 2nd By if one has been defined.
Total and average rows	To show or hide a total row and/or average row, click on the Total/Average row in the grid. These rows show totals or averages for all members in the context—not just the current page. ☐ Service Stations 28! ☐ Offices 27! ☐ Churc**** 17: Total (35) ☐ Show Averages 273,53: ☑ Show Totals You can also show or hide these rows in grid settings (see page 232).
Highlight data	In edit or explore mode, you can highlight data (see page 227) based on custom criteria and/or percent of the total (i.e. heatmap). To access highlight settings, place your cursor over a column heading, click the drop-down arrow, and select Highlighting from the menu.
In settings:	
- Swapped and scorecard formats	The standard grid shows measures in columns. You can switch to a different type (see page 233) (e.g., swapped columns/rows or scorecard) under grid settings.
- Grid page size	In grid settings (see page 232), you can choose how many members of each dimension to show at once. For the 1st By, this setting controls the maximum number of members on each page. For expanded data (e.g., 2nd By), members over this number will be truncated. Because an expanded grid includes multiple dimensions, the total number of rows may exceed the grid page size.
- Heading colors	By default, the heading colors represent the measure categories (e.g., blue for volume); you can turn off the colors in dashboard settings (see page 253) if you wish to simplify the grid.

Gauge widget

Gauge Overview	
Description	A simple visual tool showing performance; single measure
Examples	
Date setup	This widget shows results for one or two date ranges. Click on 📅 in the widget toolbar (visible on mouseover) and select from pre-configured or custom options for "This" date range (see page 169). Optionally, choose an earlier date range (Last) for comparison.
Measure setup	The graphical gauges (horizontal, circle, numeric, etc.) show one measure at a time. The grid format can show any number of measures. To select the measures (see page 152)to show/hide, click 📏 in the widget toolbar (visible on mouseover). Only measures that have been added to the widget will be available for selection using this tool. To add measure(s) (see page 150), click the Measures area of the toolkit (in explore or edit mode).
Filter By	This widget aggregates data for all members unless a filter is applied. To select the specific widget filters that will be available, click on Filter By in the toolkit (located under Context). Workspace filters may also filter the data.
Formats	Horizontal graph (see page 131) Vertical graph (see page 131) Circle graph (regular gauge or solid) (see page 131) Semi-Circle graph (regular gauge or solid) (see page 132) Numeric graph (see page 132) Grid (see page 73)

Gauge graph

The Gauge shows a value or percent change in a simple format for a quick glance at key performance indicators.

Formats

Horizontal
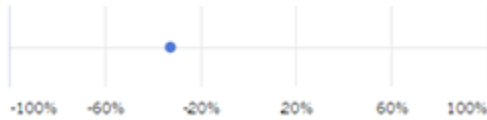
Vertical
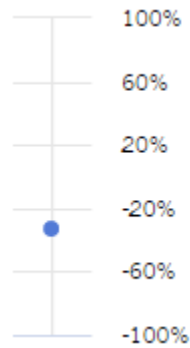
Circle (solid gauge off)

Circle (solid gauge on)

Tip: The shaded area starts at the top and goes clockwise for a positive number, or counter-clockwise for a negative number.

Formats

Semi-Circle (solid gauge off)
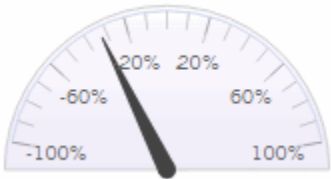
Semi-Circle (solid gauge on)
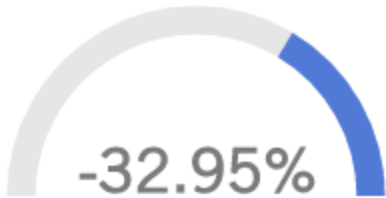
Tip: For negative numbers, the shaded area starts at the right and goes to the left; for positive numbers, the shaded area starts at the left and goes to the right.

Numeric

Gauge graph options	Explanation
Actual Value or Percent Change (only in comparisons of two date ranges)	Click ⋮ in the upper-right corner to choose what to show in the Gauge. The percent change option shows percent change between Last date range and This date range for a non-budget measure. For a budget measure (see page 157), it shows percent difference between the budget value and This date range. We recommend setting appropriate minimum and maximum values in general settings (see page 249) when graphing actual values.
Horizontal, Vertical, Circle, Semi-Circle, or Numeric	Click ⋮ in the upper-right corner to choose the format. See the previous examples.
Solid gauge	Click ⋮ in the upper-right corner and check this option if you want to use a solid shaded area in the Gauge rather than a needle to indicate the value. This option only affects the Circle or Semi-Circle gauge formats. See the previous examples.
Truncate Label	Click ⋮ in the upper-right corner and select this option if you want to shorten the numeric label. This option only affects the Gauge if data labels are enabled or you are using the numeric format. Note that this option truncates rather than rounds (i.e., values always go down).

Gauge graph options	Explanation
Highlight Settings	Click ⋮ in the upper-right corner and select Highlight Settings to open a dialog where you can highlight ranges in red, yellow, and/or green. Then select the desired ranges and highlighting style. **Highlight Settings** ☑ 🟩 **Green Highlighting** Min: 20 Max: 100 The regular gauge (i.e., not solid) highlights the specified ranges on the scale. The solid gauge highlights the entire circle or semi-circle if the value (or percent change) falls within the highlight range. The numeric gauge applies highlight settings to the primary number (i.e., percent change or actual value) if it falls within the range. **-32%** 273k vs. Last **Last 407k** **Tip:** If the widget does not show the selected highlight settings, make sure that **Use Highlight Settings** is turned on in the color area of Visual Options (see page 236).
In graph settings:	
- Show labels	You can turn on/off labels using the **Enable Data Labels** option under graph settings (see page 234).
- Scale minimum and maximum	By default, the graph goes from -100 to 100 (or zero to 100/-100 for a solid gauge). However, you can adjust the scale in graph settings (see page 234). This may be necessary when you are graphing an actual value and/or want to compare results to a specific range.
- Color and thickness (solid gauge only)	You can configure the color and thickness (i.e., size) of solid gauges under graph settings, visual options. ⚙ **Graph Settings** ✎ Visual Options Series ⌄ Type Color Size % Change (Units Sold[This vs Last]) Gauge ●●● 30%

Gauge graph options	Explanation
- Show last (numeric only)	For the numeric format only, you can check or clear this option in graph settings (see page 234) to show or hide the value for the previous (last) time period.
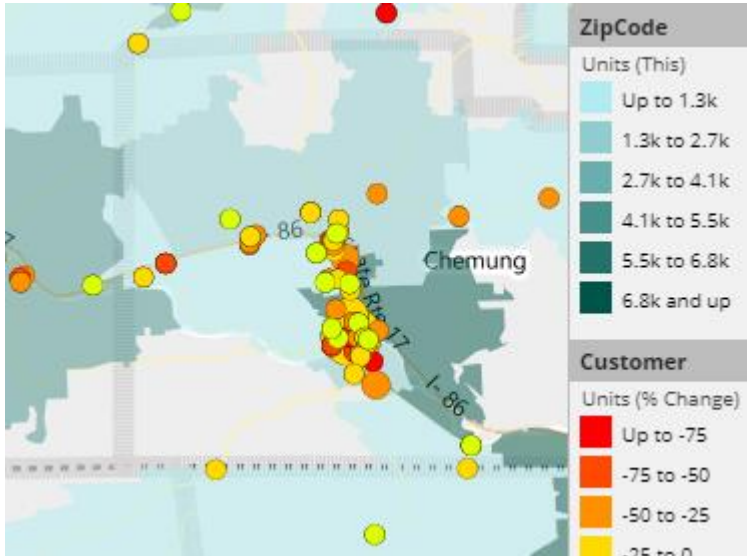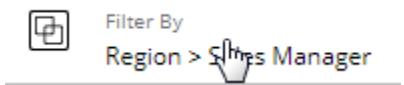
Gauge grid

The Gauge grid is a scorecard for any number of measures. A numeric graph format (see page 131) is also available, which shows numbers for a single measure.

Gauge grid options	Explanation
Delta (percent change/difference) and Average Per Period	You can insert these columns by placing your cursor over a heading, clicking the drop-down arrow, and selecting the column to add.
In settings:	
- Swapped rows and columns	You can swap columns and rows in the grid type area (see page 233) in grid settings.
- Heading colors	By default, the heading colors represent the measure categories (e.g., blue for volume); you can turn off the colors in dashboard settings (see page 253) if you wish to simplify the grid.

Geo widget

Geo Overview	
Description	Map showing data values and/or change since another date range
Example	
Date setup	This widget shows results for one or two date ranges. Click on ⬛ in the widget toolbar (visible on mouseover) and select from pre-configured or custom options for "This" date range (see page 169). Optionally, choose an earlier date range (Last) for comparison.
Measures	In marker or layer setup; you can select any of the added measures to control the size and/or color of the points and/or map areas. To access the setup areas, click the legend. To add a measure(s), click the Measures area of the toolkit (edit or explore mode)
Filter By	This widget aggregates data for all members unless a filter is applied. To select the specific widget filters that will be available, click on Filter By in the toolkit (located under Context). Workspace filters may also filter the data.
Formats	Geo-coded points, colored and sized by metric (see page 136) Geo area map colored by measure (see page 141) Map showing points and areas

Tips:

Map background layers are pre-configured by your administrator.

The toolbar (see page 146) on the left side of the map (on mouseover) allows you to zoom, select members, and more.

You can mouseover the legend to show the number of members in each range.
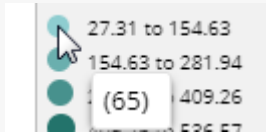
Geo point map colored and sized by measure

The Geo map typically has markers that represent member locations (e.g., customer locations). The color and/or size of markers can indicate data values, difference, or percent change (e.g., green indicates positive change; red indicates negative change).
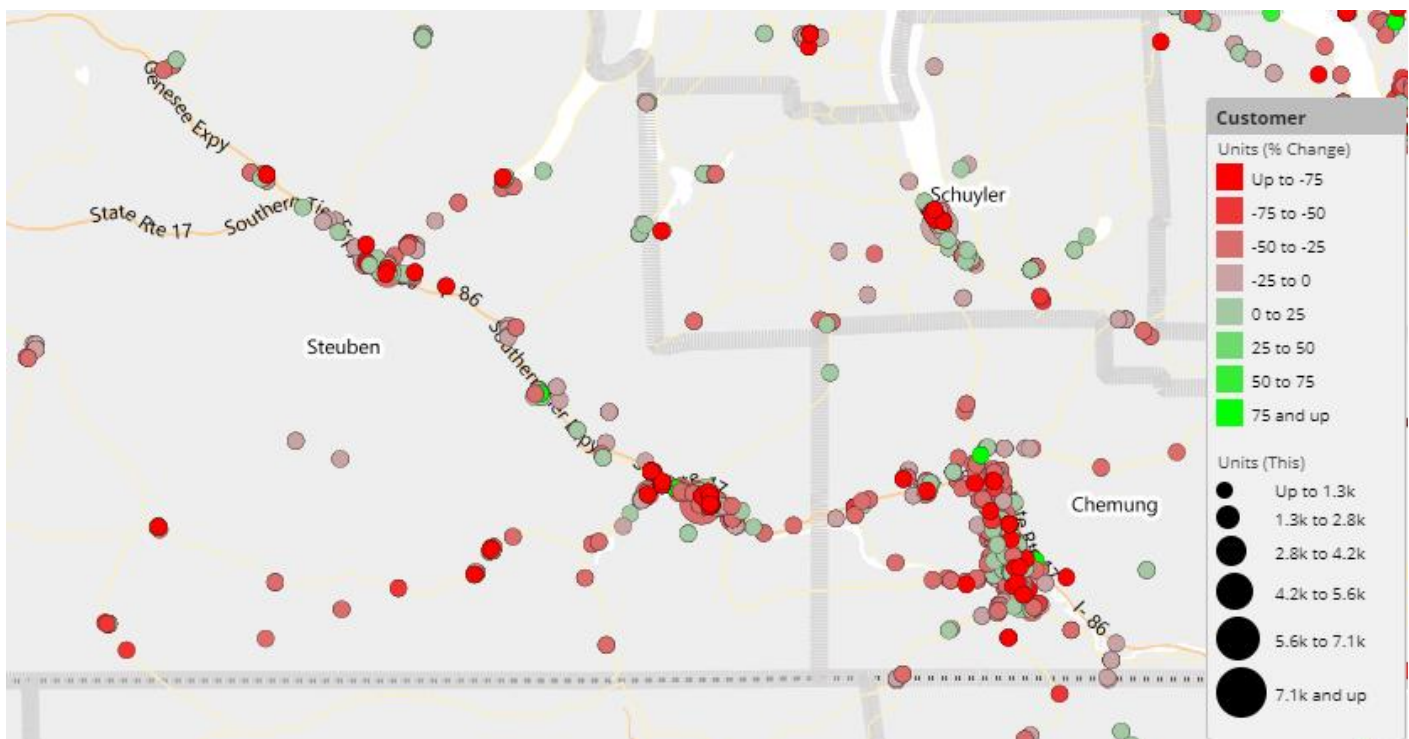
To set up a geo point map colored and sized by measure

1. After adding a Geo widget, access marker setup by clicking **Add Marker** under **Markers** in the toolkit. (If you have already added the marker, you can click on its name to edit it.)

2. In the **Marker Setup** dialog, select the following settings.

Tip: Power Viewer users will be able to change the marker setup by clicking on the map legend.

Marker Layer - Select the key or dimension to plot on the map (e.g., customer).

Measure - Click **Select a Measure** to add the measure, or select from the **Measure** drop-down menu if measures have already been added.

Data Type - Select values (This or Last), Diff, % Change, etc.

Color - Select from the following.

- Auto - Markers are colored in shades of teal based on data; uses the default number of equally-sized buckets (i.e., ranges); requires no additional setup.

- Static - uses the same color/shade for all points regardless of data. You can also select the opacity of static markers.

- Variable - (see the following instructions) Allows you to choose the bucket selection method, colors, opacity, number of buckets.

Size - Select from the following.

- Auto - Markers are sized based on data; uses the default number of equally-sized buckets; requires no additional setup.

- Static - uses the same point size for all markers regardless of data.

- Variable - (see the following instructions) allows you to choose the bucket selection method, pixel size, and number of buckets.
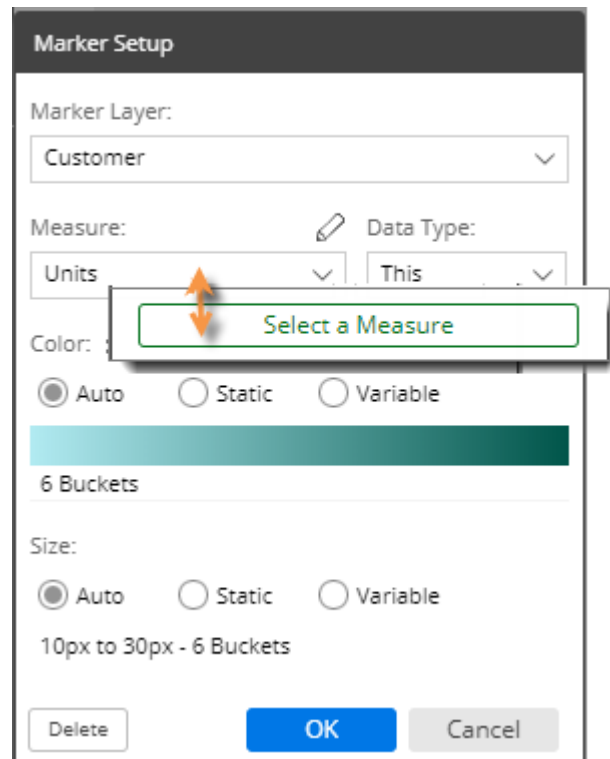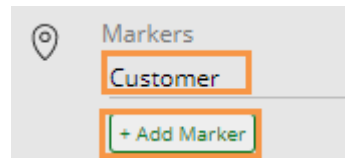
Tip: If you select variable for one option (color or size) and use Auto for the other, then the map will automatically use appropriate Auto settings that correspond to the variable settings (i.e. number and size of buckets will match).

Variable (i.e., customized) point color and size options

The variable color and size options in Geo allow you to do any of the following:

- Select the number of buckets (e.g., 8 ranges of percent change)

- Select how the buckets are determined (equal size, standard deviation, or user-defined)

- Select a color gradient (2 or 3 color stops)

- Select a level of opacity

- Select a range of point size in pixels

- Use different measures or data types for color and size (e.g., size based on values and color based on percent change)

To access these options, choose the variable option for color or size in the Marker Setup dialog.
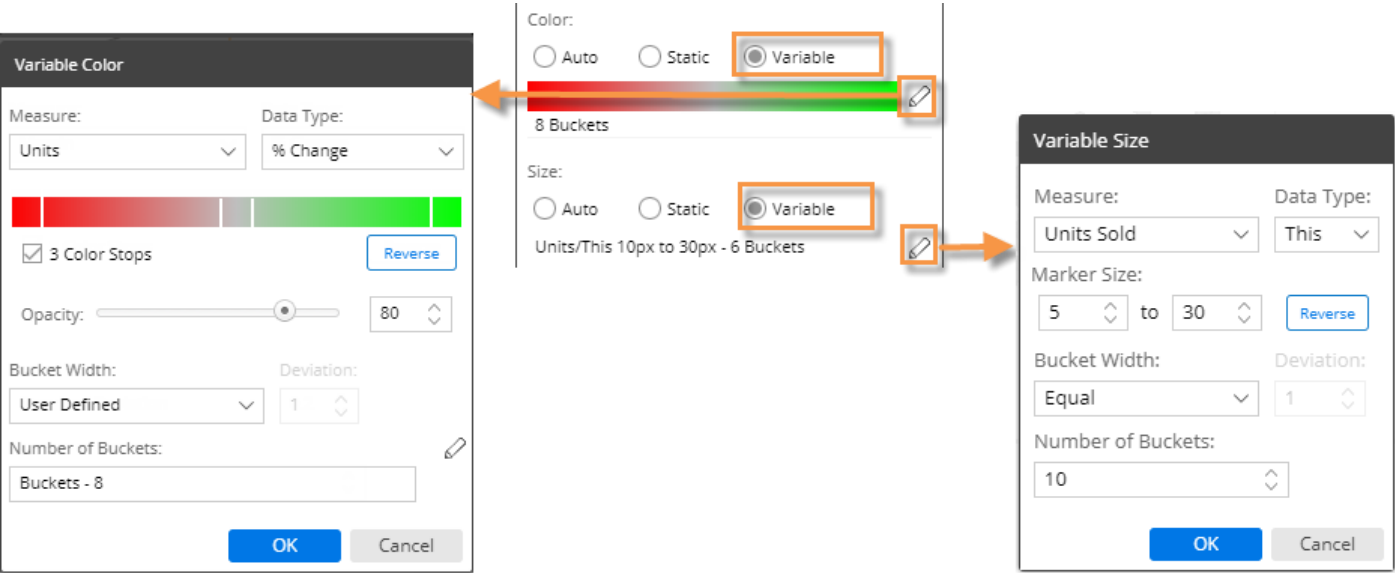
Variable color/size options	Explanation
Measure/data type	The measure selected in the Marker Setup window serves as the default measure; however, you can select different measures or data types for color and size if you wish.

Variable color/size options	Explanation
Bucket width (i.e. range selection method)	Select one of the following: • Standard deviation - centers the buckets around the mean. When choosing standard deviations, also select the number of standard deviations represented by each bucket and the number of buckets on both sides of the mean. Typically, around 68% of values are within 1 standard deviation. • Equal - creates a defined number of equally-sized buckets between the minimum and maximum values. Enter the number of buckets • User Defined - allows you to create custom buckets. After choosing this option, click ✎ and then select the number of buckets, starting value, and increment amount. Then click **Apply** to create the buckets. You can click on any individual bucket to change it. Adjacent buckets will be updated automatically.

Variable color/size options	Explanation
Colors (for variable color only)	**3 color stops** - Optionally, use three color stops to define the lowest, average, and highest data points with a gradient in-between. Or, leave this option cleared to use a two-color gradient. **Colors** - Click each stop in the color bar to define the color. You can also click **Reverse** to reverse the colors.
Opacity (for variable color only)	Select the level of opacity for the markers. A low opacity value will allow you to see other layers behind the marker layer; a high opacity value will hide other layers behind the marker layer.
Marker size (for variable size only)	Select the upper and lower limits of the marker sizes in pixels.

Geo area map colored by measure

Geo maps can shade areas based on data totals, data averages, percent change, or difference, for each area within a layer. The map can overlay points (see page 136) on the colored areas, or you can view the area map without points. For example, view zip codes by units sold (darker areas have higher values).
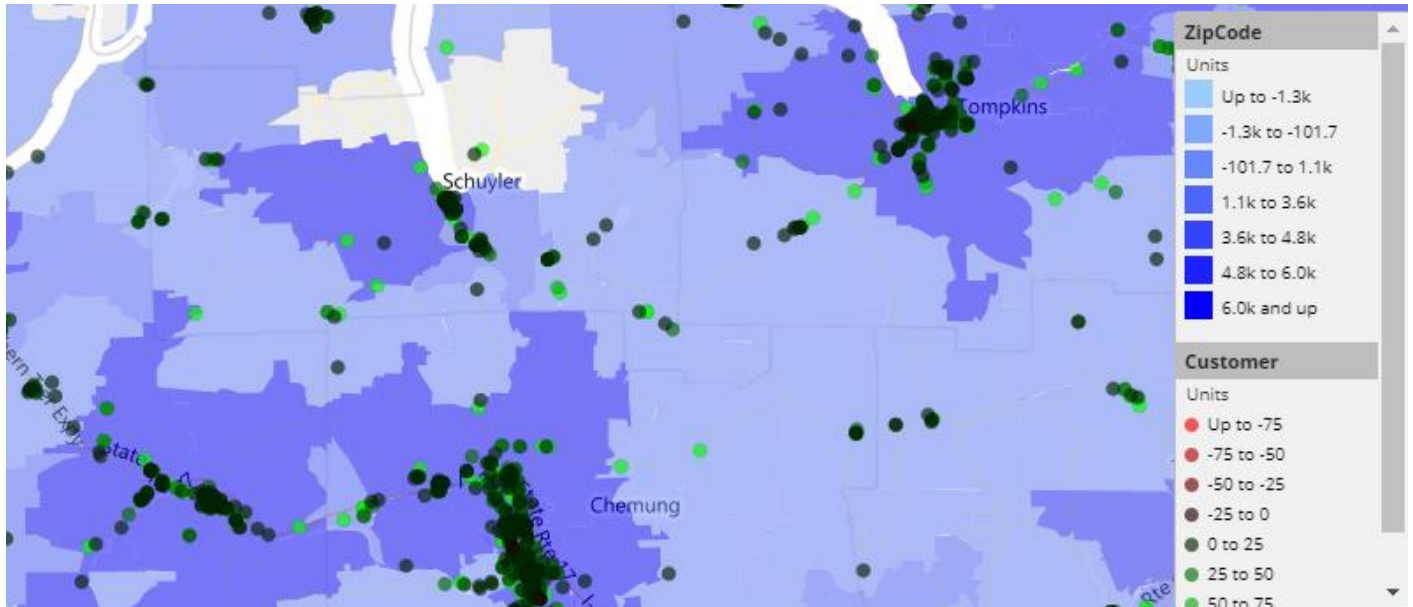
To set up a geo area map colored by measure

1. After adding a Geo widget, access layer setup by clicking **Layer By** in the toolkit.

2. In the **Layer Setup** dialog, check the box of the layer for which want to color areas. Only pre-configured spatial layers are available for selection.

3. Select from the following options.

> **Tip:** Power Viewer users will be able to change the layer setup by clicking on the map legend.
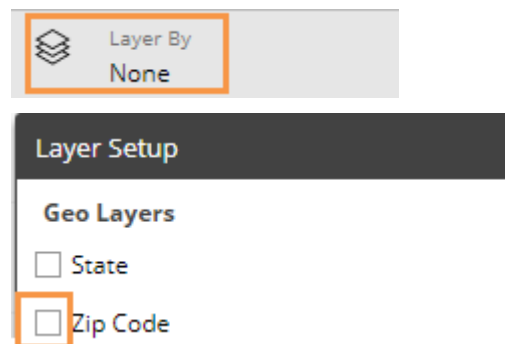
To set up a geo area map colored by measure

Measure - Click **Select a Measure** to add the measure, or select from the **Measure** drop-down menu if measures have already been added. If the measure is calculated with multiplication or division, the map will show area averages; otherwise, it will show area totals.

Data Type - Select values (This or Last), Diff, % Change, etc.

To customize the colors, select from the following options.

- **3 color stops** - Optionally, use three color stops to define the lowest, average, and highest data points with a gradient in-between. Or, leave this option cleared to use a two-color gradient.

- **Colors** - Click each stop in the color bar to define the color. You can also click **Reverse** to reverse the colors.

- **Opacity** - Select the level of opacity for the layer. A low opacity value will allow you to see background layers; a high opacity value may hide other layers behind the marker layer, depending on the zoom level.

To customize the buckets (i.e., ranges represented by various shades), select one of the following from the **Bucket Width** menu:

- Standard deviation - centers the buckets around the mean. When choosing standard deviation, also select the number of standard deviations represented by each bucket and the number of buckets to include on both sides of the mean. Typically, around 68% of values are within 1 standard deviation.

- Equal - creates a defined number of equally-sized ranges between the minimum and maximum values. Enter the number of buckets.

To set up a geo area map colored by measure

- User Defined - allows you to create custom buckets. After choosing this option, click ✎ and then select the number of buckets, starting value, and increment amount. Then click **Apply** to create the buckets. You can click on any individual bucket to change it. Adjacent buckets will be updated automatically.

Bucket Width: Deviation:

User Defined   ⌄   1   ⌄

Number of Bucket   ✎
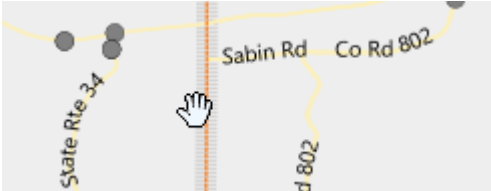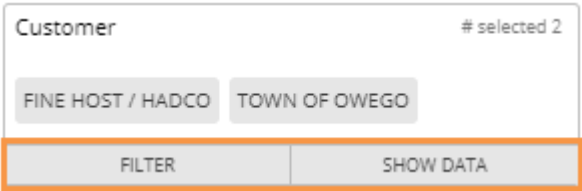
Buckets - 8

Bucket Range Setup

Buckets: Start: Increment:

8   ⌄   0   100
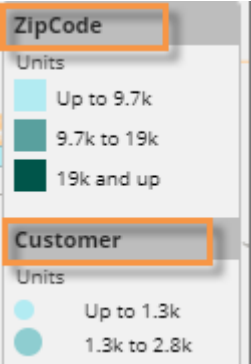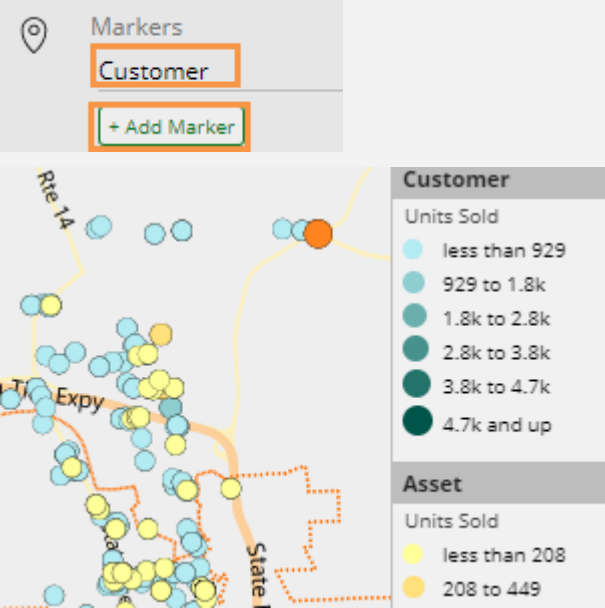
Ranges   **Apply**

Start	Stop
Less than	-75
-75	-50
-50	-25
-25	0

Geo map options

Geo map options	Explanation
Pan	Click and drag to pan in the map. Pan mode is on by default unless one of the selection tools is enabled.
Zoom	Use the toolbar buttons or mouse wheel to zoom in and out.
Selection methods	You can select points or areas in the map using the following tools: • Click and point selection - Click this button, and then click on the point or area you want to select. This may select multiple points if you click on a cluster or group. • Free draw selection - Click this button and then draw a shape around the points or areas you want to select. A pop-up window shows the selected members.
Filter or show data	After selecting points or areas, you can do the following: **Filter** - Filter out all other items in the current map. **Show Data** - Open a comparative widget for just the selected items. All others are filtered out.

Geo map options	Explanation
Hide layer or markers	Click the title in the legend to temporarily hide a layer or markers of a given type.
Multiple marker types	You can plot more than one type of marker if the dataset has coordinates for another key. In the toolkit, click on Add Marker in the Markers area.
In graph settings:	
- Autozoom on or off	In graph settings (see page 234), you can control how the map behaves when new data is selected—either keep the same map area (Auto Zoom off) or automatically zoom to the maximum extent of the data (Auto Zoom on).
- Base map layer	In graph settings (see page 234), you can select a set of spatial layers (i.e., base layer) to display in the background of the map to provide visual context for the data and additional information. These layers must be pre-configured by your administrator.

Geo map options	Explanation
- Show/hide legend	You can turn the legend on/off in <u>graph settings</u> (see page 234).

Geo toolbar

The toolbar on the left side of the Geo map (on mouseover) does the following:
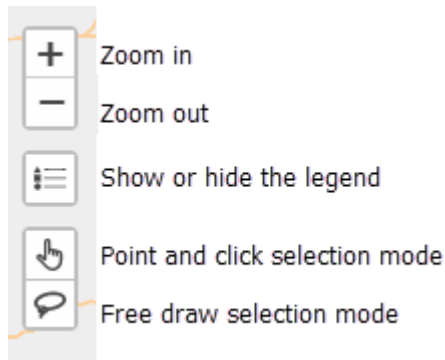
Custom views

You can build custom views based on the data in a widget. Salient Dashboards may include some custom view templates, such as an image overlay and scaling text widget, as shown in the following <u>examples</u> (see page 148). You can customize these templates and/or build your own custom views.

Once you turn on a custom view, it will stay on unless it is turned off in edit mode; users will not be able to switch between custom views and underlying grids/graphs in view mode. Custom views will update like other widgets when the user makes changes, such as adjusting the date range, changing the Group By, and filtering. You may want to lock down some functions to prevent data that does not make sense for a given custom view. For example, you may want to limit Group By selection or disable measure selection.

To build a custom view (in edit mode)

1. Add a widget and configure it to include the data for the custom view by choosing the analysis type, adding a measure(s), and selecting the Group By. Data will be limited first page of data for the 1st By dimension (i.e., cannot expand data).

2. Click ⋮ in the upper-right corner of the widget and select **Custom View** from the menu.
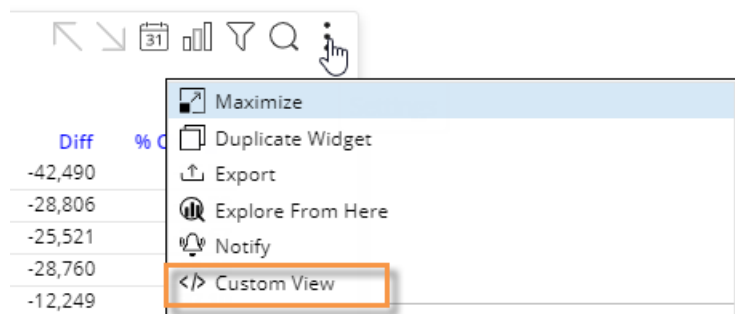
3. In the editing window, enter code to define the custom visualization. You can start with any of several predefined templates (if configured), or create a custom view from scratch.

To start with a predefined template, click ❮/❯ at the top of the window and choose the template. This will populate the editing window with the template code, which you can customize further. The comments at the top show the requirements for the template, including supported analysis types and measure(s).

Both HTML and JavaScript may be used. In addition, you can query and select data using a simple, built-in scripting language similar to C#. To display data, enclose it in the print expression |#|. To access a list of available values, open the JSON panel by clicking ⓘ at the top of the editing window. You can then click **+ add** to insert any values from the underlying grid. The following libraries are built into Salient Dashboards, so that you may use them without importing them: some Highcharts modules (bullet, exporting, funnel, heatmap, solid-gauge, treemap), Jquery, Open Sans font style.

4.   When you are finished, check the **Enable Custom View** box at the bottom of the screen, and click **OK**. If you do not check this box, the custom view will not display.
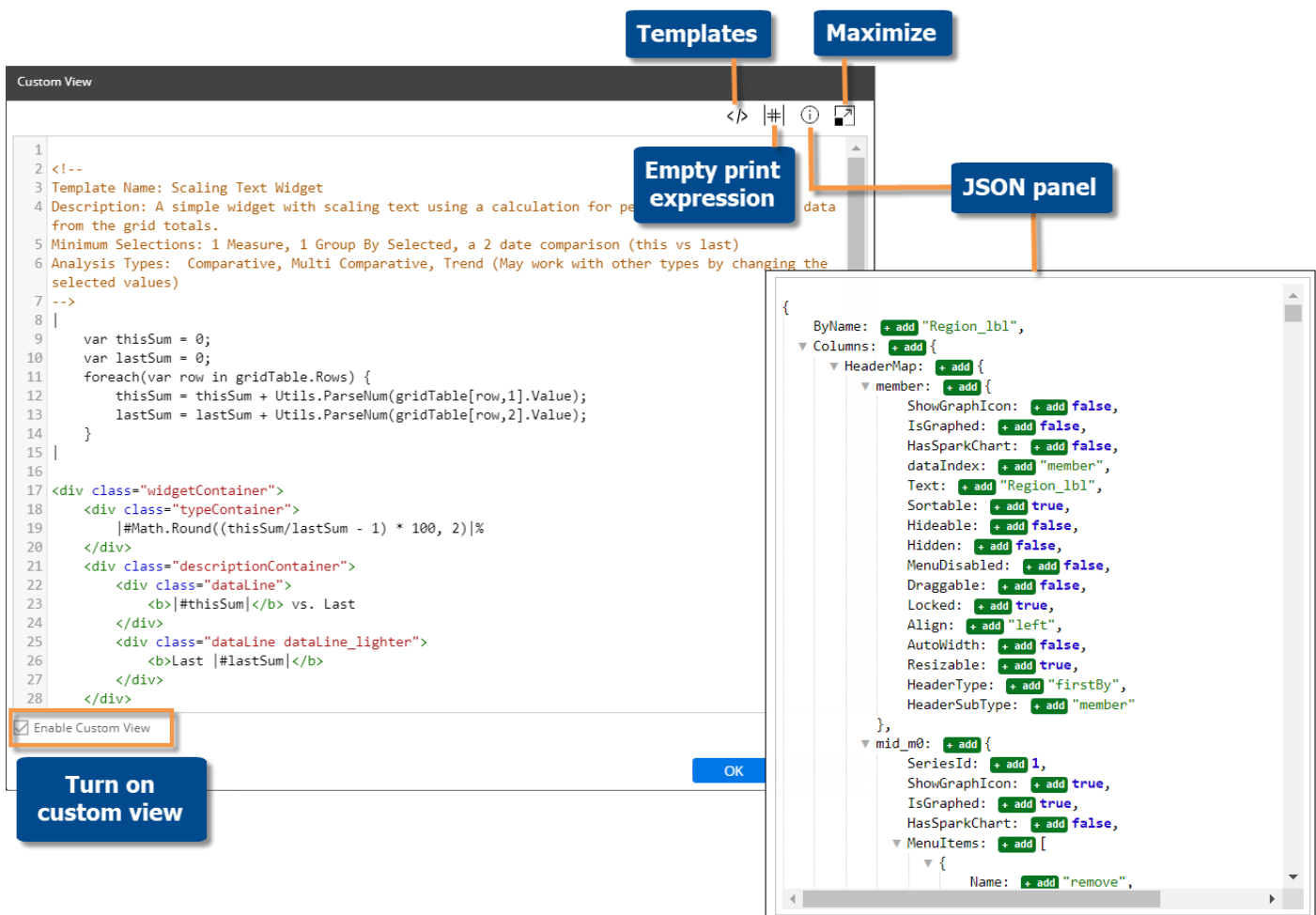
Tip: If a template does not display as expected (e.g., blank or error), make sure the widget meets the requirements in the notes at the top of the template code.

Custom view examples

The Salient Dashboards installation includes the following custom view templates. Your organization can modify these templates and/or provide additional templates. In addition, you can build your own custom view.

Scaling text widget

-32.95%

273537 vs. Last
Last 407952
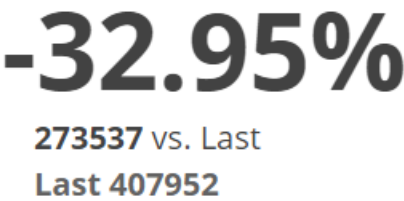
Simple sentence

SouthEast Area (73794) is less than SouthWest Area and NorthWest Area combined (118049)

Image overlay

73,794 Summer

116,284 Winter

Tile view

SouthEast Area	SouthWest Area	NorthWest Area
73,794	60,364	57,685
East Area	Near West Area	NorthEast Area
57,196	20,767	118

Volume comparative

1	2	3	4
73,794 SouthEast Area	60,364 SouthWest Area	57,685 NorthWest Area	57,196 East Area

Goal percentage

63% of goal
SouthEast Area - 73,794
Last 116,284
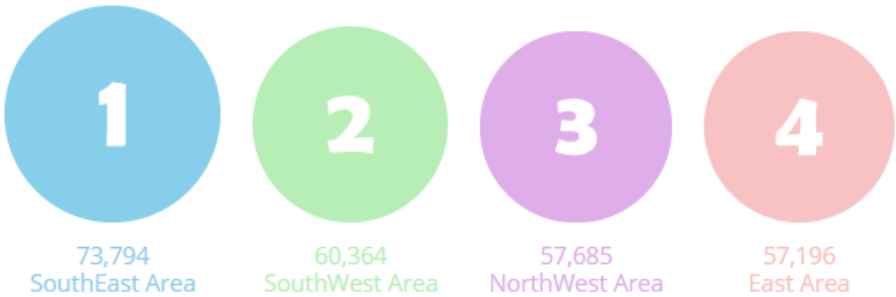
Gauge bullet

Multi Trend

SouthEast Area	SouthWest Area	NorthWest Area
867,852	733,276	677,838

Calendar trend tiles

FEBRUARY	MARCH	APRIL	MAY
213,236	242,335 ↗	242,363 ↗	293,391 ↗

JUNE	JULY	AUGUST	SEPTEMBER
370,041 ↗	292,389 ↘	284,191 ↘	255,112 ↘

OCTOBER	NOVEMBER	DECEMBER	JANUARY
232,637 ↘	262,412 ↗	270,905 ↗	273,537 ↗
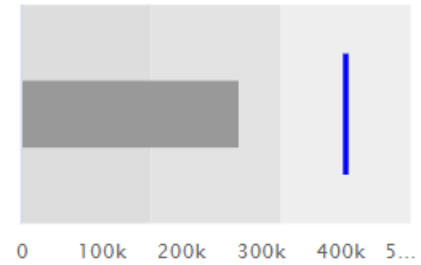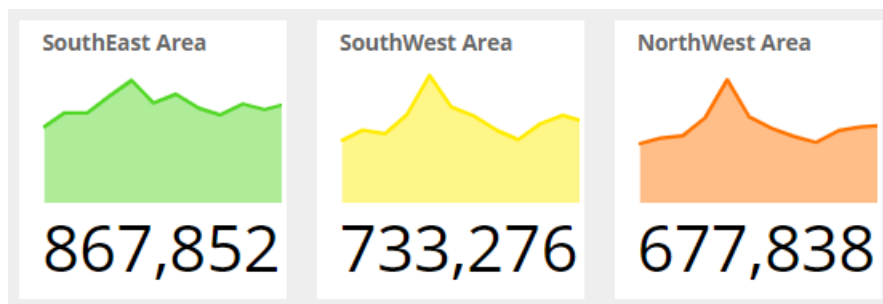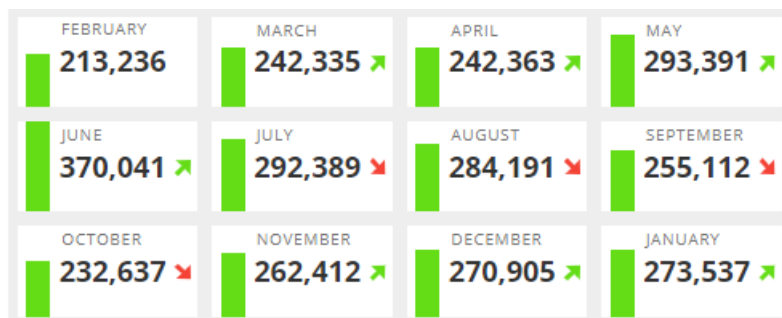
Add Measures

You can add measures or "data fields" to data widgets using the measures area of the toolkit (located under Context).

To add measures

1. **Select widget** - Click on the widget if it's not already selected.

2. **Open measures** - In the Toolkit panel, expand the **Context** area and click on **Measures**.

3. **Select measures** - Under **Available**, click the row(s) or box(es) of the measure(s) to show. The selected measures appear in the right pane. When building a dashboard, you may want to add all possible measures that should be available for selection (see page 152) in view mode. (Only Power Viewer users will be able to select from these measures.) The number of allowed measures depends on the widget type.

4. Optionally, hide ⊗ all measures except those that you want to show when the dashboard initially loads.

5. Click **OK**.

> **Tips:**
>
> By default, the available measures depend on the context (data cube, By, etc.). You can check the **Show All** link at the bottom of the dialog to see all measures regardless of the context. Measures may also be limited by the analysis type (see page 167).

Tips:

The tools in the right pane of the dialog allow you to search for a measure, remove a measure, rearrange measures, rename a measure (display name only), and show/hide measures. In addition, you can create measure groups (see page 156) to help organize measures if you wish.
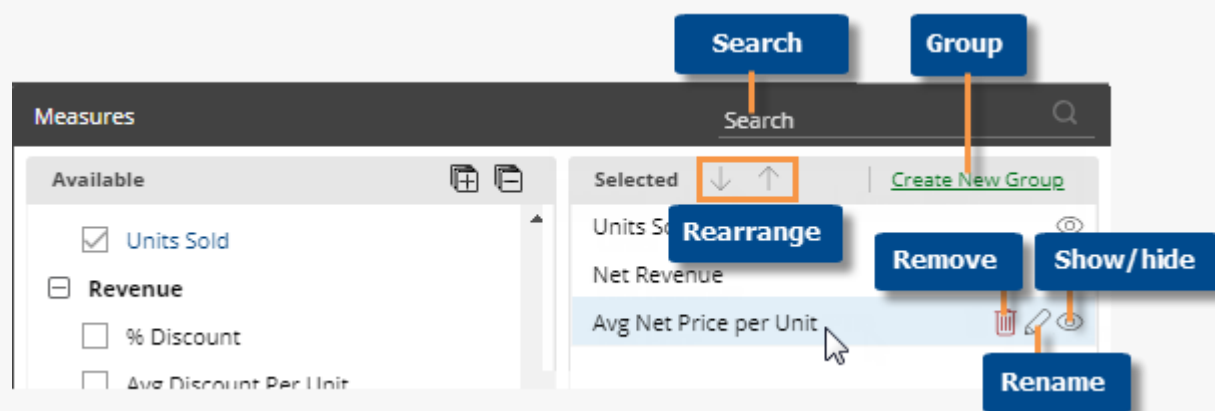
In a key list (e.g., customer list), you can add descriptions (e.g.,name, address, channel, etc.) and dimensions (e.g., region, sales rep, etc.) in addition to measures.
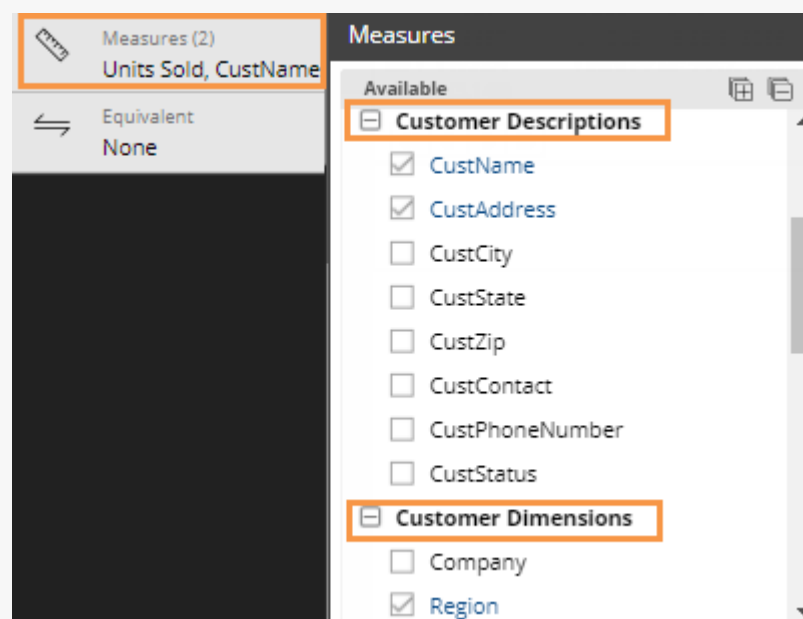
For Share Trend widgets, you cannot add multiple measures unless you check the **Enable Multiple Measures** box at the bottom of the dialog. In this case, you will be able to add multiple measures to allow selection in view mode; however, the widget will still only display one measure at a time.

Measures that are associated with dimensions, such as budgets, are only available if the "Group By" matches that dimension.

If the dataset has currency tables, you can change the currency in user preferences (see page 255).

Tips:

If a grid already has the measure, but is missing a This or Last subcolumn, you can click on the measure column heading and select from a menu to add the subcolumn.
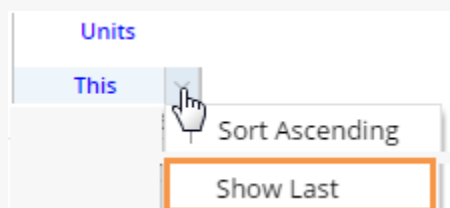
Move measures

To move measures

1. In a grid, click the heading of the measure you want to move.

2. Press the left mouse button, drag the cursor to the new location, and release the mouse button.

Measure selection tool

Select measures

If a widget includes multiple measures, users may be able to select which measures to show or hide at any given time using the measure selection 📏 tool. (This tool may be disabled (see page 153) by the Dashboard Designer.)

To select measures (Power Viewers and Dashboard Designers only)

1. On the widget title bar, click the 📏 button.

2. In the pop-up window, check the boxes of the measures to show and clear the boxes of the measures to hide. Only measures that have been added (see page 150) to the widget in during dashboard creation are available.

3. Click OK.
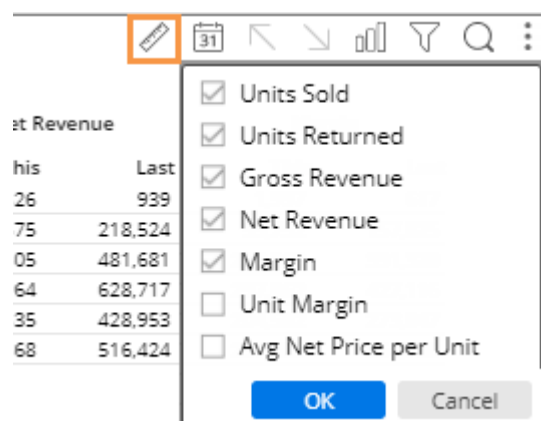
Criteria for selecting measures using the ✎ tool

- You must have Power Viewer licensing or higher to select measures.

- The widget must include multiple measures.

- The widget type must support measure selection.

- Measure selection must be enabled (see page 153) for the widget (on by default).

> **Tip:** As a Dashboard Designer, you can show a few start-up measures (i.e., hide all others) and then save the dashboard to set the default measures for the widget.

Enable measure selection for Power Viewers

The following is a typical process for allowing measure selection for Power Viewers and configuring a few start-up measures.

1. In edit mode, add several measures to a widget (see page 150). Only measures that have been added to the widget will be available for selection.

2. If desired, add columns for difference & percent change (Delta), mix, etc., so that those columns are pre-configured for the user. These columns can also be added in view mode.

3. Using the measure selection tool ✎ (visible in the upper-right corner of the widget on mouseover), show your preferred "start-up" measure(s) for the widget; hide all other measures.

4. Make sure that measure selection is enabled for the widget. Measure selection is enabled by default.

   i. Click on the widget for which to allow measure selection.

   ii. In the toolkit, expand **General Settings**.

   iii. Make sure the **Disable Viewer Measure Changing** box is cleared to enable measure selection.

5. Save your changes.
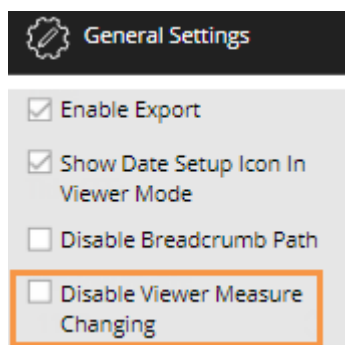
> **Tips:**
>
> - Users can add mix and percent change/difference regardless of whether measure selection is enabled.
>
> - Viewer measure selection is not available in Exception and some other widget types.
>
> - Only Power Viewers and Dashboard Designers can select measures.

Insert difference and percent change

In grids that compare two date ranges, you can insert the difference and percent change.

To insert difference and percent change

1. Switch to the grid (see page 69) if you haven't already.

2. To add the difference/change percent (This-Last), place your cursor over the measure's This column, and click the drop-down arrow. From the pop-up menu, select Delta, vs. Last.

Tip: To add the difference/percent change between any other values (e.g. values vs. budget), place your cursor over the first subheading in the formula, click the drop-down arrow, and then make your selection.

Insert mix

In grids that compare members, you can insert the percent of the total (mix) contributed by each member. In a Trend or Comparative Time Series widget, this adds the percent of the total for each unit of time. You cannot add mix for fields calculated with multiplication or division (such as per unit fields) or fields that use the SUM function (see page 291).

To insert mix

1. Switch to the grid (see page 69) if you haven't already.

2. Place your cursor on the column for which you want to add mix values. A drop-down arrow appears.

3. Click the drop-down arrow.

4. On the pop-up menu, select Mix.

Insert average

In comparative grids, you can insert a column that shows the average per day, week, month, or period in the date range. For example, if the view totals data for past 12 months, the average column would show the average value per month.

To insert average

1. Switch to the grid (see page 69) if you haven't already. For the average column to be meaningful, the widget should show at least two units of time (days, weeks, months, etc.)

2. To add the average for This date range, place your cursor over This column; to add the average for Last date range, place your cursor over Last column.

3. Click the arrow that appears and then, from the pop-up menu, select **Average**.

Expand a calculated measure

Many data values are calculated within the UXT system using other measures. To see the formula for a measure, place your cursor over its heading. If you have the necessary rights, you can expand a measure to see all measures used in its formula.

To expand a calculated measure

1. In a grid, place your cursor over the heading of the measure you want to expand and then click the drop-down arrow.

2. On the pop-up menu, select **Expand**.

Tip: To remove the measures, access the pop-up menu and select the collapse option.

Create groups of measures

You can create groups of measures to help organize them in grids. For example, you might place all measures related to sales or trade spending together under a group. Measure groups are not available in all widget types and cannot be saved or shared between widgets.

		This	Last	Diff
	Units Sold	168,646	247,354	-78,708
Sales	Net Revenue	1,596,873	2,275,237	-678,364
	Margin	1,083,643	1,545,439	-461,796
	Cooler Payment	79.00	6,787.57	-6,708.57
Trade Spend	Customer Support	0	51,752	-51,752
	Fixed Ad Payment	0.00	1,520.58	-1,520.58

To create groups of measures

1. Select a grid that can show multiple measures, such as a Comparative.
2. In the Toolkit panel, expand the **Context** area and click on **Measures**.
3. Add the measures you want to show in the widget if you haven't already. Only these measures will be available for placement into the groups.
4. Click the **Create New Group** link above the **Selected Measures** window.
5. In the pop-up window, check the measures to include in the group.
6. Type a group name.
7. Click **Save**.
8. Repeat to add more groups.

Display budget data

You can display budget data in most types of analyses. In general, grids and graphs treat budget data just like other measures. For example, you can add it to a grid to compare it with actual values.

To insert budgets

1. Make sure the analysis meets the criteria for showing budgets explained below.
2. Insert the budget measure using the Measures area of the toolkit.

The insert menu shows the name of the budget cube (e.g., Budget) in brackets.
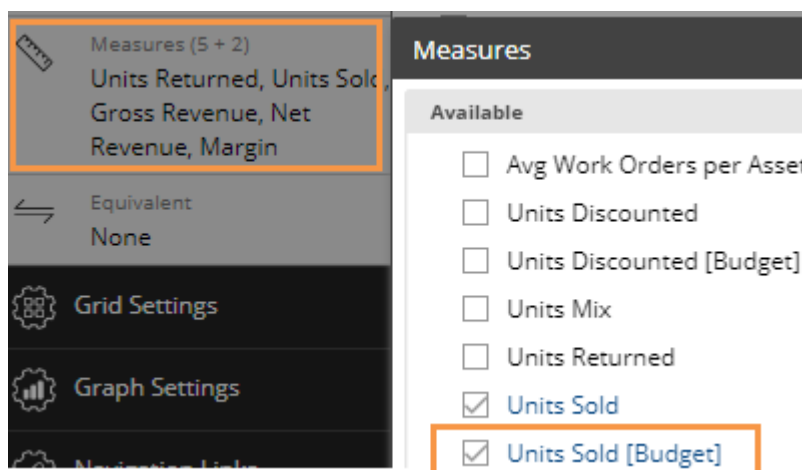
Criteria for showing budgets

- The units of time (resolution) must be the same as those for which budgets are available.
- The selected date range must have budget data.
- The dataset must have budgeted goals for the dimension used to group the data. For example, when you look at data grouped by city, you can only insert budgeted goals if they have been defined for the City dimension.
- The widget type must allow the insertion of budgeted goals. For example, you cannot insert budgets into an Exception analysis. You typically cannot insert budgets into a key list unless budgets are specified for each individual key member.

Tips:

Comparative and Trend grids	You can display budget values side-by-side with actual values. In Comparative grids you can also display the difference and percent change (see page 154) between actual values and budget values (if the measure and the budgets are joined in the dataset configuration).

This	Last	Budget	Diff (This vs. Budget)	% Change (This vs. Budget)
39,267	67,832	42,167	-2,900	-6.88
23,061	27,020	17,143	5,918	34.52
17,859	20,742	11,520	6,339	55.03

Tips:

Comparative graphs

If the setup includes actual values and budgeted goals that are joined, then the graph shows percent change for This versus Last <u>and</u> versus budgets, or actual values for This, Last, <u>and</u> budgets, depending on the graph format.
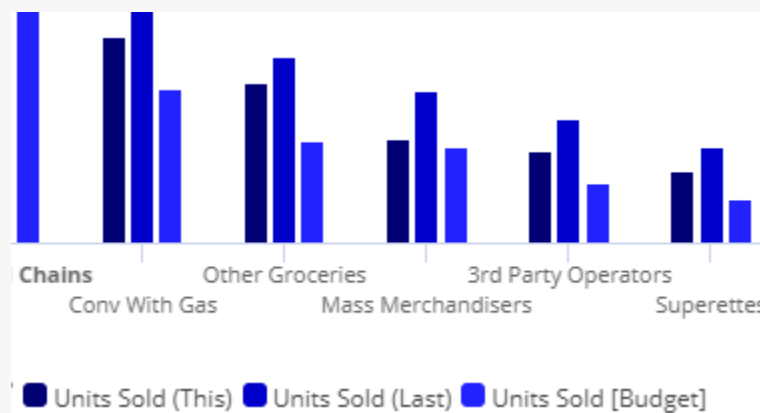
Select the measures in graphs

In general, you select the measures in graphs the same way you select the measures in tables. In addition, you can selectively remove measures from graphs but keep them in the corresponding grid.

To show or hide measures in graphs (without affecting grid format)

1. Click ⊞ at the top of the widget to switch to the grid format.
2. Place your cursor over the measure's column heading and click the drop-down arrow.
3. Check or clear the **Show On Graph** option.
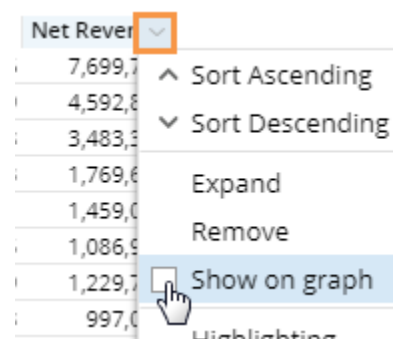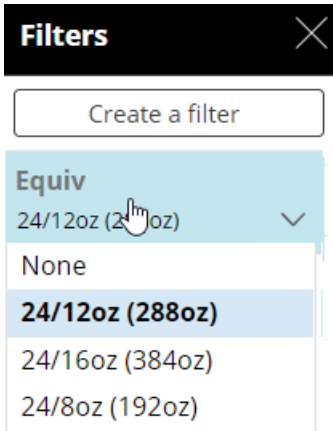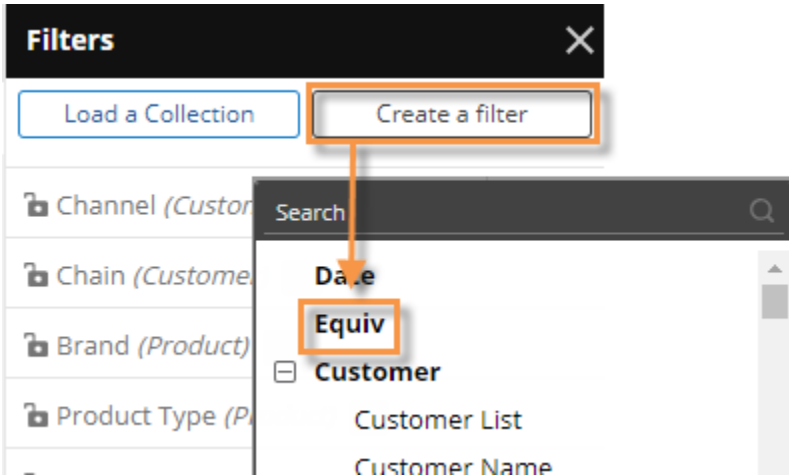
Tip: This option is not available in some types of widgets.
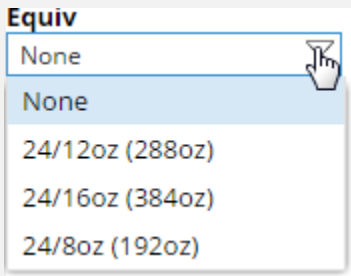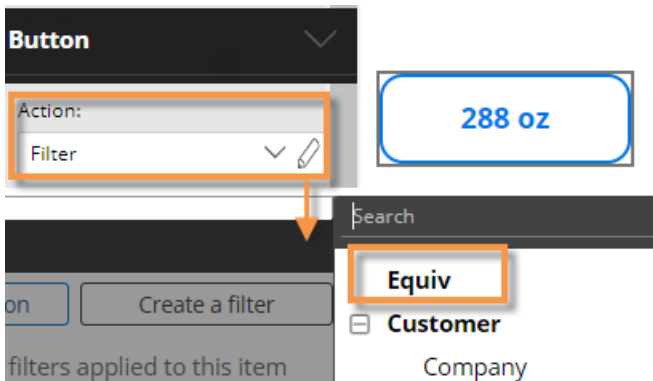
Display data in equivalents

Equivalents are a way to standardize data based on attribute so that all units are worth the same amount. For example, if a case of one product contains a different amount than a case of another, equivalents would allow you to express quantities in ounces or some other measurement rather than cases. Each product would have its own equivalent factor based on its case size.

Each equivalent table contains a set of equivalent factors used for a specific conversion. When an equivalent table is on, the data for each member is multiplied by its associated equivalent factor. In addition, an equivalent table has assigned measures that are affected by the equivalent table. As a result, calculated fields may also be affected. If licensed and configured, you can turn on and view equivalent tables.

The following options let you turn on equivalents in dashboards. When equivalent tables are on, the display precision of any affected measure is the precision of the equivalent table plus the precision of the measure itself.

Option	Explanation
Equivalent selector in filters panel only 	An equivalent selector affects widgets across the dashboard and enables equivalent selection in the mobile app. Users can add (or remove) this type of equivalent selector in the filters panel, but you may want to pre-configure one into the dashboard to make it readily available to users. 1. Open the filters panel. 2. Click **Create a filter**. 3. Click on **Equiv**. 4. For any widget that should be affected by the equivalent selector, make sure the **Use Equiv Selector** setting is on in general settings. This setting is on by default. 5. Optionally, pick from the equivalent selector prior to saving to set the default equivalents.

Option	Explanation
Equivalent selector widget within dashboard **Equiv** None None 24/12oz (288oz) 24/16oz (384oz) 24/8oz (192oz)	An equivalent selector widget affects widgets across the dashboard and enables selection in the mobile app. This type of selector (i.e. separate widget) can only be added or removed in edit mode. A corresponding equivalent selector will automatically be added in the filter panel when you add this type of widget. 1. Click the **Add Widget ∨** button at the top of the screen. 2. In the pop-up window, click the **Equiv** ⇆ button or drag it to the desired location in the workspace. 3. You can change the equivalent selector's settings, such as title, color, and width, in general settings (see page 249). 4. For any widget that should be affected by the equivalent selector, make sure the **Use Equiv Selector** setting is on in general settings. This setting is on by default. 5. Optionally, pick from the equivalent selector prior to saving to set the default equivalents.
Equivalent button **288 oz**	A dashboard may include a button(s) to toggle specific equivalents on and off for widgets across the dashboard. Equivalent buttons are a type of filter button that can be added or removed in edit mode. A corresponding equivalent selector will be automatically added in the filter panel when you add this type of button. Buttons are not available in the mobile app. 1. Add a button (see page 53). 2. Select the **Filter** action. 3. Choose **Equiv** as the filter type. 4. Choose the equivalent table. 5. For any widget that should be affected by the button, make sure the **Use Equiv Selector** setting is on in general settings. This setting is on by default. **Button** Action: Filter **288 oz** Search **Equiv** **Customer** on	Create a filter	Company filters applied to this item

Option	Explanation
Equivalent table for an individual widget	This option is applied to an individual widget and is not changeable in view mode or the mobile app. 1. Select the widget to which you want to apply an equivalent table. 2. In the toolkit, expand ⓘ Context and click on Equivalent. 3. Select the equivalent table to apply to the widget and click **OK**. **Tip:** If the workspace has an equivalent selector and you want to override it for the selected widget, make sure the widget's **Use Equiv Selector** setting is cleared.

Types of data

Data in UXT is organized into various categories (see page 13). You see these categories (volume, revenue, cost, margin, frequency, duration, and causal) when you add measures. In addition, some graphs use the color scheme to represent the different categories of data. Most data categories represent facts about transactions, such as the number of units sold. If your dataset includes causal data about conditions over time or unique counts of members, you should review the following topics.

About causal data

Causal data represents constraints, limits, and environmental conditions that can change over time. The condition might be the placement of an asset at a certain location, the price-to-consumer, shelf-space, or one of several other factors that affect your overall performance.

Unlike transactional data, causal data doesn't add up meaningfully over time; instead, UXT calculates causal data one of the following ways, depending on what it represents. Typically, you should not have to worry about how causal data is calculated. Your management defines the method of calculation when it defines the data model, and should communicate the meaning of each causal field to you. In addition, you can place your cursor over the causal data heading to learn more about it.

- Causal data from a non-transactional (see page 290) data cube – For this type of data, a starting date and ending date define the time that the condition, or data value, remains unchanged. The data doesn't add up meaningfully over time (for example, you wouldn't add up shelf space over each day in the month), so UXT weights the data based on the portion of the date range that a condition spans. As an example, consider a customer who allotted 5 feet of shelf space to our brand for the first half of the month, and increased it to 10 feet for the second half of the month. When looking at the entire month, UXT would weight the data to show 7.5 feet of shelf space for the month.

- A count of records from a non-transactional data cube – This is like the previous example, but provides a weighted count of non-transactional records for a given date range. For example, suppose that a customer location has two asset placement records for an entire month. The first indicates that an asset was present for the first third of the month and was then removed. The second record indicates that another asset was placed at the location for the last third of the month. UXT would weight the count by time to show that on average two-thirds, or 0.66667, assets were placed at that location.

- Counts of unique members (customers, products, channels, etc.) that occur in at least one record during a given date range or pass test conditions are referred to as unique counts (see page 162). The counts are "unique" because each member is only counted once.

Causal data has its own data category, which is represented by pink. In general, you display causal data the same way you display transactional data.

About unique counts

A unique count field (also known as count once) counts unique key members (customers, products, etc.) that occur in a set of records or meet test criteria. For a dimension member count (channels, brands, etc.), the field counts unique dimension members associated with key members in the records. Examples include number of customers who bought or brands that were sold. Unique counts belong to the causal (see page 286) data category.

Types of counts

Depending on how your organization sets this data up, it might use one or more of the following to calculate the counts. Your management should teach you the meaning of your counts and how they were determined. You can also place your cursor over the measure heading to see which of the following functions the field uses.

- Netted unique counts (KeyCntNet or DimCntNet) – report the number of unique members that pass test conditions such as a value greater than zero for the specified measure. This is like the results obtained through an Exception analysis except that you can insert the data in more types of analyses. In addition, netted-unique-count measures can be incorporated into calculated fields.

- Unique counts based on any record (KeyCntAnyRecord or DimCntAnyRecord) – report the number of members with at least one data record for the selected date range. This function only considers the currently selected data cube. If your organization uses more than one data cube, you should make sure the data cube you're concerned about is selected in the upper-left portion of the Context bar.

  In a view focused on the Sales cube, a customer count of this type would show the number of customers with any sales record during the date range. The number would be the same regardless of which measures are in the view.

  In a view focused on the Work Order cube, the same count field would show the number of customers with at least one work order record.

- Unique counts based on a specific field (KeyCntByFld or DimCntByFld) – report the number of members with data for a specific measure determined by your management. The results will be the same regardless of which measures are in the view, and which data cube is selected.

  If a customer count of this type is based on a Discounts field, then the count would show the number of customers with at least one record in which discounts are not zero. It would only look at Discounts, not sales units or any other measure, and would count a customer if it had a negative or positive Discount value.

- Unique counts based on any non-zero field (KeyCntAnyNonZeroFld or DimCntAnyNonZeroFld) – report the number of members with non-zero (positive or negative) data for any of the measures in the current view, including the fields you can see, the sort order fields, and any hidden fields. This function only considers fields in the currently-selected data cube. This type of field can be beneficial because it lets you as a user determine exactly how UXT counts the members. However, you should have a good understanding of the current view in order to use this type of count. The following example helps show how the count results can change based on your view.

  In a view focused on the Sales cube, a customer count of this type would show a different number depending on which fields are in the view.

  1) If the view included Promoted Units only (and was sorted by Promoted Units), then the count would reflect the number of customers with values for promoted units. The count would not include all customers who bought, just those who received promoted merchandise.

  2) If you inserted Sales Units, then the counts would change to reflect all customers with Promoted Units or Sales Units. In other words, the counts would go up.

  3) If you inserted a measure from another cube (for example, work orders), then the counts would not change because the function ignores data from other cubes.

  4) If you inserted a calculated measure (for example, Net Revenue), the counts would also include the customers who had data for the atomic components of the field (Gross Revenue or Discounts). In this situation, the count values may or may not change.

  If the view only included data from the Sales cube (and was sorted by a field from this cube), but the Work Order cube was selected, then the view does not have a field to use for defining the counts. In this case, the count calculation will look at the entire Work Order cube and report all customers with any record.

Rules and considerations for unique counts

Calculated fields that include unique counts - As previously discussed, unique count fields that are defined by the KeyCntAnyRecord, DimCntAnyRecord, KeyCntAnyNonZeroFld, or DimCntAnyNonZeroFld function use the currently selected data cube to determine the count values. However, calculated fields that include these counts along with measures from a single data cube do not change based on the currently selected data cube. Instead, these types of calculated fields count members based on the data cube of other fields in the formula. Therefore, the results do not change when you switch the data cube although the results for the count field itself may change. The KeyCntByFld and DimCntByFld functions always use the specified measure and do not depend on the selected cube or cube of other fields in the formula. Calculated fields that include a count field and fields from multiple cubes are cross-calculated fields. These fields use the currently selected data cube to count key members. To see which data cube a calculated field uses to count key members, see the Cube Affinity section of the configuration report. This section lists the associated data cube. If no data cube is associated, then the calculated field uses the currently selected cube.

Totals and averages of key counts in comparative views - When the dimension used to group the data is for a different key than the count's key (for example, a customer count grouped by a product dimension such as brand), then the total for all members is not a simple addition calculation. This is because some of the counts might overlap each other. For example, a customer might have purchased two different brands and, therefore, be included in the customer count for both brands. To accommodate the overlap between dimension members, the total row looks at all key members to see how many have data for any of the dimension members in the view, and counts each key member only once. It would not be a total for all dimension members summed together. For this same reason, when you expand a dimension member (i.e. click the plus sign beside a dimension member to drill into its data), the counts won't necessarily add up to the expanded member's total. This doesn't mean the numbers are incorrect, just that they are calculated differently than additive data.

Totals and averages of dimension counts in comparative views - When the dimension used to group the data is different than the count's dimension (for example, a brand count grouped by the package dimension), then the total is not a simple addition calculation because counts can overlap each other. For example, a brand might occur in multiple packages.

Averages in time-series views (see page 165) - The totals cannot be arrived at by simply summing all of the days, weeks, months, or periods in the date range. Instead, the view shows a cumulative value for the whole date range.

Mix values - The percent of the total (i.e. mix) is only available when the view is grouped by a dimension of the same key as the count or, for dimension counts, by the same dimension as the count dimension. As discussed above, when the dimension is for a different key or dimension, the counts aren't additive. In other words, the counts might overlap each other, and therefore, don't add up meaningfully across dimension members. For this same reason, the mix values would not add up to 100%. This rule affects the following: Mix, Share Trend (Percent), and Mix columns inserted into Comparative views and key lists.

Conversion tables -

- The test for netted unique counts is run <u>after</u> data has been converted with conversion tables (equivalents, calendar, and currency).

- All other unique counts are based on measures <u>before</u> they have been converted with conversion tables. This could possibly result in the inclusion of a member in a count, even though the converted value is zero. For example, an equivalent table could convert volume to zero (e.g., in a promotion or give-away), but the count would still include the product or customer because it looks at the raw, unconverted data.

Data families in graphs

Some graphs organize measures by the type or "family" of data, so that it is easier to plot multiple measures along an axis. For example, a trend graph might scale all total currency measures to a single axis.

Data family	Explanation
Volume or quantities*	Measures in the volume (see page 292) data category.
Unit Currency	Per unit currency, for example, cost per unit.
Total Currency	Totals of currency, for example, total cost.
Percent	Percent measures, which may belong to any data category
Toggle Unit/Total Currency	Totals of currency <u>or</u> the corresponding per unit values.
Frequency*	Measures in the frequency (see page 288) data category, for example, Invoice Counts
Time or duration*	Measures in the duration (see page 288) data category, for example, Labor Minutes
Causal*	Measures in the causal (see page 286) data category, for example, Population
Other Measures	Measures in the count, time, and non-transactional data categories.

* Volume, frequency, duration, and causal are the default data category names. These names may be redefined by your System Administrator. In addition, you may be able to change the display names for these axis labels.

Averages and totals in time-series grids

Trend and Share Trend grids show data values for the individual dates in a range of days, weeks, months, or periods.

In addition, a row or column may show daily, weekly, monthly (or period) averages across the whole date range. These averages use a "simple average" calculation that divides the total for the entire date range by the number of days, weeks, months, or periods (depending on the selected resolution) in the date range (for example, total value/16 weeks).

Another row or column may show the totals, which are calculated in one of the following ways to provide the most meaningful results depending on the type of data.

- Total for entire time period (additive): This type shows the total value for the entire date range. These totals are used for data that adds up meaningfully over time, including volume, revenue, cost, margin, and frequency measures that don't use multiplication or division.

- Calculated from component total values: Many measures don't add up meaningfully over time (for example, per unit revenue or costs). Frequency, revenue, cost, and margin measures that use multiplication or division in their formulas fall into this category. For these measures, the total calculation first finds the total for each measure in the formula and then performs the calculation using the total values. For example, depending on your organization's definition, UXT might calculate the average Per Unit Cost by dividing the total cost for the whole date range by the total number of units for the whole date range. In this way, UXT weights the results by the data, so the time periods with more data have a greater effect on the end results.

- Non-transactional data (not unique counts): Non-transactional data doesn't add up meaningfully over time, because it represents a condition that spans a number of days, weeks, or months. Therefore, the values are not simply summed across the date range to reach the total. Instead, the total row or column shows the average results for the whole date range, weighting the data by the number of days a condition spans. For example, a month that has more days would have a greater effect on the end results. Non-transactional data includes data or record counts from a non-transactional data cube, which belongs to the causal data category (see page 161). However, this classification of data does not include key count measures, which are discussed below.

- Unique counts: Your organization might use a measure that counts the unique occurrences of members in transactions. For unique counts (see page 162), UXT only counts each member once, so the values don't add up meaningfully over time. Instead, the total row or column shows the cumulative results for the entire date range, counting each member only once. For example, if member ABC was in a transaction during the first and last week of a six-week date range, UXT would count ABC once. Also, this type of data will not be available in range windows that show a subset of the date range. This type of data belongs to the causal data category.

Misinformation

By default, Salient Dashboards hides measures based on applied filters to prevent information that may be potentially misleading (i.e. misinformation). In general settings, you can turn on misinformation to override measure visibility rules and show this type of data. For example, you might want to show budgets or asset counts even if an applied filter does not affect those values.

To allow misinformation

1. Go to general settings (see page 249) for the widget.

2. Check the Misinformation box. Only advanced users who fully understand the dataset schema should utilize this option. Administrators may turn this option off entirely.

In analyses that group the data by an attribute (e.g., comparative and share trend), measures should now be visible regardless of applied filters. Note that measures are still filtered based on how the data is grouped. For Crosstab analyses, the 1st By and the Cross By filter the available data regardless of the Misinformation setting.

In analyses that do not have a group by (e.g., trend), the following additional setup is required to turn on misinformation:

i. Temporarily delete all filters.

ii. As the first filter, apply an attribute that allows measure visibility. The filter can be empty (i.e. set to "All") to show all data.

iii. Re-apply your previous filters.
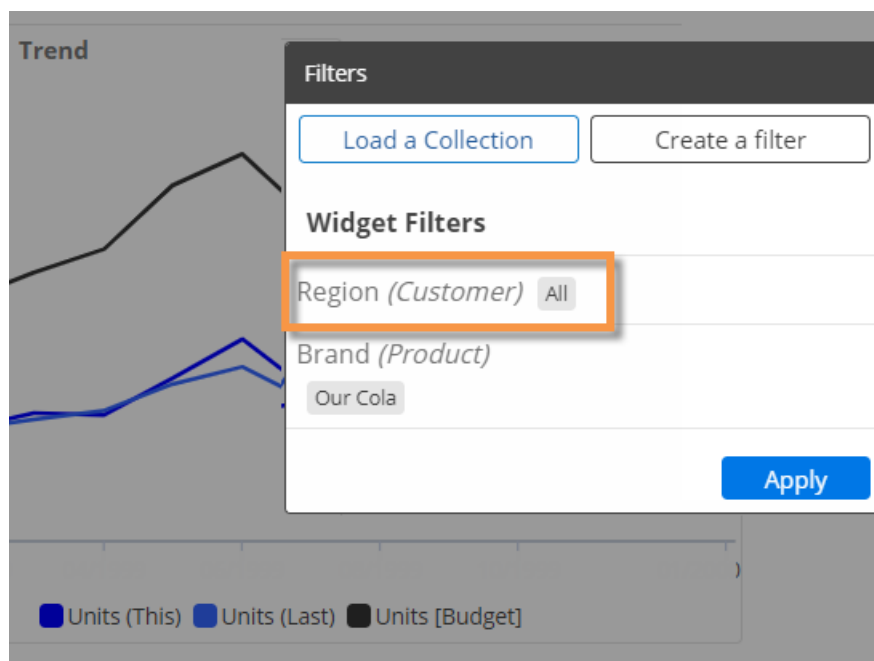
Modes of analysis and data availability

The following table shows which types of data are available in different analysis modes. Where data or analysis types are not allowed, the purpose is to prevent users from viewing information that may not make sense within a given context. If a measure belongs to multiple types, it must be allowed in all applicable columns in order to be displayed. Refer to the glossary and "About types of data (see page 161)" for information about the terms used here.

	Additive	Non-additive & top-additive	Frequency	Unique Counts	Other Causal	Day Counts[5]	Budgets	Cross-cube calculations	Temporal	Calculations using SUM	Allocation
Comparative Dimension Members/Multi Comparative											
Grid & Actual Value graph	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes[6]	Yes	Yes
% Change	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Comparative Time Series/Trend											
Grid & graph	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Crosstab											
Grid	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes[9]
Graph	Yes	No	Yes	Yes[2]	Yes[1]	Yes	Yes	Yes	No	No	Yes[9]
Share Trend (Total)											
Table, Line, & Marker	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes[9]
Stacked Area & Bar	Yes	No	Yes	Yes[2]	Yes[1]	Yes	Yes	Yes	No	No	Yes[9]
Share Trend (Percent)											
Grid & graph	Yes	No	Yes	Yes[2]	Yes[1]	No	Yes	Yes	No	No	Yes[9]
Exception											
Grid & graph	Yes	Yes	Yes	Yes[4]	Yes	No	Yes[3]	Yes	No	No	Yes[9]
Exception Time Series											
Grid & graph	Yes	Yes	Yes	Yes[4]	Yes	No	Yes[3]	Yes	No	No	Yes[9]
Scattergram											
Grid & graph	Yes	Yes	Yes	Yes[7]	Yes	No	Yes[3]	Yes	No	Yes	Yes[9]
Waterfall											
Calculated field	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No
Geographic											
Marker data	Yes	Yes	Yes	Yes[7]	Yes	No	Yes[3]	Yes	Yes[6]	Yes	Yes[9]
Layer data	Yes	Yes	Yes	Yes[7]	Yes	No	Yes[3]	Yes	Yes[6]	Yes	Yes[9]
Mix											
Grid	Yes	No	Yes	Yes[2]	Yes[1]	No	Yes	Yes	Yes[6]	No	Yes
Graph	Yes	No	Yes	Yes[2]	Yes[1]	No	Yes	Yes	Yes[6]	No	Yes
Gauge											
All formats	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes[6]	Yes	Yes

	Additive	Non-additive & top-additive	Frequency	Unique Counts	Other Causal	Day Counts[5]	Budgets	Cross-cube calculations	Temporal	Calculations using SUM	Allocation
Key lists											
Grid	Yes	Yes[8]	Yes	Yes[7]	Yes[10]	Yes[11]	Yes[3]	Yes	Yes[6]	Yes	Yes

1 - Unweighted records counts are available in this type of analysis, but weighted record counts are not.

2 - In views that show the average, total, or percent of the total (mix) for members, unique counts are only available if they can be summed meaningfully across dimension members. This has the following effects:

- In views that show mix, key counts are only available if the dimension used to organize the data (1st By) matches the key of the count requested. For example, if the view were grouped by the customer dimension Region, then a count of customers would be available. However, a count of products would not be available, because the counts would not add up meaningfully across regions.

- In views that show mix, dimension counts are only available if the 1st By dimension matches the dimension of the count requested.

3 - Virtual key data (i.e. data that enters the system at the dimension level rather than the key level) is not available in the following views: Exception, Exception Time, Scattergram, and key lists. Therefore, if budget data is virtual rather than key level, it will not be available in these views.

4 - Straight key counts (for example, unique customers) are only available in exception tests if the test is based on a different key. Straight dimension counts (e.g., unique brands) are only available if the count dimension is not a dimension of the key used in the analysis. Most calculations based on unique counts are available for use in an exception test. Netted unique counts are not available in exception tests.

5 - Fields that represent the number of days included in the date range. For the purposes of this table, day count fields include an actual count of days or calculations based entirely on counts of days. For calculations that include data (for example, average volume per day) refer to the additive, non-additive, or other causal data column, depending on the type of data involved.

6 - Temporal data fields are only available when comparing two date ranges (i.e. the time comparison is not single).

7 - Unique counts may be selectively disabled by your administrator in the following views: Key lists, Scattergram, and Geographic analysis.

8 - In special key lists that display mix values, non-additive and top-additive data are not available.

9 - The following widget types are not available when the current By is an allocation dimension or allocation key list: Share Trend, Scattergram, Exception, Exception Time Series. However, allocation data may be available in these widgets when viewed by a regular (non-allocation) dimension.

10 - Causal data (except for key counts) is available in all key lists except those spawned from Scattergram views to show particular ranges of data.

11 - Measures consisting entirely of day counts are available in all key lists except the Mix key list or Share Trend (Percent) key list.

Select the Dates

You can choose a range of dates (days, weeks, months, etc.) to display when the dashboard first opens. This provides a commonly used "starting point" that can update automatically over time. Most widgets total data over the selected date range; time series show each date in the range individually. You may also be able to set a previous date range to compare against. Date settings can be applied per widget and/or linked across multiple widgets, so that they update whenever the dashboard date changes.
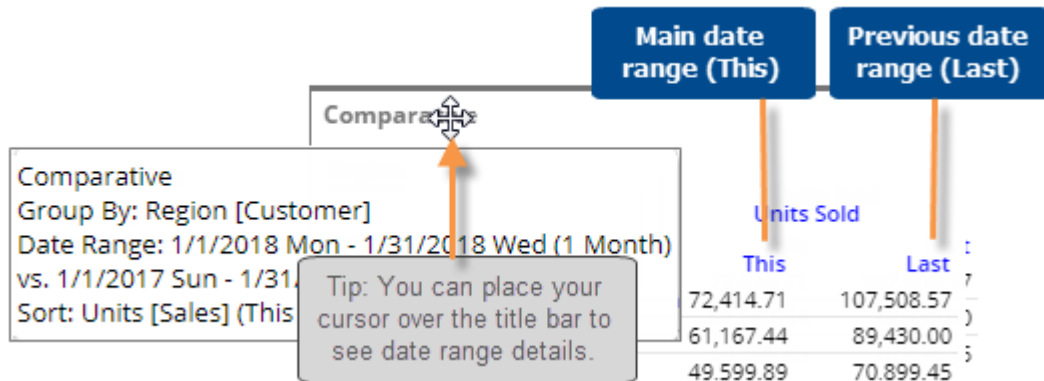
Date setup

Select from the following options choose the initial date range to display when the user opens the dashboard. You can also select from these options as you investigate the data in Salient Dashboards.

To select the date setup

1. Click the date setup icon in the title bar of the widget, or click on the widget and then click on Date Range under Context in the toolkit.

2. In the dialog, choose from the following date settings. The available options depend on the dataset and may be pre-configured by your administrator.

Option	Explanation
Resolution (i.e. days, weeks, months, or customized periods, etc.)	Choose the units of time from the menu at the top of the dialog. This selection controls which date presets will be available. From the **Week Ending** drop-down menu, choose a week ending day.

Option	Explanation
Main date range (This)	Under **This**, click the button of the date range to view (e.g. Month To Date). The available date presets depend on the resolution selected above and the dataset configuration. For example, you might choose to see the month-to-date, last month (i.e. most recent complete month), or year to date. By default, most date ranges update automatically as time goes on; however, a fixed date option is also available. When you choose a date preset, the start date, end date, and other options populate automatically. If you wish, you can customize the date range further after making your selection. • To change the number of dates in the range, enter a new number beside the date slide. • To change the start or end date, click on it and choose the date in the **Date Picker** tab. • To choose advanced options, such as a lag time, click on the start or end date and go to the **Advanced** tab (see page 173). • The **Most Recent Complete** (see page 175) box lets you go back to the most recent complete timeframe.
Day filters (optional)	Optionally, click the **Day Filters** button at the top of the dialog to choose specific days of the week (see page 176) or business days (see page 177) within the date range to analyze. Data for all other dates will be filtered out.
Comparison date range (Last) - optional	Under **Last**, click the button of the previous date range (e.g., YAG). The available options depend on the resolution selected above. For example, you might choose the timeframe immediately prior. When you choose a preset, the start date, end date, and other options populate automatically. You can further customize the date range after making your selection. • To change the start or end date, click on it and choose the date in the **Date Picker** tab. • To choose if and how dates are updated as time goes on, click on the start or end date and go to the **Advanced** tab. If the dialog does not include a Last section, click [Add Date Range] at the bottom of the dialog to include a previous date range if desired. **Tip:** A comparison date range is optional in many widget types. If you want to look at a single date range only, you can remove the Last date range.

Option	Explanation
Comparison for incomplete timeframes	A **Comparison** option at the bottom of the dialog controls the selection of the previous (Last) date range when This date range is incomplete. • **Matching time frames** - Adjust the number of days in Last date range to match the number of days in This date range for a precise view of gain/loss (i.e. how much better/worse are we doing). For example, compare March 1 through 15 of this year with March 1 through 15 last year. • **Complete last period** - Do not adjust the number of days in Last date range; instead show the complete last month or period for a gap or goal perspective (i.e. how much more to go). For example, compare March through 15 of this year with the full month of March last year.
Linked dates (i.e., use dashboard date)	Toggle the link icon at the bottom of the dialog to link or unlink the widget's date range, depending on whether you want the date range to update with the dashboard date. 🔗 - indicates that the widget's date will update when the dashboard date changes. In view mode, the date ranges of all linked widgets update simultaneously when one of them is changed. ⛓ - indicates that the widget's date range is unlinked and, therefore, has its own stand-alone date range. **Tips:** Even if date ranges of widgets are linked, they operate independently in edit mode to allow you to set different initial date ranges for the widgets. The date icon setting must be on (in general widget settings (see page 249)) for linked date ranges to function. You can also link/unlink a widget using the **Use Dashboard Date** setting in general widget settings.

Tips:

The date range selected in edit mode (prior to saving) is used as the default that appears when users open the dashboard in view mode.

In view mode, you can click the [Reset] button to revert the date range back to the last saved settings.

If the dialog does not show the desired date range, you may need to change the data cube of the selected widget to one that includes those dates.

Context
Cube
Sales
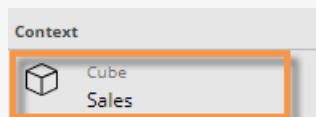
Tips:

Multi Comparative widgets can show additional date ranges besides the standard This and Last ranges (e.g., MTD vs. YAG and YTD vs. YAG).

To add date ranges to the Multi Comparative, select the widget and then click Add Date Range under Date Range in the toolkit.

To edit a date range for a Multi Comparative, click [31] in the widget's toolbar and then select the name of the date range.

Multi Comparative date ranges cannot be linked to other widgets.
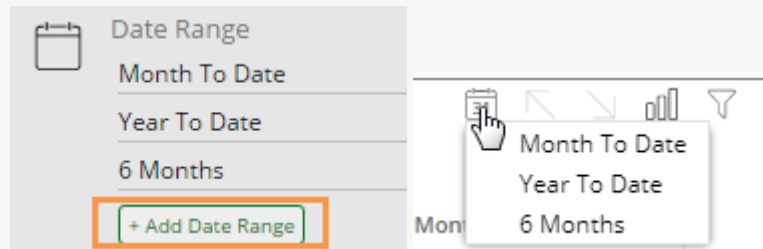
Advanced date options

In date settings (see page 169), you can click the start date or end date of This or Last, and click the Advanced tab to choose how the date is calculated. The resulting date may be a fixed date, the same as a reference date (e.g., today), move back or forward in time from a reference date, align to another timeframe based on a reference date, and/or look up another date based on the reference date (if configured).
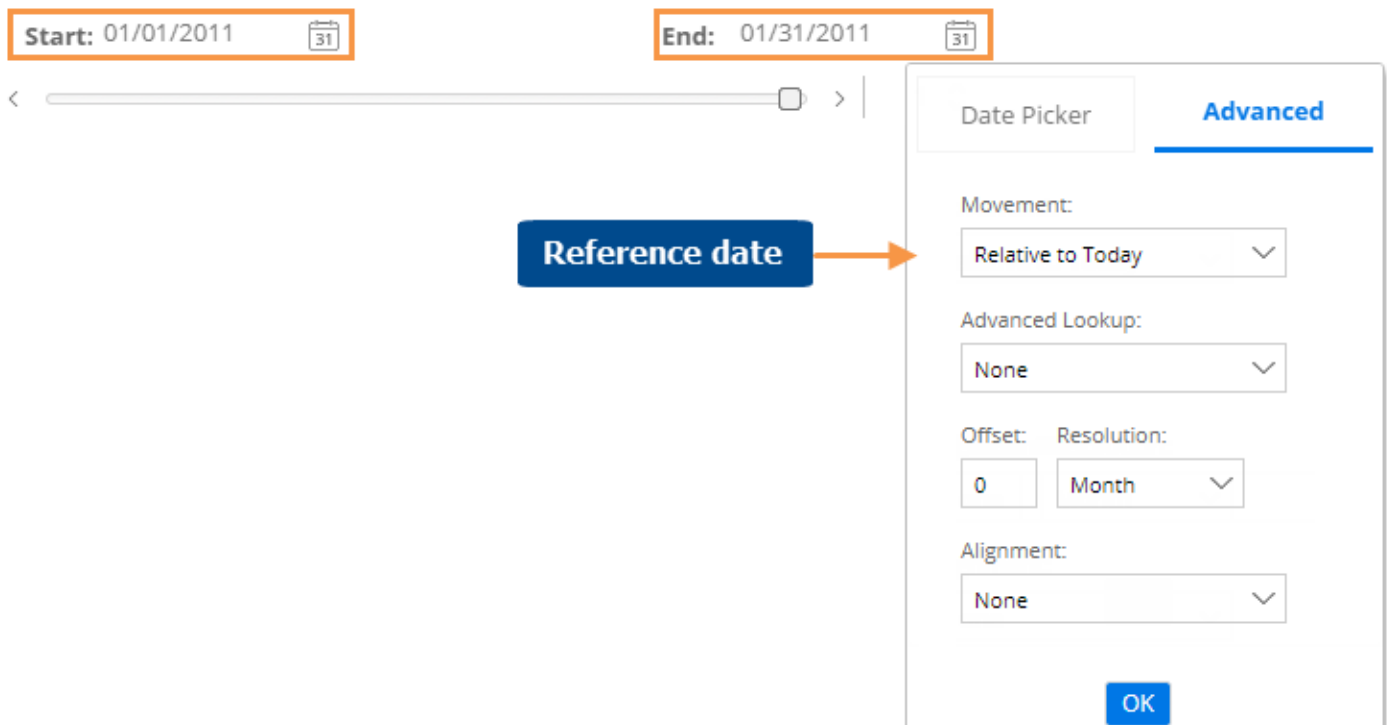
Movement (i.e., reference date)

Choose a reference date on which to base the date calculation. These options (except for fixed) allow the date to move over time. For example, the end date might be relative to today. The start date might be relative to the end date to shift the date range over time.

Options available for This or Last date range:

- Fixed - Show a fixed date. Do not update automatically over time.

- Relative to today - The date will be calculated based on today's date (if available). If the data cube ends before the current date, this option will resolve to the end of the cube. If a date selector is specified and a fixed date is selected, this option will resolve to that date.

- Relative to end date (used for a start date only) - The date will be calculated based on the end date of the same date range (i.e., This or Last).

- Relative to start date (used for an end date only) - The date will be calculated based on the start date of the same date range (i.e., This or Last).

- Relative to first day of cube (used for a start date only) - The date will be calculated based on the first day of data for the currently-selected cube.

- Relative to last day of cube (used for end date only) - The date will be calculated based on the last day of data for the currently-selected cube.

- Relative to first day of data (used for a start date only) - The date will be calculated based on the first day of data for any of the cubes of the currently selected measures. If a date selector is specified and a fixed date is selected, this will resolve to that date.

- Relative to last day of cube (used for end date only) - The date will be calculated based on the last day of data for any of the cubes of the currently selected measures. If a date selector is specified and a fixed date is selected, this will resolve to that date.

Options available for Last date range only:

- Relative to This start date (when used for the Last <u>start</u> date) - The date will be calculated based on the start date of This date range. This option may be used with an alignment to go back a given amount of time from This date range.

- Relative to This end date (used for an end date only) - The date will be calculated based on the end date for This date range. This option may be used with an alignment to go back a given amount of time from This date range.

- Relative to This duration (used for a start date only) - The date will be calculated based on the end date of the Last date range, moving back in time the duration of This date range. The resulting date range will have the same number of dates as This date range (e.g. 6 months vs. 6 months). When the end date is "Relative to This start date," this allows for an equivalent timeframe that falls immediately prior to This date range.

- Relative to This start date (when used for the Last <u>end</u> date) - The date will be calculated based on the date immediately <u>prior</u> to the start date of This date range. This option allows selection of a prior timeframe.

Advanced Lookup

This option is only available if your organization has configured a custom date lookup table(s). In this case, you can select a lookup table to replace a date with a corresponding date in the table. This feature may have different purposes depending on the needs of your organization. For example, an advanced lookup might be used to compare equivalent business days.

A lookup table can be applied to the start or end date of This or Last date range. From the Advanced Lookup menu, select the table that contains the dates you want to use.

To determine the final date displayed in the dashboard, Salient Dashboards does the following:

1. Uses the "movement" date to look up the corresponding date in the table.

   For example, if the movement is fixed, the fixed date will be used to look up the replacement date. If the movement is relative to Today, the current date (or the most recent date available) will be used to look up the replacement date. If the movement is relative to This End Date (available when selecting Last), the lookup is based on whatever is selected as This end date, which may be Today.

2. Applies any offsets or alignments to the date returned by the lookup table. For example, if the table returns a date of 1/4/22 with a negative one year offset, the final date will be 1/4/21.

For a daily resolution, the lookup uses the exact movement date to look up the replacement date as explained above. For a weekly, monthly, or custom period resolution, the movement date actually includes multiple calendar dates. In this case, the lookup uses the last calendar date in the movement date. For example, if the movement date were 12/2021, then Salient Dashboards would look up the last day in that month (12/31/2021), find the replacement date, reapply the resolution, and then any apply offsets or alignments like usual.

See the *Salient Dashboards Installation and Configuration Manual* for more information.

Offset/Resolution

Go forward or backward from the reference date selected above. To go forward, enter a positive number. To go backward enter a negative number. Leave this option set to zero if you want the resulting date to be the same as the reference date.

Then, select the resolution or units of time by which to go forward or backward.

Alignment

Align the start date or end date with a timeframe. This option will align a start date to the beginning of the specified unit of time; an end date will be aligned to the end of the unit of time. You cannot align to a more specific timeframe than the date range's resolution. For example, you can align a month to the beginning or ending of a year or period (if defined). You can align weeks to a month, period, or year. You can align days to a week, month, period, or year.

Examples:

For a monthly date range, aligning the start date to Year would make the start date equal to the start of the reference date's year.

For a weekly date range, aligning the start date to Month would make the start date equal to the closest possible day to the start of the reference date's month (respecting week end dates).

About the most recent complete option

Oftentimes, you will choose from pre-configured options for the date range and will not need to customize the selections. However, if you are setting up your own date range that moves automatically (i.e., not fixed), you may want use the most recent complete option located in the date settings (see page 169) to determine how the date range is selected.

- Turn this option on to go back to the last complete week(s), month(s), or period(s) in the selected data cube when determining the date range. A simple example would be a monthly resolution that goes back to the previous month if the current month isn't complete. This option is also used in when the "alignment" resolution isn't yet complete (e.g. a trend view of all days in last complete month).

- Turn this option off to go to the most recent week(s), month(s), or period(s) in the selected data cube regardless of whether they are complete. Examples include a month-to-date comparison or a trend view of days so far in the current month.

Day filters

By default, the selected date range includes all days between the start date and the end date. For example, if you are looking at the month of March, the results include data for all days (Sundays through Saturdays) in March. When you select the dates (see page 169), you can turn on day filters to focus on certain days-of-the-week or business days and filter out data for all other days.

To use day filters

1. Access the date settings by clicking 📅 in the title bar of the widget or clicking on Date Range under context in the toolkit.

2. Click the **Day Filters** button at the top of the dialog.

3. Choose which days to filter out.

   To choose days of the week, clicking the buttons at the top of the dialog. The buttons of the days to include should be blue.

   To select customized business days (see page 177), click the drop-down menu. This option must be set up by your administrator.

4. Choose from the following options for time-series analyses that show individual days. To completely remove the filtered days as well as the data, check the **Hide Filtered Time Periods** option. To show the days but remove the data (i.e., show zeros for those days), clear this option.
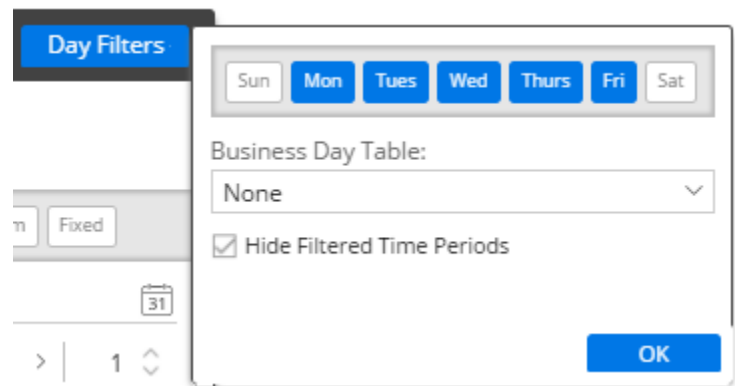
Tip: When a day filter is selected, the view only includes data for the selected days. For transactional data, this means that the results will only include records that occurred on the selected days. If the dataset includes non-transactional data, you should also understand how day filters affect non-transactional data.

Use business day tables

Business days are customized sets of days that are important to an organization (for example, working days). With the appropriate setup and licensing, you can filter the view to only see data for these business days.

To filter out data for all other days

Select the business day table in day filter area (see page 176) of date settings.

Tips

You cannot turn on business day tables when viewing a data cube that has a time component.

You can hide the filtered dates completely or show the filtered dates with zero data values using the Hide Filtered Time Periods option (see page 169).

Day counts and business days

If your dataset includes day counts or calculations based on day counts, consider the following when using business day tables. For clarification about the setup and meaning of measures in your dataset, contact your system administrator.

- Generic day counts using the $Days( ) function always represent the days in the current view. If no business day table is turned on as a filter, then it will count all the days in the selected date range, filtering out any days of the week excluded by a day filter. If a business day table is on, then it will further filter the days to include only those in the selected business day table.

- Calendar day counts using the $Days($Calendar) function always count the number of days in the selected date range, filtering out any days of the week excluded by Salient Dashboards's day filter. This variable never takes business day tables into consideration.

- Day counts based on specific business day tables (for example, $Days(WorkingDays)) count the number of days in the business day table specified, also filtering out any days of the week excluded by a day filter. This variable always filters the days to include just those in the business day table specified in its definition, even if the business day table isn't selected in Salient Dashboards.

- Measures included in a formula with a day count (for example, Sales Units in Sales Units/Day) always use the days in current view, and do take the currently selected business day table and day filters into consideration.

End date selection

A date selector allows users to choose the dashboard end date to shift the date ranges of multiple widgets across the dashboard at once. This type of date selection does not change the resolution (days, weeks, months, etc.) or number of dates in the date ranges.

To select the dashboard end date

1. Click a date selector to open it. A date selector may be in the filters panel or within the dashboard as a separate widget, depending on the dashboard's setup. If the dashboard doesn't include a date selector in either of these areas, you can add one (see page 179).

2. Select a dashboard end date from the menu. This controls what is considered the current date or "today" and will, therefore, adjust dynamic date ranges relative to this date. Fixed date ranges and date ranges that are unlinked (i.e., do not use the dashboard date) are not affected by end date selection.

As a separate widget in the dashboard: *In filter panel:*
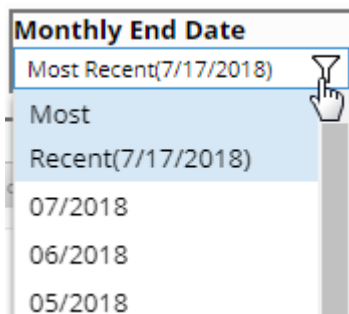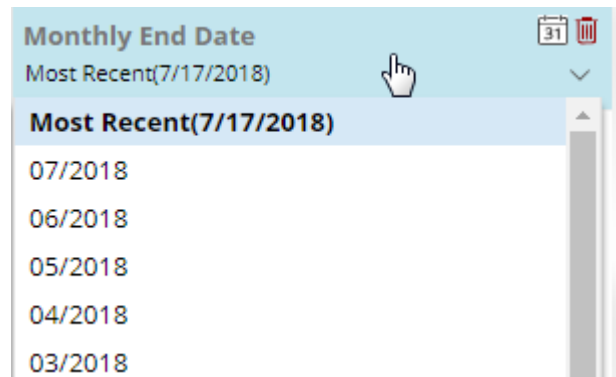
Tips:

If the resolution of an end date selector is different than a widget's date range, then Salient Dashboards will use an appropriate end date based on the selection. For example, if the date selector is monthly and a widget's date range is last week, the resulting date range is the last full week in the selected month.

Depending on how it has been set up, the date selector may include a Most Recent or Most Recent Complete option.

A date selector can be selectively turned off for a widget in edit mode (under General Settings, Use Dashboard Date), so that it does not affect the widget's date range. You can see whether a date selector is active or inactive for a given widget by placing your cursor over the widget's title to see the tooltip.

Add a date selector

You can add a date selector to the filter panel and/or as a separate widget within the dashboard to allow selection of a workspace end date so that multiple widgets can be adjusted simultaneously.

To add a date selector to the filters panel

1. Click the ⬙ at the top of the dashboard screen to open the filter panel.

2. Click **Create a filter**.

3. Click **Date**.
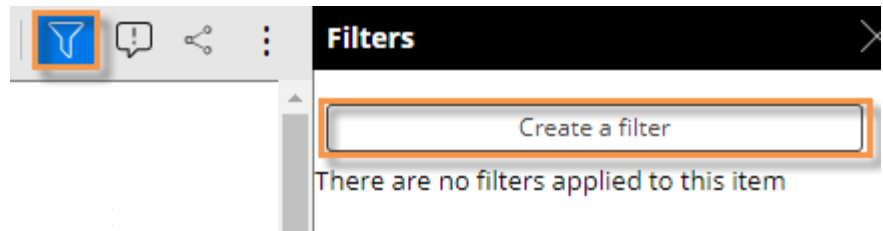
4. Set the dates that will appear as choices in the menu.

   i. Mouseover the date selector in the filters panel, and then click the ⋮ icon.

   ii. Click on Date Range.

   ii. Select the resolution of the dates to appear in the menu (e.g., months).

   iii. Configure the date range so that it includes all of dates that should appear as choices in the menu. The dates can be fixed or move automatically based on available data. For example, you might want to allow users to select from the last twelve months.
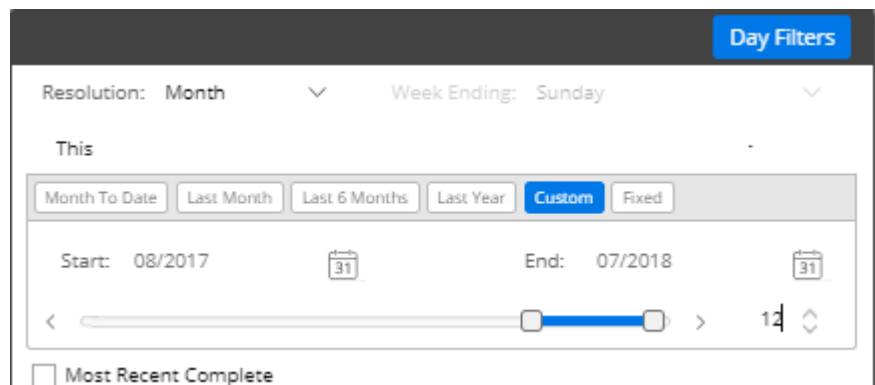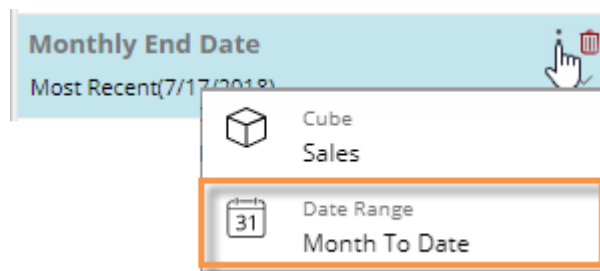
To add a date selector widget (edit mode only)

This method places a date selector widget within the dashboard and adds a corresponding menu in the filters panel. Users will not be able to remove the selector in view mode.

1. Click the **Add Widget ⌄** button at the top of the screen.

2. In the pop-up window, click the Date button or drag it onto the workspace.

3. Set the dates that will appear as choices in the menu.

   i. Click on the date widget, and then click on Date Range in the toolkit.

   ii. Select the resolution of the dates to appear in the menu (e.g., months).

   iii. Configure the date range so that it includes all of dates that should appear as choices in the menu. The dates can be fixed or move automatically based on available data. For example, you might want to allow users to select from the last twelve months.
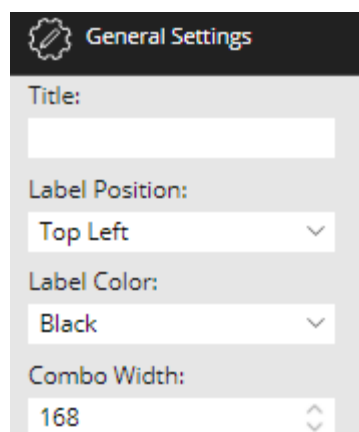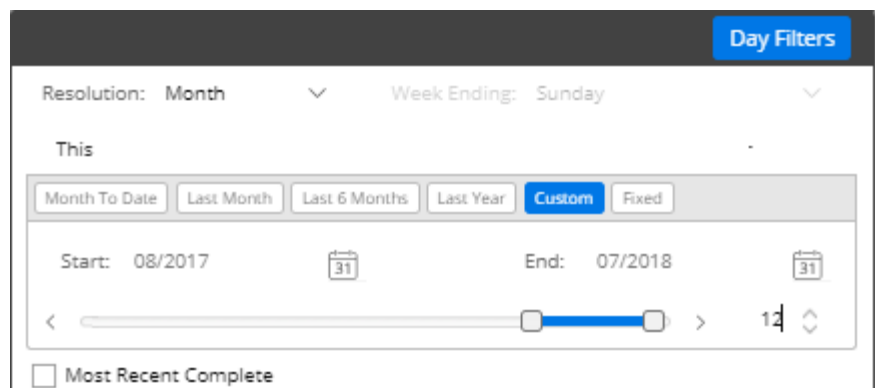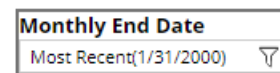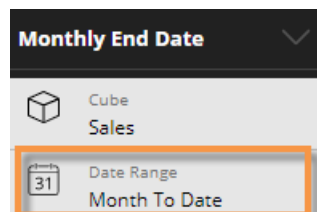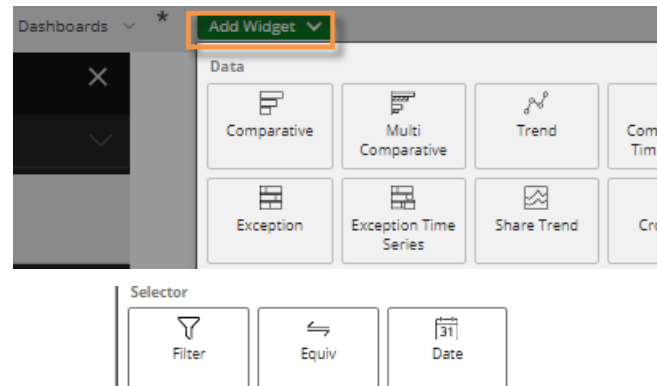
4. If you wish, customize the appearance of the date selector widget in general settings (see page 249).

Tips:

The selected date cube controls the available dates. You may need to change the data cube (see page 186) associated with the date selector to make the desired dates available.

In the Filter panel, this can be done by clicking the ⋮ icon and selecting **Cube**.
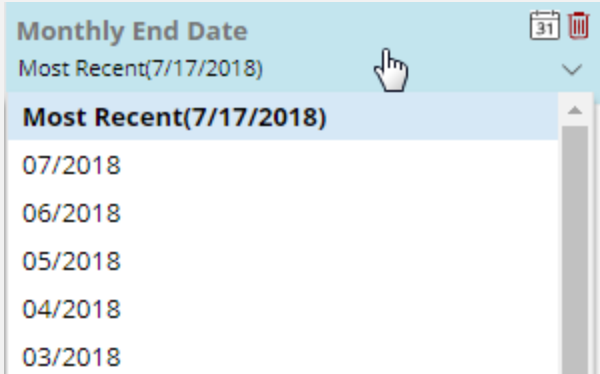
For a date selector widget, the data cube can be selected in the toolkit.
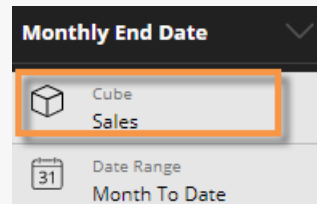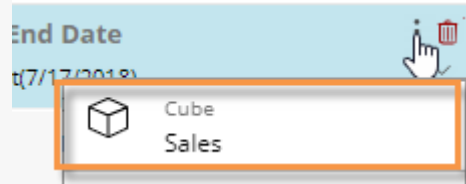
The date selector will affect all widgets that use the dashboard date (i.e., linked dates). This is the default setting, but it can be changed in general widget settings (see page 249).

How users change the date range in view mode

Depending on the configuration of the dashboard, users may be able to change the date range the following ways in view mode.

Viewer date options	Explanation
Date setup icon	By default, each widget will have a date setup icon 31 that gives the user full control over date setup (see page 169), including resolution (days, weeks, months, etc.), number of dates, start/end dates, and other settings. This icon may be disabled for a widget (see page 182).
Date selector	A date selector (see page 178) allows users to shift the date ranges of multiple widgets at once without changing their resolution or number of dates. Specific widgets may be configured ignore the date selector (i.e., not use dashboard date). An end date selector may be built into the dashboard as a separate widget and/or within the filters panel. In addition, end-users can add a date selector to the filters panel if it doesn't already have one.

Viewer date options	Explanation
Date buttons MTD vs. YAG MTD vs. Prior Month	A date button (see page 53) may be built into the dashboard to allow users to quickly pick a predefined date range. Specific widgets may be configured to ignore the date buttons (i.e. not use dashboard date).

Enable or disable date setup for view mode

By default, the date setup icon ⬚ is enabled in view mode, allowing users to change the date of a widget. This provides full access to date options including the resolution, number of dates, start/end dates, and more. If you wish, you can disable this icon for any widget. If the icon is disabled, the only date selection available to end-users in view mode is through an end date selector (see page 178).

To enable/disable date setup icon for view mode

1. Select the widget for which you want to disable or enable the date setup icon.

2. Expand **General Settings** in the toolkit.

3. Locate the **Show Date Setup Icon in Viewer Mode** property and check or clear its box.
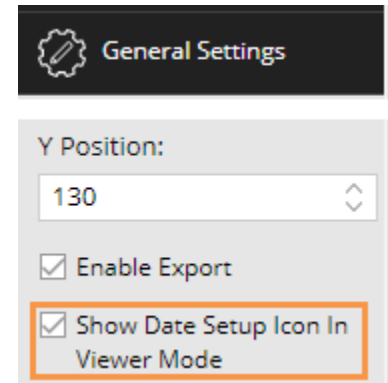
Group By Attributes

In widgets that compare members (Comparative, Multi Comparative, etc.), the "Group By" attributes control the following areas; therefore, you should add enough By attributes in edit mode to allow for all anticipated filters, including global filters.

- How data is grouped at the highest level (1st By).
- If and how members can be expanded into additional levels of data (2nd By, 3rd By, etc.).
- The order of dimensions when drilling down (i.e., drill order).
- What users can select as the By from the breadcrumb path.
- What users can drill into.
- What workspace filters can be created. Group By attributes from all widgets will be available.
- What widget filters can be created.

To select the Group By (in widgets that compare members)

1. Click on the widget and then click on **Group By** in the toolkit.
2. In the dialog, check the box of the dimension to use as the 1st By.
3. Then, check the box(es) of any additional dimensions to use as the 2nd By, 3rd By, etc.
4. Click OK.

Tip: The order controls the drill order as well as the order used when expanding members. Click on a number to change the order.

Tip: Only dimensions selected in this dialog will be available for the widget in view mode.
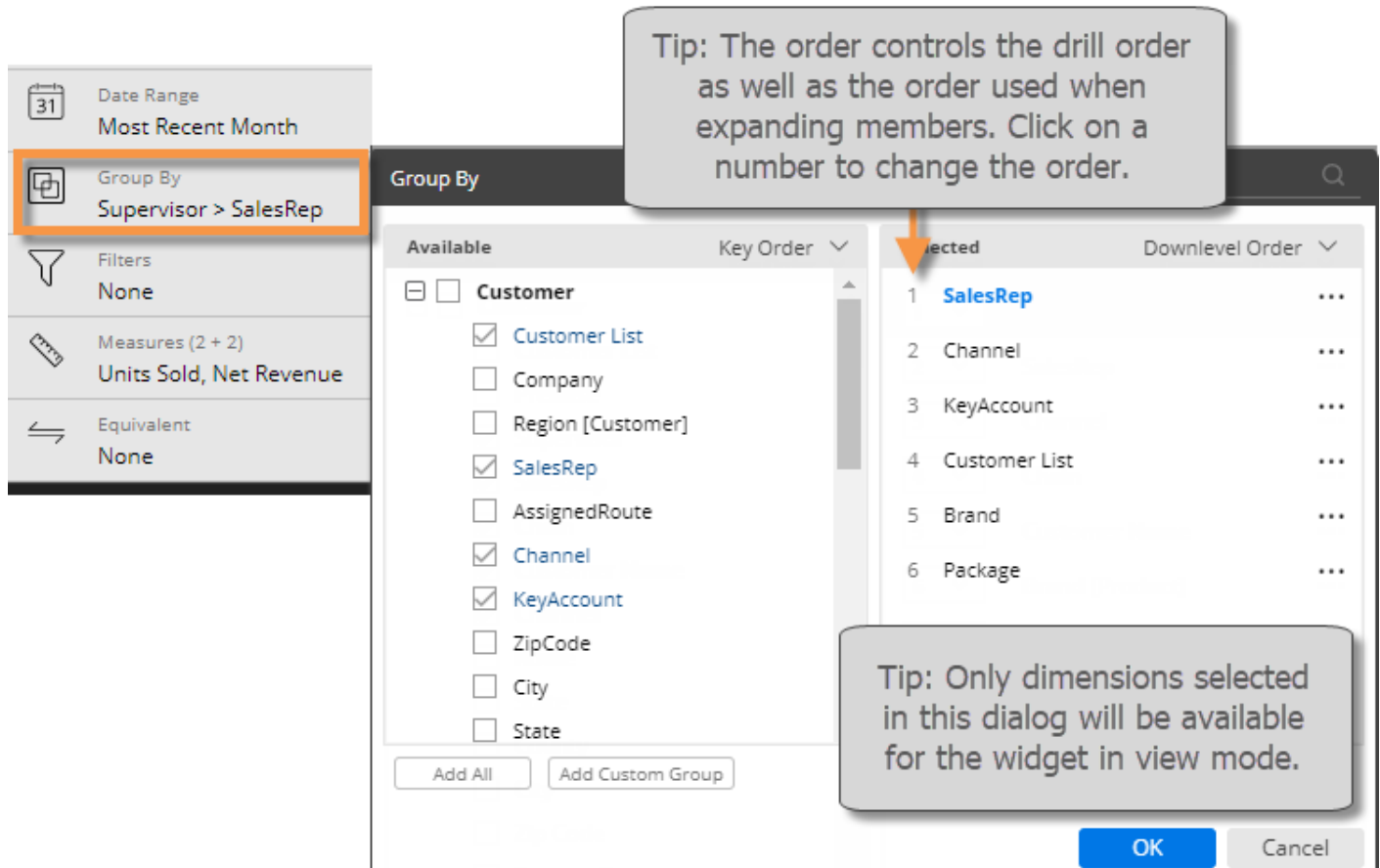
Tips:

You can swap a By in the Group By dialog by clicking the original dimension in the right pane, placing your cursor over a different dimension in the left pane, and clicking the arrow button.

If the desired By is not listed, you may need to change the data cube (see page 186) in the toolkit.
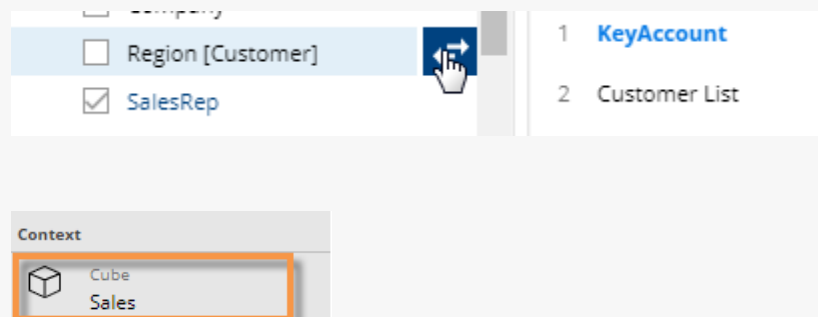
Tips:

Power Viewers and Dashboard Designers can click the breadcrumb path (see page 29) to change the 1st By. The dimensions are limited to those selected in the Group By dialog.
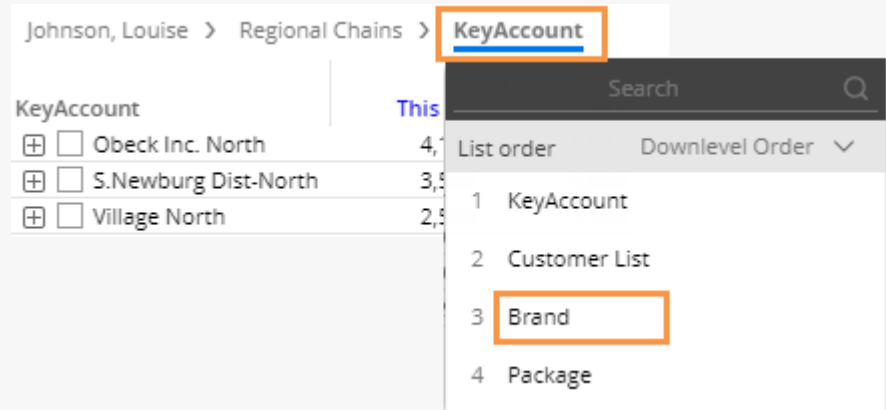
You can add a custom group (see page 189) to create your own custom method for grouping and comparing data.
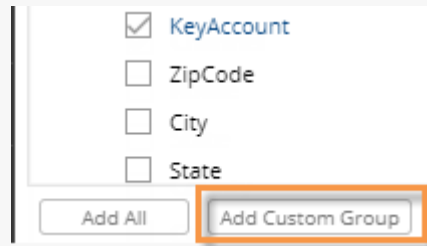
To view record-level details (see page 192), group the data by Record Details, which is located at the bottom of the group by area under the cube name.

You can search for a dimension by entering its first few characters at the top of the dialog.

Switch between data cubes

The data cube controls the following:

- Keys and dimensions that can be used to group and filter the data

- Available measures

To change the data cube

1. Click on the widget to select it.

2. Under Context in the toolkit, click on Cube.

3. In the pop-up dialog, select the data cube and click OK.
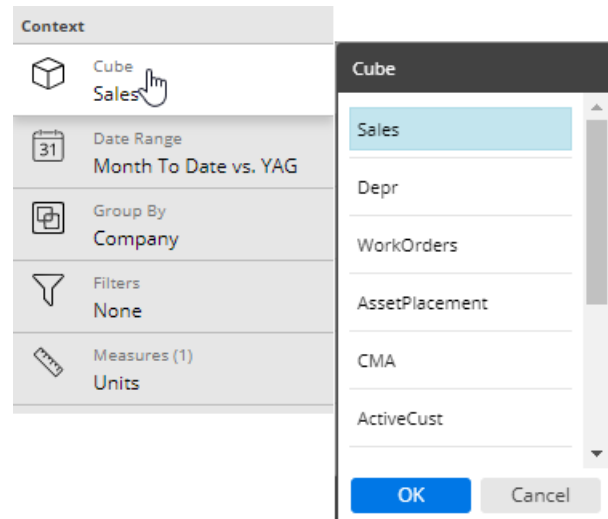
Tips:

The dataset may include a data cube, such as budgets, that does not appear in the data cube drop-down menu because you can access all its data from another cube. In addition, the data cube menu only includes data cubes that meet the following criteria:

- The data cube includes at least one key. Virtual keys composed of dimensions do not count.

- The data cube has at least some data.

- The data cube is transactional or non-transactional.

Your System Administrator can selectively disable the data cube menu.

When you change the data cube:

- If the By dimension belongs to both the old and new data cubes, the data remains grouped by the same dimension. Otherwise, the By becomes the first dimension of the first key within the selected cube.

- The measure columns may disappear if they are unavailable for the selected data cube.

- The available date range may change.

- Filters may change based on what is available in the selected cube.

Filter By

In non-comparative widgets (Trend, Gauge, Waterfall, etc.), data is aggregated rather than grouped by a dimension. Therefore, instead of a Group By, a Filter By controls what filters can be created in view mode.

To make filters available (in non-comparative widgets)

1. Click on the widget and then click on **Filter By** in the toolkit.

2. In the dialog, check the box(es) of the dimensions for which filters will be allowed.
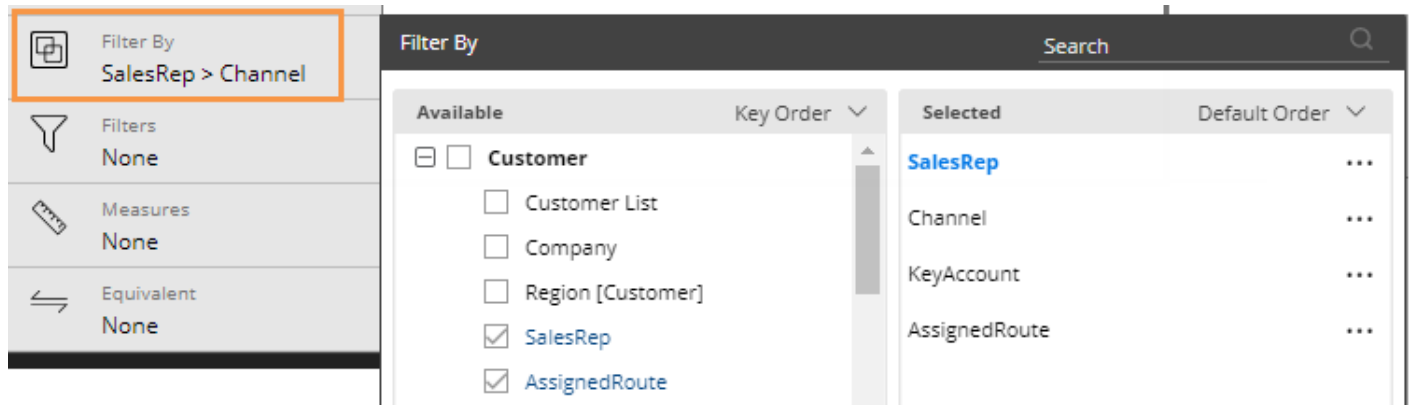
Key lists and graphs

A key list is a table showing individual members of a key (e.g., customers). A key list is created when you "Group By" the key. The following is a general Comparative key list. If you access a key list from other types of analyses, the list may include information specific to that analysis (e.g. values over time for Share Trend, percent of total for Mix, members within ranges for a Scattergram, passing or failing members for Exception, etc.).

A key graph shows individual members of a key (e.g., customers) in graphical format. Key graphs are only available in comparative widgets.
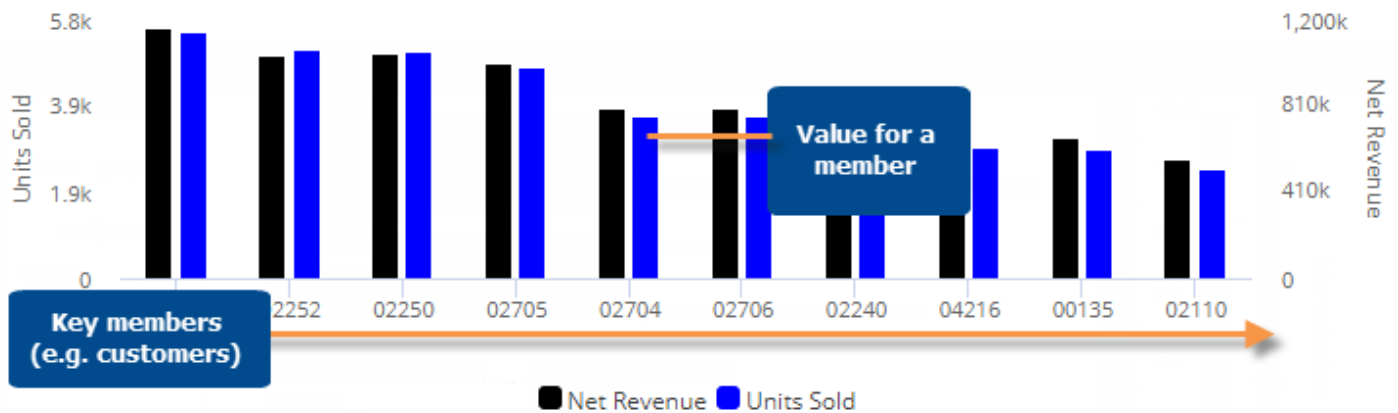
You can "group by" a key to list out its members (e.g., customers). In grid format, this is referred to as a key list. Some types of analyses, such as the Comparative, also allow you to graph key members.

To list key members (i.e., Group by key)

1. If you haven't already, add a widget that compares members (e.g. comparative) to the workspace and select it.
2. Click on **Group By** in the toolkit.
3. Under the key in the left pane, select the List option. Make this the 1st By.
4. Click **OK**.
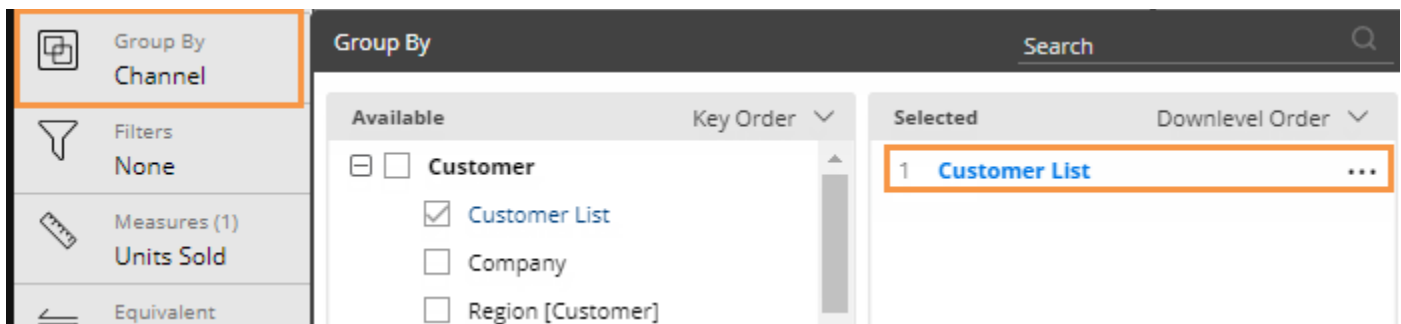
Tips:

If you don't see the key listed in the Group By menu or dialog, you may need to change the data cube (see page 186).

To close the key list, select a new 1st By dimension.

You can click the [«] [<] [>] [»] buttons to see additional pages of members in the list.

You cannot list key members in a Crosstab widget.

You can add dimensions and descriptions to the key list.

Custom groups

A custom group lets users (Power Viewers and Dashboard Designers) create their own unique methods for organizing and comparing results based on collections. Each custom group can include any number of collections within an attribute. When the custom group is turned on as the "group by," the widget will roll up the results for each of its collections so that you can compare and investigate them. If a custom group is selected as a Group By for a widget, users can then select it to group the data just like regular Group By attributes. Custom groups are only available in widgets that compare multiple members.

Add a custom group

1. Click on the widget and then click on **Group By** in the toolkit.

2. In the dialog, click the **Add Custom Group** button.

3. Select the attribute (i.e., dimension) for which to create a custom group.
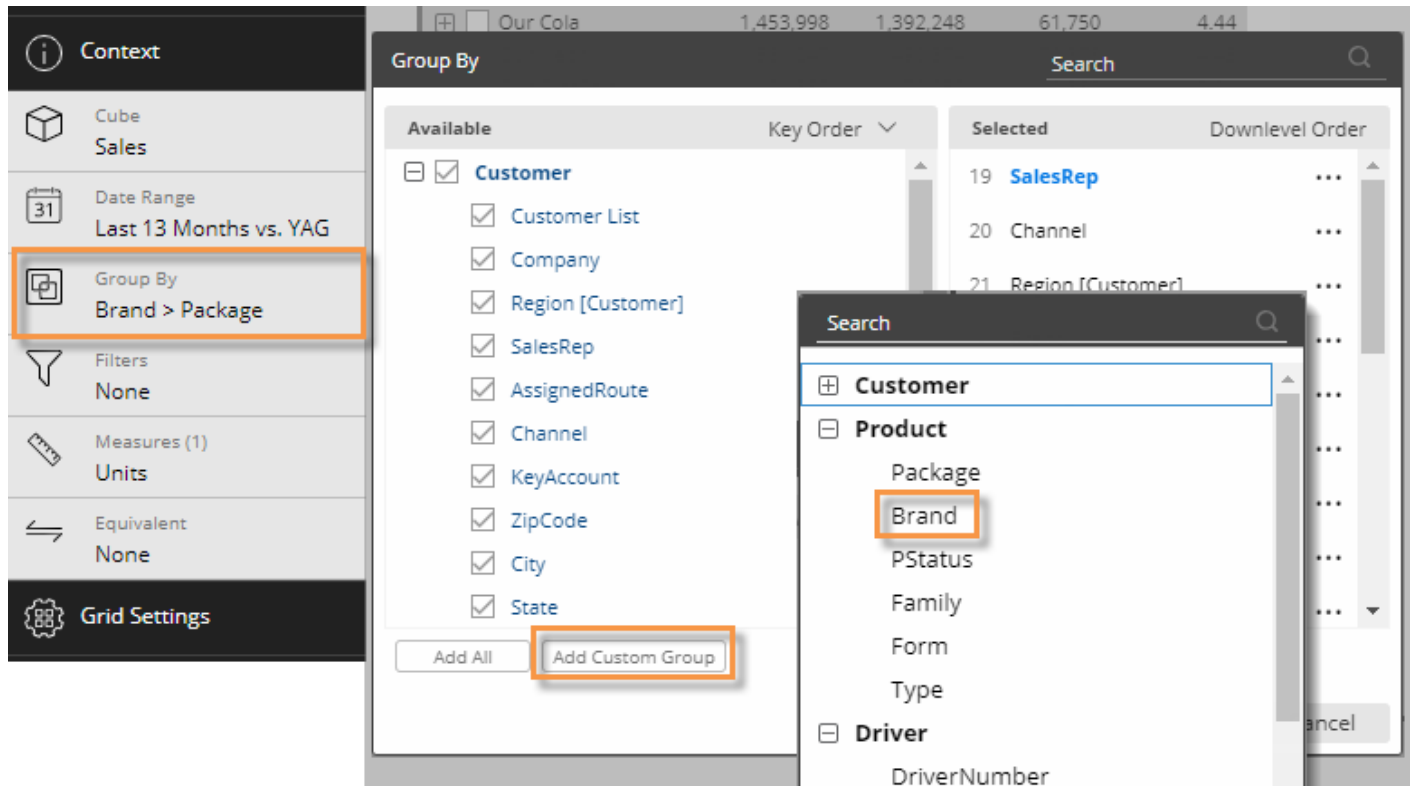
4. In the next dialog, checkmark all of the collections (see page 216) you want to compare and investigate in the custom group.

- If the collections already exist, you simply need to find and checkmark them. You may need to search or expand folders to locate the desired collections.

- If the collections don't already exist, you can create them by clicking the Create New Collection button.

5. Type the name of the custom group at the bottom of the dialog. This name will appear as the "By" when the custom group is selected.

6. Click Apply.
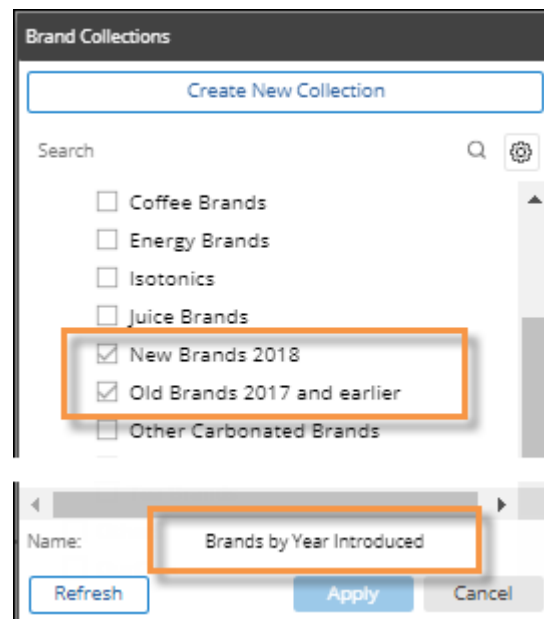
Turn on a custom group

The custom group is available underneath its attribute in the Group By area. You can select it and place it in the desired drill order just like any other dimension. This will also make it available in the breadcrumb path (if enabled) so that it can be selected in view mode.
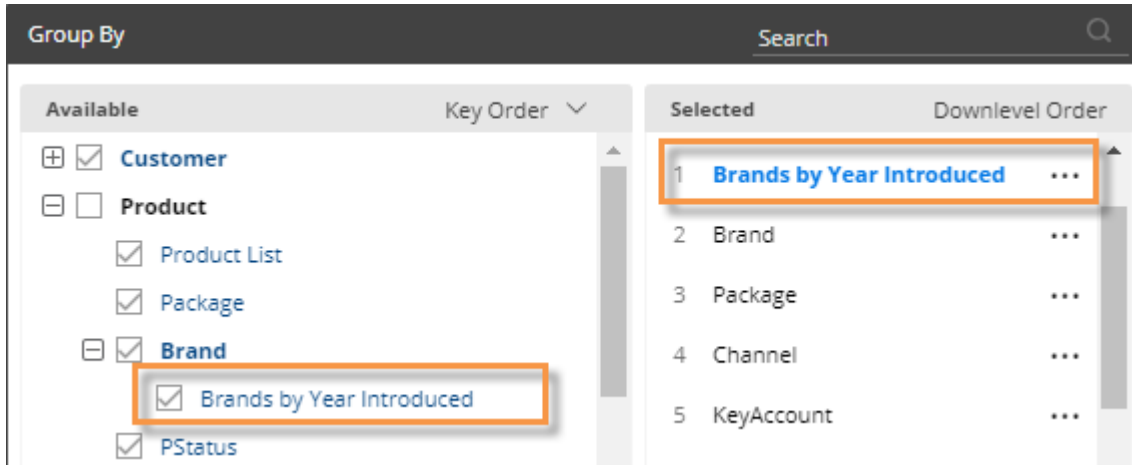
Tips:

Custom groups are available across a dashboard and, therefore, can be used in other widgets within the same dashboard.

If a collection changes (e.g., a new member is added to a collection), any custom groups that include the collection will be automatically updated.

If you want to switch out the collections in a custom group, you can edit it. Click the **...** button in the Group By area to access this option.
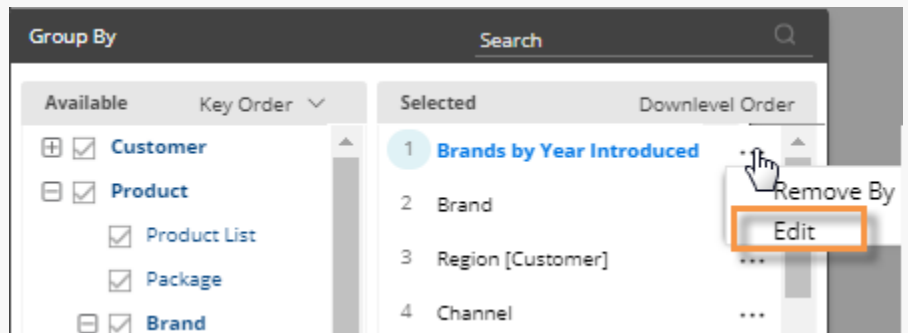
Custom groups may contain overlapping members. Therefore, the total of a custom group is not necessarily the sum of all rows, but rather the total of all unique members.

Record details

Salient Dashboards can show record-level data (e.g. invoices, work records, inventory, etc.) in a graph or grid. To see data at this level, group the data by "Record Details." The details show each individual record for the given context. Record details may include dates (single date for transactions or start/end dates for non-transactional data), measures, key descriptions, dimensions, and invoice numbers (if configured).

Record details may be used as the primary way of viewing the data (i.e., 1st By) or further down in the hierarchy to allow flexible drilling into record details. The details may be filtered like other views to show any subset of data records.

To build record details into a widget (in edit mode)

1. Add a comparative or mix widget if you haven't already. Record details are limited to these analysis types.

2. Optionally, switch to a graph/grid format (see page 69) that supports record details. These include:

   • Mix - grid only (If you attempt to group by record details in a mix graph, it will automatically switch to a grid.)

   • Comparative - grid or actual value graph (If you attempt to group by record details in a percent change graph, the widget will show a message as explained in the following tips.)
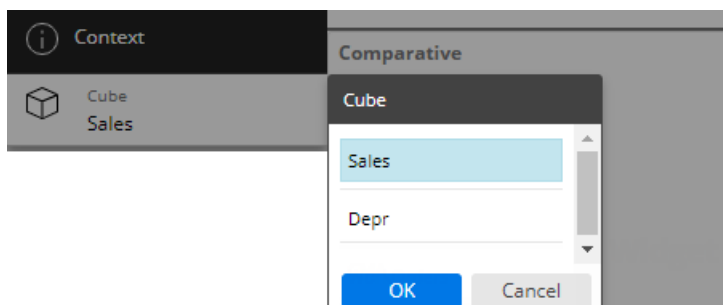
3. Choose the data cube for which to view record details. The cube represents the activity or source of the data records.

4. Group the data by Record Details—either as the 1st By to immediately see record-level details or further down to allow drilling to record-level details.

Tip: Record Details are listed last in the Group By area (under the cube).
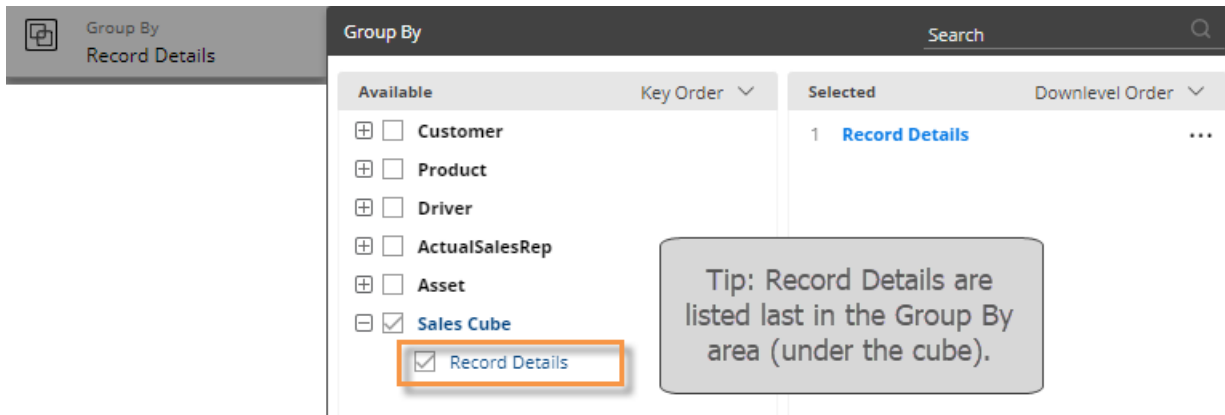
5. Add at least one measure. Available measures are limited to those in the data cube.

6. Optionally, add the invoice number. If configured, this is located under Record Details in the Measures area. You can rename this field if you wish.

7. Optionally, add descriptions and/or dimensions for the keys in the records.
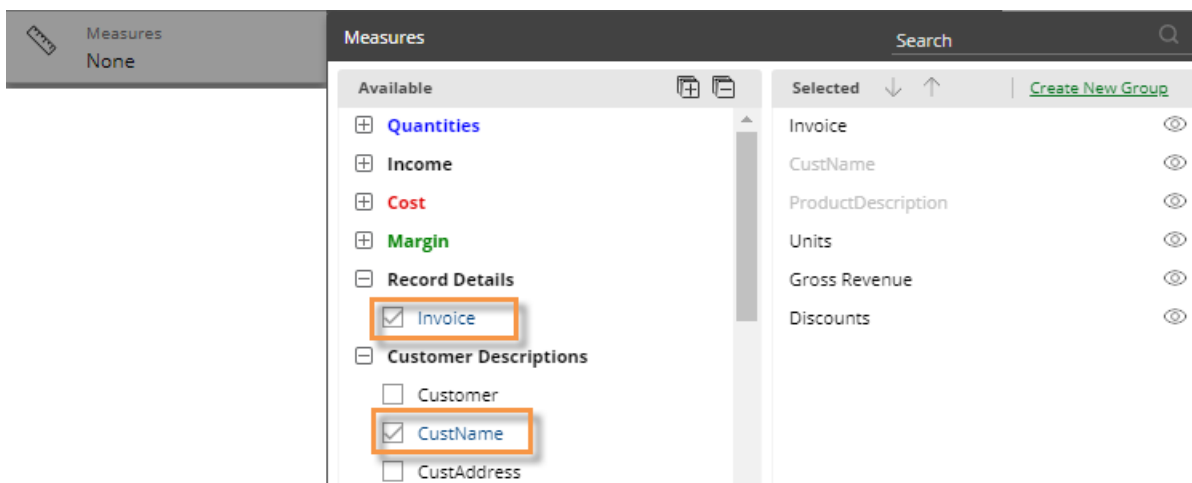
Tips:

If you see a message that none of the selected measures are graphable, make sure that you are not in a Percent Change graph. This graph type does not support record details. Instead, switch to a grid or an Actual Value graph.
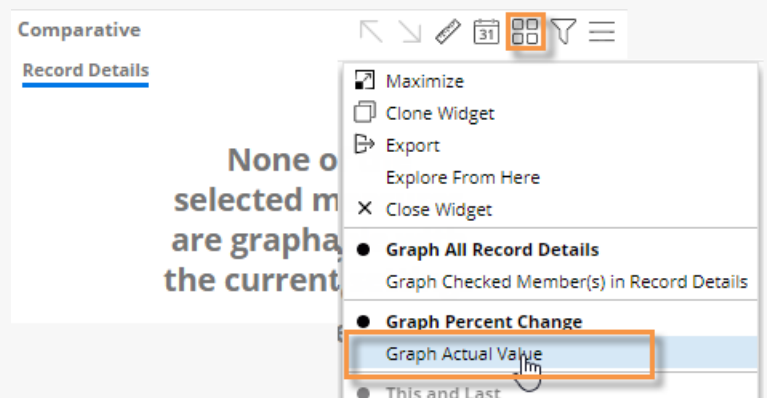
The data cube must include at least one measure to allow viewing of record details in Salient Dashboards.

Tips:

Records details are limited to one million records. If records exceed this limit, reduce the amount of data using filters or by changing the date range.

Record details provide information similar to SIM's Line Item analysis (for transactional data) and Time in Place analysis (for non-transaction data).

Expand members

In grids that compare dimension members, you can expand one or more members to see subgroupings within them. You can expand the 1st By dimension to see the 2nd By, the 2nd By dimension to see the 3rd By, etc.

To expand members

Click the ⊞ button beside the member.

You can expand additional levels of data (e.g., 2nd By, 3rd By, etc.).

Tip: The widget must have multiple Group By dimensions.

Tips:

You can choose the 2nd By, 3rd By, etc. using the pop-up menu in the breadcrumb path or in the Group By area (see page 183).

The selected sort method (see page 195) determines the order within all By dimensions.

When you save a dashboard, it will remember the expanded rows and show them whenever a user opens the dashboard. In addition, you can make the top number of rows automatically expand. This setting is available in grid settings (see page 232).

Depending on the maximum limit set by your administrator, you may not be able to see all available 2nd By dimension members at once. An information line shows how many members are displayed as well as the total number of members possible (for example, 100 of 238 displayed). In this case, you can change the sort (see page 195) to bring the desired members closer to the beginning of the list. If you still cannot view the desired members, notify your administrator, who can raise the maximum limit.

Check members

In grids that compare members, you can selectively checkmark any dimension members or key members to view their subtotals, drill down on them, show the checked members in graphs, and more.

To checkmark members

Click the ☐ box(es) beside the member(s).

Tips:

After checking members, you can view subtotals by clicking the subtotal button at the bottom of the widget, or clearing the Hide Grid Subtotals option in Grid Settings.

You can drill down on the checked members by clicking the Downlevel button and selecting Drill into Checked.
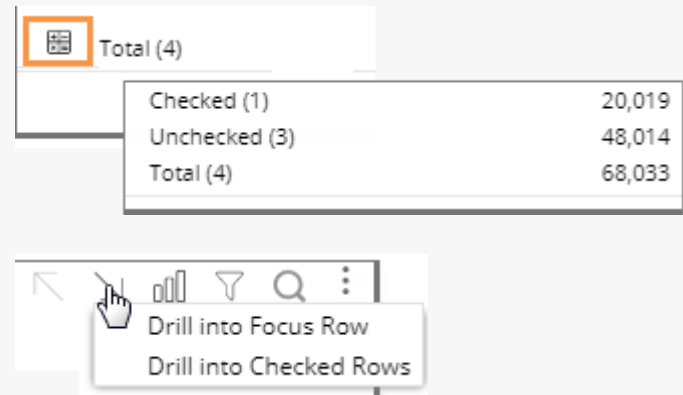
Sort

To sort

1. Place your cursor over the heading or subheading of the column by which you want to sort.
2. Click the drop-down arrow that appears.
3. In the pop-up menu, select Sort Ascending or Sort Descending.

Tips:

To sort a graph, switch to the grid format and then perform these same tasks; then switch back to the graph.

You can also click a heading to sort; click again to reverse the sort order.
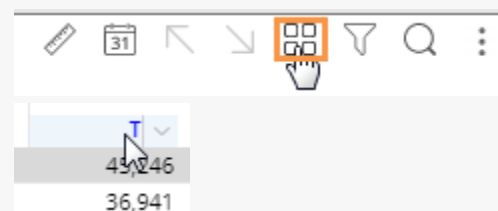
Search

You can perform a search to find specific items in a widget that lists multiple members. The search looks in the current page and any additional pages of data.

To search

1. Click the 🔍 button at the top of the widget (visible on mouseover).
2. In the Search window, type some or all the characters in the item you want to find.
3. The window automatically returns a list of the member(s) that meet the criteria.
4. Click on the desired member to go to that item in the widget.
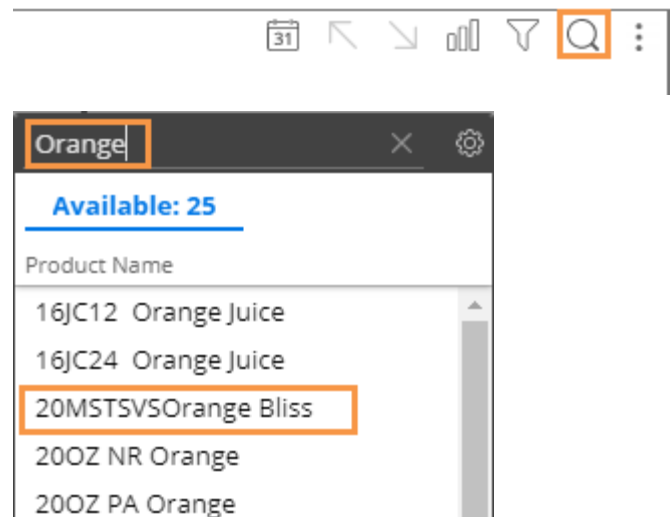
Tips:
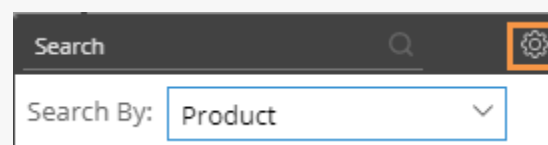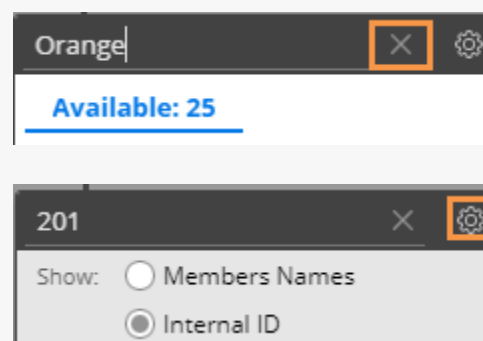
The search returns up to a maximum number of results set by your administrator. You cannot page to results beyond this number.

Filter

Filters allow you to narrow down on the exact information needed. Dashboards provide several ways to filter the data, such as global filters, workspace filters, and individual widget filters. When building a dashboard, you should determine what filtering options you want to be available to users. You can apply filters prior to saving the dashboard to provide specific, action-oriented information that is immediately available when the user opens the dashboard, or allow users to start with an overview dashboard and narrow on whatever information interests them.

Filter type	Explanation
Workspace filter (see page 201)	A workspace filter affects widgets across the dashboard. A filter panel provides streamlined access to these filters. The panel may be disabled in dashboard settings (see page 253). In addition, dashboards may include the following tools to turn on workspace filters (if configured in edit mode): • Filter widget (see page 205) - provides a separate menu in the dashboard to turn on a filter. • Filter button (see page 53) - toggles a workspace filter on/off.

Filter type	Explanation
Global filter (see page 207)	A global filter is a workspace filter that is "locked" so that it stays on when you open other dashboards. You can access these filters using the filter panel just like other workspace filters.
Individual widget filters (see page 208)	Individual widget filters let users filter data in a specific widget. Users simply click the widget's ▽ button and then select the data that they want to see.
Downlevel filters (see page 210)	Downlevel filters are created by drilling down. Drilling is only available in data widgets that compare members and include multiple Group By dimensions (configured in edit/explore mode).

Breadcrumb path

The breadcrumb path at the top of the widget shows the filters currently applied. Just click on a filter in the breadcrumb path to edit or remove it.
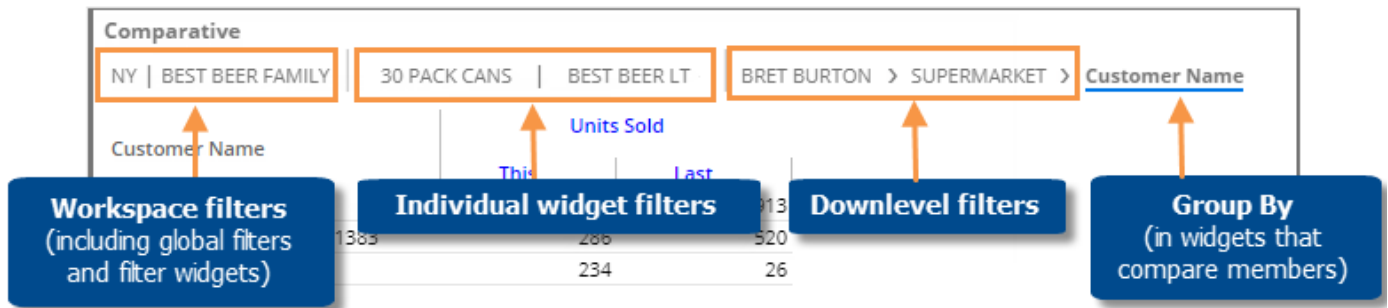
Tip: The breadcrumb path does not show filters based on collections or user account rights. However, you can place your cursor over the title bar to see a tooltip that shows all filters.

Filters dialog

You can also access filters by clicking the filter button at the top of the widget.

Collections as filters

Collections (see page 216) are saved sets of members. Collections can be applied to a single widget or the workspace (i.e., all widgets) to filter the data. Only Dashboard Designers and Power Viewers can apply and modify collections. If the collection is applied to a single widget, it is considered to be a "widget filter"; if the collection is applied to the workspace (i.e., workspace filter), it filters across the dashboard.

Importing filters

Users can import text files (see page 225) to quickly select members for filters. This procedure may be useful when filtering on long lists of members or reusing filter lists. Any user can access this capability, unlike collections which are limited to Power Viewers and Dashboard Designers; however, this feature may be turned off globally by your administrator.

User account filters

Your administrator may apply filters (via password collections and other methods) to your user account to control the data available to you. If your account has a conditional password collection applied, then the data may be filtered in some views and not filtered in others. For example, the data may be filtered for customer-level details, but summary-level views may be allowed. For more information, contact your system administrator.

Filtering in the mobile app

To enable filter selection in the mobile app, apply one or more filters while prior to saving the dashboard. These may include filter widgets, workspace filters without separate filter widgets, and/or collections applied to the workspace. Each of these filters will be available as a separate menu in the filters panel and will affect widgets across the dashboard. Mobile app users will not be able to add these types of filters (except Power Viewers who can use the collection feature), but they will be able to select from them and clear them.

You may also apply filters to individual widgets. Mobile app users will be able to access these types of filters (except collections) via the breadcrumb path at the top of the widget, but they will not be able to add them.
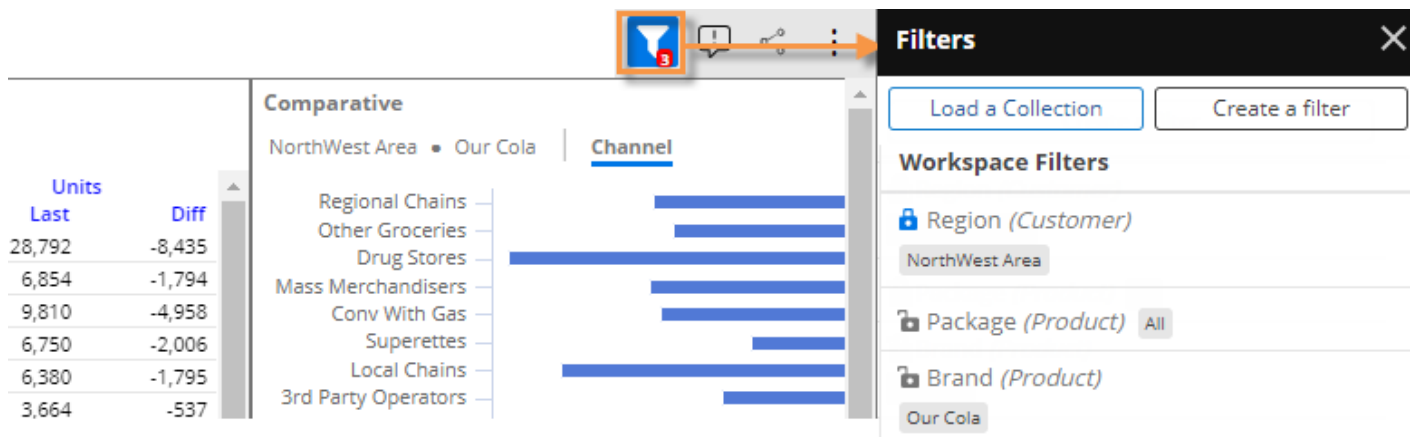
Workspace filters

A workspace filter affects widgets across the dashboard. A filter panel provides streamlined access to these filters. The panel may be disabled in dashboard settings (see page 253).

To use workspace filters
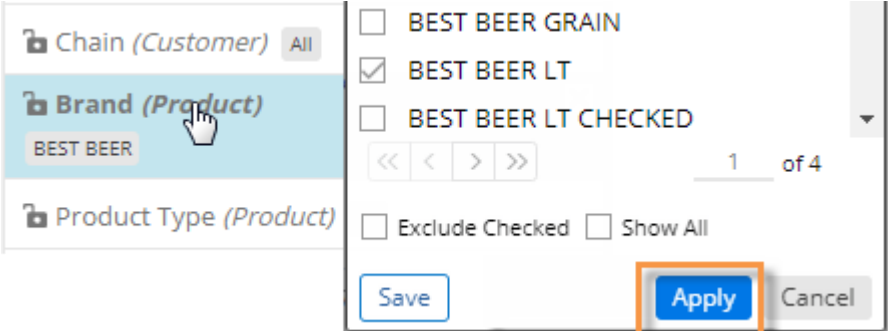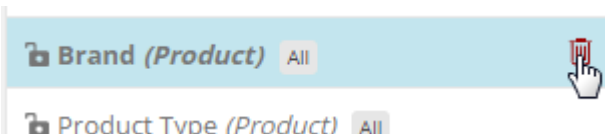
Click ![filter icon] at the top of the screen to open the filter panel. This button is blue when the filter panel is open. The red number indicates how many workspace filters are currently on (does not include filters set to "All").

> **Tip:** A contrasting symbol ![icon] or ![icon] means that at least one global filter (see page 207) is turned on.

In the filter panel, choose from existing workspace filters or create a new workspace filter (see page 203).

Option	Instructions
Make a filter selection (e.g., select a different member)	Click on the workspace filter and make your selections in the pop-up window. Click **Apply**.

Tips:

• By default, the window only shows members with data in the current context. You can click **Show All** in the dialog to list all members.

• You can import a file (see page 225) to quickly filter on a list of members. Click ⭳ at the top of the pop-up window to access this option. |
| Reset a filter | Place the cursor over the filter and click the **X** button. The filter will still be present but will show data for all members. |
| Remove a filter | Reset the filter as explained above. Then, place the cursor over the filter and click the 🗑 button. |

Tips:

By default, workspace filters affect all widgets in the dashboard; however, they may be turned off for an individual widget or may not be applicable to a widget (e.g. attribute does not correspond to data in the widget). To see whether a workspace filter affects a widget, place the cursor over the widget title and refer to its tooltip.

We recommend that you avoid filtering by members with empty host codes. If you encounter such members, which usually appear as Undf# or DFLT, we recommend that you contact the administrator to correct the dataset.

To create a workspace filter

1. Click the ▽ at the top of the dashboard screen to open the filter panel.

2. Click **Create a filter**.

   For Dashboard Designers and Power Viewers, a Load Collection option is also available to filter based on a saved collection of members (see page 217).
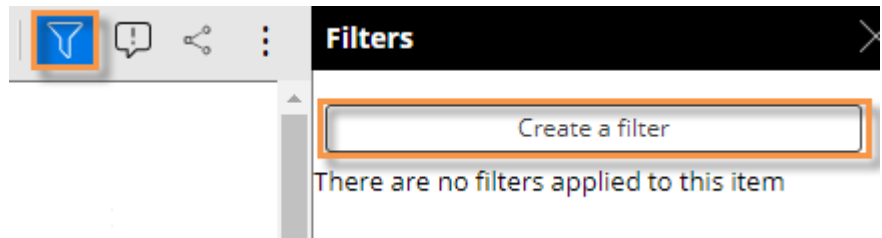
3. Select the dimension for which to create a filter. In view mode, available dimensions are limited to Group Bys for the current dashboard.
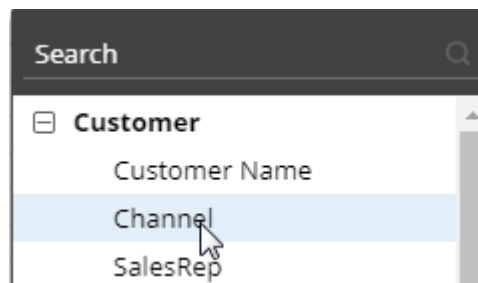
4. Checkmark the desired member(s) for which to show data.

   Tips:

   • The **Exclude Checked** option lets you show data for all members except the selected members.

   • You can import a file (see page 225) to quickly select members. Click ⤓ at the top of the selection window to access this option.

   • Power Viewers and Dashboard Designers can optionally click **Save** to create a collection of the checked members so that they can be reused later.
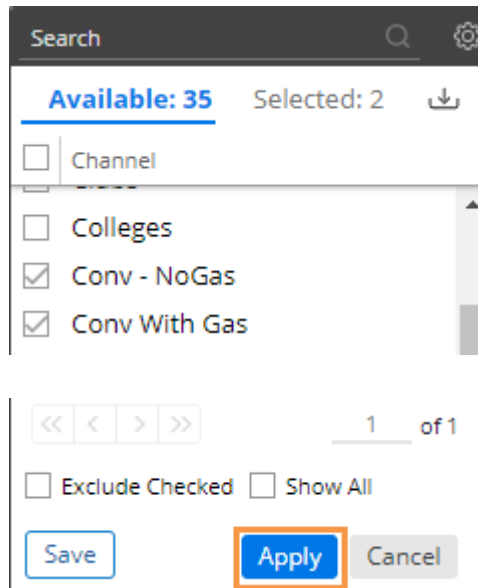
5. Click **Apply**.

To allow users to create workspace filters in view mode

1. Select multiple "Group By" attributes when building the dashboard; only these attributes will be available in view mode.

2. In dashboard settings, make sure the panel is docked to the left or right (i.e., not hidden). The filter panel will be docked to the right by default.

Users will then be able to select from existing workspace filters and create their own workspace filters as explained above.

Tips:

If you want to include a separate menu in the dashboard, you can add a filter widget rather than using the previous method to add the workspace filter.
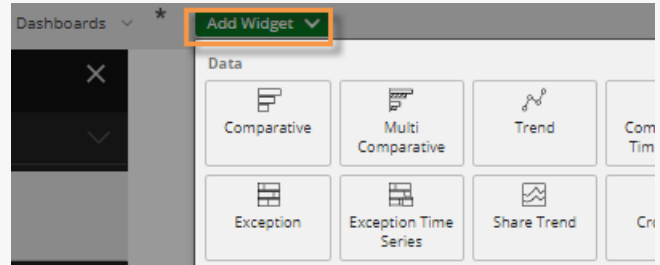
By default, workspace filters affect all widgets in the dashboard; however, you can turn off these types of filters for a specific widget (for example, to show summary-level data) by clearing **Use Workspace Filters** in general settings (see page 249).

If the data cube of a widget does not include the key/dimension of the filter, then the filter is not applicable and, therefore, does not affect the widget. For example, if the widget shows weather data that is only associated with a customer key, then a product filter, such as brand, will not affect the widget.

Filter widgets (i.e., separate filter menus)

A filter widget is a special type of workspace filter that provides a separate menu in the dashboard. This type of filter affects all widgets in the dashboard by default. Filter widgets are added in edit mode.

To select from a filter widget

1. Click the filter button on the filter widget.
2. In the dialog, place a check beside all members for which you want to see data.
3. When you are finished, click **Apply**.
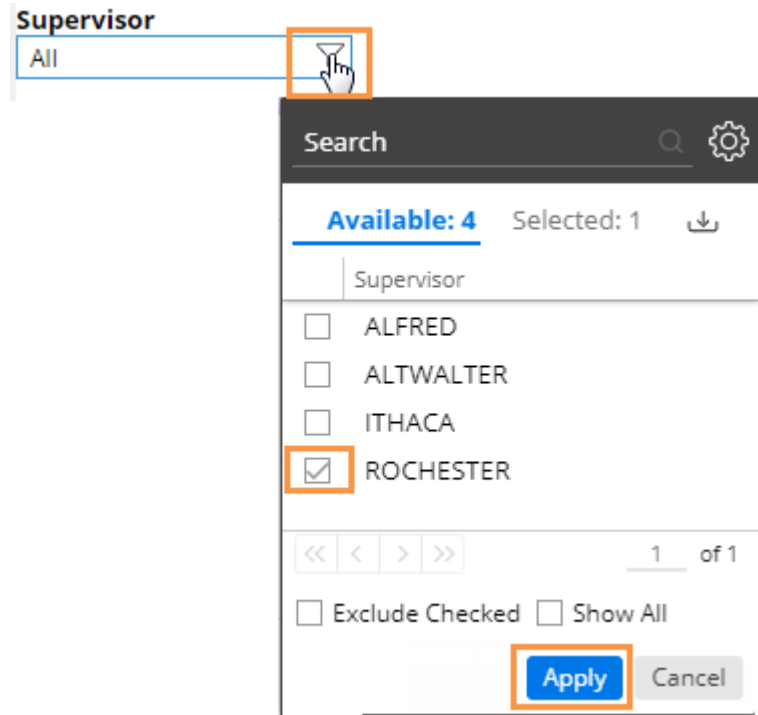
Tips:

To quickly clear a filter menu (i.e. view data for All), you can click the ✕ button.
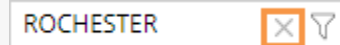
By default, the dialog only shows members with data in the current context (including other filter selections). You can click **Show All** in the dialog to list all members.

You can import a file (see page 225) to quickly filter on a list of members. Click ⬇ at the top of the selection window to access this option.

You can also make your selection in the workspace filter panel.

We recommend that you avoid filtering by members with empty host codes. If you encounter such members, which usually appear as Undf# or DFLT, we recommend that you contact the administrator to correct the dataset.

To add a filter widget (edit mode only)

1. Click the [Add Widget ∨] button at the top of the screen.

2. Click and drag Filter onto the workspace.
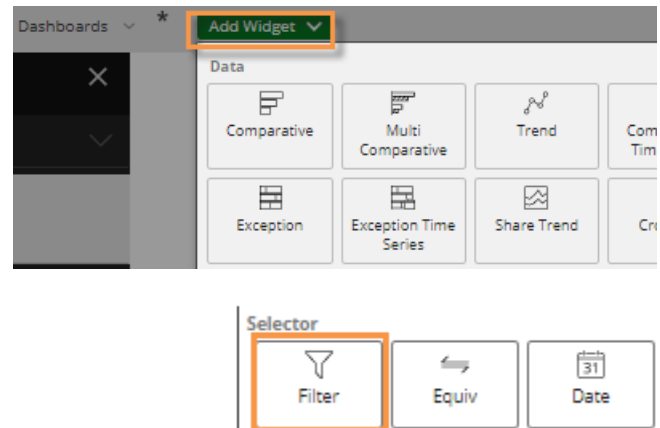
3. In the pop-up window, select the dimension for which to create a filter.
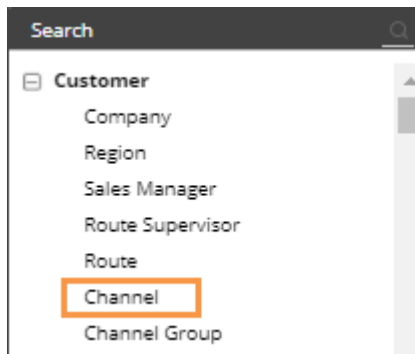
4. If you want the filter widget to open to a default member(s) when users open the dashboard, make selections (see page 205) in the filter before saving. Otherwise, the workspace filter will open to All.

5. To adjust the width or customize the label, click on the widget and go to general settings in the toolkit.
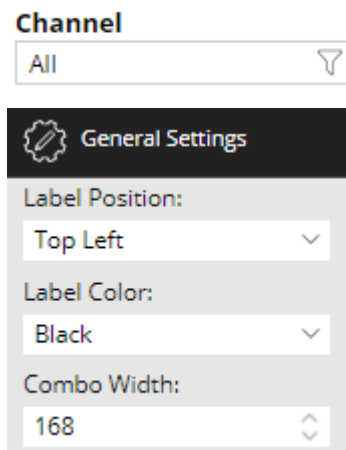
Tips:

By default, workspace filters (including filter widgets) affect all widgets in the dashboard; however, you can turn off these types of filters for a specific widget (for example, to show summary-level data) by clearing **Use Workspace Filters** in general settings (see page 249).

If the data cube of a widget does not include the key/dimension of the filter, then the filter is not applicable and, therefore, does not affect the widget. For example, if the widget shows weather data that is only associated with a customer key, then a product filter, such as brand, will not affect the widget.

Tips:

The list of available members in the filter menu depends on the following (unless **Show All** is selected):

- Filter widgets and other workspace filters affect the available members listed.

- The filter widget only lists members with data for the measures used in the dashboard. Therefore, you may need to add or remove measures in order to adjust the list of available members.

- The filter widget only lists members with data for its automatically-assigned date range, which normally encompasses the date ranges of all widgets in the dashboard. In general, you can extend the date range (see page 169) of one or more widgets to make more members available in the filter.

You cannot change the dimension of the filter menu. If necessary, delete the filter menu and then add a new filter with the desired dimension.

A filter button (see page 53) is another way to provide users with fast access to filters. A button toggles a filter on/off rather than providing choices in a menu.

Global filters

A global filter is a workspace filter that is "locked" so that it stays on when you open other dashboards. You can access these filters using the filter panel just like other workspace filters.

To turn on a global filter

1. Click the ▽ button at the top of the dashboard screen to open the filter panel.

2. In the filter list, locate or create the filter you want to turn on globally.

3. Click the lock/unlock button to "lock" the filter. The locked symbol is blue 🔒.

When you open another dashboard, it will automatically use global filters. Note that only applicable global filters will be applied (i.e., attribute matches a "Group By" in the dashboard).

Tip: The filter button at the top of the screen shows a contrasting filter symbol if global filters are on: ▼🔒 if panel is closed; ▽🔒 if panel is open
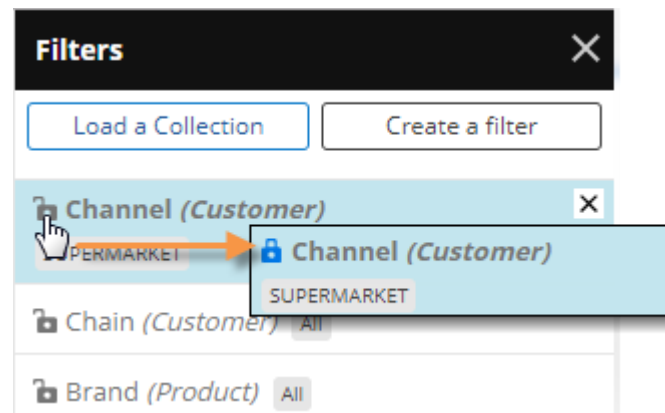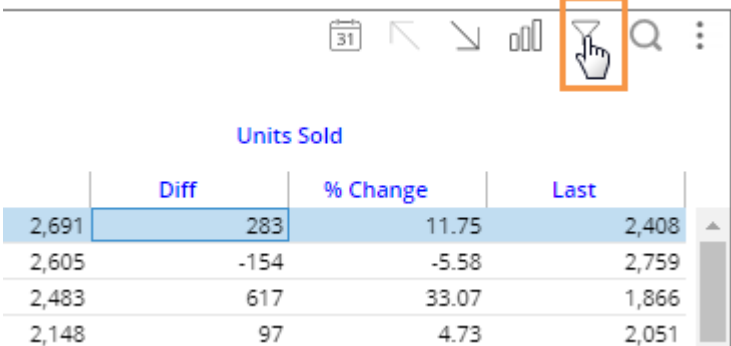
Individual widget filters

Individual widget filters let users filter data in a specific widget. Users simply click the widget's ▽ button and then select the data that they want to see.

To create a widget filter

1. Click the filter button at the top of the widget (visible on mouseover if enabled).
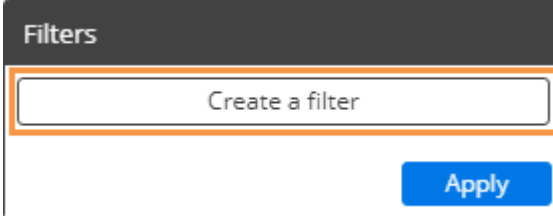
2. In the pop-up dialog, click **Create Filter**.
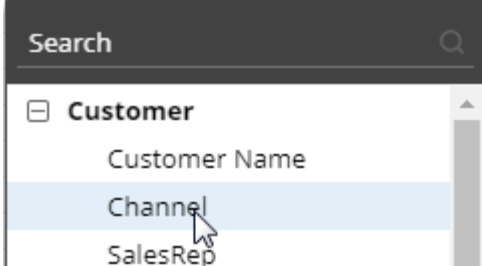
   Other options may be available:

   Checked - If the widget has checked members, you can filter on the checked members.

   Load a Collection - (Dashboard Designers and Power Viewers only) - You can filter on a saved collection of members (see page 217).

3. Select the dimension (i.e., attribute) for which to create a filter. Only dimensions that are built into the widget as "Bys" will be available in view mode.

To create a widget filter

4. Checkmark the desired member(s).

| Tips: |
|---|
| • By default, the filter choices only include members with data in the current context. If you wish, you can check **Show All** to list all members. |
| • The **Exclude Checked** option lets you show data for all members except the selected members. |
| • You can import a file (see page 225) to quickly select members. Click ⬇ at the top of the selection window to access this option. |
| • Power Viewers and Dashboard Designers can optionally click **Save** to create a collection of the checked members so that they can be reused later. |
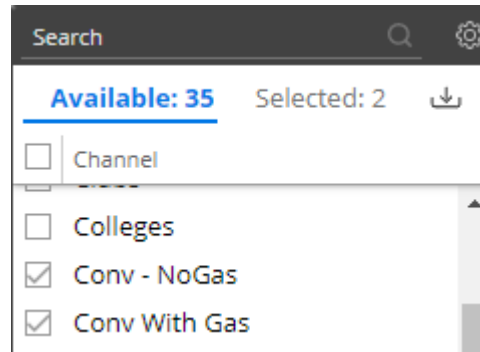
5. Click **Apply** to apply the filter to the selected widget only.

   If you prefer, you can apply the filter to all widgets in the dashboard by clicking the drop-down menu and selecting Apply to Workspace.
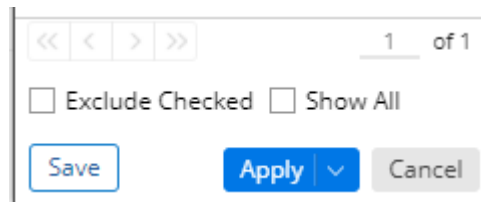
6. Click **Apply** again in the filters area.
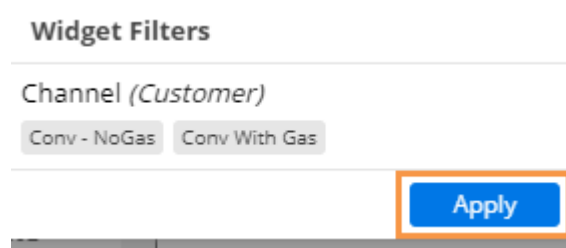
To allow viewers to create widget filters

1. Set up one or more By attributes (see page 183) for the widget. Only these attributes will be available for filters.

2. In general settings (see page 249), make sure the widget's filter button is enabled (on by default).

Users will then be able to create their own widget filters as explained above.

Drill down

You can drill down on one or more members to filter the data in a widget. When you drill, Salient Dashboards adds a downlevel filter to remove data for all other members.

Drilling is only available in data widgets that have multiple Group By dimensions.

To drill down on a single member

Double-click on the row, bar, pie slice, etc., representing that member.

> **Tip:** You can also drill by clicking on a member to select it and then clicking the ↘ button at the top of the widget.

To drill down on multiple members

1. Check the desired members (see page 195) in a grid.

2. Click ↘ on the title bar at the top of the widget.

3. If a drop-down appears, select **Drill into Checked Rows**.

Tips:

When you drill, the By becomes what was previously the 2nd By. You may be able to change the By and/or downlevel order as you drill to follow a flexible drill path. Only Power Viewers and Dashboard Designers have this capability.

After you have drilled down, you can drill back up at any time by clicking ↖ on the widget toolbar.

You can drill down on expanded grid rows to filter on multiple levels at once. In this case, drilling back up will remove all the drill levels simultaneously.

> **Tips:**
>
> If a custom drill-down is configured, drilling down may take you to another dashboard with the downlevel filters applied.
>
> Drilling affects other widgets in the dashboard if the dashboard has a corresponding workspace filter.

Set up drill-down capabilities in a dashboard

The following settings control drilling capabilities for end-users in view mode.

How the Group By affects drilling

If a widget has multiple Group By dimensions (see page 183), viewers can drill down (see page 210) in view mode; therefore, each widget should include all possible dimensions on which users should be able to drill. (Group By dimensions are not required for custom drill-downs (see page 213)).
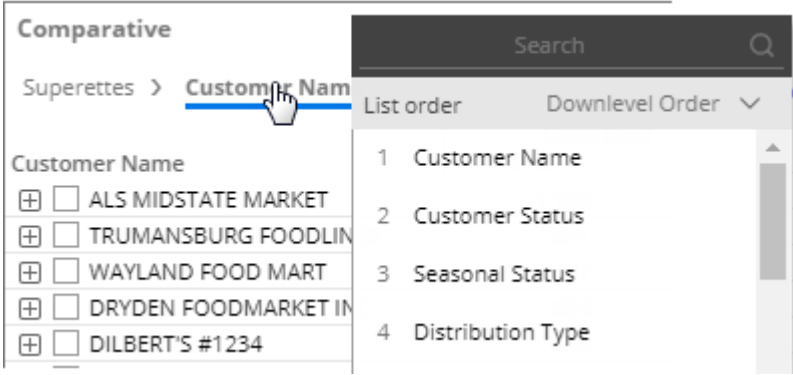
In addition, the Group By order controls the default drill down order for a widget.

> **Tip:** Users cannot drill in non-comparative widgets (e.g., Trend, Gauge, etc.); instead, they can add filters if enabled in the Filter By area (see page 187).

Flexible drill-down

Drilling capabilities in view mode may be different depending on the user's licensing.

Licensing	Description
Power Viewer	Users can change the By as they drill, which allows them to follow a flexible drill path within any of the Group By dimensions.
Regular Viewer	Users must follow the preset drill path set in the Group By dialog.

Concurrent drill-down across a dashboard

Drilling can affect other widgets in the dashboard if the dashboard has a corresponding workspace filter. Therefore, you may want to add workspace filters (see page 203) (even if they are set to "All") to enable downlevel filters to work across the dashboard. For example:
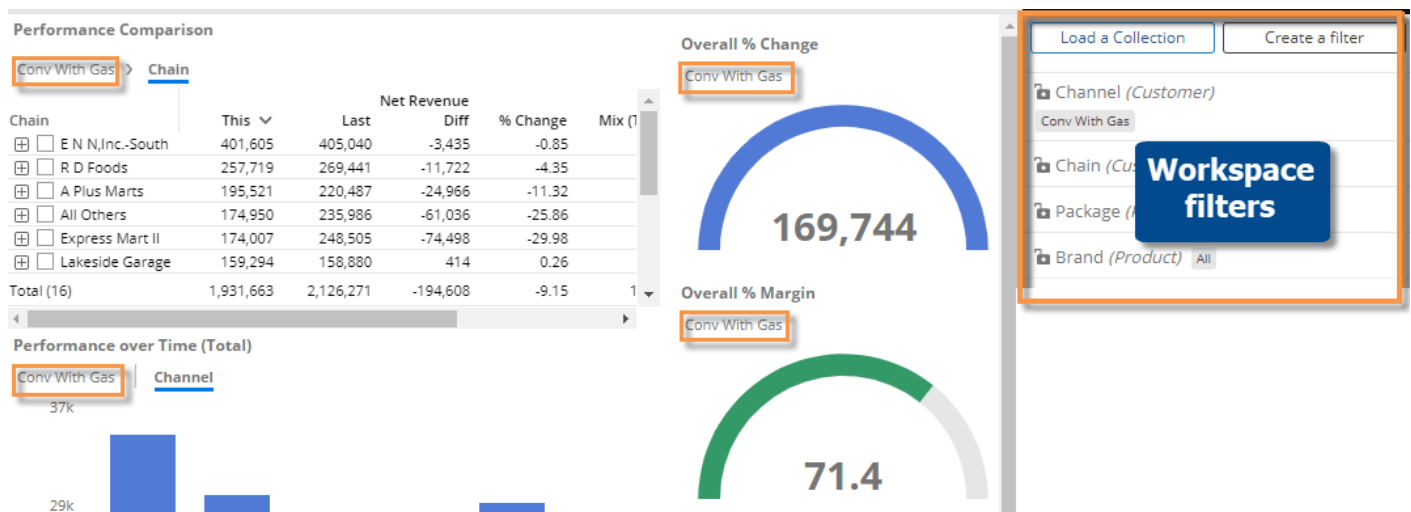
Custom drill-down

A custom drill-down is a set of preconfigured dashboards through which the user can drill (see page 214). The custom drill path can include a variety of widget types and display settings to optimize the investigative process while allowing the user to select the item(s) on which to drill. For example, the custom drill-down might start with a comparison of regions and then go to a pie chart of brands for a particular region followed by a list of products within a brand for that region. Drilling on a dashboard in a custom drill-down opens the next dashboard or "step" that includes a filter for the drilled item(s). Users can drill on different items each time they use the custom drill-down. This option is like the storyboards feature in SIM.

Custom drill-downs must be created (see page 215) in edit mode by a Dashboard Designer. All dashboards in a custom drill-down must be published.
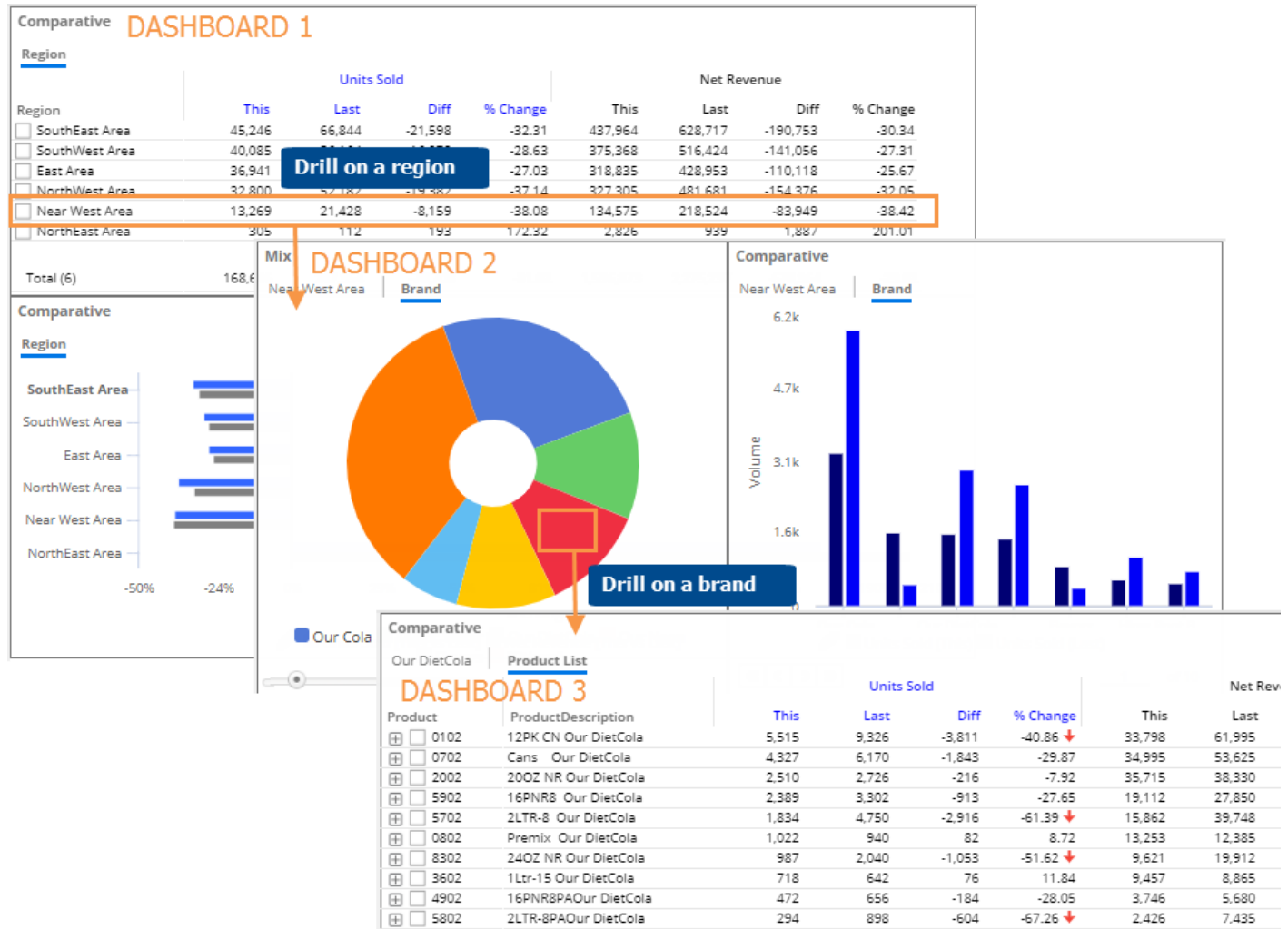
Use custom drill-downs

To use a custom drill-down

1. Open the first dashboard (see page 20) in the custom drill-down.

2. Select the item(s) and drill by double-clicking or using other drill methods (see page 210).

3. You can continue to drill down until you reach the last dashboard in the custom drill-down.

Tips:

Depending on the widget's configuration, you may need to drill through additional levels of Bys before the next dashboard will open.

You can drill on multiple member(s) by checking them and then clicking ⬊ on the title bar at the top of the widget.

Create a custom drill-down

To create a custom drill-down

1. Create, configure, and publish a dashboard to use for each "step" in the drill-down. Within each dashboard, make sure you select and save the appropriate widget type(s), By dimensions, date range, display settings, etc. Consider the following when building the dashboard steps.

   Filters - When the user drills, the selected member will automatically be used as a filter in the next dashboard; therefore, you do not need to manually add the filter for the "drill" attribute in subsequent dashboards. In addition, the following filters will automatically be carried forward from the previous dashboard: downlevel filters, widget and workspace filters (except those that use saved collections), and selections from filter widgets. Collections that are used as filters will not be carried forward to the next dashboard automatically; therefore, you may want to manually apply those prior to saving.

   By - Configure one or more Group By dimensions to determine what should be available for By and filter selection. Depending on the following settings (Step 2v), you can require users to drill through all the configured By dimensions before going to the next dashboard, or skip the Bys and go straight to the next dashboard.

2. Open the first dashboard or "step" and set up the navigation link(s).

i. Click on a widget for which you want to set up custom drill-down. The widget must compare members.

ii. Click on Navigation Links in the toolkit and then click **Add Links**.

iii. Click **Add** and then select the dashboard to use as the next step. You can add multiple dashboards if you want the user to be able to select which one to go to when they drill.

iv. Under Navigation Links, check the **Allow Navigation Links in Drill Path** box.
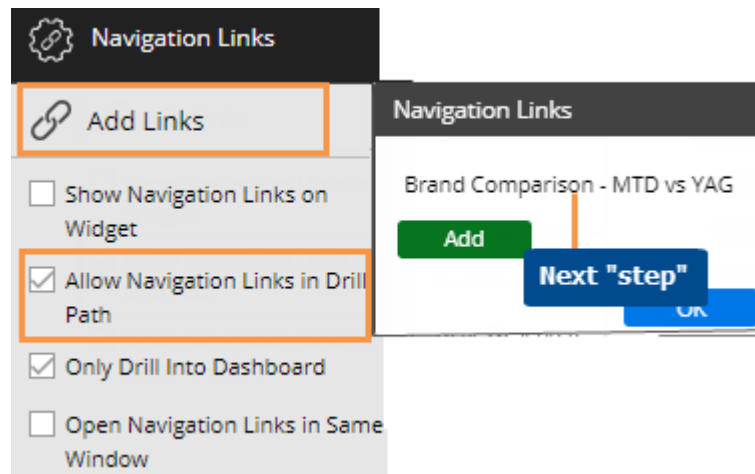
v. Choose an option for handling additional By levels (2nd By, 3rd By, etc.) in the widget. To go straight to the next dashboard (i.e. skip Bys) when the user drills, check **Only Drill into Dashboard**. To drill through all By levels within the widget before going to the next dashboard, clear this option.

vi. Check or clear the option to open the link in a same window. If cleared, this option will open the link in a new tab or browser window.

vii. Repeat for all widgets from which custom drill-down should be allowed.

3. Save changes to the dashboard.
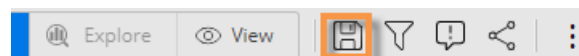
4. Repeat Steps 2 and 3 for each dashboard used as a step in the drill-down (except the last step)—specifying the next step and saving each one.

5. Share the dashboard of the first step with users.

Collections

Collections allow you to create and re-use custom filters. Collections can update dynamically based on a test (called Of These), or members can be selected manually. Collections provide a good way to select and narrow down on a subset of the data. Only Dashboard Designers and Power Viewers can create and apply collections.

Collection types

- Classic collection - is a static list of dimension members or key members that are selected during collection creation. An **Exclude** option is available if you prefer to show data for members that are <u>not</u> in the collection. These collections can be shared between SIM or Salient Dashboards as noted below and created, edited, and used in either application.

- Dynamic collection (Of These) - is created in SIM by setting test criteria so that the collection updates automatically to include key members (e.g., customers) that meet the criteria each time you turn it on. Currently, this type of collection is available for key members but not dimension members. In Salient Dashboards, you can turn on dynamic Of These collections, but you cannot edit them. In the collections tree, the ⤶ symbol indicates a dynamic Of These collection.

- Classic Of These collection - is created in SIM by setting test criteria. Salient Dashboards then saves a static list of the key members that met the criteria. In Salient Dashboards, you can turn on a classic Of These collection. You can also edit a classic Of These collection by editing the list of members it contains; however, you cannot change the test criteria in Salient Dashboards.

Applying collections

A collection can be turned on as a <u>filter</u> (see page 217) in a widget or across the entire dashboard (i.e., workspace filter) to narrow down on a particular subset of data. Users who have the necessary rights can apply, create, and manage collections. Dashboard Designers can turn off a collection's <u>visibility</u> (see page 224) for view mode to lock down content if they wish.

In addition, collections can be used as part of a <u>custom group</u> (see page 189). A custom group can roll up and compare results for each collection.

Global and private collections

Collections are either <u>private</u> (see page 290) or <u>global</u> (see page 288). Private collections are those you create yourself. They are stored in your user data, and are not available to anyone else. Global collections are available to other users who have access to the user data category. Only users with rights to create global user data can create or edit global collections.

In addition, <u>collection categories</u> (see page 224) may be selectively restricted per dashboard.

Sharing collections between SIM and Salient Dashboards

SIM and Salient Dashboards can share collections if they are stored in the same location; therefore, global collections will be available in both applications (if installed) because they are stored on the server. A private collection in SIM will be available for the same user in Salient Dashboards if the SIM user data location is set to the server.

Filter data by a collection

Collections can be applied to a single widget or the workspace (i.e., entire dashboard) to filter the data by a saved set of members. Only Dashboard Designers and Power Viewers can create and apply collections.

To apply a collection as a filter

1. Do one of the following to open the filters area:

- To apply a collection to a single widget, click the filter button at the top of the widget (visible on mouseover).

- To apply a collection to the entire dashboard, click the Filters button to open the Filters panel.

2. Click **Load a Collection**.
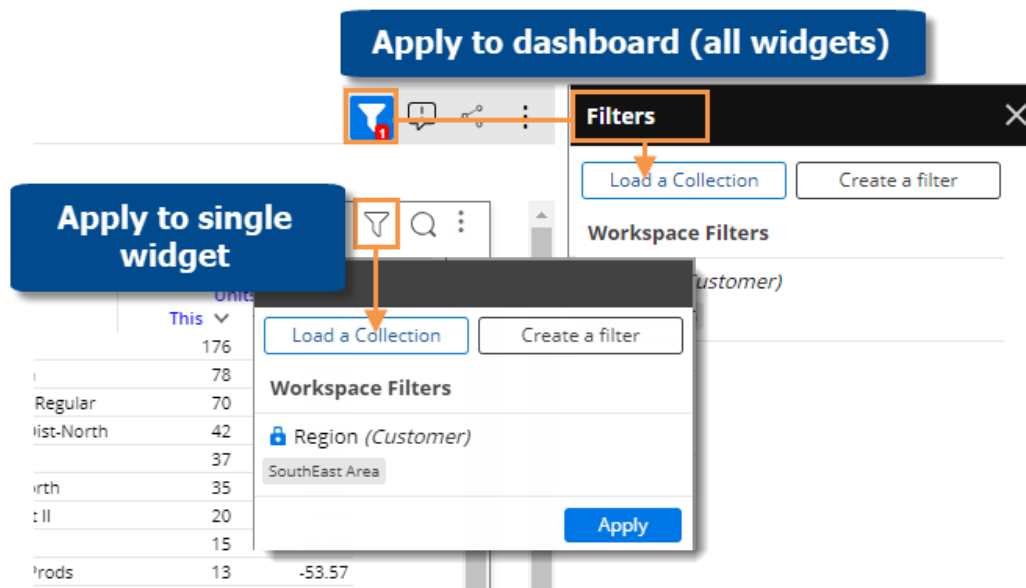
3. In the Collections dialog, locate the collection and place a checkmark beside it. You may need to expand a key, dimension, and category to find the collection. A search option is also available.

   If the collection does not already exist, you can click **Create New Collection** at the top of the window.

> **Tip:** If you select more than one collection within the same key or dimension, results will be limited to members that are common to all selected collections.

4. Click **Apply**.
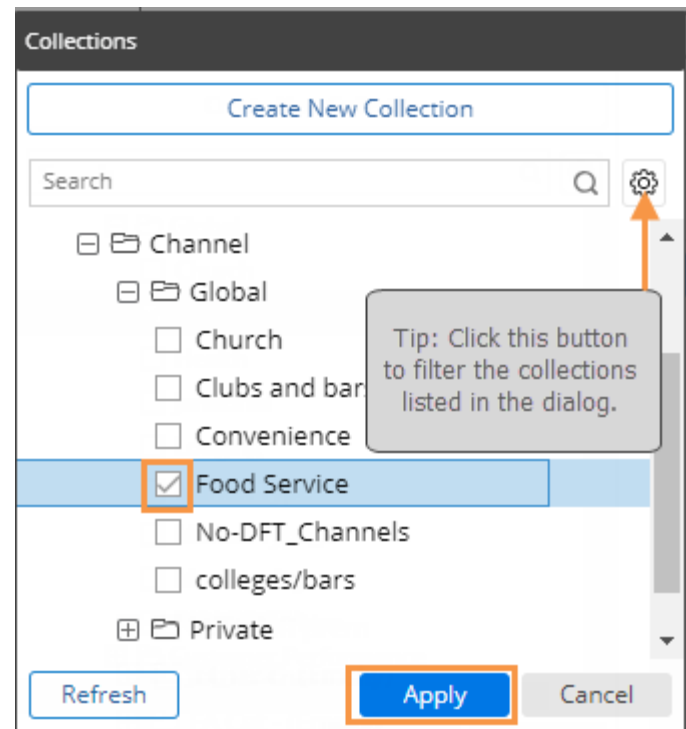
5. Visibility of a collection can be turned off to lock content for end-users. This means that viewers (including Power Viewers) will not see the collection listed in the filters area and will not be able to turn the collection off. To toggle visibility on or off, click the ⊚ icon in the filter panel.

Tips:

The breadcrumb path does not show when collection-based filters are on, but the widget tooltip (shown when placing the cursor over the title bar) shows collection filters.

In the Collections dialog, dynamic collections have a ⇄ symbol. These are created in SIM and dynamically update based on test criteria.
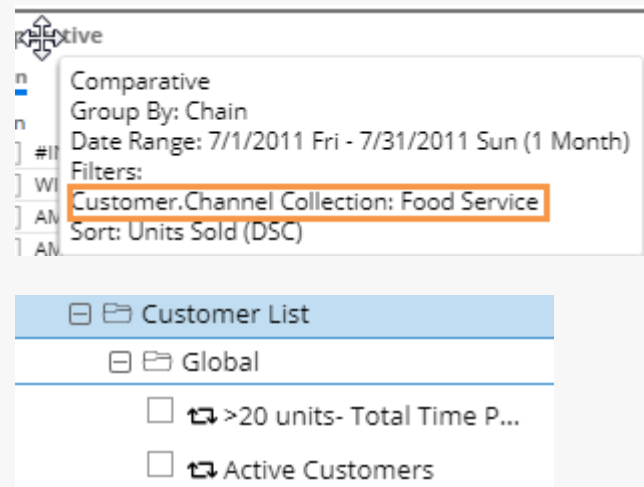
Create a collection

You can create a classic collection (i.e., static list of members) in Salient Dashboards. (Dynamic collections can only be created in SIM but you can use them in Salient Dashboards). Only Power Viewers and Dashboard Designers can create and apply collections.

To create a collection

1. Open the filter area for the widget or the workspace, depending on whether you want to filter a single widget or all widgets based on the collection.

2. Click **Load a Collection**.

3. In the Collections dialog, click **Create New Collection**.
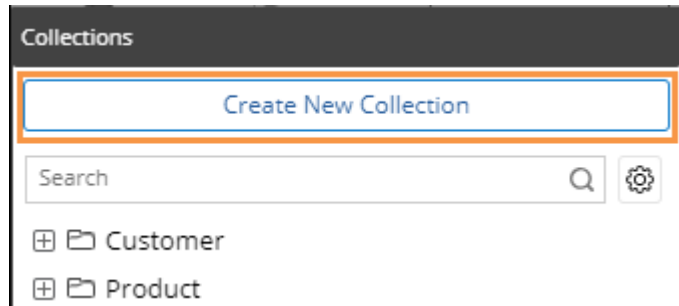
4. In the pop-up window, select the key or dimension of the collection.
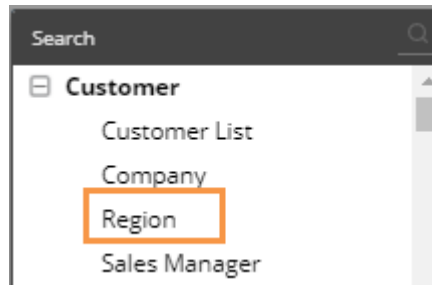
5. In the next window, check the boxes of the members to include in the collection.

Tips:

• By default, the collection will filter out all members that are <u>not</u> in the collection. To filter out the collection members instead, check the **Exclude Checked** box.

• You can <u>import a text file</u> (see page 225) that lists members to quickly add those members to the collection. Click ⬇ at the top of the window to access this option.

6. Click **Save**.
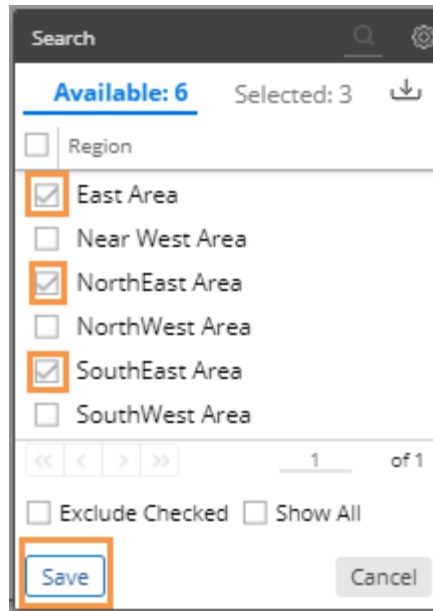
7. In the Save dialog, select the private or global category and/or folder where you want to store the collection. You must have access to the selected location. You can click the New Folder button if you want to create a new folder.

8. Type a collection name. Do not use double quotation marks ("") in the name.

9. If you want to turn the collection on as a filter in the currently selected widget or workspace, check the **apply after saving** box.

10. Click **Save**.
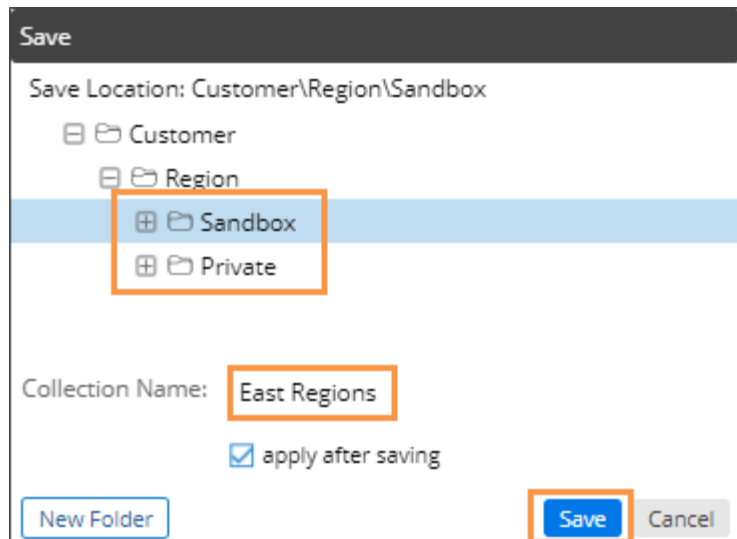
Creating a collection of checked members

You can also create a collection by checkmarking them in a grid, going to the filters area to view the checked members, and then choosing the Save option.

Edit a collection

Only Power Viewers and Dashboard Designers can edit collections.

To edit a collection

1. Open the filters area of a dashboard or widget that is filtered by the collection.

2. Click on the collection.
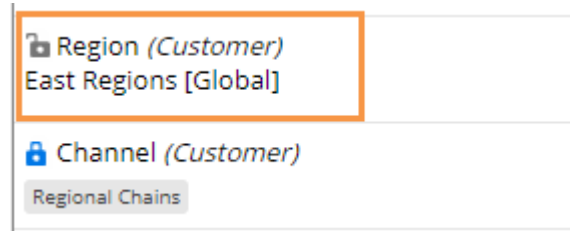
4. In the pop-up window, check the boxes of the members to add to the collection, and/or clear the boxes of members to remove from the collection.

Tip:

• By default, the collection will filter out all members that are not in the collection. To filter out the collection members instead, check the **Exclude Checked** box.

• You can import a text file (see page 225) that lists members to quickly add those members to the collection. Click ⤓ at the top of the window to access this option.

7. Click **Save**, and then click **Save** again to save your changes.

8. If you are saving the collection to the same location, you will be prompted to overwrite it. Click Yes.
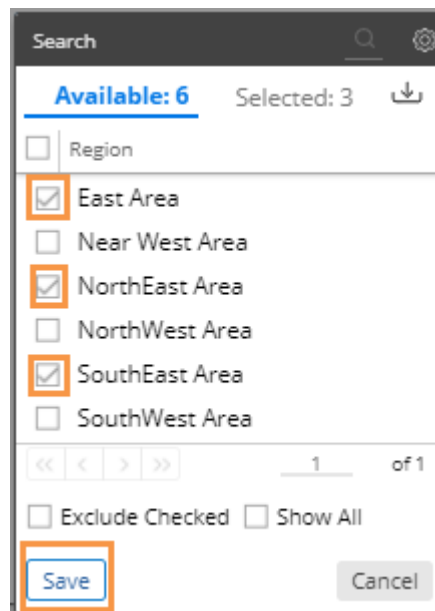
Tips:

The previous instructions explain how to edit a collection that is currently turned on. You can edit any collection by going into the Filters area, clicking Load a Collection, finding a collection in the collections tree, and selecting the Edit option in the menu.

You can also rename, delete, or move a collection using this menu.
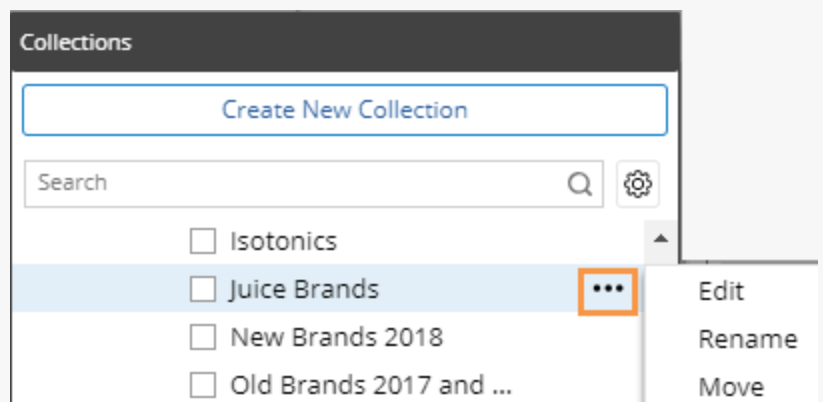
Manage collections

Most management of collections takes place in the Collections area. Only Power Viewers and Dashboard Designers can manage collections. To access the collections area, click the **Load a Collection** button in the Filters area. You can then turn on a collection, create a collection, manage collection folders, edit a collection, rename a collection, and more. You may need to refresh global collections to see the latest additions/deletions made by other users.

Visibility of collections and categories

As a Dashboard Designer, you can control the collections and collection categories that are visible to Power Viewers. (Regular dashboard viewers cannot apply or edit collections regardless of the visibility settings described here.)

Collection visibility

To lock down content for end users, you can turn off visibility of an individual collection that is applied to a widget or the dashboard (i.e. workspace filter). When visibility is off, end users (including Power Viewers) will not see the collection listed in the corresponding filters area and will not be able to turn off the collection. Note that Power Viewers may still be able to edit or delete the collection depending on their rights. When visibility is on, Power Viewers will be able to see, turn off, and change the collection; regular viewers will see the collection listed in the filters area, but will not be able to change it. To toggle visibility on or off, click the ⊚ icon in the filter panel or filter drop-down.
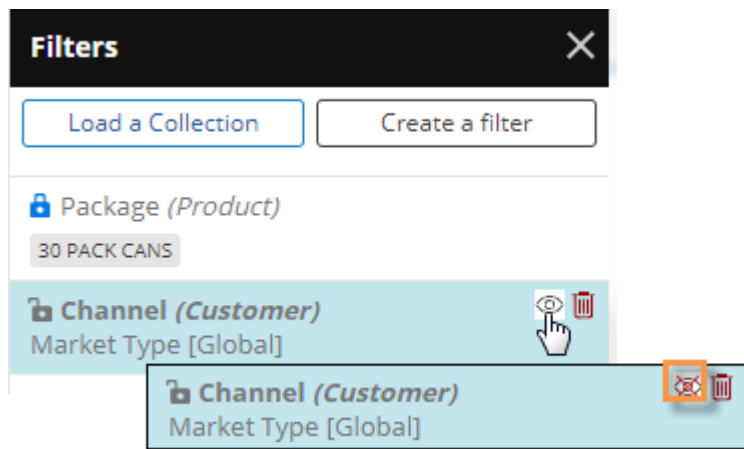
Collection category visibility

You can control which global and private collection categories are available in view mode. Power Viewers will be able to access and/or create collections within these categories. These settings are applied per dashboard. (Additional user account settings may be required for read/write access to global categories.)

To control visibility of collection categories

1. Select the workspace (i.e., not a widget).

2. Go to Dashboard Settings in the toolkit.

3. Click on Category Visibility.

4. Choose from the following settings:

- Allow Private Category - Allow Power Viewers to create and use private collections.

- Override Defaults - Check this box to change the global categories that are available to Power Viewers. Then make the desired changes.
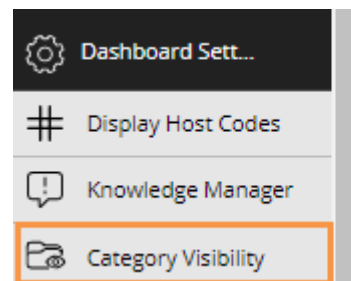
Update classic collections

As your dataset (see page 287) changes, you may need to update your classic collections to include new dimension members (see page 287) or key members (see page 289). Dynamic collections update automatically based on the test criteria and other settings whenever you turn them on.

If the dataset has a new dimension member, you should determine whether to add it to classic dimension member collections. For example, if the dataset has a new city, then you should determine if it belongs to any classic city collections. If it does, you need to manually add the city to those collections.

If the dataset has a new key member, you may or may not need to update classic collections, depending on the following:

- If you use classic dimension member collections to gather key members based on their attributes, you do not need to update those collections. Dimension member collections automatically gather data for all key members assigned to the specified dimension members. For example, a collection of the city dimension members, My Town and This City, gathers data for all customers in My Town and This City. So, if a new key member, Customer XYZ, is assigned to My Town, then totals for the collection automatically include Customer XYZ's data.

- If you use classic key collections to selectively gather key members, you must manually update those collections.

The **Exclude** option may reduce maintenance if you frequently want to filter out data for a small group of members. This option shows data for members that are <u>not</u> in the collection as opposed to members of the collection. In this case, you may not need to update collections as frequently for new members because the collection can include just the members you want to filter out. You can select this option when you create or edit a collection.

In addition, dynamic collections reduce the need to update collections because they update automatically.

Import filters

Users can import a text file (i.e., local collection) to quickly select members for several types of filters, including workspace filters, individual widget filters, and filter widgets. In addition, text files can be used when creating filter buttons and collections. Any user can access this capability, unlike collections which are limited to Power Viewers and Dashboard Designers; however, this feature may be turned off globally by your administrator.

To import a text file for a filter

1. If you haven't already, create a text file that lists the members. It should have the CSV extension. Each line should list the host code of a single member.

Example CSV file

```
91857
11904
11880
00000
```

To import a text file for a filter

2. Go to the selection window for the filter. For example, to import a text file for a workspace filter, click on the workspace filter in the filters panel.

3. Click the ⤓ button at the top of the window.
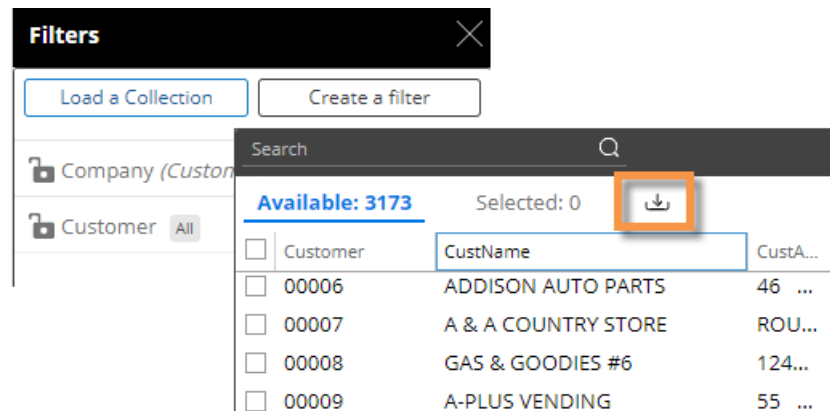
4. Choose the file and click Open.

   Salient Dashboards will show a summary of the members imported.
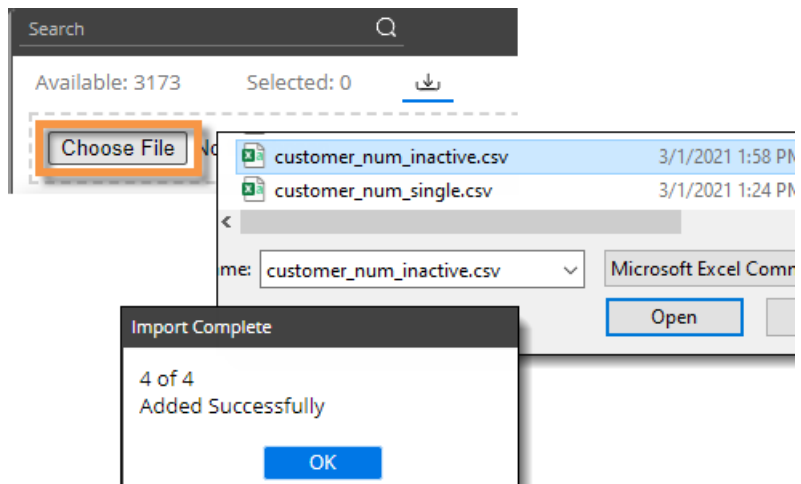
5. Click **Apply**.

Tip: To save the members as a collection (Dashboard Designers and Power Viewers only), click Save at the bottom of the window.
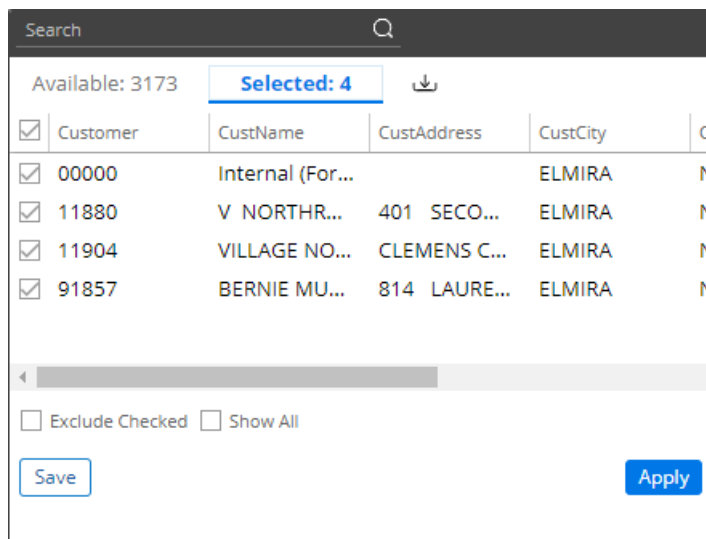
Customize

Highlight data

You can highlight data based on custom criteria or percent of the total (i.e., heatmap) to spot areas of concern or importance. The availability of highlighting depends on the widget type.

Grid highlighting based on custom criteria

You can highlight grid data based on custom thresholds (e.g., percent change below or above a given value). Data that meet the criteria will show the selected symbol (e.g., circles) or the entire cell may be highlighted.
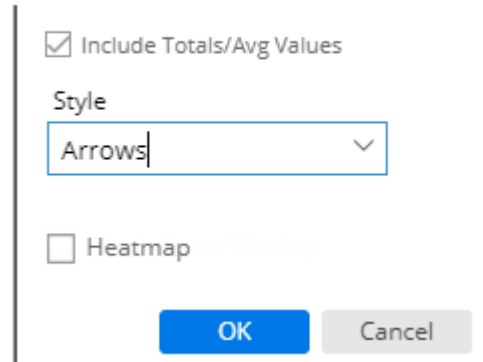
To highlight data based on custom criteria in a grid (in edit or explore mode)

1. Place your cursor on the heading of the column to highlight. You can highlight actual values (This or Last), percent change, difference, etc., for any measure.

2. Click the drop-down arrow that appears.

3. Select **Highlighting**.

4. In Highlight Settings, check **Green highlighting**, **Yellow highlighting**, and/or **Red highlighting**, depending on the highlighting color(s) you want to use.

5. For each color range, type a minimum value and maximum value. If you use multiple ranges, they cannot overlap.
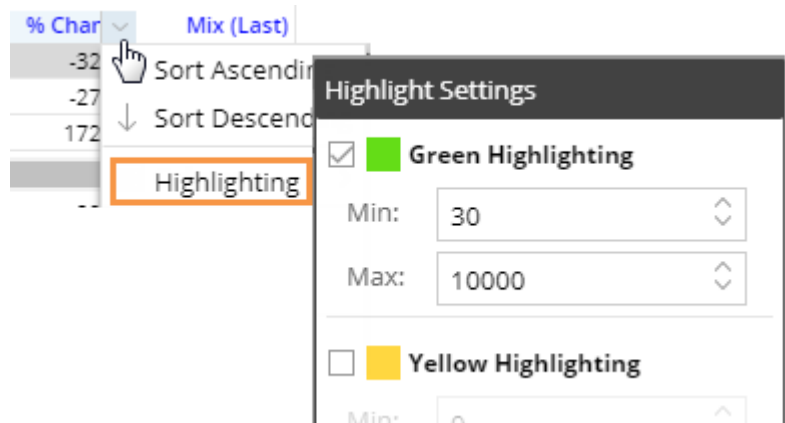
To highlight data based on custom criteria in a grid (in edit or explore mode)

6. Optionally, check **Include Totals/Avg Values** to apply the highlight settings to applicable totals, averages, and subtotals (i.e., checked/unchecked) in the grid.

7. From the **Style** drop-down, select a highlighting style. The style controls the symbol used in grids.

8. Click **OK**.

Tips for grid highlighting:

• Grid highlighting cannot be configured in view mode using the previous method; instead, users can turn on highlighting in graph format (see below) and then switch back to the grid. This will apply highlighting to the applicable columns.

• To access highlight settings for Gauge widgets, click ⋮ in the upper-right corner of the widget and select Highlight Settings.

Heatmap highlighting in grids

You can highlight grid cells based on the percent of the total for a given column to create a "heatmap"; the darkest shades represent the largest values. This method does not require you to enter criteria because the shades are calculated automatically.

Form	Units ∨	Net Revenue	Margin
⊞ ☐ Cans	2,799	26,141	10,852
⊞ ☐ PET	2,106	25,940	14,060
⊞ ☐ Glass	784	10,511	3,089
⊞ ☐ Fountain BIB	182	3,190	-684

To turn on heatmap highlighting (in edit or explore mode)

1. Place your cursor on the heading of the column to highlight.

2. Click the drop-down arrow that appears.

3. Select **Highlighting**.

4. In **Highlight Settings**, check the **Heatmap** box.

5. Click **OK**.
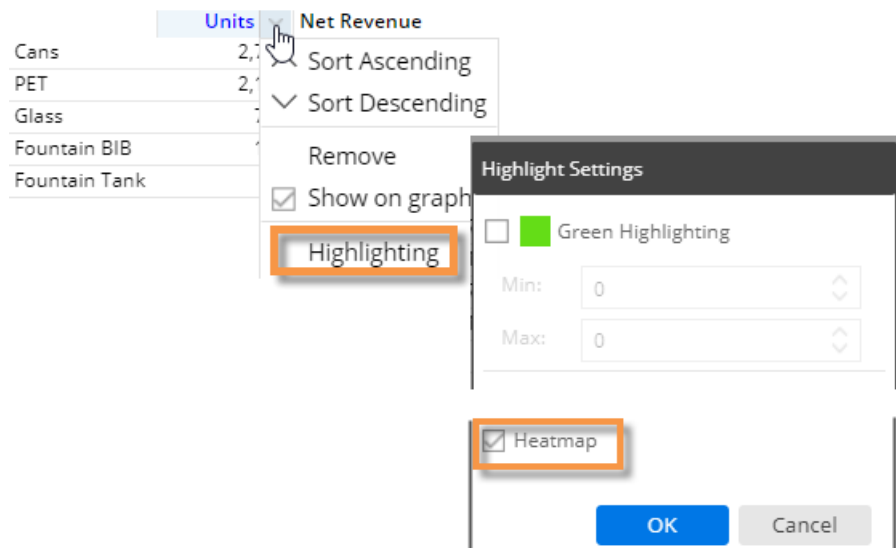
6. Optionally, choose a custom color in Graph Settings, Visual Options. Locate the specific measure and format (e.g., Units for This date range) and then click in the Color column. This color will serve as the darkest shade possible, with other shades calculated accordingly.

   If you skip this step, then the grid will use the color of the data type (i.e., blue for volume, black for revenue, etc.)
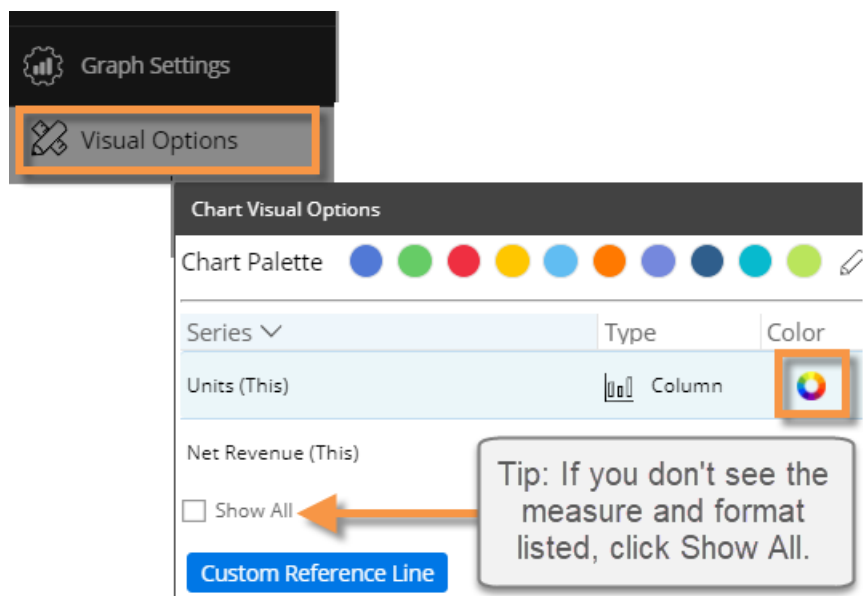
Tips for heatmap highlighting:

• You can use heatmap highlighting in conjunction with custom highlighting ranges (see the previous section). In this case, any "cell" highlighting styles will switch to circles to avoid conflicts.

• Heatmap highlighting does not shade negative data.

• Heatmap highlighting is available in several types of grids (Comparative, Trend, etc.). For all widget types, shades are calculated based on the total for the given column as opposed to the total of all columns.

• Some measures, such as average price, do not have meaningful totals and, therefore, show "average" values in the totals row. For these measures, the heatmap shading will be 100% of the color whenever the value meets or exceeds the average for that column. If this results in shading that is too dark, you may want to select a lighter custom color as explained in step 6 above.

Graph highlighting

Graph components (bars or points) can be highlighted when data meets custom criteria.
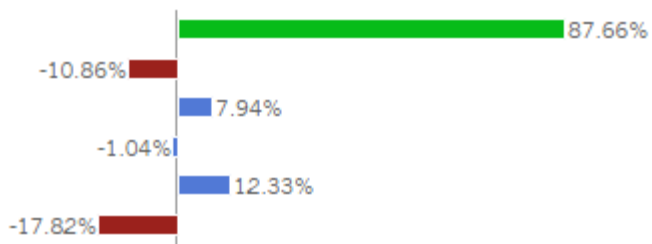
To highlight data in graphs

1. Access visual options by clicking ✎ in the graph legend (available on mouseover if the legend is enabled).

Tip: You can also access visual options under Graph Settings in the toolkit (in explore or edit mode).
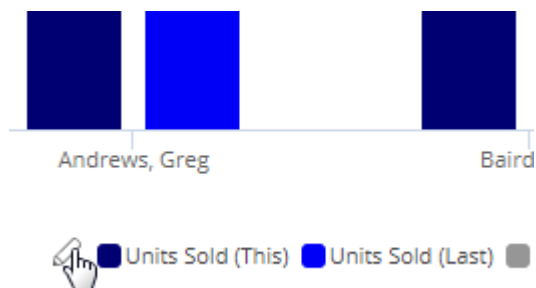
To highlight data in graphs

2. For the measure/format to highlight, click in the Color column.

3. Check the **Use Highlight Settings** box.

4. If highlight settings are not already configured, click the **Highlight Settings** button and set highlighting ranges as explained below.
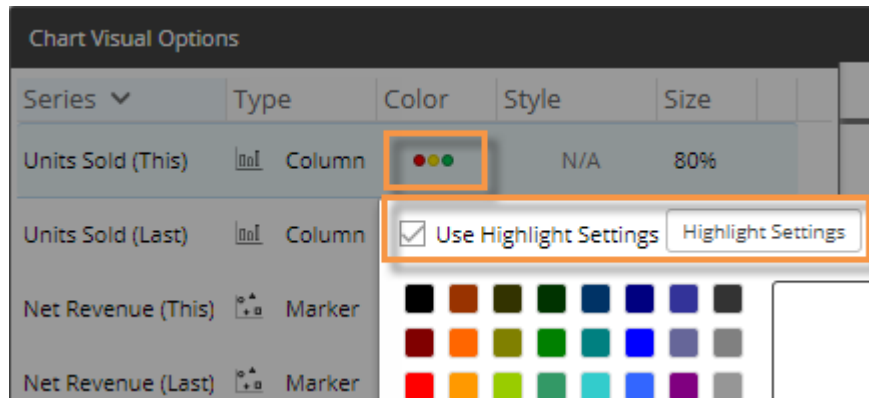
- For each color you wish to use, check the box and type a minimum value and maximum value. Ranges cannot overlap.

- Optionally, check **Include Totals/Avg Values** to apply the highlight settings to applicable totals in the graph. This setting only affects graphs that compare members and include the graph total, which can be turned on in graph settings (see page 234).

- Select a style. In graphs, the style controls custom highlighting colors if they are configured.

- When you are finished, click OK.
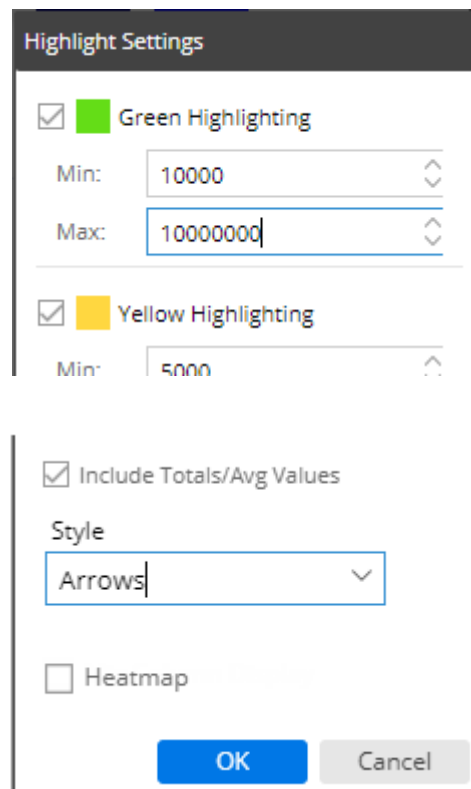
Grid settings

Grid settings allow you to customize the appearance of the grid format of a widget.

In edit mode, select the widget and click on Grid Settings in the toolkit. In explore mode, click [Advanced] at the bottom of the toolkit to access grid settings.

Setting	Explanation
Grid Type	Click on this section to select a row and column layout for the grid (see page 233).
Show Grid Toolbar	Optionally, clear this option to remove the paging toolbar from the bottom of a widget with multiple pages of data. Clearing this option may be useful when creating simplified widgets.
Hide Grid Totals	This option allows you to hide or show the totals row. Users can also click on the Total and Average rows in the grid to toggle these rows on/off.
Hide Grid Averages	This option allows you to hide or show an average row. Users can also click on the Total and Average rows in the grid to toggle these rows on/off.
Hide Grid Subtotals	This option allows you to hide or show a row showing the subtotal for checked members.
Grid Page Size	Enter the maximum number of members to display. • *For the top-level dimension (1st By)*, the widget will show up to this number of members per page. If the context exceeds this number, users will be able to navigate to additional pages using buttons at the bottom of the widget. • *For lower-level dimensions (2nd By, 3rd By, etc.)*, a standard grid will show up to this number of members when the parent level is expanded. Additional members beyond this number will be truncated. Because multiple levels and multiple members in each level may be expanded, the actual number of rows can exceed the grid page size. You cannot increase the grid page size beyond the maximum number set by your administrator.
Number of rows to expand	Optionally, enter a number greater than zero to automatically expand (see page 194) the top row(s) into an additional level of data (i.e., 2nd By). The specified number controls how many rows will be expanded on each page. Additional rows may be expanded as usual.

Setting	Explanation
Column Page Size	(Crosstab only) Enter the maximum number of Cross By members, or columns, to show. Users will not be able to access Cross By members beyond this number.

Grid types

You can select from the following grid types by opening the grid settings area of the toolkit and clicking Grid Type. The available types depend on the selected widget.
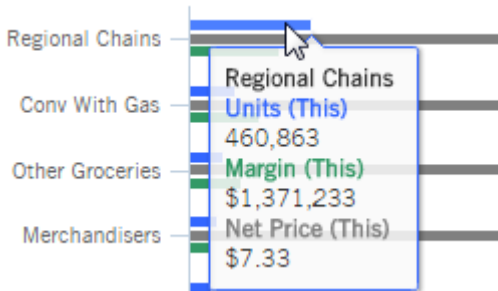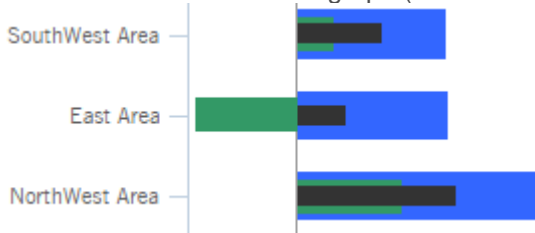
Grid type	Example
Standard - default row and column layout	
Swapped - switches rows and columns	
Scorecard - measures in rows and formats (This, Last, difference, etc.) in columns; does not compare members	
Scorecard swapped - measures in columns and formats (This, Last, difference, etc.) in rows; does not compare members	

Graph settings

Graph settings allow you to customize the appearance of the graph format of a widget.

In edit mode, select the widget and click on Graph Settings in the toolkit. In explore mode, click on [Advanced] at the bottom of the toolkit to access graph settings.

Setting	Explanation
Visual Options	Click on Visual Options (see page 236) to access options for graph colors, column thickness, marker size, marker type, etc. The available options depend on the graph type. You may also use member coloring (see page 245) to apply consistent colors for specific dimension members.
Show Graph Toolbar	Optionally, clear this option to remove the paging toolbar from the bottom of a widget with multiple pages of data. Clearing this option may be useful when creating simplified widgets.
Enable Data Labels	Check this box to show data labels beside the graph components (e.g., lines, bars, etc.) to indicate their values. For optimal display, the widget should be large enough to accommodate the selected labels.
Enable Name Labels (only affects mix graphs)	Check this box to show labels that indicate the member names in mix/pie graphs. This can be used on its own or with the "Enable Data Labels" setting.
Enable Shared Tooltips	Check this box to show values for multiple measures or items in the same tooltip, or clear this box if you want tooltips to show data for a single measure or item at a time. This option is required if column grouping is turned off. When shared tooltips are enabled: • In a Comparative graph, hovering over any bar, line, etc., associated with an item will show data for all the measures for that item. • In a Trend graph, hovering over any bar, line, etc., associated with a date will show data for all the measures for that date. • In a Share Trend graph, hovering over any bar, line, etc., associated with a date will show data for all the items for that date. For example:

Setting	Explanation
Hide Legend	Check this box to hide the legend. Note that this will also turn off visual options in view mode, since this area is accessed by clicking on ✎ in the legend.
Enable Column Grouping (only affects Comparative, Comparative Time Series, and Trend bar graphs)	Check this box to show measures beside or underneath each other (rather than overlapping). This option shows a cluster of bars for each item in the graph and ensures that bars do not cover each other up. For example: Clear this box to create an overlapped bar graph. This option may be preferable in some situations such as when you want to compare related measures or include several items on the graph (i.e. saves screen space). For example: **Tip:** Measures are drawn based on the order in the corresponding numbers view with the first measure on top; therefore, when column grouping is off, you may want to adjust the order in the corresponding grid. In addition, you may want to adjust the bar width (see below) in an overlapped bar graph.
Hide X Axis	Check this box to hide the X axis label.
Hide Y Axis	Check this box to hide the Y axis label.
Scale Min and Scale Max (Gauge only)	Define the minimum and maximum values of the scale. We recommend specifying appropriate minimum and maximum values when graphing actual values in a Gauge.
Graph Page Size (only in graphs that compare members)	Enter the maximum number of members to show on one "page" of the graph. If the context has more members than the page size, users will be able to browse to additional pages in a Comparative graph. The maximum page size can be configured by your administrator. You cannot increase the page size beyond this number.
Show Graph Total (Comparative and Exception only)	Check the box to include a Totals bar that aggregates results for the members in the context.
Graph Orientation	Select horizontal or vertical orientation.

Setting	Explanation
Dynamic Axis Scaling (Trend and Share Trend only)	Check the box to start the axis at the minimum value and extend to the maximum value. With this option off, the axis always starts at zero. Dynamic scaling makes it easier to see small fluctuations in the data.
Auto Zoom (Geo only)	Check the box to automatically zoom to maximum extent of data or clear this option to stay focused on the same area when you make changes.
Base Layer (Geo only)	Select the spatial layer set to display in the background of the map. These layers must be pre-configured by your administrator.
Graph Positive and Negative Data (Crosstab only; only affects Mondrian and DeltaMap)	To show negative data, check **Graph Positive and Negative Data** (on by default). In this case, any negative data will be outlined in red in the graph. To hide negative data, clear **Graph Positive and Negative data**.

Visual options

Using visual options, you can customize the colors and styles used in most graphs.

To access visual options

In view mode:

Click ✎ in the graph legend (visible on mouseover if the legend is enabled).
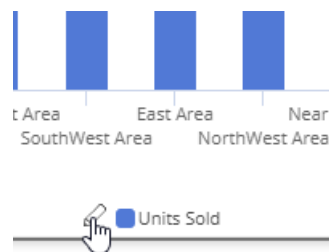
In explore/edit mode:

Expand Graph Settings in the toolkit.

Click on Visual Options.
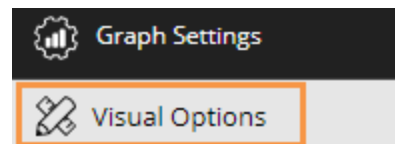
Choose a color palette

At the top of visual options, click ✎ to change the color palette, which controls the default colors of the graph components. Salient Dashboards will apply the selected palette's colors in the order they are shown (e.g., blue to first component, green to second component, etc.). The available palettes depend on the dataset configuration.
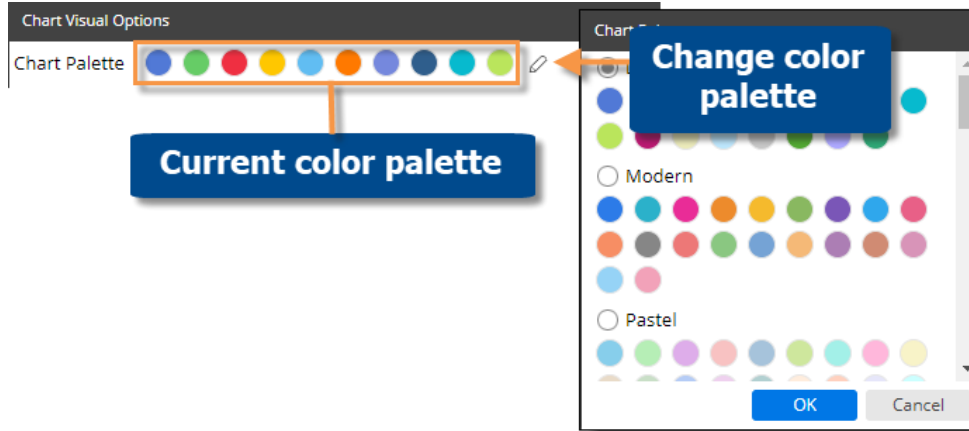
Tip: You can override the selected palette by:
• choosing a color for an individual graph component as explained below.
• applying member coloring (see page 245) to make colors consistent across the dashboard for the defined dimension members (only available in some graph types).

Customize graph components

Depending on the graph type, you can customize individual graph components (e.g., bars, lines, points, etc.). In visual options, click in the row of the component to make the following changes:

Tip: If you don't see the measure/format, checkmark the **Show All** box.

Add reference lines

You can add custom lines to enhance data visualizations. Custom lines can show thresholds, important dates, and calculated values such as averages, totals, moving averages/totals, cumulative values, and projections.

To add reference lines

1. Go to Visual Options (see page 236) by clicking ✎ in the graph legend (visible on mouseover) or, in edit mode, go to Visual Options under graph settings.

2. Click the Custom Reference Line button.

3. Select from the available settings, depending on what you want the reference line to show.
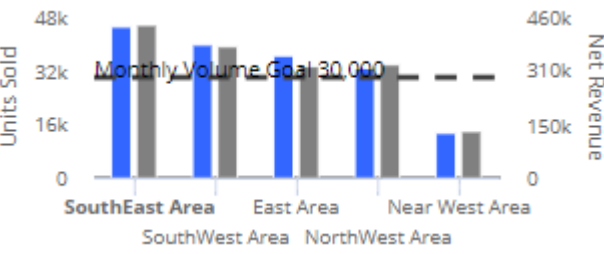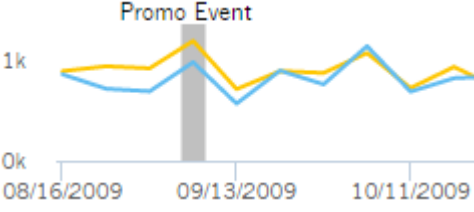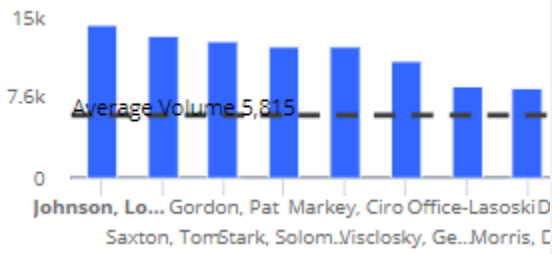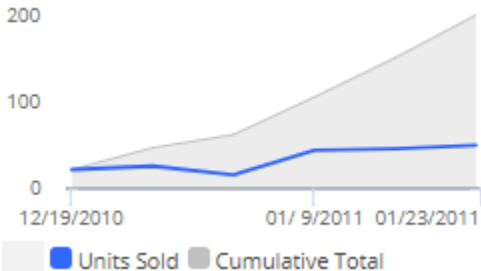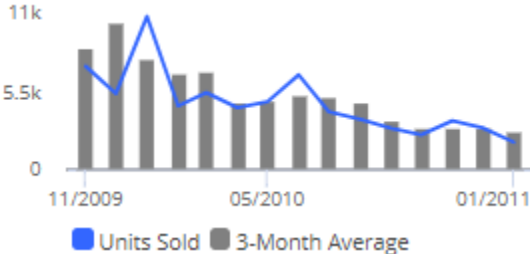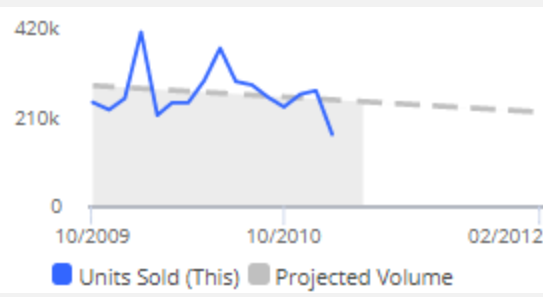
Reference line examples	Recommended settings
Compare values to a fixed, user-defined threshold: Over time in time-series:	Calculation Type - Static Value Series Type - Line for a single value, or Area for a range between two values Measure - Select the measure/format where you want to place the reference line. Axis - Y Value or From/To - Enter a static value. For a shaded area, enter the start value and the end value. Placement - Place the reference line in front or behind the data. Label - Optionally, enter a label for the line. Display value after label - Check the box if you want to include a label showing the value of the line.
Compare values to a fixed, user-defined threshold: Across members in comparative:	Calculation Type - Static Value Series Type - Line for a single line, Area for a range between two values, or Column for a separate column at the end of the graph Measure - Select the measure/format where you want to place the reference line. Y Value or From/To - Enter a static value. For a shaded area, enter the start value and the end value. Placement - Place the reference line in front or behind the data. Label - Optionally, enter a label for the line. Display value after label - Check the box if you want to include a label showing the value of the line.
Important dates on a time-series	Calculation Type - Static Value Series Type - Select Line for a single date or Area for a range of dates. Measure - This setting is ignored. Axis - X Value - Click the date control(s) and select a single date (for Line) or the beginning and ending dates (for Area). Placement - Select to place the reference line in front or behind the data. Label - Optionally, enter a label for the line. Display value after label - Check the box if you want to include a label showing the value of the line.

Reference line examples	Recommended settings
Calculated average or total over multiple members (e.g., average volume per sales rep)	Calculation Type - Aggregated Value Aggregation Type - Grand Total of all members, or Average of all members Series Type - Line for a line indicating the average/total, Area for a solid area starting at zero and going to the average/total, or Column for a separate column at the end of the graph. Measure - Select the measure/format for which to calculate averages or totals. Placement - Select to place the reference line in front or behind the data. Label - Optionally, enter a label for the line. Display value after label - Check the box if you want to include a label showing the value of the line.
Calculated average across dates (e.g., average volume per month)	Calculation Type - Aggregated Value Aggregation Type - Average Series Type - Line for a single line indicating the average, or Area for a solid area starting at zero and going to the average. Measure - Select the measure/format for which to calculate averages or totals. Placement - Select to place the reference line in front or behind the data. Label - Optionally, enter a label for the line. Display value after label - Check the box if you want to include a label showing the value of the line.
Cumulative average or total over date range (e.g., cumulative volume over time); see cumulative examples (see page 242)	Calculation Type - Aggregated Value Aggregation Type - Cumulative Average or Cumulative Total Series Type - Line, Area, or Columns Measure - Select the measure/format for which to calculate averages or totals. Label - Optionally, enter a label.

Reference line examples	Recommended settings
Moving averages or totals for a set number of prior dates; smooths data fluctuations; see moving examples (see page 242) 11k 5.5k 0 11/2009 05/2010 01/2011 ■ Units Sold ■ 3-Month Average	Calculation Type - Aggregated Value Aggregation Type - Moving Average or Moving Total Series Type - Line, Area, or Columns Measure - Select the measure/format for which to calculate averages or totals. Duration - Select the number of prior dates to include in the calculation. Label - Optionally, enter a label.
Calculated trends with future projections 420k 210k 0 10/2009 10/2010 02/2012 ■ Units Sold (This) ■ Projected Volume	Calculation Type - Linear Regression Series Type - Select Line or Area. Measure - Select the measure/format for which to calculate projections. Projection Duration - Select the number of future dates for which to project data based on a linear regression. The resulting graph will show the selected date range plus the selected number of projected dates. Placement - Select to place the reference line in front or behind the data. Label - Optionally, enter a label.

Moving and cumulative math examples

The following calculations demonstrate differences between the different moving math options available via custom reference lines (see page 239). This example uses an additive measure, such as units, for time-series analyses that show actual values, such as the Trend.

Data values are as follows:

Week 1 = 45

Week 2 = 25

Week 3 = 50

Week 4 = 35

Week 5 = 100

Week 6 = 60

Moving Total option

The following calculations use a setting of four weeks. You could change this to five weeks, six weeks, etc.

```
Week 4 moving total = 45 + 25 + 50 + 35 = 155
Week 5 moving total = 25 + 50 + 35 + 100 = 210
Week 6 moving total = 50 + 35 + 100 + 60 = 245
```

Moving Average option

The following calculations use a setting of four weeks. You could change this to five weeks, six weeks, etc.

```
Week 4 moving average = (45 + 25 + 50 + 35)/4 = 38.75
Week 5 moving average = (25 + 50 + 35 + 100)/4 = 52.5
Week 6 moving average = (50 + 35 + 100 + 60)/4 = 61.25
```

Cumulative Total option

```
Week 1 cumulative = 45
Week 2 cumulative = 45 + 25 = 70
Week 3 cumulative = 45 + 25 + 50 = 120
Week 4 cumulative = 45 + 25 + 50 + 35 = 155
Week 5 cumulative = 45 + 25 + 50 + 35 + 100 = 255
Week 6 cumulative = 45 + 25 + 50 + 35 + 100 + 60 = 315
```

Cumulative Average option

```
Week 1 cumulative average = 45/1 = 45
Week 2 cumulative average = (45 + 25)/2 = 35
Week 3 cumulative average = (45 + 25 + 50)/3 = 40
Week 4 cumulative average = (45 + 25 + 50 + 35)/4 = 38.75
Week 5 cumulative average = (45 + 25 + 50 + 35 + 100)/5 = 51
Week 6 cumulative average = (45 + 25 + 50 + 35 + 100 + 60)/6 = 52.5
```

Axis management

You can customize the axes of several graph types, including Trend, Comparative, and Multi Comparative.

To customize axes

Before proceeding, add the desired measures (see page 150).

1. Click ⋮ in the upper-right corner of the widget, and select Axis Management, or click on Axis Management under Graph Settings in edit mode.
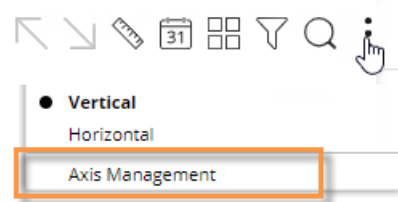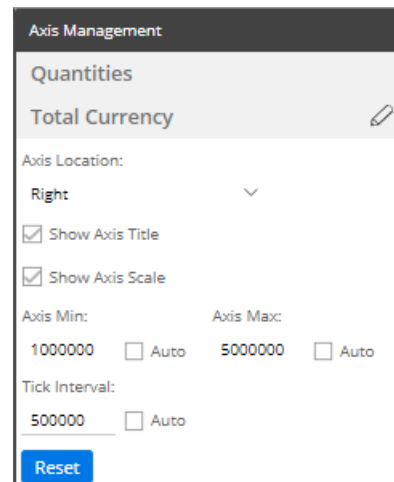
2. For an actual value graph, choose the axis to customize (e.g., Quantities, Total Currency, etc.). Depending on the selected measures, the graph may include multiple axes, each of which represents a measure or data family (see page 164).
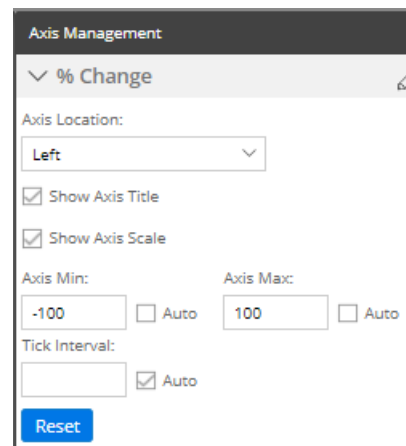
   For a percent change graph, all % change data will be plotted along a single axis so this step is not necessary.

3. To change the axis title, click ✎ (requires Power Viewer licensing or higher).

4. Choose the axis location.

5. Show or hide the axis title.

6. Show or hide the axis scale.

7. Choose scale settings, including the minimum, maximum, and tick interval. These may be automatic or custom values.

8. Click Save when you are finished.

Actual value axis settings:

Percent change axis settings:

Member coloring

You can choose colors for dimension members to apply consistent coloring across a dashboard and, therefore, enhance visual understanding. For example, you might assign blue to represent a certain region. The member coloring will be automatically applied to applicable widgets, which include Mix, Share Trend, and some Crosstab graphs (see the following tips). For members with color definitions, the member coloring will override the color palette (see page 236). Member colors do not carry over from one dashboard to another; you must define the settings within each dashboard as follows.

To apply consistent member coloring across the dashboard

1. Click in the workspace (i.e. not on a widget) to open the dashboard settings area.

2. In the toolkit, expand **Dashboard Settings**, and click on **Member Coloring**.

3. Click on **Set a Member Color**.

> **Tip:** This menu shows a summary of the member colors that have already been defined. You can click on a dimension to edit its colors.
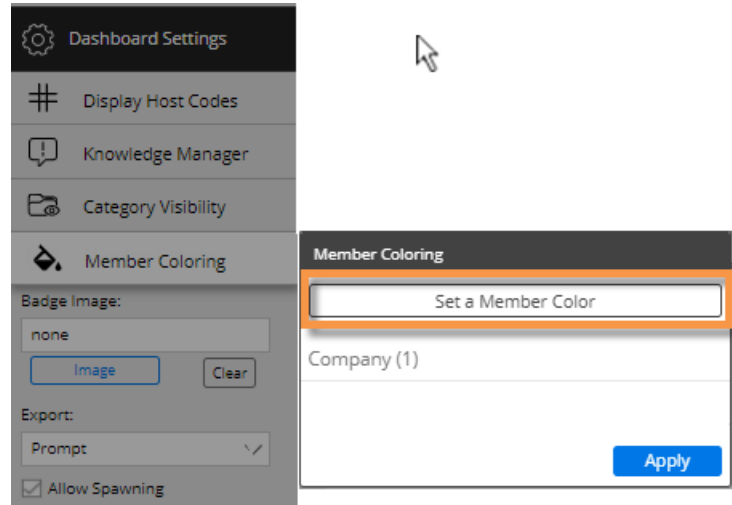
4. In the next menu, choose the dimension.
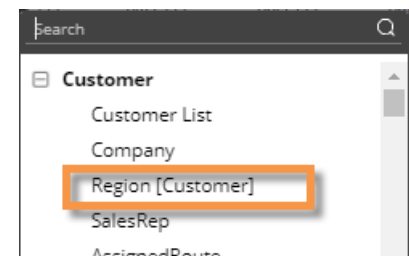
To apply consistent member coloring across the dashboard

5. Locate a member to which you want to assign a color. If you wish, you can search for a member.

6. Click the square beside the member and choose a color. Repeat this step to choose colors for additional members. You may skip a member(s); in this case, the default color from the palette will be applied to the member(s).

7. When you are finished choosing colors for a dimension, click **Apply**.
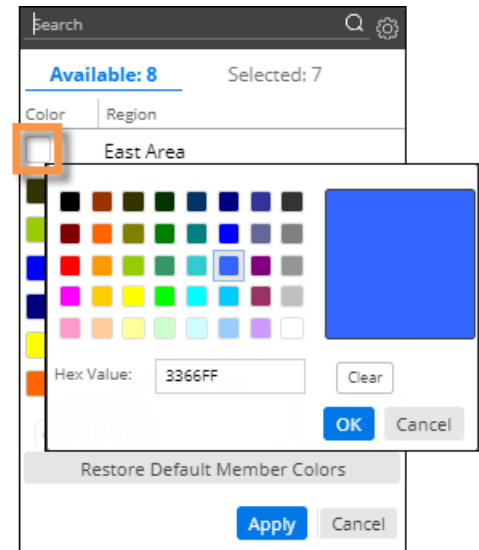
8. Click **Apply**, or repeat this procedure to choose coloring for additional dimensions.
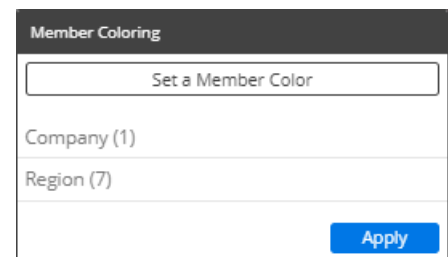
Tips:

Only Mix, Share Trend, and Crosstab graphs with static colors show member coloring, because other types of widgets use coloring to represent measures, percent change, pass/fail, etc.

To turn on static colors for a Crosstab (see page 117) so that member coloring can be utilized, go to its color setup in **Visual Options**.

Crosstab static coloring (in visual options):
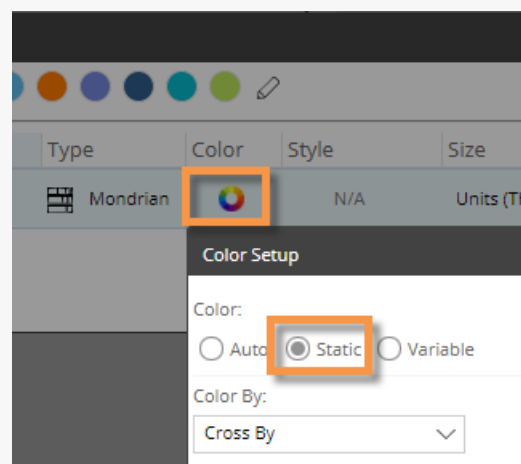
Tips:

You can restore the default colors for any or all dimensions. This will delete the color settings. To restore default colors for all dimensions, click **Restore All Default Colors**. To restore default colors for one dimension, click **Restore Default Member Colors**.
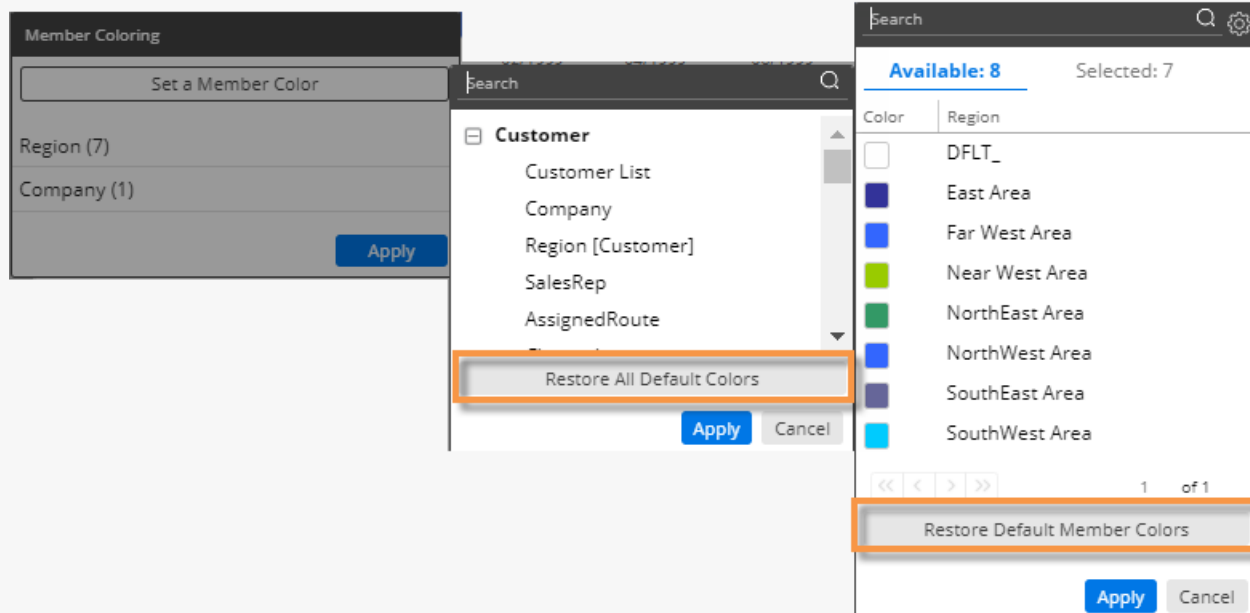
Navigation links

You can embed links to published dashboards within a widget to provide easy access to related dashboards. The links will be listed at the bottom of the widget or available via custom drill-downs (see page 213).

To add dashboard links to a widget

1. Click on a widget.

2. Click on Navigation Links in the toolkit.

   (In explore mode, click on ☐ Advanced to access Navigation Links.)

3. Click Add Links.

4. Select the dashboard to which you want to link. Only published dashboards are available for dashboard links.
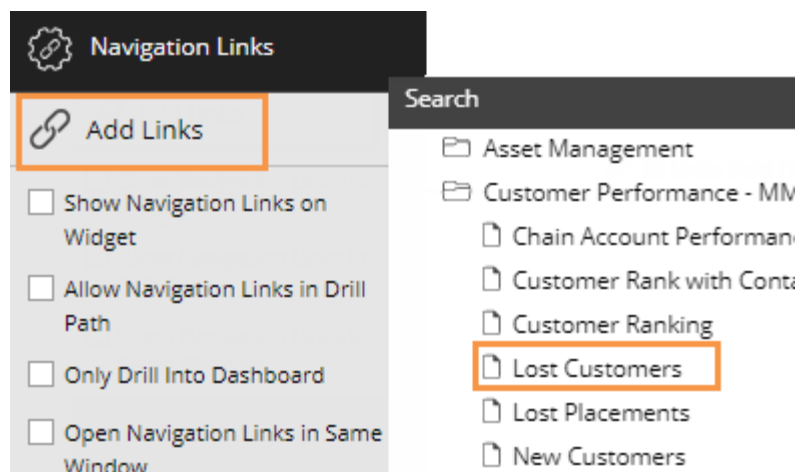
To add dashboard links to a widget

5. To link to multiple dashboards, click Add and select additional dashboards. If you wish, you can enter a custom name for the group of dashboard links (defaults to "Dashboard Links" if not specified).

6. If you want to change the display name of any dashboard link, click the ... button and select **Rename**. This assigns a temporary display name but does not change the actual dashboard name.

7. Click OK.
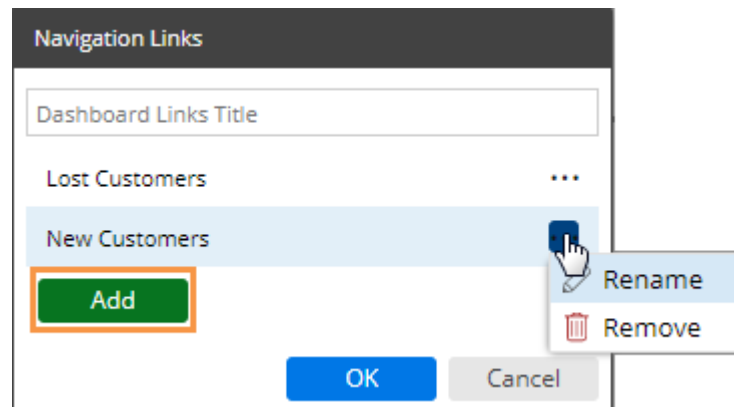
8. Under Navigation Links in the toolkit, select from the following options:

Show Navigation Links on Widget - Check this box to show the links at the bottom of the widget (pinned or unpinned).
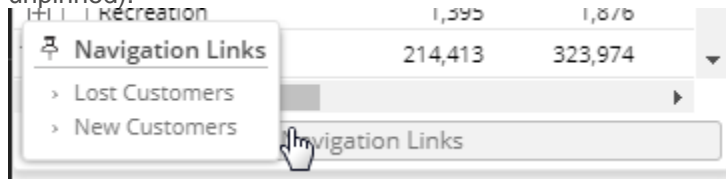
Allow Navigation Links in Drill Path - Check this box if you want to make the links available via a custom drill-down (see page 215). Otherwise, leave this box cleared.

Only Drill Into Dashboard - This option is used with Allow Navigation Links in Drill Path (i.e. custom drill-down) to control whether the user can go directly to the next dashboard upon drilling (check this option) or must first drill through all By levels in the widget (clear this option).
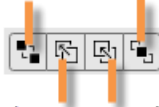
Open Navigation Links in Same Window - Check this box to open the linked dashboards in the same window as the original dashboard, or clear to open in a new window.

General widget settings

General settings allow you to select options for a widget, such as its title.

In edit mode, select the widget and click on General Settings in the toolkit. In explore mode, click on ☐ Advanced at the bottom of the toolkit to access general settings.

Setting	Explanation
Widget Style	Choose a style to apply the widget. Some styles are built into Salient Dashboards. Your organization can customize these styles and configure additional styles.
Title	Enter a title to show at the top of the widget.
Title CSS	Optionally, enter a CSS style definition to apply special formatting to the title. The properties should be separated by semicolons. For example: `position:absolute; top:-45px; margin:-5px`
Window-Width	Enter the width of the widget in # of columns for a dynamic layout or pixels for a fixed layout.
Window-Height	Enter the height of the widget in # of rows for a dynamic layout or pixels for a fixed layout.
X and Y Position	You can change the widget's position by entering the X and Y coordinates of its upper-left corner. For a dynamic layout, enter rows or columns; for a fixed layout, use pixels.
Layering	In edit mode, you can change the layering order of widgets to control which widgets are on top. Users will not be able to change this order in view mode. Click on the following buttons in general settings to change the position of the selected widget. Send to back Send to front Send back one Send forward one
Hidden	This option lets you hide a widget without deleting it. A hidden widget will be invisible in all dashboard modes, including the Salient mobile app. Salient Dashboards will not request data for hidden widgets. This setting is primarily intended for use in advanced configurations where plug-ins control widget visibility. To manually show a widget once it's hidden, select it from the menu at the top of the toolkit and clear the Hidden option.
Enable Export	Check the box to allow exporting (see page 262).

Setting	Explanation
Show Date Setup Icon in Viewer Mode	Check the box to show the date setup icon (see page 182) 📅 in view mode, so that users can change the date range of the widget. This option must be on for date settings to be linked to other widgets.
Show Filters Icon in Viewer	Check the box to include the filters icon in the widget toolbar in view mode, so that users can apply interactive filters to the widget (depending on the widget's By dimensions). If this option is cleared, the users will not be able to filter the data using this method.
Disable Breadcrumb Path	Check the box to disable By and other selection in the breadcrumb path.
Disable Viewer Measure Changing	Check the box to prevent users from selecting (see page 153) which of the available measures to display in view mode.
Allow Viewer Chart/Grid Toggling	Check the box to allow users to toggle between graph and grid for the widget.
Use Workspace Filters	Check the box to filter the widget by the dashboard's workspace filters, including those with and without separate filter widgets as well as filters applied via a URL. This setting is on by default but can be cleared if you don't want workspace filters to affect a specific widget. Note that workspace filters based on collections cannot be turned off and are not affected by this setting. In addition, password collections are not affected by this setting.
Use Dashboard Date	Check the box to link the widget's date to other widgets in the dashboard. This also allows the widget to be affected by an end date selector or date button (if present). Clear the box if you want the widget to have its own stand-alone date settings.
Use Equiv Selector	Check the box to enable the effect of an equivalent selector (see page 159) on the widget, or clear the box if you do not want an equivalent selector to affect the widget.
Include Nulls (affects Scattergram and key list only)	Check the box to include key members that do not have data for the selected date range and context.
Misinformation (see page 166)	Check this box to override measure visibility rules based on applied filters. Only advanced users who fully understand the dataset schema should utilize this option. Administrators may turn this option off entirely.
Transparent	Check this box to make the widget background transparent.
Show Border	Check this box to show the widget's border in view mode, or clear the box to hide the border.

Setting	Explanation
Lock Crossby (Crosstab only)	Check this box to prevent users from changing the Cross By in view mode. *In graphs*, this setting also affects the drill path: • If the Cross By is locked, drilling down will occur one dimension at a time. The Cross By will stay the same. • If the Cross By is unlocked, drilling down on a graph component narrows down two levels at once (1st By and Cross By) and the Cross By changes. *In grids*, this setting does not affect the drill path; drilling occurs one dimension at a time and the Cross By remains unchanged.
Show in Mobile (Button, Text, HTML, and Image only)	Check this box to show the widget in the mobile app, or clear the box to hide the widget in the mobile app.

Simplified widgets

In settings (located in the toolkit), you can turn off the legend, axis labels, and more, to create simplified widgets (for example, mini-widgets for optimal display on smaller devices).
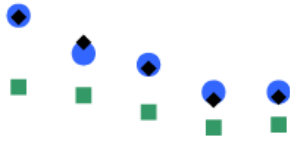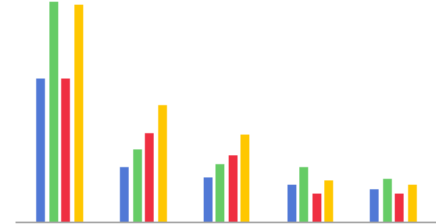
Recommended settings for simplified widgets
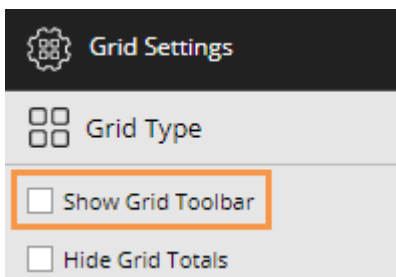
In grid settings:

Clear the **Show Grid Toolbar** option. This will hide the paging toolbar at the bottom of the widget.
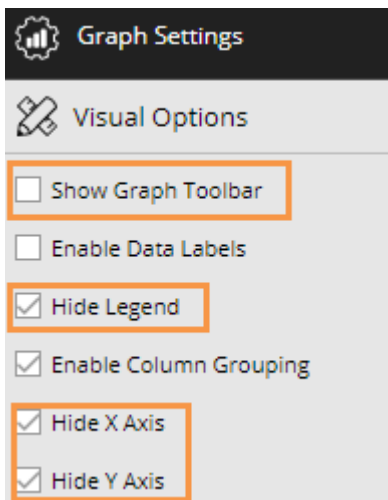
In graph settings:

Clear the **Show Graph Toolbar** option. This will hide the paging toolbar at the bottom of the widget.

Hide the legend, x axis, and y axis.
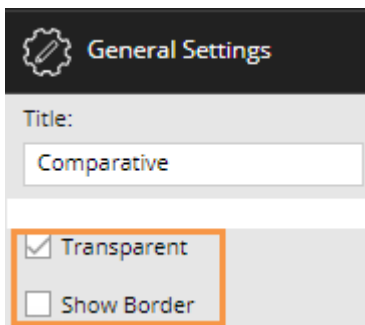
In general settings:

Turn on transparency.

Clear the border option (i.e., hide the border).

Dashboard settings

Dashboard settings allow you to control a variety of options for the dashboard, such as a member coloring, badge image, available export options, etc.

To access dashboard settings

1. Select the workspace (i.e., not a widget) by clicking in it or selecting **Workspace** from the menu at the top of the toolkit.
2. Expand **Dashboard Settings** the toolkit.

Setting	Explanation
Display Hostcodes	If you wish, you can display dimension member codes (see page 288) along with or instead of their descriptions throughout Salient Dashboards. Click **Display Hostcodes** under Dashboard Settings. Select one of the following options: • None - displays only the description. • Host Code Only - code appears instead of the description. • Host Code Prefix - code appears before the description. • Host Code Suffix- code appears after the description. If you select an option to display the host code, a tree showing the available dimensions appears. Check the dimension(s) for which you want to display codes. If you want to display host codes for all dimensions of a key, check the box beside the key name.
Knowledge Manager	Click **Knowledge Manager** to select settings for the Knowledge Manager panel. • Under **Preview/Publish Mode**, check the **Show Panel Opened** box if you want the Knowledge Manager panel to already be opened when the user views the dashboard. Also select whether you want the panel to be docked to the left or right in Dashboard Viewer. • Optionally, check one or more of the **Hide ...** boxes to hide a type of Knowledge Manager information.

Setting	Explanation
Category Visibility	In this area, you can control which global and private collection categories (see page 224) are available or "visible" in view mode. Power Viewers will be able to access and/or create collections within these categories, depending on their user account settings.
Member Coloring	In this area, choose specific colors to represent members in the dashboard (see page 245). This allows you to apply consistent colors across multiple widgets.
Badge Image	Optionally, select an icon to represent the dashboard. This icon will appear in dashboard widgets (e.g., in the portal) if enabled. If you skip this selection, the icon will be based on the analysis type of the widget in the upper-left corner. To select a badge icon, click **Choose Image**. In the Image Manager, click on an image to select it or click **Add Image** to upload an image.
Export	Select the format for exporting data when the user clicks the Export button ⬆ on the title bar of a widget. In addition to this setting, you can disable exporting for any widget in its settings (see page 249). • None - No exporting of widgets from the dashboard will be allowed. • Salient Interactive Miner (.uxt) - This file type can be opened in SIM. • Microsoft Excel® (.xlsx) • Comma Separated (.csv) • Prompt - The user will receive a prompt to select one of the above formats.
Allow Spawning	Check this box if you want users to be able to create new widgets by clicking or double-clicking. These capabilities include the following: • Rubberband points in a Scattergram to open a list of the selected members. • Double-click in a Scattergram numbers view to open a list of members in the range. • Double-click in time-series numbers to open a comparative for the selected date. • Click in time-series graph to open a comparative graph for the selected date.
Show Standard Widget Title	Check this box to include the standard text describing the widget's timeframe after the widget title. (The widget title is defined in the widget's general settings.) Or clear this option to only show the title. This option affects all widgets in the dashboard.
Add Cube Name to Data Field	Check this box to display the name of a data cube from which the measure originates in measure headings and the Measures area. If the setting is on, the data cube name appears in brackets [ ] after the measure name in some cases. To avoid redundancy, measures for the currently selected data cube do not show the data cube name even if this preference is on. In addition, cross-cube calculated fields do not show the cube names.
Use Metric Colors on Grid	Check this box to color grid headings based on the measure category (e.g., blue for volume), or clear the box to use dark gray for all measure headings across the dashboard.

Setting	Explanation
Docked Filter Panel Position	Choose display options for the panel that allows users to manage filters (see page 198). To disable this panel, choose **Hidden**.
Open Filter Panel on Load	Check this box to automatically expand the filters panel when the user opens the dashboard.
Remove Filter Widgets from Dashboard	This option removes all filter widgets from the dashboard but retains them as workspace filters, which can be accessed using the collapsible filter panel. This option maximizes screen space and is useful when upgrading your existing dashboards to Version 7.10+ if you want to use the new streamlined format.
Clear Workspace Filters	This option deletes all workspace filters, including global filters.

Tip: If you want to reuse dashboard settings in new dashboards, you can apply the desired settings to a blank dashboard and then set that dashboard as the home dashboard (see page 32) so that new dashboards will use the settings.

User preferences

The following settings affect all dashboards when you are logged in with your user name. In dashboard settings (see page 253), you can select a variety of other settings that affect the current dashboard.

To set user preferences

1. In the upper-right corner of Salient Dashboards, click ⋮ and select User Settings.

2. In the **User Preferences** dialog, select from the following options

Option	Explanation
Always Confirm Before Closing Window	Check this option if you want to receive a confirmation before closing a widget.
Currency Table	Select the currency table used to convert the currency data to the desired currency or None to leave in the dataset's primary currency. The currency table affects all dashboards and widgets.
Home Page	Select the page to display after login: portal dashboard (see page 19), home dashboard (see page 32), or a blank dashboard. **Tip:** In some cases, such as an interrupted session, Salient Dashboards may attempt to restore your last-visited dashboard rather than going to the home page selected here.

Save and Share

Save and publish dashboards

We recommend saving dashboards frequently to avoid losing any changes. To "publish" a dashboard so that it is available to end-users, save it under the "Published" folder.

To save and publish a dashboard

1. Click on 💾 at the top of the dashboards screen.

2. In the pop-up dialog, type a dashboard name. The name will be automatically populated if you are modifying an existing dashboard. The name cannot have more than 256 characters or any of the following special characters: $ & + / ; = ? @ # \ : " '.

3. In the dashboard tree, select one of the following locations. You may need to expand a location (single-click) to see subfolders.
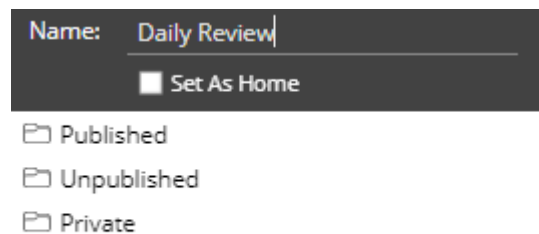
Published - Select this location or one of its subfolders to publish the dashboard so that it is available to all users in browser-based dashboards and the Salient Mobile app. (Access may be restricted based on user account settings).

Unpublished - This option makes the dashboard global so that it is available to other Dashboard Designers, but not Power Viewers or regular viewers.

Private - This option makes the dashboard private so that you are the only user who can access it.

4. Click **OK**.

Tips:

We recommend previewing a dashboard in view mode (click 👁 View on the toolbar) prior to publishing it.

You can check the **Set as Home** box to make this dashboard the home dashboard (see page 32).

After saving a dashboard, you can access the its URL (see page 258) to share it or go directly to the dashboard in a browser.

Power Viewers can also save dashboards using the 💾 button at the top of the screen.

Share a dashboard

Sharing a dashboard creates a temporary dashboard URL, which you can access in future sessions and/or share with other users. A shared URL retains any changes that you made, such as filters, date range selections, etc., and is therefore, a useful method for returning to a dashboard with your preferred settings already applied.

The URL is valid for a number of days (set by your administrator) after the last time it is accessed; therefore, if users continue to access the URL, it will remain available.

To share a dashboard

1. Open the dashboard and make the desired changes. For example, you might filter or change the date.

2. Click ![share icon] in the upper-right corner of the screen.

3. In the **Share Dashboard** window, copy the URL using the browser controls (for example, right-click and select Copy in most desktop browsers).

4. Share or save this URL for use by other users or in future sessions.
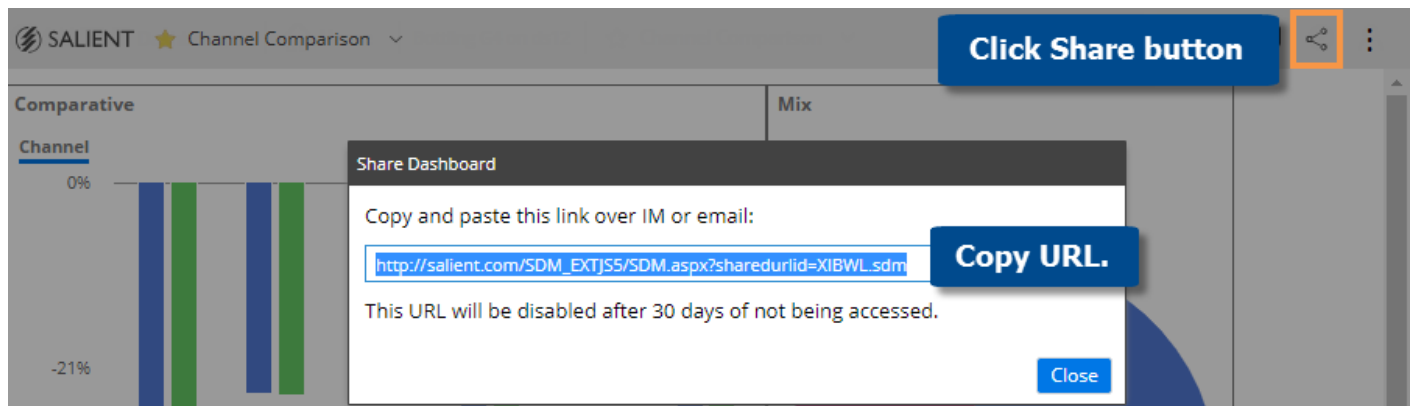
Dashboard URLs

Access a dashboard's URL

A dashboard URL allows you to go directly to a dashboard, share the URL with other users, create a link to a dashboard, save the dashboard as a bookmark in your browser, and more.

To access a dashboard's URL

1. Click the drop-down at the top of the screen to open the dashboards menu.

2. Locate the dashboard and place the cursor over it.

3. Click the ... button that appears.

4. In the pop-up menu, select URL.

5. A dialog shows the URL of the dashboard. You can copy and paste it into an email program or other application.
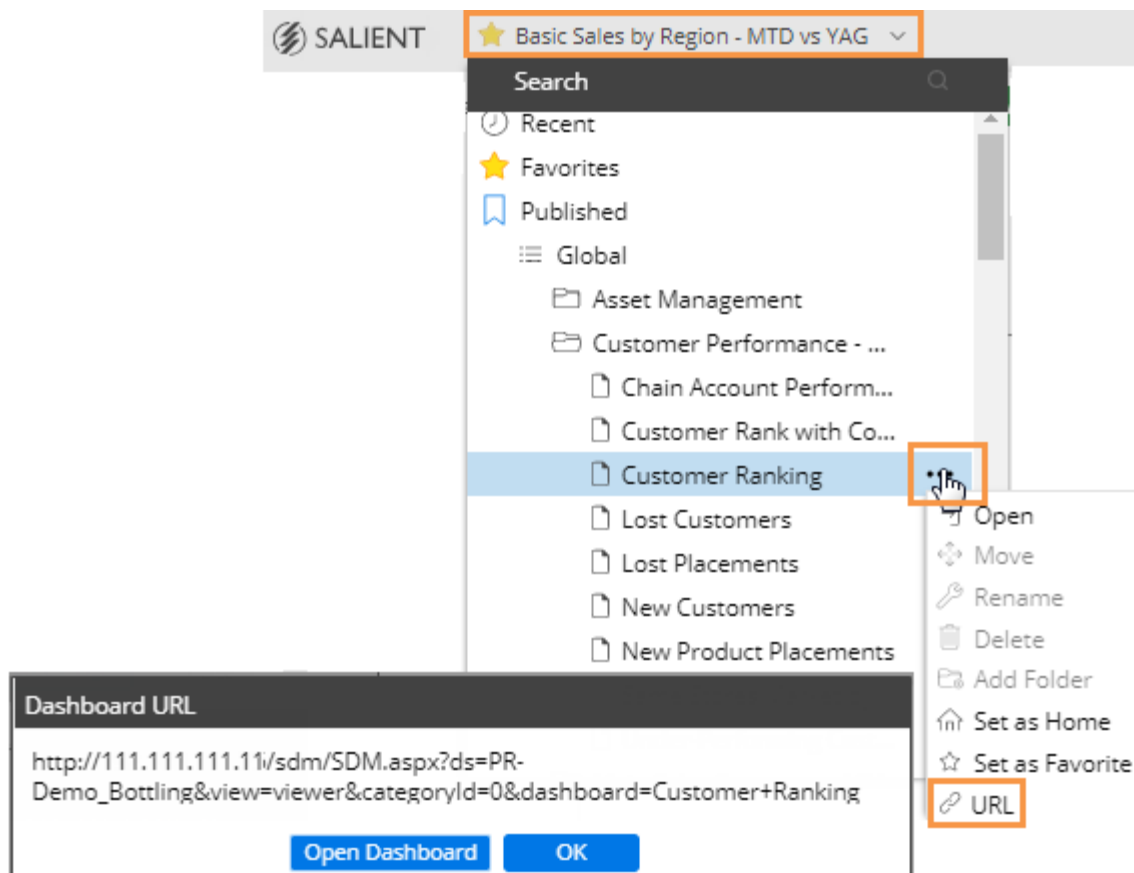
Tip: If you wish, you can add parameters to the URL to do the following.

• Filter the dashboard (see page 259) to see data for specific key or dimension members. For example:
`...&filters=Customer&filterValues=11901`

• Open specific tabs (see page 260) if the dashboard has tab groups. For example:`...&tab=1-0_2-1`

Apply a filter via a dashboard URL

You can add parameters to a dashboard URL to apply a filter to the dashboard. You can filter by one or more members of one or more dimensions and/or keys. This may be useful, for example, to launch a dashboard from another system after selecting an item. The resulting URL would filter the data by the selected item without requiring the user to reselect the item within the dashboard. This method of filtering affects all applicable widgets in the dashboard. Users can see which filters are on by placing their cursor over a widget title bar and viewing the tooltip. In addition, this type of filter affects the available members listed in workspace filters but does not automatically select the item(s) in corresponding workspace filters.

To apply a filter via a dashboard URL, add the following parameters to the end of the dashboard URL.

`&filters=`*`key.dimension,key.dimension`*

- *key* is the internal name of the key associated with the dimension by which you want to filter.

- *dimension* is the internal name of the dimension.

- To filter by a key member, list the *key* rather than the *key.dimension* name. For example, `&filters=Customer` would filter on one or more members of the customer key.

- To filter by multiple keys and/or dimensions, include them as a comma-separated list.

`&filterValues=`*`member_code,member_code|member_code,member_code`*

- *member_code* is the code of the dimension member or key member by which you want to filter data.

- To include data for multiple members of a dimension or key, list the members' codes separated by commas.

- When filtering by multiple dimensions or keys, separate each list with a pipe (|).

- A key code must conform to the exact length and format specified in the dataset; therefore, padding may be necessary. Replace any spaces with "+" or "%20".

- A dim code will be automatically padded on the right side if the code does not match the required length. Additional spaces are not necessary in this situation.

Examples:

http://mycompany.com/SDM.aspx?ds=MySet&view=viewer&categoryId=0&dashboard=MTD+vs+YAG**&filters=Customer&filterValues=11901**

The resulting dashboard would be filtered by customer 11901.

http://mycompany.com/SDM.aspx?ds=MySet&view=viewer&categoryId=0&dashboard=MTD+vs+YAG**&filters=Customer.Region&filterValues=01**

The resulting dashboard would be filtered by customer region 01.

http://mycompany.com/SDM.aspx?ds=MySet&view=viewer&categoryId=0&dashboard=MTD+vs+YAG**&filters=Customer&filterValues=11901,11227,11391**

The resulting dashboard would be filtered by customers 11901, 11227, and 11391.

http://mycompany.com/SDM.aspx?ds=MySet&view=viewer&categoryId=0&dashboard=MTD+vs+YAG**&filters=Customer.Region&filterValues=01,02**

The resulting dashboard would be filtered by customer regions 01 and 02.

http://mycompany.com/SDM.aspx?ds=MySet&view=viewer&categoryId=0&dashboard=MTD+vs+YAG**&filters=Customer.Region,Customer.Channel&filterValues=01,02,03|20,30**

The resulting dashboard would be filtered by customer regions 01, 02, and 03, and also by customer channels 20 and 30.

Open specific tabs via a dashboard URL

You can add a parameter to a dashboard URL to open to specific tabs in tab groups. For example, you might want to create separate links to different tabs in the same dashboard. To go to specific tabs, add the following parameters to the end of the dashboard URL.

`&tab=`*tg#-t#_tg#-t#*

- *tg#* is the internal widget ID of the tab group.

- *t#* is the internal tab number (starting with 0) within the tab group.

To identify the internal widget IDs and tab numbers, open the dashboard and then go to the desired tabs. The URL in the browser window will include the tab parameter for the tabs currently displayed. For example:

`&tab=2-0_3-0`

You can then copy and paste the parameter to the end of the dashboard URL when creating a link or using another method of sharing.

Manage dashboards

Most dashboard management takes place in the dashboards tree, which is accessed by clicking the drop-down at the top of the screen. Dashboards are organized as Published, Unpublished, and Private dashboards. Depending on your user rights, you can create your own hierarchy of folders underneath these main folders to help organize your dashboards. In addition, the tree provides quick access to favorite dashboards, recent dashboards, and the home dashboard.

To search for a dashboard, type some or all of the dashboard name in the Search window at the top of the drop-down menu.

To access the available options for a folder or dashboard, place your cursor over it and then click the ... button.
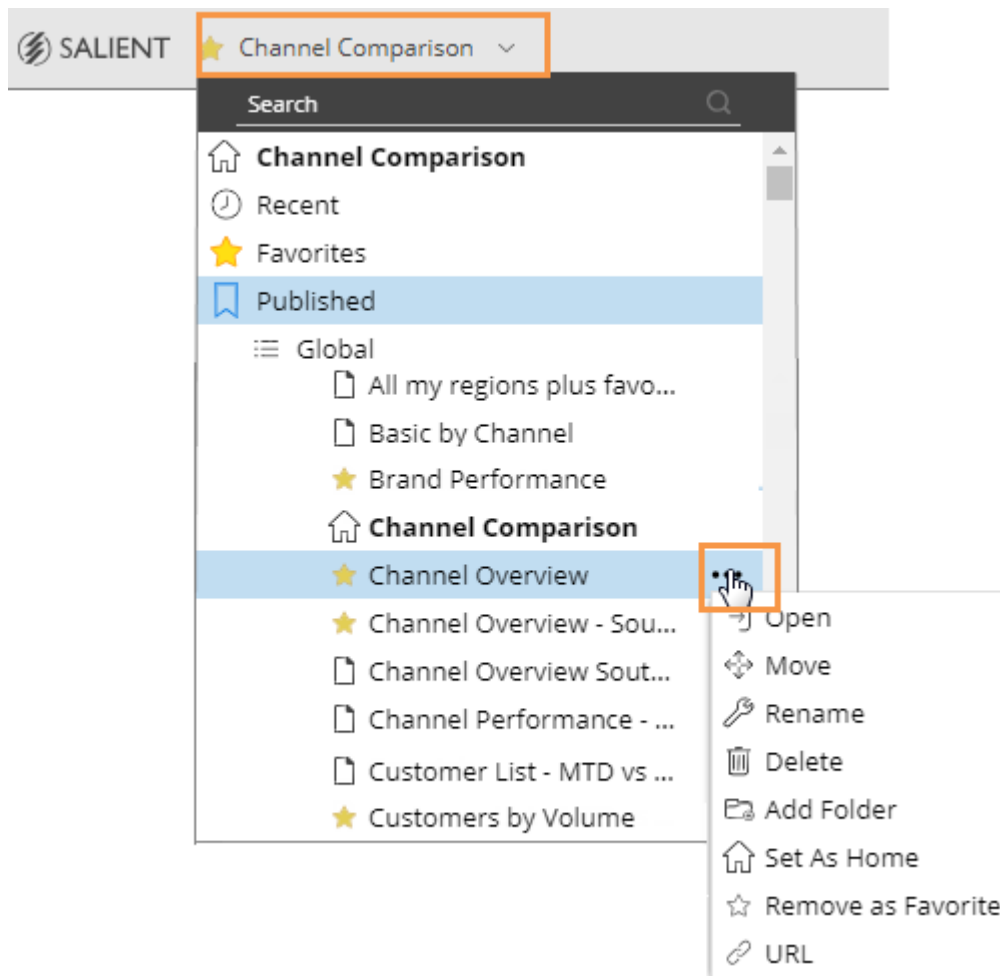
Tips:

These options may be grayed out or hidden if you do not have the necessary rights.

To refresh the dashboard tree to see the latest global dashboards, reload the page using browser controls.

You can publish a dashboard by moving it to the Published folder if you have the necessary rights.

Exporting data

Export data from a widget

You can export the data from a widget to one of the following file types, depending on dashboard and widget settings (see page 263). This option is available in a grid or graph; however, only the data (i.e. not the graph) will be included in Excel and comma-separated value files.

- UXT file (.uxt), which can be opened in SIM. The view parameters are stored in XML format. If SIM is correctly installed on the machine where you run the UXT file, then double-clicking on the UXT file opens SIM to the exported view. Because SIM and dashboards have functionality differences, the view will be approximately the same between the two applications, but may have minor differences.

- Excel (.xlsx)

- Comma-separated value (.csv)

Alternatively, you can create a pdf file (see page 264).

To export data from a widget

1. Customize the widget to use the desired date range, dimension, drill-path, etc.

2. On the title bar of the widget, click ⋮ and then select Export ⬆ .

3. If prompted, in the **Export** dialog, select the file type to which you want to export. The file type may be pre-configured in Dashboard Settings (see page 253).
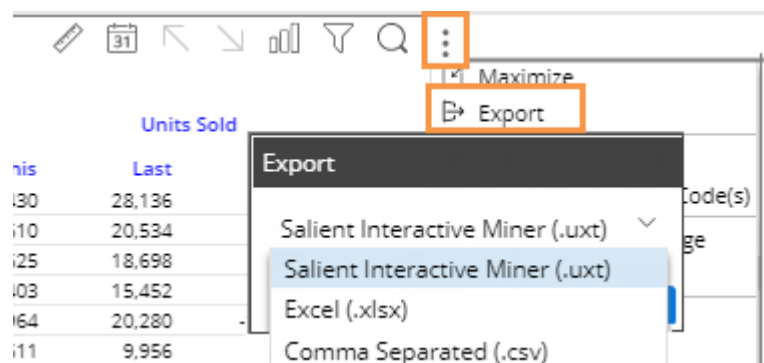
4. If you are exporting to Excel or a comma-separated file, you may also have the following options:

What to Export (only in widgets with multiple pages or checked rows): Choose to export rows in the current page of data, all rows in all pages, or only the checked rows (if rows are checked).

Export 2nd By Option (only if multiple Group Bys are configured): Choose whether to export rows for the 2nd By underneath members of the 1st By. Note that for performance reasons, only the first 1,000 members of the 2nd By can be exported. If you choose to export 2nd By (i.e., expanded) rows, an additional option (**Include First By Subtotals**) allows you to include or omit a row to show the subtotal value for each member of the 1st By. Be aware that with this option checked, the data includes duplicates and a simple totaling of a column may yield incorrect results. For example:

Include Host Code Columns: Check this option to include a column(s) for the host codes of the members. If you are exporting the 2nd By as well, this option will also include host codes for the 2nd By dimension members.

File Name: Specify the file name to use.

5. Click **OK**.

Depending on your browser, you can open the file immediately or select a location to save it. If you do not have full permissions for temporary internet files, then the open option cannot function correctly. In this case, use the appropriate option to save the file in the desired location.

Limiting export options for users

If allowed, users can export dashboard data by clicking the ⋮ button and selecting Export. The default export options include an Excel, comma-separated, or UXT-compatible file. If you wish, you can turn this capability off or limit the allowed formats.
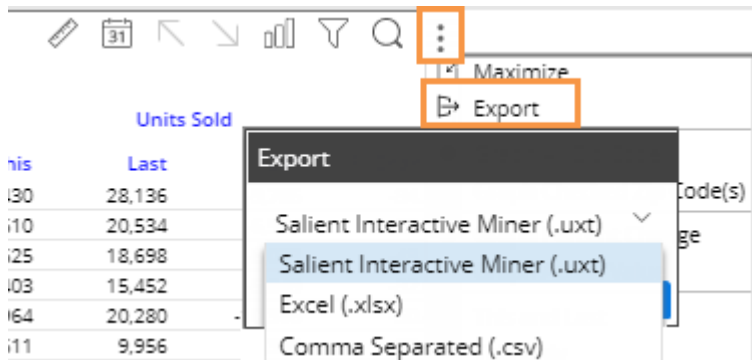
To turn off or limit export options for all widgets in a dashboard

Note: This method does not affect explore mode.

1. Click the workspace to select it.

2. In the toolkit, select Dashboard Settings.

3. From the Export menu, select a single format, None to turn off exporting, or Prompt to allow all formats.
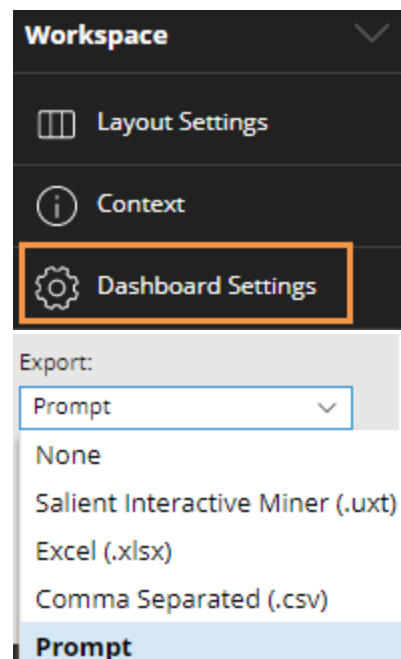
To turn off exporting for a single widget

1. Click the widget to select it.
2. In the toolkit, select General Settings.
3. Clear the Enable Export box.
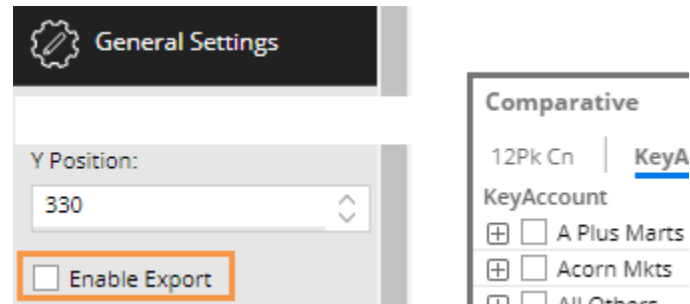
Tip: These methods do not limit the ability to create a PDF file (see page 264).

Create a PDF

You can create a portable document format (.pdf) file that shows the contents of a dashboard.

To create a PDF

1. Open the dashboard.
2. Click in the upper-right corner of the screen.
3. Click **Create PDF** in the menu.
4. In the dialog, enter a file name or leave as is to use the default file name.
5. Choose from the following options:
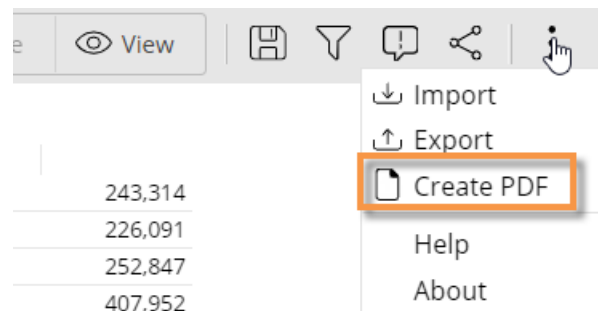
Fit Dashboard to Single Page - This option fits the entire dashboard on one page. (The page may be a non-standard size.) If this option is cleared, the PDF file may include multiple pages.

Include Header on Each Page - This option includes headers with the dashboard name, date, and time as well as footers that show the dashboard a URL links. You can optionally add your own custom footer above the URL.

Export Individual Tabs as Separate Pages (only for dashboards that include tab group widgets) - This option shows the contents of all tabs on separate pages. If this option is cleared, the PDF file will show whatever tab is currently selected and omit the other tabs. When the option is on, you can clear the boxes of any tabs to selectively include or exclude specific tabs.

6. Click **Create**.

Salient Dashboards will temporarily open a new browser tab while it creates and downloads the PDF. This process will take longer the first time you use this feature.

Print

You can print the current view using options provided with your browser. This method of printing shows the entire Salient Dashboards screen, including the selected grid or graph, and toolbar buttons. See your browser's documentation or online help for instructions.

Alternatively, you may want to create a PDF (see page 264) to be printed.

Notify

Salient Dashboards can send automated notifications based on business rules and dashboard data. Messages may be sent as emails and/or notifications to mobile devices (Salient mobile app required). Upon receiving a notification, a user can quickly go the underlying data in the associated dashboard: tapping on a mobile notification will open the dashboard in the Salient mobile app; clicking on an email notification will open the dashboard in the browser-based dashboard application. Results are filtered according to the dashboard rules. Users can interact with the data and investigate further in either application.

You can create and manage (see page 270) notifications in the Salient Dashboards browser-based application if you belong to a user group with rights to save notifications.

Create notification rules

1. Open the dashboard containing the widget on which the notifications will be based. The dashboard must meet the following requirements.

- The widget must be comparative or share trend.

- The widget should include the measures and subcolumns (e.g., This, Last, Diff, % Change) to be used in the notification criteria. (The measures can be hidden.)

- The widget should group the data by the attribute to be reported in the notifications. For example, if the Group By is package, the notifications will report packages that meet test criteria.

- The widget should use the date range(s) on which to report. In general, the date range should move over time (i.e., not fixed) so that notifications continuously look at new data.

- If the notifications are to report on a subset of the data, appropriate filters should be applied prior to saving the dashboard. If the dataset has password collections, they will be automatically applied on a per user basis at runtime.

- The widget and its data should be available to the intended recipients. Otherwise, the recipients will not have the necessary rights and errors will occur.

- The dashboard should already be saved. If not, you will be prompted to save it in the next step. In general, the dashboard should be saved in a global folder. Notifications for a private dashboard can only be sent to the associated user account.

2. Click the ⋮ button in the upper-right corner of the widget and select 🔔 **Notify**.

3. In the next screen, enter the following settings that determine what notifications will be sent, how and when they will be sent, and who will receive them.

Setting	Explanation
Name	Enter a unique name for the set of notification rules.
Category	The category controls who can access and edit the notification rules, but not who can receive the notifications.
Currency	If the dataset has multiple currency tables, select the currency on which to base the notifications.

Setting	Explanation
Timeframe - for share trend only	*For share trend data only*: Select a timeframe option to determine which value(s) within the date range will be compared to condition(s) for each member. • *Aggregate* - Use the aggregate value over the entire date range. • *All periods* - Evaluate all individual units of time (e.g., all weeks) in the date range. All units of time must meet criteria to send a notification. • *Consecutive periods* - Consider values for consecutive, individual units of time in the date range. Enter the number of time periods to evaluate (e.g. increasing values over three months). • *Any period* - Send notifications if any individual unit of time in the date range meets criteria (e.g. any week over 100). *For comparative data*: The test will always aggregate data over the date range to determine if data meets the condition(s) for each member. No timeframe selection is required.
Conditions	Enter test condition(s) to determine when notifications are sent. You can enter one or more rules and, optionally, group them as explained below (see page 270) to create complex logic statements. For each rule: • Select the measure and subcolumn (This, Last, Diff, % Change) to test. • Select an operator (e.g., less than). • Choose what to compare against, which can be a static value, another measure, or budgets for the test measure (if added to the widget). • When multiple rules/groups are used, choose AND or OR to control which rules must be met. In general, notifications are sent when data meets the conditions. You can fine-tune criteria and contents using options in the delivery method section.
Frequency	• Choose a schedule for checking the data and sending notifications if conditions are met. Select a preconfigured schedule from the drop-down. Or, create your own schedule by checking **Advanced** and entering a chron expression that is compatible with Quartz. • Choose the start and end dates for the notifications. If you omit the end date, notifications will continue indefinitely.
Delivery method - Mobile, email, or both	Choose the method of delivery: • **Mobile** - Send notifications to recipients' mobile devices. The Salient mobile app must be installed on recipients' devices and notifications must be allowed. Tapping the mobile notification will go to the underlying data in the mobile app. • **Email** - Send emails to recipients. The email addresses must be defined for recipient user accounts in the Administrator's Utility for UXT. Clicking a button in the email message will go to the underlying data in a browser-based dashboard. • **Mobile & Email** - Send to mobile devices and email as described above.

Setting	Explanation
- Subject and description	Enter the notification subject and description to display to recipients, or leave as is to use the default settings. The subject may be blank, but description is required. These fields can include a combination of text and any of the following variables: • {{dashoardName}} - The name of the dashboard on which the notification is based. • {{widgetTitle}} - The title of the widget on which the notification is based. • {{firstByKey}} - The key associated with the 1st By (e.g., customer). • {{firstByDimension}} - The 1st By dimension or key. • {{numMatches}} - The number of 1st By members that meet the test criteria. • {{matchedMembers}} - A listing of the 1st By members that meet the test criteria.
- Settings for fine-tuning message frequency and content	Use the following options to adjust how often messages are sent and what they contain. • **Send if no members pass** - This option will send notifications even if no members pass the test conditions. If clicked, a notification with zero passing members will lead to the original widget (i.e. will show all members). • **Send when members update** - This option will only send notifications if the list of passing members changes from the previous run. The resulting widget (if opened by clicking the notification) would show one of the following: - If at least one member passes: <u>all</u> members that meet the criteria for the current run - If no members pass and the previous option is on: original widget (i.e., will show all members) OR: • **Show only new members** - This option only sends notifications if the list of passing members changes from the previous run. The resulting widget (if opened by clicking the notification) would show <u>only</u> new members in the current run that did not pass in the previous run. If this option is selected, the previous options are not available.
Recipients	Click **+ Add Recipients**. Select recipients from a list of dataset users. You can search for a user at the top of the window. (By default, the notification creator is a recipient.) The recipients should meet the requirements for the selected delivery method (i.e., salient mobile app with notifications allowed and/or email address defined in UXT). In addition, the recipients must have rights to the data in order to receive notifications.

Tips:

To test the notification, go to <u>Manage Notify Rules</u> (see page 270) and click ▶. For a test run, the notification will only be sent to the user who tests it.

Tips:

Leave the **Active** button on to immediately activate the notification rules, in which case they will run at the next scheduled time, or turn this option off to leave the notification deactivated (e.g., if you are not finished setting it up).

The following methods allow you to reuse settings from other notification rules rather than entering settings from scratch:

- Import previously-saved notification rules for the same or another dashboard. You must first export notification rules (see page 272) to a .json file (in the notification management area).

- Create another set of notification rules similar to the previous notification rules. This method only works if you immediately create new notification rules for the same dashboard. To use this method, check the **Create Another** box at the bottom of the Create/Edit Notify Rules. This will leave the dialog open, allowing you to change the name and other properties as desired.
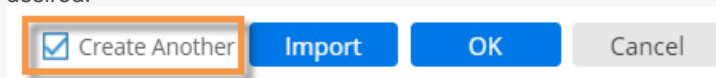
A notification will run according to the timezone of the user who created it.

To edit and manage existing notification rules (see page 270) and see notification history (see page 271), click Manage Notify Rules at the top of the dialog.
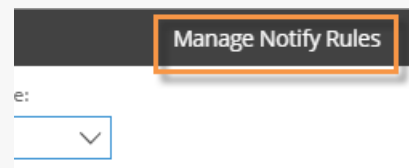
A template defined on the Notify job service controls the appearance of email notifications. The default template has a button to open the underlying data in a dashboard. Your organization can customize the email template to use a different color scheme, logo, and other design elements. See the *Salient Dashboards Installation and Configuration Manual* for more information.

Groups of rules

You can add groups to specify relationships between rules.

To add a group, click Add group .Then, add rules within each group. Set the AND/OR operator within each group and between groups.

For example, Rule 1 OR rule 2 must be met within group 1, AND rule 3 OR rule 4 must be met in group 2:

Manage notification rules

You can manage notification rules that have already been created. You must belong to a user group with rights to save notifications.

To manage notification rules

Click the ⋮ button in the upper-right corner of the dashboards screen and select **Notifications**.

Or, click **Manage Notify Rules** at the top of the Create/Edit Notify Rules dialog.
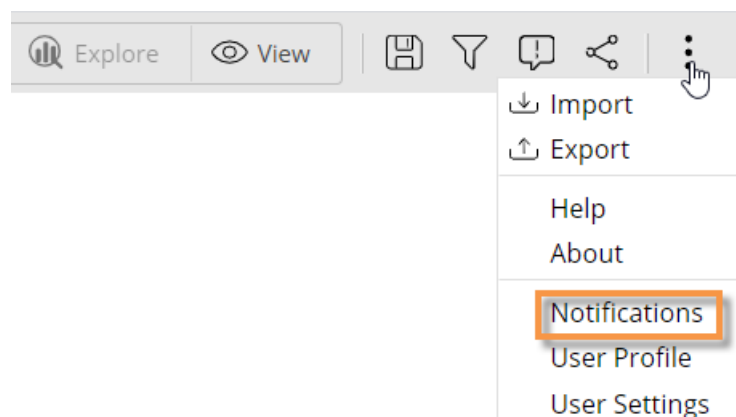
The Notify Rules tab shows a listing of notification rules. By default, the window only shows notification rules for the current dashboard. To see notification rules for all dashboards, clear the checkbox at the top of the window. The buttons allow you to do the following:

- ⊞ Expand notification rules to see details, such as test conditions.

- 🔵 Enable/disable notification rules.

- ✎Edit notification rules. This allows you to change the conditions, frequency, etc.

- 🗑 Delete notification rules.

- ▶Test the notification rules. This function runs the notification immediately regardless of its frequency. The notification will only be sent to the user who tests it.

- ⬆ Export notification rules (see page 272) to a .json file so that they can be imported for faster creation of similar notifications.

To view notification history (see page 271), including each instance a notification runs, start/finish times, status, and errors, go to the History tab.

Notification history

You can view notification history to see when notifications ran, status information, and more. You must belong to a user group with rights to save notifications.

To view notification history

1. Open the notification management area by clicking the ⋮ button in the upper-right corner of the dashboards screen and selecting **Notifications**.

2. Click the **History** tab.

3. Select which notifications to list in the dialog.

- By default, the dialog only includes notifications for the current dashboard. You can clear the checkbox at the top of the dialog to include all notifications.

- From the drop-down, select the time period for which to list notifications (e.g, past 24 hours).

Each run of a notification has a row with one of the following symbols to indicate its error status:

✅- The notification ran without errors. The data was tested and, if conditions were met, notifications were sent successfully to all intended recipients.

❌- The notification had an error with the request, such as a missing dashboard or issues regarding recipient rights. Place your cursor over the icon or expand the notification to learn more.

⚠️- The notification ran with warnings, such as delivery failures. Place your cursor over the icon or expand the notification to learn more.

🔵- The notification is currently running.

Expand any notification to see details, which include the following information for each group of recipients that have matching permissions. Note that different recipients may have different results due to password collections.

- Rows Returned - the number of data rows that match the test criteria for the recipient(s).

- Status - The status of the request for that recipient. (Notes: This status considers the request itself, but not whether the recipient could receive the notification. Warnings related to the accounts themselves will be reported below. In addition, the status may be successful even if no rows were reported. For example, the process might run successfully without finding any matching members.)

- Member - Recipient user name

Next, you will see a summary of the number of messages sent successfully and number of user account warnings. To receive a mobile notification, a user must install the Salient mobile app and allow notifications.

Import and export notification rules

You can export notification rules to a .json file and then import them to easily create similar notification rules for the same or a different dashboard. You must belong to a user group with rights to save notifications.

To export notification rules

1. Click the ⋮ button in the upper-right corner of the dashboards screen and select **Notifications** to go to the notification management area.

2. Locate the notification rules and click ⬆️ .

To import notification rules

1. Open the dashboard for which you want to create the notification rules. The dashboard must meet the requirements for notifications, including the presence of the measures to be tested.

2. Click the ⋮ button in the upper-right corner of the widget and select ⏰ **Notify**.

3. Click **Import** at the bottom of the next screen and browse to the .json file; then click Import. This will load the notification rules.

4. Make any desired changes to the notification rules, such as changing the name. A ⚠ symbol indicates that the notification settings do not match the dashboard, and you must make changes.

5. Click **OK**.

Dashboard files

You can export a dashboard to an .sdm file in order to share it with other users or recreate it on another server. This is different than exporting a widget because the .sdm file does not include the data itself but rather all the parameters of widgets in the dashboard. To use an exported dashboard file, users must import it.

Option	Explanation
Export a dashboard file	Click on ⋮ in the upper-right corner of the screen. Select ⬆ **Export**. Select the name and location of the file.
Import a dashboard file	Click on ⋮ in the upper-right corner of the screen. Select ⬇ **Import**. In the dialog, click **Browse** and navigate to the location of the file. Click **Open** and then **Import**. The dashboard opens. You can then save the dashboard (see page 256) if you wish.

Tip: You can open a dashboard file from a dataset that has a different name; however, the dataset configuration (keys, dimensions, measures, etc.) should be exactly the same in order to ensure accuracy of the widgets and data within them.

Customize the portal dashboard

The dashboard installation comes with a portal dashboard to provide users with easy access to dashboards. The default portal dashboard opens automatically at initial login, and may be accessed through the Salient button in the upper-left corner of the screen. You can configure and choose a different portal dashboard if you wish.
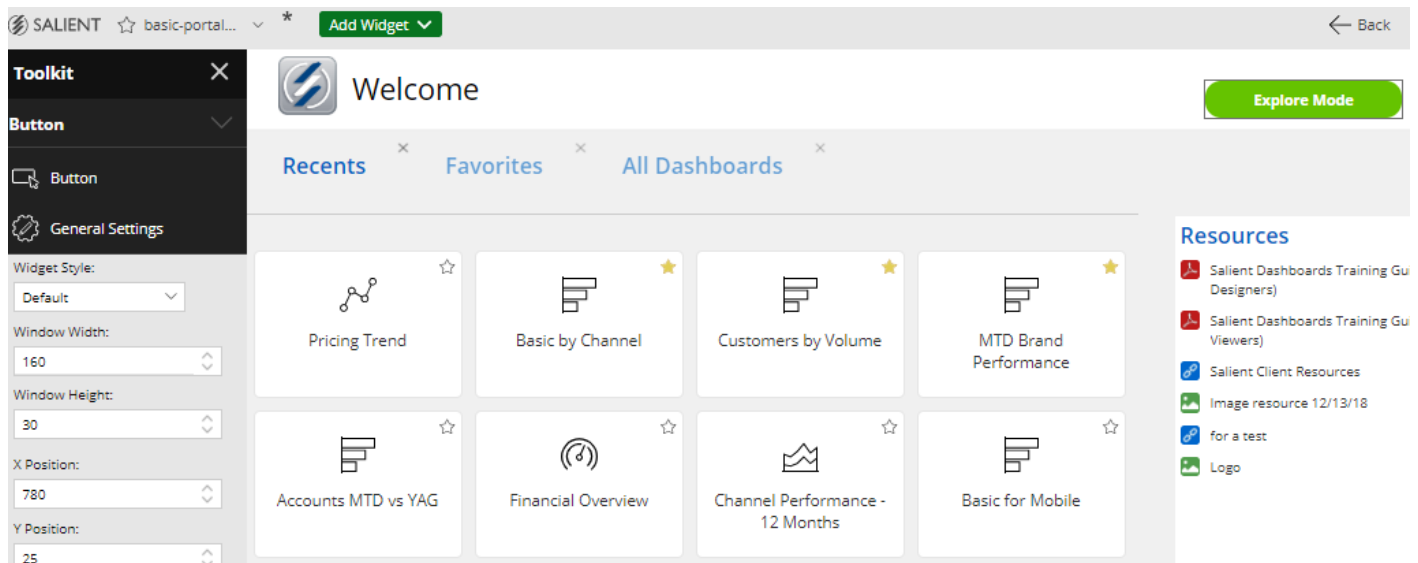
To customize a portal dashboard

1. Start with a blank dashboard or the default portal dashboard.

2. Go to edit mode.

3. Add widgets to provide links to commonly-used dashboards, include other information, and enhance the appearance of the portal. The following widgets are useful when creating portals:

   Dashboard widgets (see page 58) - provide a set of links to other dashboards, such as recent dashboards, favorite dashboards, all dashboards, published dashboards, or a custom assortment of dashboards.

   Button widgets (see page 53) - allow users to quickly go to a URL, open a dashboard, change the date, or filter the current dashboard. To create a button that goes to another mode (i.e., explore or edit mode), select the URL option and enter the appropriate URL (see below).

   Tab group widgets (see page 47) - organize widgets and maximizse screen space by providing a tabbed or carousel view.

   Knowledge Manager widgets (see page 61) - shows the general overview or general resources from Knowledge Manager.

   Text/HTML (see page 51), Line (see page 57) and Image (see page 59)widgets - enhance the appearance of the dashboard and provide content.

4. When you are finished, save the dashboard (see page 256).

5. To make it the default portal for users:

i. Export the dashboard to an sdm file (see page 273). Do not use the name StandardPortal.sdm.

ii. Copy the dashboard to the Salient Dashboards web server.

iii. Modify the dataset configuration file to point to the location and name of the new sdm file. See the *Salient Dashboards Installation and Configuration Manual* for more information. For example:
`<PortalConfiguration standardPortalDashboardPath="CustomPortal.sdm" />`

Buttons for dashboard modes

You can configure a button to go to a specific mode in Salient Dashboards. Add the button, select the URL action, and enter the URL. At minimum, the URL should include the following parameters after the sdm.aspx page location:

- view - Enter one of the following to control the mode: viewer for view mode; explore for explore mode; or sdmView for edit mode.

- dashboardId - Enter the dashboard ID. To determine the ID of a specific dashboard, view its URL (see page 258) and locate the dashboardId in the URL. For a blank dashboard in edit mode (view=sdmView) or the default dashboard for exploring (view=explore), the dashboarId should be 00000000-0000-0000-0000-000000000000. A URL can open a specific dashboard in explore mode only if the dashboard was saved in explore mode.

Examples:

http://mycompany.com/SDM.aspx?dashboardId=00000000-0000-0000-0000-000000000000&view=sdmView

This URL would open a blank dashboard in edit mode.

http://mycompany.com/SDM.aspx?dashboardId=00000000-0000-0000-0000-000000000000&view=explore

This URL would open the default dashboard for exploring (e.g., comparative widget) in explore mode.

http://mycompany.com/SDM.aspx?dashboardId=6e6ff843-c167-499a-ad6c-b55152391ddb&view=viewer

This URL would open the dashboard with the given dashboard ID in view mode.

http://mycompany.com/SDM.aspxdashboardId=b382a462-9a2c-46d9-976d-b1feef821c39&view=explore

This URL would open the dashboard with the given dashboard ID in explore mode if the dashboard was saved in explore mode. Otherwise, the dashboard will open in view mode.

Knowledge Manager

Knowledge Manager enables users to organize thoughts or "soft knowledge" for collaboration. You can add text descriptions, upload images or other resources, and add comments. In addition, this information can be shared between all users across multiple devices in SIM, Salient Dashboards, and the Salient Mobile app (additional setup required).

To show the Knowledge Manager panel

Click the Knowledge Manager button at the top of the screen to open the panel. If you cannot show this panel, you may not have the necessary rights, or the Knowledge Manager tabs might be hidden. In the dashboard settings (see page 253) area of edit mode, you can hide any of the tabs or change the position of the panel (docked left or right).
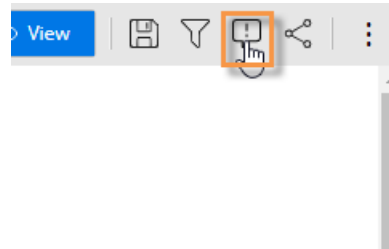
Knowledge Manager includes the following tab.

Tips:

The use of Knowledge Manager depends on the rights of your user group. Therefore, you may only be able to perform some of the tasks described in this document. In addition, you must have login rights for Knowledge manager. See your administrator for more information.

Dashboard information

Each dashboard can have associated information, including a description, resources, and comments. You can view and edit information for the currently-open dashboard in the Dashboard Info tab of the Knowledge Manager panel.

To access this tab, click the button at the top of the Knowledge Manager panel (see page 276).

Dashboard description - typically explains the dashboard's purpose, how to use the dashboard, and any other relevant information.

To edit the description, click . Then, in the text editing area, enter a description for the dashboard. You can format the description and add hyperlinks using the toolbar or by clicking to enter HTML code.
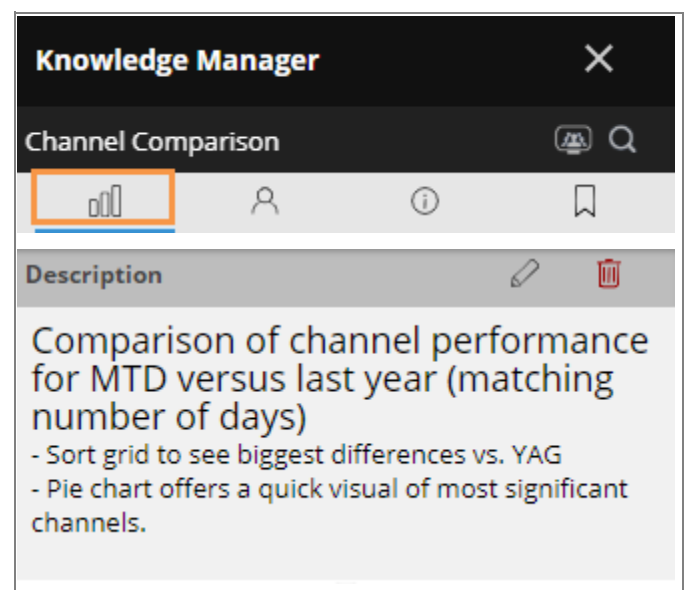
Resources - A dashboard may have resources such as image files, Microsoft Word® documents, and links.

To add a resource, click ⊕.

Comments - Users can comment on the dashboard.

To add a comment, click ⊕.
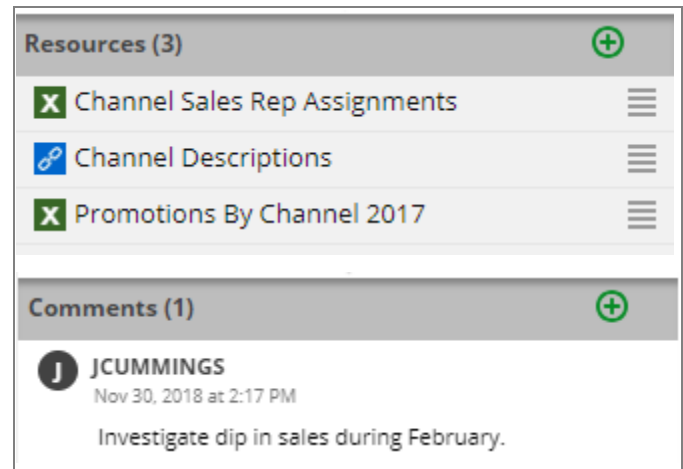
Member information

Each key member or dimension member (e.g., customer, region, package, etc.) can have unique information, including links, resources, and comments. In addition, member information can include global "look-up" links (e.g., an automated Google look-up based on customer name). You can view and edit both types of member information in the Member Info tab of the Knowledge Manager panel

To access this tab, click the 👤 button at the top of the Knowledge Manager panel (see page 276). Then, select any member in the active widget to see or enter its information.

Global Info - provides dynamic links to web resources to provide additional information about members. For example, you might look up customers on Google™ search. The links can use a "global" URL and automatically insert the selected member name, code, etc., to look up specific information. Global Info links must be configured (see page 278).
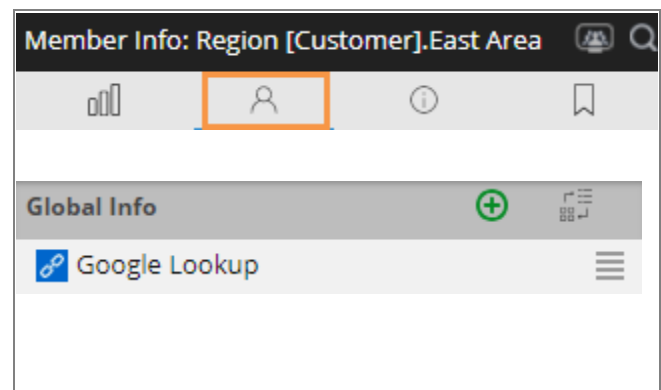
General

The next section allows you to view and share unique information for each member, including resources (links, images, documents, etc.) and comments. Information is organized under topics. The first topic for any member is named "General." You can create additional topics to store information.

To filter the panel to show only comments or resources of a certain type, click the filter button ⧩ . You can click ⬍ to sort the items within the topics by date or user.

To create a topic, click the **Create** button, select Category, enter the title, and click Save.

To add a link, resource, or comment, click **Create** underneath the category and then select the resource type.
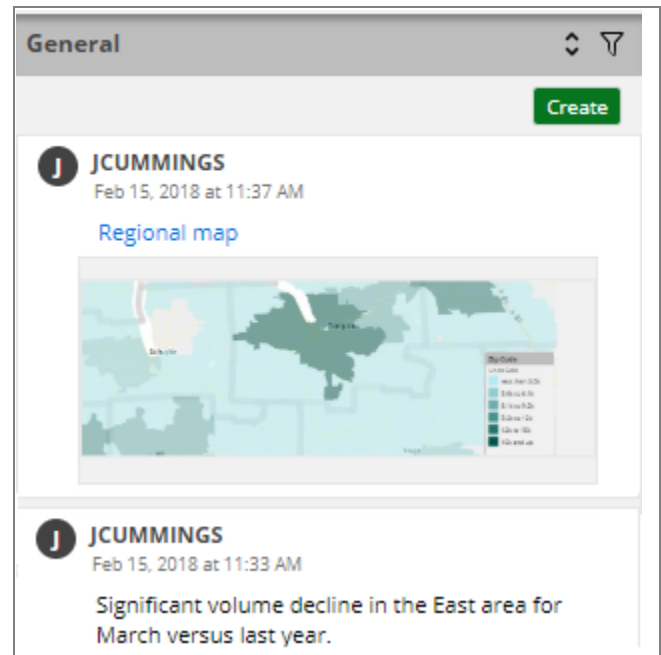
Set up Member Info links

Member Info links allow you to create dynamic links to outside web resources to provide additional information about members. For example, you might set up links to look up customers on Google™ search. The links can include items such as member names and codes to look up information about the selected member. These links appear in the Global section of the Member Info panel.

To set up Member Info links

1. Go to the Global area of the Member Info panel.
2. Click ⊕

To set up Member Info links

3. Enter a link **Title**.

4. In the **Link Template** text window, enter the general URL of the web page.

5. Place your cursor where the member code or description should appear in the URL.

6. Click Insert Parameter and select an option (Code or Description) from the drop-down menu, depending on what parameter should appear in the URL. When a user clicks the link, the value of the selected member replaces the parameter.

7. Optionally, select an icon file to use as the image for the link button. Click **Browse** and navigate to an appropriate image file. Click **Open**.

8. If you want the link to be available for members of all keys and dimensions, clear the **Applicable to Specific Key or Dimension Members** box. This means that the link button will appear for all Group Bys.

    If you only want the link to be available for certain keys/dimensions, check the **Applicable to Specific Key or Dimension Members** box. Then, check the boxes of the key and dimensions. Note that checking the box of a key does not automatically check the boxes of the dimensions underneath it.

9. Click **Save**.

General information

The General Info panel lets you view and enter general information that can be accessed from anywhere within the dataset (i.e. does not change when you select another dashboard). In addition, this information can be embedded directly into a dashboard using a Knowledge Manager widget (see page 61).

To open this tab, click the ⓘ button at the top of the Knowledge Manager panel (see page 276).
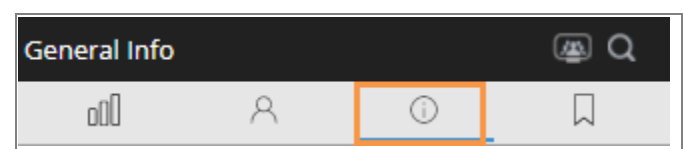
Overview - might contain an overview of the dataset, instructions, or other general information.

To edit the overview, click ✎. You can format the overview and add hyperlinks using the toolbar or by clicking 🖋 to enter HTML code.

Resources - The dataset may have resources such as documents, images, and links.

To add a resource, click ⊕.
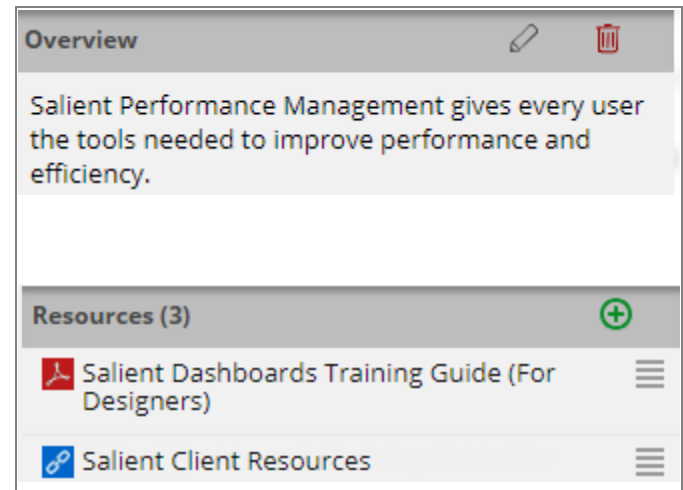
Index/search

The Index/Search tab shows the dataset's schema elements, including cubes, keys, dimensions, and measures, and lets you search for them. In addition, you can see which dashboards have associated information (descriptions and/or resources).

To open this tab, click the 🔖 button at the top of the .

Search - To search for a schema element or dashboard that has associated information, enter some or all of the characters and click 🔍.

Index tree - The tree shows dashboards (only those with associated information) and schema elements, including cubes, keys, dimensions, and measures. Dimensions are located under keys in the tree. Schema elements may be limited based on your user rights.

To view information for an item, double-click on it.

The next screen shows the associated information and may let you enter information (depending on your user rights).
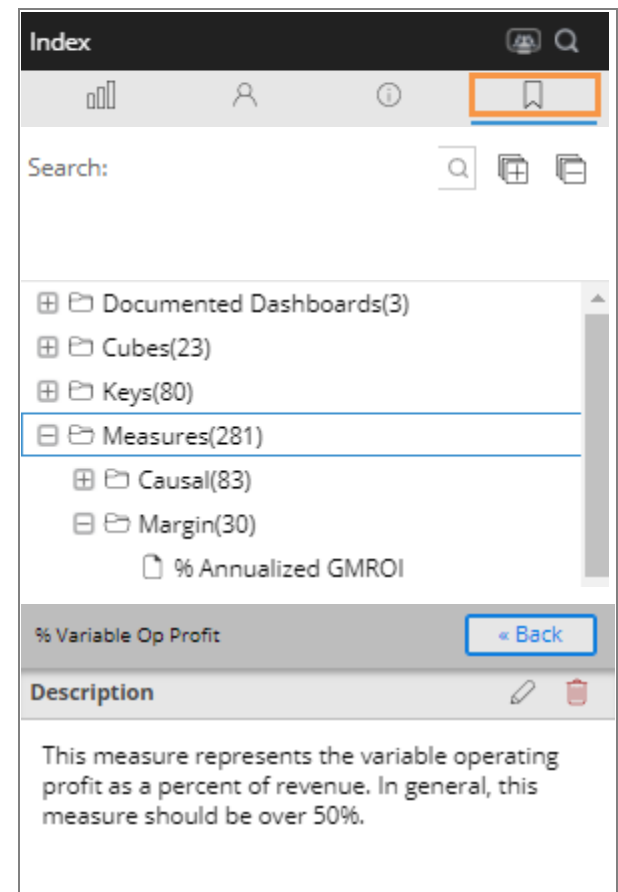
Troubleshooting

Salient Dashboard limitations and differences

- Because Salient Dashboards are based on a web application, they do not have the same type of connection to the UXT Server as SIM. Instead, the dashboards make requests, but the UXT Server cannot monitor the connections or send data the same way it can with SIM. This results in the following:

  - Shutdown and instant messages sent via the Administrator's Utility are not available.

  - You are not immediately notified when the UXT Server shuts down.

- Right-click shortcuts are not available.

- Tabbed browsing (i.e. multiple instances of Salient Dashboards in tabs within the same browser window) is not supported for connections to different datasets.

- Salient Dashboards do not support period tables that include a different number of periods in different years (for example, 12 periods one year and 13 periods the next year). You can turn on this type of period table; however, be aware that results may not exactly match SIM.

- In situations when data is not available, range windows created by selecting a subset of dates in an Exception Time Series widget may not show the same results as the equivalent range windows in SIM.

- Totals and averages of checked members are not available (N/A) for fields that use the SUM function (see page 291).

Messages you may encounter

If you receive error messages other than those listed here, contact your system administrator.

Error	Explanation
`This page must be viewed over a secure channel`	If the Salient Dashboards site is secured with a Secure Sockets Layer (SSL), you must enter the prefix https:// when navigating to the site.

Error	Explanation
Session expired.	You may receive this error message when you are redirected to the login page. The following situations cause this message: • You have been inactive (i.e., no requests to the server) for a period of time longer than the session timeout set by your administrator. Note that functions in Salient Dashboards that do not require communication with the server, such as edits to content or image widgets, do not count as activity. Therefore, if you are making extensive edits to content or image widgets, we recommend saving frequently to avoid losing work due to an expired session. • If you receive this message regularly and it is not caused by a session timeout, IIS may be incorrectly configured. Contact your administrator.
Operation is not valid due to current state of the object.	The UXT Server did not return results within the request timeout defined by your administrator. If you continue to receive this message, contact your administrator.
Invalid Time Resolution	Day filters (see page 176), such as a business day table or day-of-the-week filters, have caused an invalid comparison between This and Last dates in a time-series view. To view the requested data, remove the day filters from the date settings (see page 169) for the widget or switch to a different widget type.
No Data Available	See "Explanation of No Data Available". (see page 284)
The 'Global xxxxxx' information has been modified by 'xxxxxx' on 'xx/xx/xxxx' on x:xx:xx xx'. Your changes cannot be saved to the server at this time. Please refresh the page and then save your changes again.	Global dashboards or collections have been modified by another user. Refresh the global information by clicking the Refresh button or reloading the change. Then reattempt saving your changes.
UXT returned error code: 24; error subcode: 11; ...	The Server has insufficient memory for the request. This may occur when making a large request, such as one for a key list of many members over a long date range. You may want to downlevel further before retrying the request. In general, you should contact your System Administrator if you receive an error message.

Error	Explanation
`UXT returned error code: 24; error subcode: 145; ...`	The Server has insufficient memory for the submitted request for key counts in a key list or Scattergram. You may want to downlevel further or remove the key counts field before retrying the request. In general, you should contact your administrator if you receive an error message.
`This collection contains xxx members that are restricted because of access rights. The restricted members have been removed from the selected list. You will not be able to save any updates to the collection.`	This error may occur in the following situations: • You attempt to access a collection that includes members without data for the currently selected cube. Salient Dashboards only shows the members with data for the selected cube; therefore, if you view a collection from Salient Dashboards or a collection created from within a widget that has data from multiple cubes, then you may encounter this error. In this case, we recommend that you do not edit the collection. • You attempt to access a collection that includes members for which you do not have access rights.
`The underlying provider failed on Open`	Salient Dashboards could not connect to the SQL database. Contact your administrator.
`Stop running this script? A script on this page is causing your web browser to run slowly. If it continues to run, your computer might become unresponsive.`	Click **No** if you receive this message. This message may appear in Internet Explorer. If you experience problems with this message, see the requirements (see page 15) for a list of other supported browsers.
`The application was unable to connect to user data storage.`	Salient Dashboards encountered an error or connection problem related to the user data service. Contact your administrator.
`UXT Server encountered an error while connecting to user data storage.`	
`The application received an error from user data storage.`	

Suspended state

When data is updated on the UXT Server, the server goes into a "suspended" state but does not disconnect users. This capability allows constant access the most up-to-date information available (i.e., near-real-time) because updates can happen during the day or any other time.

When the server is suspended, a yellow indicator displays at the top of the dashboards screen. You can continue to perform tasks, such as the following, that do <u>not</u> require new data queries to the UXT Server. A message will notify you if a request is not allowed.

Examples of allowed tasks during suspended state:

- Turn on highlights

- Switch between numbers and graphs as long as the graph side doesn't need any additional data

- Scroll thru Comp data

- Scroll (limited) thru key list data depending on how much data has already been retrieved

- Save as/print (limited for key lists)

- Rubber-band on Trend views to bring up the small range windows

- Create/edit dimension collections

- Save a dashboard

When the update is finished, a "green light" ⬤ appears briefly at the top of the screen and full functionality is restored. The dashboard refreshes the data to show the latest available during the next request. You can mouseover either the yellow or green indicator to see the date and time of the last update.

Explanation of No Data Available

Sometimes the display may show a "No Data Available" message instead of the information you have requested. This occurs if no data exists for the date range and measures in the specific context of the view. For example, you might receive this message if you change the date range and the new date range does not have data. Or, you might receive the message if you change the measures displayed to those without data, or turn on a collection that includes members with no data. If you receive this message, you can go back to the previous view, go to the home view, or make some other change until the view includes at least some data.

What are undefined and default data?

As you navigate through your dataset, you may see data listed under *default* (DFLT) or *undefined* (Undf) instead of a dimension member (see page 287) name. This typically means that something does not match up in your dataset; therefore, the analysis cannot properly categorize the data listed under DFLT or Undf.

See your System Administrator or the *Salient UXT System Administrator's Guide* for more information.

If the program doesn't respond

Try the following in the order listed below if the program doesn't respond:

- Wait a reasonable amount of time for Salient Dashboards to perform the requested action.

- Press F5 to refresh the page.

- Press Ctrl +F5 to clear the cache for the page and go back to the home view.

- Log out and log back in.

- Contact your system administrator if the previous steps do not fix the problem.

Contact Salient

Typically, the simplest way to contact support is through email. If you prefer, you can contact our technical support staff the following ways during normal working hours (Eastern Time).

- Phone: 1-607-739-5228 ext. 206

- Fax: 1-607-739-4045

- Email: support@salient.com

- Web site: www.salient.com

View version information

Before contacting technical support (see page 285), you should know the version of Salient Dashboards you are using.

To view version information

Click ⋮ in the upper-right corner of Salient Dashboards and select **About**.

The screen shows the version number, dataset name, and other information.

Glossary

additive data

Measures that can be added together over time to result in a meaningful value. For example, you may sum costs over time and arrive at a meaningful total value for a series of days, weeks, months, etc. If an additive measure is calculated, it does not use multiplication or division in its formula or subformulas (i.e. formula of a field within the main formula). Also see non-additive data and top-additive data.

allocations

Data (such as rebates or customer marketing agreement costs) that is disbursed across a group of key members or dimension members for a set period of time. If your system administrator defines allocations, you can view them just like any other measure. In addition, depending on your licensing and dataset configuration, allocation keys and dimensions may be available in some widget types to allow you to view allocated data by its program or other attribute.

budget data

Projected values for transaction data. If the dataset includes budget data, you can view it and compare it to actual values. You insert budget data just like other measures in most analyses.

business days

A customized set of days important to your organization. A business day table defines each set of business days.

If licensed, you can filter data by business day tables, but only your System Administrator can create and edit them.

causal

A category of data that describes constraints, limits, and environmental conditions. This data is not transactional, but instead is about conditions surrounding transactions.

Pink represents the causal data category.

collection

A saved set of members by which you can filter the data.

column headings

By default, grids generally display measures in columns, with the name of the measure serving as the column heading.

context

Information about the part of the dataset you are viewing, including the By dimensions used to group the data, drill-down, focus, and filters.

conversion table

A set of factors used to standardize or convert data based on date, dimension member, or key member. Types of conversion tables include equivalent tables, calendar tables, and currency tables, and may be licensed separately.

You can turn on and view conversion tables, but only your System Administrator can create or edit them.

cost

A data category that quantifies the expenditures required to complete transactions. Red represents the cost category.

cross-cube calculated measure

A measure calculated using measures from multiple data cubes. For example, total costs might include products costs from one cube as well as operational costs from another cube.

currency table

A set of currency factors used to convert data to another currency. Typically, each day, week, month, or period has a currency factor based on the value of the currency at that time. When a currency table is on, data is multiplied by the appropriate factor.

If licensed, you can view currency tables, turn them on, and specify formatting for each currency, but only your System Administrator can create and edit currency tables.

dashboard

An arrangement of data on a single page to provide real-time analysis of performance. A dashboard contains one or more customized widgets.

data

In general, any piece of information relevant to your organization. More specifically, data may refer to the actual values defined in the dataset rather than the mix, difference, or percent change for those values.

data category

An organizational grouping of data based on its type and function to increase understanding and usability. Each measure is assigned to one of up to seven possible data categories, including volume, revenue, cost, margin, duration, frequency, and causal, each of which may be represented by a different color. Your organization may use different terms for these categories.

data cube

A subset of data that defines an activity or condition in your organization. For example, your organization might use a sales data cube to analyze its sales activities. If you've licensed integrative management capabilities, then additional data cubes may define related processes such as repairs and advertising efforts. The joining of data cubes lets you see the cause-and-effect relationships across the organization.

dataset

A collection of data located on a Salient server. A dataset may include one or more data cubes that quantify separate processes. For a complete and specific description of a Salient dataset, see the *Salient UXT IDFS* document.

date range

A range of days, weeks, months, or periods for which a widget either totals data or shows data for each individual unit of time. In many widgets, you can compare one date range with an earlier date range.

day count fields

Fields that represent the number of days included in the date range.

difference

The difference in data values between one date range and another date range, or between budgeted data and actual values.

dimension

An attribute that describes and classifies the members of a key list, and therefore, allows you to group the data.

For example, customer dimensions might include Territory, Representative, and Zip Code. Based on individual characteristics, each key member is assigned to one member of each of its dimensions. In the example, a customer might be in the North Territory, assigned to the Representative Jane Doe and have a Zip Code of 17055. So, you could see data grouped by Territory or any other customer dimension.

dimension member

A category within a dimension. For example, MyTown might be a member of the City dimension. Any number of key members may belong to the same dimension member. When you group data by a dimension, you see data totals for each of its dimension members. Also known as "item."

dimension member code

A code that represents a dimension member in the dataset. Each dimension member code is unique within its dimension. Also known as "number."

dimension member description

The text field assigned to a dimension member. Analyses typically display the dimension member descriptions as row headings or column headings. Also known as "dimension member name" and "item description."

drilling down/up

You can drill down to a narrower view of the data (for example, from all cities to Smith City only) or up to a wider view, one level at a time. At any level, an analysis is typically focused on one dimension member. When you drill down, the view filters out all other data and groups the data by another dimension, breaking it down in some other way. When you drill back up, the dimension members in the view are combined back together. Also known as "down leveling" and "up leveling", or "moving down" and "moving up."

duration

A data category that represents the amount of time associated with the transaction, such as travel hours or labor minutes. The color purple represents the duration data category. This category was previously known as "time."

equivalents

Equivalents are a way to standardize data based on attribute so that all units are worth the same amount. For example, if a case of one product contains a different amount than a case of another, equivalents would allow you to express quantities in ounces or some other measurement rather than cases. Each product would have its own equivalent factor based on its case size.

Each equivalent table contains a set of equivalent factors used for a specific conversion. When an equivalent table is on, the data for each member is multiplied by its associated equivalent factor. In addition, an equivalent table has assigned measures that are affected by the equivalent table. As a result, calculated fields may also be affected. If licensed and configured, you can turn on and view equivalent tables.

field

A piece of data that can be inserted. Fields may include measures, key member descriptions, and dimensions.

first by

The dimension by which you are currently grouping the data and ready to drill down into at any time.

focus

The dimension member you're currently looking at and ready to drill down into at any time. On some analyses, the name of the focus is outlined. On other analyses, you see only data for the focus, but you can change the focus to a different dimension member or all members (or the average of dimension members in some views).

frequency

A data category that represents how often something happens. If licensed, this data category makes it possible to calculate the average drop size (AVD), average invoice margin (AIM), and other statistics. The color olive represents the frequency data category. This data category was previously known as "counts."

global

Describes components, such as collections, bookmarks, dashboards, etc., that are shared among users. Global components are classified by user data category. In Salient client applications, you can see each user data category to which you have access, and you can use the global components in these user data categories. In addition, you may see a general Global folder, depending on your user account settings. Only users with global user data privileges can create or modify global components. Global components are stored on the server. Also known as "public."

key

A group of similar elements involved in your organization's activities. For example, the key Customer would be made up of its members, which are individual customers. Each key typically has several dimensions that describe its members and, therefore, classify the data associated with the key members.

key list

A list of the members of a particular key.

A key list displays at minimum a unique code for each member and may also include measures, key member descriptions, and membership within a dimension. A key list might be limited to key members classified in a certain dimension member, key members that meet certain criteria, or it might include all members of the key.

key member

An individual element within a key. For the Customer key, an individual customer is a key member. Each key member has a unique code and is assigned to one dimension member of each of its dimensions.

key member code

A code that identifies the member of a key. A key member code must be unique within that key. Also known as "number."

key member description

Text strings used to describe unique information about a key member. For example, a customer might have key member descriptions for name, address, and telephone number.

You can view key member descriptions in a key list.

mix

Percent of the total contributed by each dimension member or key member. You can add mix to existing fields in numbers views (not allowed for fields calculated using multiplication or division). Alternatively, mix fields that allow more advanced calculations may be configured in the dataset using the SUM function.

measure

A standard of measurement by which performance, productivity, and efficiency, may be assessed. Measures may be downloaded from the host system or calculated from two or more other measures. Examples include volume sold, revenue, specific costs, margin, etc. Also called "data field" or "metric."

metadata

Information about the configuration and format of data in a dataset.

members

In general, members are part of a larger group. For example, customers are members of the Customer key, and the North region is a member of the Region dimension.

margin

A data category that represents the profit figures calculated from the transaction data, which is typically net revenue minus costs. Depending on your dataset, the margin data category might include marginal contribution (MC), budgeted MC, unit MC, and adjusted MC. Green represents the margin data category.

To see the formula used in your organization's margin calculations, place your cursor over a margin data heading.

miscellaneous

A classification that represents measures assigned to the "unused" data format. The miscellaneous classification typically includes quantities and other data that is not per unit or total currency.

non-additive data

Measures that cannot be added over time to result in a meaningful value. For example, if you try to sum price or cost per unit across time you won't get meaningful numbers. These sorts of measures oftentimes are calculated using multiplication or division. Also see additive data and top-additive data.

non-transactional data

Data about the conditions that affect performance. Unlike transactional data, non-transactional data has a starting date <u>and</u> ending date that define when the condition or data value remains unchanged. Non-transactional data may also be referred to as causal and belongs to the causal data category.

password

A text string used with a user ID to open a dataset. User names and passwords can determine the functionality and data available to users.

path

A list of all dimension members into which you've drilled down along with the current organization of data.

percent

One of multiple data formats that help determine the format and classification of measures.

percent change (% change)

The percent change in data values between one date range and another date range, or between budget data and actual values. The formula for % change is:

$$\frac{T1 - T2}{|T2|} \times 100\%$$

Generally, T1-T2 is the change from the Last date range (T2) to This date range (T1), and |T2| represents the absolute value of Last date range.

Also known as "Chg %" and "Change %."

period

An amount of time that is meaningful to a particular organization, but does not correspond exactly with a calendar day, week, month, or year. Typically, a period is approximately one month long, but this depends on your company's unique needs. If fiscal period tables are licensed and defined by your System Administrator, you can total data for a series of periods or see data for individual periods. Also known as "fiscal periods."

period table

A set of consecutive periods defined for your particular organization. If period tables are licensed and defined by your System Administrator, you can view data for those periods in analyses and key lists. For example, a period table named Four13 might separate a year into 13 four-week periods, or a period table named FourFourFive might assign four weeks to the first and second periods, five weeks to the third period, and so on.

private

Describes components that are not shared between users, such as private bookmarks. Private components are only available to the user who created them. Also see "global."

Power Viewer

Power Viewer is an enhanced licensing option that provides the following capabilities beyond basic dashboard viewing.

Advanced capabilities in view mode for Power Viewers:

- Select measures using the measure selection tool (i.e. show/hide). (Multiple measures must be pre-configured and measure changing must be enabled for the widget.)

- Use the breadcrumb path to select the By and, therefore, follow a flexible drill path. (Multiple Group Bys must be pre-configured and the breadcrumb path must be enabled for the widget.)

- Use advanced date options such as fixed or moving timeframes and offset time periods. (The date icon must be enabled for the widget.)

- Access setup options for Geo.

- Change display names of measures and measure families in Trend, Comparative, and Multi Comparative graphs (actual value only).

- Save dashboards (as private and/or published depending on user account settings).

- Turn on and create collections (private and/or global depending on user account settings).

Further investigation in explore mode:

Power Viewers have access to explore mode (see page 24) where they can expand a widget to further investigate the data. Explore mode allows users to change the analysis type, add measures beyond those built into the dashboard, group the data by any available attribute, and more. Note that explore mode may be disabled.

revenue

A data category that quantifies the money coming into the system, or income. The color black represents the revenue data category.

Salient Dashboard Designer

Dynamic web application for designing, creating, and viewing customized dashboards of data delivered by Salient's UXT technology. Dashboards are interactive and can be shared with other users.

Salient Interactive Miner

Desktop application with full functionality for data interrogation and analysis. Works with Salient's UXT technology to deliver any answer at stream-of-thought speed. Also referred to as SIM.

second by (2nd By)

The secondary dimension for grouping the data (i.e., second level in the drill hierarchy). If a 1st By member is expanded, its data will be grouped by the 2nd By.

SUM function

Calculated fields may include a SUM function to calculate percent of the total (i.e., mix) by dividing the value for a member by the total or SUM of all members in the context. This calculation of mix could be used in more advanced calculations. For example, excessive returns might be a calculated measure that finds the expected returns based on total returns times the percent of total units for a member, and then subtracts the expected returns from the actual returns to find the difference. As with other calculated fields, the exact use of the SUM function, if any, depends on your particular dataset configuration. Contact your system administrator or see the "Salient UXT Input Data Format Specifications" for more information.

temporal fields

Measures that are calculated based on values for two different date ranges. For example, your company might track Net Lift as the difference in volume between this date range and last date range multiplied by the net price for this date range.

time-series analyses

Analyses that display data for each day, week, month, or period in the date range, so that you can see performance over time.

top-additive data

A measure that does not use multiplication or division in its main formula, but one or more calculated fields within the main formula do use multiplication or division in their formulas.

total

One of multiple data formats that help determine the formal and classification of measures. The total data format is typically reserved for total currency values.

transaction

The exchange of money, goods, or services that happens at a discrete moment in time.

transactional data

Data describing the exchange of money, goods, or services that happens at a discrete moment in time. As a result, transactional data has a singular date and/or time associated with it.

unit

One of multiple data formats that help determine the format and classification of measures. The unit data format is typically reserved for per unit currency values.

user data

Saved components that are not part of the dataset itself, but are used to facilitate data analysis and investigation in Salient client applications. User data includes bookmarks, dashboards, collections, data setups, preferences, and more. User data may be global (shared among users) or private (available to the user who created it).

UXT

Salient's revolutionary technology, UXT, transforms very large sets of recurring transactions and related causal data into a readily accessible data model optimized for interactive performance management.

virtual key field

A measure that enters the system at the dimension member level rather than the fully-granular key member level. For example, budgets are often entered at the virtual key field level.

volume

A data category that describes the number or quantity of units involved in a transaction. Blue represents the volume data category.

widget

A display element that can be added to a dashboard and customized to show the desired information. Several types of widgets are available, including a Comparative, Scattergram, etc.

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