

## Conveying Your Brand Identity

Robby Powell, SAS

### ABSTRACT

The most successful brands focus on users, not buyers. Engage with your internal and external users through digital dashboards and mobile apps that echo the value of your brand and deliver precise information to support decisions. See how you can convey your brand identity through your dashboards and custom mobile apps. In this paper, you learn how to use the capabilities in SAS® Theme Designer, SAS® Visual Analytics Graph Builder, reusable object templates, and the SAS® SDK for iOS and SAS® SDK for Android.

### INTRODUCTION

People prefer doing business with companies with whom they feel a personal relationship. Historically, companies have built their brands based on trust, relationships, and the unique qualities that they provide. Business owners and managers established and maintained face-to-face relationships with their customers and often sealed deals with a handshake and a smile. Merchants, bankers, auto mechanics, plumbers, all knew their customers by name and knew personal information about them as well. Trust was formed, and the success of the businesses was often a direct result of these relationships. The importance of these relationships went beyond individual transactions, as business referrals were shared socially amongst friends and passed down through generations. From these relationships, a brand identity was formed. Company names, logos, and corporate colors identified and represented the trust and respect customers had for the brand.

In our digital world these relationships are still important, but they have taken a different form. Instead of relying on face-to-face interactions, our relationships with companies and organizations are built and reinforced through apps. Web and mobile apps are part of our daily lives. They keep us informed and assist us in making decisions. The ability for companies to convey a brand through these apps is as critical as a handshake and a smile. The ability to promote brand identity through apps is a key to defining and building this relationship.

Conveying your brand to your customers does not mean only your external customers. Your internal user community, partners, suppliers, and anyone who interacts with your organization internally or externally needs to see and understand your brand so that they can amplify your story.

In this paper you will learn how to convey your brand identity and drive consistency through the web and mobile apps that your external and internal customers use every day. Multiple use cases will be addressed using SAS Visual Analytics capabilities in these elements:

- SAS Theme Designer
- SAS Visual Analytics Graph Builder
- Reusable object templates
- SAS SDKs for iOS and Android

### SAS THEME DESIGNER

SAS Theme Designer 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, and customized themes.

There are two types of themes you can create and modify in SAS Theme Designer: application themes and report themes, as shown in Figure 1.

Theme	Type	Status	Date Modified	Default
High Contrast	Application	Published	5 days ago	
Illuminate	Application	Published	5 days ago	<input checked="" type="checkbox"/>
Inspire	Application	Published	5 days ago	
Aqua	Report	Published	5 days ago	
High Contrast	Report	Published	5 days ago	
Marine	Report	Published	5 days ago	<input checked="" type="checkbox"/>

**Figure 1. SAS Theme Designer - Application and Report Themes**

## APPLICATION THEMES

Application themes allow you to apply your branding to make SAS applications conform to your corporate colors and themes. Out of the box, SAS Theme Designer provides three default application themes: High Contrast, Illuminate, and Inspire.

## CREATING AND MODIFYING THEMES

SAS Theme Designer provides a visual representation of the impact your themes will have on your applications and reports, as you can see in Figure 2.

The screenshot shows the 'New Application Theme 1' interface. On the left, there is a 'Preview' pane with a 'Table' and a 'Crosstab'. The table has columns 'Order', 'Type', and 'Cylinders'. The crosstab shows data for 'Region' (Southeast) and 'Dealer' (Finch, Smith) across 'Vehicle' models (EX, LX, LE, ZX) and 'Sales' employees (Mitch A., Ronnie B., Burt C., Bryan D., Garth B., Tim S., Cedric C., Payne D.). On the right, there is an 'Interface Styles' pane with 'Branding' options (Primary, Secondary, Neutral) and 'Messages' options (Information, Success, Warning, Alert).

**Figure 2. Create a New Theme and See the Impact**

To get a feel for the impact of theme changes, you are encouraged to initially choose obvious colors. After that, you can work with your corporate design team to use the appropriate corporate colors, such as Figure 3.

AQUABANK BLUE



AQUABANK GREY



Figure 3. Corporate Colors to be Used for SAS Visual Analytics Application Themes

SAS Theme Designer also allows you to set the logo image that appears in the header of each application, as shown in Figure 4.

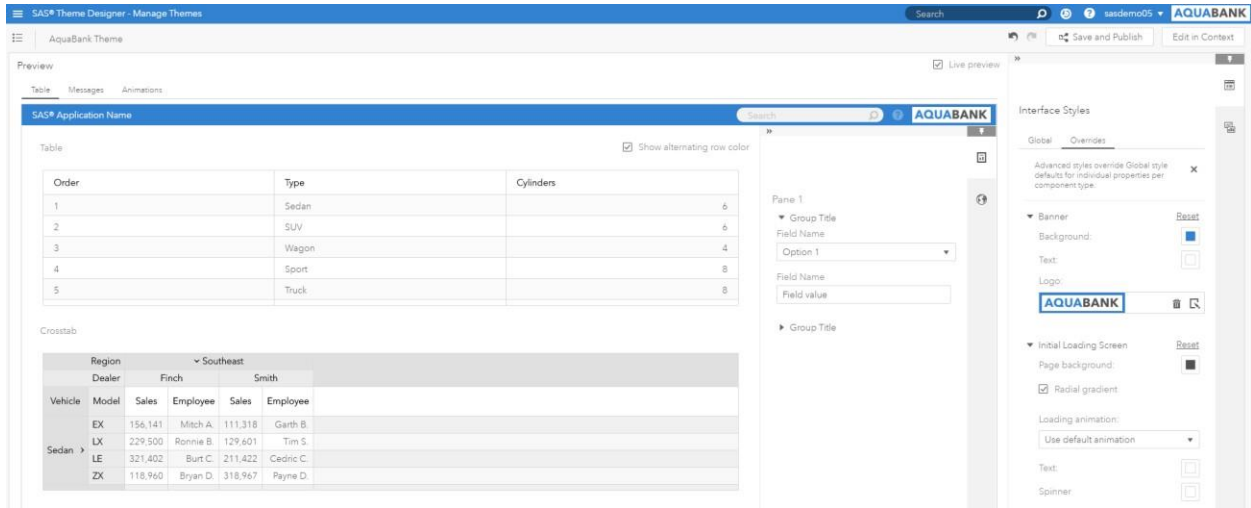


Figure 4. Insert Your Corporate Logo in Your SAS Applications

User interface notification elements such as progress bars and message strips can also be themed to colors that are best recognized by your users, as shown in Figure 5.

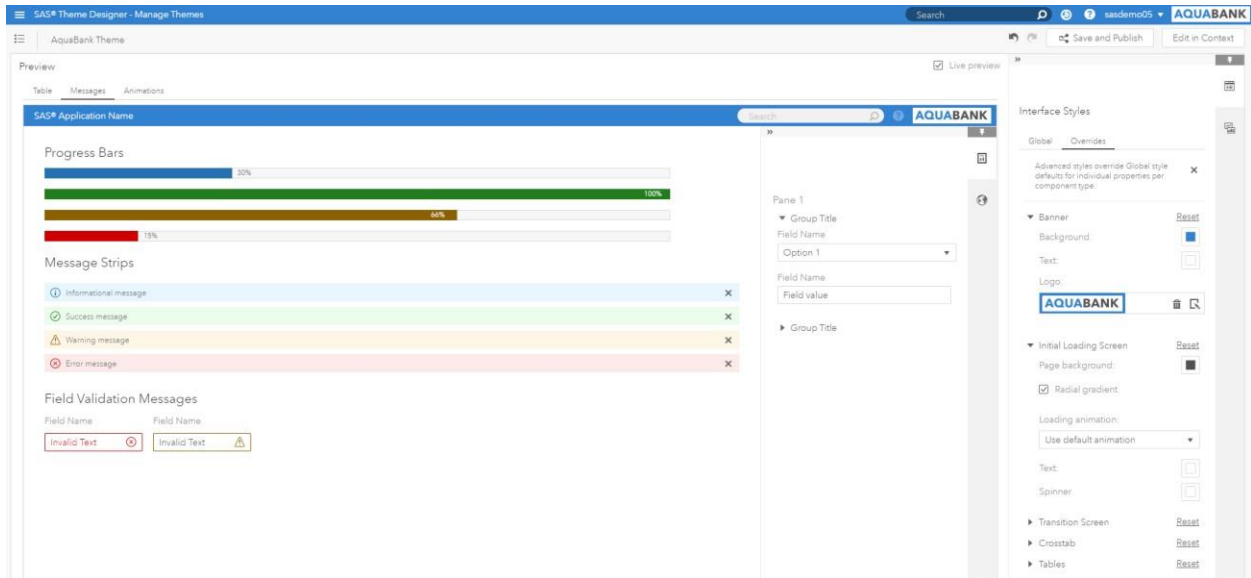
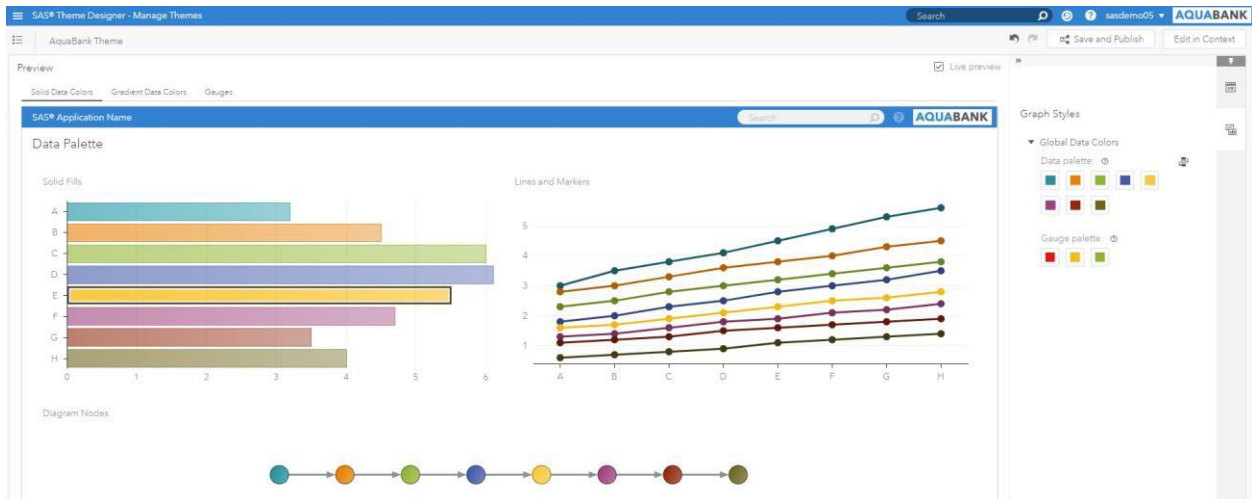


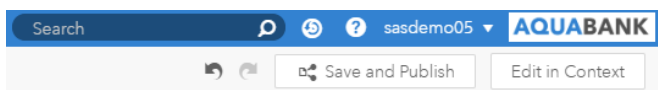
Figure 5. Set Theme Colors for UI Notification Elements

SAS Visual Analytics includes a default palette for representing categories in your visualizations. You can edit the Global Data Colors in the Data Palette to set the order in which the palette colors are used, as shown in Figure 6.



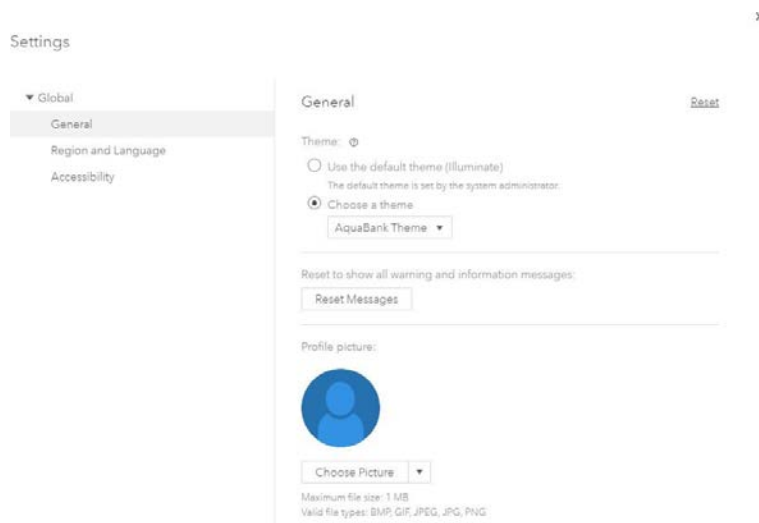
**Figure 6. Set Global Data Color Palette Used in Your Visualizations**

Save and Publish your custom application theme, as shown in Figure 7.



**Figure 7. Save and Publish Your Custom Application Theme**

Then apply your custom application theme through the Settings menu, as shown in Figure 8.

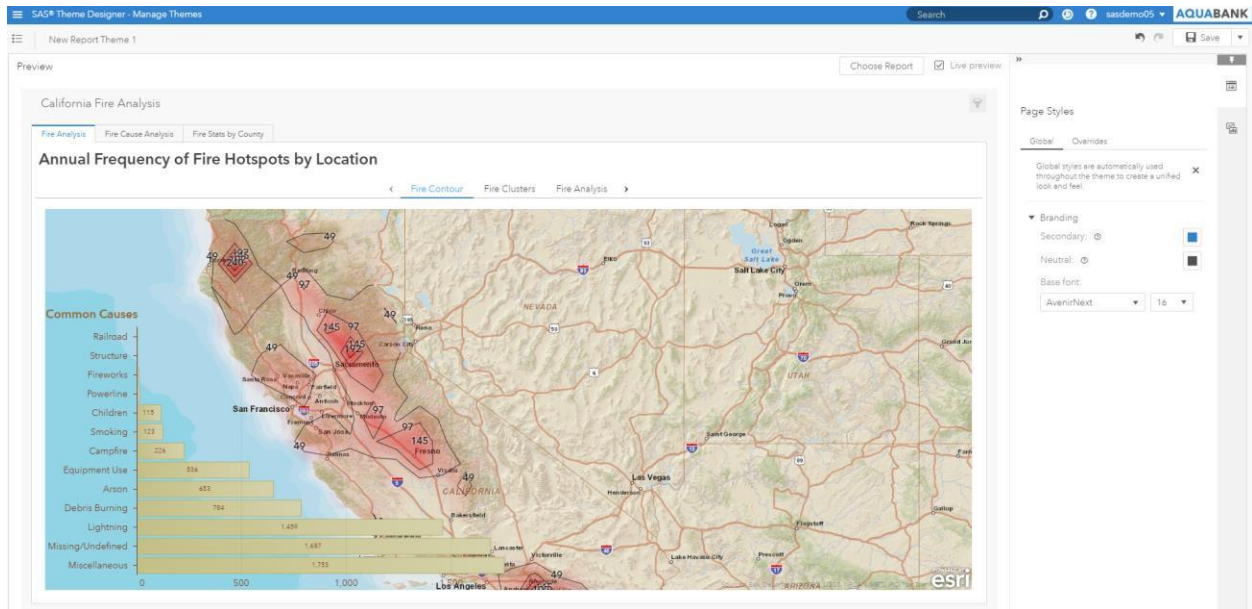


**Figure 8. Apply Your Custom Application Theme to Your SAS Visual Analytics Applications**

## REPORT THEMES

Report themes allow you to convey your branding through report elements such as tables, graphs, and controls. SAS Theme Designer provides three default report themes: High Contrast, Aqua, and Marine.

The process to create a custom report theme is the same as creating a custom Application Theme. The difference is that individual elements within visualizations can be modified and applied to individual reports. Notice in Figure 9 the use of blue for the text and selection bars for the section tab Fire Analysis and the stack container's current level, Fire Contour.



**Figure 9. Report Theme Colors**

The data palette can be modified in custom report themes the same way as it can be modified when creating application themes. Keep in mind, however, that settings made in report themes override settings in application themes.

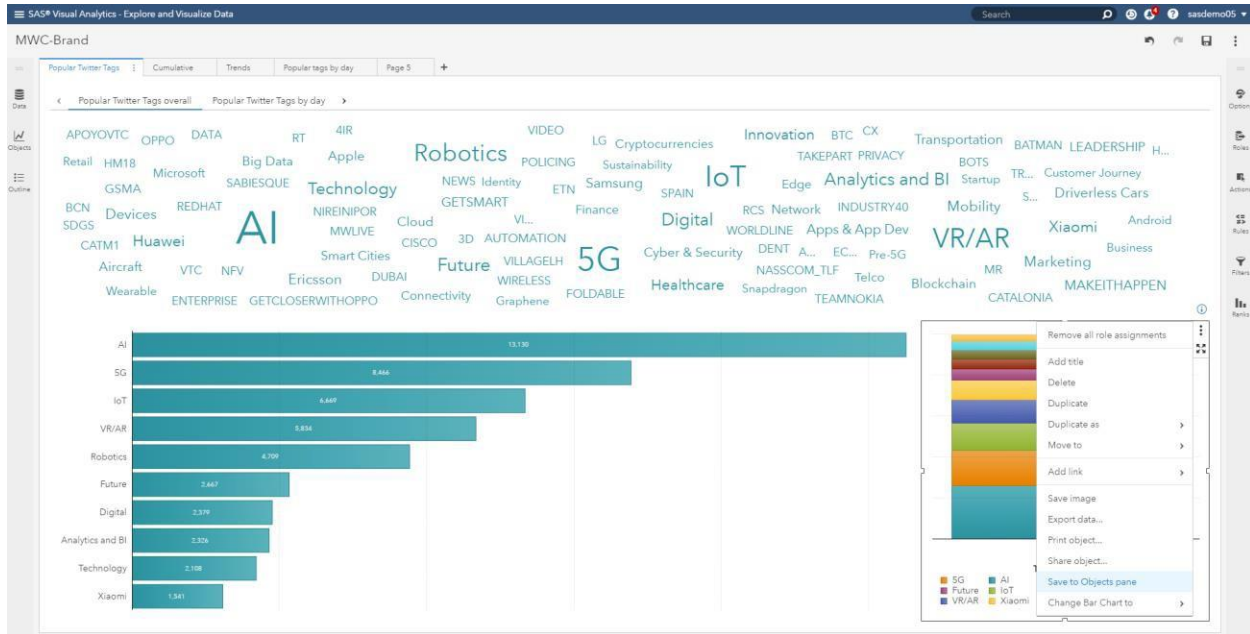
## REUSABLE OBJECT TEMPLATES

Have you ever found yourself designing a report and thinking, “I remember setting up a graph object (such as a bar, line, or pie) just like this in another report?” The process then goes something like this:

1. Search and find for the report you are thinking of.
2. Go back and forth between the two reports, copying the options from the source graph object to the target graph object.

Reusable object templates provide a solution to this manual process by enabling you to create custom graph objects that are preset with the option settings you want. You can even share reusable object templates with other report designers.

You create a reusable object template by dragging a graph object to your report canvas. After you finish setting the options for the graph object, you might be so proud of your creation that you know you will want to reuse this object later. All you need to do is go to the pop-up menu for the object and select Save to Objects pane, as shown in Figure 10.



**Figure 10. Save Reusable Object Template to the Objects Pane**

The Objects pane now includes the new graph object. At this point, you can change the name to something meaningful. Note that the items on the Objects pane are sorted alphabetically, so it is recommended that you prefix the name of the new object with text that makes the object easier to find. For example, you can prefix the object name with the original object name (such as Bar), or you can cluster all of your custom objects together by prefixing all of them with Custom or some other term that makes sense to your team. You can also keep the object private, or you can share it with other report designers.

After your new object is created, you can drag it to the report canvas, and all of the customized options settings on your object will be automatically set on the report.

It is important to understand that after a reusable graph template object has been created, it cannot be modified. If you modify settings in a reusable graph template object, the settings apply only to that one instance of the object. If you want to create a new custom object, you must save it as a new object with a new name.

## SAS GRAPH BUILDER

When designing a report, you might find yourself with an idea of how you want to represent your data, and despite the plethora of built-in SAS Visual Analytics graph objects you are unable find a graph object that perfectly reflects the visualization you have in mind. SAS Graph Builder lets you create custom graphs you can use in your reports. Through a drag-and-drop user interface, you can add multiple graph elements to the design canvas, assign and share data roles, and set visual options. These are the supported graph elements in SAS Graph Builder:

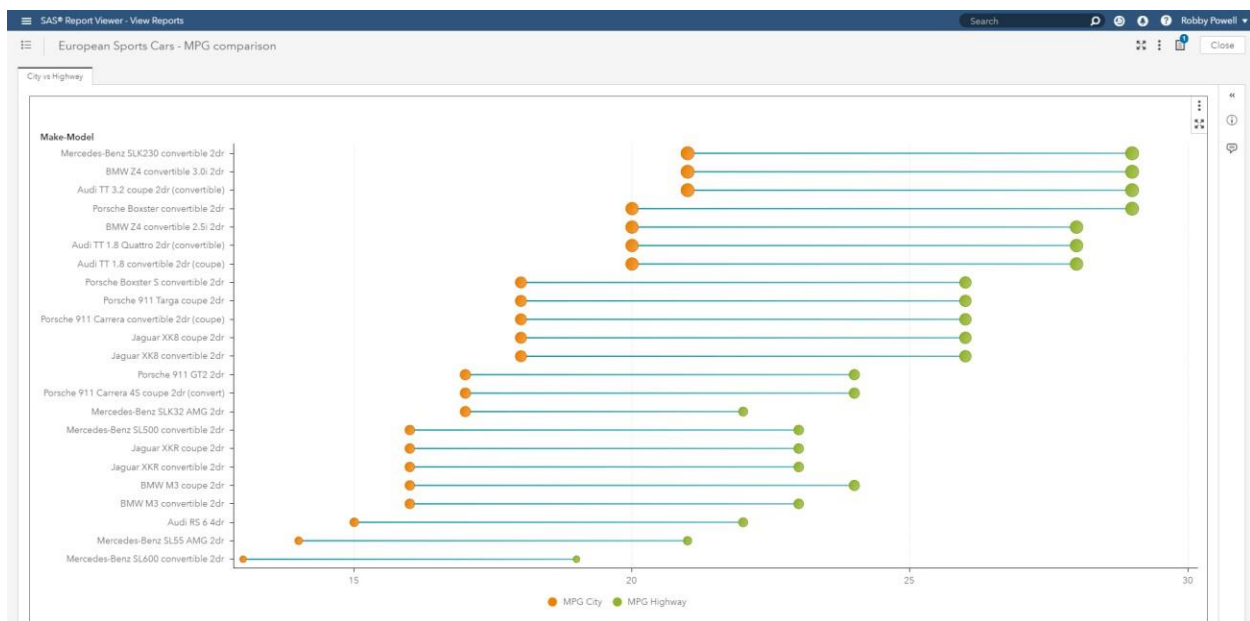
- band plots
- bar charts
- bubble plots
- line charts
- needle plots
- pie charts

- scatter plots
- schedule charts
- series plots
- step plots
- time series plots
- tree maps
- vector plots
- waterfall charts

For more information about the supported graph elements, refer to [SAS Graph Builder 8.3: User's Guide](#). Graph templates created in SAS Graph Builder have consistent appearance and interactivity with the SAS graph objects that are included by default in SAS Visual Analytics, making them ideal for providing custom visualizations in your reports.

When you are building a graph template in SAS Graph Builder, you can combine multiple graph elements and specify how the data roles are assigned and shared among the various graph elements. When you are adding multiple graph elements, you can either overlay them in the same canvas area or arrange the graph elements in grid layout.

In this example, I have miles per gallon (MPG) data for cars, and I envision a layout that shows a direct comparison between city and highway MPG. Using SAS Graph Builder, I built the bubble compare graph in Figure 11, which was the visualization I imagined. This bubble compare graph was built by overlaying three graph elements - a schedule chart and two bubble plots.



**Figure 11. Custom Bubble Compare Graph**

## SAS SDKS FOR IOS AND ANDROID

To extend the value of SAS Visual Analytics beyond its use as a stand-alone application, SAS has created these SDKs that enable the creation of custom mobile apps that include SAS Visual Analytics content:

- SAS SDK for iOS

- SAS SDK for Android

These SDKs allow customer app developers to build mobile apps that reflect their processes and their brand, and to include the report content they are currently using in SAS Visual Analytics.

SAS Visual Analytics Apps for iOS, Android, and Windows 10 have been available from SAS for several years. Previously branded as SAS® Mobile BI, these apps are available for free from Apple App Store, Google Play, and Microsoft Store. SAS Visual Analytics customers can take their SAS Visual Analytics insights with them by installing these apps, connecting to their SAS Visual Analytics server, and subscribing to reports for which they have access.

As usage of the SAS Visual Analytics Apps has increased, customers have asked for the ability to brand the SAS Visual Analytics Apps with their corporate themes. To address these requests the SAS Visual Analytics SDKs were created, solving four primary use cases:

1. Personalize – Create YOUR mobile app with YOUR identity.

The first step app developers using the SAS SDK might want to take is to personalize the existing SAS Visual Analytics App by building a mobile app that uses their own app name and icon.

2. Preconfigure – Give your users immediate access to reports.

The next step app developers take might be to preconfigure the server connections and report subscriptions within the mobile apps so that users don't have to perform those tasks manually.

Preconfiguration can be combined with any of the other three scenarios, and it has been available for some time with the mobile device management (MDM) service from SAS.

3. Customize – Create a fully customized mobile app that includes SAS Visual Analytics content.

Creating a fully customized mobile app enables you to include both SAS Visual Analytics reports and any other content and capabilities that tie into your organizational goals, processes, and projects. An example of a custom mobile app built with the SAS SDK is [GatherIQ](#), a free app that is part of the [SAS Data for Good](#) program. This app is available in the App Store and Google Play.

4. Manage – Use an MDM service to manage your application.

If you manage and secure your mobile devices with an MDM service, you can integrate your mobile apps with the MDM service by using the SAS SDK. You can do this by overriding the access for the file system, network, and keychain.

An app developer can create a personalized and preconfigured custom app without having to write any lines of code. All that is required is adding your corporate logo and colors to a resource file and adding report subscription information to a JSON file. The next step is to compile your custom app.

The SAS Visual Analytics Apps are available from these sources:

- Apple App Store
- Google Play
- Microsoft Store

You can get started with the SAS Visual Analytics SDKs by visiting [developer.sas.com](http://developer.sas.com) where you will find these resources:

- Access to the SAS SDK downloads



- Documentation for the SDKs
- Access to samples on GitHub
  - [SAS SDK for iOS Samples](#)
  - [SAS SDK for Android Samples](#)

## CONCLUSION

Customers chose to do business with organizations that they know and trust. Your brand symbolizes the relationship and trust your customers have with your organization. In our digital world, relationships are still very important. As your organization works to build and emphasize its brand it is important to consistently convey your brand relationship with your customers. Instead of relying on face-to-face interactions, our relationships with companies and organizations are built and reinforced through apps. Web and mobile apps are part of our daily lives. They keep us informed and assist us in making decisions. The ability for companies to convey their brand through these apps is as critical as a handshake and a smile. The ability to promote brand identity through apps is key to defining and building this relationship.

## REFERENCES

SAS Institute Inc. 2018. *SAS Theme Designer: User's Guide*. Cary, NC: SAS Institute Inc. Available

<https://documentation.sas.com/?cdclId=vacdc&cdcVersion=8.3&docsetId=themedesignug&docsetTarget=titlepage.htm&locale=en> (Accessed March 15, 2019)

SAS Institute Inc. 2018. "Using Object Templates." In SAS Visual Analytics 8.3. Cary, NC: SAS Institute Inc. Available

<https://documentation.sas.com/?cdclId=vacdc&cdcVersion=8.3&docsetId=vaobj&docsetTarget=n0y590t1haik2ln18crhmr0zhf6b.htm&locale=en> (accessed March 15, 2019)

SAS Institute Inc. 2018. *SAS Graph Builder 8.3: User's Guide*. Cary, NC: SAS Institute Inc. Available

<https://documentation.sas.com/?docsetId=grbldrug&docsetTarget=titlepage.htm&docsetVersion=8.3&locale=en> (accessed March 15, 2019)

Drutar, Mike. "Comparing similar metrics using SAS Visual Analytics custom graphs". SAS Communities Library. October 29, 2019. Available at <https://communities.sas.com/t5/SAS-Communities-Library/Comparing-similar-metrics-using-SAS-Visual-Analytics-custom/ta-p/507005>

## RECOMMENDED READING

Edwards, Lora. 2019. "Color Your Experience: Crafting Appealing Themes Using SAS Theme Designer." Proceedings of the SAS Global Forum 2019 Conference. Cary, NC: SAS Institute Inc. Available <https://www.sas.com/content/dam/SAS/support/en/sas-global-forum-proceedings/2019/3398-2019.pdf>

## CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the author at:

Robby Powell  
SAS Institute Inc., Cary NC  
[www.sas.com](http://www.sas.com)  
[robby.powell@sas.com](mailto:robby.powell@sas.com)  
[linkedin.com/in/robbypowell](https://www.linkedin.com/in/robbypowell)

SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration.

Other brand and product names are trademarks of their respective companies.