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Salient Dashboards™ Training Guide

for Dashboard Designers

Version 7.80

Limited warranty

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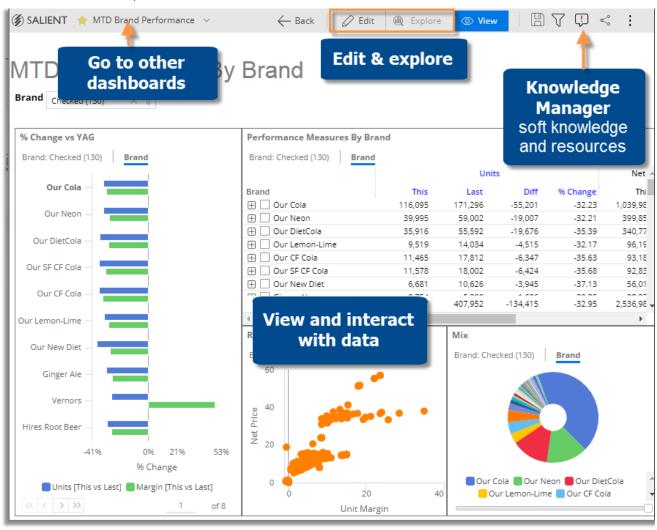
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Introduction

About Salient Dashboards

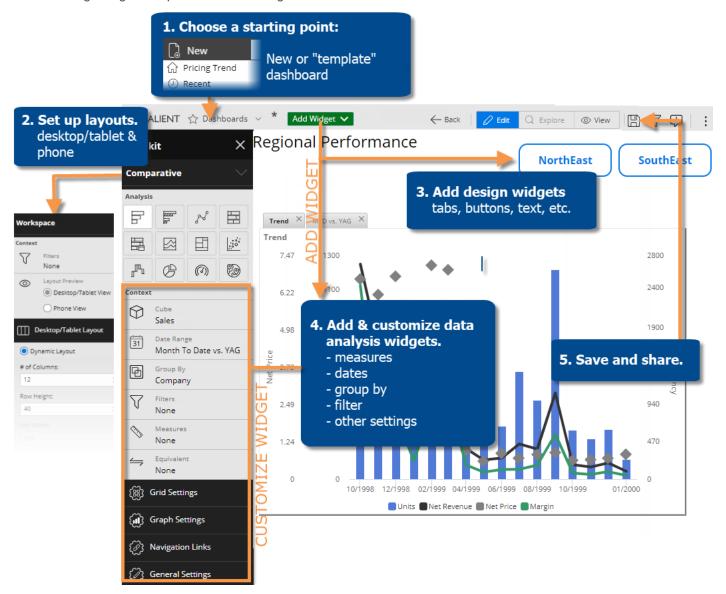
Salient Dashboards enables your team to create and access interactive, consolidated visualizations of decision support intelligence in a browser for consumption from any computer or mobile device.

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 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 with the customized dashboards. Power Viewers and Dashboard Designers can go on to perform their own data investigation in "explore" mode. Portal dashboards provide easy access to dashboards. In addition, a mobile application is available to provide access on mobile devices.



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 <u>layouts</u> (see page 9) 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 <u>tabs</u> (see page 14), <u>images</u> (see page 22), <u>text/HTML</u> (see page 17), <u>buttons</u> (see page 19), <u>lines</u> (see page 20), <u>dashboard widgets</u> (see page 21), and Knowledge Manager widgets, 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 24).
- ii. Add measures (see page 30).
- iii. Select the dates (see page 36) (Dates may be linked across the dashboard.)
- iv. Group by attributes (see page 43).
- v. Filter (see page 47) (Filters may be applied to the entire dashboard at once via workspace filters.)
- vi. Customize by sorting (see page 46), highlighting (see page 69), changing widget settings, etc.
- vii. Place the widget in the desired location for each <u>layout</u> (see page 9). 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, <u>save it in the desired location</u> (see page 73). 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.

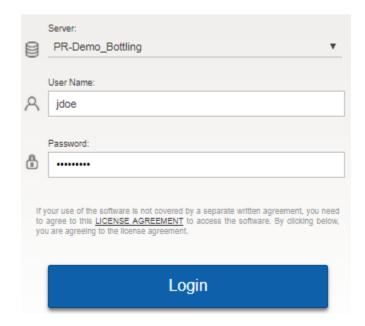
Get Started

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

- In your web browser, go to the address of the Salient Dashboards login page.
- 2. From the Server menu, select a dataset.
- For classic login (i.e., credentials entered directly in Salient Dashboards), enter your user name and password. Then, click 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:

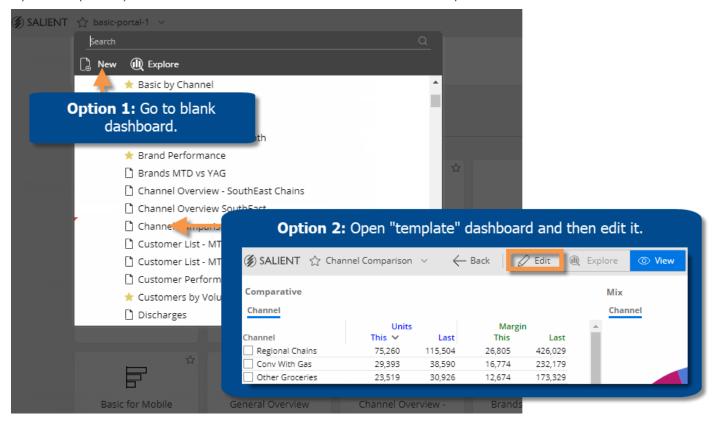
- The portal dashboard opens after login unless you have entered a URL for a specific dashboard or changed the home page in user preferences.
- In general, Salient recommends Google Chrome™; however, other browsers are supported.
- A dataset may be configured for a specific language. In this case, the 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.
- You can log out at any time by clicking in the upper-right corner of the dashboard screen and selecting Logout.

Choose a starting point for dashboard creation

You might start building from a blank dashboard, or a dashboard with similar properties to the one you want to create. Either way, you must be in edit mode to add widgets. Only Dashboard Designers can access edit mode.

Option 1: In the dashboards menu, click **New** to go to a blank dashboard in edit mode.

Option 2: Open a specific dashboard and then click the Edit button at the top of the screen.



General Dashboard Design

When designing a dashboard, you should customize layouts and add design elements, such as <u>tabs</u> (see page 14), <u>images</u> (see page 22), <u>text</u> (see page 17), <u>buttons</u> (see page 19), etc. You can then add <u>analysis widgets</u> (see page 24) to display data. For example, you might add a tab widget and then add data analysis widgets within the tabs. A dashboard intended for navigation purposes only, such as a <u>portal</u> (see page 104), may consist entirely of design elements.

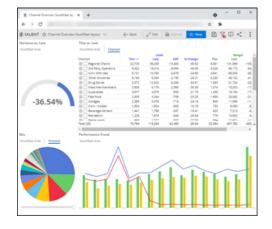
Layout settings

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

Desktop/tablet layout (see page 10)

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 12)

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



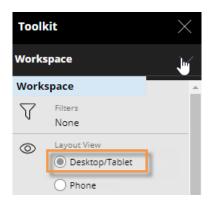
Each layout stores its own arrangement of the dashboard's widgets in addition to other settings, as explained in the following sections.

As you design dashboards, consider the best placement of each widget in both layouts. For example, the recommended process for adding a widget would be to place the new widget in the desired location in the desktop/tablet layout, switch to the phone layout (if used), place the widget in the desired location in that layout, and then save your changes.

Desktop/tablet layout

To set up the desktop/tablet layout

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



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

Desktop/Tablet Layout

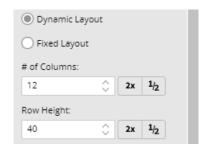
Option 1: Dynamic layout

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 9).

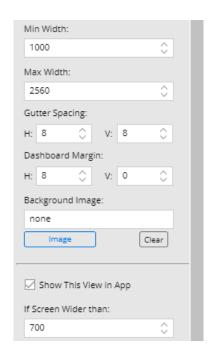


For **Min width** and **Max width**, specify the minimum and maximum width (in pixels) of the dashboard. Widgets will dynamically resize when the browser window or screen is within this range.

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.

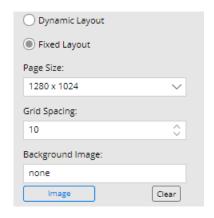
Background Image - Optionally, select a background image for the dashboard. The dashboard will repeat the background image to fill the dashboard area.

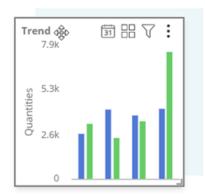
- 5. Add and arrange widgets in the workspace.
 - To move a widget, drag and drop it in the desired location.
 - To resize a widget, drag and drop one of its handles.

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.

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.

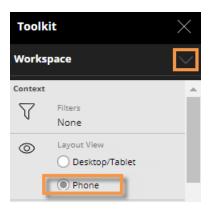




Phone layout

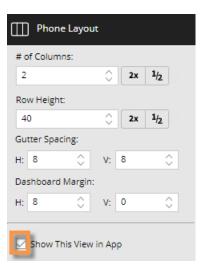
To set up the phone layout

- 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 13).
- 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 13).
- 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. <u>Important:</u> 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 the previous section) 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:

<u>Tab widgets</u> (see page 14) - 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 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.

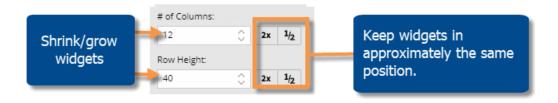
Options for changing number of columns and row height in layouts

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 <u>not</u> 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%.



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

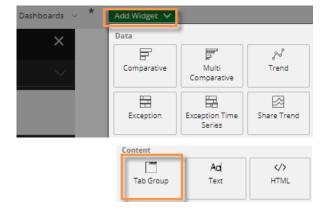


Carousel format



To add a tab group

- 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.



To add a tab group

- 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).
- 4. Configure display options for the tab group.
 - i. Click **Tab Settings** in the toolkit (the tab group must be selected). The popup 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.

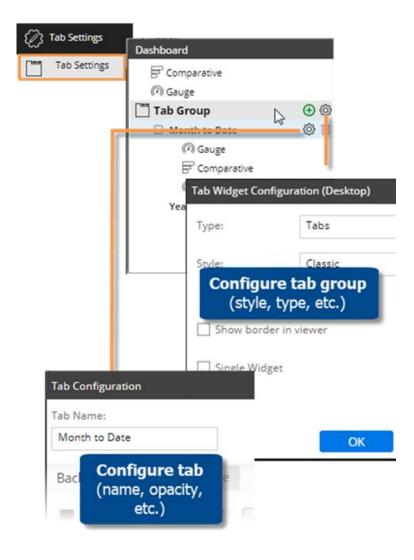
Show border in viewer

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.



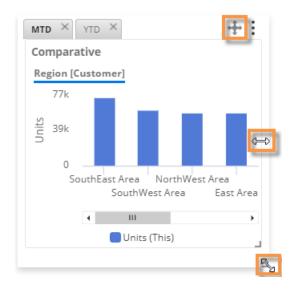


To add a tab group

- 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.
 - 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 <u>and</u> 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 <u>layout settings</u> (see page 9) 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.

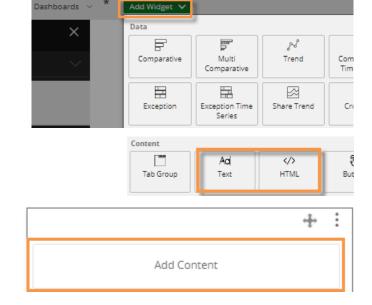
Text and HTML widgets

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

- Click the Add Widget button at the top of the screen.
- 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).
- Click Add Content in the widget, or click the i button at the top of the widget and then select Edit.



 Depending on the edit mode, enter text or HTML code into the Content Editor.

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

5. Click OK.

Content Editor (WYSIWYG mode):

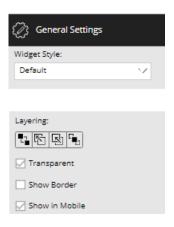


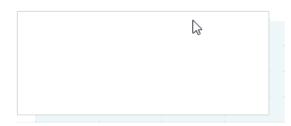
Content Editor (source edit mode):



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.
- 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 <u>phone layout</u> (see page 9) 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.





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.

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).

Add Widget

To add a button widget

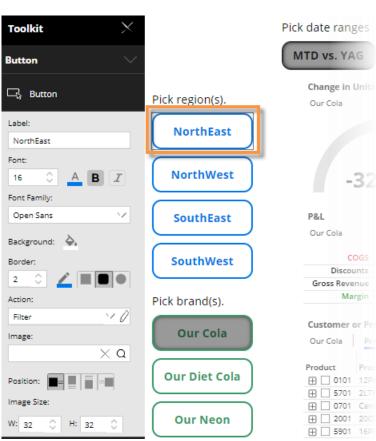
- Click the Add Widget button at the top of the screen.
- 2. In the pop-up window, click and drag Button onto the workspace.

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.

- Data 沓 F N Multi Comparative Comparative Trend Comparative Time Series 声 田 邳 田 Exception Time Exception Share Trend CrossTab Series ⅌ Aa </> HTML Tab Group Text Button
- 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.

Tips:

- To create a button that goes to a different mode (e.g., explore mode), choose URL and enter an appropriate URL (see page 105).
- 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.



To add a button widget

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.



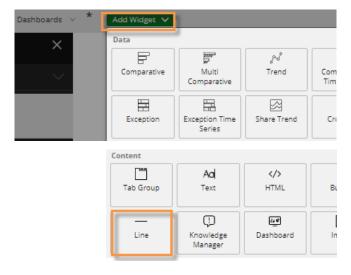
Line widgets

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

To add a line

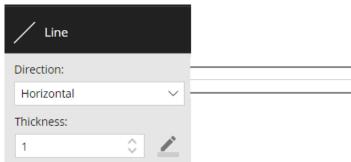
- 1. Click the Add Widget button at the top of the screen.
- 2. In the pop-up window, click and drag Line onto the workspace.

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.



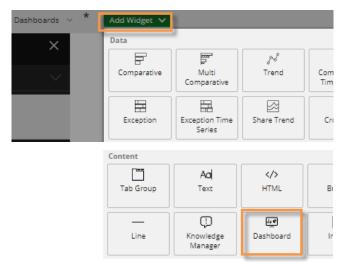
Dashboard widgets

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

- Click the Add Widget 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.

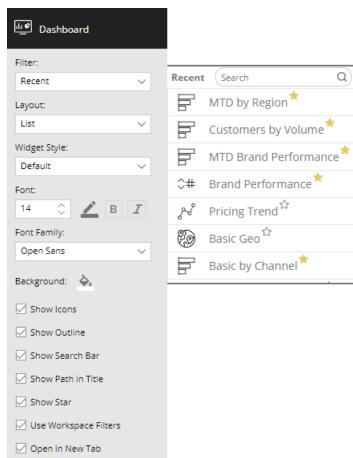


- From the Filter menu in the toolkit, select the type/category of dashboards for which to provide links:
 - **Favorites** or **Recent** shows a simple list or tile array.
 - All, Published, Unpublished, or Private reflects the folder structure; users will be able to navigate to folders and select dashboards.
 - **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

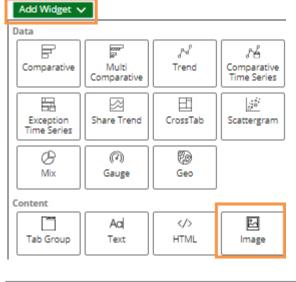
- 5. If you want to carry forward any applied workspace filters to the linked dashboards, check the **Use**Workspace Filters box. This would allow a user to narrow down on a business segment, and then continue their investigation in another dashboard.
- 6. To open linked dashboards in a new browser tab,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

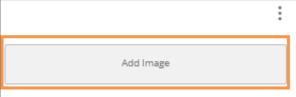
Image widgets allow you to add images to a dashboard. Image widgets are available in browser-based dashboards and the mobile app (if turned on as explained in step 7).

To add an image

- Click the Add Widget button at the top of the screen.
- 2. In the pop-up window, click and drag Image onto the workspace.

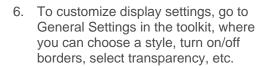


 Click Add Image in the widget, or click the i button at the top of the widget and then select Edit.



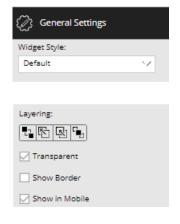
To add an image

- 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. The image file type must be supported by the web browser used.
- 5. Click OK.



- 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.
- Position and size the image in the desktop/tablet layout. If the <u>phone layout</u> (see page 9) 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.







To switch between layouts:

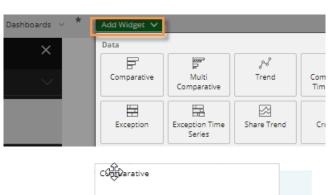
Go to the Workspace area of the toolkit and choose the layout under **Layout View**. You can then position the widget in the selected layout.

Add and Set Up Data Analysis Widgets

Many different types of analysis widgets (see page 25) are available to help you survey and investigate the data.

To add a data analysis widget

- Click the Add Widget button at the top of the screen.
- 2. In the pop-up window, <u>click and drag</u> the button of the analysis type onto the workspace. If you prefer, you can <u>click</u> the analysis button to place it in the upper-left corner.
- Adjust the widget's size and position in the desktop/tablet layout <u>and</u> phone layout (if used). Each <u>layout</u> (see page 9) 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.
 - 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.





After adding the widget, you can <u>add the desired measures</u> (see page 30), <u>select the By</u> (see page 43), <u>change the</u> date range (see page 36), switch between numbers and graphs (see page 60), 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.

Analysis type

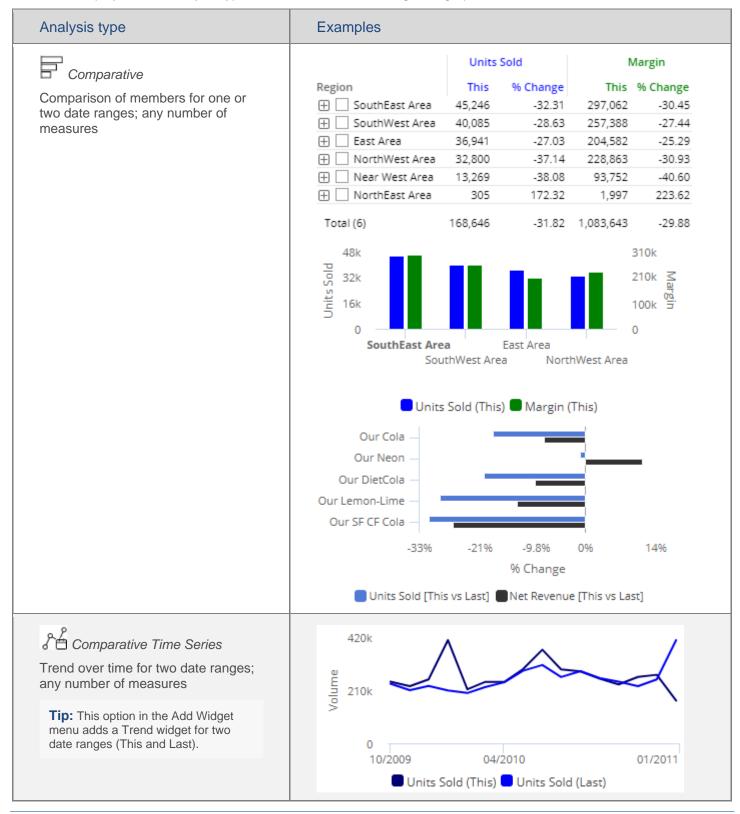
You can change the analysis type of an existing widget by clicking on it and then clicking in the analysis area of the toolkit.

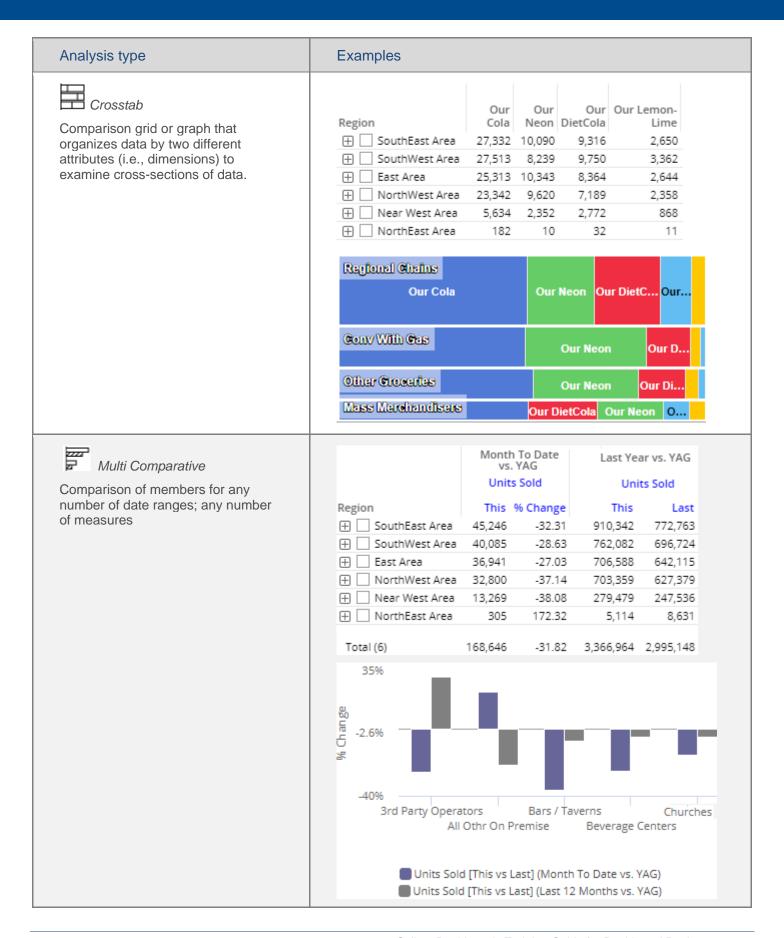
Default context settings

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.

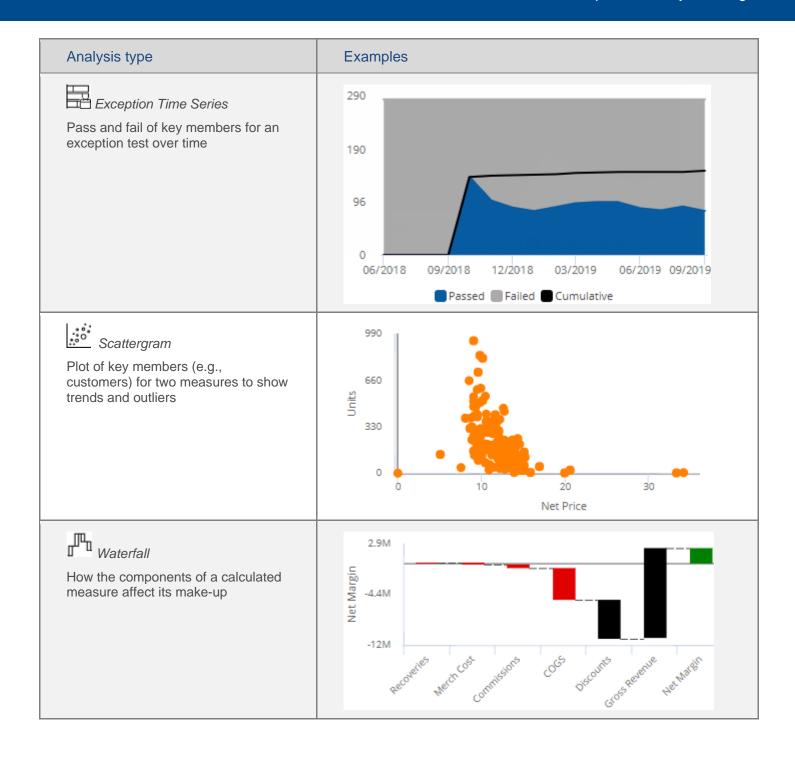
Types of data analysis widgets

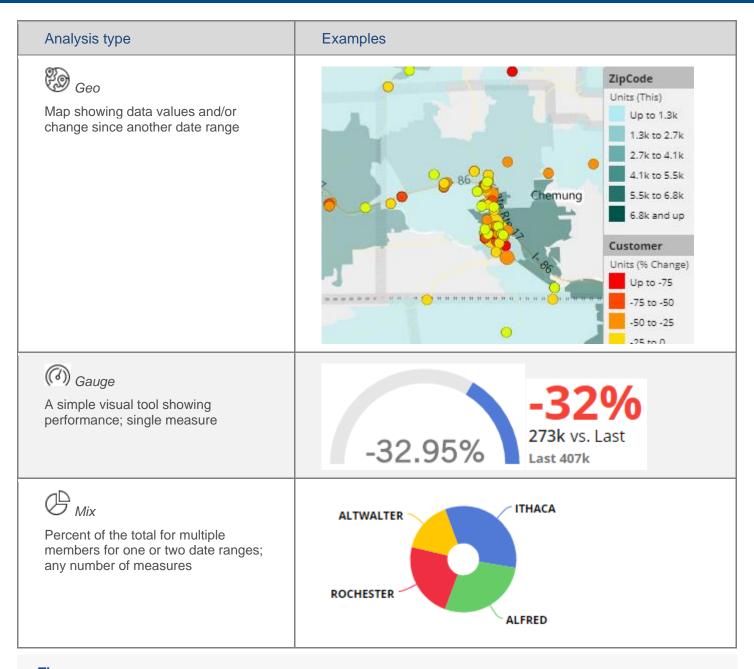
You can choose from various analysis types depending on what you want to find out about the data and how you want to display it. Most analysis types are available as either a grid or graph.





Analysis type **Examples** 72k 660k Trend over time for one or two date ranges for multiple measures Units Sold 440k 48k Tip: This option in the Add Widget 24k menu adds a Trend widget for one 220k date range (This). 0 0 11/14/2010 01/23/2011 09/12/2010 💶 Units Sold 🔳 Net Revenue 🔲 Margin Units Avg List Price Sold V Date Margin per Unit 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 430k Share Trend Comparison trend for multiple Units Sold members; either actual values or percent of the total for single 210k measure 10/2009 04/2010 01/2011 SouthEast Area 🔲 SouthWest Area 🛑 East Area 🦰 NorthWest Area 🛑 Near West Area Passed % Passed Failed % Failed Totals Exception All Othr On Premise 1.122 69 6.1 1,053 93.9 Industrial 578 206 35.6 372 64.4 \oplus Pass and fail of key members for an Schools 459 206 44.9 253 55.1 \oplus exception test (e.g., customers with 444 55 12.4 389 87.6 Recreation units >=1) 411 39.2 60.8 Restaurants 161 250 Fast Food 395 166 42.0 229 58.0 \oplus Other Groceries 283 161 56.9 122 43.1 \oplus 262 28 10.7 234 89.3 Colleges Bars / Taverns 212 101 47.6 111 52.4 5,863 32.7 67.3 Total (38) 1,915 3,948





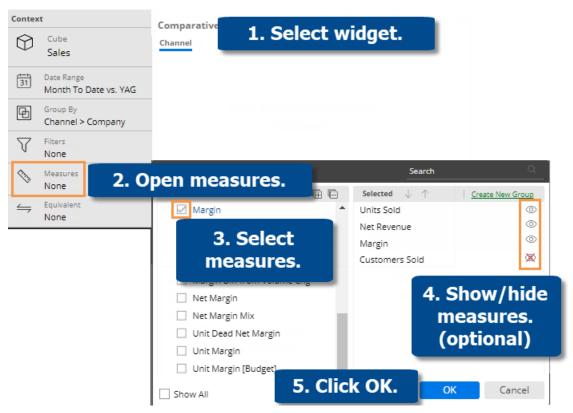
Tips:

- To view record-level data similar to that in SIM's Line Item or Time in Place analysis, you can group the data by <u>Record Details</u> (see page 90).
- <u>Custom views</u> (see page 106) may be configured to show representations of data beyond the graphs and grids shown here.

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



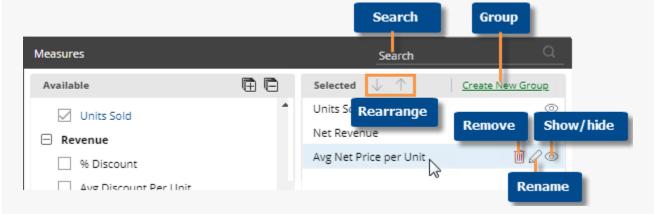
- 1. Select widget Click on the widget if it's not already selected.
- 2. Open measures In the Toolkit panel, expand the Context area and click on Measures.
- 3. **Select measures** Under **Available**, click the row(s) or box(es) of the measure(s) to show. The selected measures appear in the right pane. When building a dashboard, you may want to add all possible measures that should be available for <u>selection</u> (see page 34) 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 M all measures except those that you want to show when the dashboard initially loads.
- 5. Click OK.

Tips:

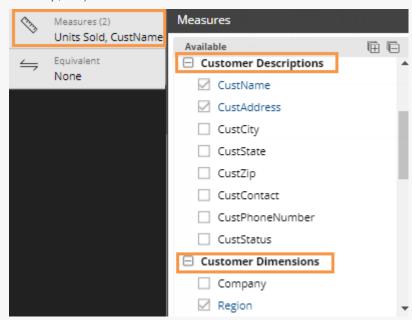
By default, the available measures depend on the context (data cube, By, etc.). You can check the **Show All** link at the bottom of the dialog to see all measures regardless of the context. Measures may also be limited by the analysis type.

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 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.



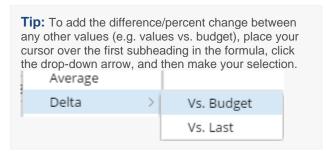
Insert calculations

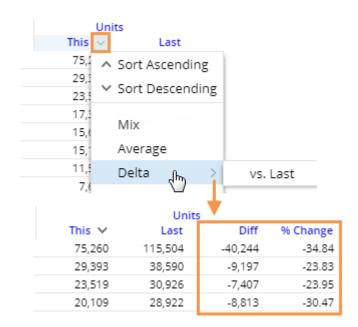
Insert difference and percent change

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

To insert difference and percent change

- 1. <u>Switch to the grid</u> (see page 60) if you haven't already.
- 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.



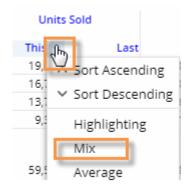


Insert mix

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).

To insert mix

- Switch to the grid (see page 60) if you haven't already.
- Place your cursor on the column for which you want to add mix values. A drop-down arrow appears.
- Click the drop-down arrow.
- 4. On the pop-up menu, select Mix.



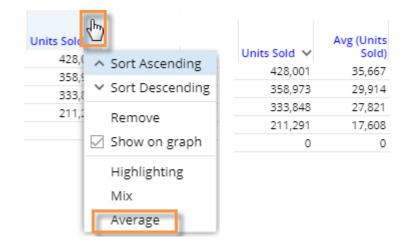
Units Sold		
This 🗸	Last	Mix (This)
19,699	16,139	33.1
16,765	14,779	28.1
13,739	12,305	23.1
9,370	8,530	15.7
59,574	51,753	100.0

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

- Switch to the grid (see page 60) 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.)
- 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.
- Click the arrow that appears and then, from the pop-up menu, select Average.



Move measures

To move measures

- 1. In a grid, click the heading of the measure you want to move.
- Press the left mouse button, drag the cursor to the new location, and release the mouse button.



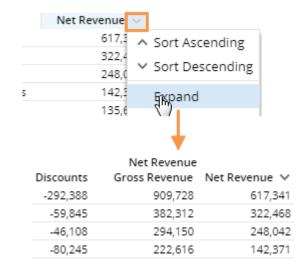
Expand a calculated measure

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

- In a grid, place your cursor over the heading of the measure you want to expand and then click the dropdown arrow.
- 2. On the pop-up menu, select **Expand**.

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

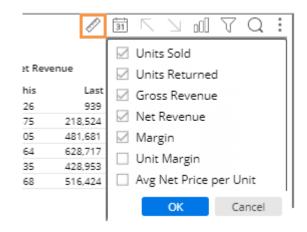


Measure selection tool

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 <u>disabled</u> (see page 35) by the Dashboard Designer.)

To select measures (Power Viewers and Dashboard Designers only)

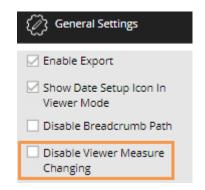
- 1. On the widget title bar, click the button.
- In the pop-up window, check the boxes of the measures to show and clear the boxes of the measures to hide.
 Only measures that have been <u>added</u> (see page 30) to the widget in during dashboard creation are available.
- 3. Click OK.



Enable measure selection for Power Viewers

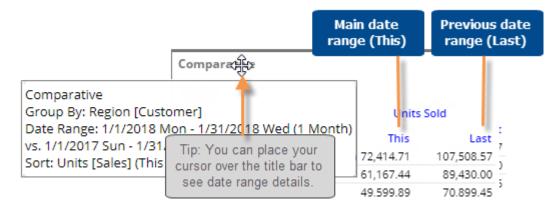
The following is a typical process for allowing measure selection for Power Viewers and configuring a few start-up measures.

- 1. In edit mode, <u>add several measures to a widget</u> (see page 30). 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 preconfigured for the user. These columns can also be added in view mode.
- 3. Using the measure selection tool \mathcal{O} (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.
- Make sure that measure selection is enabled for the widget. Measure selection is enabled by default.
 - 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.



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.



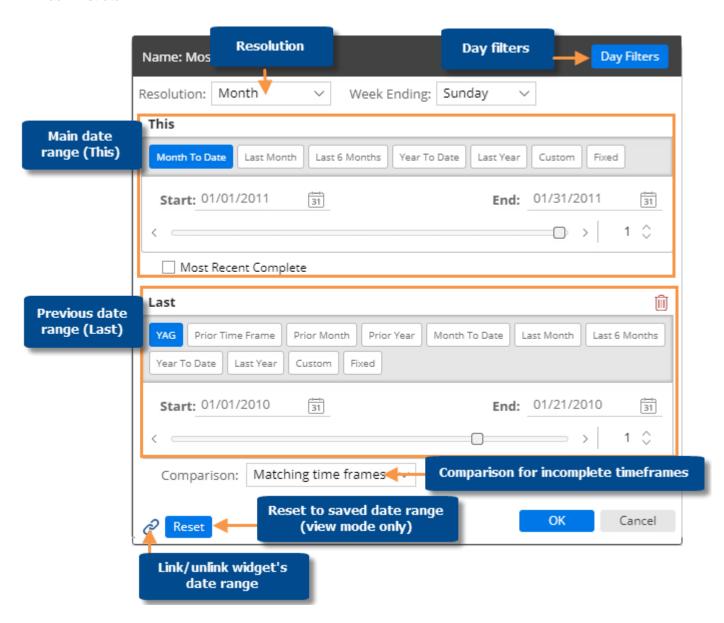
Date setup

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 [31] in the title bar of the widget, or click on the widget and then click on Date Range under Context in the toolkit.
- 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.
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. If you wish, you can customize the date range further after making your selection.
Day filters (optional)	Optionally, click the Day Filters button at the top of the dialog to choose specific days of the week or business days 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. 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. Last YAG Prior Time Frame Prior Month Prior Year Month To Date Last Month Last 6 Months Year To Date Last Year Custom Fixed
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.

Option	Explanation
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) 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



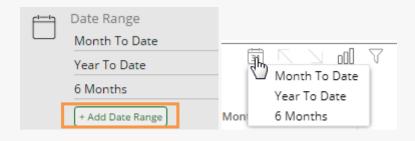
button to revert the date range back to the last saved settings.

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 in the widget's toolbar and then select the name of the date range.

Multi Comparative date ranges cannot be linked to other widgets.

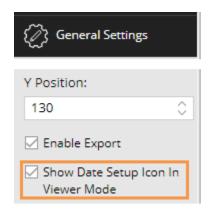


Enable or disable date setup for view mode

By default, the date setup icon [31] 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 40)

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.
- Locate the Show Date Setup Icon in Viewer Mode property and check or clear its box.



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.

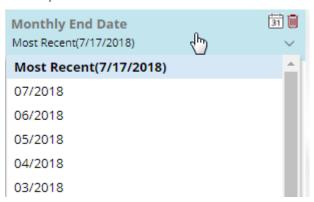
To select the dashboard end date

- 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 <u>add one</u> (see page 41).
- 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.

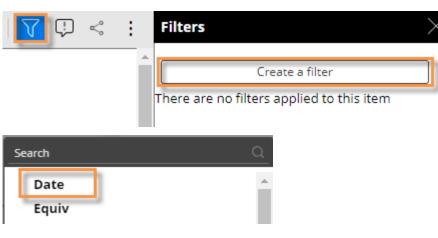
A date selector can be selectively turned off for a widget in edit mode (under General Settings, Use Dashboard Date), so that it does not affect the widget's date range. You can see whether a date selector is active or inactive for a given widget by placing your cursor over the widget's title to see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

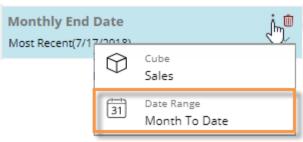
Date Selector: Active Sort: Units (This DSC)

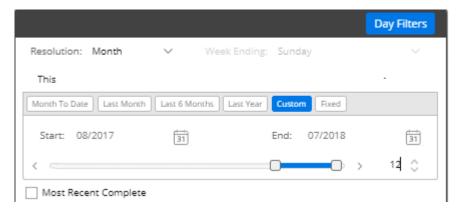
To add a date selector to the filters panel

- 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.





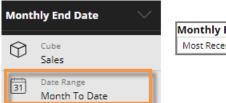


To add a date selector widget (edit mode only)

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.

- 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.





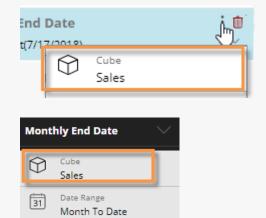


Tips:

The selected date cube controls the available dates. You may need to change the data cube 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.

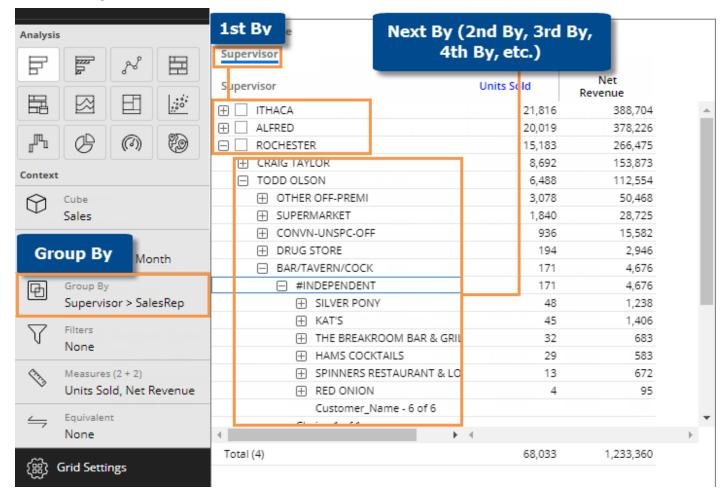


The date selector will affect all widgets that use the dashboard date (i.e., linked dates). This is the default setting, but it can be changed in general widget settings.

Group by attributes

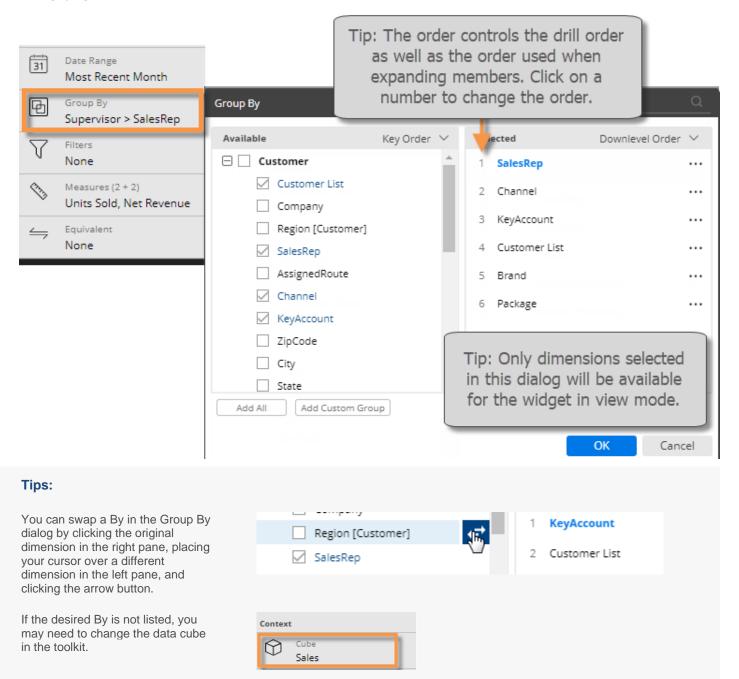
In widgets that compare members (Comparative, Multi Comparative, etc.), the "Group By" attributes control the following areas; therefore, you should add enough By attributes in edit mode to allow for all anticipated filters, including global filters.

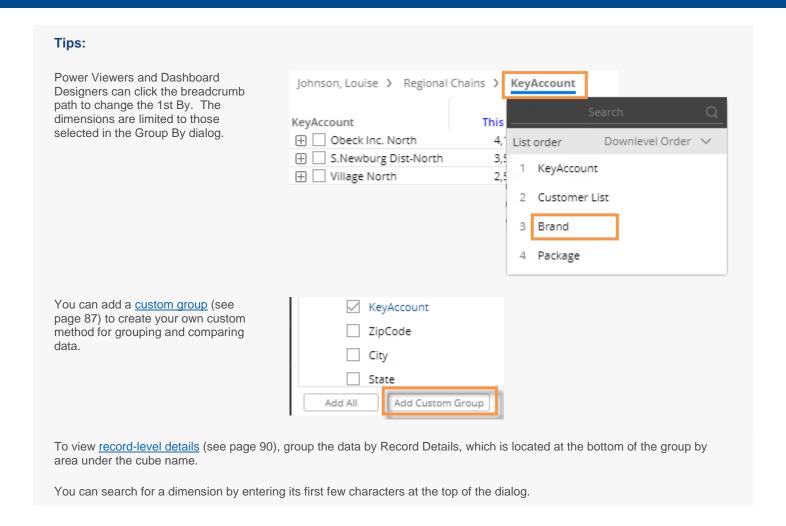
- How data is grouped at the highest level (1st By).
- If and how members can be expanded into additional levels of data (2nd By, 3rd By, etc.).
- The order of dimensions when drilling down (i.e., drill order).
- What users can select as the By from the breadcrumb path.
- · What users can drill into.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



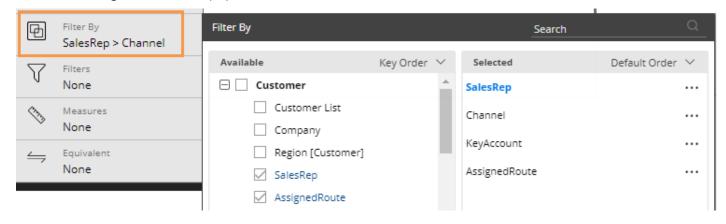


Filter By

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.



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 \boxplus 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 43).

The selected sort method (see page 46) 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.

Sort

To sort

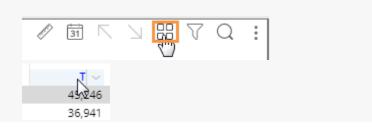
- Place your cursor over the heading or subheading of the column by which you want to sort.
- 2. Click the drop-down arrow that appears.
- 3. In the pop-up menu, select Sort Ascending or Sort Descending.

Units S	old		
Last	Diff	%Char ~	This
66,844	-21,598	ਾ ਪ੍ਰ-32 ↑	Sort Ascending
50,624	-13,683	-27	-
112	193	172 ↓	Sort Descending

Tips:

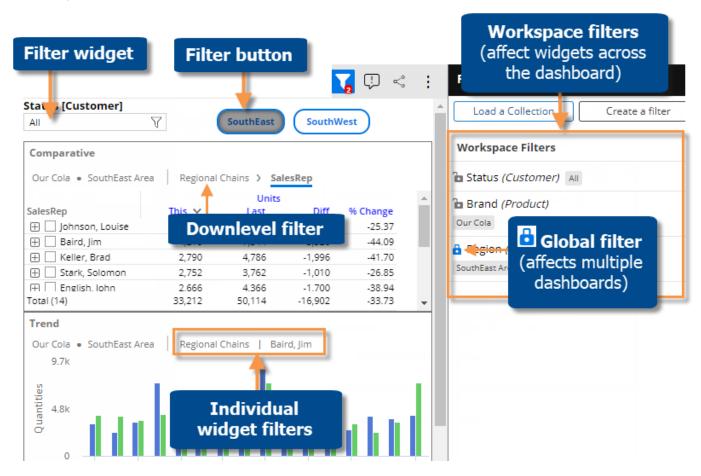
To sort a graph, switch to the grid format and then perform these same tasks; then switch back to the graph.

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



Filter the data

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.



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.



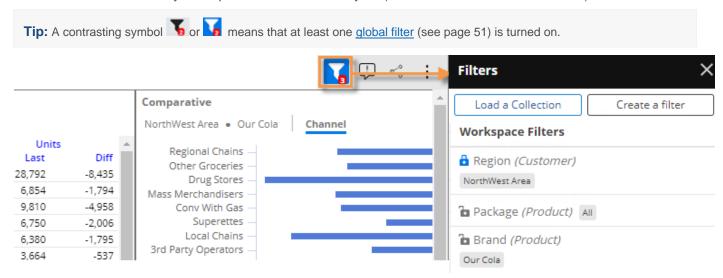
Tip: The breadcrumb path does not show filters based on collections or user account rights. However, you can place your cursor over the title bar to see a tooltip that shows all filters.

Workspace filters

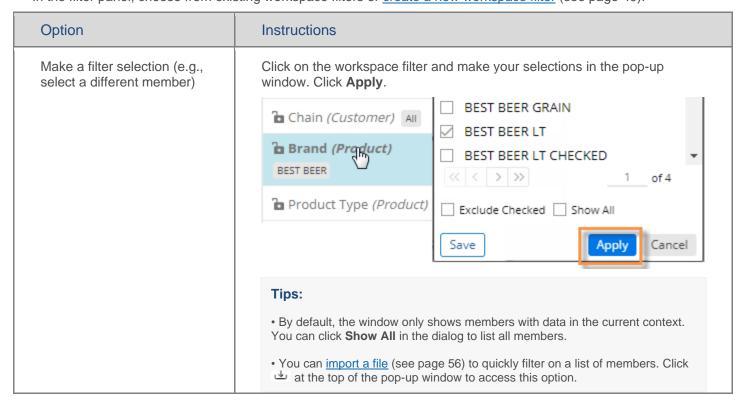
A workspace filter affects widgets across the dashboard. A filter panel provides streamlined access to these filters. The panel may be disabled in dashboard settings (see page 80).

To use workspace filters

Click $\sqrt{}$ 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").



In the filter panel, choose from existing workspace filters or <u>create a new workspace filter</u> (see page 49).



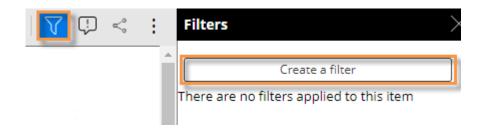
Option	Instructions				
Reset a filter	Place the cursor over the filter and click the X button. The filter will still be present but will show data for all members.				
	BEST BEER				
Remove a filter	Reset the filter as explained above. Then, place the cursor over the filter and click the button.				
	Brand (Product) All				
	₽ Product Type (Product) All				

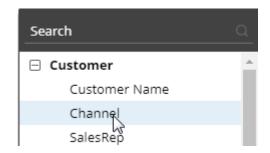
To create a workspace filter

- 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 54).

3. Select the dimension for which to create a filter. In view mode, available dimensions are limited to Group Bys for the current dashboard.

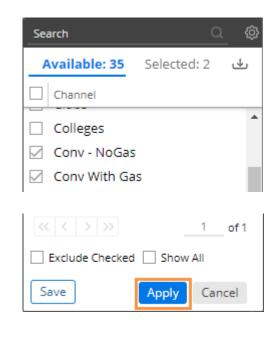




To create a workspace filter

 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 56) 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

- 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.

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.

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.

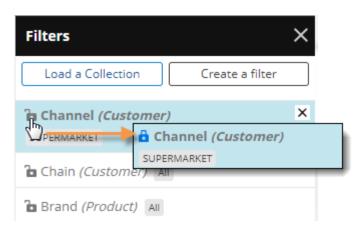
To turn on a global filter

- 1. Click the \overline{V} 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

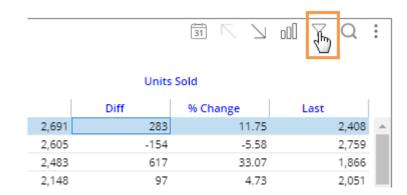


Individual widget filters

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

 Click the filter button at the top of the widget (visible on mouseover if enabled).



2. In the pop-up dialog, click Create Filter.

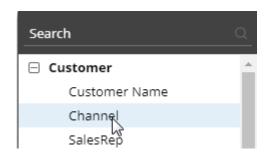
Other options may be available:

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 <u>collection of members</u> (see page 54).

 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.



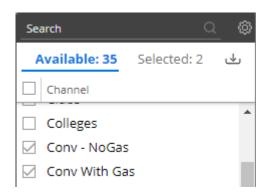


To create a widget filter

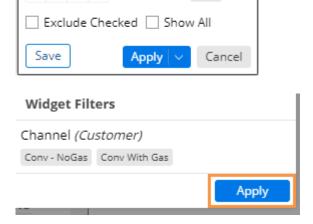
4. Checkmark the desired member(s).

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 56) to quickly select members. Click $\stackrel{\smile}{\smile}$ 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.
- 6. Click Apply again in the filters area.



of 1

To allow viewers to create widget filters

- 1. Set up one or more <u>By attributes</u> (see page 43) for the widget. Only these attributes will be available for filters.
- 2. In general settings, make sure the widget's filter button is enabled (on by default).

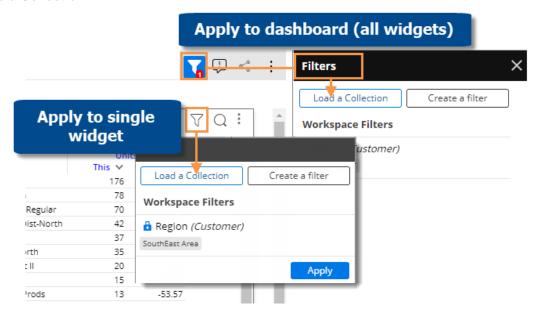
Users will then be able to create their own widget filters as explained above.

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.



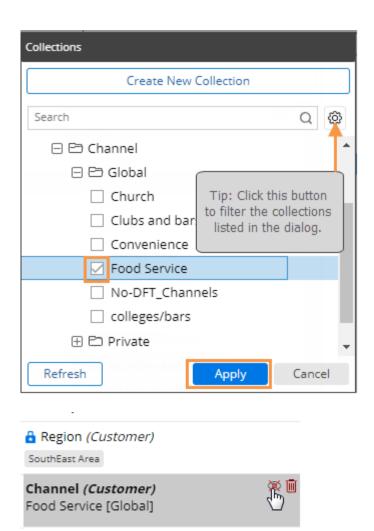
 In the Collections dialog, locate the collection and place a checkmark beside it. You may need to expand a key, dimension, and category to find the collection. A search option is also available.

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.

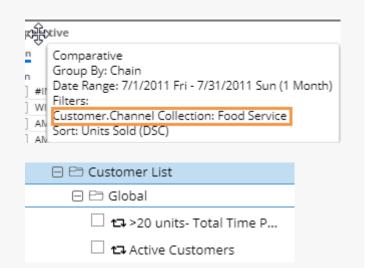
5. Visibility of a collection can be turned off to lock content for end-users. This means that viewers (including Power Viewers) will not see the collection listed in the filters area and will not be able to turn the collection off. To toggle visibility on or off, click the icon in the filter panel.



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.



Import filters

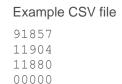
Users can import a text file (i.e., local collection) to quickly select members for several types of filters, including workspace filters, individual widget filters, and filter widgets. In addition, text files can be used when creating filter buttons and collections. Any user can access this capability, unlike collections which are limited to Power Viewers and Dashboard Designers; however, this feature may be turned off globally by your administrator.

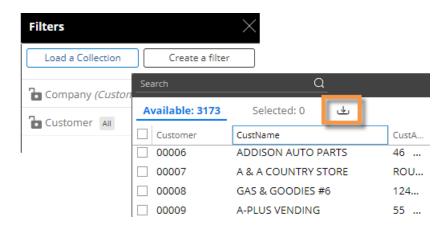
To import a text file for a filter

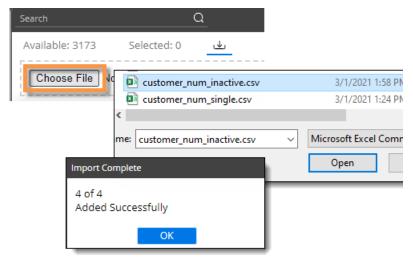
- If you haven't already, create a text file that lists the members. It should have the CSV extension. Each line should list the host code of a single member.
- Go to the selection window for the filter. For example, to import a text file for a workspace filter, click on the workspace filter in the filters panel.
- Click the <u>button</u> at the top of the window.

4. Choose the file and click Open.

Salient Dashboards will show a summary of the members imported.







Click Apply.

Drill down

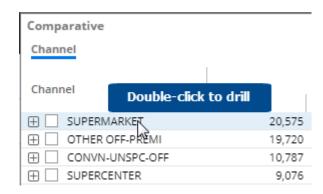
You can drill down on one or more members to filter the data in a widget. When you drill, Salient Dashboards adds a downlevel filter to remove data for all other members.

Drilling is only available in data widgets that have multiple Group By dimensions.

To drill down on a single member

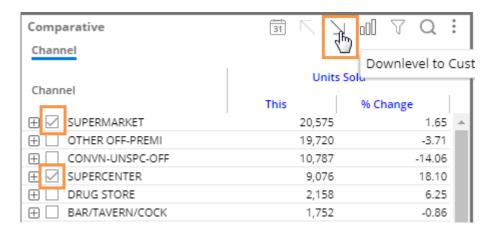
Double-click on the row, bar, pie slice, etc., representing that member.

Tip: You can also drill by clicking on a member to select it and then clicking the λ button at the top of the widget.



To drill down on multiple members

- Check the desired members in a grid.
- 2. Click → on the title bar at the top of the widget.
- 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 \(\subseteq \) 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.

Company One	269,924
→ SouthEast Area	73,794
☐ SouthWest Area	54
☐ Stark, Solomor Double	e-click ₅₄
⊕ V.Northrup-Elmira ⊕ Elm,S-Side,W-Side	7,028
⊕ Elm,S-Side,W-Side ^W	5,900

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.

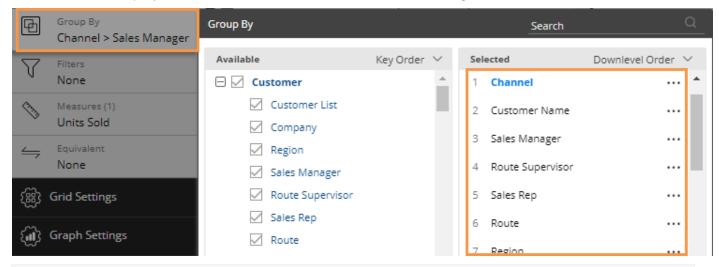
Set up drill-down capabilities in a dashboard

The following settings control drilling capabilities for end-users in view mode.

How the Group By affects drilling

If a widget has multiple <u>Group By dimensions</u> (see page 43), viewers can <u>drill down</u> (see page 57) 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 <u>custom drill-downs</u> (see page 97)).

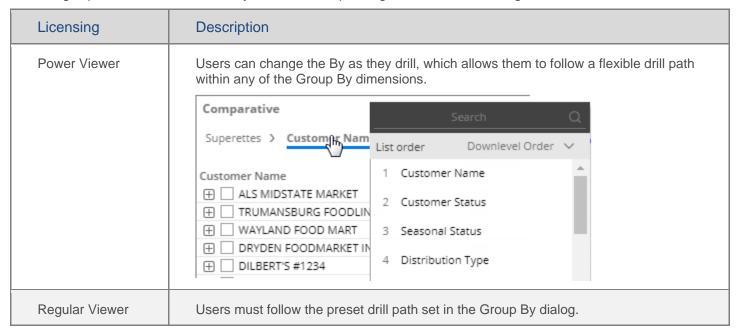
In addition, the Group By order controls the default drill down order for a widget.



Tip: Users cannot drill in non-comparative widgets (e.g., Trend, Gauge, etc.); instead, they can add filters if enabled in the <u>Filter By area</u> (see page 45).

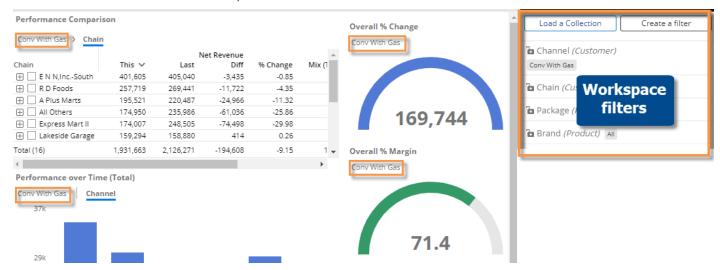
Flexible drill-down

Drilling capabilities in view mode may be different depending on the user's licensing.



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 <u>workspace filters</u> (see page 49) (even if they are set to "All") to enable downlevel filters to work across the dashboard. For example:



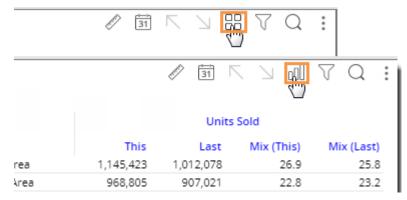
Customize widgets

Switch between grid and graph formats

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

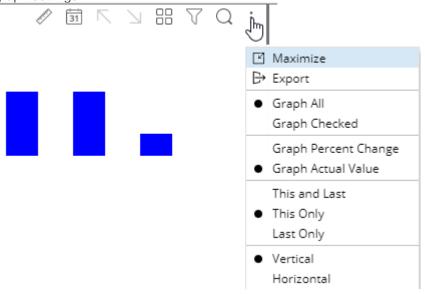
To toggle between a grid and a graph

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



To select a graph format

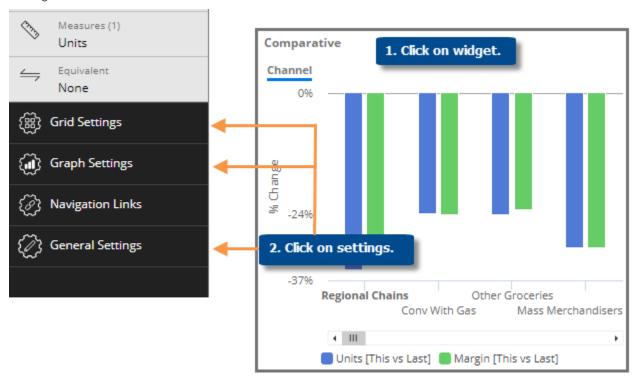
For graphs, click in the upper-right corner of the widget (visible on mouseover) to select from available graph formats for the analysis type (e.g. percent change, actual value, bar, pie, etc.). Additional options are available in graph settings.



Tip: If the widget uses custom programming (i.e., custom view), the graph/grid button is not available.

Grid, graph, and general widget settings

In edit mode, you can configure several widget options by clicking on the widget and then clicking one of the settings areas in the toolkit.



Area	Settings			
Grid Settings	Grid page size, show/hide totals, grid types (see page 63), etc.			
Graph Settings	Graph page size; orientation; show/hide the legend and other graph components; visual options (see page 64), etc.			
Navigation Links (see page 95)	Embedded links to other dashboards			
General Settings	Widget title, style, size, position, transparency, enable/disable options for view mode, etc.			
	Tip: Set the desired layer order (i.e., what widgets are on top) using the following buttons in general settings. End-users will not be able to change this order.			

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).





-32.95%

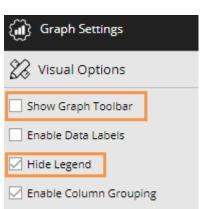


Recommended settings for simplified widgets



In grid settings:

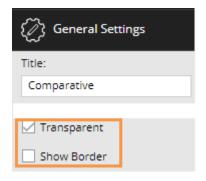
Clear the **Show Grid Toolbar** option. This will hide the paging toolbar at the bottom of the widget.



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.



Hide X Axis

Hide Y Axis

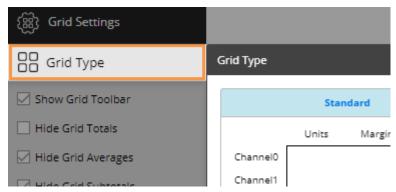
In general settings:

Turn on transparency.

Clear the border option (i.e., hide the border).

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		Units Sold				
layout	Region		This	Last	Diff	% Change
	SouthEast Are	ea	1,145,423 1	,012,078	133,345	13.18
	SouthWest A	rea	968,805	907,021	61,784	6.81
	East Area		896,578	835,065	61,513	7.37
	NorthWest A	rea	887,050	822,603	64,447	7.83
Swapped - switches rows and		Region	SouthEast	Area Sou	thWest Area	
columns		This	1,14	5,423	968,805	
		Last	1,01	2,078	907,021	
	Units Sold	Diff	13.	3,345	61,784	
		% Change		13.18	6.81	
Scorecard - measures in rows and		This	Last	Diff	% Change	
formats (This, Last, difference, etc.)	Units Sold	4,257,862	3,915,236	342,626	8.75	
in columns; does not compare members	Net Revenue	38,565,109	35,313,796	3,251,310	9.21	
Scorecard swapped - measures in columns and formats (This, Last, difference, etc.) in rows; does not	This Last	Units Sold 4,257,862 3,915,236		5		
compare members	Diff	342,626	3,251,310)		
	% Change	8.75	9.2	1		

Visual options

Using visual options, you can customize the colors and styles used in most graphs.

To access visual options

In view mode:

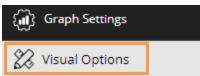
Click \mathcal{Q} in the graph legend (visible on mouseover if the legend is enabled).



In explore/edit mode:

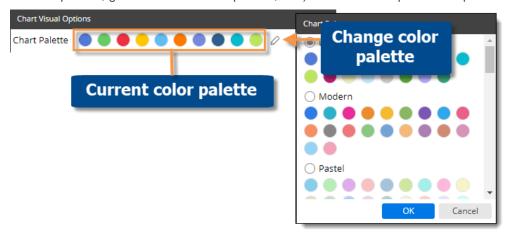
Expand Graph Settings in the toolkit.

Click on Visual Options.



Choose a color palette

At the top of visual options, click of 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.

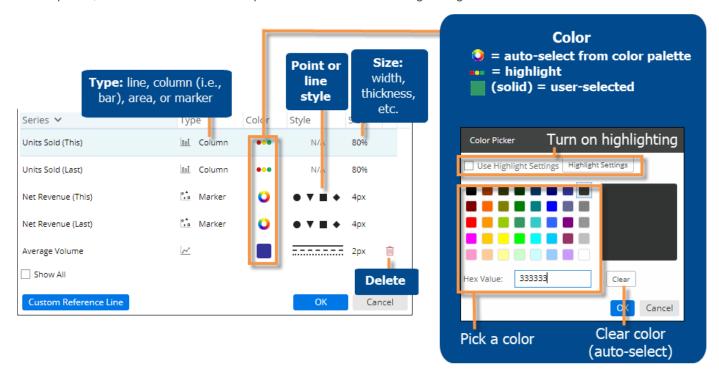


Tip: You can override the selected palette by:

- choosing a color for an individual graph component as explained below.
- applying member coloring (see page 67) 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.

Axis management

You can customize the axes of several graph types, including Trend, Comparative, and Multi Comparative.

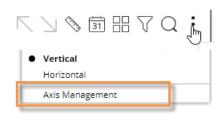
To customize axes

Before proceeding, add the desired measures (see page 30).

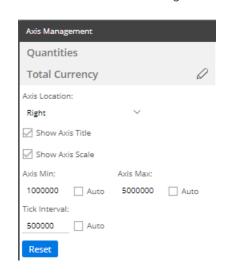
- Click in the upper-right corner of the widget, and select Axis Management, or click on Axis Management under Graph Settings in edit mode.
- For an actual value graph, choose the axis to customize (e.g., Quantities, Total Currency, etc.).
 Depending on the selected measures, the graph may include multiple axes, each of which represents a measure or data family.

For a percent change graph, all % change data will be plotted along a single axis so this step is not necessary.

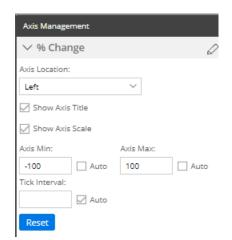
- To change the axis title, click (requires Power Viewer licensing or higher).
- Choose the axis location.
- 5. Show or hide the axis title.
- 6. Show or hide the axis scale.
- Choose scale settings, including the minimum, maximum, and tick interval. These may be automatic or custom values.
- 8. Click Save when you are finished.



Actual value axis settings:



Percent change axis settings:



Member coloring

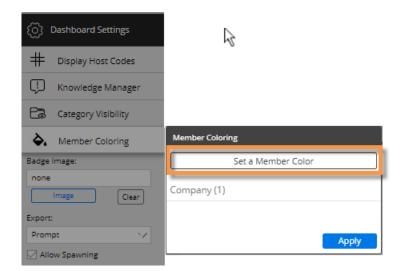
You can choose colors for dimension members to apply consistent coloring across a dashboard and, therefore, enhance visual understanding. For example, you might assign blue to represent a certain region. The member coloring will be automatically applied to applicable widgets, which include Mix, Share Trend, and some Crosstab graphs (see the following tips). For members with color definitions, the member coloring will override the color palette (see page 64). Member colors do not carry over from one dashboard to another; you must define the settings within each dashboard as follows.

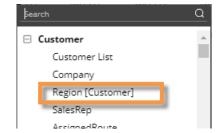
To apply consistent member coloring across the dashboard

- Click in the workspace (i.e. not on a widget) to open the dashboard settings area.
- In the toolkit, expand Dashboard Settings, and click on Member Coloring.
- 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.

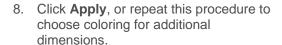
4. In the next menu, choose the dimension.

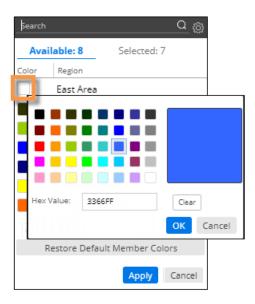


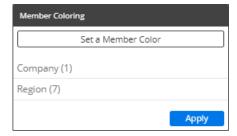


To apply consistent member coloring across the dashboard

- 5. Locate a member to which you want to assign a color. If you wish, you can search for a member.
- 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**.





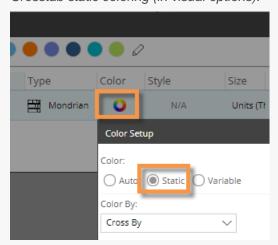


Tips:

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 so that member coloring can be utilized, go to its color setup in **Visual Options**.

Crosstab static coloring (in visual options):



Highlight data

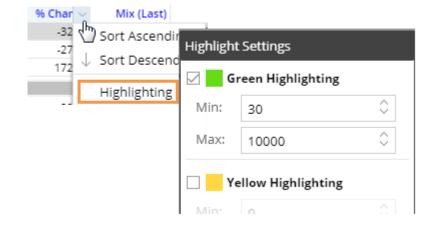
You can highlight data based on custom criteria or percent of the total (i.e., heatmap) to spot areas of concern or importance. The availability of highlighting depends on the widget type.

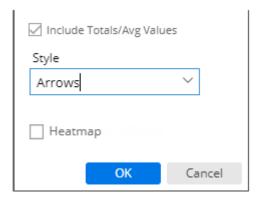
Grid highlighting based on custom criteria

SouthEast Area	69,324	4,605	7.12 -
SouthWest Area	65,067 🛑	4,181	6.87 -
East Area	58,896	3,845	6.98 -
NorthWest Area	56,410	5,662	11.16 🕇
Near West Area	20,919	-229	-1.08 🕹
NorthEast Area	289	-6	-2.03 🖶

To highlight data based on custom criteria in a grid (in edit or explore mode)

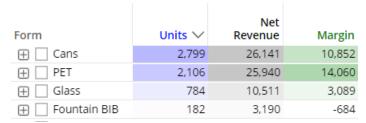
- Place your cursor on the heading of the column to highlight. You can highlight actual values (This or Last), percent change, difference, etc., for any measure.
- 2. Click the drop-down arrow that appears.
- 3. Select Highlighting.
- In Highlight Settings, check Green highlighting, Yellow highlighting, and/or Red highlighting, depending on the highlighting color(s) you want to use.
- For each color range, type a minimum value and maximum value. If you use multiple ranges, they cannot overlap.
- 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.





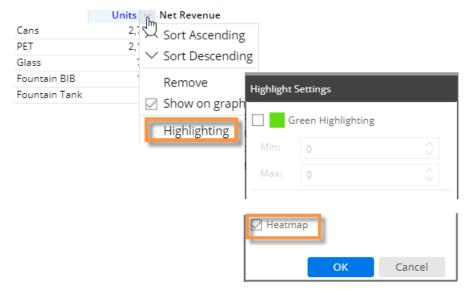
Heatmap highlighting in grids

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.



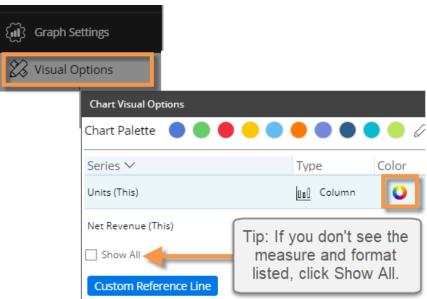
To turn on heatmap highlighting (in edit or explore mode)

- Place your cursor on the heading of the column to highlight.
- Click the drop-down arrow that appears.
- 3. Select Highlighting.
- 4. In **Highlight Settings**, check the **Heatmap** box.
- 5. Click OK.

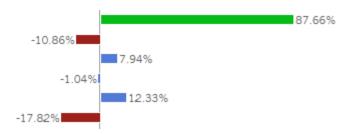


Optionally, choose a
 custom color in Graph
 Settings, Visual Options.
 Locate the specific
 measure and format (e.g.,
 Units for This date range)
 and then click in the Color
 column. This color will
 serve as the darkest shade
 possible, with other shades
 calculated accordingly.

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.)



Graph highlighting

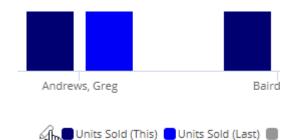


To highlight data in graphs

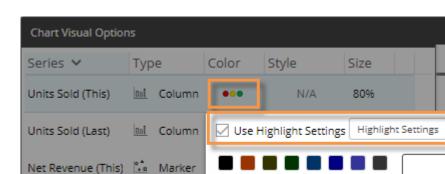
 Access visual options by clicking in the graph legend (available on mouseover if the legend is enabled).

Tip: You can also access visual options under Graph Settings in the toolkit (in explore or edit mode).

- 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.

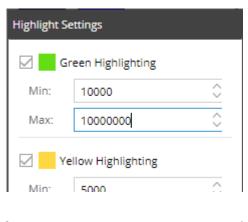


Net Revenue (Last) 👫 Marker



To highlight data in graphs

- 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.
- Select a style. In graphs, the style controls custom highlighting colors if they are configured.
- When you are finished, click OK.



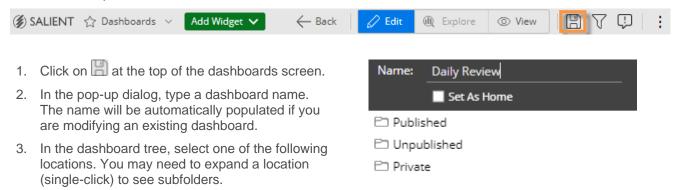


Save and Share

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

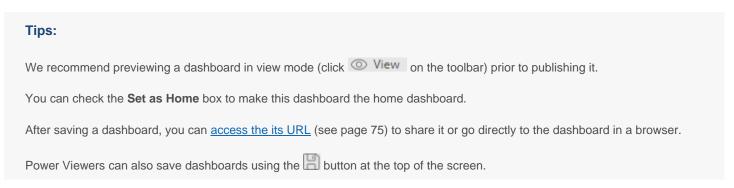


Published - Select this location or one of its subfolders to publish the dashboard so that it is available to all users in browser-based dashboards and the Salient Mobile app. (Access may be restricted based on user account settings).

Unpublished - This option makes the dashboard global so that it is available to other Dashboard Designers, but not Power Viewers or regular viewers.

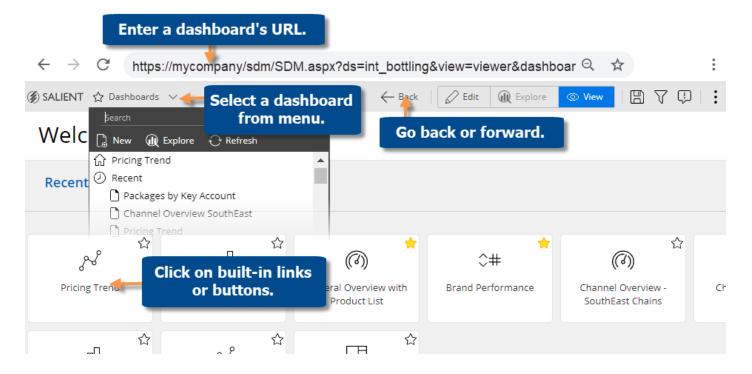
Private - This option makes the dashboard private so that you are the only user who can access it.

4. Click OK.



How users can access dashboards

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 <u>URL</u> (see page 75) or a temporary URL created by <u>sharing a dashboard</u> (see page 76).

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.

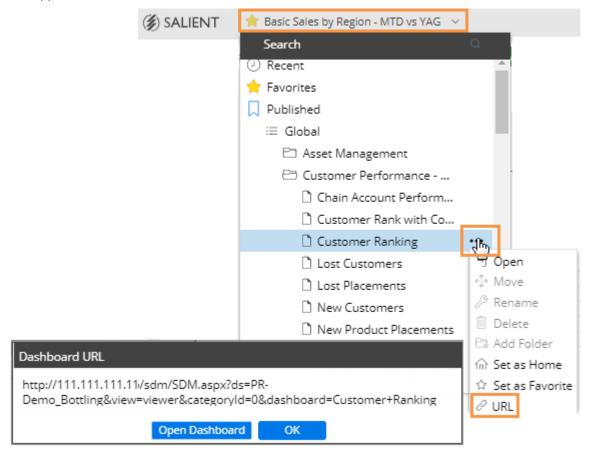


Access a dashboard's URL

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 to see data for specific key or dimension members. For example: ...&filters=Customer&filterValues=11901
- Open specific tabs if the dashboard has tab groups. For example: . . . &tab=1-0 2-1

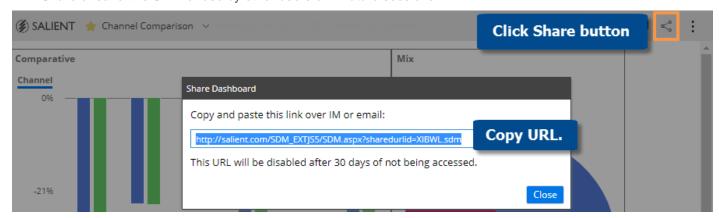
Share a dashboard

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.

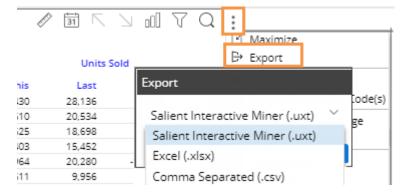
To share a dashboard

- 1. Open the dashboard and make the desired changes. For example, you might filter or change the date.
- 2. Click 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.



Limiting export options for users

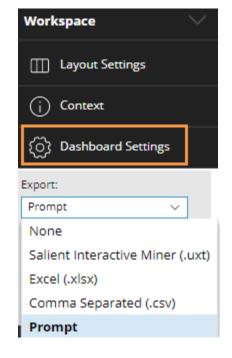
If allowed, users can export dashboard data by clicking the button and selecting Export. The default export options include an Excel, comma-separated, or UXT-compatible file. If you wish, you can turn this capability off or limit the allowed formats.



To turn off or limit export options for all widgets in a dashboard

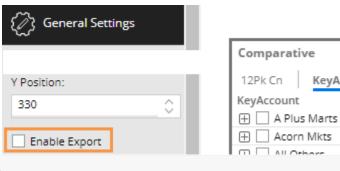
Note: This method does not affect explore mode.

- 1. Click the workspace to select it.
- 2. In the toolkit, select Dashboard Settings.
- 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.

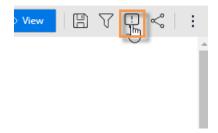
Knowledge Manager

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.

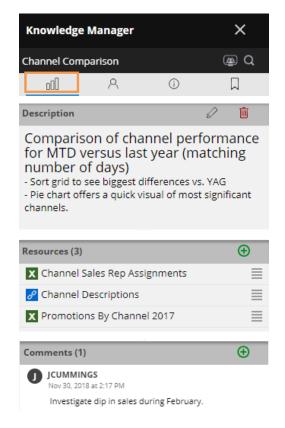
Knowledge Manager includes the following tab.



Dashboard Info

Allows users who create dashboards to write descriptions and purposes for them.

Resources (links to web pages, pictures or documents) and comments can be included as future reference materials become available.



Member Info

Allows you to connect media or non-media information to specific customers, sales reps, products, dates, etc.

Entries can be filtered and sorted to keep the most current information on top.

Media examples include news stories, events or related websites.

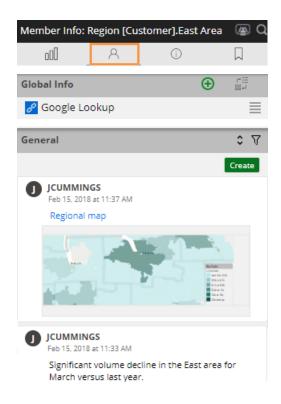
Non-media can be details on location, entry, specific contact info, or security issues.

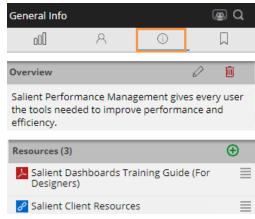
General Info

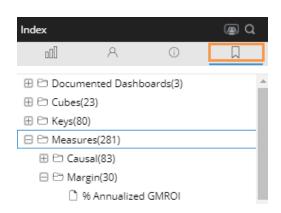
Add global information such as manuals, training material, or information about the dataset.

Index/Search

Search, view, or add information about the schema (keys, dimensions, measures, etc.).







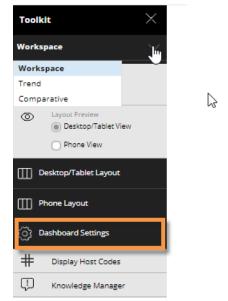
Additional Concepts

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

- 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 along with or instead of their descriptions throughout Salient Dashboards.	
Knowledge Manager	Click Knowledge Manager to select settings for the Knowledge Manager panel.	
Category Visibility	In this area, you can control which global and private collection categories 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 67). 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.	

Setting	Explanation	
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.	
Allow Spawning	Check this box if you want users to be able to create new widgets by clicking or double-clicking.	
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.)	
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.	
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.	
Docked Filter Panel Position	Choose display options for the panel that allows users to manage <u>filters</u> (see page 47). 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.	

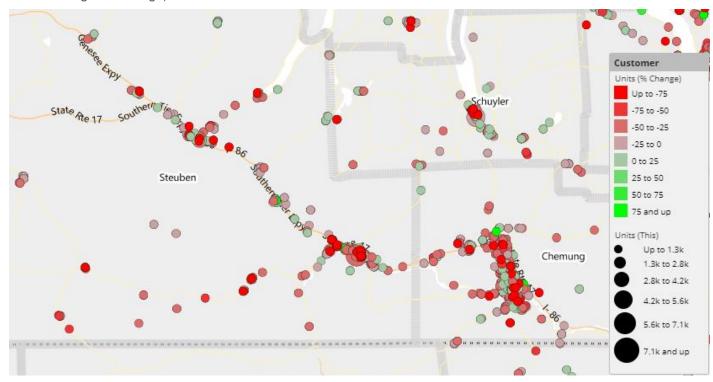
Tip: If you want to reuse dashboard settings in new dashboards, you can apply the desired settings to a blank dashboard and then set that dashboard as the home dashboard so that new dashboards will use the settings.

Geo

Geo is a type of widget that provides geospatial intelligence by showing performance for individual locations (i.e. points). Depending on its setup, the map may also aggregate performance across areas to reveal geographic trends. This widget requires additional installation and setup.

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

- 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.



To set up a geo point map colored and sized by measure

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.

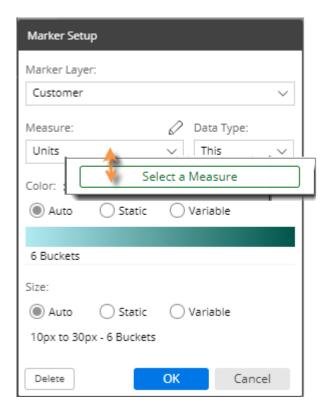
Data Type - Select values (This or Last), Diff, % Change, etc.

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:

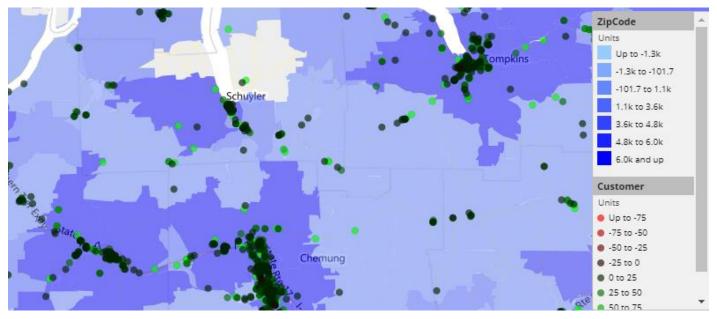
- Select the number of buckets (e.g., 8 ranges of percent change)
- Select how the buckets are determined (equal size, standard deviation, or user-defined)
- Select a color gradient (2 or 3 color stops)
- Select a level of opacity
- Select a range of point size in pixels
- Use different measures or data 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.



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 <u>points</u> (see page 82) 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.
- In the Layer Setup dialog, check the box of the layer for which want to color areas. Only preconfigured 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.

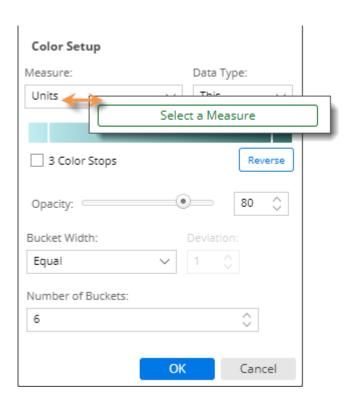
Data Type - Select values (This or Last), Diff, % Change, etc.

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.

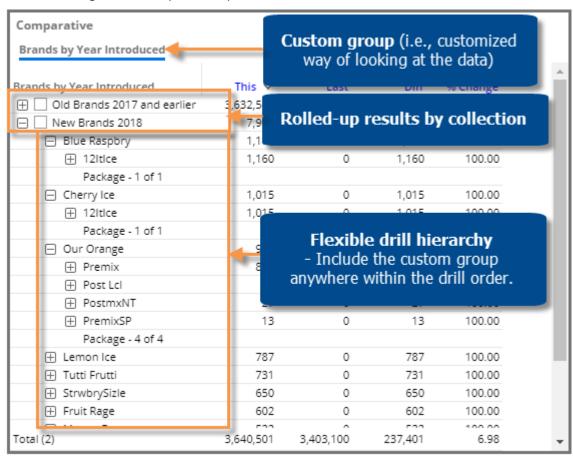


To customize the buckets (i.e., ranges represented by various shades), select one of the following from the **Bucket Width** menu:

- Standard deviation centers the buckets around the mean.
- Equal creates a defined number of equallysized ranges between the minimum and maximum values.
- User Defined allows you to create custom buckets.

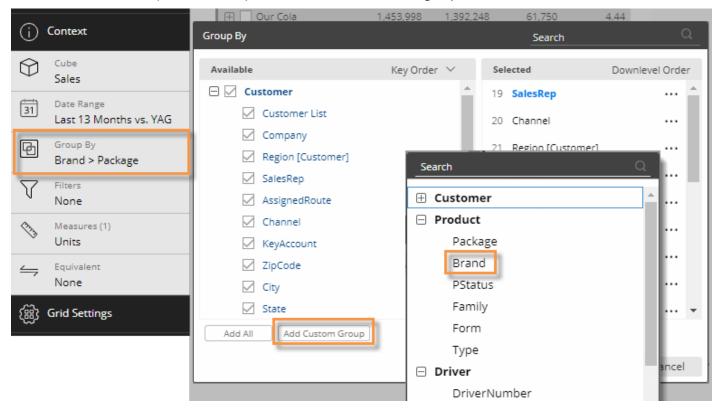
Custom groups

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.

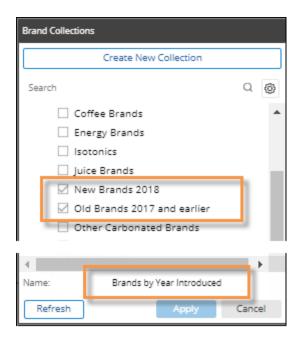


Add a custom group

- 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.

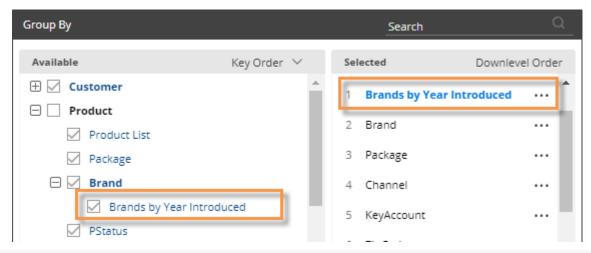


- 4. In the next dialog, checkmark all of the collections you want to compare and investigate in the custom group.
- 5. Type the name of the custom group at the bottom of the dialog. This name will appear as the "By" when the custom group is selected.
- 6. Click Apply.



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.

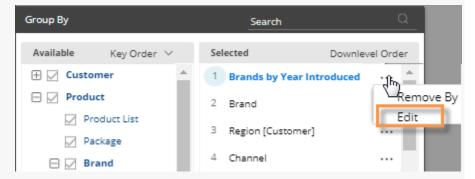


Tips:

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

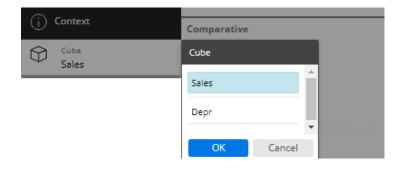
Salient Dashboards can show record-level data (e.g. invoices, work records, inventory, etc.) in a graph or grid. To see data at this level, group the data by "Record Details." The details show each individual record for the given context. Record details may include dates (single date for transactions 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.

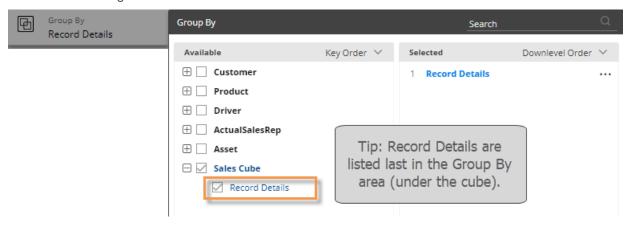


To build record details into a widget (in edit mode)

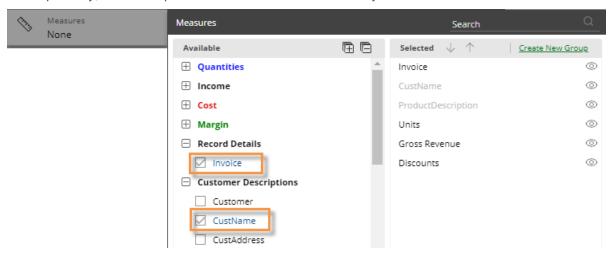
- 1. Add a comparative or mix widget if you haven't already. Record details are limited to these analysis types.
- 2. Optionally, switch to a graph/grid format (see page 60) that supports record details. These include:
 - Mix grid only (If you attempt to group by record details in a mix graph, it will 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.)



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.

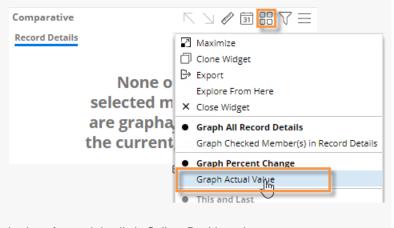


- 5. Add at least one measure. Available measures are limited to those in the data cube.
- 6. Optionally, add the invoice number. If configured, this is located under Record Details in the Measures area. You can rename this field if you wish.
- 7. Optionally, add descriptions and/or dimensions for the keys in the records.



Tips:

If you see a message that none of the selected measures are graphable, make sure that you are <u>not</u> 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.

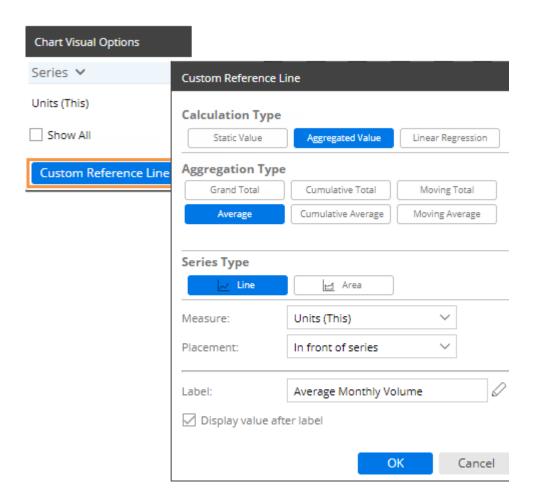
Record details provide information similar to SIM's Line Item analysis (for transactional data) and Time in Place analysis (for non-transaction data).

Reference lines

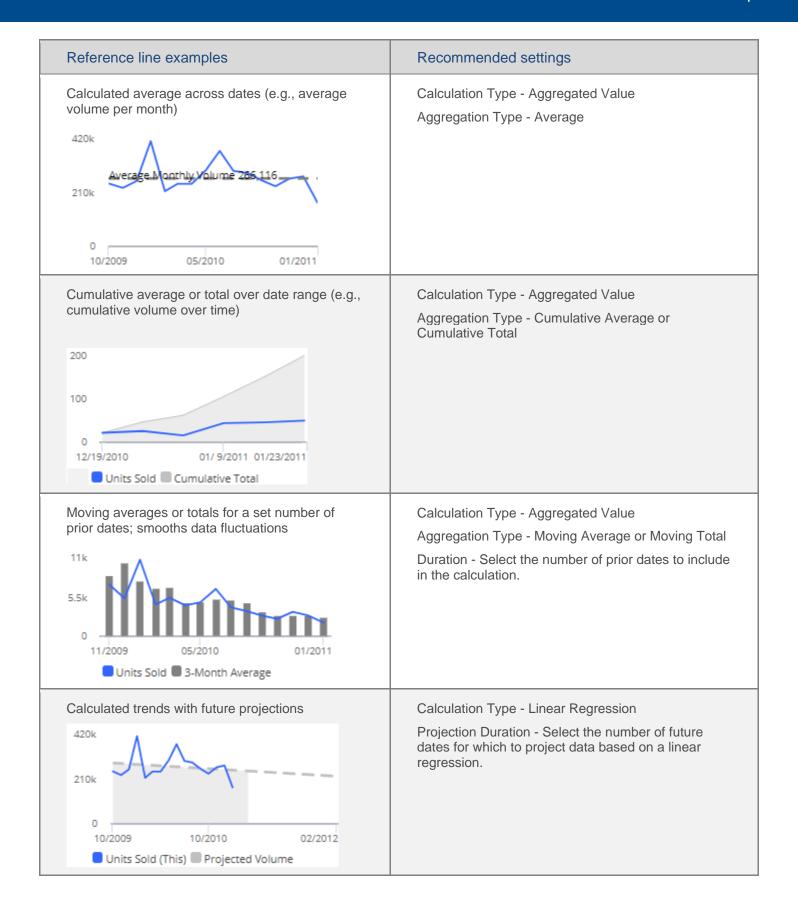
You can add custom lines to enhance data visualizations. Custom lines can show thresholds, important dates, and calculated values such as averages, totals, moving averages/totals, cumulative values, and projections.

To add reference lines

- Go to <u>Visual Options</u> (see page 64) 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.
- 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: Calculation Type - Static Value Over time in time-series: Axis -420k Y Value or From/To - Enter a static value. For a shaded area, enter the start value and the end value. 210k 0 04/2010 10/2009 01/2011 Compare values to a fixed, user-defined threshold: Calculation Type - Static Value Across members in comparative: Y Value or From/To - Enter a static value. For a shaded area, enter the start value and the end value. 48k 460k Net Revenue Jnits Sold 32k 16k 0 Near West Area SouthEast Area East Area SouthWest Area NorthWest Area Calculation Type - Static Value Important dates on a time-series Promo Event X Value - Click the date control(s) and select a single date (for Line) or the beginning and ending dates (for Area). 0k 08/16/2009 09/13/2009 10/11/2009 Calculated average or total over multiple Calculation Type - Aggregated Value members (e.g., average volume per sales rep) Aggregation Type - Grand Total of all members, or Average of all members 7.6k Johnson, Lo... Gordon, Pat Markey, Ciro Office-Lasoski D Saxton, TomStark, Solom. Visclosky, Ge.. Morris, E



Navigation links

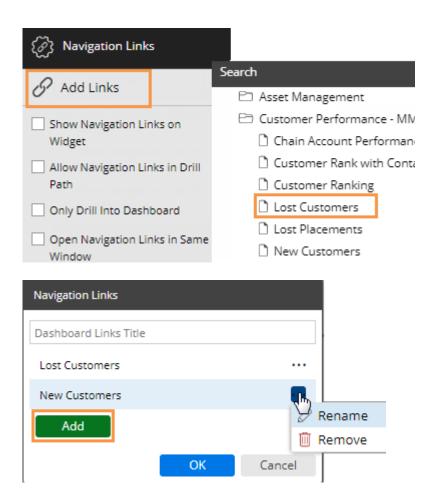
You can embed links to published dashboards within a widget to provide easy access to related dashboards. The links will be listed at the bottom of the widget or available via custom drill-downs (see page 97).

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.
- Select the dashboard to which you want to link. Only published dashboards are available for dashboard links.
- 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.



To add dashboard links to a widget

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



Allow Navigation Links in Drill Path - Check this box if you want to make the links available via a <u>custom drill-down</u> (see page 98). Otherwise, leave this box cleared.

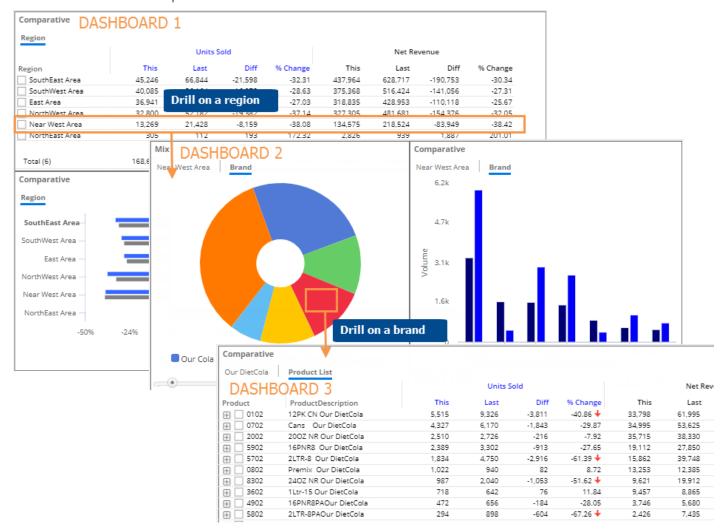
Only Drill Into Dashboard - This option is used with Allow Navigation Links in Drill Path (i.e. custom drilldown) to control whether the user can go directly to the next dashboard upon drilling (check this option) or must first drill through all By levels in the widget (clear this option).

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.

Custom drill-down

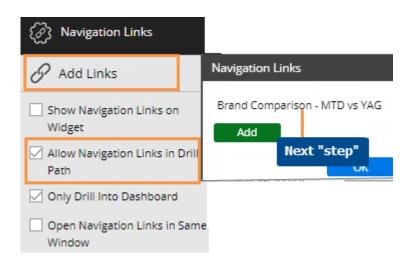
A custom drill-down is a set of preconfigured dashboards through which the user can drill. The custom drill path can include a variety of widget types and display settings to optimize the investigative process while allowing the user to select the item(s) on which to drill.

Custom drill-downs must be <u>created</u> (see page 98) in edit mode by a Dashboard Designer. All dashboards in a custom drill-down must be published.



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.



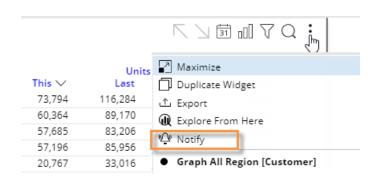
- 4. Repeat Steps 2 and 3 for each dashboard used as a step in the drill-down (except the last step)—specifying the next step and saving each one.
- 5. Share the dashboard of the first step with users.

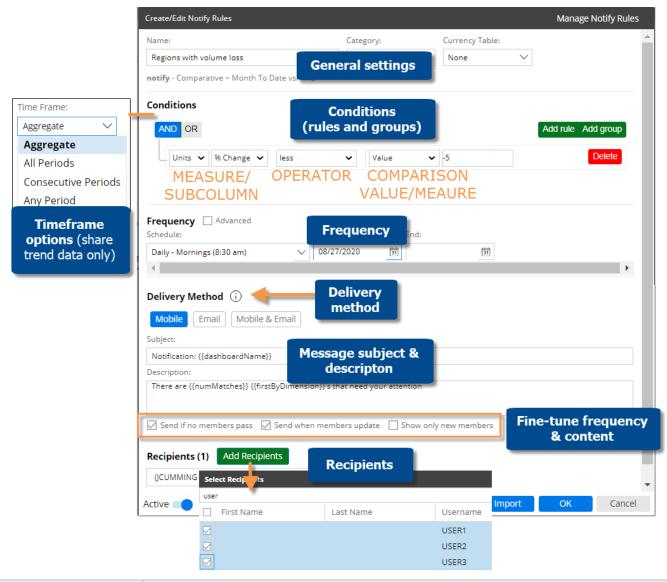
Notify

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 notifications in the Salient Dashboards browser-based application if you belong to a user group with rights to save notifications.

- 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 A Notify.
- 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	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.	
only	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 <u>any</u> 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 <u>as explained below</u> (see page Error! Bookmark not defined.) 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	Choose the method of delivery:	
- Mobile, email, or both	 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 <u>and</u> 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 only 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 Manage Notify Rules and click . For a test run, the notification will only be sent to the user who tests it.

Tips:

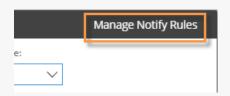
Leave the **Active** button on to immediately activate the notification rules, in which case they will run at the next scheduled time, or turn this option off to leave the notification deactivated (e.g., if you are not finished setting it up).

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 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.

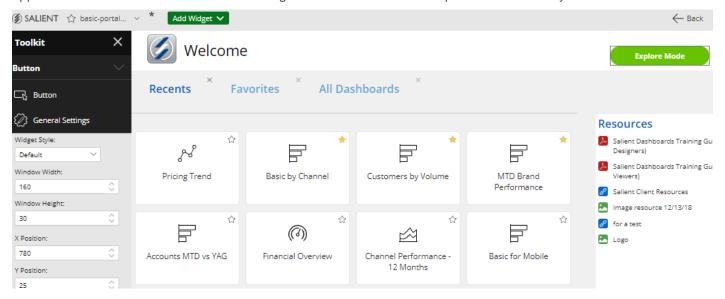
A notification will run according to the timezone of the user who created it.

To edit and manage existing notification rules and see notification history, click Manage Notify Rules at the top of the dialog.



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:

<u>Dashboard widgets</u> (see page 21) - provide a set of links to other dashboards, such as recent dashboards, favorite dashboards, all dashboards, published dashboards, or a custom assortment of dashboards.

<u>Button widgets</u> (see page 19) - 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).

<u>Tab group widgets</u> (see page 14) - organize widgets and maximizse screen space by providing a tabbed or carousel view.

Knowledge Manager widgets - shows the general overview or general resources from Knowledge Manager.

<u>Text/HTML</u> (see page 17), <u>Line</u> (see page 20) and <u>Image</u> (see page 22)widgets - enhance the appearance of the dashboard and provide content.

4. When you are finished, save the dashboard (see page 73).

- 5. To make it the default portal for users:
 - i. Export the dashboard to an sdm file. 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 75) 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 dashboard should be 00000000-0000-0000-0000-0000000000.
 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=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 <u>if the dashboard was saved in</u> explore mode. Otherwise, the dashboard will open in view mode.

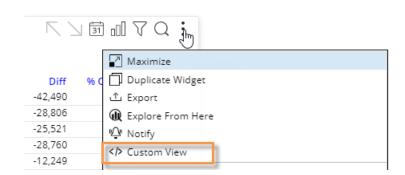
Custom views

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 108). 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).
- Click in the upper-right corner of the widget and select Custom View from the menu.

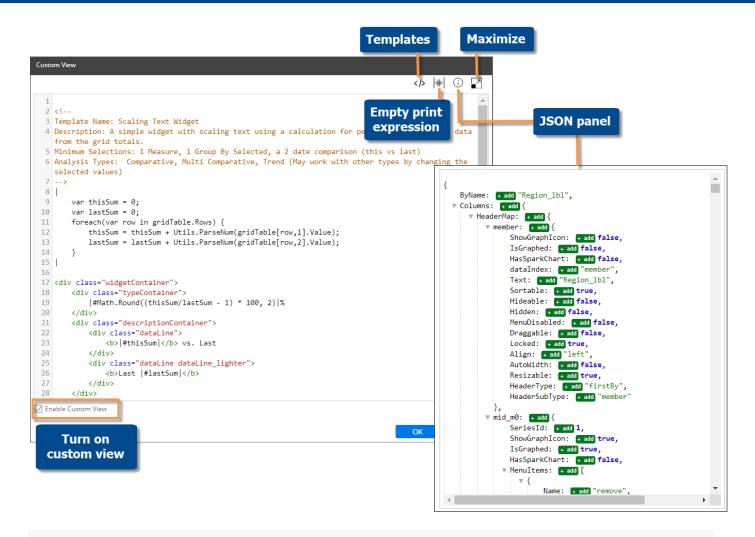


3. In the editing window, enter code to define the custom visualization. You can start with any of several predefined templates (if configured), or create a custom view from scratch.

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 i at the top of the editing window. You can then click available 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**. <u>If you do not check this box, the custom view will not display.</u>



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



Tile view

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

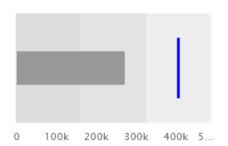
Volume comparative



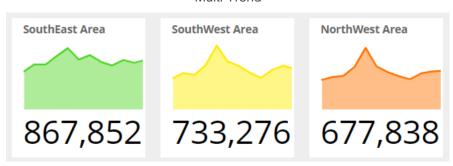
Goal percentage



Gauge bullet



Multi Trend



Calendar trend tiles



About Salient

Salient Management Company offers business and government a new solution for efficient management. Drawing on diverse data from multiple sources, Salient technology measures how business activity creates value, quality, financial efficiency, and productivity, while the user interface eliminates barriers to using this knowledge for continuous process improvement.

Salient is a worldwide provider of advanced performance management and decision support systems for a wide range of industries and the public sector. Founded in 1986, Salient today serves more than 115,000 users in 61 countries.

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