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Audience

The intended audience for SAS Theme Designer 5.1 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 5.1

The user interface has been rewritten in HTML5. Previously, many SAS applications and SAS solutions used the Adobe Flash Player to provide interactive user interfaces. Adobe announced that it intends to end support for Flash technology and will cease to update and distribute the Flash Player at the end of 2020. Browser vendors will disable Flash by default in 2019. For more information about Adobe Flash end-of-life, see SAS Software and Its Use of the Adobe Flash Player.

For information on changes from SAS Theme Designer 4.7.3 for Flex to SAS Theme Designer 5.1 see “Moving from SAS Theme Designer 4.7.3 for Flex to SAS Theme Designer 5.1” on page 1.
Chapter 1
Getting Started

About SAS Theme Designer

SAS Theme Designer 5.1 enables you to easily customize the appearance of various SAS 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.

Moving from SAS Theme Designer 4.7.3 for Flex to SAS Theme Designer 5.1

SAS Theme Designer 5.1 is an HTML-based web application that enables you to create application and report themes for use with SAS web applications including SAS Visual Analytics. SAS Theme Designer 4.7.3 for Flex creates themes for use with SAS web applications that are displayed with the Adobe Flash Player.

Some functionality and tasks that are present in SAS Theme Designer 4.7.3 for Flex are found in SAS Theme Designer 5.1, and both applications use predefined base themes to create custom themes. However, SAS Theme Designer 5.1 is significantly different from SAS Theme Designer 4.7.3 for Flex.
A major difference between the applications involves the creation of application and report themes. When a custom application theme is created in SAS Theme Designer 4.7.3 for Flex, a coordinating custom report theme is automatically created. However, in SAS Theme Designer 5.1, application themes and report themes are created independently from each other.

Custom themes that are created in SAS Theme Designer 4.7.3 for Flex are automatically detected and upgraded to be compatible with SAS HTML-based applications and reports. For more information about working with legacy themes created in SAS Theme Designer 4.7.3 for Flex, see “Working with Legacy Themes” on page 35.

### Prerequisites for Accessing SAS Theme Designer 5.1

In order to access SAS Theme Designer 5.1, you must be assigned the *Theme Designer: Administration* role, which allows you to use the Customize HTML Themes capability.

### Accessing SAS Theme Designer

Access to SAS Theme Designer 5.1 is determined by membership in the *ThemeDesigner: Administrators* group, which has capabilities assigned by the *Theme Designer: Administration* role. Depending on your user environment and your membership in the *Theme Designer: Administration* role, SAS Theme Designer is available for you to access from one or more locations. Here are the options for accessing:

**SAS Home**

SAS Home 7.5 enables you to easily access different SAS applications and content including SAS Theme Designer. Within SAS Home, you can display and access SAS Theme Designer as a shortcut. Here is SAS Home with SAS Theme Designer added as a shortcut:

![SAS Home with Theme Designer added](image)

**applications menu**

The applications menu enables you to easily select SAS applications that you have access to. The applications menu is available in the upper left corner of your SAS application window. Click ☰ to expand the listing of available SAS applications. From here you can select the SAS Theme Designer application:

Here is the applications menu expanded
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 5.1.

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 custom application theme or a new custom report theme.</td>
</tr>
<tr>
<td>Import a theme</td>
<td>You can import a theme from a specific folder to SAS Theme Designer 5.1.</td>
</tr>
<tr>
<td>Access other SAS products</td>
<td>By clicking , you can access various SAS products including SAS Visual Analytics.</td>
</tr>
<tr>
<td>Access the Help Center</td>
<td>You can access the Help Center by selecting Application Options and Help Center. The Help Center contains documentation for SAS Theme Designer 5.1.</td>
</tr>
</tbody>
</table>

SAS Application Themes

SAS Theme Designer enables you to apply your own branding and customization to make SAS 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 5.1 provides predefined application themes. Here are the application themes provided by SAS:

High Contrast
This theme presents a dark background with high-contrast foreground elements to meet the needs of users with low vision.

Ignite
This theme presents an all-dark color palette, dark-blue background, and white text.

Illuminate
This theme presents a clean and uncomplicated color palette that is easy to use. The Illuminate theme is the default application theme.

Inspire
This theme presents vibrant and cohesive colors that shift the emphasis from the application to the content.

For more information about creating custom application themes 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 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 5.1 provides predefined report themes. Here are the report themes provided by SAS:

Aqua
- Presents a white background with a vibrant color palette and subtle gradient on graphical elements.

High Contrast
- This theme presents a dark background with high-contrast foreground elements to meet the needs of users with low vision.

Marine
- This theme presents a white background with vivid colors and a subtle gradient on graphical elements. The Marine theme is the default report theme.

Midnight
- This theme presents a dark blue background with a bright color palette and strong outlines that make the graphical elements glow.

Opal
- This theme presents a white background with a bright color palette and strong outlines that make the graphical elements glow.

For more information about creating custom report themes see “Creating a New Report Theme” on page 9.

SAS Help Center

You can access the SAS Theme Designer 5.1 User’s Guide while in SAS Theme Designer by selecting Application Options and Help Center. The SAS Theme Designer 5.1 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. You can apply custom colors to different elements of your SAS 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. 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 5.1 by following these steps:

1. On the Theme Designer window, select **New**. From the menu that opens, select one of the available base application themes from which you can create a new theme:
   - **Ignite**
   - **Illuminate**
Inspire

Alternatively, you can create a new theme by selecting **Starter Palettes ➔ 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.

You can also step back through changes with the undo or redo function.
4. 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:

![Save menu]

Your new theme is now listed in the table of available themes. Select ![Return] to return to the main Theme Designer window. A theme must be published in order for all users to access it from other SAS applications that consume SAS themes.

The Illuminate theme is the default application theme that is provided with SAS Theme Designer 5.1. You can use the Illuminate theme as a basis to create additional, customized application themes.

**T I P** The default theme can be set by only users who can log in to Theme Designer, such as members assigned to the Theme Designer: Administration role.

---

**Creating a New Report Theme**

You can create a new report theme in SAS Theme Designer 5.1 by following these steps:

1. On the SAS Theme Designer window, select **New**. From the menu that opens, select one of the available base report themes from which you can create a new theme:
   - Aqua
   - Marine
   - Midnight
   - Opal

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.

![Starter Palettes pane]

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 **Retail operations report** is selected.

3. The SAS Theme Designer **Preview** pane displays the report, enabling you to easily see theme property changes as you make them. In this example, a retail store operation report is displayed.
In this report, you can scroll through the tabs that are displayed. You can select a tab and the Preview pane will scroll to the selected tab.

You can also maximize the view of a single graph or table in the Preview pane by clicking . The following image shows the maximized display of a single bar chart:

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  to see changes.

4. Once a report is loaded, you can make changes to different color palette swatches for the report theme. You can now make changes for Page Styles and Graph Styles. Changes to Graph Styles color swatches impact the colors of the different graphs in a report.

When you create a new report theme, on the Graph Styles pane, the first default Data palette color is teal.
Note: The first color is used if a single group is displayed in the graph. As more groups are added, the colors are added to each additional group from left to right.

In the following image, the first default Data palette color is changed to red. 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 5.1. You can use the Marine theme as a basis to create additional, customized report themes.

**TIP** The default theme can be set by only users who can log in to Theme Designer, such as members of the Theme Designer: Administration role.

---

**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 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 in order to see your theme changes. When you click , 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.

![Color Palette](image)

When you select a standard color, it is added to the list of Recent standard colors.
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 pointer 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.

Here is the Interface Styles pane with the Global tab displayed:
The **Global** tab enables you to select a base application theme in order to apply its settings to the current application theme. From the **Base theme** drop-down menu, you can select one of the base application themes. The **Preview** pane is updated with the selected base theme settings. If you make changes to color swatches, you can revert to the base theme colors by selecting the **Reset to base theme defaults** option.

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

The **Branding** color settings include the following options:
Table 2.1  Branding Color Settings

<table>
<thead>
<tr>
<th>Branding Color Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary:</strong></td>
</tr>
<tr>
<td>The primary color sets the tone for an application, and appears most prominently in the banner and side menu.</td>
</tr>
<tr>
<td><em>Note:</em> The primary color is used for application themes only. It is not used in report themes.</td>
</tr>
<tr>
<td><em>Tip:</em> Use the primary color to introduce your primary brand color into the user interface.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Secondary</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The secondary color is used to highlight certain elements within the content area. This color can indicate whether items are active or selected. Some elements that use the secondary color include: selected check boxes or radio buttons, selected day in a calendar, and selected stars in a rating.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Neutral</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td><em>Tip:</em> 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>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Base font</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select the desired font and font size for the theme.</td>
</tr>
<tr>
<td><em>Tip:</em> Changes to the font size for <strong>Base font</strong> do not apply to graphs in application themes.</td>
</tr>
</tbody>
</table>

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

Table 2.2  Messages Color Settings

<table>
<thead>
<tr>
<th>Messages Color Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information:</strong> the selected color is applied to basic information.</td>
</tr>
<tr>
<td><strong>Success:</strong> the selected color is applied to success messages.</td>
</tr>
<tr>
<td><strong>Warning:</strong> the selected color is applied to warning messages.</td>
</tr>
<tr>
<td><strong>Alert:</strong> 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>Banner Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background</strong></td>
</tr>
<tr>
<td><strong>Text</strong></td>
</tr>
<tr>
<td><strong>Logo</strong> - 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. Important: Image files that you add to a theme must each be 3 MB or less.</td>
</tr>
</tbody>
</table>

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

**Table 2.4**  Initial Loading Screen Override Settings

<table>
<thead>
<tr>
<th>Initial Loading Screen Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Page Background</strong></td>
</tr>
<tr>
<td><strong>Radial gradient</strong></td>
</tr>
<tr>
<td><strong>Loading animation</strong> - 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 or a static image. Important: Image files that you add to a theme must each be 3 MB or less. Note: If you add a custom animation or image, the Text and Spinner settings become inactive.</td>
</tr>
<tr>
<td><strong>Text</strong></td>
</tr>
<tr>
<td><strong>Spinner</strong></td>
</tr>
</tbody>
</table>

The following Transition Screen override settings are used to modify the Transition Screen image on the Animations view in the Preview pane:
Table 2.5  Transition Screen Override Settings

<table>
<thead>
<tr>
<th>Transition Screen Override Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Page Background</strong></td>
</tr>
<tr>
<td><strong>Loading animation</strong> - 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 or static image.**</td>
</tr>
<tr>
<td><strong>Important:</strong> Image files that you add to a theme must each be 3 MB or less.</td>
</tr>
<tr>
<td><strong>Note:</strong> If you add a custom animation or image, the Text and Spinner settings become inactive.</td>
</tr>
<tr>
<td><strong>Text</strong></td>
</tr>
<tr>
<td><strong>Spinner</strong></td>
</tr>
</tbody>
</table>

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

Table 2.6  Crosstab Override Settings

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

Subtotals background

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

Table 2.7 Tables Override Settings

<table>
<thead>
<tr>
<th>Outer border</th>
<th>Headers</th>
<th>Cells</th>
<th>Totals text</th>
<th>Totals background</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Text</td>
<td>Text</td>
<td>Text</td>
<td>Text</td>
</tr>
<tr>
<td></td>
<td>Background</td>
<td>Row background</td>
<td>Alternating row background</td>
<td>Background</td>
</tr>
<tr>
<td></td>
<td>Borders</td>
<td>Borders</td>
<td>Borders</td>
<td>Borders</td>
</tr>
</tbody>
</table>

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.
You can unpin the Preview pane. Select **Unpin the pane**. You can then select **Pin the 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 **Overides** tabs can be removed. Beside the default message, select **×**. The message is removed. You can reinstate the message by selecting **Reset Messages** on the **Settings ➔ Global ➔ 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 **Overides** for those color settings.

Here is the **Page Styles** pane with the **Global** tab displayed:
The **Global** tab enables you to select a base report theme in order to apply its settings to the current report theme. From the **Base theme** drop-down menu, you can select one of the base report themes. The **Preview** pane is updated with the selected base theme settings. If you make changes to color swatches, you can revert to the base theme colors by selecting the **Reset to base theme defaults** option.

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

The **Global** color settings include the following options:

**Table 2.8  Global Color Settings**

<table>
<thead>
<tr>
<th><strong>Global Color Settings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary:</strong></td>
</tr>
<tr>
<td>The primary color sets the tone for a report, and appears most prominently in the banner and side menu</td>
</tr>
<tr>
<td><em>Note:</em> The primary color is used for application themes only. It is not used in report themes.</td>
</tr>
<tr>
<td><em>Tip:</em> Use the primary color to introduce your primary brand color into the user interface.</td>
</tr>
</tbody>
</table>
Global Color Settings

Secondary:
The secondary color is used to highlight certain elements within the content area. This color can indicate whether items are active or selected. Some elements that use the secondary color include: selected check boxes or radio buttons, selected day in a calendar, and selected stars in a rating.

Neutral
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.

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 report themes.

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) are displayed 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:

<table>
<thead>
<tr>
<th>Page Styles</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>Overrides</td>
</tr>
<tr>
<td>&gt; Crosstab</td>
<td>Reset</td>
</tr>
<tr>
<td>&gt; Tables</td>
<td>Reset</td>
</tr>
</tbody>
</table>

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

Table 2.9 Crosstab Override Settings

Crosstab Override Settings

Outer border

Inner borders

Column Headers
- Text
- Background
The following Tables color override settings are used to modify Table colors in the Preview pane:

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>
<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>
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 in 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.

**T I P**  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. Beside the default message, click ✗. The message is removed. 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 applications or for SAS reports. The colors in the Preview pane are controlled by the color swatches in the Graph Styles pane. Depending on if you are changing an application theme or a report theme, changes to color swatches are displayed in different components of the Preview pane. The following image shows a sample bar chart for an application theme.

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

**Global Data Colors**

In application themes, these colors are used for Solid Data Colors, Gradient Data Colors, and for Gauges that are displayed in the Preview pane. For report themes, the graphs and charts that are part of the report display color changes. You can change graph colors for the following items:

**Data Palette**

These color swatches are for charts and graphs. You can change a color swatch by clicking on the swatch and selecting a new color from a set of standard colors or from a color palette. You can change the order of display for the different colors on the Data palette by using the Reorder button.

Below is the **Graph Styles** pane with the Reorder button selected:
Swatches can be moved on the Data palette. You can click and drag a color to rearrange the order of colors.

In the following image, the teal color swatch 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 a SAS 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.

---

**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.

Publishing a theme makes the theme available for other users to select. 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 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 applications or reports. Available SAS themes are listed in the theme table. From here you can select a custom theme to open and edit. You can also publish, unpublish, duplicate, rename, export, and delete a theme. You can also designate a theme to be hidden in the user interface. 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. In SAS Theme Designer 5.1, legacy themes, system themes, and custom themes are listed on the theme table.
The theme table contains the following columns:

- **Theme** displays the name of a theme and the color palette.
- **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**. Only one default theme can be set for each type (application and report).
- **Hidden** indicates which themes are hidden. Hidden themes are not shown in the user interface, but continue to be used wherever they were previously selected until a different theme is chosen.

**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 the theme and whether it is a theme provided by SAS or a custom theme. The action buttons are not enabled until one or more relevant themes is selected.

Here are the actions that you can perform with a theme:

**Publish** enables you to publish a theme so that other SAS 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 **Publish**. The theme is now published.

**Unpublish** enables you to unpublish a theme. A theme is unpublished in order to make it unavailable to SAS applications. Select a published theme and click **Unpublish**. The theme is now unpublished.
Duplicate enables you to make a duplicate of a theme. Select a theme and click . In the window that opens, you can choose to copy the theme as an application theme or a report theme.

In the Name field, enter a name for the new theme. From the Type menu, select either Application Theme or Report Theme. Click Save. The new 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.

Note: The application and report themes that are provided by SAS cannot be renamed. They include Ignite, Illuminate, Inspire, Aqua, Marine, Midnight, Opal, and High Contrast.

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.

Show in user interface enables a published theme to be visible. By default, published themes are shown in the user interface wherever themes can be chosen.

Hide from user interface enables you to hide a published theme from view in the user interface. Hidden themes are not shown in the user interface, but continue to be used wherever they were previously selected until a different theme is chosen.

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 Delete. The Delete pane appears.

Confirm the deletion by clicking Delete.

Note: The application and report themes that are provided by SAS cannot be deleted. They include Ignite, Illuminate, Inspire, Aqua, Marine, Midnight, Opal, 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 click 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 additional 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.

You can resize the width of a column. Right-click on a column heading and select Resize. The column edge becomes active and you can then drag the column edge to the right or left to change the column width. You can also resize the width of a column by placing the pointer between the columns until the column edge becomes active, and then click and drag to resize.

**Working with Themes Provided by SAS**

SAS Theme Designer 5.1 provides several predefined application and report themes that each offer a different look and feel. These themes can be set as the default theme or
hidden from the list of themes available to end users. In addition, many of these themes can be used as a basis to create new custom themes.

You can create a custom theme by clicking on a SAS theme that you would like to use as a base theme in the Themes table or from the New menu.

The application themes provided by SAS that can be used as a base theme include:
- Ignite
- Illuminate
- Inspire

The report themes provided by SAS that can be used as a base theme include:
- Aqua
- Marine
- Midnight
- Opal

You can set one of these themes as a default theme. However, you cannot modify or perform other actions on predefined themes that are provided by SAS.

In addition to these predefined themes, **High Contrast** application and report themes are available. However, the **High Contrast** themes cannot currently be used as a basis to create a new theme.

### Working with Legacy Themes

SAS Theme Designer 5.1 provides some report themes that were available in SAS Theme Designer 4.7.3 for Flex. These legacy report themes are available for use but have some restrictions. In addition, you can use imported custom themes that are based on legacy themes. The following SAS provided legacy report themes are available for use in SAS Theme Designer 5.1:
- Dark
- Light
- Snow

You can use legacy themes with reports that you have moved from your SAS Theme Designer 4.7.3 for Flex environment. However, some restrictions apply when working in SAS Theme Designer 5.1:
- SAS provided legacy themes cannot be used as a base theme.
- SAS provided legacy themes and custom legacy themes that are imported to SAS Theme Designer 5.1 are automatically placed in the published state.
- You cannot edit a SAS provided legacy report theme. If you select a legacy theme to edit, you are then prompted to create a new theme from a different base theme. The theme window opens in the edit mode with the selected base theme in place.

*Note:* Reports that use a SAS provided legacy report theme are not updated.

- You cannot edit a custom legacy report theme. You can continue to use custom legacy report themes in new reports if the theme still matches the style that you want. If you want to update the look of reports that use a custom legacy theme, you can replace the custom legacy theme with a new custom theme that is based on a
currently supported base theme. By doing this, all reports that use the legacy base theme are automatically updated with the replacement theme.

To replace a legacy theme, follow these steps:
1. Click on the legacy theme in the Themes table
2. In the window that opens, choose a base theme, and then click **Edit New Theme and Replace**. The theme window is opened. You can then edit the replacement theme.
3. When you are finished editing the replacement theme, click **Save and publish**. This finishes the process of replacing the legacy theme.

*Note:* If you exit the theme window without saving, your legacy theme will not be replaced.

- You cannot edit a custom legacy application theme. For custom legacy application themes, you can continue to use the custom legacy theme in applications. If you attempt to edit the custom legacy theme, you are prompted to create a new theme from a different base application theme. The theme is opened in the edit mode with the selected base theme in place. Users that have selected this theme in an application see the new theme automatically.

## Working with Hidden Themes

Published themes are available and shown in SAS applications that use themes (such as SAS Visual Analytics). However, you can choose to hide a theme from view in SAS applications. After you have published a theme in SAS Theme Designer 5.1, you can assign a theme to be hidden.

The **Hidden** column on the theme table shows which themes are designated as hidden. You can select the check box for a theme on the theme table and select **Hide from user interface**. The theme is now hidden from view in SAS applications that use themes. Once a theme is assigned a hidden status, you can select **Show in user interface** to remove the hidden status.

## 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 5.1 installation. Users can choose to export or import themes in order to share a theme with other administrators, or to promote themes from one SAS installation to another.

To export a theme select the check box for the theme and click **Export Theme**. 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 **Export Theme**. 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.

For SAS Theme Designer 5.1, you can import either of the following file types:

- A **ThemeDesignerExportxx.tdf** file that is exported from SAS Theme Designer 4.7.3 for Flex.
- A **ThemeDesignerExportxx.td** file that is exported from SAS theme Designer 3.0 or later.

If a theme with the same name is already listed in SAS Theme Designer, you are prompted to replace that theme with the imported theme.

Click **Yes** to replace the existing theme or click **No** to create a new theme with an appended name. Depending on your selection, SAS Theme Designer makes the following updates:

- If you click **Yes**, the existing theme is overwritten. If the existing theme is published, its status is changed to draft.
- If you click **No**, SAS Theme Designer imports the new theme and automatically appends the imported theme name with a numeric value. For example, if a theme named **Marketing Baseline** exists and you try to import a theme that has the same name, clicking **No** automatically creates a theme named **Marketing Baseline 1**. A message is then displayed indicating what has been done.

**Important**: SAS theme files are imported from the browser file system, not from 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.

In SAS Theme Designer 4.7.3 for Flex, themes were **deployed** when they were ready for users to access. In SAS Theme Designer 5.1 the **Publish** function enables you to publish a theme so that other SAS applications can access the theme. Select a theme and click "Publish".
The theme is now published and is available to SAS applications. If you want to unpublish a theme, select a published theme and click \( \text{Unpublish} \). The theme is now unpublished.

*Note:* The application and report themes that are provided by SAS cannot be unpublished. They include Ignite, Illuminate, Inspire, Aqua, Marine, Midnight, Opal, 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 \( \text{Set as Default} \).

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 application and report themes that are provided by SAS cannot be deleted or edited. They include Ignite, Illuminate, Inspire, Aqua, Marine, Midnight, Opal, and High Contrast.

---

**Theme Designer Settings**

You can access settings or you can sign out of the current session by selecting **Application Options**. The **Application Options** menu is displayed.

To exit the current session of SAS Theme Designer select **Sign-out** from 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. Here are the settings:
  
  - Select **Enable sounds** to hear audio indicators for events that occur within the user interface
  
  - Select **Enable visual effects** to show visual effects that indicate state changes. For example, when this setting is selected, you will see a subtle movement in the user interface if you delete an item
  
  - Select **Adjust the display duration for pop-up notifications** to modify the time in seconds that pop-up notifications are displayed.
  
  - Selecting **Invert application colors** can make the user interface easier to see for users with sensitivity to certain bright colors (for example, a black-on-white display). You can also use the Ctrl+` (Ctrl+back quote) keyboard shortcut to toggle the application colors.
  
  - Select **Display tooltips when using the keyboard to navigate** to enable keyboard users to access tooltips. When this option is selected, putting keyboard focus on a control also displays the tooltip on the screen. By default, this option is not selected, so a mouse is required to see a tooltip. You can also select the location in the browser window to display the tooltip. By default, the tooltip is displayed in the bottom right corner of the browser window.
  
  - The focus indicator is an outline that indicates which user interface component is active. You can make the focus indicator easier to see by selecting **Customize the focus indicator** settings and adjusting its color, thickness, and opacity.

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.
SAS Help Center

You can access the SAS Theme Designer 5.1 User’s Guide while in SAS Theme Designer by selecting Application Options and Help Center. The SAS Theme Designer 5.1 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 the Administrative Role

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 5.1 is determined by membership in the ThemeDesigner: Administrators group, which has capabilities assigned by the Theme Designer: Administration role. Membership in this role enables you to access and modify themes with SAS Theme Designer 5.1.

By default, the Theme Designer: Administration role includes the Customize HTML Themes capability. Technically, a user must have a role that includes the Customize HTML Themes capability. This capability is provided with the initial product configuration. However, an administrator can create a new role and add the Customize HTML Themes capability manually.

For further information about assigning users to the Administrative role see Add a User. in Using SAS Environment Manager 2.6 Administration.
Creating an Application Theme

The SAS Theme Designer window shows existing application and report themes. It enables you to work with existing SAS themes and create new SAS themes. The following example steps through creating a new application theme and then modifying its colors and graphics:

1. On the SAS Theme Designer window, select New.

A menu of available base application themes opens. For this example, select the application theme that is based on Illuminate.
2. A New Application Theme window appears. The application theme (Illuminate) is used. You can now make changes to the new theme.

3. You can change the Primary color. Select the Primary color swatch. A color palette opens. The Basic tab displays a listing of Standard colors to choose from. Change the Primary color to green.
The Table banner in the Preview pane is updated with the new color.

4. You can also change the logo for the Table banner in 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 to the Logo field or browse the file system and add a graphic file.

The Table banner in the Preview pane is updated with the new purple text color and the new logo graphic.

5. From the Overrides tab, you can also modify the Initial Loading Screen. For the Loading Animation, select Upload custom animation and drag a graphic file to the Image or animation field or browse the file system and add a graphic file.
The Animations tab on the Preview pane is updated with the new graphic for the Initial Loading Screen.

For a SAS application theme, you can also update color swatches for graphs in an application theme. In 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 color swatches.

The following example steps through how to modify color swatches for graphs in an application theme:
1. The screen below shows that the last color swatch in the Data palette has changed from brown to light blue. The charts in the Preview pane are updated.

2. On Global Data Colors, click 🔄. You can now rearrange color swatches on the Data palette.

Select a color swatch and move it to the location in the Data palette that you want. In the example below, the light blue color swatch has been moved to the first color in the Data palette.

The Solid Data Colors bar chart and line chart in the Preview pane are updated to reflect the new color order. The light blue 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. You can also save and publish the theme by selecting the appropriate action in the **Save** menu:

Click **View all items**. Your new theme is now listed in the table of available themes. You can now use it with other SAS products that consume SAS themes. A theme must be published in order for all users to access it with other SAS applications.

### Creating a Report Theme

With SAS Theme Designer, you can create report themes for use with SAS Visual Analytics reports. A report theme contains settings that control the color selections for different elements of a report such as tables, graphs, maps, and controls. The SAS Theme Designer window shows existing application and report themes.
The following example steps through how to create a new report theme and then modify its colors and graphics:

1. In the SAS Theme Designer window, select New. A menu of available base report themes opens. For this example, select the report theme that is based on Marine.

2. A New Report Theme window appears. The default report theme Marine is used. Now, select a report to preview changes. From the Preview pane, you can click Choose Report.

3. A file selection window appears. Locate and select a report. In this example, the report Retail operations report is selected. This report can be used to see sales and marketing performance information. Select Open.
4. Once a report is loaded, you can make changes to different elements for the report theme. Select the first color (blue) in the **Data palette**.

5. A color palette opens. On the **Basic** color palette, select the color purple.
The color is updated to purple in the **Data palette** and on the **Preview** pane.

6. You can also rearrange existing colors on the Data palette. On the **Data palette** click 🔄. The color swatches are now available to reposition on the palette.
You can now rearrange colors on the **Data palette**.

Below, the green color swatch has been moved to the first color in the **Data palette**.

The graph colors on the **Preview** pane are updated to reflect the new color order.

You can also change the display size of individual graphs in the preview area.

1. Each graph or table item on the **Preview** pane has a menu of action items. Position the pointer over the upper right corner of a graph or table to see the options.

   For graphs click the **Average Customer Sale by Department** graph.

The graph is enlarged to fill the **Preview** pane.
2. You can then click to restore the graph to the original display size as needed.

The menu options that are available for an item on the Preview pane is determined by the items that are included in the report. There are different menu items for tables or graphs, and map data. You can right-click over a graph or table and select Sort to drill into sort options for that graph or table.

You can also view data tips for a graph by positioning your pointer over the graph.
You can rename the theme by selecting the default theme name and entering a new name. In this example, the theme name is changed to Retail Report.

![SAS Theme Designer](image)

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

Click ![Abstract View](image). Your new theme is now listed in the table of available themes. You can now use it with other SAS products that consume SAS themes. A theme must be published in order for all users to access it with other SAS applications.
Chapter 5

TroubleShooting SAS Theme Designer

Exporting Themes in Safari for Macintosh

The ability to export SAS themes is not supported for Safari in SAS Theme Designer 5.1.

Primary Color Use in Custom Report Themes

Custom report themes currently do not use the Primary color. See “Page Styles” on page 23 for more information about Global Color Settings for report themes.
Recommended Reading

Here is a list of recommended SAS documentation:

- *SAS Visual Analytics: Viewer Documentation*
- *SAS Visual Analytics: Overview*
- *SAS Visual Analytics: Reference*
- *SAS Visual Analytics: Working with Report Content*
- *SAS Visual Analytics: Working with Report Data*

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

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Glossary

**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.
Glossary
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