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What's New in SAS® Web Editor 2.5

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What's New in SAS® Web Editor 2.5

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Using This Book

Audience

The *What's New in SAS Web Editor 2.5* document is intended for anyone interested in learning more about SAS Web Editor 2.5. This document describes the new features and enhancements in SAS Web Editor 2.5.

What's New in SAS Web Editor 2.5

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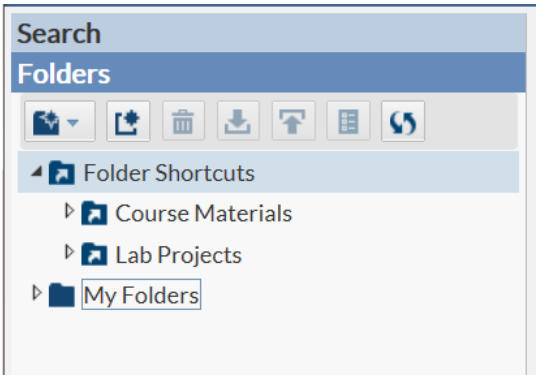
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Enhancements to the User Interface

Changes in the Navigation Pane

Folders Section

In the **Folders** section in the navigation pane, you can create folder shortcuts.







Note: The enhancements to the **Folders** section are not available from the iPad for SAS Web Editor 2.5.

Libraries Section

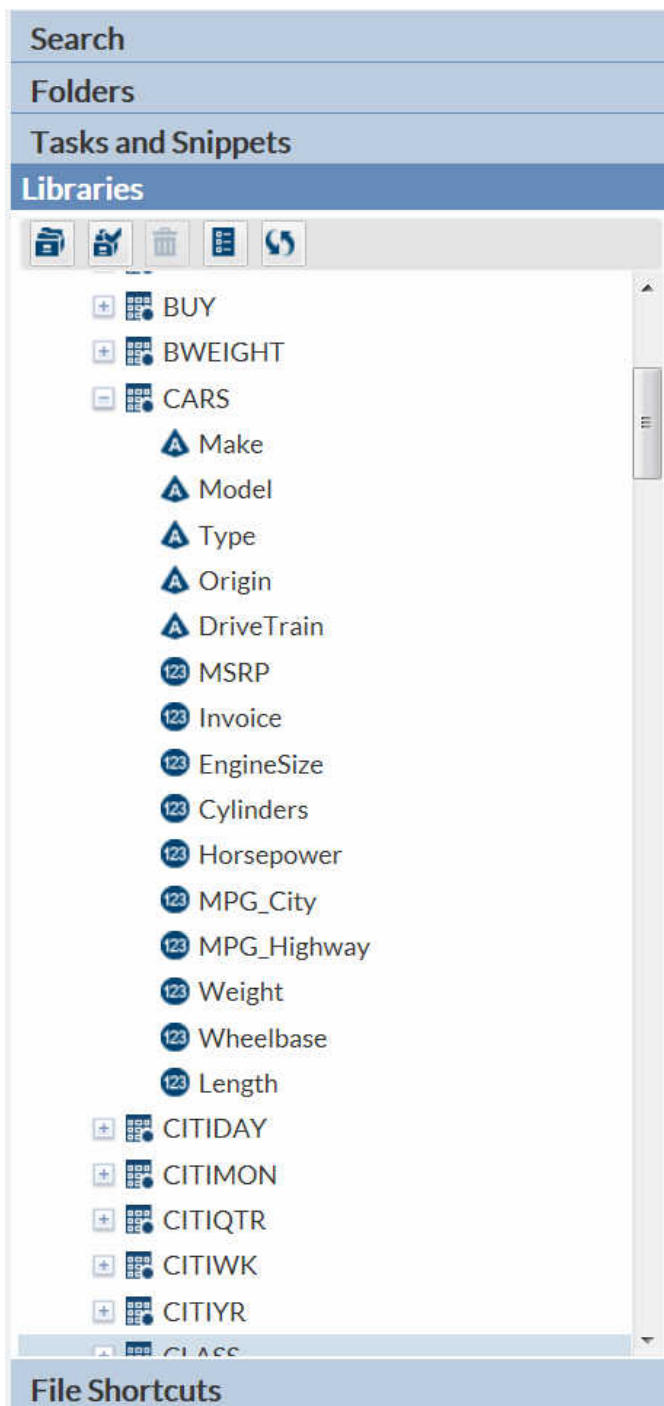
In the **Libraries** section in the navigation pane, you can expand a table to see all of the columns in that table. The icon in front of the column name indicates the type.

Here are examples of common icons for the column types.


Icon	Type of Column
	Character

Icon	Type of Column
	Numeric
	Date
	Datetime

This example shows all the columns in the Sashelp.Cars table.





To view the properties of a column, select the column name and click . In the Column Properties window, you can edit the column name and the label.

Here is an example of the properties for the Invoice column in the SasHELP.CARS table.

Column Properties

Name:

Invoice

Label:

Length:

8

Type:

Numeric

Format:

DOLLARS

Informat:

OK

Cancel

Note: The enhancements to the **Libraries** section are not available from the iPad for SAS Web Editor 2.5.

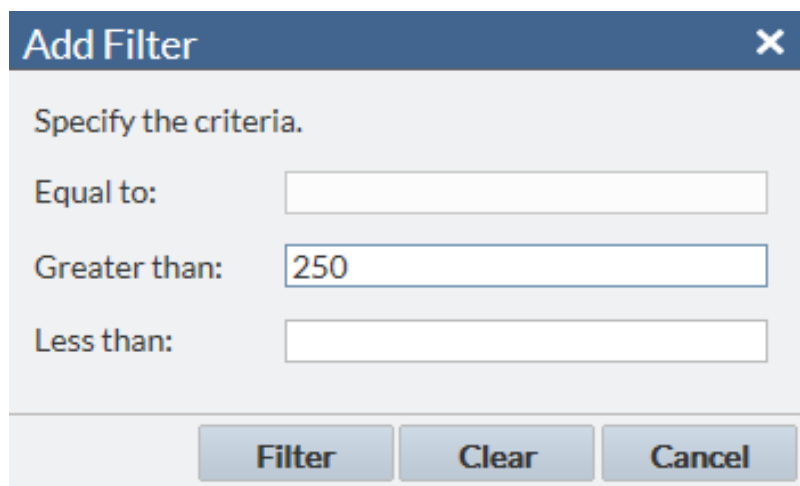
Filtering and Sorting Your Data

In the table viewer, you can right-click a column heading to filter and sort the data by that column.

Rows 1-19

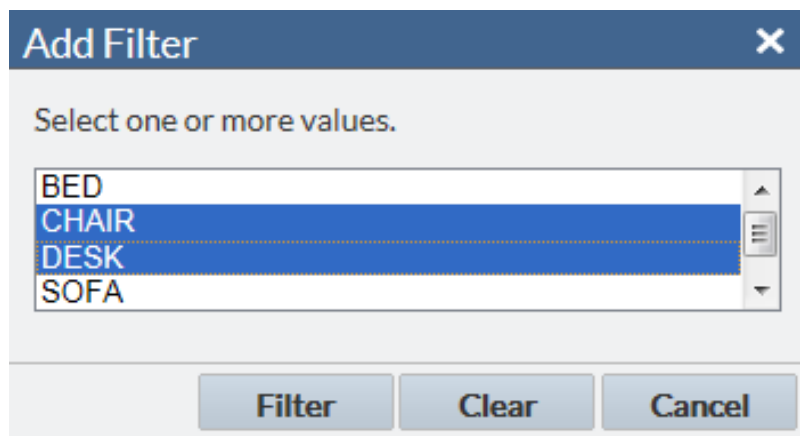
	Name	Sex	Age	Height	V
1	Alfred			69	1
2	Alice			56.5	8
3	Barbara			65.3	9
4	Carol			62.8	1
5	Henry	M	14	63.5	1
6	James	M	12	57.3	8
7	Jane	F	12	59.8	8
8	Janet	F	15	62.5	1
9	Jeffrey	M	13	62.5	8
10	John	M	12	59	9
11	Joyce	F	11	51.3	5
12	Judy	F	14	64.3	9
13	Louise	F	12	56.3	7
14	Mary	F	15	66.5	1
15	Philip	M	16	72	1
16	Robert	M	12	64.8	1
17	Ronald	M	15	67	1
18	Thomas	M	11	57.5	8
19	William	M	15	66.5	1

The filter options vary depending on the type of column that you have selected. The Add Filter window for a numeric column enables you to specify a value.



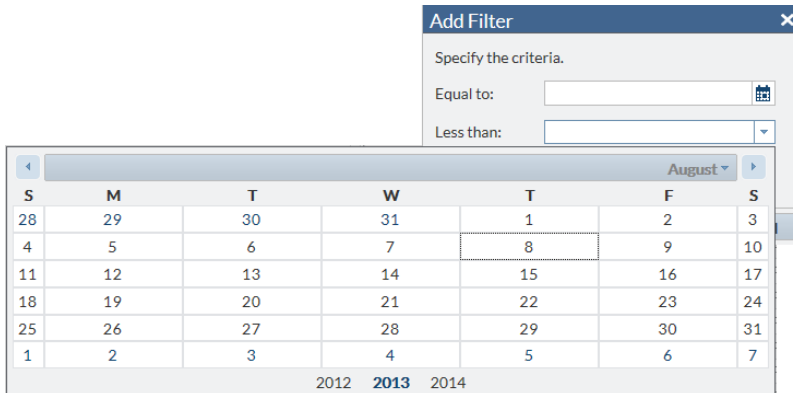
The 'Add Filter' dialog box for a numeric column has a title bar with a close button. Below the title bar, the text 'Specify the criteria.' is displayed. There are three input fields: 'Equal to:' with an empty field, 'Greater than:' with the value '250', and 'Less than:' with an empty field. At the bottom, there are three buttons: 'Filter', 'Clear', and 'Cancel'.



The Add Filter window for a character column enables you to select one or more values in the column.




The 'Add Filter' dialog box for a character column has a title bar with a close button. Below the title bar, the text 'Select one or more values.' is displayed. There is a list box containing four items: 'BED', 'CHAIR', 'DESK', and 'SOFA'. The 'CHAIR' item is selected and highlighted in blue. To the right of the list box is a vertical scrollbar. At the bottom, there are three buttons: 'Filter', 'Clear', and 'Cancel'.

The Add Filter window for a date column enables you to select a date value from a pop-up calendar window.



When you create a filter on your data, the filter criteria are displayed at the top of the workspace. You can click  to edit the filter and  to delete the filter.

Automatically Formatting Your SAS Code

You can use the code editor to make your programs easier to read by automatically formatting your code. When you automatically format your code, line breaks are added, and each line is correctly indented according to its nesting level. To format the code in the code editor, click .

For example, the following code is difficult to read because it lacks indentation and logical line breaks:

```
data topn;
length rank 8; label rank="Rank";
set topn; by &category descending &measure
if first.&category then rank=0; rank+1;
if rank le &n then output;
run;
```

After you use the automatic code-formatting feature, the program looks like this:

```
data topn;
  length rank 8;
  label rank="Rank";
  set topn;
  by &category descending &measure

  if first.&category then
    rank=0;
```

```

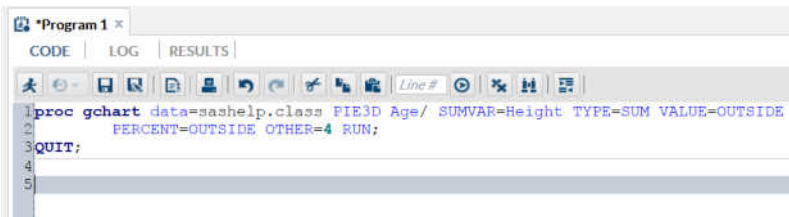
rank+1;

if rank le &n then
    output;
run;

```


Customizing Your Work Area

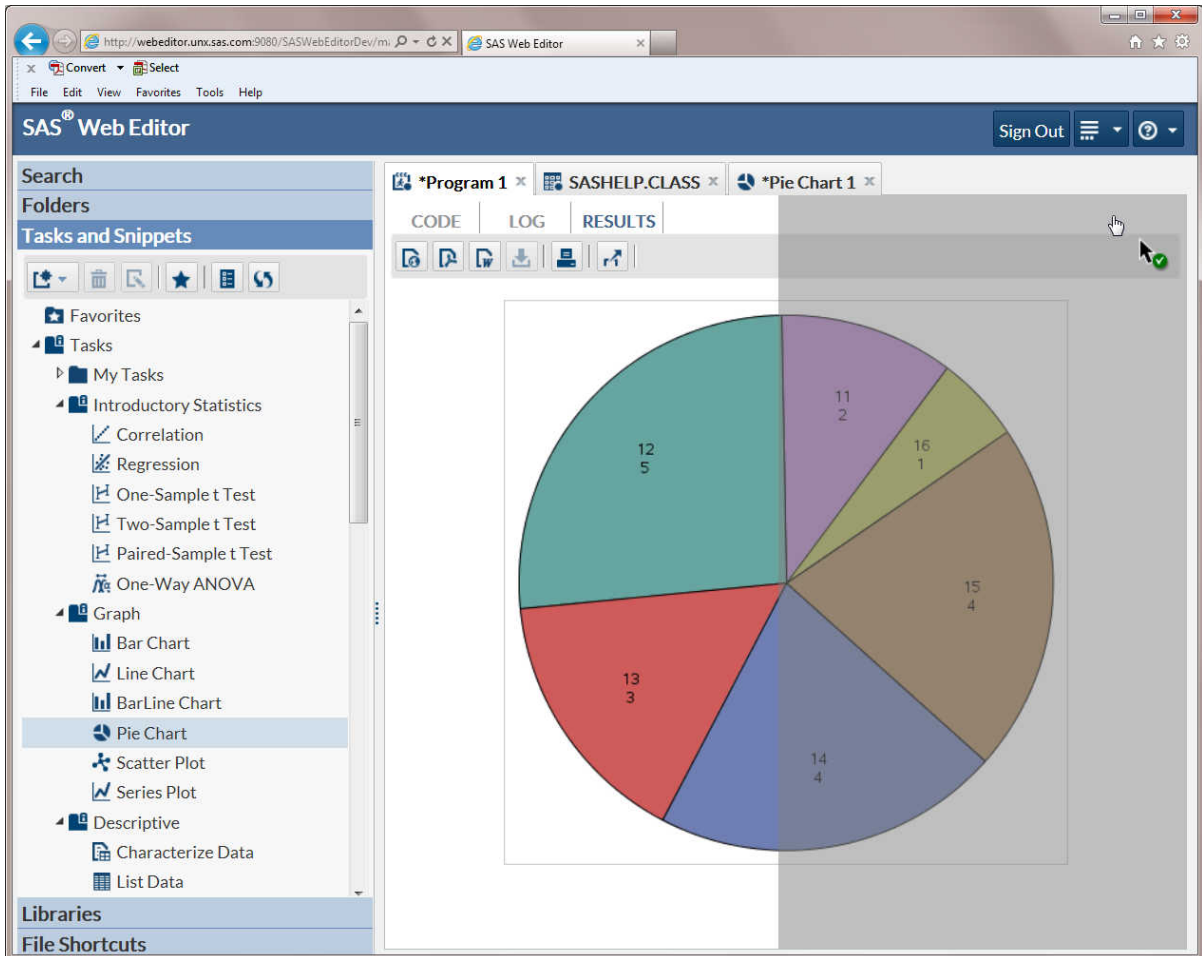
In the code editor, the code, log, and results are displayed in a tabbed view by default.

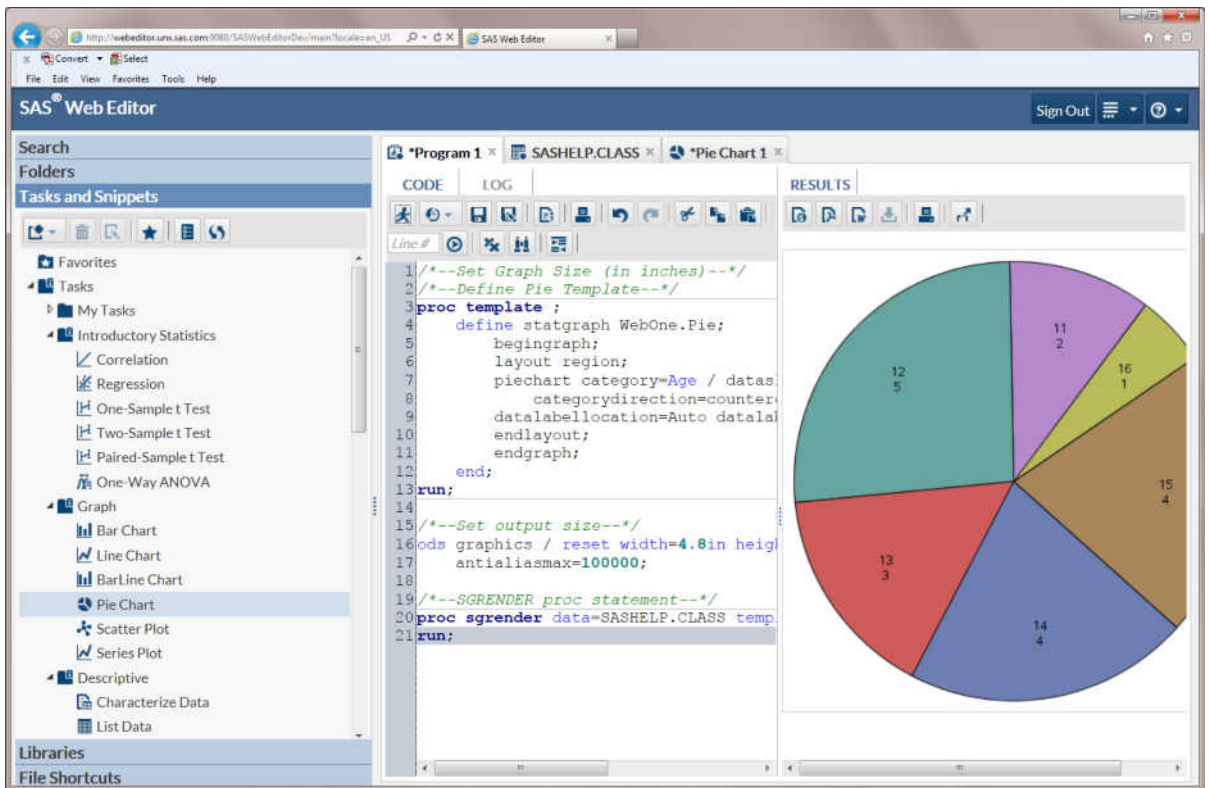


You can rearrange the tabs by using a drag-and-drop operation to move them to the left or right. You can also dock a tab on the right side or bottom of the work area to view more than one tab at a time.

To rearrange a tab:

- 1 Select the tab that you want to move.
- 2 Move the tab icon to the location where you want to view this content. The  icon indicates a valid location.



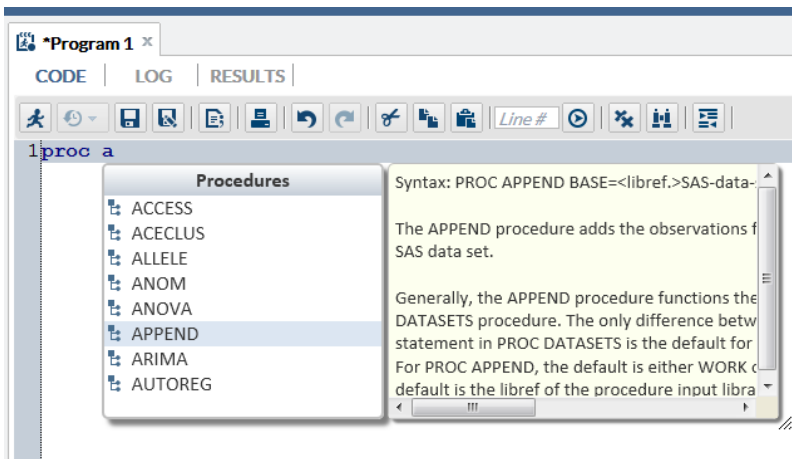


New Autocomplete Feature in the SAS Code Editor

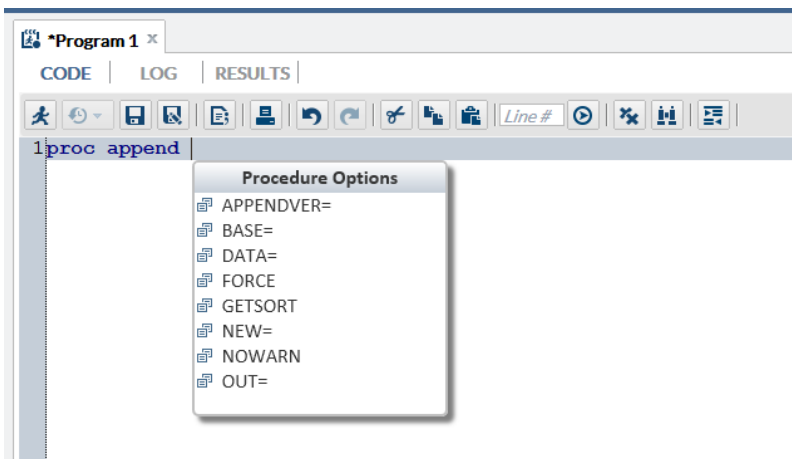
About the Autocomplete Feature

The autocomplete, or code completion, feature in the code editor can predict the next word that you want to enter before you actually enter it completely. The autocomplete feature can complete keywords that are associated with SAS procedures, statements, macros, functions, CALL routines, formats, informats, macro variables, SAS colors, style elements, style attributes, and statistics keywords, and various SAS statement and procedure options.

This example shows the keywords and Help that appear when you enter `proc a` in the code editor.



In this example, you select **APPEND** from the list of procedures, so that `proc append` appears in the code editor. When you enter a space, the code editor displays a list of options for the APPEND procedure.



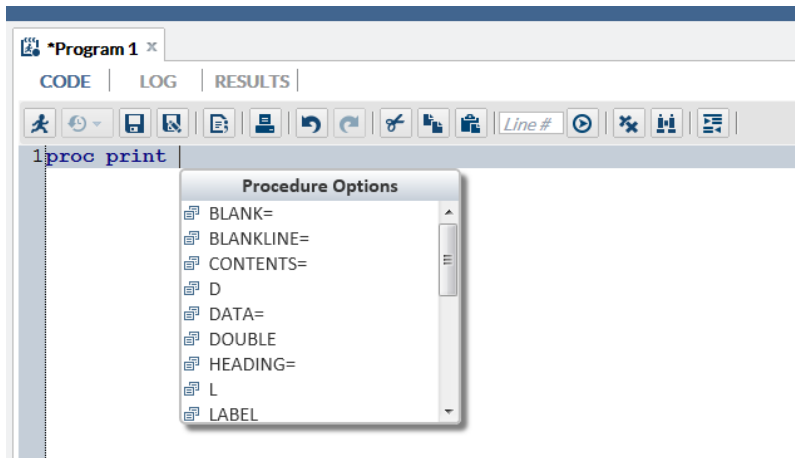
How to Use the Autocomplete Feature

To use the autocomplete feature:

- 1 How you open the autocomplete list depends on the keyword that you want to add.

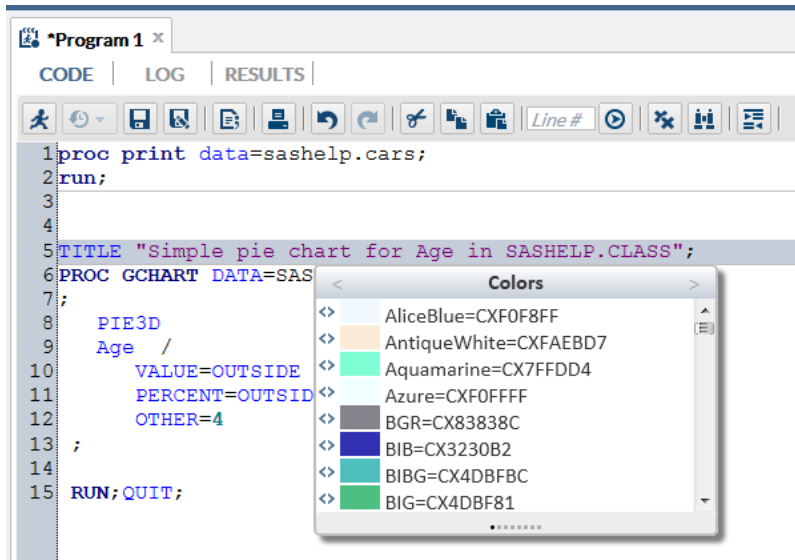
- If you want to add a global statement, DATA step statement, CALL routine, procedure, macro statement, or automatic macro variable, enter the first one or more letters of the keyword that you want to use.

A window opens with a list of suggested keywords that begin with those letters.



- If you want to specify colors, formats, informats, macro functions, SAS functions, statistics keywords, style elements, or style attributes, press Ctrl+spacebar. To navigate through the list of options backward, press Ctrl+Shift+spacebar.

Note: These shortcuts work even if you have deselected the **Enable autocomplete** option in the Preferences window. For more information, see [“Setting Preferences” on page 33](#).

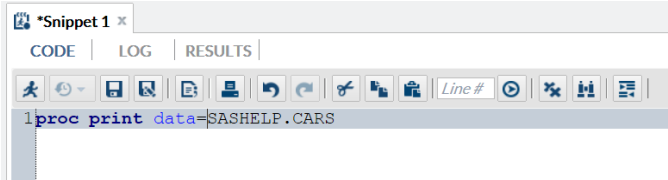


- 2 You can navigate to the keyword that you want to use in several ways:
 - Continue to type until the correct keyword is selected (because the matching improves as you type).
 - Scroll through the list by using the up and down arrow keys, the Page Up and Page Down keys, or your mouse.
- 3 You can add the keyword to your program by double-clicking the selected keyword or pressing the Enter key.

Note: To view the Help for a keyword that is already in your code, place your mouse pointer over the keyword or right-click the keyword and select **Syntax Help**.

Adding Table Names and Column Names to Your SAS Code

From the **Libraries** section, you can use a drag-and-drop operation to move table names and column names into the SAS code. For example, you can move the Sashelp.Cars table into the DATA option for the PRINT procedure. When you release the mouse, the fully qualified name for the table appears in your code.



New Keyboard Shortcuts

	Keyboard Shortcuts		
Action	Windows	OS X	iOS
Add or remove comments in the SAS code in the code editor	Ctrl+/ 	Command+/ 	Control+/
Displays the available lists for the autocomplete feature*	Ctrl+spacebar	Control+spacebar	Control+spacebar
Enables you to scroll through the lists in the autocomplete feature	To scroll forward, use Ctrl+spacebar To scroll backward, use Ctrl+Shift+spacebar	To scroll forward, use Control+spacebar To scroll backward, use Control+Shift+spacebar	To scroll forward, use Control+spacebar To scroll backward, use Control+Shift+spacebar

* The number of options available depends on where your cursor is located. If your cursor is in a comment, the colors, formats, informats, macro functions, SAS functions, statistics keywords, style elements, and style attribute lists are available. If your cursor is in SAS code, only the valid SAS programming elements are available.

Understanding Tasks in SAS Web Editor

What Is a Task?

Tasks generate SAS code and formatted results for you. They include SAS procedures from simple data listings to the most complex analytical procedures. SAS Web Editor is shipped with several predefined tasks. You can edit a copy of these predefined tasks in order to customize the tasks for your site. You can also build your own tasks and create favorites.

Note: Tasks are not available on the iPad for SAS Web Editor 2.5.

Task Name	Description
Introductory Statistics	
Correlation	Data correlation is a statistical procedure for describing the relationship between numeric variables. The relationship is described by calculating correlation coefficients for the variables.
Regression	<p>Regression analysis is the analysis of the relationship between two or more quantitative variables. This relationship is expressed through a statistical model that predicts the dependent variable from a function of the explanatory variables and parameters. A dependent variable is also called a response variable. Explanatory variables can also be called independent variables, predictors, or regressor variables.</p> <p>For example, you might use regression analysis to find out how well you can predict a child's weight if you know the child's height. Suppose that a SAS data set contains the height and weight measurements of 19 children. By using weight as the dependent variable and height as the independent variable, you can perform a linear regression analysis on this data.</p>
One-Sample t Test	A one-sample t test compares the mean of the sample to a given number.
Two-Sample t Test	A two-sample t test compares the mean of the first sample minus the mean of the second sample to a given number.

Task Name	Description
Paired-Sample t Test	A paired-sample t test compares the mean of the differences in the observations to a given number.
One-Way ANOVA	<p>A one-way analysis of variance (ANOVA) considers one treatment factor with two or more treatment levels. The goal of the analysis is to test for differences among the means of the levels and to quantify those differences. If there are two treatment levels, then this analysis is equivalent to a t test that compares two group means.</p> <p>You might use ANOVA to perform any of the following tasks. The three different types of treatment are then randomly assigned within each block.</p> <ul style="list-style-type: none"> ■ study the effect of bacteria on the nitrogen content of red clover plants. The factor is the bacteria strain, and it has six levels. ■ analyze a randomized complete block design. For example, suppose that you are interested in whether three different types of treatment have different effects on the yield and worth of a particular crop. You believe that the experimental units are not homogeneous, so you introduce a blocking factor that allows the experimental units to be homogeneous within each block. ■ compare the life spans of three different brands of batteries. The factor is the brand, and it has three levels.
Graph	
Bar Chart	<p>The Bar Chart task creates horizontal or vertical bar charts that compare numeric values or statistics between different values of a chart variable. Bar charts show the relative magnitude of data by displaying bars of varying height. Each bar represents a category of data.</p> <p>You might use a bar chart to compare the total amount of sales at each location of a store. In this type of chart, each bar represents the total sales for each site.</p>
Line Chart	<p>The Line Chart task assumes that the values in the category variable are discrete. The task groups these values into distinct categories. If a response variable is assigned, you can select the statistic (either mean or sum) for the response values. By default, the task calculates the mean of the response values. If no response variable is assigned, a frequency chart by category is created.</p> <p>For example, a line chart can compare the number of advertising campaigns across products.</p>

Task Name	Description
Bar-Line Chart	<p>The Bar-Line Chart task creates a vertical bar chart with a line chart overlay.</p> <p>You can use this task to perform the following:</p> <ul style="list-style-type: none"> ■ display and compare exact and relative magnitudes ■ examine the contribution of each part to the whole ■ determine trends and patterns in the data
Pie Chart	<p>The Pie Chart task creates pie charts that represent the relative contribution of the parts to the whole by displaying data as wedge-shaped "slices" of a circle. Each slice represents a category of data. The size of a slice represents the contribution of the data to the total chart statistic.</p> <p>For example, a pie chart can show the sales of each store as a fraction of a chain's total sales.</p>
Scatter Plot	<p>The Scatter Plot task creates plots that show the relationships between two or three variables by revealing patterns or concentrations of data points. For example, a two-dimensional scatter plot can display the weights and ages of all patients who are included in a clinical study.</p>
Series Plot	<p>The Series Plot task creates a line plot. Series plots display a series of line segments that connect observations of input data. For example, series plots can be used to show stock trends.</p>
Descriptive	
Characterize Data	<p>The Characterize Data task enables you to create a summary report, graphs, and frequency and univariate SAS data sets that describe the main characteristics of the data.</p>
List Data	<p>The List Data task displays the contents of a table as a report.</p> <p>For example, you can use the List Data task to create a report that sums the expenses and revenues for each sales region.</p>

Task Name	Description
Distribution Analysis	<p>The Distribution Analysis task provides data summarization tools as well as information about the distribution of numeric variables. You can also use it to create a variety of plots, including histograms, probability plots, quantile-quantile plots, and box plots.</p> <p>You might use this task to create the summary statistics for a product. For example, suppose that you have stored the loan-to-value ratios of 5,840 home mortgages in a SAS data set. Using the Distribution Analysis task, you could create the following output:</p> <ul style="list-style-type: none"> ■ a table of summary measures, including moment estimates, and a table of extreme observations. ■ a histogram that enables you to visualize the distribution of loan-to-value ratios. The histogram reveals features of the distribution, such as its skewness and the peak. ■ an analysis of the distribution of the data. This task enables you to run tests for normality and create charts, such as a probability plot.
One-Way Frequencies	<p>The One-Way Frequencies task generates frequency tables from your data. You can also use it to perform binomial and chi-square tests. You might want to use this task to analyze the efficiency of a new drug. For example, suppose that a group of medical researchers are interested in evaluating the efficacy of a new treatment for a skin condition. Dermatologists from participating clinics are trained to conduct the study and to evaluate the condition. After the training, two dermatologists examine patients with the skin condition from a pilot study and rate the same patients. The One-Way Frequencies task can be used to evaluate the agreement of the diagnoses.</p>
Summary Statistics	<p>The Summary Statistics task provides data summarization tools to compute descriptive statistics for variables across all observations and within groups of observations. You can also summarize your data in a graphical display, such as a histogram.</p> <p>For example, you could use this task to create a report on the number of new sales, arranged by product type and country.</p>

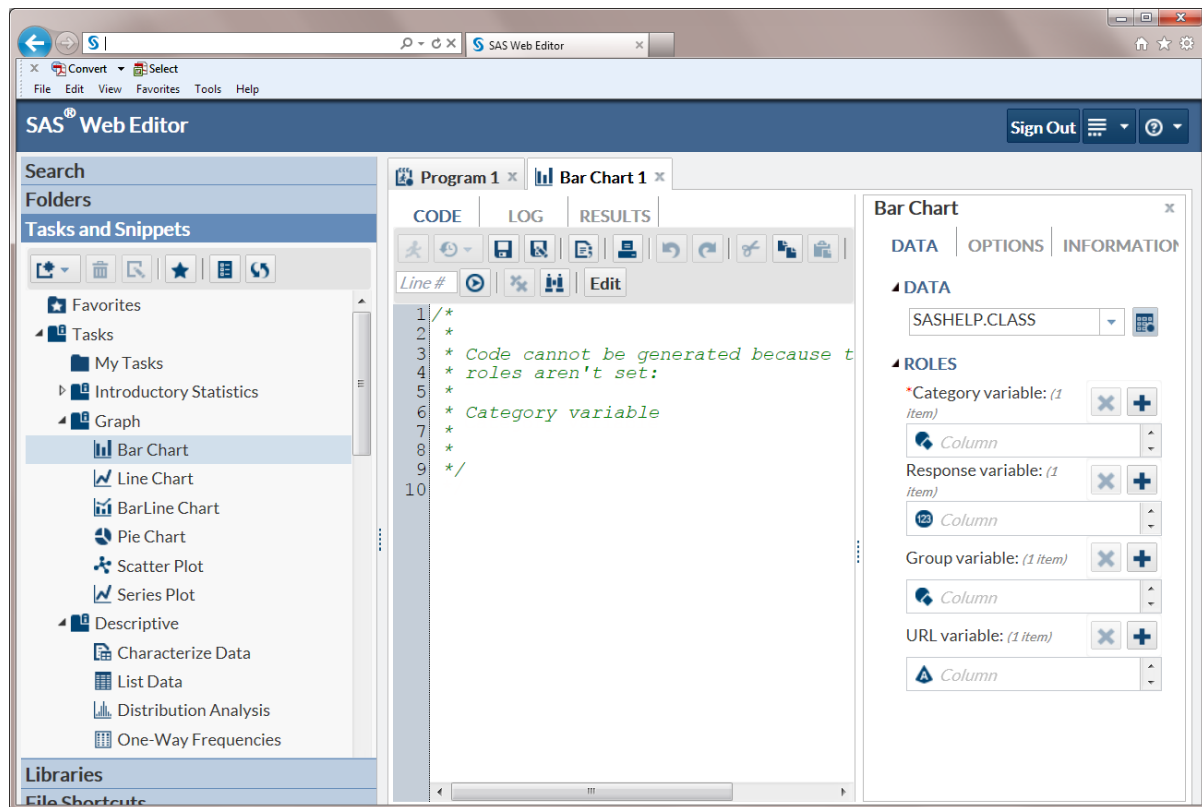
Task Name	Description
Rank	<p>The Rank task computes ranks for one or more numeric columns across the rows in a table. The output displays the ranks in a new table.</p> <p>For example, you might want to rank the sales for each product that your company sells. In this case, the ranking variable would show the order of product sales. The product with the highest number of sales would be ranked first.</p>
Sort Data	<p>The Sort Data task enables you to sort the table by any of its columns.</p>
Table Attributes	<p>The Table Attributes task enables you to create these types of reports:</p> <ul style="list-style-type: none"> ■ a default report that includes the following data attributes: the date on which the table was created and last modified, the number of rows, the encoding, any engine or host-dependent information, and an alphabetic list of the variables and their attributes. ■ an enhanced report displays the table and variable attributes. From this report, you can determine the table type, the date on which the table was created and modified, the number of observations, the variable labels, and the variable types.
Random Sample	<p>The Random Sample task creates an output table that contains a random sample of the rows in the input table.</p> <p>You might use this task when you need a subset of the data. For example, suppose that you want to audit employee travel expenses in an effort to improve the expense reporting procedure and possibly reduce expenses. Because you do not have the resources to examine all expense reports, you can use statistical sampling to objectively select expense reports for audit.</p>
Transpose	<p>The Transpose task turns selected columns of an input table into the rows of an output table. If you do not use grouping variables, then each selected column is turned into a single row. If you use grouping variables, then the selected columns are divided into subcolumns based on the values of the grouping variables, and each subcolumn is turned into a row of the output table.</p>

How to Run a Task

To run a predefined task:

- 1 In the navigation pane, open the **Tasks and Snippets** section.
- 2 Expand the folder that contains the task.
- 3 Right-click the task name and select **Open**. Alternatively, you can double-click the task to open it.

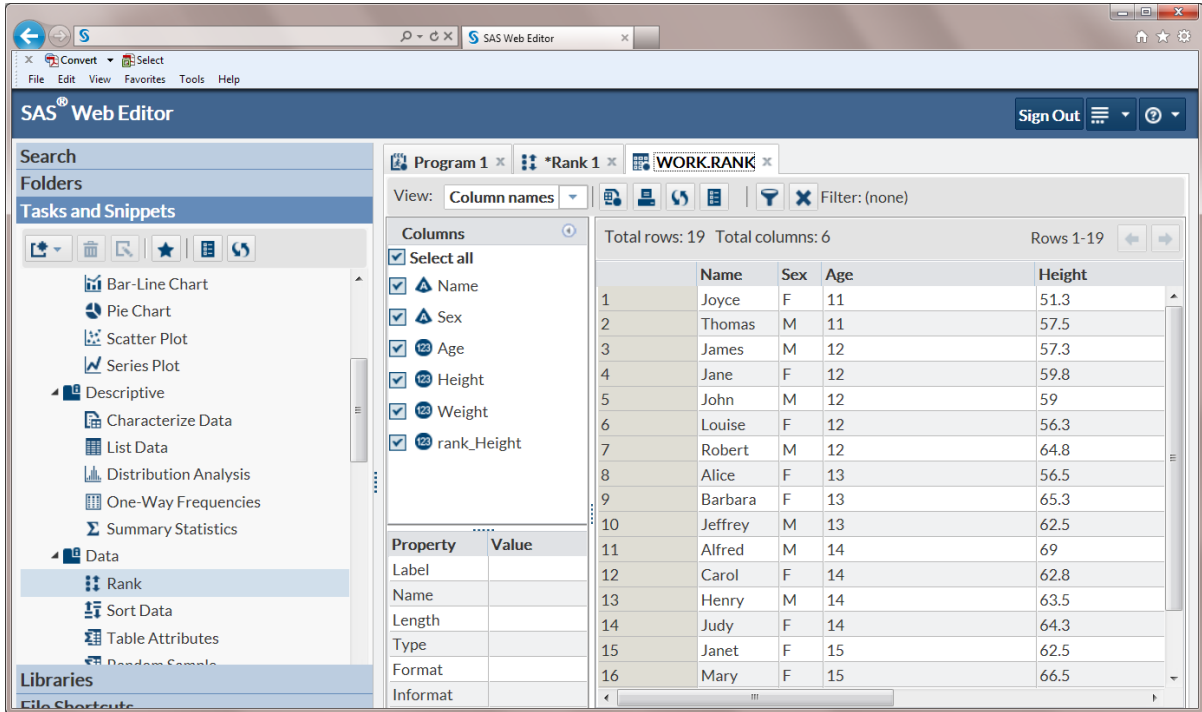
The task opens to the right of the work area.



- 4 In the pane for the task, specify the input data source, roles for the columns in the data source, and any other required options. As you assign values to the task, the relevant SAS code appears on the **Code** tab.

5 On the **Code** tab, click .

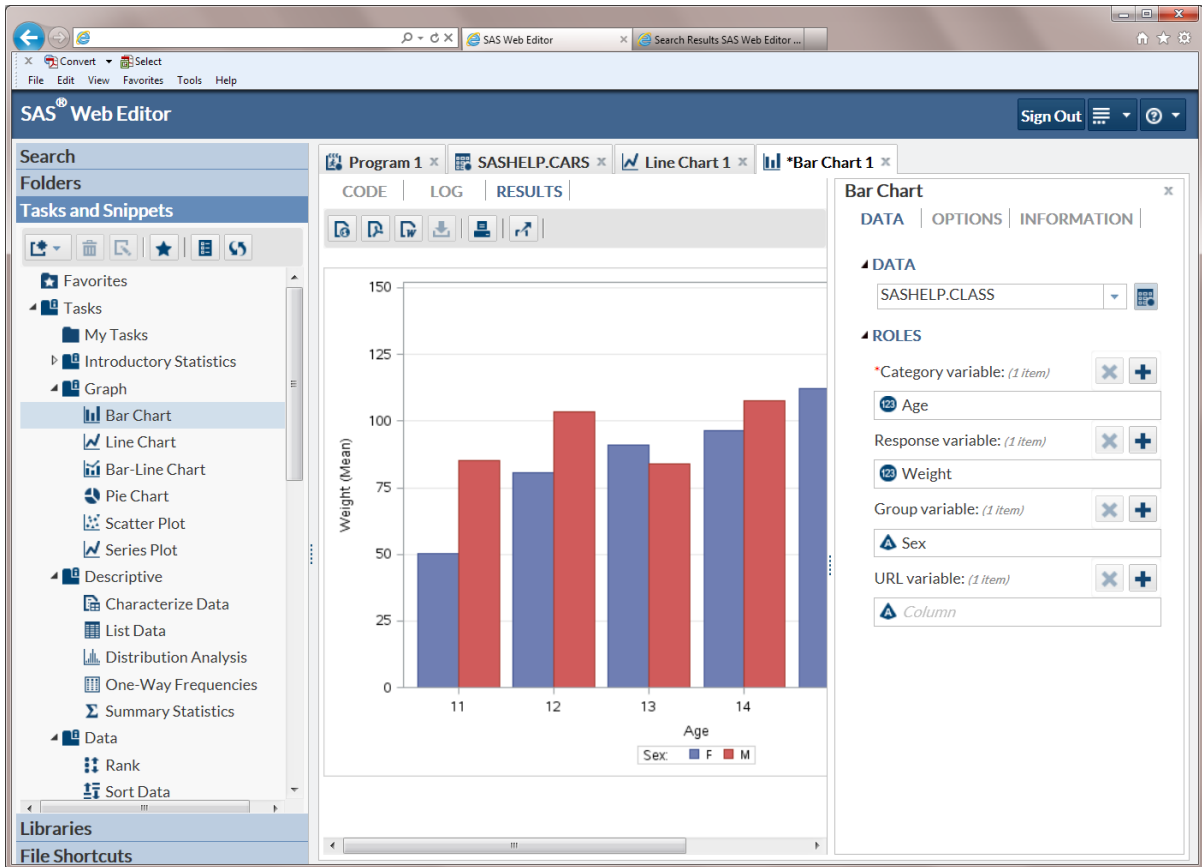
If the task generates output data, the table opens in your work area.



The screenshot shows the SAS Web Editor interface. On the left, the 'Tasks and Snippets' panel is open, showing a list of tasks under the 'Data' category. The 'Rank' task is selected. The main work area displays the results of the 'Rank' task, showing a table with 19 rows and 6 columns. The table contains data for 16 individuals, with the last three rows (17-19) being empty.

	Name	Sex	Age	Height	Weight	rank_Height
1	Joyce	F	11	51.3		
2	Thomas	M	11	57.5		
3	James	M	12	57.3		
4	Jane	F	12	59.8		
5	John	M	12	59		
6	Louise	F	12	56.3		
7	Robert	M	12	64.8		
8	Alice	F	13	66.5		
9	Barbara	F	13	65.3		
10	Jeffrey	M	13	62.5		
11	Alfred	M	14	69		
12	Carol	F	14	62.8		
13	Henry	M	14	63.5		
14	Judy	F	14	64.3		
15	Janet	F	15	62.5		
16	Mary	F	15	66.5		
17						
18						
19						

If the task generates results, the output appears on the **Results** tab.





Edit a Predefined Task

To customize the predefined tasks for your site, you can edit the XML code that is used to create the task.

To edit a predefined task:


- 1 In the navigation pane, open the **Tasks and Snippets** section.
- 2 Expand the folder that contains the task.
- 3 Right-click the name of the task that you want to edit and select **Add to My Tasks**. A copy of the task is added to your **My Tasks** folder.
- 4 Open the **My Tasks** folder and select the copied task.

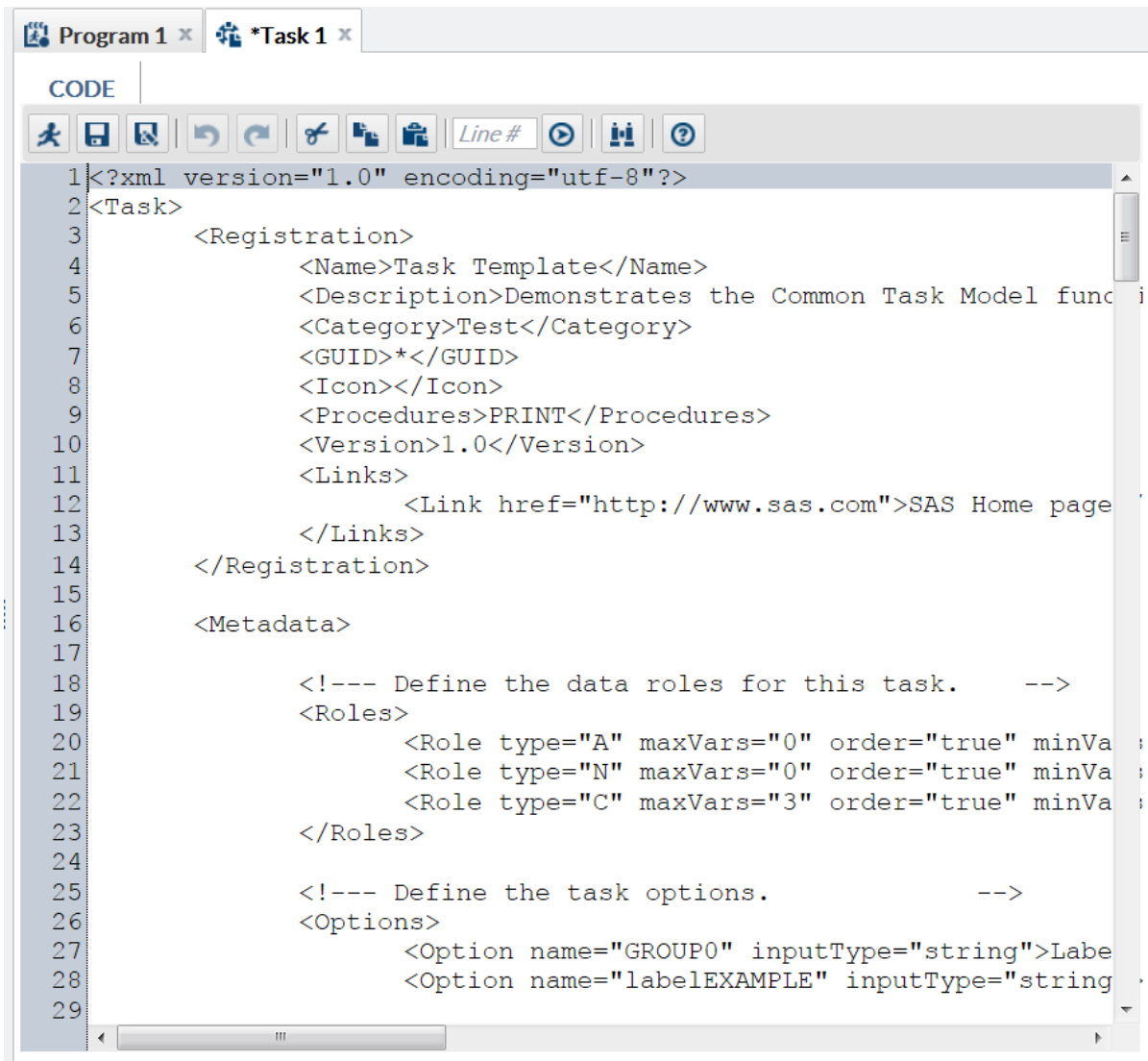
- 5 Click . The XML code for the task appears.
- 6 Edit the XML file and save your changes. To preview your changes, click .

Create a New Task

SAS Web Editor provides a template that you can use to create custom tasks for your site.

To create a custom task:

- 1 In the navigation pane, open the **Tasks and Snippets** section.
- 2 Click  and select **New Task**. An XML task template opens.




The screenshot shows the SAS Web Editor interface with two tabs: 'Program 1' and '*Task 1'. The 'CODE' tab is active, displaying an XML file. The XML content is as follows:

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <Task>
3     <Registration>
4         <Name>Task Template</Name>
5         <Description>Demonstrates the Common Task Model func i
6         <Category>Test</Category>
7         <GUID>*</GUID>
8         <Icon></Icon>
9         <Procedures>PRINT</Procedures>
10        <Version>1.0</Version>
11        <Links>
12            <Link href="http://www.sas.com">SAS Home page
13        </Links>
14    </Registration>
15
16    <Metadata>
17
18        <!-- Define the data roles for this task.    -->
19        <Roles>
20            <Role type="A" maxVars="0" order="true" minVa
21            <Role type="N" maxVars="0" order="true" minVa
22            <Role type="C" maxVars="3" order="true" minVa
23        </Roles>
24
25        <!-- Define the task options.                -->
26        <Options>
27            <Option name="GROUP0" inputType="string">Labe
28            <Option name="labelEXAMPLE" inputType="string
29

```

- 3 Edit the XML file to create your task. To view the user interface for the task template, click . In the user interface for the task template, you can see examples of radio buttons, check boxes, combination boxes, and other types of options.

Understanding Code Snippets

Why Use Code Snippets?


Code snippets enable you to quickly insert SAS code into your program and customize it to meet your needs. SAS Web Editor is shipped with several code snippets. You can also create your own snippets and create favorites.

Note: If you are running SAS Web Editor 2.5 on the iPad, use the **Insert Sample Code** feature to access the sample code snippets.

Snippet Name	Description
Data	
Import CSV File	The Import CSV File snippet enables you to import a comma-separated file and write the output to a SAS data set.
Import Excel File	The Import Excel File snippet enables you to import a Microsoft Excel file and write the output to a SAS data set.
Generate a CSV File	The Generate a CSV File snippet enables you to export SAS data as a comma-separated text file.
Generate an XML File	The Generate an XML File snippet enables you to export SAS data as an XML file that you can view in your web browser.
Graph	
Note: For more information about the SGPLOT, SGPANEL, and SGSCATTER procedures, see <i>SAS ODS Graphics: Procedures Guide</i> .	
Histogram Plot	The Histogram Plot snippet uses the HISTOGRAM statement in the SGPLOT procedure. This code snippet produces a histogram with two density plots. In this snippet, one density plot uses a normal density estimate and the other density plot uses a kernel density estimate.


Snippet Name	Description
Fit Plot	The Fit Plot snippet uses the REG statement in the SGPLOT procedure. This code snippet produces regression plot with a quadratic fit and includes confidence limits.
VBox Plot	The VBox Plot snippet uses the VBOX statement in the SGPLOT procedure. A box plot summarizes the data and indicates the median, upper and lower quartiles, and minimum and maximum values. The plot provides a quick visual summary that easily shows center, spread, range, and any outliers. The SGPLOT and the SGPANEL procedures have separate statements for creating horizontal and vertical box plots.
Dot Plot	The Dot Plot snippet uses the DOT statement in the SGPLOT procedure. Dot plots summarize horizontally the values of a category variable. By default, each dot represents the frequency for each value of the category variable.
HighLow Plot	The HighLow Plot snippet uses the HIGHLOW statement in the SGPLOT procedure. High-low charts show how several values of one variable relate to one value of another variable. Typically, each variable value on the horizontal axis has several corresponding values on the vertical axis.
HBar Plot	The HBar Plot snippet uses the HBAR statement in the SGPLOT procedure. This code snippet creates a horizontal bar chart that summarizes the values of a category variable.
Box Panel	The Box Panel snippet uses the VBOX statement in the SGPANEL procedure and enables you to create multiple box plots.
Bar Panel	The Bar Panel snippet uses the VBAR statement in the SGPANEL procedure and enables you to create multiple bar charts.
Comparative Scatter Plot	The Comparative Scatter Plot snippet uses the COMPARE statement in the SGSCATTER procedure. This code snippet creates a comparative panel of scatter plots with shared axes.

Snippet Name	Description
Scatter Plot Matrix	The Scatter Plot Matrix snippet uses the MATRIX statement in the SGSCATTER procedure. This code snippet creates a scatter plot matrix.
Macro	
SAS Macro	The SAS Macro snippet provides a template for creating a SAS macro program. For more information, see <i>SAS Macro Language: Reference</i> .
Descriptive	
PROC SQL	The PROC SQL snippet provides a template for writing SQL queries. For more information, see <i>SAS SQL Procedure User's Guide</i> .
Custom ODS Output	The Custom ODS Output snippet provides a template for creating HTML, PDF, and RTF output using the SAS Output Delivery System. For more information, see <i>SAS Output Delivery System: User's Guide</i> .

To add a snippet to your list of favorites, select the snippet name and click .

Create a Code Snippet

To create your own snippet:

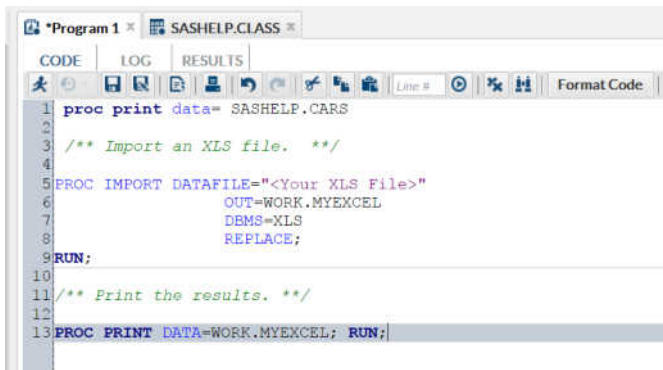
- 1 Open your .sas file in the SAS Web Editor and select the code that you want to save as a snippet.
- 2 In the program tab, click . The Add to My Snippets dialog box appears.
- 3 Enter a name for the snippet and click **Save**.

This snippet is now available from the **My Snippets** folder.

How to Insert a Code Snippet

To include a code snippet in your program:

- 1 Select the location in your program where you want to insert the snippet.
- 2 In the navigation pane, open the **Tasks and Snippets** section.
- 3 You can add the snippet to your program in these ways:
 - use a drag-and-drop operation to move the snippet
 - double-click the name of the snippet
 - right-click the name of the snippet and select **Insert**



```
1 proc print data= SASHELP.CARS
2
3 /** Import an XLS file. */
4
5 PROC IMPORT DATAFILE="<Your XLS File>"
6             OUT=WORK.MYEXCEL
7             DBMS=XLS
8             REPLACE;
9 RUN;
10
11 /** Print the results. */
12
13 PROC PRINT DATA=WORK.MYEXCEL; RUN;
```

Working with Graphs

About SAS ODS Statistical Graphs

SAS ODS Statistical Graphics, more commonly referred to as SAS ODS Graphics, is an extension of the SAS Output Delivery System (ODS). ODS manages all output that is created by procedures and enables you to display the output in a variety of forms, including HTML and PDF.

Many SAS analytical procedures use ODS Graphics functionality to produce graphs as automatically as these procedures produce tables. ODS Graphics uses the Graph Template Language (GTL) syntax, which provides the power and flexibility to create many complex graphs. The GTL is a comprehensive language for defining statistical graphics.

In SAS Web Editor, you can use the ODS Graphics Designer to define these statistical graphics without knowing the GTL. After a graph definition is created, you can use that graph definition to create an ODS statistical graph in SAS Web Editor.

SAS ODS Graphics Designer

What Is the SAS ODS Graphics Designer?


The SAS ODS Graphics Designer is an interactive graphical application that you can use to create and design custom graphs. The designer creates graphs that are based on the Graph Template Language (GTL), which is the same language that is used by SAS analytical procedures and SAS ODS Graphics procedures. The ODS Graphics Designer provides a graphical user interface, so that you can design graphs easily without knowing the details of templates and the GTL.

Using point-and-click interaction, you can create simple or complex graphical views of data for analysis. The ODS Graphics Designer enables you to design sophisticated graphs by using a wide array of plot types. You can design multi-cell graphs, classification panels, and scatter plot matrices. Your graphs can have titles, footnotes, legends, and other graphics elements. You can save the results as an image for inclusion in a report or as an ODS Graphics Designer file (SGD) that you can later edit.


For more information, see *SAS ODS Graphics Designer: User's Guide*.

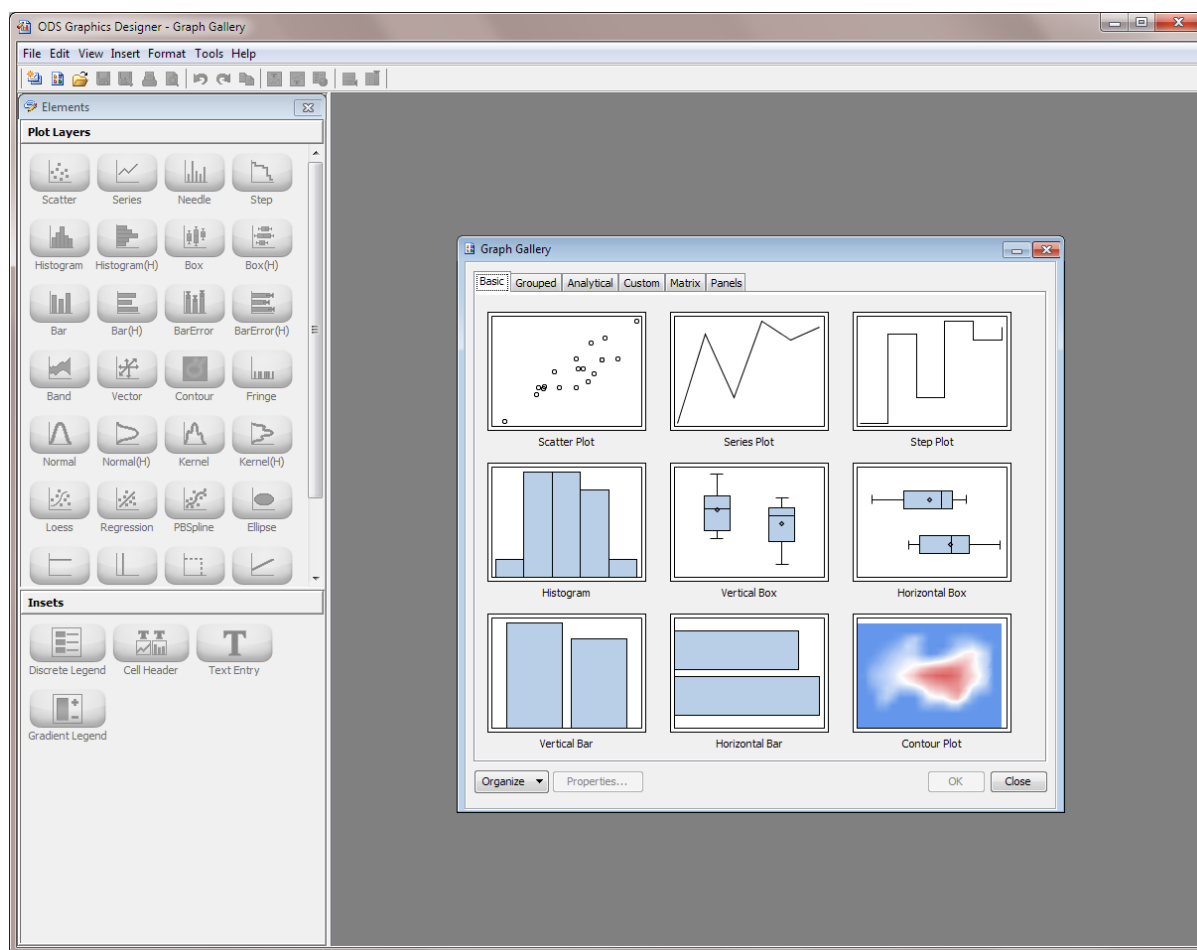
Note: The SAS ODS Graphics Designer is available only in Windows environments. It is not available on the Mac or iPad.

How to Install the SAS ODS Graphics Designer

To install the SAS ODS Graphics Designer, click  and select **Install ODS Graphics Designer**.

Open the SAS ODS Graphics Designer

After the SAS ODS Graphics Designer is installed, you can open it by using a menu option in SAS Web Editor. To open SAS ODS Graphics Designer, click  and select **ODS Graphics Designer**.



SAS ODS Graphics Editor

What Is the SAS ODS Graphics Editor?

The ODS Graphics Editor enables you to edit the various elements in the output graph while keeping the underlying data unchanged. In addition, you can annotate a graph by

inserting text, lines, arrows, images, and other items in a layer above the graph. You can save the results of your customization as an ODS Graphics Editor (SGE) file and make incremental changes to the file. You can also save the results as a Portable Network Graphics (PNG) image file for inclusion in other documents.

For more information about the SAS ODS Graphics Editor, see *SAS ODS Graphics Editor: User's Guide*.

How to Install the SAS ODS Graphics Editor

To install the SAS ODS Graphics Editor, click  and select **Install ODS Graphics Editor**.

When you install the SAS ODS Graphics Editor, SAS Web Editor automatically creates the `~/Projects/ODSEditorFiles` directory.

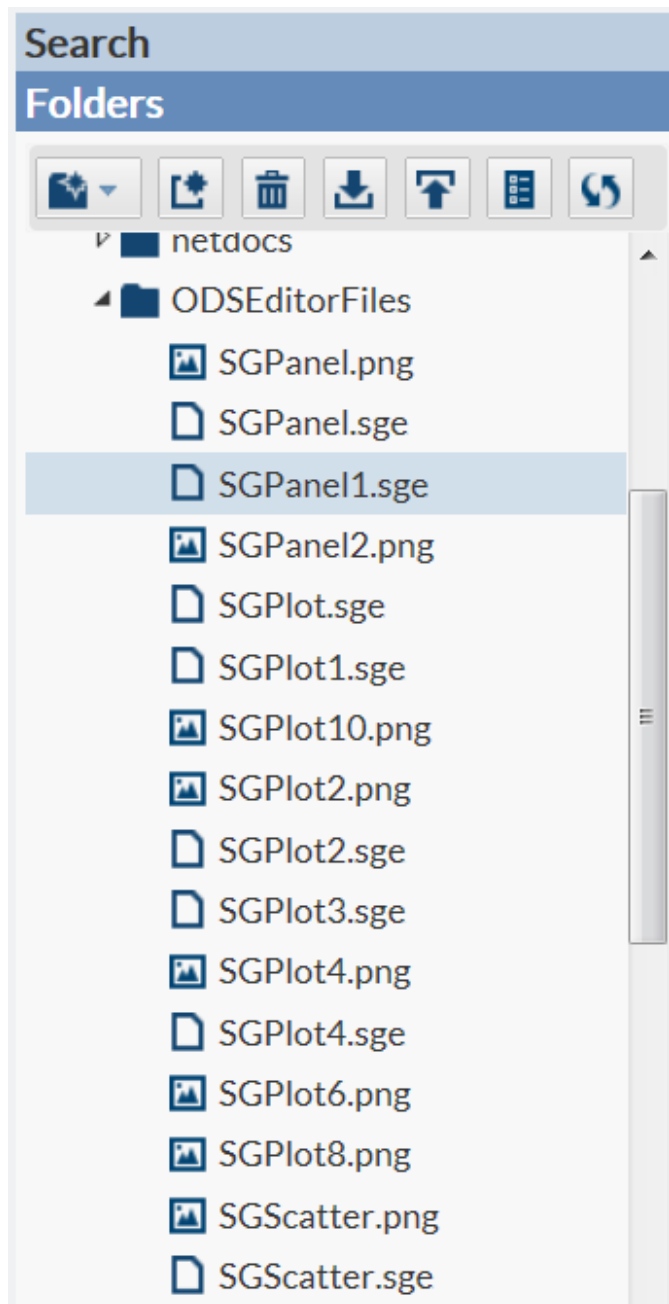
How to Edit Your Graphics Output

- 1 Include this statement in your SAS code so that you can edit your graphics output:

```
ods listing sge=on gpath="{home}/Projects/ODSEditorFiles";
```

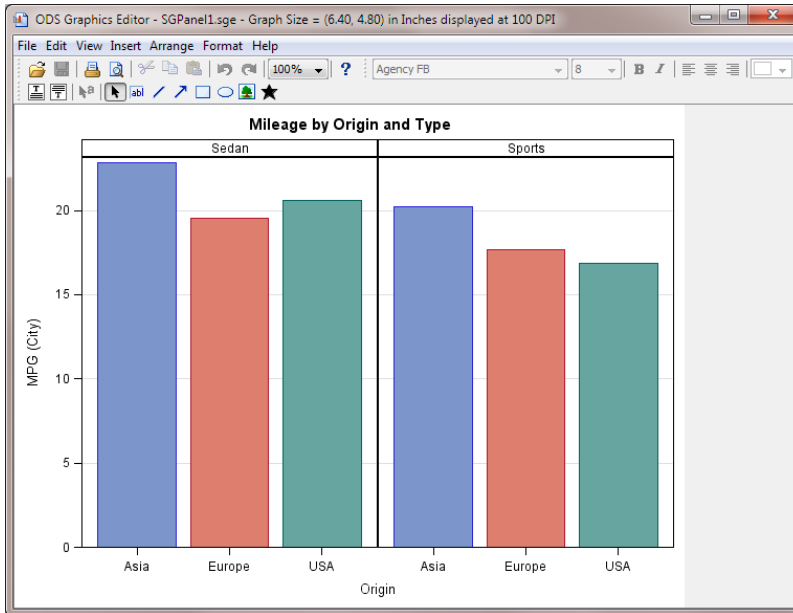
When you run this program, the graphical output is saved as an SGE file in your `~/Projects/ODSEditorFiles` directory.

- 2 In the **Folders** section of the navigation pane, expand the ODSEditorFiles folder.




- 3 Double-click the filename to open the graph in the SAS ODS Graphics Editor.

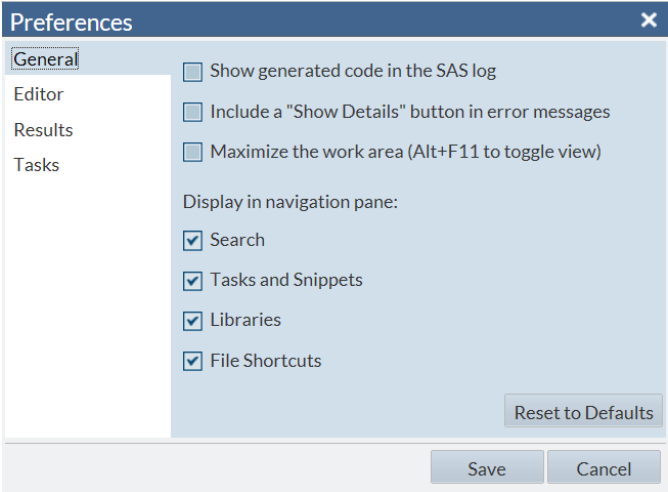
For example, here is the SGPanel1.sge file in the SAS ODS Graphics Editor.



Note: The default list of files in your ODSEditorFiles folder are created by the code snippets in the **Task and Snippets** section. For more information, see [“Understanding Code Snippets”](#) on page 25.

Setting Preferences

To open the Preferences window, click  and select **Preferences**.



Here are the options available in the Preferences window:

Option Name	Description
General Options	
Show generated code in the SAS log	Displays the ODS statements, %LET statements, and any other code that is automatically generated by SAS. This option applies to SAS tasks and SAS program files.
Include a “Show Details” button in error messages	Displays the Show Details button in application messages. Click this button to view any exceptions that occurred. You might need to copy these details for your SAS administrator or SAS Technical Support.
Display in navigation pane	Specifies the sections to display in the navigation pane. By default, all sections (Search , Folders , Tasks and Snippets , Libraries , and File Shortcuts) are displayed.
Editor Options	
Enable autocomplete	Turns on the autocomplete feature of the code editor. This feature can predict the next keyword that you want to enter before you actually enter it completely.

Option Name	Description
Tab width	Displays the number of spaces that are inserted into your text when you insert a tab character. The default value is four spaces for each tab character. Note: The Tab width option is ignored by Internet Explorer 9 (or later) and Safari web browsers.
Substitute spaces for tabs	Substitutes the number of spaces listed in the Tab width box instead of a single tab character.
Enable color coding	Displays the SAS language elements in color in the code editor.
Show line numbers	Displays line numbers in the leftmost column of the program and log.
Font size	Specifies the size of the font in the code editor.
Results Options	
Display warning if results are larger than <i>n</i> MB	Specifies that you want a confirmation window displayed when you attempt to open results that are larger than <i>n</i> megabytes (MB). The default value is 4 MB.
HTML output style	Specifies the style that is applied to the HTML results.
PDF output style	Specifies the style that is applied to the PDF results.
Generate the default table of contents	Generates a table of contents for results in the PDF format.
RTF output style	Specifies the style that is applied to the RTF results.
Tasks Options	

Option Name	Description
Trim all leading and trailing blank spaces in generated code	Removes any blank spaces that appear before or after the generated code.
Generate header comments for task code	Adds comments before the generated code for a SAS task.
Automatically format generated code	Automatically formats any code that is generated by a task and displayed in the code editor.

Note: Not all of these options are available if you are using SAS Web Editor on the iPad.

To reset all of the options in the current pane to their default values, click **Reset All Defaults**.