



Summary: Lesson 3 - Getting Started with Tasks

Topic Summaries

Using Tasks and Wizards

- The real power of SAS Enterprise Guide is in **tasks**: specific types of analyses, reports, or data manipulations that you can run on data in your project. The output of a task is generally a report, a data set, or both. Each task has its own window with options that relate to that task. As you point and click, the task generates SAS code and then submits it to SAS.
- Some tasks also have wizard versions. Wizards do not have all the functionality of a task but they are generally easier to use because they guide you step-by-step to generate results.
- Before you open a task or wizard, you generally start by selecting the data that you want to use. To select data, you can either open the data in the data grid, or you can simply highlight the data in the Project Tree or Process Flow. This makes the data the active data source.
- Although each task has a separate window, most task windows have a similar format. On the left side of the task window is a selection pane with categories of options that are available for the particular task. When you click the category name in the selection pane, the right side of the window displays the specific options that you can set. The **Data**, **Titles**, and **Properties** categories are common to most tasks.
- On the task **Data** page, you can do the following:
 - change the input data source and create a filter
 - assign variables to task roles
 - modify the properties of columns in the task
- On the **Titles** page, you can specify custom titles or footnotes for the report.
- On the **Properties** page, you can do the following:
 - specify a label for the task
 - limit the number of rows used for processing
 - specify different result formats for the task
- After you run a task, the **Modify Task** button reopens the task or wizard and enables you to make changes to the options that you specified when you last ran the task. If you make changes, you must run the task again to refresh the report. The **Refresh** button enables you to rerun the task without changing any options.

Creating a Frequency Report

- The One-Way Frequencies task performs a frequency count and calculates percentages for each value assigned to the Analysis Variables role. The default statistics in the report are Frequency, Percent, Cumulative Frequency, and Cumulative Percent.
- If you assign a variable to the **Group Analysis by** role, SAS Enterprise Guide sorts the data by values of the variable and then calculates statistics on the groups. This role produces separate frequency reports for each unique value of the variable.
- The **Statistics** page enables you to select the statistics that you want in the report. The **Plots** page enables you to generate horizontal or vertical bar charts. The **Results** page enables you to create an output data set with frequencies and percentages, and specify how you want to order the output data.

Working with Result Formats

- **SAS Report** is the default format for SAS Enterprise Guide. You can also generate reports in HTML, PDF, RTF, or text output.
- You can change the default result format for all the reports that you generate in SAS Enterprise Guide by setting options in the Options window. You can also override the default result format for an individual task.
- SAS Report format enables you to do the following:
 - combine multiple task results into a single report
 - modify the generated report
 - share reports with other SAS applications
 - export the report to HTML, XML, or PDF format
 - view the report in a browsing window
 - print the report with formatting
- Reports generated in HTML format can be viewed in any browser. There are also many styles that you can apply to HTML results to get the look that you want.
- Reports generated in Rich Text Format, or RTF, can be opened in most word processing programs, such as Microsoft Word. You can edit and enhance the report or incorporate your results in other word processing documents.
- Reports generated in Portable Document Format, or PDF, are static reports that are good for printing and sharing with others.
- Text format is also called Listing output. You might be familiar with this format if you've used the Output window in SAS.

- If you want to share a report with other individuals or applications outside the SAS Enterprise Guide project, you must export the report or send it to an application or e-mail address.

Creating a Listing Report

- The List Data task generates a detailed report that lists all the rows in a data set. The List Data task does not summarize data, but you can group rows by the value of a column and generate a sum or total for numeric columns.
- The only required task role is the **List variables** role. You use this role to specify which variables to include in the report. You can assign all variables or a subset of the variables in the data set. The order of the variables from top to bottom in the task role determines the order the variables are listed from left to right in the report.
- When you assign a numeric variable to the **Total of** role, a sum is calculated for the variable.
- When you assign a variable to the **Group analysis by** role, you can choose the sort order. The default sort order is ascending.
- On the **Options** page of the List Data task, you can eliminate the row number from printing, use variable names for column headings, and specify a number of rows to print.

Filtering Data in a Task

- The Edit Data and Filter window enables you to build an expression to filter your input data to the task. The filter is applied before the task runs and is only applied in the task.
- You build the expression by selecting the following:
 - a variable from the input data set
 - an operator such as equal to, less than, greater than, etc.
 - a value
- You can create expressions with more than one condition by linking the conditions together with AND or OR.

Creating a Graph

- You can use the Bar Chart Wizard to create a simple bar chart. The wizard enables you to do the following:
 - specify a variable for the bars
 - specify a variable or statistic that will determine the height of the bars and select average or sum
 - change the way that the bars are sorted
 - create a 3-D chart
 - specify the location of the legend and labels
 - turn reference lines and tick marks on and off
 - specify titles and footnotes
- After you've used a wizard to generate a graph, you can open the task in Advanced View to access additional options that are not available in the wizard.
- In addition to offering many types of graphs, SAS Enterprise Guide also offers several choices for graph formats. The default graph format for SAS Enterprise Guide is the ActiveX format. You can select an alternate graph format in the Options window.