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Welcome

Getting Started

How Do I Use the App?

Check out the new features.

Use TalkBack? Learn the specialized accessibility actions for the app.

Common Tasks

View Reports

“Add a Server Connection”

“Subscribe to a Report”
“Search Reports”

What Else Can I Do?
Tasks available while adding a report
Tasks available while viewing a report
Managing subscribed reports
Managing favorite reports
Managing recent reports
Managing a collection of reports

Troubleshooting
“Troubleshooting SAS Visual Analytics App”
“Getting Help”

What’s New
SAS Visual Analytics App 8.3 for Android provides the following enhancements and fixes.

New Product Name
The name SAS Mobile BI has been changed to SAS Visual Analytics App. The new name reinforces the relationship between this product and SAS Visual Analytics.

New Tray Feature in the Report Viewer
The report viewer features a new tray which replaces the context menus and Information view that were used in earlier releases.

How to Use the Tray
The following slideshow describes how to use the tray on Android devices.
View the slideshow in SAS Help Center.

Functionality and Information Relocated to the Tray
The following functionality, which was available in context menus, has moved to the tray:
- ability to move through the pages in a report
- ability to link to other pages in a report, to other reports, and to external locations
- ability to navigate through hierarchies by using the drill tool
- ability to sort tables and graphs
- ability to expand crosstab tables
- ability to pan or zoom in a map
- ability to identify data points on a map by distance, drive distance, and drive time
ability to view data about a selected data point in a report

The following information, which was available in the Information view, has moved to the tray:

- report details, such as author, creation and modified dates, and report server and path
- details about a selected object
- information about filters, display rules, alerts, and comments
- details about selected data points
- link information for a target report or location

In addition, you can perform the following actions in the tray:

- update the report
- add the report to your list of favorites, or remove the favorite from your list of favorites
- annotate the report
- share the report
- apply filter controls to the report, or to specific pages or objects

  Note: Interactive filters remain in a filter control bar on the report page.

**New Magnifier Tool**

*View the slideshow in SAS Help Center.*

A new magnifier tool makes it easy to view data in a report. To access the magnifier, select Show Magnifier in the Overflow menu in the report viewer. A magnifying glass lens appears in the report area. You can move the lens over the report. When the crosshairs at the center of the lens are placed above a data point, the information for that data point appears in a context menu. You can tap the lens to display the data view in the tray. The lens remains active until you select Hide Magnifier in the Overflow menu.

**New Sample Reports**

This release also provides new sample reports, and a new sample server connection.

**Support for the Latest Versions of SAS Visual Analytics**

The application provides seamless support for SAS Visual Analytics 8.3, 8.2, 8.1, 7.4, and 7.3 servers.

**Enhancements and Fixes**
SAS Visual Analytics App

SAS Visual Analytics App is a companion application to “SAS Visual Analytics”. It is a free mobile app that enables users to view the reports that are created in SAS Visual Analytics, and to share insights with anyone, anywhere.

Using SAS Visual Analytics App, you can view and share charts and reports on Apple, Android, or Windows devices. These include iPads, iPhones, Android tablets and smartphones, and Windows 10 tablets and personal computers. For device support information, see the SAS Visual Analytics App page in the applicable store:

- Apple App store
- Google Play
- Microsoft Windows store

With SAS Visual Analytics App you can do the following tasks:

- download charts and reports from your organization servers
- view charts and reports in standard or expanded mode
- view and make comments about charts and reports

SAS Visual Analytics App supports viewing reports even when your device is offline. See “What Is an Offline Report?”

Note: SAS also provides a free software development kit (SDK) that enables organizations to modify the SAS Visual Analytics App to display a different logo and name. If your organization takes advantage of the SDK, you might see a name other than SAS Visual Analytics App when you access this application.

Throughout this Help, when you see the name SAS Visual Analytics, we are referring to the application in which the reports are created. When you see the generic term “the mobile app”, we are referring to this companion app, in which you can view and share those reports.

SAS Visual Analytics

SAS Visual Analytics leverages SAS high-performance analytic technologies and empowers organizations to explore huge volumes of data quickly to identify patterns, trends, and opportunities for further analysis. The highly visual, drag-and-drop data interface of SAS Visual Analytics, combined with the high-speed analytical servers, accelerate analytic computations and enable organizations to derive value from massive amounts of data. This creates an unprecedented ability to solve difficult problems, improve business performance, predict future performance, and mitigate risk rapidly and confidently. Users can quickly create reports or dashboards, which can be viewed on a mobile device or on the web.

How Do I Use the App?

1. Contact your SAS administrator for the following information:
   - the user ID and password to use
   - the server to use for the server connection
   - the port to specify for the server connection
   - whether the server is a secure connection
   - any instructions that your organization might have for using SAS Visual Analytics App
TIP Sometimes an organization does not require security credentials. If your SAS administrator says you do not need a user ID, then you are accessing the server as a guest.

2 You can now add a connection to the server.

TIP If you are accessing the server as a guest, be sure to select **Log in as guest** when you add the server connection.

3 After you add a server connection, **you can add reports to your subscriptions**.

4 After you have subscribed to a report, tap that report to open it.

**TIP**
- The report viewer provides many features, including the ability to annotate a screen capture and share your screen with others. To learn more, see “Viewing Reports” and “Sharing Reports”.
- Depending on how a report is designed, a report can provide the same functionality that you use in SAS Visual Analytics. To learn more, see “Navigating Report Features”.
- Use the sample reports to see what you can do with SAS Visual Analytics App. See “About Sample Reports”.

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**What Does That Symbol Mean?**

The app uses symbols to quickly communicate states and other information.

- ✅ indicates that you have subscribed to the report.
- ✅ indicates that you have selected a report. See “Selecting Multiple Reports”.
- ★ indicates that the report is a favorite. See “Identifying Your Favorite Reports”.
- 🔒 indicates a secure server connection in the **All Connections** list.
- 🌐 indicates that the report uses remote data. See “About Local and Remote Report Data”.

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**Where Is the Help?**

If you have located the SAS Visual Analytics App Help by using an internet search, know that you can also open the Help while in the app.

In the **Subscriptions**, **Recent**, **Favorites**, or collection views:
- Tap ⬤ to open the navigation drawer and then tap **Help**.

**TIP** You might have to scroll down to locate this selection.

In the report viewer:
- Tap ⬤ and then tap **Help**.
The Help opens in your web browser. If your device supports a multitasking view, you can view the app and Help at the same time.

To return to SAS Visual Analytics App, tap ↵.

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**What Is an Offline Report?**

When the mobile app cannot connect to the server, any report that you view on your mobile device is offline. Typically, this is because the device does not have a network connection, but it can also be because of security measures that prevent access to an internal network or server. Because the mobile app cannot communicate with the server, certain app functionality is modified.

Depending on how a report is designed, an offline report might continue to work as designed or some of its functionality might adjust to offline mode.

For detailed information about offline functionality and settings that administrators can use to adjust offline support, see the documentation on the SAS Visual Analytics App Product web page.

**Note:** Offline reports are not the same as reports that use remote data for security purposes. You might see this feature called tethering or live connection. It refers to a security setting that requires that your device maintain a connection to the server in order to view data in a report. For more information, see “About Local and Remote Report Data”.

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**Android Devices and the Overflow Menu**

On Android devices, the Overflow menu contains actions that cannot fit on the menu bar. When using the app, keep the following in mind:

- Depending on your device, the **Overflow Menu** button can be in the app’s user interface (,) or on the frame of the device itself. See your device documentation for the location of the Overflow menu.

- Depending on the device orientation (landscape or portrait) and the size of the device, the user interface relocates some actions into the Overflow menu.
Connecting to Servers

What Is a Server Connection?
An organization has one or more servers that contain SAS Visual Analytics reports. Most servers require that you provide security credentials before you can connect to them and access reports. In the mobile app, a server connection is saved information that includes the server address and your security credentials for a server. If your organization has more than one server, you can add connections to additional servers in the same way.

Note: Contact your network administrator about your organization’s requirements for mobile devices to access the network.

Contact your SAS Visual Analytics administrator for your user ID, password, and server information.

Your administrator can also tell you the following:

- If the server provides a guest connection. See “What Is a Guest Connection?”
- If the server requires a passcode. See “What Are Passcodes?”
What Is a Guest Connection?

A guest connection does not require security credentials. A guest connection allows you to download reports that an organization makes available to the public.

Note: The Guest connection feature is not supported by servers running SAS Visual Analytics 8.1. The feature is supported on all other releases of SAS Visual Analytics.

Typically, guest connections do not support the following features:

- the Recent view
- comments
- alert subscriptions

If the Favorites view and Favorites setting are supported with guest connections, functionality is limited:

- When a report is viewed by way of a guest connection, no user can add that report to favorites.
- The favorites shown for the guest connection are shared by all users of that connection.
- You cannot remove these favorites.

Quickly Add a Server Connection

To help a colleague quickly and easily add a server connection, email a report to them. You can email a report from SAS Visual Analytics or from the mobile app.

Here is how it works:

1. Email a report to a colleague. The email contains a link to the report.
   - See “Sending Reports to Others”.
2. The recipient taps the link in the email. When the app is installed on the recipient’s device, the link opens the app.
3. If the recipient does not have a connection to the required server, they are prompted to add the server connection to the Connections list.
   - The recipient taps Yes.
4. If the server supports guest mode, the recipient is asked if they want to log on as a guest. If the recipient taps No, they are prompted to enter their user’s user ID and password. If the recipient taps Yes, they proceed to the next step.
   - TIP If your server connection also requires Esri credentials, enter your user ID and password for Esri services. To learn more, see “What Are Geographic Mapping Services?”
5. The recipient is prompted to open the report. The recipient taps Yes.
   - The app subscribes to the report and downloads it.
6. The recipient can tap the report to view it.

If the new connection is to a passcode-protected server, the recipient must create a passcode.
Add a Server Connection

The following slideshow introduces how to add a server connection. A detailed procedure follows the slideshow.

View the slideshow in SAS Help Center.

Note:
Each organization’s network is unique. If you cannot access the SAS Visual Analytics server from your mobile device, contact the following people:

- your network administrator. Ask about your organization’s requirements that enable mobile devices to access the network.
- your SAS administrator. Ask whether your mobile device should be added to a whitelist. See “About the Whitelist”.

Complete these steps:

1. Tap \hline and tap Subscriptions.
2. Tap \hline.
3. Tap \hline in the All Connections list.

   TIP The All Connections list is the left-most list in the window.
   - If the list is not on the screen, tap All Connections in the navigation path.
   - If the navigation path is too long to fit on the screen, drag right to scroll.

4. In the Server field, enter the address of the new server.
5. In the Port field, enter the port number for the new server.

   TIP A typical port number is 80.

6. Tap the Secure connection switch if the server requires a secure connection (SSL).

   TIP \hline indicates a secure server connection in the All Connections list.

7. Tap Next to verify the connection.

   TIP If the connection fails, a message is displayed to help you correct the problem. Tap Edit Details to make corrections.

8. If the server provides guest access, the Log on as guest check box appears. If you want to access the server without providing credentials, tap this check box and skip the next step.

   TIP You might have to scroll the page up to view all of the fields.

9. If a server requires security credentials to access reports:
   - In the User ID field, enter your user ID.
   - In the Password field, enter your password.
10 (Optional) In the Description field, customize the description for the new connection.

Note: If you delete the default description, you must enter a new description. The field cannot be left blank.

11 Tap Next to verify your access to the server.

Note: If the verification fails, a message is displayed to help you correct the problem. Tap Edit Details to make corrections.

**TIP** If your server connection also allows you to enable Esri premium services, you can do so at this point. If Esri credentials are required, you are prompted to enter your user ID and password for Esri services. To learn more, see “What Are Geographic Mapping Services?”

12 Tap Done.

The connection is saved and the Add Connection window closes. Information about available reports is automatically downloaded and appears in Add Reports.

If the new connection is to a passcode-protected server, you are required to create a passcode.

**Change the Password for a Server Connection**

Complete these steps in Add Reports:

1 Tap All Connections in the navigation path.

**TIP** If All Connections is not displayed because the navigation path is too long to fit on the screen, drag right to scroll the path.

2 Tap the server connection that you want to edit.

3 Tap Edit.

4 Tap the Password field and enter the new password.

5 Tap OK to save the update.

**Change the Description for a Server Connection**

Complete these steps in Add Reports:

1 Tap All Connections in the navigation path.

**TIP** If All Connections is not displayed because the navigation path is too long to fit on the screen, drag right to scroll the path.

2 Tap the server connection that you want to edit.

3 Tap Edit.

4 Tap the Description field and enter the new description. The field cannot be blank.

Note: You might have to scroll the page up to view all of this field.

5 Tap OK to save the update.
### Turn On Esri Premium Services

To turn on Esri premium services, you must edit the connection to a server that has Esri premium services. Complete these steps in Add Reports:

1. Tap **All Connections** in the navigation path.
   
   **TIP** If **All Connections** is not displayed because the navigation path is too long to fit on the screen, drag right to scroll the path.

2. Tap the server connection that you want to edit.

3. Tap 📋.

4. Tap the **Esri Premium services** switch.
   
   If you are not prompted to enter your Esri credentials, the Esri services are turned on at this point. Tap **Cancel** and skip the remaining steps.

   **Note:** This switch appears only if the Esri premium services capability is enabled for your user ID on the server. To enable the capability, contact your **SAS Visual Analytics** administrator.

5. If you are prompted for your Esri credentials, enter your user ID and password for the Esri premium services. These credentials might be different from those used for the server connection.

6. Tap **Next** to verify the credentials.

   **TIP** If the verification fails, a message is displayed to help you correct the problem. Tap **Edit Details** to make the corrections.

7. Tap ⬅️.

### Turn Off Esri Premium Services

To turn off Esri premium services, you must edit the connection to a server that has Esri premium services. Complete these steps in Add Reports:

1. Tap **All Connections** in the navigation path.

   **TIP** If **All Connections** is not displayed because the navigation path is too long to fit on the screen, drag right to scroll the path.

2. Tap the server connection that you want to edit.

3. Tap 📋.

4. Tap the **Esri Premium services** switch.

5. Tap ⬅️.
Remove a Server Connection

When you remove a server connection, any report subscriptions from the affected server are removed from your device.

Complete these steps in Add Reports:

1. Tap All Connections in the navigation path.

   **TIP** If All Connections is not displayed because the navigation path is too long to fit on the screen, drag right to scroll the path.

2. Tap the server connection that you want to edit.

3. Tap 🔍.

4. Scroll to the bottom and tap Remove Connection.

5. Tap Remove.

About Sample Reports

The mobile app provides many sample reports for you. When you first open the app, some sample reports are available in Subscriptions. By viewing these sample reports, you can explore the features that SAS Visual Analytics reports can provide on your device. Additional sample reports are located on the SAS Demo Server. You must have internet access to download samples from this server.

Note:
- The SAS Demo Server provides a guest connection. Reports located on a guest connection do not support all of the app’s features, such as the comments feature. For more information, see “What Is a Guest Connection?”
- You can remove sample reports from Subscriptions. You can always subscribe to sample reports from the SAS Demo Server again. See “Subscribe to a Report”.
- You can remove the SAS Demo Server connection. See “Remove a Server Connection”.
- You can always reconnect to the SAS Demo Server. See “Restore Sample Reports”.

Securing Reports and Data

Locking the App with the Passcode Feature

What Are Passcodes?

SAS Visual Analytics App provides a passcode feature that locks the app after a period of inactivity. There are two types of passcodes:
required passcode

A required passcode is a passcode that is required by a server connection. When you connect to a secure server, it requires that you create a passcode. An organization uses a required passcode to secure its reports.

You are prompted to create or enter a required passcode at these times:

- when you connect to a passcode-secured server for the first time

  Note: The first time the Passcode window appears, you can close the window without creating a passcode. However, when you attempt to subscribe to a report from a secure server, a passcode is required at that time.

- when you are connected to a secure server and the app has been inactive for a length of time

  Note: When you create a required passcode but later remove the server connection that required the passcode, the passcode functionality still applies and locks the app after a period of inactivity. However, the passcode is now optional. You can remove an optional passcode.

optional passcode

An optional passcode is a passcode that you choose to use to lock the app. You can remove the passcode at any time.

You enter an optional passcode at these times:

- when you create the passcode
- when the app has been inactive for 5 minutes

How the Passcode Feature Locks the App

Whether required or optional passcodes are used, the app is locked after a period of inactivity or after a number of failed attempts to enter the passcode. Depending on the type of passcode in effect, the time of inactivity or number of passcode attempts you are permitted differs.

required passcode

- When the app is inactive for 15 minutes, the app is locked. The system administrator of the secure server can change this value.
- Permits a specific number of attempts. The system administrator of the secure server can change this value.
- When you exceed the number of attempts, the app is locked for 15 minutes. The system administrator of the secure server can change this value.

optional passcode

- When the app is inactive for 5 minutes, the app is locked.
- Permits 10 attempts.
- When you exceed the number of attempts, the app is locked for 15 minutes. The system administrator of the affected server can change this value.

With either passcode type, you can enter your passcode again after the lock-out expires.

If you then exceed the allowed number of passcode attempts a second time, the app removes all SAS Visual Analytics App reports, data, and server connections from your device. The app is reset to its default settings.

If you forget your passcode, you must delete and re-install the app on your device.

Create a Required Passcode

When you create a connection to a passcode-secured server, you must create a passcode.
After you save the connection, the Create Passcode window appears.

1. Enter a four-digit passcode that you can remember.
   You are prompted to enter the passcode again.

2. Enter your passcode a second time. A setup complete message appears.
   If your first and second try do not match, the app displays a message and you can enter the passcode again.

3. Tap Done.

When the passcode that you entered is verified, the passcode is saved.

If you close the window without creating a passcode, you can still navigate to the reports on the server. However, if you attempt to subscribe to a report, the app requires that you create a passcode first.

**Create an Optional Passcode**

Complete these steps:

1. In the Subscriptions, Recent, Favorites, or collection view, tap \(\text{menu} \) to open the navigation drawer.

2. Tap Settings.

3. Tap the Passcode switch.
   You are prompted to create a passcode.

4. Enter a four-digit passcode that you can remember.

5. Enter your passcode a second time.
   If your first and second try do not match, the app displays a message and you can enter the passcode again.

When the passcode that you entered is verified, the passcode is saved.

**Change a Passcode**

Complete these steps:

1. In the Subscriptions, Recent, Favorites, or collection view, tap \(\text{menu} \) to open the navigation drawer.

2. Tap Settings.

3. Tap Change Passcode.
   The Verify Passcode window appears.

4. Enter your current passcode.

5. Enter a new four-digit passcode.

6. To verify the passcode, enter the new passcode a second time.

When the passcode that you entered is verified, the passcode is saved.

**Remove an Optional Passcode**

Complete these steps:

1. In the Subscriptions, Recent, Favorites, or collection view, tap \(\text{menu} \) to open the navigation drawer.

2. Tap Settings.
3 Tap the Passcode switch.
   The Enter Passcode window appears.

4 Enter your current passcode to verify your identity and remove the passcode.

You can create an optional passcode at any time. See “Create an Optional Passcode”.

About Local and Remote Report Data

What Is Local and Remote Report Data?
When you subscribe to a report, it appears in Subscriptions. However, depending on the security assigned to your user ID, the report data might not exist on your device. Report data can be local or remote:
- Local data is stored on your device.
- Remote data exists on your device only while the report is open and the device is connected to a Wi-Fi or cellular network.

How Do I Know a Report Uses Remote Data?
If a report uses remote data, the report tile in Subscriptions displays the cloud icon:

If a report uses local data, this icon does not appear on the tile.

Why Do Reports Use Remote Data?
Your organization requires that these reports have extra security.

Your SAS administrator sets this option for the user ID that you use to access the server. When this option is set, all reports on that server use remote data.

If you have any questions about this option, contact the SAS administrator for the affected server.

How Does Remote Data Work?
Each time you open a report with remote data, the app connects to the server. A progress indicator is displayed while the data is downloaded. The report opens when the data is available on the device. The data is available only while you view the report.

After you close the report, the data is removed from the device. The image no longer appears on the report tile in Subscriptions. If you are not connected to a network and you try to open the report, it does not open.

About the Whitelist

SAS Visual Analytics App provides a whitelist feature that an organization can use to secure its servers. If your device ID is not on the whitelist, you cannot access the server.

When you connect to a secure server for the first time, a whitelist message appears if your device ID is not on the whitelist. A subsequent message provides the option to email an access request to your SAS administrator. The email contains information that your administrator requires to give you access to the server.

Note: You must know the email address of your administrator in order to send the email.
Limiting Data Use on Your Device

About Data Use

If your device provides cellular data access, you might want the app to use only Wi-Fi networks to download reports. Limiting the app’s use of cellular networks reduces your data use. When cellular data is turned off for the app, make sure that you are connected to a Wi-Fi network. The app requires a network for many tasks, such as the following:

- navigating reports on a server, subscribing and downloading reports
- using interactive features in reports, such as data drilling and filtering
- commenting

For more information, see “What Is an Offline Report?” For information about additional cellular data settings, see the User's Guide for your device.

By default, this setting is turned off.

Turn Off the Wi-Fi Only Setting

To turn off the Wi-Fi only setting:

1. If you are in the report viewer, tap ← to exit.
2. Tap 👉 to open the navigation drawer.
3. Tap Settings.
4. Tap the Wi-Fi Only switch.
5. Tap ← to exit Settings.

Turn On the Wi-Fi Only Setting

To turn on the Wi-Fi only setting:

1. If you are in the report viewer, tap ← to exit.
2. Tap 👉 to open the navigation drawer.
3. Tap Settings.
4. Tap the Wi-Fi Only switch.
5. Tap ← to exit Settings.
Restoring App Settings

Restore Sample Reports
If you removed the connection to the SAS Demo Server, you cannot access sample reports. To access sample reports again, restore the connection to the SAS Demo Server:

1. If you are in the report viewer, tap 🔽 to exit.
2. Tap ⌁ to open the navigation drawer.
3. Tap Settings.
4. Tap the Restore Sample Reports switch.
5. Tap 🔽 to exit Settings.
Adding and Updating Reports

Adding Reports

Open Add Reports
Locate a Report on a Server Connection
What Is a Subscription?
Subscribe to a Report

Updating Reports Automatically

What Is Automatic Update?
Turn Off Automatic Update
Turn On Automatic Update

Updating Reports on Demand

Update the Report You Are Viewing

Responding to Notifications

What Are Notifications?
Respond to a Report Notification
Subscription Failure Notification
Disable and Enable SAS Visual Analytics App Notifications

Adding Reports

Open Add Reports

To open Add Reports:

1. If you are in the report viewer, tap ← to exit.

2. Tap and tap Subscriptions.

3. Tap 🔄.

Locate a Report on a Server Connection

Complete these steps in Add Reports:

1. Tap a server connection.

TIP 🔒 indicates a secure server connection in the All Connections list.
2 Tap a folder to view its contents.

**TIP** 📜 indicates that the report is already subscribed and downloaded.

**TIP** To refresh the folder contents, drag a finger down the screen.

3 Drag your finger left and right in the navigation bar to view your path. Tap any part of the path to view that folder.

**TIP** Tap All Connections to view the list of servers again.

4 To drill up, tap the folder name in the navigation path. The selected folder’s list scrolls onto the screen if it is not already displayed.

### What Is a Subscription?

A *subscription* is how you identify reports on a server connection that you want to view. When you subscribe to a report, it is downloaded to your device and added to Subscriptions.

To subscribe to a report, you must be assigned the appropriate roles and capabilities in SAS Visual Analytics. Contact your SAS Visual Analytics administrator about these assignments.

### Subscribe to a Report

The following slideshow introduces how to subscribe to a report. A detailed procedure follows the slideshow.

*View the slideshow in SAS Help Center.*

Complete these steps in Add Reports:

1. Navigate to the report.
2. Tap the report to view its Details window.
3. Tap **Subscribe** to add the report to Subscriptions.

You can also subscribe to multiple reports at one time. See “Selecting Multiple Reports”.

### Updating Reports Automatically

#### What Is Automatic Update?

When a subscribed report is updated on the server, you can choose to have SAS Visual Analytics App automatically update that report on your device.

The setting must be turned on and the app must be active in order to check for updates. These checks occur at the following times:

- when you start or re-activate the app
- every 15 minutes after the app opens

*Note:* The app cannot control how the device prioritizes the updates.
By default, this setting is turned on.

**Note:**
- If you have turned on the Wi-Fi only setting, report subscriptions are updated only when a Wi-Fi network is available.
- Automatic update does not apply to reports that use remote data (☞).

**Turn Off Automatic Update**
To turn off automatic update:

1. If you are in the report viewer, tap ➔ to exit.
2. Tap ➞ to open the navigation drawer.
3. Tap Settings.
4. Tap the Automatic Update switch.
5. Tap ➔ to exit Settings.

**Turn On Automatic Update**
To turn on automatic update:

1. If you are in the report viewer, tap ➔ to exit.
2. Tap ➞ to open the navigation drawer.
3. Tap Settings.
4. Tap the Automatic Update switch.
5. Tap ➔ to exit Settings.

---

**Updating Reports on Demand**
You can update a report to make sure you have the latest changes and data.

**Update the Report You Are Viewing**
Complete these steps in an open report:

1. Tap ☐ or open the Overflow menu.
2. Tap Update.
   - If the report has no updates, a message is displayed.
     **Note:** A message is not displayed for remote-data reports.
   - If there are updates, the report is downloaded.
Responding to Notifications

What Are Notifications?

Notifications provide alerts and other information about apps on your device.

SAS Visual Analytics App generates notifications when the following changes occur while you are not using it:

- One or more reports have been updated or are new on your device.
- One or more report subscriptions have failed to be added on your device.

In addition, SAS Visual Analytics App provides notifications when you are using the Present Screen feature.

Users of Android prior to 8.0 (Oreo) can view and respond to notifications in the Notification Center. Android 8.0 users can respond to notifications in the Notification Center, or they can take advantage of the new Notification Badges (dots) feature. SAS Visual Analytics App provides two channels for notifications: Report Status Updates and Screen Mirroring. You can determine the settings for these channels. In addition, you can use the new Notification Badges feature to display a preview of a notification. For more information about notification channels and notification badges, see the documentation for the version of Android running on your device.

Respond to a Report Notification

When a report is updated or new, or a subscription has failed, a notification is generated.

Updated Report Notifications

When you receive an updated report notification, you can respond in the following ways:

- View the progress of the report download.
- After the update is complete, you can tap the notification for a single report to open that report in SAS Visual Analytics App.
  - If the notification is for multiple reports, tap the notification to open SAS Visual Analytics App.
- View detailed information. For single reports, the report description is shown, if available.
  - For multiple reports, all affected report titles and descriptions are shown, if available.
- (Notification Center only) Share the report. Tap Share.

The steps that you take to perform these actions depends on whether you are using the Notification Center or using the Notification Badges feature. For information, see the documentation for the version of Android running on your device.

New Report Notifications

Notifications for new reports occur when you subscribe to a new report.

You can respond in the following ways:

- View the progress of the report download.
- After the download is complete, you can tap the notification for a single report to open that report in SAS Visual Analytics App.
  - If the notification is for multiple reports, tap the notification to open SAS Visual Analytics App.
(Notification Center only) Share the report. Tap Share.

The steps that you take to perform these actions depends on whether you are using the Notification Center or using the Notification Badges feature. For information, see the documentation for the version of Android running on your device.

Subscription Failure Notification

When you receive a failure notification (⚠️), you can view detailed information. For single reports, the report description is shown if available. For multiple reports, all affected report titles and descriptions are shown, if available.

The steps that you take to perform these actions depends on whether you are using the Notification Center or using the Notification Badges feature. For information, see the documentation for the version of Android running on your device.

Disable and Enable SAS Visual Analytics App Notifications

You can control whether you receive notifications from SAS Visual Analytics App. Notifications are enabled by default. For more information about disabling notifications, see the documentation for the version of Android running on your device.
Reviewing Your Report Subscriptions

Viewing Current Subscriptions
- View Your Subscriptions

Identifying Your Favorite Reports
- Your Favorites on Every Device
- View Your Favorites
- Add a Report to Favorites
- Remove a Report from Favorites

Tracking Recent Reports
- Recent Reports on Every Device
- View Your Recent Reports
- Clear the Recent View

View Collections
- What Is a Collection?
- What Is Auto-Subscription?
- View a Collection
- Auto-subscribe to a Collection
- Remove Auto-subscribe

Locate Details about a Report
- Identify a Report’s Server and Path Information
- Determine When a Report Was Updated
- View the Table of Contents for a Report
- Identify Who Created a Report

Unsubscribe from a Report

Searching Reports
- How Search Works
- Search Reports
- Filter Search Results

Sorting Reports
- Sort Reports
- Sort Search Results

Selecting Multiple Reports
- Select Multiple Reports in Subscriptions, Recent, Favorites, and Collection Views
- Select Multiple Reports in Add Reports
- Select Multiple Reports in Search Results
Viewing Current Subscriptions

Subscriptions help you manage which reports are available to view on your device. Subscriptions also enable the app to update reports with recent changes. All of the reports that you view are subscribed from a server connection. See “What Is a Server Connection?”

View Your Subscriptions

The Subscriptions view is the default view in the app. It shows all of the reports that you subscribe to on this mobile device.

If you are in the Recent, Favorites, or collection views, tap ⬅️ and tap Subscriptions.

Your subscriptions are grouped:
- Frequently Viewed shows the reports that you view most frequently on this device.
- My Subscriptions shows the reports to which you have subscribed on this device.
  - Note: Typically, subscribed reports are downloaded to your device. However, some reports might require additional security and use remote data instead. See “About Local and Remote Report Data”.
- Sample Reports shows any sample reports to which you have subscribed on this device. See “About Sample Reports”.

Identifying Your Favorite Reports

Your Favorites on Every Device

In the app, the Favorites view shows the reports that you have marked as favorites. Your favorites are tracked by the server on which the reports are located. When you add a report to your favorites, the server adds that report to your favorites on any other devices that you use to view reports, including SAS Visual Analytics on your desktop system. The same is true when you remove a report from your favorites. However, your favorites are not shown on every device automatically. On each device you must first define the server connection to the server on which your favorite reports are located.

View Your Favorites

To view your favorites, tap ⬅️ and tap Favorites.

Favorites can contain one or more folders (also called groups). Tap a folder to display its reports. Folders can contain folders, too. Tap on the breadcrumb path to return to the previous level.

Add a Report to Favorites

You can add reports to your favorites while a report is open in the report viewer, or when a closed report appears in the following views: Subscriptions, Recent, collection, search results, or Add Reports.

Add an Open Report to Favorites

Complete these steps in the report viewer:
1. Tap \( \cdots \) or open the Overflow menu.

2. Tap Add to favorites.

**Add a Closed Report to Favorites**

To add a closed report to your favorites:

1. Tap \( \cdots \).

2. Tap Add to favorites.

In Add Reports, tap the report tile and tap ☆.

You can also add multiple reports at one time. See “Selecting Multiple Reports”.

**Remove a Report from Favorites**

You can remove reports from your favorites while a report is open in the report viewer, or when a closed report appears in the following views: Subscriptions, Recent, Favorites, collection, search results, or Add Reports.

**Remove an Open Report from Favorites**

Complete these steps in the report viewer:

1. Tap \( \cdots \) or open the Overflow menu.

2. Tap Remove from favorites.

**Remove a Closed Report from Favorites**

To remove a closed report from your favorites:

1. Tap \( \cdots \).

2. Tap Remove from favorites.

In Add Reports, tap the report tile and tap ☆.

You can also remove multiple reports at one time. See “Selecting Multiple Reports”.

---

**Tracking Recent Reports**

The Recent view contains reports that you have recently viewed on one of your devices.

**Recent Reports on Every Device**

The Recent view shows the reports that you have recently viewed on one or more of your devices. Recent reports appear in the app only after you have specified the connection to the applicable server. The history of your recent report access is maintained by the server on which the report is located. Your history is shared with all of the devices that you use to view reports from that server, including SAS Visual Analytics on your desktop system.
You can clear the history of report access, which clears the Recent view. Doing so clears the history on the selected server connection and on the device. If you have viewed reports from multiple server connections, you must clear the history for each server connection. See “Clear the Recent View”.

**View Your Recent Reports**
To view your recent reports, tap 📚 and tap Recent.

**Clear the Recent View**
To clear the Recent view:

1. Tap 📚 and tap Settings.
   
   **TIP** You might have to scroll down to locate Settings.

2. Scroll down and tap the server connection for which you want to clear the history.

3. Scroll to the bottom and tap Clear Recent Reports for Connection.
   
   **TIP** The button changes to the disabled state when the history has been cleared. If this button is disabled before you tap it, then there are no recent reports to clear.

---

**View Collections**

**What Is a Collection?**

A collection shows a group of reports that a collection owner has selected and made available to users. Each collection is a selection in the navigation drawer.

A collection can also contain one or more folders (also called groups). Each folder can contain one or more reports or be empty. The reports contained in the folder are favorites that belong to the collection owner. By adding the folder to the collection, the owner has chosen to make the reports available to other users.

**What Is Auto-Subscription?**

Auto-subscription is a feature that automatically subscribes to reports that are members of a collection. Auto-subscription works in the following ways:

- If you have not subscribed to any reports in the collection, selecting auto-subscribe adds all of the reports to your subscriptions.

- If you have already subscribed to some of the reports in the collection, selecting auto-subscribe adds the unsubscribed reports to your subscriptions.

- If you have selected auto-subscribe and new reports are added to the collection, the new reports are automatically added to your subscriptions.

- If you have selected auto-subscribe and reports that you did not manually subscribe to are removed from the collection, those reports are automatically removed from your subscriptions.

When you remove auto-subscribe, you no longer have a subscription to the reports in the collection.
Note: If you subscribed to some of the reports in the collection before selecting auto-subscribe, you still subscribe to those reports.

View a Collection
To view a collection, tap Display and tap the name of a collection.

The collection opens to display its reports.

A collection can contain one or more folders (also called groups). Tap a folder to display its reports. Folders can contain folders, too. Tap on the breadcrumb path to return to the previous level.

Auto-subscribe to a Collection
To learn how auto-subscription works, see “What Is Auto-Subscription?”

In the collection, tap

The button toggles to indicate the change:

Remove Auto-subscribe
To learn how auto-subscription works, see “What Is Auto-Subscription?”

In the collection, tap

The button toggles to indicate the change:
Determine When a Report Was Updated

Determine When an Open Report Was Updated
Complete these steps in an open report:

1. Open the tray:
   - (Tablet) Tap 📦.
   - (Phone) Swipe up from the bottom of the report.

2. Tap ⌈.

Determine When a Closed Report Was Updated
In the Add Reports window, tap a report tile to view its details.

View the Table of Contents for a Report
You cannot preview a report’s table of contents in the Add Reports window. For reports that use remote data 🌐, the table of contents is not available until you open the report and the data is downloaded. See “About Local and Remote Report Data”.

View the Table of Contents for an Open Report
Complete these steps in an open report:

1. Open the tray:
   - (Tablet) Tap 📦.
   - (Phone) Swipe up from the bottom of the report.

2. Tap a page tile to go to that page.

   **TIP** If the report is large, scroll down to view more page tiles.

Identify Who Created a Report

Identify Who Created an Open Report
Complete these steps in an open report:

1. Open the tray:
   - (Tablet) Tap 📦.
   - (Phone) Swipe up from the bottom of the report.

2. Tap ⌈.
Identify Who Created a Closed Report

In the Recent, Favorites, or collection views, tap a report tile. The name of the person who created the report is shown beneath the report title.

In the Add Reports window, tap a report tile to view its details.

Unsubscribe from a Report

To unsubscribe from a report:

1. Tap : on the report tile.
2. Tap Remove from Subscriptions.
3. Tap OK in the confirmation window.

You can also unsubscribe from multiple reports at one time. See “Selecting Multiple Reports”.

Searching Reports

The search feature is available anywhere that you see Q in the app.

How Search Works

What Can I Search?

You can search reports that are located in your subscriptions and on all of your connected servers. Both locations are searched at the same time. The search is not case sensitive.

**TIP** If you do not have a network connection, search is disabled.

During a search, the following content is reviewed for the search string:
- the report name
- report descriptions
- keywords
- the report source file

Because the report source file is also searched, some reports can appear in the search results because of a data set or object that is used in the report. For example, if a report uses a data set called **Cars**, that report will be in the search results for “cars.” If a report contains a bar chart, that report will be in the search results for “bar chart.”

Can I Narrow My Search?

You can narrow your search by using quotation marks ("), the plus sign (+) and minus sign (−) operators.
- To specify some or all of a report title, enclose the title in quotation marks—for example, “accessibility in SAS Visual Analytics App”. The search is not case sensitive.
To require a term, prepend the term with the plus sign—for example, +sample.

To exclude a term, prepend the term with the minus sign—for example, –sample.

You can also append a wildcard (*) operator to single- and multiple-word searches. For example, if you search for the word “sample,” then it is converted to sample*. You get different results than if you entered “sample”, +sample, or *sample*.

How Many Results Can I Receive?

You can receive up to 100 results for each connection that you include in your search. The search results can also include an unlimited number of results from the subscribed reports in your Subscriptions view.

Search Reports

To search reports:

1. Tap in the options bar.

   The Search field appears.

2. Tap the Search for reports field. The keyboard appears.

3. Enter all or part of a search string.

   **TIP** To narrow the search, use search operators.

4. Tap on the keyboard.

   The reports that include the search string appear in a results list. The results list is categorized by the location of the reports.

   You can filter the results.

   You can sort the results.

5. (Optional) To subscribe to a report in the search results, tap on the tile and then tap Subscribe.

   **TIP** You can also subscribe to multiple reports at one time. See “Selecting Multiple Reports”.

6. If you already subscribe to the report, you can open it. Tap the report.

7. To clear the search results, tap in the search field.

8. To dismiss search, tap .

Filter Search Results

**TIP** You can select filter options before or after you receive search results.

To filter search results:

1. Tap in the options bar.

2. Select one or more filter options:

   - the location, such as subscriptions or the server connection
Sorting Reports

You can sort reports wherever you see □ □.

Sort Reports

To sort reports, tap □ □ and make a selection.

Note: Available sort selections vary depending on the view.

- **Name**
  - sorts the reports by name and then by the date of the last successful update of the report on the server.

- **Connection**
  - sorts the reports by their associated server connection, then by their name, and then by the date of the last successful update of the report on the server.

- **Subscription Date**
  - sorts the reports by the date of their subscription and then by their name.

- **Last Updated**
  - sorts the reports by the date of their last successful update of the report on the server, and then by their name.

- **Most Recently Viewed**
  - In the **Subscriptions** view, this selection sorts the reports by the date of their last access on this device and then by their name.
  - In the **Recent** view, this selection sorts the reports by their associated connection, then by the most recently viewed date across all devices.

Sort Search Results

You can sort search results. To learn about search, see “Searching Reports”.

To sort the results, tap □ □ and make a selection:

- **Name**
  - sorts the reports by name and then by the last successful update of the report on the server.

- **Last Updated**
  - sorts the reports by the date of their last successful update of the report on the server, and then by their name.

- **Relevance**
  - sorts the reports by relevance that is determined by the associated server connection.
Selecting Multiple Reports

You can use Selection mode to work with multiple reports at one time. Selection mode is available whenever Select is present in the overflow menu. Depending on the location in the app, you can use Selection mode to subscribe, unsubscribe, share, or add or remove reports from Favorites.

Select Multiple Reports in Subscriptions, Recent, Favorites, and Collection Views

Complete these steps in any of the views:

1. Tap ☰ or open the Overflow menu.
2. Tap Select.
3. Tap one or more reports.
   
   indicates that a report is selected.

   **TIP** Tap the arrow next to the number of selected items, and then tap Select All to select all of the reports in the folder.

4. Tap the action that you want to complete.
5. If you decide not to act on the reports, tap ✗ to dismiss Selection mode.

Select Multiple Reports in Add Reports

In order to work with multiple reports at once while in Add Reports, the reports must all be located in the same folder.

1. Navigate to the folder that contains the reports.
2. Tap ☰ or open the Overflow menu.
3. Tap Select.
4. Tap the button next to each report that you want to select.
   
   indicates that a report is selected. Tap this button again if you want to clear the selection.

   **TIP** Tap the arrow next to the number of selected items, and then tap Select All to select all of the reports in the folder.

5. Tap the action that you want to complete.
6. If you decide not to act on the reports, tap ✗ to dismiss Selection mode.

Select Multiple Reports in Search Results

To select multiple reports:
1 Tap : or open the Overflow menu.

2 Tap Select.

3 Tap one or more reports.

✓ indicates that a report is selected.

**TIP** Tap the arrow next to the number of selected items, and then tap Select All to select all of the reports in the folder.

4 Tap the action that you want to complete.
# Viewing Reports and Objects

**Open a Report**

Open a Report from the Subscriptions View

Tap any report tile.

Open a Report from the Recent, Favorites, or Collection Views

To view a report:

1. Tap the report tile to open the Details window.
2. If SAS Visual Analytics App has a subscription to the report, tap Open.
   Otherwise, tap Subscribe to download the report.
   When the report is available, tap the report tile to open the Details window, and then tap Open.

**Page through a Report**

Reports can include more than one page.

To see and select from all the pages:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viewing Reports and Objects</td>
<td>37</td>
</tr>
<tr>
<td>Open a Report</td>
<td>37</td>
</tr>
<tr>
<td>Page through a Report</td>
<td>37</td>
</tr>
<tr>
<td>View an Object Using the Full Screen</td>
<td>38</td>
</tr>
<tr>
<td>Overriding Report Themes</td>
<td>38</td>
</tr>
<tr>
<td>Learning More about an Object</td>
<td>38</td>
</tr>
<tr>
<td>Receiving Alerts about Data Criteria</td>
<td>40</td>
</tr>
<tr>
<td>What Is an Alert?</td>
<td>40</td>
</tr>
<tr>
<td>View Alert Subscriptions</td>
<td>40</td>
</tr>
<tr>
<td>Using Best-fit Layout for Reports</td>
<td>40</td>
</tr>
<tr>
<td>What Is Best-Fit Layout?</td>
<td>40</td>
</tr>
<tr>
<td>Rearrange the Layout of Objects</td>
<td>41</td>
</tr>
<tr>
<td>Turn On Best-fit Layout</td>
<td>41</td>
</tr>
<tr>
<td>Turn Off Best-fit Layout</td>
<td>41</td>
</tr>
</tbody>
</table>
1 Open the tray:
   - (Tablet) Tap ✉.
   - (Phone) Swipe up from the bottom of the report.
2 Tap the page that you want to view.

**View an Object Using the Full Screen**
To maximize an object:
1 If the tray is not already open, tap the object.
2 Tap ✉ to maximize the object to use the full screen.
To restore the object size:
1 If the tray is not already open, tap the object.
2 Tap ✉.

**Overriding Report Themes**

**What Is a Theme?**
A report is designed to use specific colors and fonts. These are called a *theme*. You can override that theme when you view the report in SAS Visual Analytics App.
The following alternative themes are available:
- High Contrast
- Light (Marine)

**Override the Theme**
To override the theme:
1 If you are in the report viewer, tap ✉.
2 Tap ☐, and then tap Settings.
3 Under Accessibility, tap Override report theme. A list of themes opens.
4 Tap the theme that you want to use.
5 Tap ✉ to exit Settings.

**Learning More about an Object**

**What Information Is Available about Objects?**
Each page of a report can contain one or more objects.
In the tray, you can review information about the report as a whole, or about a selected object. However, the information shown varies depending on how the report is designed. See your report designer for more information.

- a description of the object
- display rules, if applicable
- filters, if applicable
- alerts, if applicable

Note: The Alerts feature is not supported by servers running SAS Visual Analytics 8.1. The feature is supported by all other releases.

- the Comments feature

**View Information about a Report**

To view information about a report:

1. Open the tray:
   - (Tablet) Tap .
   - (Phone) Swipe up from the bottom of the report.

2. Tap .

   **TIP** When you are finished reviewing the report information, you can tap the device back button to display the report table of contents (Pages list).

**View Information about an Object**

Note: The information view in the tray displays information about the selected object. If you select a link that takes you to a hidden page, the information view is refreshed to provide detailed information about the objects that are on the hidden page or about the hidden page itself.

Complete these steps in the report viewer:

1. Tap an object to open the tray. The object information is displayed.

   See "What Information Is Available about Objects?" on page 38.

   **TIP** If you see data information, click the device back button to display the object information view.

2. (Tablets only) To view information about another object on the page, tap that object.

   The information view shows the information for the selected object.

3. Close the tray.

   - (Tablet) Tap .
   - (Phone) Swipe down from the top of the tray.
Receiving Alerts about Data Criteria

What Is an Alert?

An alert specifies criteria to monitor. When data in the report meets the criteria, an email or text message is sent to users that have subscribed to the alert. A report can have one or more alerts settings.

When you view the report in SAS Visual Analytics App, you can view the alerts that are set for that report. You can also see whether you are subscribed to an alert. If you are subscribed to an alert, when the alert criteria is met an email is sent to you.

Note:

- Alert criteria and subscriptions are set using SAS Visual Analytics. For more information, see SAS Visual Analytics documentation.
- The Alerts feature is not supported for reports located on servers running SAS Visual Analytics 8.1. It is supported by all other releases.

View Alert Subscriptions

The Alerts feature is located in the tray. To view alerts, complete these steps.

1. Open the tray:
   - (Tablet) Tap ⬅️.
   - (Phone) Swipe up from the bottom of the report.
2. Tap ⬅️.
3. Tap Alerts.

Using Best-fit Layout for Reports

What Is Best-Fit Layout?

Best-fit layout is when the app rearranges the layout of objects in a page for the best fit available. Use this setting to make your reports easier to view regardless of which device you use or how you hold your device. The best-fit layout adapts depending on your device (tablet or phone) and the device orientation (portrait or landscape).

Note:

- Best-fit layout applies to reports located on servers running SAS Visual Analytics 7.4 and earlier.
- Best-fit layout should not be used with some report features. Contact your report designer to learn if you should turn off best-fit layout.

The setting affects the layout of all reports.

- On a phone, the default setting is on.
- On a tablet, the default setting is off.
You can change the setting while viewing a report or in the app settings.

**Rearrange the Layout of Objects**

Note: Best-fit layout applies to reports located on servers running SAS Visual Analytics 7.4 and earlier.

Complete these steps while viewing a report:

1. Tap \( \text{ or open the Overflow menu.} \)

2. Tap **Rearrange Layout**.

This setting toggles between two states:

- **Layout for limited space on smaller devices.** The objects are laid out vertically. Scroll down to view all objects in a page.
  
  Note: If the device screen is large enough, the app will not change the layout.

- **Layout for larger devices.** The objects are laid out as designed by the report designer.

**Turn On Best-fit Layout**

To turn on this setting:

1. If you are in the report viewer, tap \( \text{ to exit.} \)

2. Tap \( \text{ to open the navigation drawer.} \)

3. Tap **Settings**.

4. Tap the **Best-fit layout** switch.

5. Tap \( \text{ to exit Settings.} \)

**Turn Off Best-fit Layout**

To turn off this setting:

1. If you are in the report viewer, tap \( \text{ to exit.} \)

2. Tap \( \text{ to open the navigation drawer.} \)

3. Tap **Settings**.

4. Tap the **Best-fit layout** switch.

5. Tap \( \text{ to exit Settings.} \)
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Viewing Data

View Data Details
Objects in a report can display details about a data point.
To view the data details, tap on a location in an object.
If data details are available, they are displayed in the tray.

View Data in Explore Mode
Use Explore mode to explore underlying data while viewing an object.
Complete these steps:
1. If the tray is not already open, tap the object.
2. Tap to view the object in full-screen mode.
3. Tap to open Explore mode.

TIP
- If you do not see the button, open the tray.
- You can still tap the object when the table is open.

4. Tap a row in the table to highlight the associated data in the object.

TIP You can scroll the table up and down to view all of the rows.

5. Tap to close Explore mode.

Sort Column Data in Tables
By default, table columns support sorting. You can sort the values in an individual column. You can also set up primary and secondary sorts. If no columns sort, see Columns Do Not Sort in a Table.
To sort data in a column, tap the column heading.
The tray opens and displays these options:

Ascending
sorts the data from low value to high value (A to Z or from 0 to 9).

Descending
sorts the data from high value to low value (Z to A or from 9 to 0).

Type
displays secondary sorting options that you can apply to additional columns.
For each additional column that you want to sort, tap the column heading, tap Type, and then tap Secondary. Tap Ascending or Descending.
Note: After you apply a secondary sort, creating or modifying the primary sort clears all previously applied secondary sorts.

Reset
returns the data to its original sort order.

Note: A check mark indicates the current sort order of the data.

Sort Data in Charts and Graphs
Charts and graphs have a predefined sort order that is determined by the report author.

In charts and graphs in which the report author has turned on X- and Y-axis labels, you can change the default sort order of either the X axis or Y axis or both.

To change the default sort order for a single measure (X axis, Y axis, or both) in a chart or graph:

1 Tap the X-axis label and tap one of the following options:
   - **Ascending** sorts the data from low value to high value (A to Z or from 0 to 9).
   - **Descending** sorts the data from high value to low value (Z to A or from 9 to 0).
   - **Reset** returns the data to its original sort order.

   Note: A check mark indicates the current sort order of the data.

2 Tap the Y-axis label. Tap **Ascending**, **Descending**, or **Reset**.

When multiple measures exist on a single axis, you can choose the measure upon which to sort.

For example, assume that the X-axis label presents two measures, one for **East Coast** and one for **West Coast**. In this case, tap the X-axis label, and then tap **Measure**. Tap **East Coast** or **West Coast**, and then tap the sort option that you want.

View Upper and Lower Range Values for Forecasted Values
For every forecasted value, charts also provide an upper and lower range value.

To view the upper and lower range values:

1 Press and hold your finger on the axis in the chart.
   - A reference line appears. The reference line displays tooltips for the range values that intersect the reference line.

2 Without lifting your finger, move your finger along the axis.
   - The reference line moves and displays the range for other forecasted values.

Report designers might include forecasted values on the following types of charts:

- bar chart
- line chart
- bubble chart
- scatter chart
Filtering Data

About Data Filters, Filter Controls, and Data Highlighting

Data Filters
SAS Visual Analytics App displays interactive reports. Depending on how a report is designed, you can select areas in a report to dynamically filter data.

**TIP** Be sure to ask your report designer to describe any filter controls that are available in the report and explain how to use them.

Report designers can use the following types of data filters in reports:

Object-level filters
filters data in one or more objects. A report can include one or more of these filters.

Interactive filters
an object provides interactive selections that filter one or more other objects on the same page.

For example, you have a report page that contains two objects: a pie chart and a bar chart. When you tap a slice in the pie chart, the value of that slice filters the data in the bar chart.

A report can include one or more of these filters.

Report-level filters
filters data in the report as a whole. A report can include one or more of these filters.

Page-level filters
filters data in the page as a whole. A report can include one or more of these filters.

Page-link filters
a link that opens another page in a report. Depending on the selection made in the source page, the link filters all of the objects in the target page. On the source page, page-links are located in the tray. On the target page, the applied filter value is located in the tray.

Report-link filters
a link that opens another report. Depending on the selection made in the source report, the link filters all of the objects in the target report. On the source page, report-links are located in the tray. In the target report, the applied filter value is located in the tray.

Incoming filters
filters data by one or more values that are passed in from another report or object. For example, when chart A interacts with chart B, the value selected in chart A is the incoming filter for chart B.

See also “Filter Controls” and “Filter Control Bars”.

Filter Controls
*Filter controls* provide a way for you to control how data is filtered in a report. For example, if data is filtered by month, a filter control enables you to specify a month. Report designers can select from a variety of controls when they create data filters in reports. Some filter controls are familiar, such as buttons, lists, text fields, check boxes, radio buttons, single sliders, and range sliders. Your report designer might customize the behavior of some of these controls, but the controls all work in a familiar way.
Other filter controls are less obvious, such as parameters, links, interactions, and highlighting. For example, your report designer can specify whether one-way filters appear in the filter control bar. Unless your report designer tells you that specific controls are present, you might not realize they are in the report.

**TIP** Be sure to ask your report designer to describe any filter controls that are available in the report and explain how to use them.

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### Filter Control Bars

When a report contains report-level or page-level filters, the filter controls are located in the tray. Interactive data filters are located on the filter control bar.

**Report-Level Control Bar**

Report-level filters affect data in the report as a whole. The following examples are report-level filters:

- A filter control in the report that filters the report data as a whole.
- A link from a source report that opens a target report and filters its data

Tap in the report title bar to open the tray and display the filters.

**Page-Level Control Bar**

Page-level filters affect data on the current page only. The following examples are page-level filters:

- A filter control for a page that simultaneously filters all of the objects on that page.
- A link from one page in the report that opens another page and filters that page’s data.

Tap in the report title bar to open the tray and display the filters.

**Interactive-Filter Control Bar**

Interactive filters affect objects on the current page. This control bar appears across the top of the page.

The interactive-filter control bar displays one-way filters and two-way filters that you select on the current page. One-way and two-way filters behave as follows:

- **One-way filters**: A selection in object A filters all objects on the page. A selection in object B filters all objects on the page, except object A.
- **Two-way filters**: A selection in object A filters all objects on the page. A selection in object B filters all objects on the page, including object A.

### Data Highlighting

Reports can be designed to enable the *highlighting* of data. As with filtering, you select a filter value. However, instead of displaying only the data that is filtered, the affected data is highlighted.

**Note**: Highlighting is also called *brushing* or *linked selection*. Highlighting is not the same as report-link filters or page-link filters.

Depending on how an object is designed, you can highlight data in the following ways:

- make a selection from a filter control.
- tap a value in a chart or graph.
- tap a value in a table or crosstab.

The data is highlighted in one or more objects in the report page.
View Values of Interactive Filters

The interactive filter control bar displays one-way filters and two-way filters that you select on the current page. If no selections are made on the page, **No Selections** appears next to the **Filters** label at the beginning of the control bar.

When you select a value in an object that has an interactive filter, a filter control appears in the control bar. The control indicates the selected value. If you select a different value in the filter, the text in the filter control is updated to reflect the new selection.

Each filter control has a clear button. Tap ![clear button] to clear the filter and remove the control from the control bar.

**Note:** If an object (such as a control prompt) requires a filter, the clear button does not appear in the filter control.

If multiple one-way filters are selected, a separator (>) appears between their controls on the bar. The separators indicate that the selection in one filter affects the other filters. Separators are not displayed when multiple two-way filters are selected.

**Note:** If you clear a one-way filter or change the selected value for a one-way filter, subsequent filters on the control bar are cleared. Their filter controls are removed from the control bar. Changing the selected value for a two-way filter or clearing its filter control has no affect on other filter controls on the control bar.

If you maximize an object on the page, the interactive filter control bar is hidden.

Toggle the Interactive Filter Control Bar

The interactive filter control bar toggles:

- You can display the interactive filter control bar to view interactive filters.
- You can hide the filter control bar so that the report has more screen space.

To toggle the filter control bar, tap ![toggle button] in the report title bar.

See also “Filter Controls” and “Filter Control Bars”.

View Filters That Run Off the Screen

If the control bar has more filters than it can display (for example, on a phone), the bar scrolls horizontally. Drag left and right to view the filters.

View the Filter Value on a Slider Control

When a report uses a slider control, you can press and hold your finger on the slider bar or the slider indicator to see the filter value.

Select Multiple Values in Crosstabs

Depending on how a report is designed, crosstabs can support making multiple selections:

1. Tap to select the first value.
2. For each additional value that you want to select, press on that value until the selection is activated.
3. To clear a selection, press on that value until the selection is cleared.
Animate an Object

In animated objects, the data points are animated across a range of time.

1. Tap the object.
   - The Play button (▶) appears in the lower left corner.

2. Tap to start the animation.
   - A progress indicator for the time range appears briefly.
   - The value on the left is the current time point in the animation time range.
   - The value on the right is the final time point in the animation time range.

3. To view different time points in the animation, drag the progress indicator along the time range.

4. Tap to pause the animation and display the progress indicator.

Linking to Other Data or Information

What Are Links?

If an object provides links, they are available in the tray.

Depending on how a report is designed, objects can include the following types of links:

Page links
- links from one page in a report to another page in the same report.
  - The link can also include a filter value. In the target page, the button is enabled in the report title bar if the link applied a filter value. See “Toggle the Interactive Filter Control Bar”.

Report links
- links from one report to another report.
  - The link can also include a filter value. In the target page, the button is enabled in the report title bar if the link applied a filter value. See “Toggle the Interactive Filter Control Bar”.

External links
- links from the report to an external location, such as a web page.

Hidden page links
- links from an object to a page that appears only when the link is tapped. A link can be attached to an object, image, or text. The hidden page opens on top of the current report page. A hidden page can contain one or more objects. The link can also include a filter value.
  - Note: This link type was formerly called Info window.

Link to Another Page or Report

Complete these steps in a report:

1. Tap on a data point in an object.
2 In the tray, tap ➕.
   The linking options appear.

3 Tap your selection.
   The linked location opens.

4 (Optional) If a link applied a filter to the data in the target report or page, you can view the applied filter and its value.
   Tap the object to display the object information in the tray.

**Return to a Prior Link Location**
When you have linked across multiple pages or reports, you can review the trail of your navigation and return to a prior link location.

To review the trail of your navigation and select a prior link:

1 In the report title bar, tap ➕. The Link History panel opens in the tray.

2 Tap an option in the list to return to that location.

To exit the report viewer and close all reports, tap **Close All Reports**.

**Link to an External Location**
To link to an external location:

1 Tap on a data point in an object.

2 In the tray, tap ➕.
   The linking options appear.

3 Tap the external link.
   The linked location opens in a new window.

4 To return to your previous location, tap the device back button.

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**Drilling Into Data Hierarchies**

**What Is a Hierarchy?**

A *hierarchy* is an arrangement of category columns that is based on parent-child relationships. The levels of a hierarchy are arranged with more general information at the top and more specific information at the bottom. For example, a hierarchy of date-time columns contains Year as the top level, Month as the next level, and Day as the bottom level.

Hierarchies enable you to drill down in charts, graphs, and crosstabs (also known as crosstabulation tables). An object can be designed with one or two data hierarchies. For example, an object might have a date-time hierarchy and a geographic hierarchy.
Ways to Navigate Hierarchies

If an object provides data drilling options, they are available in the tray. In a crosstab, data-drilling options are also provided as links in the table itself.

Depending on how an object is designed, you can navigate hierarchies in the following ways:

- drill down in a hierarchy to a subset of data and detailed information
- drill up in the hierarchy to a broader data view and general information
- expand or collapse the data hierarchy in a crosstab
- navigate one or two hierarchies

Navigate a Data Hierarchy

To drill down or up:

1. Tap on a data point in an object.
2. In the tray, tap upwards.
   The data-drilling options appear.
   Note: If an object contains two hierarchies, an indicator (●) appears at the bottom of the tray.
   Tap the buttons to alternate between the hierarchies.
3. Tap your selection. The new data view appears in the object.
4. To view another level of the data hierarchy, repeat steps 1 through 3.

   TIP  To navigate upward in a hierarchy, tap upwards.

5. To view the available selections in a level in one or more hierarchies, or to change a selection:
   a. In the Drill view, tap Drill to.
      The drill options appear.
      Note: If the object contains two hierarchies and you have drilled into both, you can view the levels in both hierarchies.
   b. To view another level, tap that level. The object draws the new data view.
   c. To change the selection for a level, tap for that level to view a list, and then tap your new selection.
      The object draws the new data view.

View Warnings about an Object

If you drill down to a level of the object that does not have data, a warning appears in the lower right corner of the affected object: ⚠.

To view more information about the warning, tap ⚠.
Expanding Crosstab Hierarchies

Why Expand a Crosstab Hierarchy?
You can expand a crosstab hierarchy. Expansion enables you to view multiple levels of data at a time.

For example, in a crosstab that summarizes data for several years, you can expand one or more of the years. The expansion enables you to see the data at the year level and, for the years that you expanded, the data at the month level as well.

Alternatively, you can expand all the children of a hierarchy level. For example, given the same report, you can expand all the years at the same time to review their monthly data.

Note:
- When the ranking option is applied to a crosstab, expand and collapse are disabled. Instead, you can drill up and drill down in the hierarchy.
- You can view the rank applied to the crosstab in the tray.

Expand the Hierarchy in a Crosstab
To expand a single item in a crosstab (for example, to expand the year 2017):

1. Tap the item.
2. In the tray, tap 🔄.

To expand all of the children for a level in a crosstab (for example, to expand the months for all of the years):

1. Tap a column heading or row heading.
2. In the tray, tap 🔄. 
   The crosstab expands to display the data that is the next level down in the hierarchy.

To collapse a single item in a crosstab (for example, to collapse the year 2017):

1. Tap the item.
2. In the tray, tap ⏽.

To collapse all of the children for a level in a crosstab (for example, to collapse the months for all of the years):

1. Tap a column heading or row heading.
2. In the tray, tap ⏽.
Exploring Data By Using Geographic Mapping Services

What Are Geographic Mapping Services?

A report can contain an object that uses maps as a background for data. SAS Visual Analytics uses maps provided by the Esri and OpenStreetMap geographic mapping services to display data points. SAS Visual Analytics retrieves map tiles and location information from these services and then overlays your organization’s data onto the maps.

Depending on how the report is designed, your data can appear on the map as map coordinates, bubbles plotted onto the map, or regions on the map.

You can use the following options:

Search
Search the map for street addresses or points of interest (for example, pizza restaurants).

Distance
Identify data points on a bubble or coordinate map that are within a specified radial distance from a selected point. The map zooms in and highlights the affected area. Data points outside of the affected area remain on the map but are not selected.

Drive distance
(Premium) Identify data points on the map that are within a specified driving distance from a selected point. The map zooms in and highlights the affected area. Data points outside of the affected area remain on the map but are not selected.

Drive time
(Premium) Identify data points on the map that are within a specified driving time from a selected point. The map zooms in and highlights the affected area. Data points outside of the affected area remain on the map but are not selected.

Remember the following considerations about premium services:

- Premium services are supported only on servers running SAS Visual Analytics 8.1 or later.
- Drive distance and Drive time are premium features provided by Esri. Your organization uses Esri credits to pay for using these features.
- To use these features, you must provide login credentials for the mapping service on at least one of your devices.
- You might need additional capabilities assigned to your user ID. Contact your SAS administrator.
- You can disable and enable the premium services. See “Turn On Esri Premium Services” and “Turn Off Esri Premium Services”.

What Is a Break?

You can select additional distances to highlight on the map. Each distance is identified by a break. You can select additional distances when using the Drive time and Drive distance selections.

For example, you want to identify customers that are within 5 miles and 10 miles of a location. When you select Drive distance, you set the distance for 5 miles. Then, you add a break and select a distance of 10 miles. The mapping service calculates both distances and highlights the affected areas on the map. The area within 5 miles is a shade of gray. The area within 5 to 10 miles is another shade of gray.
This option is a premium feature provided by the mapping service. When you specify more than one distance, the calculation costs more and takes longer to process. The app supports up to three distances or time spans in a calculation.

View Map Data Details
To view data about a data point, tap that data point in the map. The tray displays information about the data.

Pan the Map
To view areas of the map that are outside the area of the object, you can pan the map:
1. To turn on Pan mode, pinch or spread your fingers on the object to zoom in or out.

   **TIP** Zooming the object alerts the app that your subsequent gestures are not intended to page through the report.

2. Drag a finger on the map to pan the viewable area.
3. Turn off Pan mode. Double-tap the map to restore its initial view.

   **TIP** You can now page through the report again.

Search the Map
You can search for street addresses or points of interest (for example, pizza restaurants). You can receive up to 20 results.

**TIP** If there are more than 20 results, the 20 shown are those nearest the current visual center of the map.

Complete the following steps:
1. If the tray is not already open, tap the map to open it.
2. Tap `Q` to view the map in full-screen mode.
3. Drag your finger on the map to position your chosen location to the visual center of the map.

   **TIP** Search works from the current visual center of the map and continues outward.

4. Tap `Q`.

   **TIP** If you do not see the button, open the tray.

5. Enter your search string in the **Search map** field.

   Depending on what you enter, the Search interface displays up to 20 suggestions. Up to five recent search strings for searches that have occurred during the current app session are also displayed. As you continue to type, new suggestions replace earlier ones.
6 To initiate a search using the string that is typed, select Q. Alternatively, you can select any one of the suggested search items or recent search items in the list.

The search results appear. A location pin for each result appears on the map. The pin number matches its result. When available, the search results also provide the name and street name of each location.

7 Tap a result to highlight its pin on the map. Tap the pin to display the location data in the tray.

8 You can highlight data points surrounding the selected result by selecting a distance option.

Note: For information about premium services, see “What Are Geographic Mapping Services?”

Tap Distance.

Distance
Specify a distance from the search result location.

Drive time
(Premium) Specify a drive time from the search result location.

Drive distance
(Premium) Specify a driving distance from the search result location.

9 To start a new search, tap X.

Identify Data Points by Distance
To identify data points that are located within a specified distance:

1 Select the location to use for the center of distance calculation:
   - To select a data point, tap the data point, and then tap in the tray.
   - To select any location on the map, press and hold on that location.

2 Tap Distance.

3 Enter the distance.

4 By default, miles is the selected measure. Tap Miles to display a menu that enables you to switch between Miles and Kilometers. Tap the measure that you want.

5 Tap Apply.
   The app zooms into the map and highlights the data points that are located within the specified distance.

Identify Data Points by Drive Time
Note: For information about premium services, see “What Are Geographic Mapping Services?”
To identify data points that are located within a specified drive time:

1 Select the location to use for the center of distance calculation:
   - To select a data point, tap the data point, and then tap in the tray.
   - To select any location on the map, press and hold on that location.
2 Tap **Drive time**.

3 Enter the drive time duration.

4 (Optional) To identify more than one set of data points, tap **Add break** and enter an additional data point. See “What Is a Break?”

5 Tap **Apply**.

   The map highlights the data points that are located within the specified drive time.

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**Identify Data Points By Drive Distance**

*Note: For information about premium services, see “What Are Geographic Mapping Services?”*

To identify data points that are located within a specified drive distance:

1 Select the location to use for the center of distance calculation:
   - To select a data point, tap the data point, and then tap 🗺 in the tray.
   - To select any location on the map, press and hold on that location.

2 Tap **Drive distance**.

3 Enter the drive distance.

4 By default, miles is the selected measure. Tap **Miles** to display a menu that enables you to switch between Miles and Kilometers. Tap the measure that you want.

5 (Optional) To identify more than one set of data points, tap **Add break** and enter an additional data point. See “What Is a Break?”

6 Tap **Apply**.

   The map highlights the data points that are located within the specified drive distance.

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**View Map Data in Explore Mode**

Use Explore mode to explore underlying data while working with a map.

Complete these steps:

1 If the tray is not already open, tap the map to open it.

2 Tap 💡 to view the map in full-screen mode.

3 Tap 📑 to open Explore mode.

   **TIP**

   - If you do not see the button, open the tray.
   - You can still tap the map when the table is open.

4 Tap a row in the table to see the associated location in the map.
Highlight Map Data in Explore Mode
When in Explore mode, you can select areas on the map and the associated table data is highlighted. Complete these steps:

1. If the tray is not already open, tap the map to open it.
2. Tap to view the map in full-screen mode.
3. Tap .
   
   TIP
   - If you do not see the button, open the tray.
   - You can still tap the map when the table is open.

4. Tap a selection shape: or .
   
   Note: The shapes that are available depend on how the report is designed.

5. Tap and drag on the map to select an area of the map.
   The associated data for this area is highlighted in the table.

6. To highlight other table data, tap inside the selection shape and drag to the new area.
   The movement is reflected in the table.

7. To dismiss the selection, tap outside the selection shape.

Select Map Data to Interact with Other Objects
When in Explore mode, you can select areas on the map to identify data for an interaction in other objects. Because you must view the map in full-screen to use Explore mode, you cannot see the interactions when they occur. You must restore the map to its initial size and review the other objects for interactions.

TIP Ask your report designer if the map has any interactions with other objects.

Complete these steps:

1. If the tray is not already open, tap the map to open it.
2. Tap to view the map in full-screen mode.
3. Tap .
   
   TIP
   - If you do not see the button, open the tray.
You can still tap the map when the table is open.

4 Tap a selection shape: □ or ○.
   **Note:** The shapes that are available depend on how the report is designed.

5 Tap and drag on the map to select an area of the map.

6 Tap † to restore the map to its initial size.

   **TIP** Be careful not to tap the map and dismiss the selected area.

7 Review the objects on this page for interactions based on the data selected.
Sending Reports to Others

How Can I Send a Report?
The app generates a report link that enables you to send a report. A report link is a link that opens the report. You can send a link by using email or text.

When a recipient taps the link, the app subscribes to the report, downloads it, and opens it. If the recipient does not have a server connection to the server on which the report is located, the app automatically sets up the connection.

TIP
- Sharing a report is a great way to quickly and easily add a server connection. See “Quickly Add a Server Connection”.
- Depending on how a report is accessed, email can also contain a screen capture of a page from the report.
- You can share a report without subscribing to it.
- You can share multiple reports at once. See “Selecting Multiple Reports”.

Email or Text a Report

Receive a Report Link

Present Your Screen to Others

Annotating a Report Page

Annotate a Report Page
Share the Annotated Page
Save the Annotated Page
Exit the Annotate Window

Printing Reports

Print a Report While Viewing It
Print a Report from Add Reports
Print a Report from Search Results
Print a Report While in Subscriptions, Recent, Favorites, or Collection Views
Note: Your email and text message app availability can vary depending on your device.

Email or Text a Report

To email or text a report:

1 Do one of the following:
   - In the report viewer, tap Share.
   - In the Subscriptions, Recent, Favorites, or collection views, tap Share.
   - In Add Reports, tap a report.

2 Tap Share.

3 If your device has multiple apps for sharing, an app selection window opens. Tap the app that you want to use.

A window appears with the report information.

4 Tap the To field and enter the contact information for the recipient.

5 (Optional) Tap the message area to enter text.

6 Complete the action to return to SAS Visual Analytics App. For example, in an email app, tap Send.

You can also send multiple reports at one time. See “Selecting Multiple Reports”.

Receive a Report Link

When you receive an email or a text message with a link to a report, tap the link to open the report.

- If you already subscribe to the affected report, SAS Visual Analytics App opens the report.
- If you are not subscribed to the report, the app asks whether you want to download the report.
- If you choose to download the report, the app asks whether to open the report when the download is complete.
- If you have not created a connection to the server hosting the report, the app prompts you to create a connection.

Present Your Screen to Others

You can share your device screen with others while you use SAS Visual Analytics App. Participants invited to the presentation do not require SAS Visual Analytics App. The screen is viewed in a web browser. The web browser can be located on a desktop computer or a mobile device.

Note: Present screen is for SAS Visual Analytics App only. When you leave the app, the presentation automatically pauses.

This feature is located in the report viewer. Tap Share and then tap Present Screen.
Annotating a Report Page

What Is Annotation?

When you select the Annotate feature, the app creates a screen capture of the current page that you are viewing in the report. You can draw and write your observations on the image. When you are finished, you can share the annotated page with others.

Annotate a Report Page

To annotate a copy of a report page:

1. Tap \ or open the Overflow menu.
2. Tap Annotate.

An image of the page that you are viewing appears.

The following tools are available:

- Tap the pen to write or draw on the image. You can change the color and width of the output. This is the default tool.
- Tap the highlighter to draw translucent color on the image. You can change the color and width of the output.
- Tap the eraser to erase parts of the annotation.
  - Tap Clear All to clear all of the annotation. You can also change the size of the eraser.
- Tap the Undo button for each action that you want to undo.
  - (Phone) Tap .undo. A menu appears. Tap Undo. Repeat this process for each action that you want to undo.
- Tap the Redo button for each action that you want to redo.
  - (Phone) Tap .redo. A menu appears. Tap Redo. Repeat this process for each action that you want to redo.

Share the Annotated Page

You can share the annotated page in the following ways:

- Share an image of the annotated page using email or text messages.
- Save an image of the annotated page on your device.

Save the Annotated Page

To save your annotated page, tap积蓄.

A notification appears at the bottom of the screen that indicates the location where the image is saved on the device.

Note: Depending on your device, the image of your annotation is saved to your device's Gallery, File Manager, or both.
Exit the Annotate Window
To exit the Annotate window, tap ✔. The annotated page is saved.

Printing Reports

Print a Report While Viewing It
To print a report:

1. Tap ‰ or open the Overflow menu.

2. Tap Print.
   A progress indicator appears. The server connection generates a PDF of the report, and the PDF is downloaded to your device.

   **TIP** To cancel the process, tap Cancel on the progress indicator.

3. A Download is Complete window appears. Tap Open.

4. The Open with window appears.
   Tap an app to open and print the PDF.

   **TIP** You might have to scroll down to view all of the applicable apps.

Print a Report from Add Reports
You can print reports with or without a subscription:

1. Tap the report.

2. (Tablet) Tap Print.
   (Phone) Tap ‰ and then tap Print.
   A progress indicator appears. The server connection generates a PDF of the report, and the PDF is downloaded to your device.

   **TIP** To cancel the process, tap Cancel on the progress indicator.

3. A Download is Complete window appears. Tap Open.

4. The Open with window appears.
   Tap an app to open and print the PDF.

   **TIP** You might have to scroll down to view all of the applicable apps.
Print a Report from Search Results

You can print reports with or without a subscription:

1. Tap the report tile.
2. Tap **Print**.
   
   A progress indicator appears. The server connection generates a PDF of the report, and the PDF is downloaded to your device.

   **TIP** To cancel the process, tap **Cancel** on the progress indicator.

3. A Download is Complete window appears. Tap **Open**.
4. The Open with window appears.
   
   Tap an app to open and print the PDF.

   **TIP** You might have to scroll down to view all of the applicable apps.

Print a Report While in Subscriptions, Recent, Favorites, or Collection Views

You can print reports with or without a subscription:

1. Tap the report tile.
2. Tap **Print**.
   
   A progress indicator appears. The server connection generates a PDF of the report, and the PDF is downloaded to your device.

   **TIP** To cancel the process, tap **Cancel** on the progress indicator.

3. A Download is Complete window appears. Tap **Open**.
4. The Open with window appears.
   
   Tap an app to open and print the PDF.

   **TIP** You might have to scroll down to view all of the applicable apps.
Troubleshooting SAS Visual Analytics App

Problems in the Subscriptions, Recent, Favorites, or Collection Views

The Favorite View Is Empty

Problem: You added one or more reports to Favorites, but the Favorites view is empty.

Explanation: The ability to view reports for a particular server in the Favorites view (and in the Favorites folder in the Add Reports window), is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.
Cannot Add a Report to Favorites

Problem: You can view a report, but you cannot add the report to favorites.

Explanation 1: You are accessing the report using a guest connection to the server. In this situation, the Favorites setting is not enabled or only the SAS administrator can add and remove reports from Favorites. See “What Is a Guest Connection?”

Resolution 1: Contact the system administrator for the affected server.

Explanation 2: The ability to add a report to the Favorites view is controlled by an administrative setting.

Resolution 2: Contact the SAS administrator for the affected server.

Cannot Remove a Report from Favorites

Problem: You cannot remove a report from Favorites.

Explanation 1: You are accessing the report using a guest connection to the server. In this situation, the Favorites setting is not enabled or only the SAS administrator can add and remove reports from Favorites. See “What Is a Guest Connection?”

Resolution 1: Contact the SAS administrator for the affected server.

Explanation 2: The ability to remove a report from the Favorites view is controlled by an administrative setting.

Resolution 2: Contact the SAS administrator for the affected server.

A Report Tile Does Not Display an Image

Problem: When you are in the Subscriptions, Recent, Favorites, or collection views, or in search results, one or more report tiles do not display an image.

Explanation: When possible, an image from the report is auto-generated for the report tile. If an image cannot be generated, the report tile displays a default image.

Resolution: The report tile is working as designed.

**TIP** The default image differs from ☁ which indicates a report that uses remote data. See “About Local and Remote Report Data”.
The Recent View Is Empty

Problem: You have viewed reports, but the Recent view is empty.

Explanation: The Recent view can be empty because of the following reasons:

- You downloaded and viewed the report using a guest connection to the server. Reports viewed using a guest connection are not included in the history of recently viewed reports.
- You cleared the recently viewed reports history for the connection.
- The server on which the affected reports are located might have reset your history.
- The ability to view the content of the Recent view is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server. If the issue is a missing administrative setting, the administrator uses one of the following settings:

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myHistory.
- (SAS Visual Analytics 7.3 and 7.4) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 73.

Cannot Delete Reports in Subscriptions

Problem: You cannot delete a report in Subscriptions.

Explanation: Some of the reports in Subscriptions are part of a collection that you have auto-subscribed. You cannot delete auto-subscribed reports.

Resolution: To remove the reports from the Subscribed section, clear the auto-subscribe option for the affected collection. See “Remove Auto-subscribe”.

Problems in Add Reports or Search

Cannot Subscribe to a Report

Problem: You attempt to add a report to your subscriptions, but it fails.

Explanation: The ability to subscribe to reports and view reports is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /SASMobileBI.
- (SAS Visual Analytics 7.3 and 7.4) The required capability is View Report and Stored Process.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 73.

Search Fails to Return Results

Problem: The app does not return any search results for a server connection.

Explanation: The device is not connected to a network. The app requires a network connection to search a connected server. When there is no network connection, search results include only reports located on the device.

Resolution: Make sure the device is connected to a network and that Airplane mode is turned off.
You Do Not Know the Report Location

Problem: You do not know the server name or the path in which the report is located.

Resolution: The following slideshow shows you how to find a report's server and path information.

View the slideshow in SAS Help Center.

For detailed steps, see “Identify an Open Report’s Server and Path Information” and “Identify a Closed Report’s Server and Path Information”.

Problems in the Report Viewer

Report Data Is Missing or Incomplete

Problem: The report either partially opens or the app displays the following message:

A server data request was not fulfilled. The object data might be missing or incomplete. Make sure that a network connection is available such as a cellular, Wi-Fi, or other network.

Explanation: This problem occurs when the device is not connected to a network. The report uses data conditions that force SAS Visual Analytics App to retain a live connection with the report server. This connection enables the app to download additional data in response to interactions. This live connection is lost when the device is not connected to a network.

Resolution:

- Make sure that the Airplane mode setting is turned off. This setting is located in the Android Settings app. The setting is typically located in the Wireless and Networks section.
- Make sure that you currently have a wireless, cellular, or other network connection.

Report Is Missing Web Content

Problem: You see a blank space in a report where web content should appear.

Explanation: Report designers can include a link to web content (such as an external page or YouTube video) in a report. The content to which the link points appears in the report. The content might be missing because of the following reasons:

- there is no internet connection.
- there was an error in how the link was added to the report.
- the link might no longer be valid.

Resolution:

- Make sure that you currently have a Wi-Fi or other internet connection.
- Contact the report designer.

Columns Do Not Sort in a Table

Problem: You tap a column heading in a table and the column data does not sort.
Explanation: When the column data does not sort, it might be because of one or more factors:

- Some reports might use a type of data that the app cannot dynamically sort.
- Sorting might be disabled for some objects.

Resolution: Contact your report designer about the design of the report.

**Drive Time and Drive Distance Are Missing on an Esri Map**

Problem: A report includes an object that is an Esri map. However, the tray provides only the *Distance* selection. The *Drive time* and *Drive distance* selections are missing.

One or more of the following situations might be the cause:

- **Explanation 1:** The affected report is located on a server running SAS Visual Analytics 7.4 or earlier. Drive time and drive distance functionality are provided by release 8.1 and later.
  
  Resolution 1: The server must be running SAS Visual Analytics 8.1 or later. Contact your SAS administrator.

- **Explanation 2:** You require an additional Esri setting assigned to your user ID.
  
  Resolution 2: Contact your SAS administrator. Your user ID in SAS Visual Analytics must be assigned the URI `/webDataAccess/esri/user/token`.
  
  For more information, see "URIs and Capabilities That Affect the Mobile App" on page 73.

- **Explanation 3:** The server does not have your Esri credentials.
  
  Resolution 3: You must enter your Esri credentials for the applicable server connection in SAS Visual Analytics App.
  
  **Note:** Depending on your organization, Esri credentials and the server connection credentials can differ. Contact your SAS administrator about your Esri credentials.

**Cannot View Comments**

Problem: You cannot view comments associated with a report or its contents.

Explanation: The ability to view comments is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is `/comments/comments`.
- (SAS Visual Analytics 7.3 and 7.4) The required capability is Add and View Comments.

For more information, see "URIs and Capabilities That Affect the Mobile App" on page 73.

**Cannot Add Comments**

Problem: You cannot add a comment to a report or its contents.

Explanation: The ability to add comments to a report or its contents is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is `/comments/comments`.
- (SAS Visual Analytics 7.3 and 7.4) The required capability is Add and View Comments.

For more information, see "URIs and Capabilities That Affect the Mobile App" on page 73.
Cannot Subscribe to Alerts
Problem: You cannot access the Alerts view in the report viewer and subscribe to alerts.
The ability to subscribe to alerts is controlled by an administrative setting.
Resolution: Contact the SAS administrator for the affected server.
- (SAS Visual Analytics 8.2 or later) The required URI is /reportAlerts/*.
  Note: The Alerts feature is not supported by SAS Visual Analytics 8.1.
- (SAS Visual Analytics 7.3 and 7.4) The required capability is Personalization.
For more information, see “URIs and Capabilities That Affect the Mobile App” on page 73.

Alerts Do Not Work
Problem: Alerts do not work for a report.
Explanation: The Alerts feature is not supported on servers running SAS Visual Analytics 8.1. It is supported on all other releases.
Resolution: Contact your SAS administrator about the version of SAS Visual Analytics.

The Present Screen Feature Disconnects Too Soon
Problem: You are presenting your screen to others and the present screen feature disconnects while your device is idle.
Explanation: When the device is idle longer than the Automatic Disconnect setting, the present screen feature automatically disconnects and stops the presentation.
Resolution: You can adjust the Automatic Disconnect setting:
1. If you are in the report viewer, tap ← to exit.
2. Tap to open the navigation drawer.
3. Tap Settings.
4. Scroll down and tap Automatically Disconnect.
5. Tap your selection.
6. Tap ← to exit Settings.

Problems in the Screen Presentation Web Application
A screen presentation shows you another person’s device while they are viewing SAS Visual Analytics App. The presentation opens in your web browser. You do not need SAS Visual Analytics App.

The Link to the Presentation Fails to Open
Issue: You received an email invitation to a screen presentation. When you clicked the link in the email, the link fails to open the web page.
Explanation: You must be on the same network as the screen presenter. If you are at another location that uses a different network, the web viewer security blocks the web page from opening.
Resolution: Identify the network that your device is using. Ask the presenter which network the mobile device is using. One of you must change your selected network to be the same as the other.

**The Screen Appears to Freeze**

Issue: During the presentation, there is no activity on the screen.
Explanation: During longer presentations, the screen might freeze.
Resolution: Ask the presenter whether they are actively navigating a report or the app. If the presenter is active, sign out of the web viewer and then sign in again.

**Cannot Email or Share Reports**

Problem: You cannot email, text message, or share reports in any way.
Explanation: The ability to share a report is controlled by an administrative setting.
Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is `/SASVisualAnalyticsCommon_capabilities/shareReport`.
- (SAS Visual Analytics 7.3 and 7.4) The required capability is Email.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 73.

**App Fails to Respond or Displays Unexpected Behavior**

Problem: The app does not respond or the app displays unexpected behavior.
Resolution: Stop the app and, in some cases, re-install the app. Do so in the following order:

1. Stop SAS Visual Analytics App. The following procedure can vary depending on your Android device.
   a. On the Home screen, tap the Apps icon.
      
      **TIP** The Apps icon is 📦 on some devices.
   b. Locate and tap **Apps**.
      
      **TIP** On some devices this might be Application Manager.
   c. Locate and tap **Analytics**.
   d. Tap **Force stop**.
   e. A confirmation window appears. Tap **OK**.
   f. Tap the **Home** button to return to the Home screen.

2. Restart the app to determine whether the problem is resolved.
3. If the problem persists, stop the app again using the procedure in step 1.
4 Delete the app.

**CAUTION!** Deleting an app also deletes the reports and data from your device. Any server connections, user IDs, and passwords are also deleted.

The following procedure can vary depending on your Android device.

a Open Settings.

b Locate **Apps** and tap it.

c Locate **Analytics** and tap it.

The app Info view appears.

d Tap **Uninstall**.


6 Start the app to determine whether the problem is resolved.

7 If the problem persists, contact your technical support staff.
Technical Information

**Overview**

SAS administrators can control access to certain features in SAS Visual Analytics App. The control method differs depending on the release of SAS Visual Analytics to which the mobile app connects.

- For release 8.1 or later, access is controlled by adjusting rules applied to a user or group of users. Rules are identified by URIs (Uniform Resource Identifiers).
- For release 7.3 and 7.4, access is controlled by assigning capabilities to a role. Then, a user or group of users are given membership to that role.

URIs and capabilities can be set on a per user per server basis. This means, for example, that a user ID might be enabled to add comments on one server, but not on another.

If a user is having trouble accessing a feature in the mobile app, their user ID might not have the necessary URI or capability. If a user is having trouble accessing a feature, verify the URI or capabilities that have been assigned to their user ID for the applicable server.

**URIs Used for SAS Visual Analytics 8.1 and Later**

The following URIs control access to features in SAS Visual Analytics App when the app connects to SAS Visual Analytics 8.1 and later.

- `/SASMobileBI/**`
- `/SASMobileBI_capabilities/allowWebContent`
  
  **Note:** This URI is supported on servers running SAS Visual Analytics 8.3 and later.
- `/SASMobileBI_capabilities/cacheMobileReportData`
- `/SASMobileBI_capabilities/exemptFromOfflineTimeLimit`
- `/SASMobileBI_capabilities/exemptFromPasscodeRequirements`
- `/SASVisualAnalyticsCommon_capabilities/shareReport`
- `/comments/comments`
Capabilities Used for SAS Visual Analytics 7.3 and 7.4

The following capabilities control access to features in SAS Visual Analytics App when the app connects to SAS Visual Analytics 7.3 and 7.4.

- View Report and Stored Process
- Add and View Comments
- Email
- Export Data
- Personalization
- Purge Mobile Report Data
- Limit Duration of Offline Access
- Require Passcode on Mobile Devices

For more information, see the applicable Administration Guide and search on the name of the capability:

- SAS Visual Analytics 7.4: Administration Guide.
- SAS Visual Analytics 7.3 documentation page and view the Administration Guide PDF.

Password Storage on Devices

SAS Visual Analytics App accesses servers on which reports are located. Typically, these servers are configured to require a user ID and password before permitting access. SAS Visual Analytics App stores the user ID and password on the mobile device.

The app uses application programming interfaces (APIs) provided by the mobile device’s operating system to store and retrieve this information:

- Android uses the AccountManager API.
- iOS uses the Apple Keychain APIs.
- Windows uses the Microsoft Credentials Locker.
Getting Help

Ways to Get More Help
If you have problems with a report, contact the report designer or your SAS administrator.
For more help:

- see the documentation about SAS Visual Analytics at SAS Visual Analytics web page.
- participate in the SAS Visual Analytics section of the SAS Community web site.
- contact SAS Technical Support.

Give Feedback
If you have feedback about SAS Visual Analytics App, contact SAS.
If you have feedback about the Help, submit your comments using the feedback form. In the Feedback category list, select Documentation.

Get Information about SAS Products
For more information about SAS Visual Analytics and SAS Visual Analytics App:
See the SAS Visual Analytics App page at this address:
http://www.sas.com/mobile
Email for information:
mobileapps@sas.com

For information about SAS SDK, a free developer’s toolkit for creating custom mobile apps for SAS Visual Analytics reports, see developer.sas.com. SAS SDK is available for iOS and Android operating systems.

User Interface Help

Subscriptions View
Shows all of the reports to which you subscribe on this mobile device.

Common Tasks
View a Report: Tap the report tile.
Add a New Report to Your Subscriptions
Add a Report to Favorites
Print a Report

TIP You can print reports with or without a subscription.

More Tasks
View Your Favorite Reports
Review Your Recent Report Access from All Devices
View Collections of Reports
“Email or Text a Report”
“Unsubscribe from a Report”
Troubleshooting Problems in the Subscriptions View

Add Reports Window
Shows your server connections and the reports that they contain.

Common Tasks
“Subscribe to a Report”
“Add a Server Connection”
“Locate a Report on a Server Connection”
“Search Reports”
Print a report

TIP You can print reports with or without a subscription.
More Tasks

View Report Details: Tap the report tile.
“Change the Password for a Server Connection”
“Clear the Recent View”
“Email or Text a Report”
Troubleshooting Problems in Add Reports or Search

Report Viewer

View your reports. Explore your data. Share your screen.

Common Tasks

Use Features Designed into the Report
View Reports and Objects
“View Information about an Object”
“View an Object Using the Full Screen”
Update the Report
Print a Report

More Tasks

Present Your Screen to Others
Annotate a Page from a Report
“Email or Text a Report”
Troubleshooting Problems in the Report Viewer

Favorites View

Reports added to your favorites on this or another device. See “Your Favorites on Every Device”.

Common Tasks

Subscribe to a Report: Tap ☑️ on the report tile, and then tap Subscribe.
View a Report
Print a Report

TIP You can print reports with or without a subscription.

More Tasks

Remove a Report from Favorites
“Email or Text a Report”
Troubleshooting Problems in the Favorites View
Recent View
Reports that you have recently viewed on this or another device.

Common Tasks
Subscribe to a Report: Tap \ on the report tile, and then tap Subscribe.
View a Report
Print a Report

TIP You can print reports with or without a subscription.

More Tasks
“Clear the Recent View”
Add a Report to Favorites
“Email or Text a Report”
“Search Reports”
Troubleshooting Problems in the Recent View

Collections View
Shows a group of reports that a collection owner has selected and made available to you.

Common Tasks
“Auto-subscribe to a Collection”
View a Report
Print a Report

TIP You can print reports with or without a subscription.

More Tasks
“Remove Auto-subscribe”
Add a Report to Favorites
“Email or Text a Report”
Troubleshooting Problems in the Collection View