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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.
Learn about security features of the app.

Common Tasks

- View Reports
- Add a Server Connection
- Add a Report
- “Search Reports”

What Else Can I Do?

- Tasks available while adding a report
- Tasks available while viewing a report
- Managing My Reports
- Managing favorite reports
- Managing recent reports
- Managing a collection of reports

Troubleshooting

- Chapter 8, “Troubleshooting SAS Visual Analytics App,”
- “URIs and Capabilities That Affect the Mobile App”
- Chapter 10, “Getting Help,”

What’s New

What’s New in Release 8.40

SAS Visual Analytics App 8.40 for Android provides the following enhancements and fixes.

Support for Saving Report State on Servers

When viewing reports located on servers running SAS Visual Analytics 8.3 or later, the state of your report is now saved when you close the report. If you use multiple devices (for example, a tablet and a phone) to view and update reports, the report...
state on the server reflects the most recent updates made before closing a report on any device.

For more information about this feature, see “Restoring the Report State”.

Enhancements to the Add a Server Connection Feature

The following changes were made to the add connection feature:

- The app detects the port number for you. You are not prompted to enter the port unless the app is unable to do so.
- The app detects whether a secure server connection is required. You are not prompted to set the Secure connection switch unless the app is unable to determine whether a secure connection is required.

Full Screen Mode for Reports

You can now view a report in full screen mode. For information, see “View a Report Using the Full Screen” on page 40.

Enhancements to the User Interface

The following changes were made to the user interface:

- The My Reports, Favorites, Recent, and collection screens have been updated. The Dismiss button on the welcome card was replaced with a close button.
- The passcode screens have been updated.
- Some options in the Settings window have been reorganized.

Support for SAS Visual Analytics 8.4

The application now provides seamless support for SAS Visual Analytics 8.4, 8.3, 8.2, 8.1, 7.5, 7.4, and 7.3 servers.

What Is 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 “Local Data Availability and Offline Reports”

Note: SAS also provides a free software development kit (SDK) that enables organizations to modify 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 on as guest when you add the server connection.

3 After you add a server connection, you can add reports to My Reports.

4 After you have added 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 Chapter 5, “Viewing Reports,” and Chapter 7, “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 Chapter 6, “Navigating Report Features.”
- Use the sample reports to see what you can do with SAS Visual Analytics App. See “Viewing Sample Reports”.

### Viewing Sample Reports

The app provides many sample reports. 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.

### View Sample Reports

When you first open the app, some sample reports are available in My Reports. Sample reports do not support some of the app’s features. For example, sample reports do not appear in Recent. For more information, see “Guest Connection to a Server”.
Remove Sample Reports

You can remove sample reports from your device at any time. Removal can be useful when you need to free storage space on your device. See “Remove a Report”.

**TIP** You can always add sample reports from the SAS Demo Server again. See “Add a Report”.

Remove SAS Demo Server

You can remove the SAS Demo Server connection. Removing the connection removes all of its reports.

To remove the connection:

1. In My Reports, Favorites, Recent, or a collection, tap.
2. Tap Settings.
3. Under General, tap Remove sample connection and reports.

**TIP** You can also remove the SAS Demo Server connection from Add Reports. See “Remove a Server Connection”.

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. In My Reports, Favorites, Recent, or a collection, tap.
2. Tap Settings.
3. Under General, tap Restore sample connection and reports.

What Does That Symbol Mean?

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

- indicates that you have added the report.
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 My Reports, Recent, Favorites, or a collection:
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 .

Data Availability and Reports

Where Data Can Be Located

Data used by your reports can be in one of two locations:

- *Local data* is stored on your device.
- *Remote data* is stored on the server and exists on your device only while the report is open and the device is connected to a Wi-Fi or cellular network.

Local Data Availability and Offline Reports

When you add a report, a set of files is downloaded to your device. Some of the files contain the report data. The amount of data that is downloaded depends on the complexity and volume of the data that is used in the report.
For example, if the report contains a hierarchy into which you can drill five levels, only three levels of data might be downloaded initially. How much data is initially downloaded is controlled by your SAS administrator.

Using the same example, you can drill down to a hierarchy level that requires data that is not yet downloaded. The app connects to the server to download the requested data. If your device is not connected to a network, the app cannot download more data from the server. The report is offline. Depending on how the report is designed, an offline report might continue to work as designed or some of its functionality might change because the report is offline. In the example of a hierarchy, you cannot view the data in the next level until the app has a network connection.

Network connection failures might happen for the following reasons:

- Your organization’s network is unavailable due to a technical issue.
- Your device cannot access a cellular, wi-fi, or other type of network.
- A security measure prevents your device from accessing the network or the server.

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

Remote Data Availability and Report Security

The Remote Data Option

Depending on the security setting assigned to your user ID, the data used by a report might not exist on your device. Instead, your device must be connected to the server in order to view data in the report. If there is a break in the connection, such as a cellular dead zone, the data becomes unavailable.

TIP: If a report uses remote data, the report tile in My Reports displays the cloud icon: ☁️.

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

Why 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 Remote Data Works

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 for temporary use. 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 My Reports. If you are not connected to a network and you try to open the report, it does not open.

Note: You might see remote data called tethering or live connection.

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 administrator for your user ID, password, and server information.
Your SAS administrator can also tell you if the server requires a passcode. See “What Are Passcodes?”

Guest Connection to a Server

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:
- SAS Demo Server, which provides sample reports in the app, is an example of a guest connection.
- 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:
- Recent
- comments
- alert subscriptions

If Favorites 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 ID and password. If the recipient taps Yes, they proceed to the next step.
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 and tap My Reports.
2. Tap +.
3. Tap + 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. Tap Next to verify the connection.

   **TIP** If the connection fails, a message is displayed to help you correct the problem.

6. If the server provides guest access, the Log on as guest switch appears. If you want to access the server without providing credentials, tap this switch and skip the next step.
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.
  
  **Note:** You can use the Visibility button to show or hide the password.

(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.

Tap **Next** to verify your access to the server.

**Note:** If the verification fails, a message is displayed to help you correct the problem.

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?"

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.

---

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

7 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.
  
  **Note:** You can use the Visibility button to show or hide the password.

8 (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.

9 Tap **Next** to verify your access to the server.

**Note:** If the verification fails, a message is displayed to help you correct the problem.

**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?"

10 Tap **Done**.

---

**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 **Save** 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 .

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

5. Tap **Save** 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 **Save** 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 **Save**.
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 **Save**.

Remove a Server Connection

When you remove a server connection, any reports that you added 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 **Save**.
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 add 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 Set Passcode window appears.

1. Enter a four-digit passcode that you can remember.
2. Enter your passcode a second time. Then tap OK.

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

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

Create an Optional Passcode

Complete these steps:

1. In My Reports, Recent, Favorites, or a collection, tap to open the navigation drawer.
2. Tap Settings.
4. Enter a four-digit passcode that you can remember.
5. Enter your passcode a second time and tap OK.

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

Complete these steps:

1. In My Reports, Recent, Favorites, or a collection, tap to open the navigation drawer.
2. Tap Settings.
   The Verify Passcode window appears.
4. Enter your current passcode and tap Next.
5. Enter a new four-digit passcode.
6. To verify the passcode, enter the new passcode a second time. Then tap OK.

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

Remove an Optional Passcode

Complete these steps:

1. In My Reports, Recent, Favorites, or a collection, tap to open the navigation drawer.
2. Tap Settings.
   The Disable Passcode window appears.
4. Enter your current passcode to verify your identity and remove the passcode. Tap OK.

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

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 Cellular Data Use on Your Device

About Cellular 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, adding and downloading reports
- using interactive features in reports, such as data drilling and filtering
- commenting

For more information, see “Local Data Availability and Offline Reports”. 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.
Adding and Updating Reports

Adding Reports

Open Add Reports

Locate a Report on a Server Connection

Add 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

Notifications from the App

Adding Reports

Open Add Reports

To open Add Reports:

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

2. Tap and tap My Reports.

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 was already added.

**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.

---

**Add a Report**

Complete these steps in Add Reports:

1 Navigate to the report.

2 Tap the report to view its Details window.

3 Tap Add to add the report to My Reports.

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

---

**Updating Reports Automatically**

**What Is Automatic Update?**

When a report that you added to My Reports 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, reports 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. Under Reports, 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. Under Reports, 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 in the report title bar.
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.

Notifications from the App

SAS Visual Analytics App uses the notification feature provided by your device to deliver its notifications. Notifications are enabled by default.

The app generates notifications when the following has occurred:

- One or more reports have been updated or are new on your device.
- One or more reports have failed to be added on your device.
- Status information has changed while you were using the Present Screen feature.

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

View My Reports

Identifying Your Favorite Reports

Tracking Recent Reports

View Collections

Locate Details about a Report

Remove a Report

Searching Reports

Sorting Reports

Selecting Multiple Reports
Viewing My Reports

In My Reports, you can manage the reports that are available to view on your device. You can also update reports with recent changes. All of the reports that you view are added from a server connection. See “What Is a Server Connection?”

View My Reports

My Reports is the default window in the app. It shows all of the reports that you have added on this mobile device.

If you are in Recent, Favorites, or a collection, tap ☰ and tap My Reports.

Your reports are grouped:

- My Reports shows the reports that you have added on this device.
  
  Note: Typically, added reports are downloaded to your device. However, some reports might require additional security and use remote data instead. See “Remote Data Availability and Report Security”.

- Sample Reports shows any sample reports that you have added on this device. See “Viewing Sample Reports”.

Identifying Your Favorite Reports

Your Favorites on Every Device

In the app, Favorites 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 areas: My Reports, Recent, a collection, search results, or Add Reports.

Add an Open Report to Favorites

Complete these steps in the report viewer:

1. Tap † in the report title bar.
2. Tap Add to favorites.

Add a Closed Report to Favorites

To add a closed report to your favorites:

1. Tap † .
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 areas: My Reports, Recent, Favorites, a collection, search results, or Add Reports.

Remove an Open Report from Favorites

Complete these steps in the report viewer:

1. Tap † in the report title bar.
2. Tap Remove from favorites.

Remove a Closed Report from Favorites

To remove a closed report from your favorites:

1. Tap † .
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**

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

---

**Recent Reports on Every Device**

**Recent** 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 **Recent**. 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 Recent".

---

**View Your Recent Reports**

To view your recent reports, tap ☐️ and tap **Recent**.

---

**Clear Recent**

To clear **Recent**:

1 Tap ☐️ and tap **Settings**.

**TIP** You might have to scroll down to locate **Settings**.

2 Under **Connections**, tap the server connection for which you want to clear the history.

3 Tap **Clear recent reports**.

**TIP** The setting is disabled when the history has been cleared. If this setting 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-Add?

Auto-add is a feature that automatically adds reports that are members of a collection. Auto-add works in the following ways:

- If you have not added any reports in the collection, selecting auto-add adds all of the reports to My Reports.
- If you have already added some of the reports in the collection, selecting auto-add adds the remaining reports to My Reports.
- If you have selected auto-add and new reports are added to the collection, the new reports are automatically added to My Reports.
- If you have selected auto-add and reports that you did not manually add are removed from the collection, those reports are automatically removed from My Reports.

When you remove auto-add, reports in the collection are no longer automatically added to My Reports.

Note: If you added some of the reports in the collection before selecting auto-add, they remain in My Reports.

View a Collection

To view a collection, tap $\equiv$ 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-add a Collection

To learn how auto-add works, see “What Is Auto-Add?”
In the collection, tap +.
The button toggles to indicate the change: ☑.

Remove Auto-add

To learn how auto-add works, see “What Is Auto-Add?”
In the collection, tap ☑.
The button toggles to indicate the change: +.

Locate Details about a Report

Identify a Report’s Server and Path Information

Identify an Open Report’s Server and Path Information
On the toolbar at the bottom of the report viewer, tap 📚.

Identify a Closed Report’s Server and Path Information
In the Add Reports window, tap a report tile to view its details.

Determine When a Report Was Updated

Determine When an Open Report Was Updated
On the toolbar at the bottom of the report viewer, 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 (Remote Data), the table of contents is not available until you open the report and the data is downloaded. See “Remote Data Availability and Report Security”.

View the Table of Contents for an Open Report

Complete these steps in an open report:

1. Tap ．
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

On the toolbar at the bottom of the report viewer, 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.

Remove a Report

To remove a report:

1. Tap ． on the report tile.
2. Tap Remove from My Reports.
3. Tap OK in the confirmation window.

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

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

How Search Works

What Can I Search?

You can search reports that are located in My Reports and on all of your connected servers. Both locations are searched at the same time.

**TIP**

- The search is not case sensitive.
- 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 ("), and 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".

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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 reports in My Reports.

Search Reports
To search reports:
1 Tap \( \) in the options bar.
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 add a report in the search results, tap \( \) on the tile and then tap **Add**.

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

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

7 To clear the search results, tap \( \times \) in the search field.

8 To dismiss search, tap \( \leftarrow \).

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 **My Reports** 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.

Date Added
sorts the reports by the date when they were added 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 My Reports, 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 add or remove reports from My Reports, share, or add or remove reports from Favorites.

Select Multiple Reports in My Reports, Recent, Favorites, and Collections

Complete these steps in any of the views:

1. Tap ‹ in the report title bar.
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 ‹ in the report title bar.
3. Tap Select.
4. Tap the button next to each report that you want to select.
Select Multiple Reports in Search Results

To select multiple reports:

1. Tap ☑ in the report title bar.
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. Tap the action that you want to complete.
6. If you decide not to act on the reports, tap ✗ to dismiss Selection mode.
Viewing Reports

Viewing Reports and Objects

Open a Report

Open a Report from My Reports
Tap any report tile.

Open a Report from Recent, Favorites, or a Collection
To view a report:
1 Tap the report tile to open the Details window.
2 If the report has already been added to your device, tap **Open**. Otherwise, tap **Add** 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:

1 Tap \( \text{Page } \).
2 Tap the page that you want to view.

---

**View a Report Using the Full Screen**

To maximize the report:

1 Tap \( \) in the report title bar.
2 Tap **Full screen**.

Tap \( \) to restore the report size.

**TIP** You can also tap the device back button to restore the report size.

---

**View an Object Using the Full Screen**

To maximize an object:

1 Tap the object.
2 Tap \( \text{Zoom } \) to maximize the object to use the full screen.

To restore the object size:

1 Tap the object.
2 Tap \( \text{Zoom } \) to restore the object size.
View a Report Summary

Report designers can create report summaries that are available for viewing in the SAS Visual Analytics app. When you open a report that has a summary, you can view a textual report summary and play a recording of the summary that includes playback controls.

If available, you can access the summary from the following locations:

- a report tile in My Reports
- the Overflow menu in the report viewer title bar

To display the summary, tap Show summary in the Overflow menu.

The Summary window displays the report summary text. Controls in the window enable you to play and pause the recording. You can also advance or rewind the recording in 10-second increments.

**Note:** When you play the recording of the summary, a SAS Visual Analytics icon appears in the notifications bar. You can access the summary controls by expanding the notifications tray.

Using the Magnifier

To access the magnifier, tap the Overflow menu, and then tap Show Magnifier. 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. The lens remains active until you select Hide Magnifier in the Overflow menu.

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)

To learn more about this feature, view the following slideshow.

View the slideshow in SAS Help Center.

Override the Theme

To override the theme:
Learning More about an Object

What Information Is Available about Objects?

Each page of a report can contain one or more objects. 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.

The object information includes:
- a description of the object
- display rules, if applicable
- filters, if applicable
- rank, if applicable

View Information about a Report

On the toolbar at the bottom of the report viewer, tap 📊.

View Information about an Object

Note: The information view 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.
   See “What Information Is Available about Objects?” on page 42.

2 On the toolbar at the bottom of the report viewer, tap 📊.

3 (Tablets only) To view information about another object on the page, tap that object.
   The information view shows the information for the selected object.
Restoring the Report State

Report State

When viewing reports located on servers running SAS Visual Analytics 8.3 or later, the state of your report is saved when you close the report.

The report state can include selections that you have made in charts and graphs, interactions between objects, navigation into a hierarchy or Esri map, and much more.

If you use multiple devices (for example, a tablet and a phone) to view and update reports, the report state on the server reflects the most recent updates made before closing the report on any device.

Note: Large reports might require additional time to close because the app is saving many selections.

Restore the Default Report State

TIP This action affects only the selected report.

To restore an open report to its default state, tap † and then tap Restore default report state.

To restore a closed report to its default state, complete the following steps:

1. Locate the report’s tile in My Reports.
2. Tap † on the report tile.
3. Tap Restore default report state.
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

On the toolbar at the bottom of the report viewer, tap △.

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 in the report title bar.
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 to exit.
2. Tap to open the navigation drawer.
3. Tap Settings.
4. Under Reports, tap the Best-fit layout switch.
5. Tap to exit Settings.

Turn Off Best-fit Layout

To turn off this setting:

1. If you are in the report viewer, tap to exit.
2. Tap to open the navigation drawer.
3. Tap Settings.
4 Under Reports, tap the Best-fit layout switch.

5 Tap ← to exit Settings.
# Navigating Report Features

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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.

View Report Data in a Table

You can view underlying report data while viewing an object. In previous releases this was referred to as explore mode.

Complete these steps:

1. Tap \[ \] to view the object in full-screen mode.

2. (Tablet) In the toolbar at the bottom of the report viewer, tap \[ \].
   (Phone) In the toolbar at the bottom of the report viewer, tap \[ \] and then tap \[ Show Details \].
   Data details appear in a table beneath the object.

3. Tap a row in the table to highlight the associated item in the object.
   You can also tap in the report to locate the corresponding row in the table.

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

4. (Tablet) In the toolbar at the bottom of the report viewer, tap \[ \] to close the table.
   (Phone) In the toolbar at the bottom of the report viewer, tap \[ \] and then tap \[ Hide Details \] to close the table.

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 following options appear:

**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 a window. On the target page, the applied filter value is located in a window.

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 a window. In the target report, the applied filter value is located in a window.

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.

Filter Control Bars

When a report contains report-level, page-level, or interactive data filters, the filter controls are located on the applicable 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

The filters are located in a control bar that is below the report title bar. The filter control bar is anchored to the report title bar so that you can use these filters on any page of the report.
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.

The filter controls are located in a bar that is across the top of the page.

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.

Note: Prompt container filters appear in a panel. When you tap in the title bar, a **Prompts** button appears. Tap the button to display the filters. Be sure to ask your report designer to describe any filter controls that are available in the report and explain how to use them.

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 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 effect 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 Filter Control Bars**

- You can display the filter control bars to view filter values.
- You can hide the filter control bars so that the report has more screen space.

To toggle the filter control bars, tap in the report title bar.

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

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**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?

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.

**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.

**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. Tap \( \rightarrow \).
   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, and then tap \( \rightarrow \) to display the object information.

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.

Note: If you link to a hidden page, the link button is not available. You cannot view the link history to 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 \( \rightarrow \). The Link History panel opens.
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. Tap \( \rightarrow \).
   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.
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 displayed when you tap a data point in the object. 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.
   The data-drilling options appear.

2. Tap your selection. The new data view appears in the object.

3. To view another level of the data hierarchy, repeat steps 1 and 2.

**Tip** To navigate upward in a hierarchy, in the toolbar at the bottom of the report viewer, tap ↑.
4 To view the available selections in a level in one or more hierarchies, or to change a selection:

a In the toolbar at the bottom of the report viewer, tap and then 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.

#### 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 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. 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. 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. 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, 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 areas.
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.

**TIP** 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.

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 original 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. Tap the map.

2. Tap \( \text{ } \) 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 \( \text{ } \).

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.

   **TIP** Search works within the current visual bounds of the map. If you want search results outside the current visual bounds, you must drag the map to view the area in which you want to receive new search results and tap \( \text{ } \) again.

6. To initiate a search using the string that is entered, select \( \text{ } \). 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.

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
   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 ✗.

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 📊.
   ■ 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 \( \text{좌표} \).
   - 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.

---

### 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 \( \text{좌표} \).
   - 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.

---

### View Map Data in a Table

You can view the underlying data while working with a map.

Complete these steps:
1 Tap the map.

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

3 (Tablet) In the toolbar at the bottom of the report viewer, tap .
   (Phone) In the toolbar at the bottom of the report viewer, tap  and then tap Show details.
   Data details appear in a table below the map.
   
   **TIP** You can still tap the map when the table is open.

4 Tap a row in the table to highlight the associated item in the map.
   
   **TIP** You can scroll the table up and down to view all of the rows.

5 (Tablet) In the toolbar at the bottom of the report viewer, tap to close the table.
   (Phone) In the toolbar at the bottom of the report viewer, tap  and then tap Hide details to close the table.

---

**Highlight Map Data**

You can select areas on the map and the associated table data is highlighted.

Complete these steps:

1 Tap the map.

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

3 (Tablet) In the toolbar at the bottom of the report viewer, tap .
   (Phone) In the toolbar at the bottom of the report viewer, tap  and then tap Show details.

4 Tap .
   
   **TIP** You can still tap the map when the table is open.

5 Tap a selection shape: or .

   **Note:** The shapes that are available depend on how the report is designed.

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

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

8 To dismiss the selection, tap outside the selection shape.
Select Map Data to Interact with Other Objects

When viewing the map data in a table, 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 mode to view the data table, 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. Tap the map.
2. Tap \[\text{ }\] to view the map in full-screen mode.
3. (Tablet) In the toolbar at the bottom of the report viewer, tap \[\text{ }\].
   (Phone) In the toolbar at the bottom of the report viewer, tap \[\text{ }\] and then tap **Show details**.
   Data details appear in a table below the map.

   **TIP** You can still tap the map when the table is open.

4. Tap \[\text{ }\].

   **TIP** You can still tap the map when the table is open.

5. Tap a selection shape: \[\text{ }\] or \[\text{ }\].
   **Note:** The shapes that are available depend on how the report is designed.

6. Tap and drag on the map to select an area of the map.
7. Tap \[\text{ }\] to restore the map to its initial size.

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

8. 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 downloads the report and adds it to My Reports, 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, the email can also contain a screen capture of a page from the report.

You can share a report without adding it to My Reports.

You can share multiple reports at once. See “Selecting Multiple Reports”.

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 on the toolbar at the bottom of the report viewer.
   - In the My Reports, Recent, Favorites, or collection views, tap on the report tile.
   - 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 added the affected report to My Reports, SAS Visual Analytics App opens the report.
- If you have not added 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 system 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 [and then tap Present Screen.]

Sharing an Object Image from the Report Viewer

You can share the image of an object that you are viewing in the report viewer. The app generates an image of the object, and a link to the report that contains the object. You can email the image and link to another user.

When the recipient receives the email, they can view the attached object image. When they tap the link, the app downloads the report and adds it to My Reports. 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.

Share an Object Image

To share the object image:

1. Open a report and select the object.
2. Tap [ in the toolbar at the bottom of the report viewer.
3. Tap Share.
4. 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 object information.
5. Tap the To field and enter the contact information for the recipient.
6. (Optional) Tap the message area to enter text.
7. Complete the action to return to SAS Visual Analytics App. For example, tap Send.
Receive an Object Image Email

When you receive an email with an object image, you can tap the image to open it. To see the report that contains the object, tap the link.

- If you have the report in My Reports, SAS Visual Analytics App opens the report.
- If you do not have 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.

Annotating a Report Page or Object

What Is Annotation?

When you select the Annotate feature, the app creates a screen capture of either the currently selected object or the page that you are currently reviewing in the report. You can draw and write your observations on the image.

When you are finished, you can share the annotated image with others.

Annotate a Report Page or Object

To annotate a copy of a report page or object:

1. Navigate to the appropriate report page.
2. If you want to annotate an object, tap the object to select it.
3. Tap on the toolbar at the bottom of the report viewer.
4. Tap Annotate.

An image of the page or object 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.
Annotating a Report Page or Object

- 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 🔄. 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 🔄. A menu appears. Tap **Redo**. Repeat this process for each action that you want to redo.

Share the Annotated Page or Object

To share the annotated image:

1. In the annotation window, tap 📩.
2. 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 annotated image.
3. Tap the **To** field and enter the contact information for the recipient.
4. (Optional) Tap the message area to enter text.
5. Complete the action to return to SAS Visual Analytics App. For example, tap **Send**.

Save the Annotated Page or Object

To save your annotated page or object, tap ✓.

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 image is saved.
Printing Reports

Print a Report or an Object While Viewing It

To print a report, or a selected object in a report:
1. Open the report.
2. If you want to print a specific object, select that object.
3. Tap \( \text{Print} \) on the toolbar at the bottom of the report viewer.
4. Tap \textbf{Print}.

A progress indicator appears, and the server connection generates a PDF.

TIP: To cancel the process, tap \textbf{Cancel} on the progress indicator.

5. A Select an Action window appears. Tap \textbf{Open}.

6. In the Overflow menu, tap \textbf{Print}.

Print a Report from Add Reports

You can print reports whether or not you have added them to \textbf{My Reports}:

1. Tap the report.
2. (Tablet) Tap \textbf{Print}.
   (Phone) Tap \( \text{Print} \) and then tap \textbf{Print}.

A progress indicator appears, and the server connection generates a PDF.

TIP: To cancel the process, tap \textbf{Cancel} on the progress indicator.

3. A Select an Action window appears. Tap \textbf{Open}.

4. In the Overflow menu, tap \textbf{Print}.

Print a Report from Search Results

You can print reports whether or not you have added them to \textbf{My Reports}:
1. For reports that have been added to My Reports, tap on the report tile. For reports that have not been added to My Reports, tap the report.

2. (Tablet) Tap . (Phone) Tap , and tap Print.

   A progress indicator appears, and the server connection generates a PDF.

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

3. A Select an Action window appears. Tap Open.

4. In the Overflow menu, tap Print.

---

**Print a Report While in My Reports, Recent, Favorites, or Collection Views**

You can print reports whether or not you have added them to My Reports:

1. For reports that have been added to My Reports, tap on the report tile. For reports that have not been added to My Reports, tap the report.

2. (Tablet) Tap . (Phone) Tap , and tap Print.

   A progress indicator appears, and the server connection generates a PDF.

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

3. A Select an Action window appears. Tap Open.

4. In the Overflow menu, tap Print.
Troubleshooting SAS Visual Analytics App

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Problems in My Reports, Recent, Favorites, or Collections

A Report Is Missing

Problem: A report that was previously in My Reports, Recent, Favorites, or a collection, is no longer there.

Explanation 1: When a report is removed from the server, the report is removed from your device the next time it connects to the server.

Resolution 1: Contact the author of the report.

Explanation 2: If the report is in a collection, when the owner of the collection removes a report from the collection, the report is removed from your device the next time it connects to the server where the collection is located.

Resolution 2: Contact the owner of the collection.

Favorites Is Empty

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

Explanation: The ability to view reports from a particular server in Favorites (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.

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myFavorites.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see "URIs and Capabilities That Affect the Mobile App" on page 88.

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 "Guest Connection to a Server".

Resolution 1: Contact the system administrator for the affected server.
Explanation 2: The ability to add a report to Favorites is controlled by an administrative setting.

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

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myFavorites.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 88.

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 “Guest Connection to a Server”

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

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

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

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myFavorites.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 88.

A Report Tile Does Not Display an Image

Problem: When you are in My Reports, Recent, Favorites, or a collection, 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 “Remote Data Availability and Report Security”.
Recent Is Empty

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

Explanation: Recent 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 Recent 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, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 88.

Cannot Delete Reports in My Reports

Problem: You cannot delete a report in My Reports.

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

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

Problems in Add Reports or Search

Cannot Add a Report

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

Explanation: The ability to add 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.


For more information, see "URIs and Capabilities That Affect the Mobile App" on page 88.

---

**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.

**Note:** If search continues to fail, contact your SAS administrator.

---

**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:** In the toolbar at the bottom of the report viewer, tap ![location icon].

---

**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, only the **Distance** selection is available. 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 7.5 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 88.

- 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, 7.4, and 7.5) The required capability is Add and View Comments.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 88.

---

**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, 7.4, and 7.5) The required capability is Add and View Comments.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 88.

---

**Comment Topic Title Displays (no subject)**

Problem: The words (no subject) appear when a comment is displayed.
Explanation: The Comments feature has been modified and for reports created on servers running SAS Visual Analytics 7.3, 7.4, or 7.5, (no subject) might be shown in the topic title field.

- Comments entered by using the SAS Visual Analytics web application or SAS Visual Analytics App for Windows 10 display (no subject) for the topic title.
- Comments entered by using SAS Visual Analytics App for Android display a topic title that you entered while using the mobile app.

### 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, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 88.

### 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.

---

### My Device Cannot Connect to Any Servers

**Issue:** The mobile device was disconnected from a server, and now all the connections and reports are gone.

**Explanation:** The device might have been added to a blacklist. A blacklist is used to prevent specific devices from having access to server connections and reports. A network administrator might add a device to the blacklist when the employee who uses it leaves the company, or if the device is lost or stolen. Adding a device to the blacklist removes all server connections and reports from that device.
Resolution: Contact your network administrator. They can remove the device from the blacklist if that is the issue.

Note: After the device is removed from the blacklist, you will have to add the server connections and reports back.

---

**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, 7.4, and 7.5) The required capability is Email.

For more information, see "URIs and Capabilities That Affect the Mobile App" on page 88.

---

**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.
   - On the Home screen, tap the Apps icon.
     
     **TIP** The Apps icon is on some devices.
   - Locate and tap Apps.
     
     **TIP** On some devices this might be Application Manager.
   - Locate and tap Analytics.
   - Tap Force stop.
   - A confirmation window appears. Tap OK.
   - 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

Security Features of the App

To secure reports and data on your devices, use the following features provided by SAS Visual Analytics, SAS Visual Analytics App, and other SAS software.

Default Security Features in SAS Software

The following features are provided by the software installation:

- Users must authenticate in order to establish a connection to the server.

  **Note:** Depending on your installation, authentication can be against the metadata server’s authentication provider or the web application server’s authentication provider.

- SAS metadata security is enforced on all reports.

Security Options Available for SAS Administrators

SAS administrators can control how a mobile device running SAS Visual Analytics App can access reports and data located on a SAS Visual Analytics server. You can
use features, capabilities, and properties (alone or in combination) to control access to the server data and reports from the app.

**TIP** For SAS Visual Analytics 8.1 or later, be sure to select your version of SAS Viya from the **Version** list at the top of the topic.

- Functionality in SAS Visual Analytics App can be limited per user. You can control whether a user can add and view reports, share links to reports by using email, add or view comments, see and use the Favorites or Recent views, and more.

<table>
<thead>
<tr>
<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 or later</td>
<td>SAS Viya Administration: Mobile Search for &quot;limit functionality&quot;.</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Capabilities for End Users</td>
</tr>
</tbody>
</table>

- You can encrypt connections between mobile devices and SAS servers using Transport Layer Security (TLS).

<table>
<thead>
<tr>
<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 or later</td>
<td>Update Apache HTTP Server TLS Certificates and Cryptography</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Support for TLS with Client Certificate Authentication</td>
</tr>
</tbody>
</table>

- Use whitelists and blacklists to enable or prevent access to the server.

<table>
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<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
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<tbody>
<tr>
<td>8.1 or later</td>
<td>SAS Viya Administration: Mobile Search for &quot;whitelist&quot; and &quot;blacklist&quot;.</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Enable or Prevent Access by Using the Whitelist and Blacklist</td>
</tr>
</tbody>
</table>

For whitelist information for app users, see “About the Whitelist”.

- Require SAS Visual Analytics App users to lock the app with a passcode.

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<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
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</thead>
<tbody>
<tr>
<td>8.1 or later</td>
<td>SAS Viya Administration: Mobile Search for &quot;passcode&quot;.</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Lock SAS Visual Analytics App with a Passcode</td>
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</tbody>
</table>
To minimize access by users with revoked credentials, require server credentials after a user has not logged on for a specified period of time.

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<tr>
<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
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<tbody>
<tr>
<td>8.1 or later</td>
<td>SAS Viya Administration: Mobile</td>
</tr>
<tr>
<td></td>
<td>Search for “time-out”.</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Use the Time-out Setting to Prevent Access</td>
</tr>
</tbody>
</table>

To minimize persistence of mobile data, specify that a user must maintain a network connection to the server while viewing a report in SAS Visual Analytics App.

<table>
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<tr>
<th>SAS Visual Analytics server version</th>
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<tbody>
<tr>
<td>8.1 or later</td>
<td>SAS Viya Administration: Mobile</td>
</tr>
<tr>
<td></td>
<td>Search for “cache report data”.</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Prevent Report Data from Being Cached on the Device</td>
</tr>
</tbody>
</table>

For app user information, see “Remote Data Availability and Report Security”.

Incorporate your organization’s security into a custom app created by using SAS SDK. For documentation and download information, see the SAS SDK Product web page.

Security Features Provided by the App or Mobile Devices

SAS Visual Analytics App and the mobile devices on which it runs provide these additional security features:

- The apps store passwords by using native application programming interfaces (APIs). See “Password Storage on Devices”.
- Encrypt reports and data.
  The operating system on the mobile device encrypts the content on the device. SAS Visual Analytics reports and data are encrypted with the rest of the contents on the device.
- Some mobile devices provide face recognition (Face ID), fingerprint recognition (Touch ID), or other biometric technology.
- Device passcodes
More Security Options

Your IT department can require the use of the following technologies to increase mobile device security:

- Secure Sockets Layer (SSL)
- Virtual Private Network (VPN)
- Mobile Device Management (MDM) technology such as Mobile Iron

URIs and Capabilities That Affect the Mobile App

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, 7.4, and 7.5, 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.

- /SASMibileBI/**
- /SASMibileBI_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
- /folders/folders/@myHistory
- /folders/folders/@myFavorites
- /reportAlerts/*
  
  Note: The Alerts feature is not supported on servers running SAS Visual Analytics 8.1.

- /reportData_capabilities/exportData
- /reportData_capabilities/exportDetailData
- /reports/reports/*/states
  
  Note: This feature and its URI is supported on servers running SAS Visual Analytics 8.3 and later.

- /reportViewerNaturalLanguageUnderstanding/interpretations
  
  Note: This feature and its URI is supported on servers running SAS Visual Analytics 8.3 and later.

- /webDataAccess/esri/user/token

For more information, see SAS Viya Administration and search on the name of the URI.

Capabilities Used for SAS Visual Analytics 7.3, 7.4, and 7.5

The following capabilities control access to features in SAS Visual Analytics App when the app connects to SAS Visual Analytics 7.3, 7.4, and 7.5.

- View Report and Stored Process
- Add and View Comments
- Email
- Export Data
- Export or Print as PDF
- 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:
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

My Reports

Shows all of the reports that you have added on this mobile device.

Common Tasks

View a Report: Tap the report tile.
Add a New Report to My Reports
Add a Report to Favorites
Print a Report

TIP You can print reports whether or not you have added them to your device.

More Tasks

View Your Favorite Reports
Review Your Recent Report Access from All Devices
View Collections of Reports
“Email or Text a Report”
“Remove a Report”
Troubleshooting Problems in My Reports
Add Reports Window

Shows your server connections and the reports that they contain.

Common Tasks

“Add a Report”
“Add a Server Connection”
“Locate a Report on a Server Connection”
“Search Reports”
Print a report

TIP You can print reports whether or not you have added them to your device.

More Tasks

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

Favorites

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

Common Tasks

Add a Report: Tap on the report tile, and then tap Add to My Reports.

View a Report

Print a Report

TIP You can print reports whether or not you have added them to your device.

More Tasks

Remove a Report from Favorites

“Email or Text a Report”

Troubleshooting Problems in the Favorites View

Recent

Reports that you have recently viewed on this or another device.

Common Tasks

Add a Report: Tap on the report tile, and then tap Add to My Reports.

View a Report

Print a Report

TIP You can print reports whether or not you have added them to your device.

More Tasks

“Clear Recent”

Add a Report to Favorites

“Email or Text a Report”

“Search Reports”

Troubleshooting Problems in the Recent View
Collections

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

Common Tasks

“Auto-add a Collection”
View a Report
Print a Report

**TIP** You can print reports whether or not you have added them to your device.

More Tasks

“Remove Auto-add”
Add a Report to Favorites
“Email or Text a Report”
Troubleshooting Problems in a Collection