Using ODS Graphics Designer with SAS Enterprise Guide 4.3

The ODS Graphics Designer allows you to design and build your own statistical graphs in SAS, without having to learn how to program in the new graph template language (GTL). The ODS Graphics Designer is a rich user interface that allows you to design these graphs based upon your own data, and then save those designs as graph definitions that you can "replay" in a SAS program later.

For more information about the ODS Graphics Designer, see this SAS Global Forum paper by Sanjay Matange.

Because the ODS Graphics Designer is installed only with SAS/GRAPH in your SAS environment, it can be run only on a machine that has SAS installed. But while the designer application can be run only with a local SAS installation, the graph definitions that you create can be replayed in any SAS session, local or remote.

We often receive requests to make it easier to access the power of the ODS Graphics Designer from within SAS Enterprise Guide. To support this request, we've created a series of custom tasks that allow you to:

1. Launch the ODS Graphics Designer from within SAS Enterprise Guide, if you have SAS and SAS/GRAPH installed on the same machine with SAS Enterprise Guide.
2. Replay the graph definitions (SGD files) that you can create with the ODS Graphics Designer. This requires only the SGD files you created and appropriate data to render the graph, plus access to a SAS session, local or remote.

Requirements

Before you can get started with these tasks, please note these requirements:

- SAS Enterprise Guide 4.3
- SAS 9.2 (maintenance 3) for Windows with SAS/GRAPH -- needed only for launching ODS Graphics Designer from within SAS Enterprise Guide
- Access to SAS 9.2 (maintenance 3, any platform, with SAS/GRAPH) – needed for replaying the graph designs (SGD files) using the SGDESIGN procedure.

Installing the Custom Tasks

The easiest way to install the custom tasks is to copy the **SAS.Tasks.SGDesigner.dll** file to the "Custom" folder in your local profile.

1. Navigate to *%appdata%*\SAS\EnterpriseGuide\4.3. (*%appdata%* is a Windows environment variable that resolves to the user profile data for your Windows account.)
2. Create a subfolder named "Custom" (if not already there).
3. Copy SAS.Tasks.SGDesigner.dll to the Custom folder.

When you next launch SAS Enterprise Guide 4.3, you should see the tasks under Tasks->Graph. There will be 3 additional tasks near the bottom of the menu list:

- Create Sample Data Sets for ODS Graphics
- Open ODS Graphics Designer
- Show ODS Statistical Graph
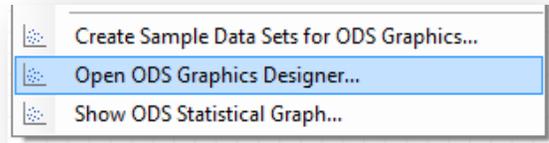
Creating Sample Data (optional)

The "Create sample data sets" task runs a SAS program to produce a series of SAS data sets that are used with the gallery of sample SGD files that are provided with the ODS Graphics Designer application. You need to run this task only if you want to experiment with the sample designs that SAS provides.

When you run the task, the data sets are created in the WORK library within your SAS session. Because the data sets are in WORK, they exist only within the current session and are automatically deleted when you exist from SAS Enterprise Guide.

Open the ODS Graphics Designer

Use this task to open the ODS Graphics Designer application. This task works correctly *only if*:

- SAS 9.2 for Windows is installed on your local PC along with SAS Enterprise Guide. SAS 9.2 maintenance 3 is required.
- SAS/GRAPH software is licensed and installed on your local SAS 9.2 environment.

When you run this task, the following actions occur:

- A *new* SAS local session is launched for the ODS Graphics Designer to access local data sets. (It's a "headless" session that runs as a server for the ODS Graphics Designer, so you will not see any SAS windows display.) This new SAS session does not necessarily have access to all of the data and resources you might have access to in your SAS Enterprise Guide session. If you want to use a particular data set as the basis for a new graph design, be sure to make a copy of the data set available in a local permanent library, such as SASUSER.
- The ODS Graphics Designer application is launched using the Java runtime environment. The first time that you run this application it might take several moments for the application window to appear, as the Java environment and components are loaded into memory.

Showing an ODS Statistical Graph

When you have existing graphs designed and saved (as SGD files), you can use this task to select one and render it within your SAS Enterprise Guide project.

The task requires you to specify:

- A design file (SGD file) to use for the graph. The task will show a preview image of your design selection.
- A SAS data set (located in a SAS library) to use as the content for the graph. The variables within the SAS data set must match with the names and types of the variables that were used in the design of the graph.

In addition, you can specify options such as the graph size (height and width in pixels) and a title and/or footnote for your output.
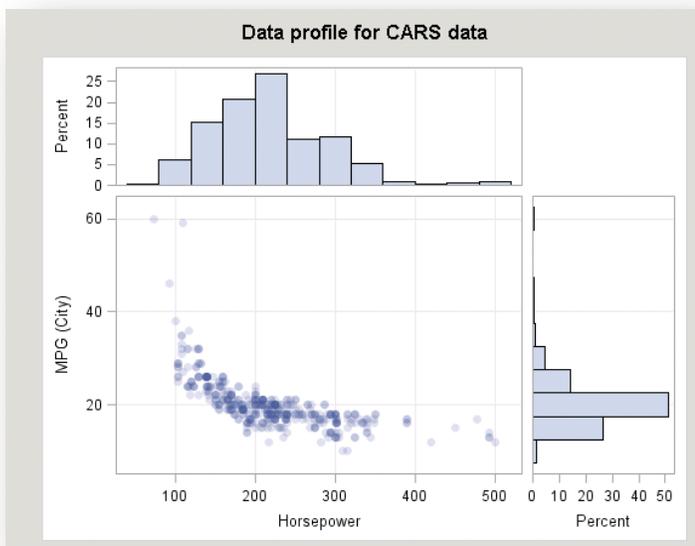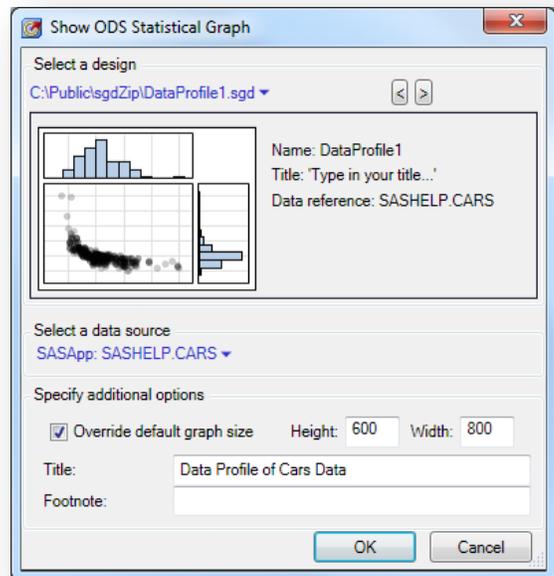
When you complete the task and click OK, the task reads the content of the selected SGD file and generates a SAS program that renders the graph with the options selected, using the SGDESIGN procedure.

Here is an example (on left) of the output that is rendered by running the task and the resulting SGDESIGN step. The SAS program that the task generates can be used in SAS Enterprise Guide, within a batch SAS job, within a stored process, or just about anywhere that you can run SAS code.