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The intended audience for SAS Theme Designer 3.1 includes administrators who develop and maintain SAS themes as well as individual users who access SAS themes from within different SAS applications.
What’s New in SAS Theme Designer 3.1

The following items are new for SAS Theme Designer 3.1:

• There are new application themes for SAS Theme Designer 3.1. The application themes include Illuminate, Inspire, and High Contrast.

• There are new report themes for SAS Theme Designer 3.1. The report themes include Aqua, Marine, and High Contrast.

• The main Themes window has been modified for ease of use. See “Theme Table Overview” on page 33.

• You can now change advanced style override settings for application and report themes on the Overrides tab. See “Interface Styles” on page 17 and also see “Page Styles” on page 22.

• You can add a logo image to the banner for a theme. See “Adding a Banner Logo” on page 65.

• You can modify settings for loading and transition screens for an application theme. See “Updating a Loading Screen Animation” on page 67.

• The Preview pane on the New Application Theme window now displays an Animations view for application themes. The Initial Loading Screen and the Transition Screen are displayed here.
Chapter 1
Getting Started

About SAS Theme Designer

SAS Theme Designer 3.1 enables you to easily customize the appearance of various SAS Viya applications. A SAS theme defines the overall look and feel of an application or a report. It is designed using colors and graphics that are applied to common user interface components and layout containers. A well-designed theme can create a strong visual identity across a product or set of products. You can use SAS Theme Designer to create and deploy simple, visually appealing, customized themes.

Prerequisites for Accessing SAS Theme Designer 3.1

In order to access SAS Theme Designer 3.1, you must be included in the Application Administrators group. See “Assigning Users to Custom Groups” on page 39 for more information.
Accessing SAS Theme Designer

Depending on your user environment, and your membership in the Application Administrators group, SAS Theme Designer 3.1 is available for you to access from one or more locations. Here are the options for accessing SAS Theme Designer 3.1:

SAS Home

SAS Home 8.2 enables you to easily access different SAS Viya applications and content, including SAS Theme Designer. Within SAS Home, you can display and access SAS Theme Designer in multiple ways: as a shortcut, as a tile, or as a link.

In the SAS Home 8.2 display below, SAS Theme Designer is available as a shortcut that you can select to open the application. Select Manage Themes.

Show applications menu

The Show applications menu enables you to easily select SAS Viya applications that you have access to. The Show applications menu is available in the upper left corner of your SAS Viya application window. Select to expand the listing of available SAS Viya applications. From here you can select Manage Themes.

Here is the Show applications menu expanded:
Web browser

SAS Theme Designer uses the standard sign-in window for SAS applications. To display the sign-in window, use the URL that is supplied by your SAS administrator.

A Sign In to SAS window appears where you can enter your User ID and Password.

Here is the Sign In to SAS window:
Working in SAS Theme Designer

Once you sign in to SAS Theme Designer, you can create new themes and modify existing themes. Below is the main window for SAS Theme Designer 3.1.

Here are the tasks that you can perform from this window:

Table 1.1 Theme Designer Tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select an existing theme</td>
<td>You can select an existing theme from the table of available themes in order to perform different administrative tasks. Some of the tasks that you can perform include renaming, deleting, duplicating, and exporting themes.</td>
</tr>
<tr>
<td>Create a new theme</td>
<td>You can create a new application theme or a new report theme.</td>
</tr>
<tr>
<td>Import a theme</td>
<td>You can import a theme from a specific folder to SAS Theme Designer 3.1.</td>
</tr>
<tr>
<td>Access other SAS products from the Show applications menu.</td>
<td>By selecting the ☰ icon, you can access various SAS Viya products, including SAS Home 8.2, SAS Report Viewer 8.2, and SAS Visual Analytics 8.2.</td>
</tr>
<tr>
<td>Access the Help Center</td>
<td>You can access the Help Center by selecting ☰. The Help Center contains documentation for SAS Theme Designer 3.0.</td>
</tr>
</tbody>
</table>
SAS Application Themes

SAS Theme Designer enables you to apply your own branding and customization to make SAS Viya applications conform with the rest of your software environment. SAS recognizes that users at your site often use more than one SAS application in their daily work. Having a consistent look and feel ensures that the user’s transition from one application to the next is as seamless as possible.

SAS Theme Designer provides predefined application themes. These themes enable you to create new application themes based on those theme settings. Here are the predefined application themes:

High Contrast
This is one of the predefined application themes. This theme has a dark background with high-contrast foreground elements to meet the needs of users with low vision.

Illuminate
The Illuminate theme is the default application theme.

Inspire
This is one of the predefined application themes.

For more information see “Creating a New Application Theme” on page 7.

SAS Report Themes

The second type of theme that you can create in SAS Theme Designer is a report theme. You can create report themes that can be used in SAS Visual Analytics 8.2 reports. A report theme contains settings that control the color selections for different elements of a report such as tables, graphs, and controls.

SAS Theme Designer provides predefined report themes. These themes enable you to create new report themes, based on those theme settings. Here are the predefined report themes:

High Contrast
This is one of the predefined report themes. This theme has a dark background with high-contrast foreground elements to meet the needs of users with low vision.

AquA
This is a predefined report theme.

Marine
The Marine theme is the default report theme.

For more information see “Creating a New Report Theme” on page 11.

Using SAS Themes in SAS Viya Products

Application themes that are created in SAS Theme Designer 3.1 can be used and further modified in SAS products accessible on the web. Here is a list of SAS Viya products that use HTML-based SAS application themes:
You can also preview edits to SAS application themes while accessing these SAS Viya products. The function **Edit In Context** enables you to preview edits to an application theme from another SAS Viya application. You can perform the following tasks from the **Edit In Context** pane:

- edit **Interface Styles** and **Graph Styles** color settings for an application theme
- save and publish an application theme
- switch to a different SAS Viya product to edit the theme.

Because a SAS application theme applies to the overall Viya environment, you can preview the application theme using **Edit In Context**, in any available SAS Viya products.

For more information see “Editing an Application Theme in Context” on page 27.

---

**SAS Help Center**

You can access the *SAS Theme Designer 3.1 User’s Guide* while in SAS Theme Designer by opening the Help Center. Select and select **Help Center**. You can view and search the content that is available on the Help Center. The *SAS Theme Designer 3.1 User’s Guide* is available from the Help Center in HTML format and PDF.

*Note:* Pop-up blockers for your browser should be disabled in order to display the Help Center.
Chapter 2
Creating and Working with SAS Themes

SAS Themes

A SAS application theme enables you to create a consistent look and feel that can be applied to multiple SAS applications in your SAS Viya environment. You can apply custom colors to different elements of your SAS Viya environment including primary elements, messages, tables, and graphs.

A SAS report theme applies a consistent look and feel to SAS report content. SAS report themes are customized for reports that are created in SAS Visual Analytics 8.2. You can apply custom colors to different elements of your SAS report theme including tables, graphs, and controls.

Creating a New Application Theme

You can create a new application theme in SAS Theme Designer 3.1 by following these steps:

1. On the Theme Designer window, select New ➔ Application Theme.
Or, you can also create a new theme by selecting **Starter Palettes $\Rightarrow$ New Application Theme**. The **Starter Palettes** pane enables you to create a new theme that is based on a preselected set of theme colors.

A **New Application Theme** window appears. You can now begin making changes to the new theme. The **Preview** pane contains sample items that display the changes that you make to the theme.

Here is the **New Application Theme** window:

The theme name is displayed above the **Preview** pane. For application themes, the default name is New Application Theme 1. You can change the default name for a theme by clicking the default name and entering a new name.

2. You can now make changes to different color palette swatches for the theme including changes for **Interface Styles** and **Graph Styles**.
3. The SAS Theme Designer **Preview** pane displays the theme as you modify it. It enables you to easily see changes that take place when theme properties are modified. When the **Live preview** option is selected, you can see changes in the **Preview** pane in real time as the changes are being made. If you clear the **Live preview** option, you must click **Refresh** to see changes.

4. It is also possible to see the changes that you are making to a theme while in a different SAS Viya application. **Edit in Context** enables you to preview changes in other SAS Viya applications.

When you choose **Edit in Context**, you temporarily move to an application of your choice. Theme options are displayed in a floating pane. Your changes are applied directly to the application. This enables you to see what a SAS application will look like when your theme is used.

Click the **Edit in Context** button on the Theme Designer window. The **Edit in Context** pane opens.

![Edit in Context pane](image1.png)

On the **Edit in Context** pane, select the SAS Viya application that you want to go to. In this example, **SAS Home** is selected. Now click the **Edit in Context** button on the **Edit in Context** pane.

![Edit in Context pane](image2.png)

5. SAS Home opens. The **Edit Theme** pane is now available from within SAS Home. You can make changes to **Interface Styles** and **Graph Styles** for the theme and view the changes as you make them. Here is the **Edit Theme** pane.
6. After you have modified your theme, you can save the theme. Click on the **Edit Theme** pane. You can also return to SAS Theme Designer where you can continue to make changes to your theme. To do so, click and select **Edit in SAS Theme Designer**

When you return to the application theme window in SAS Theme Designer, you can continue to make changes to your theme.

7. After you have finished modifying the theme, you can save the theme as a draft. Or you can save and publish the theme by selecting the appropriate action in the **Save** menu as shown:
Your new theme is now listed in the table of available themes. You can now use it with other SAS Viya products that consume SAS themes, such as SAS Visual Analytics 8.2. A theme must be published in order for all users to access it with other SAS Viya applications.

The Illuminate theme is the default application theme that is provided with SAS Theme Designer 3.1. You can use the Illuminate theme as a basis to create customized application themes.

**TIP** The default theme can be set by any member of the Application Administrators group.

## Creating a New Report Theme

You can create a new report theme in SAS Theme Designer 3.1 by following these steps:

1. On the Theme Designer window, select **New ➤ Report Theme**.

The report theme that is created is based on the default report theme **Marine**.

You can also create a new theme by selecting **Starter Palettes ➤ New Report Theme**. The **Starter Palettes** pane enables you to create a new theme that is based on a preselected set of theme colors.

A **New Report Theme** window appears. The theme name is displayed above the **Preview** pane. For report themes, the default name is New Report Theme 1. You can
change the default name for a theme by clicking the default name and entering a new name.

2. From the **Preview** pane, you can click **Choose Report**. A file selection window appears and you can select a report. In this example, the report **Box Plot** is selected.

3. The SAS Theme Designer **Preview** pane displays the report theme, enabling you to easily see theme property changes as you make them. In this example, a car dealer has a sales and returns report for different product lines. The report contains a box plot.
Once a report is loaded, you can make changes to different color palette swatches for the report theme. You can now make changes to different color palette swatches for the theme including changes for Page Styles and Graph Styles.

The SAS Theme Designer Preview pane displays the theme as you modify it. It enables you to easily see changes that take place when theme properties are modified. When the Live preview option is selected, you can see changes in the Preview pane in real time as the changes are being made. If you clear the Live preview option, you must click Refresh to see changes.

4. Changes to Graph Styles color swatches impact the colors of the different graphs in a report. On the Graph Styles pane, the first default Data palette color is teal.

In the following image, the first default Data palette color is changed to purple. The color change is updated in the Preview pane.

5. After you have modified the report theme, you can Save the theme or Save and Publish the theme. A report theme must be published in order for it to work with SAS reports.
The Marine theme is the default report theme that is provided with SAS Theme Designer 3.1. You can use the Marine theme as a basis to create additional customized report themes.

**TIP**
The default theme can be set by any member of the Application Administrators group.

---

### Previewing Changes to a Theme

After you create or select a theme to work with, you can make changes to the theme and view those changes from the Preview pane. The preview pane displays various components that reflect the changes that will be applied to a SAS Viya application or report.

You have two ways to update the Preview pane:

**Live Preview**

- When this check box is selected, the changes that you make to the theme are automatically updated in the Preview pane, as they are made.

  **Note:** Live Preview is the default setting.

**Refresh**

- When Live Preview is not selected, clicking the Refresh button updates the Preview pane. You must click Refresh in order to see your theme changes. When you click Refresh, a loading indicator is displayed until the update is complete.

  **Note:** The Refresh button is enabled only if the Live Preview option is not selected.

---

### Changing Palette Colors

You can modify various color settings for a theme by changing individual color palette swatches. When changing the color for a palette swatch, you can choose from Basic or Custom color changes.

**Basic**

- The Basic tab displays a listing of Standard colors to choose from. Listings of Recent custom colors and Recent standard colors are also displayed.
When you select a standard color, it is added to the list of **Recent standard colors**.

---

**Custom**

The **Custom** tab displays a custom palette that enables you to select a custom color. The **Current color** and **New color** swatches are displayed. Decimal values for **Red**, **Green**, **Blue**, and **Hex Value** are also displayed.

Click on the area of the palette that you want to select a color from. The values for the color are then displayed. You can also click and drag the cursor to move over the
palette. The **New color** swatch is updated to the selected color. You can also adjust the vertical slider control to change the colors displayed on the palette. Another option is to enter the values for the red, green, and blue decimal values, or to enter the hexadecimal value of the color. When you have identified a color that you want, click **OK** to accept the color values.

When you select a custom color, it is added to the list of **Recent custom colors** that is available on the **Basic** tab.
Interface Styles

You can change color settings for various components of an application theme on the Interface Styles pane. You can change Global color settings for a theme and specify Overrides for those color settings.

The Global tab provides color settings for Branding and Messages color settings. You can also specify a Base font for styles.

Here is the Interface Styles pane with the Global tab displayed:
The **Branding** color settings include the following options:

**Table 2.1 Branding Color Settings**

<table>
<thead>
<tr>
<th>Branding Color Settings</th>
</tr>
</thead>
</table>
| **Primary:** The primary color is used throughout the interface to set the overall tone for the application and to apply color to elements that warrant more attention. For example, some elements that use the primary color include: application banner and side menu.  
**Tip:** Use the primary color to introduce your primary brand color into the user interface.  
**Secondary:** The secondary color is used to create the color scheme for elements within the content area indicating actionable, selected, or highlighted elements. This color helps set the tone for an application or report and is used for elements that need more emphasis. Some elements that use the secondary color in an application theme include: the selection color, selected icons, increased importance buttons, active elements, high-level titles, and selected menu items. |
Neutral

The neutral color is a mid-tone that is applied to interface elements. The neutral color should support the primary content of the page without distraction. For example, some theme elements are best read in a neutral color. Elements that use neutral colors include: page backgrounds, element backgrounds, borders, body text, links, tab tiles, table header text, deselected menu items, deselected icons, normal buttons, and helper text.

Tip: Although it is possible to set the neutral color to any color, use of a darker tone is more likely to preserve optimal contrast ratios.

Base font

Select the desired font and font size for the theme.

Tip: Changes to the font size for Base font do not apply to graphs in application themes.

The Messages color settings include color options for different types of text in a theme. This includes the following text elements:

<table>
<thead>
<tr>
<th>Messages Color Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information: the selected color is applied to basic information.</td>
</tr>
<tr>
<td>Success: the selected color is applied to success messages.</td>
</tr>
<tr>
<td>Warning: the selected color is applied to warning messages.</td>
</tr>
<tr>
<td>Alert: the selected color is applied to alert messages.</td>
</tr>
</tbody>
</table>

The Overrides tab contains advanced style color overrides. Overrides settings apply to any part of an application to which the theme is applied.

Here is the Interface Styles pane with the Overrides tab displayed:

The following Banner color override settings are used to modify banner colors:
Table 2.3  Banner Override Settings

<table>
<thead>
<tr>
<th>Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
</tr>
</tbody>
</table>

**Logo** - In the logo box, select a file to display as the logo image. You can drag and drop an image to the logo box or you can browse the file system and select an image file.

The following *Initial Loading Screen* override settings are used to modify the *Initial Loading Screen* image on the *Animations* view in the *Preview* area:

Table 2.4  Initial Loading Screen Override Settings

<table>
<thead>
<tr>
<th>Initial Loading Screen Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page Background</td>
</tr>
<tr>
<td>Radial gradient</td>
</tr>
</tbody>
</table>

**Loading animation** - Select a file to display as the loading screen animation. You can use the default animation or you can browse the file system and select a custom animation.

**Text**

**Spinner**

The following *Transition Screen* override settings are used to modify the *Transition Screen* image on the *Animations* view in the *Preview* area:

Table 2.5  Transition Screen Override Settings

<table>
<thead>
<tr>
<th>Transition Screen Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page Background</td>
</tr>
</tbody>
</table>

**Loading animation** - Select a file to display as the transition screen animation. You can use the default animation or you can browse the file system and select a custom animation.

**Text**

**Spinner**

The following *Crosstab* color override settings are used to modify *Crosstab* colors in the *Preview* area:
Table 2.6  Crosstab Override Settings

<table>
<thead>
<tr>
<th>Crosstab Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer border</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Inner borders</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Column Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Row Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Measure Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cells</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Row background</td>
</tr>
<tr>
<td>• Alternating row background</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Totals text</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Totals background</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Subtotals text</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Subtotals background</td>
</tr>
</tbody>
</table>

The following Tables color override settings are used to modify Table colors in the Preview area:

Table 2.7  Tables Override Settings

<table>
<thead>
<tr>
<th>Tables Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer border</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td>• Borders</td>
</tr>
</tbody>
</table>
Tables Override Settings

Cells
• Text
• Row background
• Alternating row background
• Borders

Totals text

Totals background

The Preview pane contains sample items that display the Interface Style changes. You can toggle between Table, Messages, or Animations view on the left side of the Preview pane. You can also toggle between different Pane views on the right side of the Preview pane.

**TIP** You can toggle between Interface Styles and Graph Styles on the Property pane. You can select Hide pane to close both settings.

*Note:* The default message that is displayed on the Global and Overrides tabs, can be removed from display. Beside the default message, select $\times$. The message is removed from display. You can also reinstate the message by selecting Reset Messages on the General settings pane. See “Theme Designer Settings” on page 38 for additional details.

Page Styles

When you are working with a report theme, You can change basic color settings for different components of a report theme on the Page Styles pane. You can change Global color settings for a theme and specify Overrides for those color settings.

The Global tab provides color settings for Branding color settings. You can also specify a Base font for styles.

Here is the Page Styles pane with the Global tab displayed:
The **Global** color settings include the following options:

### Table 2.8  Global Color Settings

<table>
<thead>
<tr>
<th>Global Color Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary:</strong></td>
</tr>
<tr>
<td>The primary color is used throughout the report to set the overall tone and to apply color to elements that warrant more attention.</td>
</tr>
<tr>
<td>Note: Custom report themes do not use the Primary color.</td>
</tr>
<tr>
<td><strong>Secondary:</strong></td>
</tr>
<tr>
<td>The secondary color is used to create the color scheme for elements within the content area indicating actionable, selected, or highlighted elements. This color helps set the tone for an application or report and is used for elements that need more emphasis. Some elements that use the secondary color in a report theme include: the selection color, selected icons, increased importance buttons, active elements, high-level titles, and selected menu items.</td>
</tr>
<tr>
<td><strong>Neutral:</strong></td>
</tr>
<tr>
<td>The neutral color is a mid-tone that is applied to report elements. The neutral color should support the primary content of the report without distraction.</td>
</tr>
<tr>
<td>Tip: Although it is possible to set the neutral color to any color, use of a darker tone is more likely to preserve optimal contrast ratios.</td>
</tr>
<tr>
<td><strong>Base font</strong></td>
</tr>
<tr>
<td>Select the desired font and font size for the theme.</td>
</tr>
<tr>
<td>Tip: Changes to the font size for Base font do not apply to graphs in report themes.</td>
</tr>
</tbody>
</table>

**Tip**  When you are customizing a report theme, it is a good practice to ensure that the report controls (button bars, drop-down lists, and so on.) display consistently in that report theme. You can customize report controls by selecting new colors for **Secondary** and **Neutral** colors on the **Global** tab.

The **Overrides** tab contains advanced style color overrides.
Here is the Page Styles pane with the Overrides tab displayed:

The Crosstab color override settings are used to modify Crosstab colors in the Preview area:

**Table 2.9  Crosstab Override Settings**

<table>
<thead>
<tr>
<th>Crosstab Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer border</td>
</tr>
<tr>
<td>Inner borders</td>
</tr>
<tr>
<td>Column Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td>Row Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td>Measure Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td>Cells</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Row background</td>
</tr>
<tr>
<td>• Alternating row background</td>
</tr>
<tr>
<td>Totals text</td>
</tr>
<tr>
<td>Totals background</td>
</tr>
<tr>
<td>Subtotals text</td>
</tr>
<tr>
<td>Subtotals background</td>
</tr>
</tbody>
</table>
The following Tables color override settings are used to modify Table colors in the Preview area:

### Table 2.10 Tables Override Settings

<table>
<thead>
<tr>
<th>Tables Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer border</td>
</tr>
<tr>
<td>Headers</td>
</tr>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Background</td>
</tr>
<tr>
<td>• Borders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cells</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Text</td>
</tr>
<tr>
<td>• Row background</td>
</tr>
<tr>
<td>• Alternating row background</td>
</tr>
<tr>
<td>• Borders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Totals text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals background</td>
</tr>
</tbody>
</table>

From the Preview pane, you can click Choose Report. A file selection window appears and you can select a report. Depending on the SAS report that you have loaded with Choose Report, different elements (that are relevant to the current report) are displayed on the Preview pane.

Once a report is loaded, you can now make changes to different color palette swatches and see them applied to the report.

**TIP** You can toggle between Page Styles and Graph Styles on the Property pane. You can select Hide pane to close both settings.

*Note:* The default message that is displayed on the Global and Overrides tabs, can be removed from display. Beside the default message, select \( \times \). The message is removed from display. You can also reinstate the message by selecting Reset Messages on the General settings pane. See “Theme Designer Settings” on page 38 for additional details.

---

**Graph Styles**

Graph styles enable you to change color settings for graphs in SAS Viya applications.

Here is the Graph Styles pane:
The **Graph Styles** pane contains color settings for the following items:

**Global Data Colors**
These colors are used for **Solid Data Colors**, **Gradient Data Colors**, and for **Gauges**. You can change graph colors for the following items:

**Data Palette**
These colors are used in the following graph elements and are displayed on the **Preview** pane under **Solid Data Colors** and **Gradient Data Colors**:

- Solid Fills
- Lines and Markers
- Diagram Nodes
- 2 Color (Unidirectional) Gradients
- 3 Color (Divergent) Gradients

You can change the order of display for the different colors on the **Data palette** by using the **Reorder** button.

If you click **Reorder**, the **Data palette** swatches can be moved.
You can click and drag a color to rearrange the order of colors. In the following image, the teal color chip was moved to the bottom of the Data palette. The Preview pane shows the order of colors that you have chosen.

When you are finished reordering color swatches, click Reorder to close the function.

For further formation about the use of the keyboard to reorder color swatches see “Reorder Color Swatch Shortcuts” in SAS Theme Designer Accessibility Features

Gauge Palette
These colors are used to customize the look of gauges and other graph elements in an application. These colors are used in gauges, increasing and decreasing values in the waterfall chart, and gradients that show KPI colors. They are displayed on the Preview pane.

---

Editing an Application Theme in Context

In-context editing enables you to see a live preview of theme changes in the application of your choice. The view of the application updates to show your theme changes as you make them. Edit in Context is available for use with application themes. It is not available for use with report themes.

On the SAS Theme Designer window, click Edit in Context. The Edit in Context pane opens.
From here, you can choose another SAS Viya application to go to.

Then, click **Edit in Context**. The SAS Viya application that you selected opens.

You can continue making changes to your theme on the **Edit Theme** pane that opens in the designated SAS Viya application. The **Edit Themes** pane is opened in a fixed location of the SAS Viya application that you selected and cannot be moved.

From here, you can edit **Interface Styles**.
You can also edit **Graph Styles**.
To save the theme or modify where you are working on the theme, click to open a menu of available actions.

Here is the Edit Theme menu:

This Edit Theme menu contains the following items:

Save and publish enables you to save and subsequently publish a theme.

Save a copy enables you to save a copy of the theme that you are currently editing.

Change edit context enables you to change the SAS Viya application that you are currently editing the theme in.
Edit in SAS Theme Designer

switches the Edit Theme pane back to the SAS Theme Designer application.

If you are working in Edit in Context with an application theme that has already been published, you can publish the theme or save a copy of the theme. The toolbar includes Publish as shown in the following figure:

![Edit Theme window](image)

**TIP** If you click \( \times \) in the upper right corner of the Edit Theme window, then Edit in Context closes and SAS Theme Designer opens. Changes made while in Edit in Context are maintained and displayed in SAS Theme Designer.

**TIP** While the Edit Theme pane is open, you cannot navigate to other SAS Viya applications from the Show applications menu. If you click the Show applications menu, a message is displayed, instructing you to use the Edit Theme pane to choose a different application or return to SAS Theme Designer.

**Note:** Edit in Context is currently unavailable for use in the Microsoft Internet Explorer 11 web browser.

---

### Saving a Theme

When you are finished editing a theme, you can save the theme by selecting Save or Save and Publish from the drop-down menu.

![Save options](image)

When a theme has not been published, both of the options Save and Save and Publish are available. If you select Save and Publish from the drop-down menu, the theme is published for use in SAS Viya applications. When a theme has been published and is being edited, only Save and Publish is available.

After you have finished making changes to a theme, you can return to the main SAS Theme Designer window by selecting View All Items. This option is located above the Preview pane.
Chapter 3
Managing SAS Themes

Theme Table Overview

After you have created and published a SAS theme, it is available for use in various SAS Viya applications or reports. Available SAS themes are listed in the theme table.

From here you can select a theme to open and edit. You can also publish, unpublish, duplicate, rename, export, and delete a theme. A selection check box is available next to each theme. When a theme is selected, actions that can be performed on the selected theme(s) are displayed. The action icons are not enabled until one or more relevant themes is selected.

Here is the theme table.
The theme table contains the following columns:

- **Theme** displays the name of a theme.
- **Type** displays whether a theme is an application theme or a report theme.
- **Status** lists the status of a theme. A theme is either in a **Draft** state or is **Published**.
- **Date Modified** displays a relative time that a theme was last edited.
- **Default** indicates which themes are default themes. SAS Theme Designer provides a default application theme called **Illuminate** and a default report theme called **Marine**.

**Filter** enables you to search and filter the list of available themes that are listed in the **Theme** table.

The actions that you can perform are located in the upper right corner of the SAS Theme Designer window. Actions are enabled for a theme depending on the status of that theme. The action buttons are not enabled until one or more relevant themes is selected.

Here are the actions that you can perform a theme:

**Publish** enables you to publish a theme so that other SAS Viya users can access the theme. The **Status** column lists themes as either **Draft** or **Published**. The **Publish** function is applicable only to themes that are in draft mode. Select a draft theme and click . The theme is now published.

**Unpublish** enables you to unpublish a theme. A theme is unpublished in order to make it unavailable to SAS Viya applications. Select a published theme and click . The theme is now unpublished.

*Note:* The predefined themes cannot be unpublished. This includes Illuminate, Inspire, Aqua, Marine, and High Contrast.
Duplicate enables you to make a duplicate copy of a theme. Select a theme and click . A copy of the theme is created.

Rename enables you to rename a theme. Select a theme and click . The Rename pane opens.

Enter a new name for the theme and select OK.

Set Default enables you to select a published theme as the default theme. Illuminate is the default application theme and Marine is the default report theme.

Select a theme and click . This theme is now the default theme.

Export enables you to export themes from SAS Theme Designer to a file on the browser file system. Select one or more themes and click . The themes are automatically exported to a file in a specified folder on your file system. See “Exporting and Importing a SAS Theme” on page 36 for more information.

Delete enables you to delete a theme. Select a theme and click . The Delete pane appears.

Confirm the deletion of the theme by clicking Delete.

Note: The predefined themes cannot be deleted. This includes Illuminate, Inspire, Aqua, Marine, and High Contrast.

**Sorting on Columns**

You can sort the different columns in the theme table. To change the sort order, you can click on a column heading and the default ascending sort is made. You can also right-
Click on a column heading and select Sort. A sort menu is displayed. You can select from the following available sort options:

- Sort (ascending)
- Sort (descending)
- Remove sort. This option removes the sort option that is applied to the selected column.

Here is a figure of the Theme Column with the Sort function selected:

You can also select and sort multiple columns by using Ctrl+Click. If you select multiple columns, the sort options Add to sort (ascending) and Add to sort (descending) are enabled. These functions are initially disabled. These options enable you to add a column to the Sort function.

Exporting and Importing a SAS Theme

The export function enables you to export a theme from SAS Theme Designer to a specific folder. It might be necessary to export a theme for administrative tasks or to work on a different SAS Theme Designer 3.1 installation. Users can choose to export or import themes in order to share a theme with other administrators, or to migrate themes from one SAS Viya installation to another.

To export a theme select the check-box for the theme and click . The selected theme is automatically exported in a single file to a specified folder on your file system. The export file is labeled as ThemeDesignerExport.td.

You can export multiple themes by selecting the check-box for each theme before selecting . The themes are then saved in a single, exported file.

To import a theme, click Import from the SAS Theme Designer window. A web browser file selection window appears. Select the exported theme file that you want to import and click Open. Any themes that are defined in the exported theme file are imported and listed on the Theme table.

If a theme with the same name is already listed in SAS Theme Designer, a message opens:
You can overwrite the current theme or create a second theme with an appended name.

**Note:** You can import only SAS Themes created with SAS Theme Designer 3.0 on SAS Viya. SAS Themes created with SAS Theme Designer for Flex cannot be imported.

**Note:** SAS Theme files are imported from the browser file system, not the SAS folder structure where SAS reports are stored.

---

### Publishing Themes

When creating and editing a SAS theme, you can keep the theme in a draft mode in order to reduce the impact of any changes on users. When you are ready for users to access the theme, you can publish the theme. You can change a theme from a draft state to a publish state at any time.

The **Publish** function enables you to publish a theme so that other SAS Viya applications can access the theme. Select a theme and click ![Publish](publish_icon.png). The theme is now published and is available to SAS Viya applications. If you want to unpublish a theme, select a published theme and click ![Unpublish](unpublish_icon.png). The theme is now unpublished.

**Note:** The predefined themes cannot be unpublished. This includes Illuminate, Inspire, Aqua, Marine, and High Contrast.

---

### Setting a Default Theme

When SAS Theme Designer is initially installed, Illuminate is the default application theme and Marine is the default report theme. A SAS Theme Designer user can set a different theme as the default application theme or default report theme. A theme must be published before you can set it as a default theme.

On the **Theme** table, select a theme that is listed as **Published**, click ![Set as Default](set_as_default_icon.png).

Click **Yes**. The selected theme is now the default theme. Any user who is assigned the default theme sees the new default theme when they next log on to the system. If they are logged in when the change occurs, the new theme takes effect when they switch applications or refresh the browser.

When a theme is set as the default application theme, and it is deleted, the Illuminate theme is reset as the default application theme. When a theme is set as the default report theme, and it is deleted, the Marine theme is reset as the default report theme.
The predefined themes Illuminate, Inspire, Aqua, Marine, and High Contrast cannot be deleted or edited.

---

### Theme Designer Settings

You can access Settings or you can Sign-out of the current session from the Application Options menu. To access the Application Options menu, click on the current user name in the upper right corner of the SAS Theme Designer window. The Application Options menu is displayed.

To exit the current session of SAS Theme Designer select Sign-out on the Application options menu.

The Settings pane enables you to change Global user settings that apply across applications. Within the Global settings, you can modify General settings, Region and Language settings, and Accessibility settings. Here is the Settings pane.

- The General menu contains settings for basic changes to your user environment. You can also display messages that have been closed by selecting Reset Messages.
- Region and Language menu contains settings for the locale that is used for sorting data and formatting values and the locale that is used for offline jobs or background processes.
- The Accessibility menu contains settings for accessibility changes to your user environment. For detailed information about these settings, see “General Usage Help for SAS Viya Web Applications” in General Usage Help for SAS Viya Web Applications.

Click Reset to change values back to the original settings. Reset changes the settings for the menu that you are currently in.

**Note:** Click Reset Messages on the General menu to specifically change message settings. Reset does not apply to this function.
Recent Items

In some Viya applications, **Recent** enables you to access a list of recent items that you have worked with. Click **Recent**. The Recent Items dialog box appears. You can move between objects without returning to SAS Home or to other applications in the Show applications menu.

SAS Help Center

You can access the **SAS Theme Designer 3.1 User’s Guide** while in SAS Theme Designer by opening the Help Center. Select and select **Help Center**. You can view and search the content that is available in the Help Center. The **SAS Theme Designer 3.1 User’s Guide** is available from the Help Center in HTML format and PDF.

*Note:* Pop-up blockers for your browser should be disabled in order to display the Help Center.

Assigning Users to Custom Groups

Creating themes is a highly specialized and infrequent task that should be performed only by an experienced administrator or designated visual designer. Access to SAS Theme Designer 3.1 is determined by membership in a custom group.

In order to access SAS Theme Designer 3.1, you must be included in the **Application Administrators** group. Membership in the **Application Administrator** group enables you to access and modify themes with SAS Theme Designer 3.1.

For further information about assigning users to the **Application Administrators** group, see “Predefined Custom Groups” in *SAS Viya Administration: Identity Management*.
Creating an Application Theme

The SAS Theme Designer window enables you to work with existing SAS Themes and create new SAS themes. In this example, a new application theme is created.

On the SAS Theme Designer window, select New ⇒ Application Theme.
A **New Application Theme** window appears. You can now make changes to the new theme. In this example, the **Primary** color for **Global, Interface Styles** is changed. Select the **Primary** color swatch.

A color palette opens. The **Basic** tab displays a listing of **Standard colors** to choose from. In this example, the **Primary** color is changed to green.
The Table banner on the Preview pane is updated with the new color.

You can also change the logo for the Table banner on the Preview pane. On the Interface Styles pane, select Overrides. Select Banner.
Select a new **Text** color. In this example, the **Text** color is changed to purple. For the **Logo**, drag a graphic file or browse the file system and add a graphic file.
The Table banner on the Preview pane is updated with the new purple text color and the new logo graphic.

From the Overrides tab, you can also modify the Initial Loading Screen. In this example, the color swatches for the Page background, Text, and Spinner are changed.
The Animations tab on the Preview pane is updated with the new colors for the Initial Loading Screen.

You can also add a graphic or animated graphic to the Initial Loading Screen. On the Loading animation option, select Upload custom animation.
Select a graphic or animated graphic file from the file system. The graphic file is displayed on the **Image or animation** field.

The **Animations** tab on the **Preview** pane is updated with the selected graphic.
You can also update color swatches for graphs in an application theme. On the Graph Styles pane, you can edit the colors that are displayed in the Preview pane. You can select new color swatches or rearrange existing colors.

On Global Data Colors, select Reorder. You can now rearrange colors on the Data palette.
In this example, the yellow color swatch has been moved to the first color in the **Data palette**.

The **Solid Data Colors** graphs on the **Preview** pane are updated to reflect the new color order. The yellow color is now the first color in the graph.
While editing an application theme, you can also rename the theme by selecting the default theme name and entering a new name. In this example, the theme name is changed to *Marketing Theme*.

After you have finished modifying the theme, you can save the theme as a draft. Or you can save and publish the theme by selecting the appropriate action in the *Save* menu as shown:

Your new theme is now listed in the table of available themes. You can now use it with other SAS Viya products that consume SAS themes, such as SAS Home. A theme must be published in order for all users to access it with other SAS Viya applications.
Creating a Report Theme

With SAS Theme Designer, you can create report themes for use with SAS Visual Analytics 8.2 reports. A report theme contains settings that control the color selections for different elements of a report such as tables, graphs, and controls. The SAS Theme Designer window shows existing application and report themes. In this example, a new report theme is created.

On the SAS Theme Designer window, select New ⇒ Report Theme.

A New Report Theme window appears. Now, select a report to preview changes. From the Preview pane, you can click Choose Report.
A file selection window appears. Locate and select a report. In this example, the report **3GraphBrushInteraction** is selected.

Once a report is loaded, you can make changes to different elements for the report theme. In this example, color changes to **Graph Styles** are made. Select the first color (blue) in the **Global Data Colors, Data palette**.
A color palette opens. On the Basic color palette, purple is selected.

The color is updated to purple in the Data palette and on the Preview pane.
You can also rearrange existing colors on the Data palette. On **Global Data Colors**, **Data palette** select **Reorder**. You can now rearrange colors on the **Data palette**.

In this example, the green color swatch has been moved to the first color in the **Data palette**.

![Graph Styles](image)

The graph colors on the **Preview** pane are updated to reflect the new color order.
Each graph item on the **Preview** pane has a menu of action items. Position the pointer over the upper right corner of a graph to see the options. Select **More** or **Maximize**.

By selecting **More**, a menu of options appears that you can perform on that specific graph image.
If you select Maximize, the graph is enlarged to fill the Preview pane. You can then Minimize the graph as needed.
You can view embedded data that is specific to a graph by positioning your pointer over the graph.

You can also rename the theme by selecting the default theme name and entering a new name. In this example, the theme name is changed to *AutoSalesReport*.
After you have modified the report theme, you can **Save** the theme as a draft or **Save and Publish** the theme. Select the appropriate action in the **Save** menu as shown:

A report theme must be published in order for it to work with SAS reports.

---

**Editing a Theme in Context**

The function **Edit In Context** enables you to preview changes to SAS application themes while accessing other SAS Viya products. In this example, create or open an application theme.
Select **Edit in Context** on the New Application Theme window.

The Edit in Context pane opens. In this example, **SAS Home** is selected as the Viya application to switch to. Select **Edit in Context**.

You are now switched to SAS Home and the Edit Theme pane opens.
You can now edit interface styles or graph styles for the application theme. In this example, select **Interface Styles**. On the **Interface Styles** pane select the **Primary** color swatch.
A color palette opens. On the Basic palette, change the primary color to green.
The **Primary** color is updated and the **Welcome!** banner in SAS Home is changed to green.

You can also edit **Graph Styles** from the Edit Theme pane.
On the Global Data Colors, Data palette, notice that the color swatches are matched to individual application tiles on SAS Home. The Manage Data tile matches the first color swatch (blue) in the Data palette.

On the Data palette, change the first color swatch to purple. Notice that the Manage Data tile on SAS Home changes to purple.
You can also rename the theme. In this example, the default theme name **New Application Theme 1** is renamed to **SASHomeTheme**.

The **Edit Theme** menu bar also enables you to perform several functions on a theme.

From here you can quickly save a theme or open the **Edit Theme** menu by selecting **More**.

From the **Edit Theme** menu, you can select from several options.
If you are ready to publish the theme, you can select **Save and publish**. You can also select **Edit in SAS Theme Designer** and continue editing the theme.

---

### Adding a Banner Logo

On a SAS application theme, you can customize the **Table** banner by changing background and text colors and adding a logo graphic if needed. On the New Application Theme window, select **Interface Styles**.

Select **Overrides** and open the **Banner** settings. You can change colors for **Background** and **Text**. You can also add a graphic file for the **Logo**.
In this example, add a graphic file to the **Logo** field. You can drag a file to the field or browse the file system.

The **Background** color is changed to green and the **Text** color is changed to purple. The **Banner** settings on the **Interface Styles** pane are updated with the new colors and logo graphic.
The Table banner in the Preview pane is updated with the new background color, text color, and logo graphic.

---

**Updating a Loading Screen Animation**

On a SAS application theme, you can customize the initial loading screen animation by changing different screen colors and adding a logo graphic if needed. On the New Application Theme window, select Interface Styles.
Select **Overrides** and open the **Initial Loading Screen** settings. You can change colors for **Page background**, **Text**, and **Spinner**. You can also add a graphic file for the **Logo**.

In this example, the colors for **Page background**, **Text**, and **Spinner** are changed.
The Animations tab of the Preview pane is updated with the new color selections.

You can also add a standard graphic file or an animated graphic file to the initial loading screen. On the Loading animation menu, select Upload custom animation.
The **Image or animation** field opens. Browse the file system for a graphic or animation file. The selected graphic is displayed in the **Image or animation** field.

The **Animations** tab of the **Preview** pane is updated with the new background color selection and the new graphic or animation.
### Updating a Loading Screen Animation

#### Initial Loading Screen

![Initial Loading Screen](image_url)

Chapter 5
Troubleshooting SAS Theme Designer

Troubleshooting Mozilla Firefox Time Threshold

When you are working in SAS Theme Designer 3.1 on the Mozilla Firefox web browser, it is possible to encounter a warning dialog box when using Edit In Context. When you click Continue on the Edit in Context pane, the Mozilla Firefox web browser might display an unresponsive script message.

Mozilla Firefox displays this warning message when the task that you are attempting to perform takes longer than the predefined time limit for that task. You can increase the time threshold for the Mozilla Firefox web browser by increasing a run-time preference value for Mozilla Firefox.

In the Mozilla Firefox web browser, go to this URL: https://support.mozilla.org/en-US/kb/warning-unresponsive-script. The instructions for changing the browser run-time preference are listed under the topic Letting the script run longer. You will need to modify the Mozilla Firefox preference setting for dom.max_script_run_time.

Edit in Context Unavailable in Internet Explorer 11

The SAS Theme Designer Edit in Context functionality is currently unavailable for use in the Microsoft Internet Explorer 11 web browser.
Exporting Themes in Safari for Macintosh

When you are working in SAS Theme Designer 3.1 on Safari for Macintosh, exporting a SAS theme requires additional steps to save the exported file. When you export a theme and select a file to save the theme to, Safari displays the theme JSON page contents. In order to complete the export of a theme, you must copy the displayed theme JSON contents and paste the contents in a new text file using a text editor. When naming the exported theme, you must also assign the .td extension to the saved file.

To export a theme in Safari for Macintosh:
1. Select the check-box for a theme on the SAS Theme Designer window.
2. Click . The selected theme is automatically exported and the theme contents are displayed.
3. Copy and paste the theme data using a text editor. Save the new file with the .td extension.

Exporting an Application Theme That Contains an Image or Animation

If you chose to export an application theme that contains an image or an animation, there are some limitations that could cause the export to fail:

- In Chrome, if you export an application theme that contains images or animations, and the total bytes of all images (the banner logo plus the animations) is greater than 1022KB, the export fails.
- In Internet Explorer 11, if you export an application theme that contains an image or animation, the export fails.

Support of Custom Themes with Right-to-Left Display

SAS Theme Designer 3.1 currently does not support the use of custom themes with a right-to-left (RTL) display that is used with some locales.

Primary Color Use in Custom Report Themes

Custom report themes currently do not use the Primary color. See “Page Styles” on page 22 for more information about Global Color Settings for report themes.
Recommended Reading

Here is a list of recommended SAS documentation:

- SAS Home Documentation
- SAS Report Viewer Documentation
- SAS Visual Analytics: Overview
- SAS Visual Analytics: Reference
- SAS Visual Analytics: Working with Report Content
- SAS Visual Analytics: Working with Report Data
- SAS Viya Administration: Identity Management

For a complete list of SAS publications, go to sas.com/store/books. If you have questions about which titles you need, please contact a SAS Representative:

SAS Books
SAS Campus Drive
Cary, NC 27513-2414
Phone: 1-800-727-0025
Fax: 1-919-677-4444
Email: sasbook@sas.com
Web address: sas.com/store/books
application theme
a group of customizable specifications that enables a user to apply a consistent look and feel across multiple applications. Elements of the user interface that are affected can include messages, tables, and graphs.

report theme
a group of customizable visual specifications that apply a consistent look and feel to SAS report content. A report theme controls style selections for different elements of a report, such as tables, controls, and graphs.
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