

## A Gentle Introduction to Enterprise Guide® 3.0

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### ABSTRACT

The power and flexibility of the SAS system is available to the end user through the point and click environment of the Enterprise Guide product. This hands-on workshop will introduce the attendee to some of the power that is easily available through Enterprise Guide. After a quick overview of this product, the student will see how to take virtually any kind of data and process it to create different kinds of graphic and summary reports. Finally, instruction will be given on how to take these reports and send them to different destinations such as HTML and PDF files.

### INTRODUCTION

This paper is intended for users who have not worked with Enterprise Guide 3.0, or at least not lately. First, a look is taken at the features of Enterprise Guide.

Enterprise Guide software is an easy-to-use GUI application that provides:

- ◆ an intuitive, point-and-click user interface
- ◆ access to the power of SAS
- ◆ transparent access to both SAS and other types of data
- ◆ interactive task windows that lead you through dozens of analytical and reporting task
- ◆ the ability to export results to other Windows applications and the Web
- ◆ the ability to schedule your project to run at a later time.

With Enterprise Guide you can produce great results in just a few minutes, regardless of your SAS knowledge.

Enterprise Guide software also provides:

- ◆ drag and drop functionality
- ◆ dialog boxes
- ◆ wizards
- ◆ a color-coded syntax editor
- ◆ a full Online Help facility.

Enterprise Guide (EG) is typically launched by either clicking on the EG icon on the desktop or by selecting Enterprise Guide from the SAS System program group accessed through the Start menu.

As soon as you invoke EG, the following window appears offering you options. Notice the frequent use of the word 'Projects'.



figure 1. the Welcome Window

EG uses **projects** to organize related data, tasks, code, and results. The **Project** window displays the active project and associated data, code, notes, and results.

To begin work in Enterprise Guide, do the following:

1. create a project
2. add data to the project
3. select tasks to manage, analyze and/or report on the data.

1. Creating a new project is easy, just select the New Project icon on the Welcome window. New in EG 3.0 is the option to view the project in a process flow window. A picture of this will appear soon.

2. EG provides easy access to virtually any data anywhere. You 'Insert' data into a project. You can access local or remote data. Using behind the scenes database engines, you can access DB2, oracle, or Sybase tables as though they are SAS data sets.

3. Once the data is chosen, the last thing you need to do is select a Task. EG has many tasks from which to choose. The Task window displays a list of tasks for the user to select. This list can be ordered by Category or Name. Some of the most common tasks are:

- ◆ joining tables
- ◆ subsetting or filtering data
- ◆ create new columns
- ◆ creating graphical reports
- ◆ performing statistical analysis

Once a task is chosen, options are available to the user to 'customize' the results. The results are then displayed in the Results window. Below is the result of the Bar Chart task performed on some sales data.

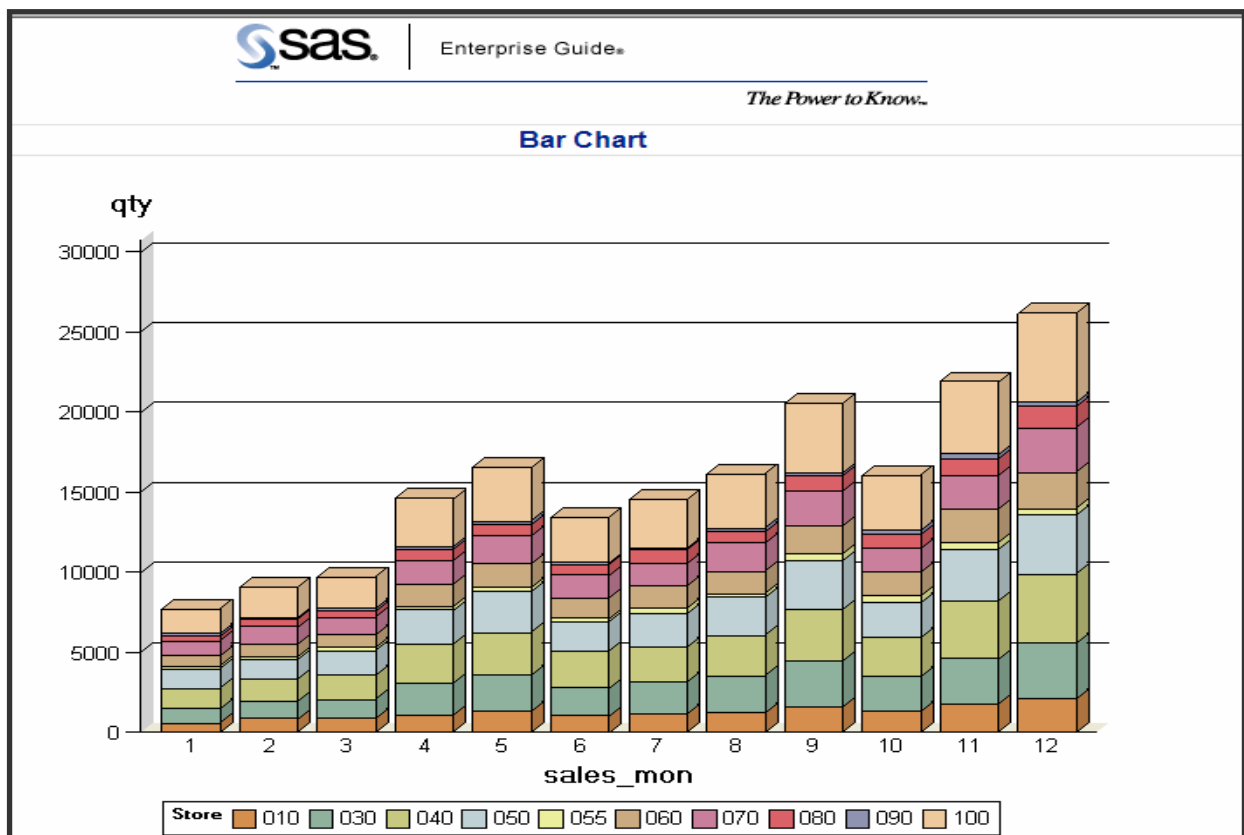


figure 2. The Results window

## GETTING STARTED WITH ENTERPRISE GUIDE

This section takes a step by step approach to creating projects, selecting data, and then choosing the desired tasks.

First, invoke Enterprise Guide, and indicate that you want to create a new project. Immediately, a new project appears in the Process Flow window. We will name this project **Project1**.

Before you can create reports or run analysis, you must add data to your project. Enterprise Guide requires all data that it accesses to be in table format. A table is made up of rows (observations) and columns (variables). Columns contain either **all** numeric, or **all** character data.

In this section, we begin by adding a SAS data set ( PRODUCT ) to PROJECT1.

From the Process Flow window, select **File → Open → From my computer**.

From the **Open From My Computer** window, browse your computer file structure to locate the **Product** data set.

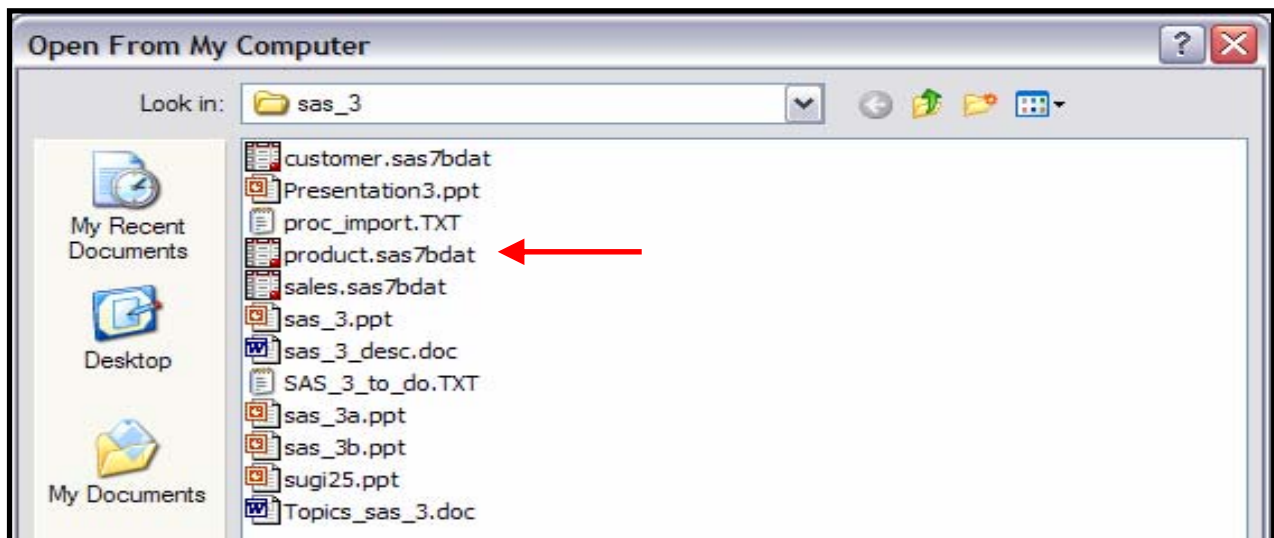


figure 3. The Open From My Computer window

Double click on the desired data set, and it automatically appears in the project window.

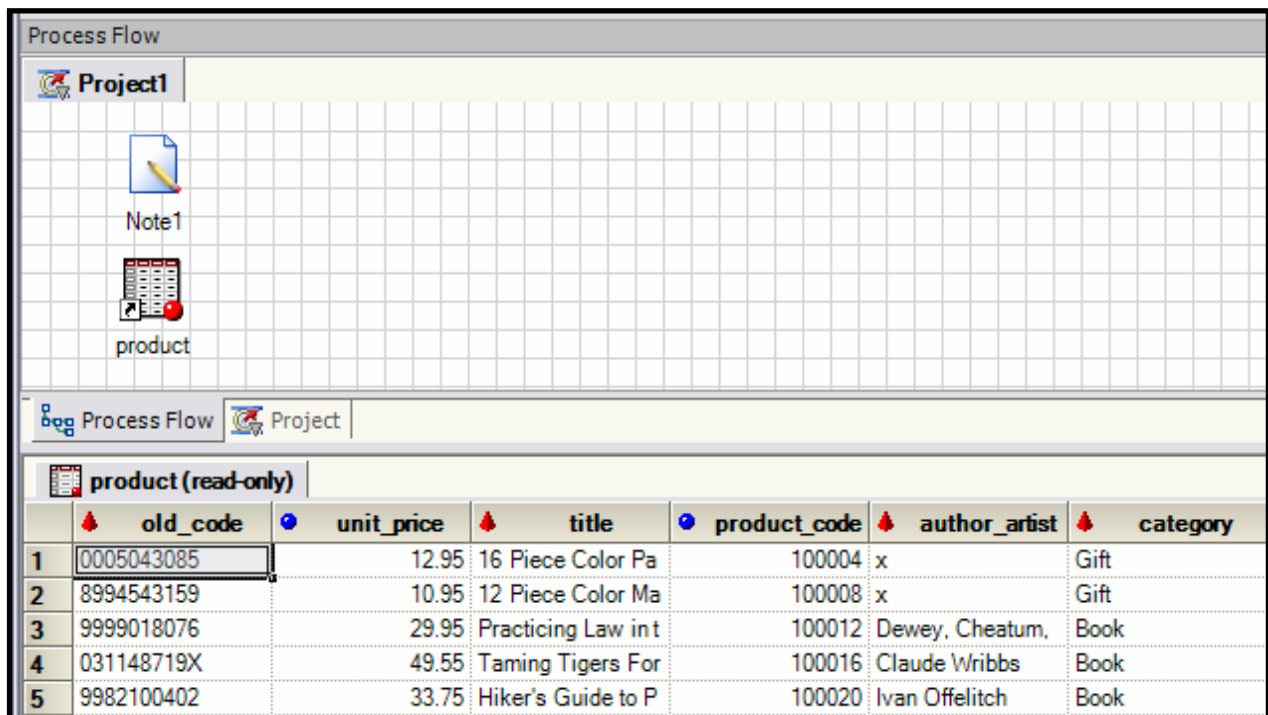


figure 4. The Project window with the selected dataset.

Notice that a read-only window opens allowing you to view the rows and columns of the Product dataset. Also notice that you can add all kinds of data, like excel spreadsheets, to the project window. You can also add notes to this window for documentation.

So, now we have started a project, and added some data to it. The only other thing that we really need to do is to perform some sort of task on the data. We can select a task by going to the task window, or going to the Pmenu facility. In the task window, the tasks are ordered by category. These categories are: (1) Create New Items In Project, (2) Add Items to Project, (3) Graph, (4) Time Series, (5) Multivariate, (6) Capability, (7) Control Charts, (8) Basic Analysis, (9) Regression, (10) Tools, (11) Survival Analysis, (12) ANOVA, (13) Describe (data), and (10) Pareto. Each of these categories has associated with them anywhere from 5 to a dozen specific tasks. For the purposes of this paper, we will choose two tasks to perform on the data.

## CREATING A LISTING REPORT

This section focuses on generating a simple report. By creating such a report, you are introduced to using the Task window in Enterprise Guide. Once you are familiar with using the Task window, you can perform any number of appropriate tasks on your data. Let's suppose that you want a report that lists the products, their unit prices, and other pertinent information. One thing to know about the PRODUCTS dataset is that each row represents a single product.

Before you begin a task, the data that you want to work with, **must** be active in the project. Since we want to use the **Product** table, we make sure it is active by clicking on it.

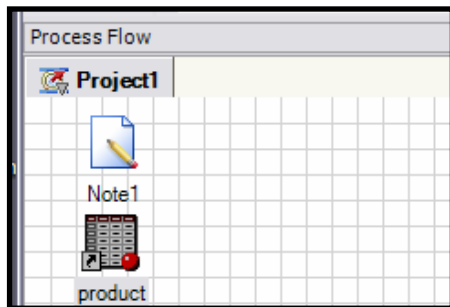


figure 5. The Project window with Product activated.

Next, click on the **Tasks by Category** tab and scroll to the **Descriptive** category. Double click on the **List Data** task. The **Task** window opens...

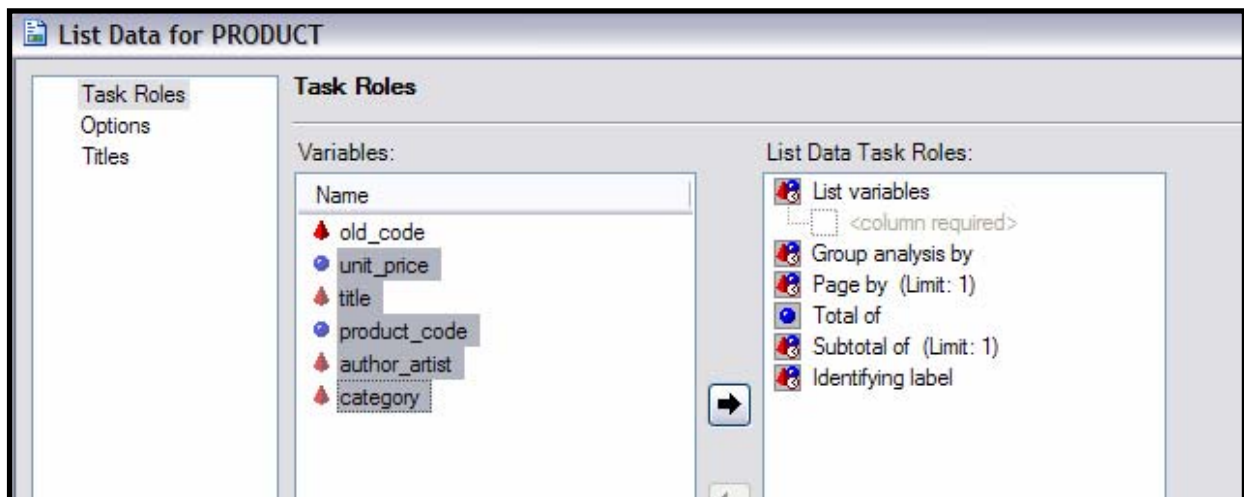


figure 6. The List Data Task window.

In all EG tasks, you must designate the variables (columns) that you want to analyze and assign them to roles. For the **List Data** task, you simply choose which variables to include in the report, and the order of their appearance. In the **Task Roles** area press the **CNTL** key and select all the columns except **old\_code**. Then drag them over to the **List Data Task Roles** area and drop them on the **List Variables** role.

Most EG tasks have one or more 'pages' of additional options from which you can select. Options are grouped by their functions. The most often used options are set by default.

figure 7. The **Options** page of the List Data Task.

Notice which areas are checked and which ones are not. Also notice the Titles Area for including titles. When you have set all the options the way you want them, click on the **Run** button at the bottom of the page.

The Process Flow window is updated and the results of the **List Data** task open automatically. Depending on how the options are set, you might see your output in an HTML format. Scroll to examine the results.

| product code | category | unit_price | title / description               | author / artist        |
|--------------|----------|------------|-----------------------------------|------------------------|
| 100004       | Gift     | 12.95      | 16 Piece Color Paint Set          | x                      |
| 100008       | Gift     | 10.95      | 12 Piece Color Marker Set         | x                      |
| 100012       | Book     | 29.95      | Practicing Law in the New Century | Dewey, Cheatum, & Howe |
| 100016       | Book     | 49.55      | Taming Tigers For Fun and Profit  | Claude Wribbs          |

figure 8. The Listing Report

During the Hands on Workshop, we will look at ways to modify this report.

## CREATING A BAR CHART

In the Process Flow /Project window, make sure the Products table is selected (activated). Next, from the Menu bar, select **Graph**, then choose **Bar Chart**. ( You can also open the Bar chart task window by double – clicking on Bar in the Task window). When the Bar Chart for PRODUCT window opens, select **Simple Vertical Bar**.

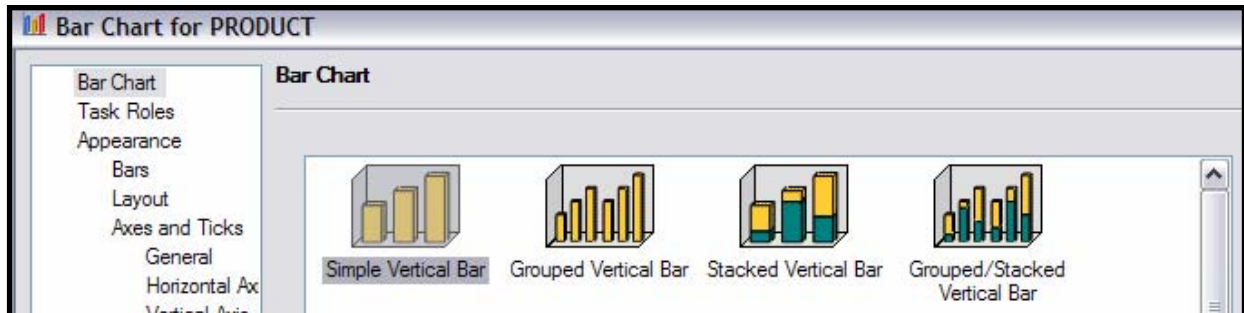


figure 9. The Bar Chart Task window.

As soon as this selection is made, the Task Roles window opens. Next, drag the variable **Category** and drop it on **Columns to Chart**. Then, drag **Unit\_Price** and drop it on **Sum of**.

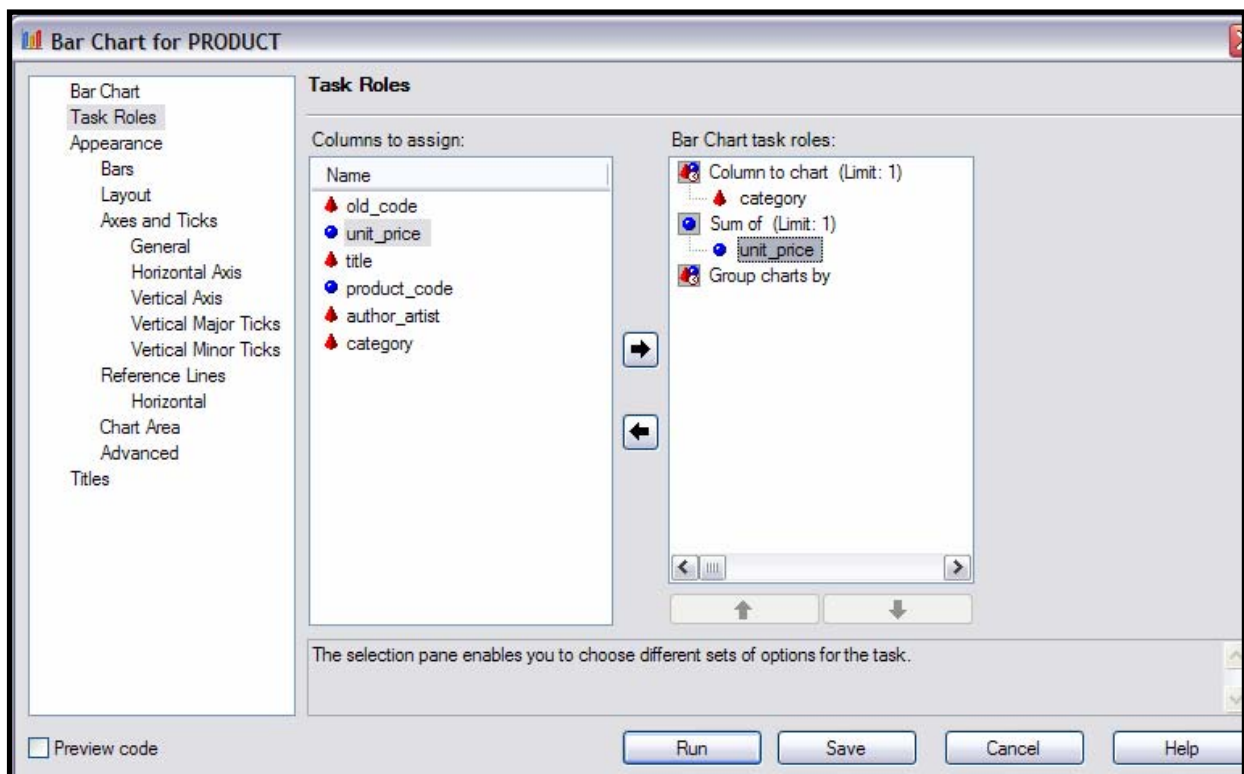


figure 10. The Completed Task Roles window for the Bar Chart.

Once this window is completed, click on the **Run** button.

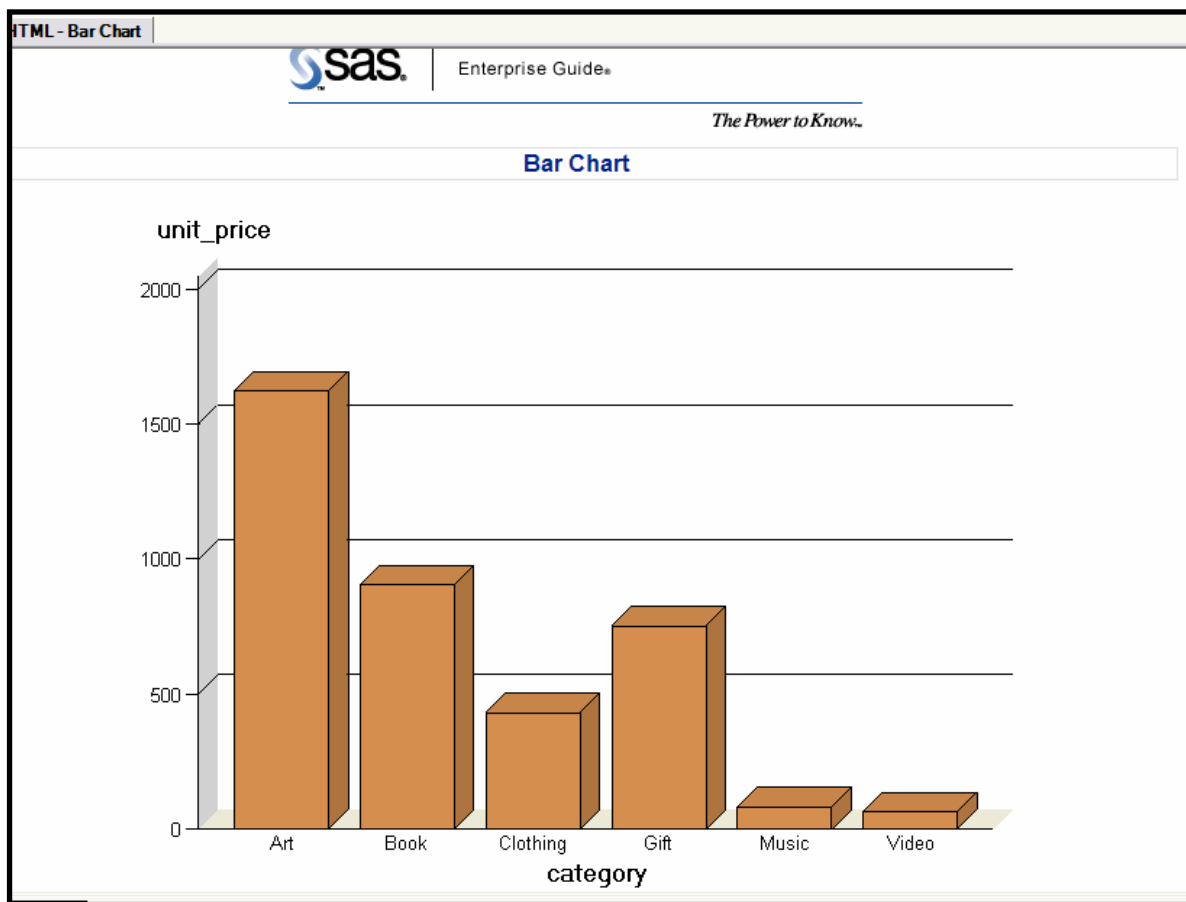


figure 11. The Bar Chart Report on the Products data set.

Notice that there is one bar per **Category** and the height of each bar is the Total **Unit\_Price**. During the Hands on Workshop, we will go into much more detail on which Statistics you can use, as well as other options you can use to really enhance this report.

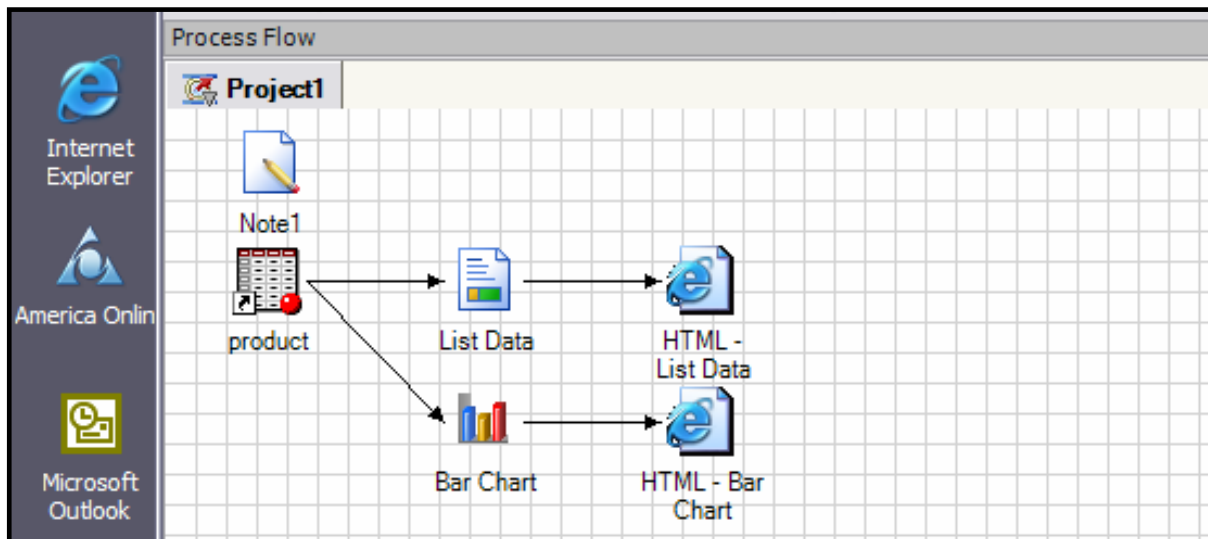


figure 12. The Project1 window with Two Completed Tasks.

## **SUMMARY**

Enterprise Guide is a very powerful tool for all levels of SAS users from the beginner to the more experienced. You can do just about any thing with EG. This scope of this paper only allows a brief introduction to this product. Much more detail will be given at the Hands on Workshop at SESUG.

## **ACKNOWLEDGMENTS**

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## **CONTACT INFORMATION**

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