



# SAS<sup>®</sup> Visual Analytics 8.1: Overview

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## About SAS Visual Analytics

### What Is SAS Visual Analytics?

SAS Visual Analytics leverages SAS high-performance analytic technologies and empowers organizations to explore huge volumes of data very 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 speed of SAS Cloud Analytic Services (CAS), 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.

SAS Visual Analytics enables you to explore, discover, and predict using your data. If SAS Visual Statistics is licensed at your site, then you can create, test, and compare models based on the patterns discovered during exploration of the data. You can export the model before or after performing model comparison, to use with other SAS products, and to put the model into production.

SAS Visual Analytics empowers business users, business analysts, and IT administrators to accomplish tasks that are accessed from SAS Home. The central entry point for SAS Visual Analytics enables users to perform a wide variety of tasks such as exploring data, designing reports, as well as analyzing and interpreting data. Most important, reports can be displayed on a mobile device or on the web.

### Benefits of Using SAS Visual Analytics

Using SAS Visual Analytics, users can enhance the analytic power of their data, explore new data sources, investigate them, uncover relevant patterns, and create reports. In traditional reporting, the resulting output is well-defined up-front. That is, you know what you are looking at and what you need to convey. However, data

discovery invites you to plumb the data, its characteristics, and its relationships. Reports can be made available on a mobile device or on the web.

SAS Visual Analytics provides users with the following benefits:

- enables users to apply the power of SAS analytics to massive amounts of data
- empowers users to visually explore data, based on any variety of measures, at amazingly fast speeds
- enables users to quickly create powerful statistical models if SAS Visual Statistics is licensed at your site
- enables users to work with factorization machines, forests, gradient boosting, neural networks, and support vector machines if SAS Visual Data Mining and Machine Learning is licensed at your site
- enables users to quickly create reports or dashboards using standard tables, graphs, and gauges
- enables users to share insights with anyone, anywhere, via the web or a mobile device

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## SAS Visual Analytics Community

The SAS Visual Analytics community is dedicated to users who are focused on exploratory visualization and analytical techniques, data preparation, dashboard reporting, and mobile BI. You can share your experiences, discuss topics and ideas, seek help from your peers, and share information about upcoming events. You can access the user community at [communities.sas.com/visual-analytics](https://communities.sas.com/visual-analytics).

For questions requiring immediate technical assistance, contact SAS Technical Support at [support.sas.com](https://support.sas.com).


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## Accessing SAS Visual Analytics

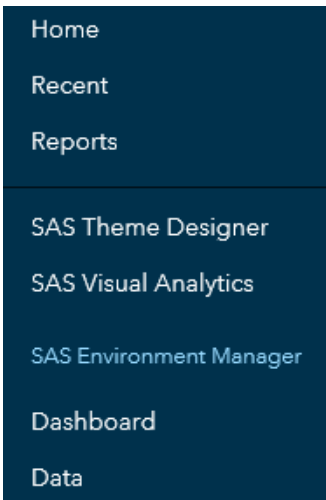
### Use SAS Home to Access SAS Visual Analytics

After you sign in to SAS Visual Analytics using the standard sign-in window for SAS applications, you will see SAS Home. SAS Home enables you to access SAS Visual Analytics. In addition, it enables you to access content that you and others have created. For more information, refer to [SAS Home Documentation](#).

### Use the Side Menu to Access SAS Visual Analytics

If you are using another SAS Viya application (for example, SAS Theme Designer), you can access SAS Visual Analytics from the side menu. Click  in the application menu bar. Using the side menu, click **SAS Visual**

**Analytics**. Here is an example of what you might see in the side menu:



**Note:** The items available in the side menu depend on your assigned permissions and the products licensed by your site.

## Sign Out of SAS Visual Analytics

Use the application bar to sign out of SAS Visual Analytics. Click your name, and then click **Sign Out**. When you click **Sign Out**, you are signed out of all SAS web applications. For example, suppose that you have SAS Studio and SAS Visual Analytics open, and then you click **Sign Out** when you finish working on a report in SAS Visual Analytics. In this case, you have also signed out of SAS Studio and SAS Visual Analytics.

## Overview of SAS Visual Analytics Roles

Users might have access to different functionality, depending on their assigned permissions.

**Note:** Access to functionality depends on how SAS Visual Analytics is installed at your site. For example, a site might not have SAS Visual Statistics.

For more information about roles, see *SAS Viya Administration: Identity Management*.

In addition to your role, the following conditions influence whether a SAS Visual Analytics menu or menu selection is available to use:

- your location in SAS Visual Analytics. For example, some application features are available only if you have SAS Visual Statistics licensed.
- the currently selected report object. For example, ranges are not available for list tables.
- whether the data for a report has been defined. For example, if the data has not been added, then you cannot create a filter.

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## What's New in SAS Visual Analytics 8.1, SAS Visual Statistics 8.1, and SAS Visual Data Builder 8.1

### Overview

SAS Visual Analytics 8.1, SAS Visual Statistics 8.1, and SAS Visual Data Builder 8.1 have been completely rewritten in HTML5. They run on SAS Viya, which is a new, high-performance in-memory architecture, to provide relevant answers to a range of business questions in a single, scalable, and governed environment. These products use SAS Cloud Analytic Services (CAS), which is a server that provides the cloud-based run-time environment for data management and analytics with SAS.

SAS Visual Analytics 8.1 has a new, modern user interface, which enables you to create and share interactive reports and dashboards and to use self-service analytics to quickly assess probable outcomes and make smarter, data-driven decisions.

SAS Visual Statistics 8.1, which is an add-on to SAS Visual Analytics, provides flexibility to build and refine models by granular segments or group to pursue unknown opportunities or reduce risks. It is well suited for data scientists and business analysts to easily collaborate and refine models to make decisions based on highly accurate insights. Starting in the 8.1 release, users can access SAS Visual Statistics through either a visual interface using SAS Visual Analytics or a programming interface.

SAS Visual Data Mining and Machine Learning 8.1 is a new add-on to SAS Visual Analytics, which enables users to work with factorization machines, forests, gradient boosting, neural networks, and support vector machines. Users can access SAS Visual Data Mining and Machine Learning through either a visual interface using SAS Visual Analytics or a programming interface.

SAS Visual Data Builder 8.1 has new user interfaces for preparing data and for loading data.

### SAS Visual Analytics

New and enhanced features include:

- The SAS Visual Analytics Explorer (the explorer) and the SAS Visual Analytics Designer (the designer) interfaces have been combined into a single interface. There are now undo and redo features for reports. A new explore mode enables you to explore your data and create analytical models.
- The panes on the side of the canvas can stay hidden until you need them, or you can pin them to be displayed all of the time.
- Autocharting is now available for the report objects that were formerly available in the designer.
- You can add images from a URL.
- A new partnership with Esri enables you to do drive-time analysis for geo maps if your organization has an ArcGIS Online account.
- The network analysis report object has new **Force strength** and **Node distance** options that enable you to influence the layout of the nodes.
- New settings for network analysis enable you to assign internal network metrics to the roles in your network analysis objects.
- A new welcome window.

## SAS Visual Statistics

New and enhanced features include:

- A new regression tree model.
- A variable importance for tree models.
- You can specify a partition column that is used to divide the data into training and validation partitions.
- There is effective group-by clustering for tree models, which is available through controls.
- You can export summary tables.
- You can publish a model using the SAS Report Viewer.
- You can link between models and visualizations.

## SAS Visual Data Builder

New and enhanced features include:

- A new interface for preparing data, which enables you to perform data transformations, work with table data, and view table and column profiles.
- A new interface for importing data.
- You can import data from SAS LASR Analytic Server.
- You can import data from a clipboard.
- You can import data from YouTube.
- You can create and save a plan, which is a collection of data transformations or actions performed on one or more tables.
- A new welcome window.

