

Paper HOW-004

SAS® Add in to MS Office – A Tutorial

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ABSTRACT

Business folks use Excel and have no desire to learn SAS Enterprise Guide? MS PowerPoint presentations prevail in displaying charts and summarizing results? SAS® Add in to MS Office is a perfect fit for these scenarios. Users have the ability to open huge datasets in MS Excel and run SAS analytics via a simple interface. From PowerPoint, users can create charts and quickly update them in future meetings with new data.

INTRODUCTION

The purpose of this paper is to provide examples of functionality from within SAS® Add in to MS Office in a manner that is easy to follow and replicate.

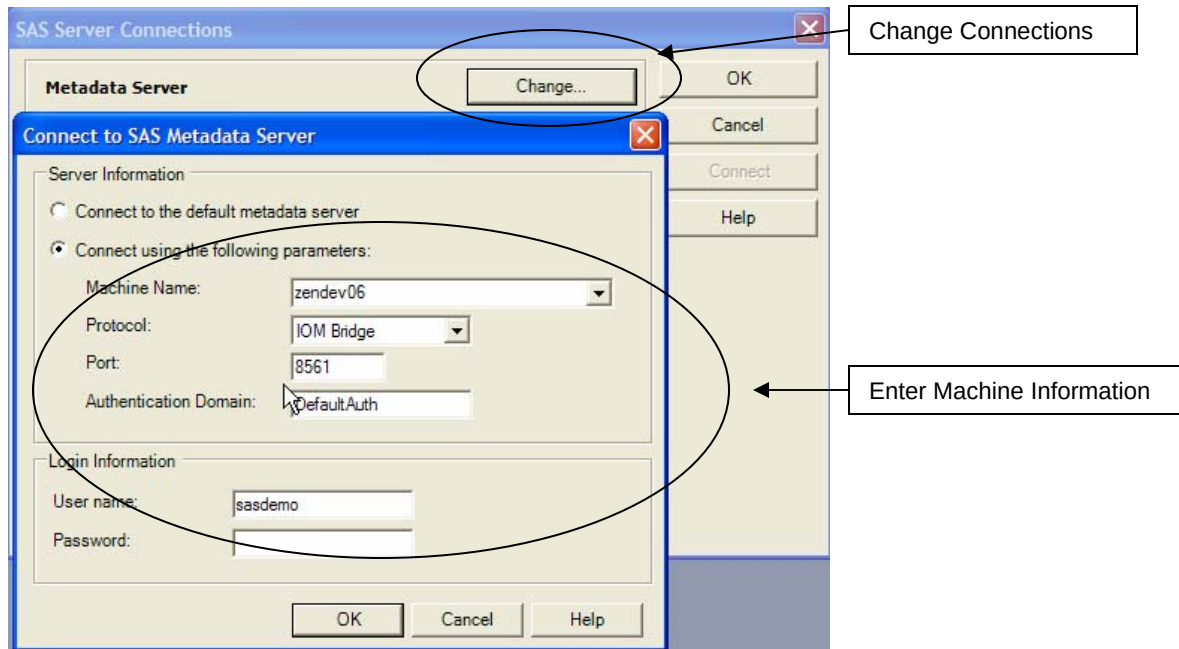
SAS® Add in to MS Office provides the user a very familiar interface to experience the SAS Power to Know. This also provides SAS programmers another avenue to surface SAS Stored Processes to business users.

SYSTEM REQUIREMENTS

The following examples require the use of SAS v9 BI or EBI Server. Clients also are required to download MS .Net Framework, SAS Add in to MS Office and utilize MS Office.

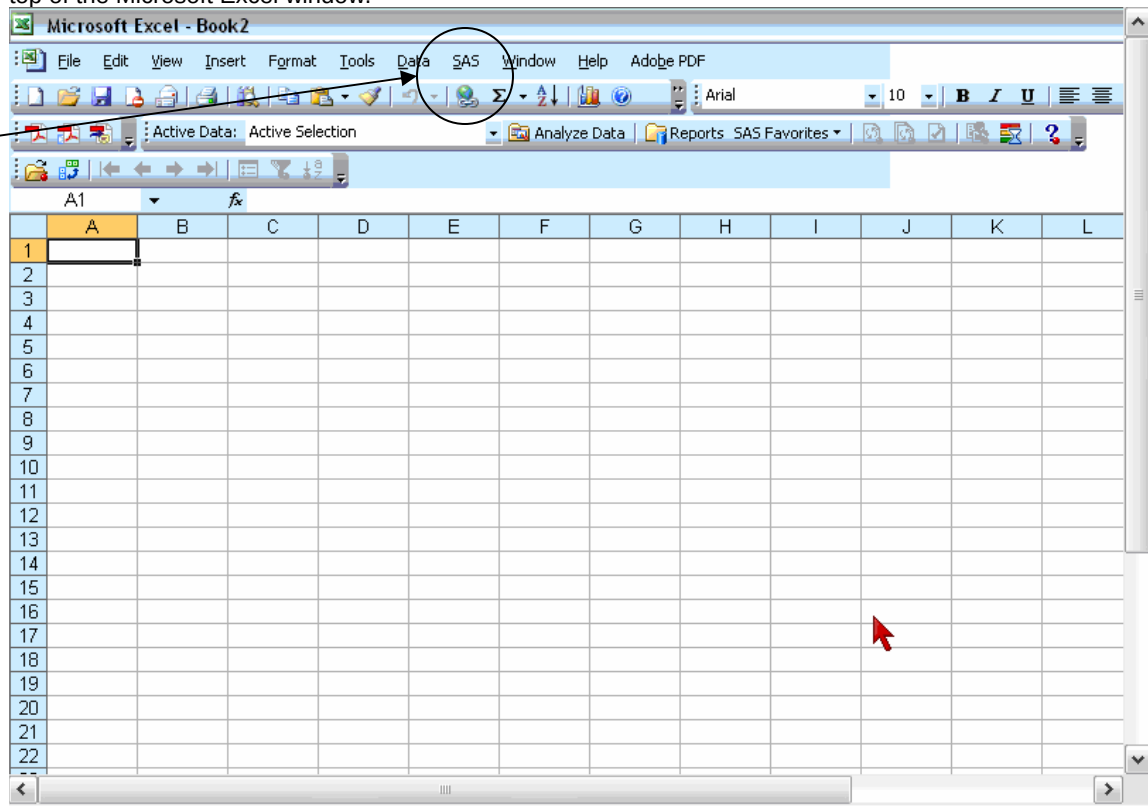
SETTING UP ACCESS TO THE SAS BI/EBI SERVER

From the SAS Menu, Select Tools->Server Connections to set up a direct link to the Metadata Server. The three screen shots below detail this. Note: if the SAS BI/EBI plan file is setup correctly for client deployments, this step should be seamless.



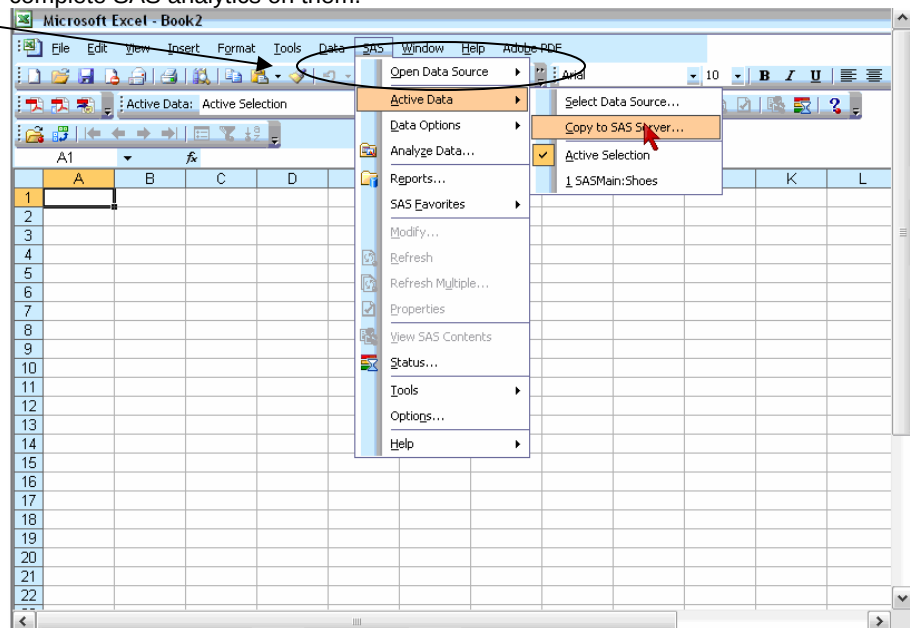
SAS ADD IN TO MS OFFICE – MS EXCEL INTRODUCTION

Once the SAS Add in has been installed on the desktop, the SAS toolbar (containing buttons for Active Data, Analyze Data, Reports, etc) and the new SAS menu item (between Data and Window) appear at the top of the Microsoft Excel window.



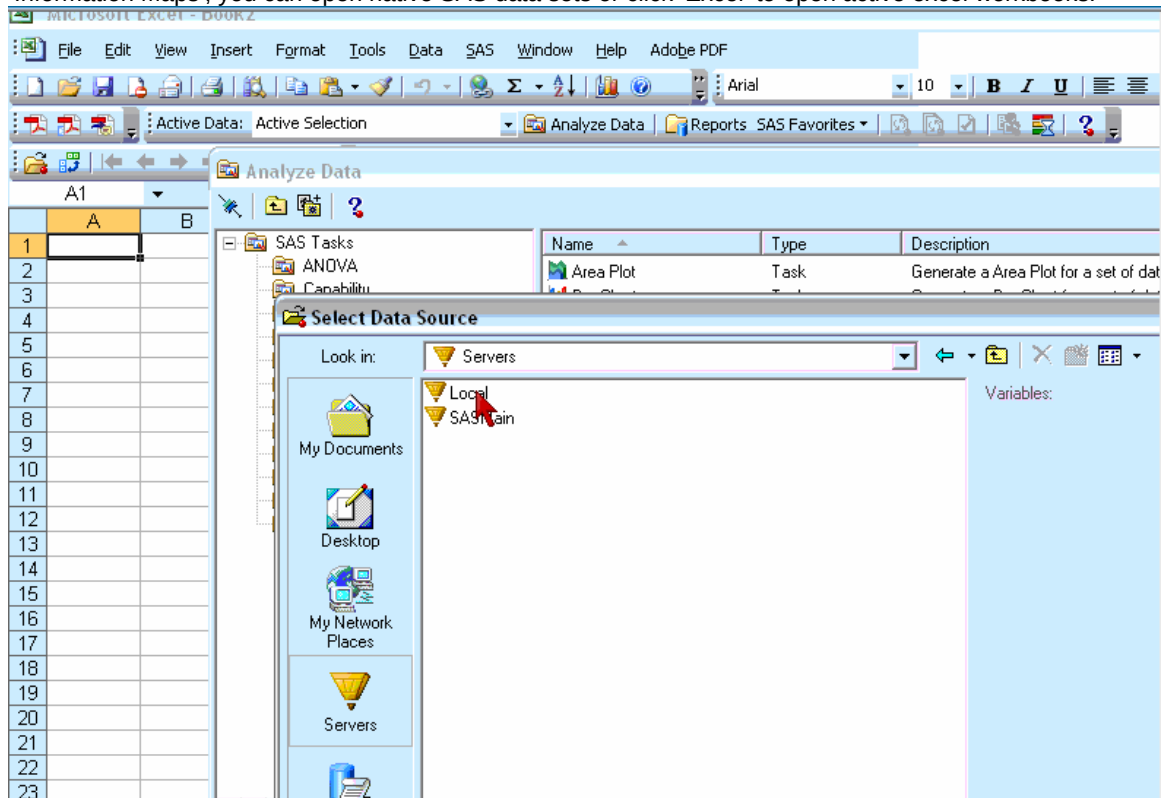
OPEN SAS DATASETS

SAS allows users to open SAS data sources to view and analyze, or open local Excel workbooks and complete SAS analytics on them.



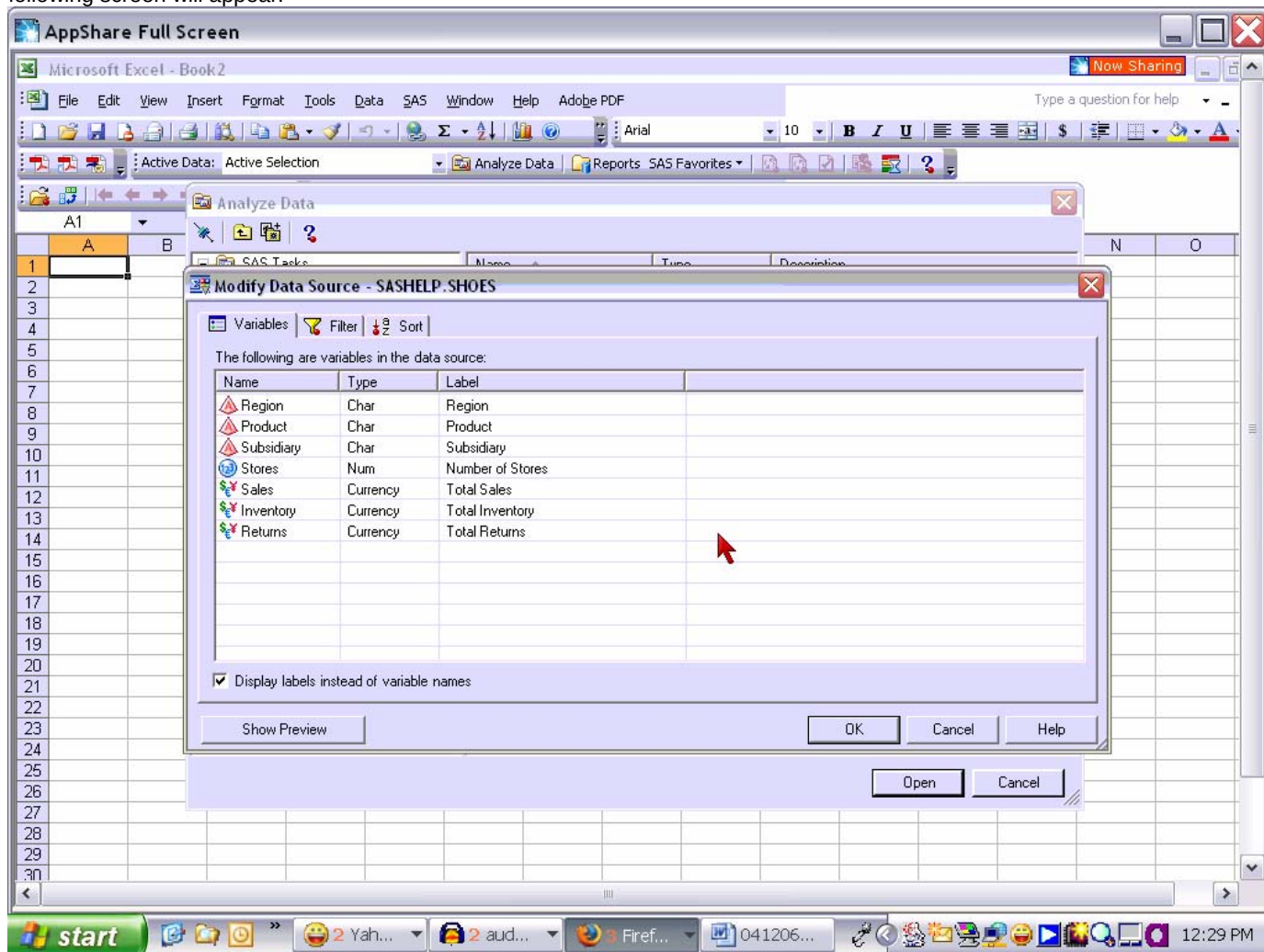
DATA SOURCE OPTIONS

When Selecting Data Sources either for use during the Analyze Data task or by selecting SAS->Open Data Source, you have the ability to click 'Servers' to connect to the available metadata repository, you can click 'Information Maps', you can open native SAS data sets or click 'Excel' to open active excel workbooks.

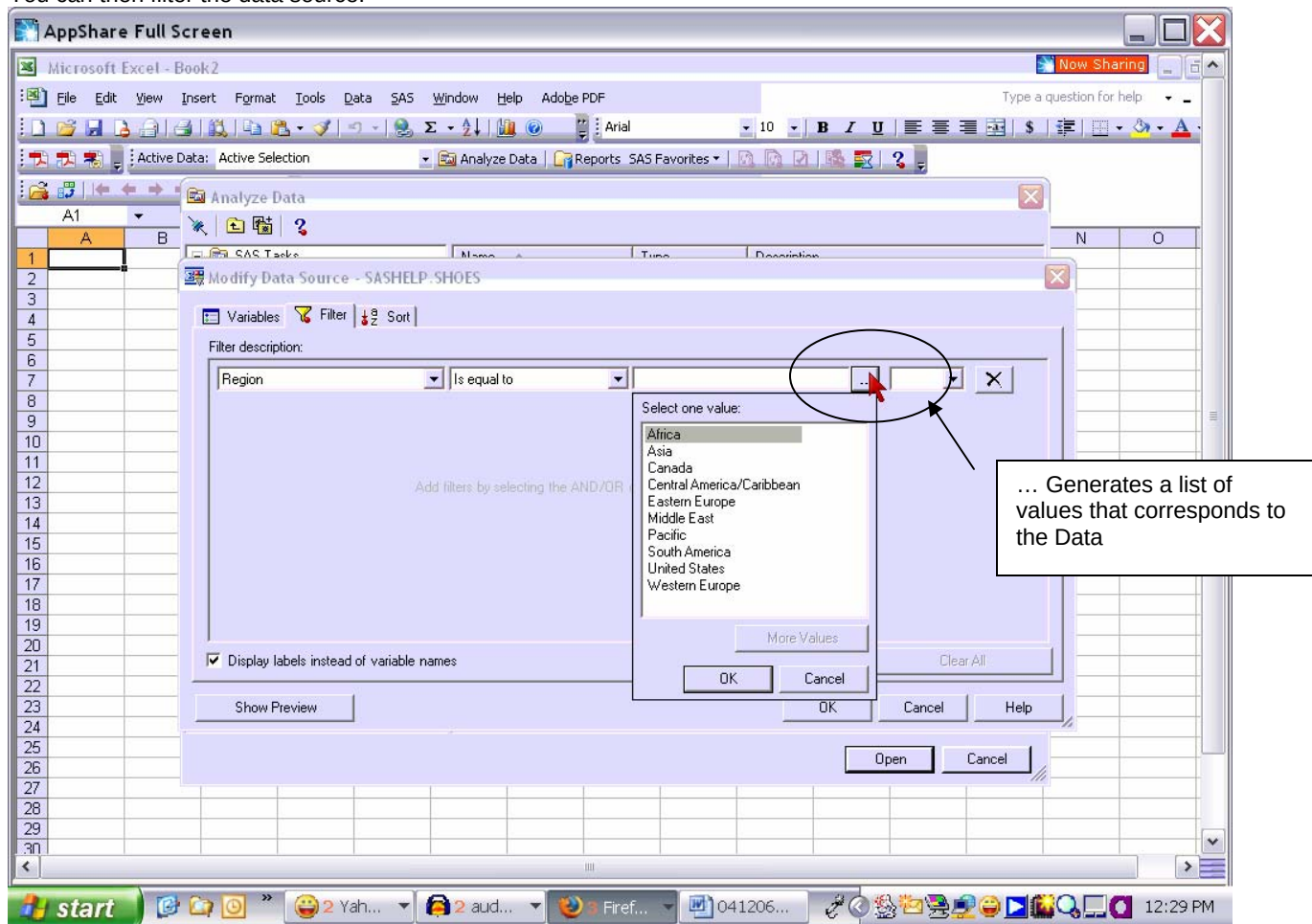


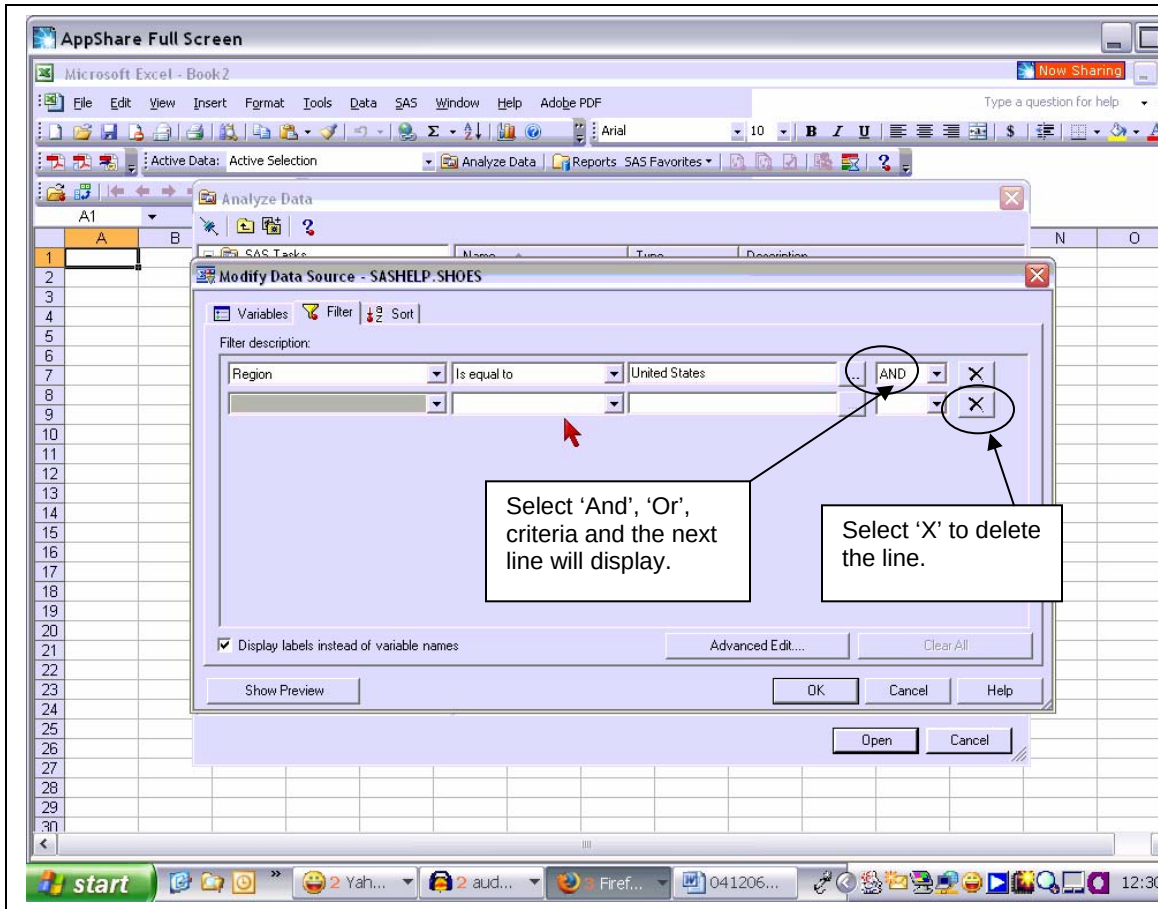
QUERYING DATA TABLES

As an example, when you open the data source SASHELP.SHOES after choosing Analyze Data, the following screen will appear:

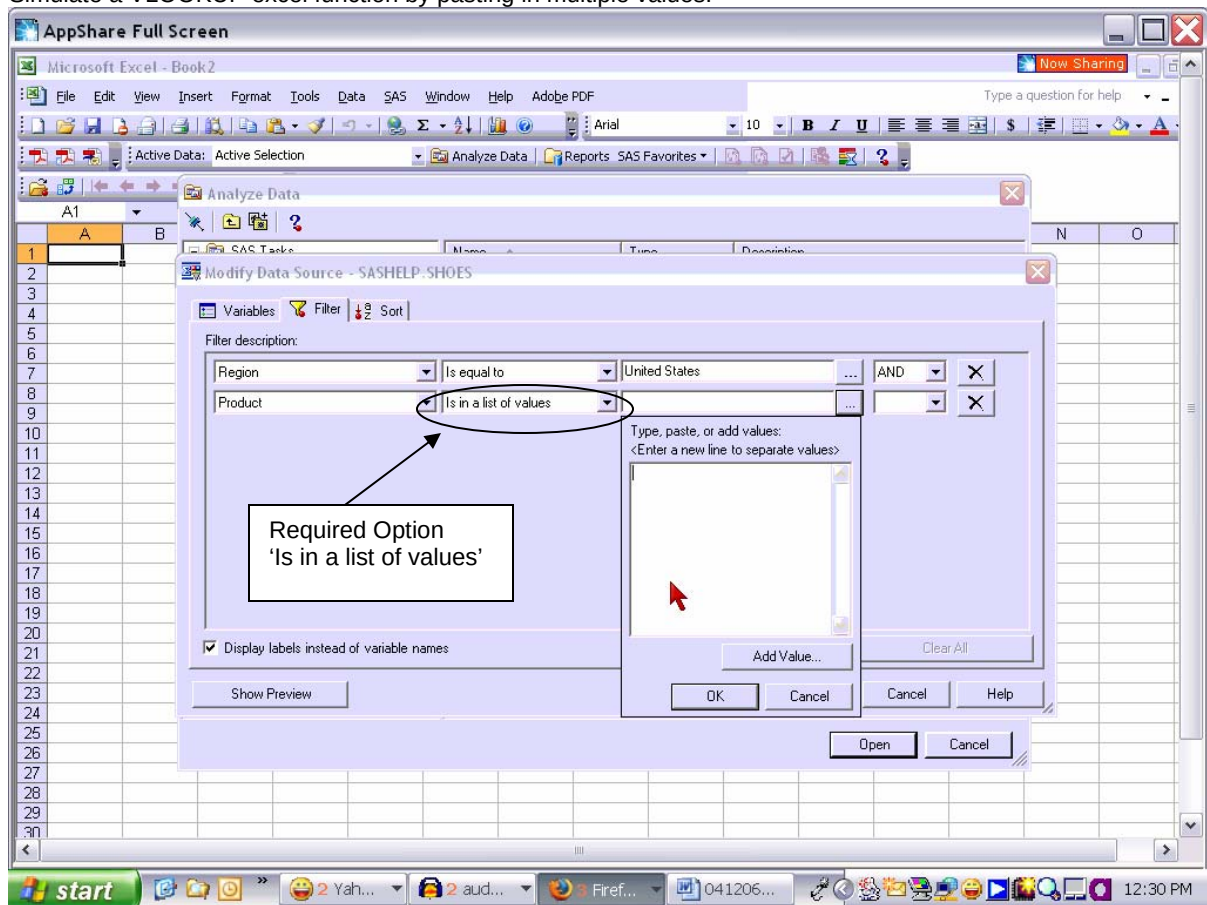


You can then filter the data source:





Simulate a VLOOKUP excel function by pasting in multiple values:

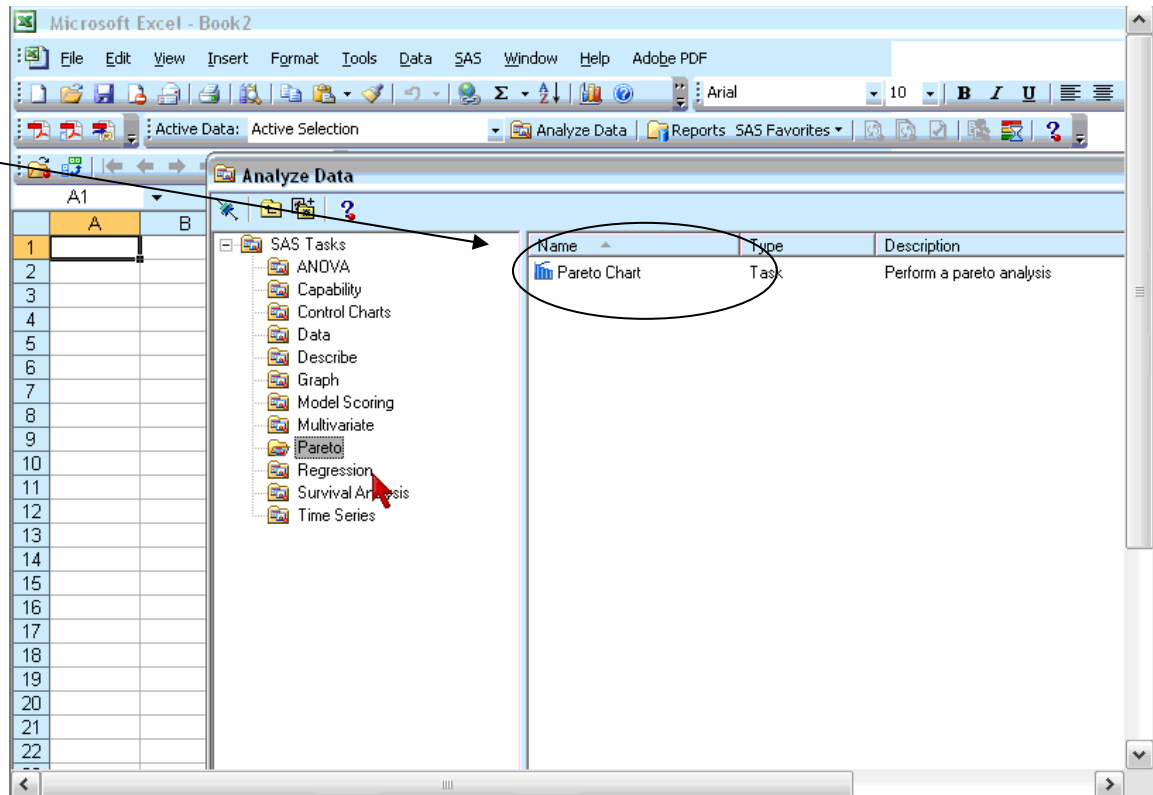


ANALYZE DATA

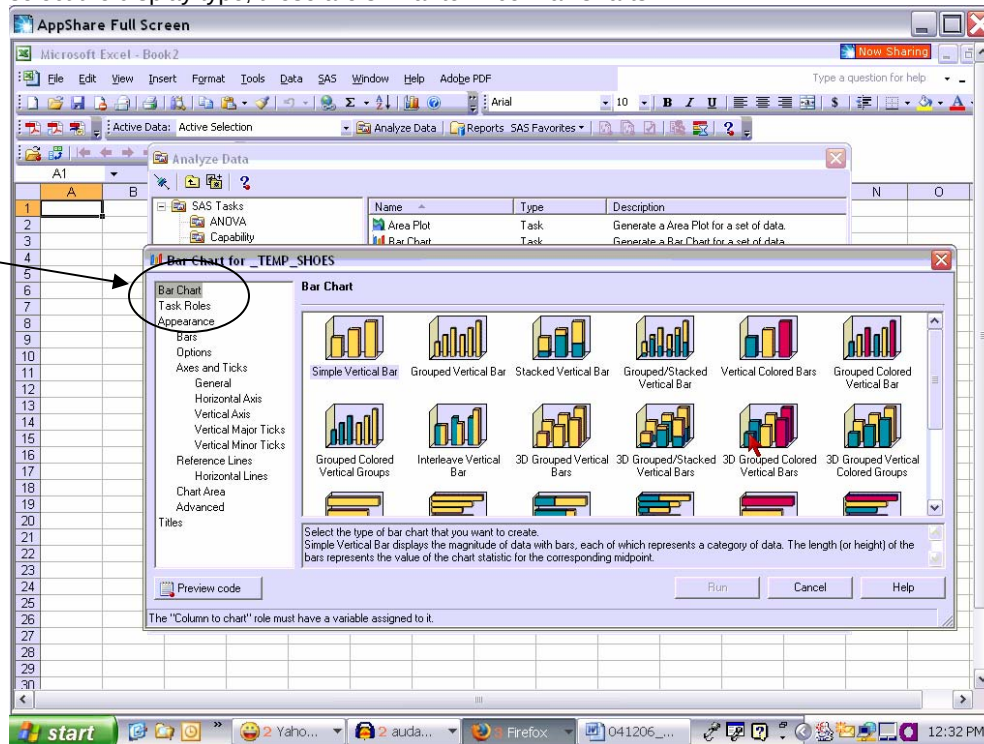
The Analyze Data tab goes to a list of SAS Tasks, similar to SAS Enterprise Guide's Task Menu Bar.

Some items will not run if the connecting BI Server doesn't have the appropriate license (such as the Pareto Task, as this requires SAS/QC). These tasks can be removed by manually removing the associated .dll from the installation.

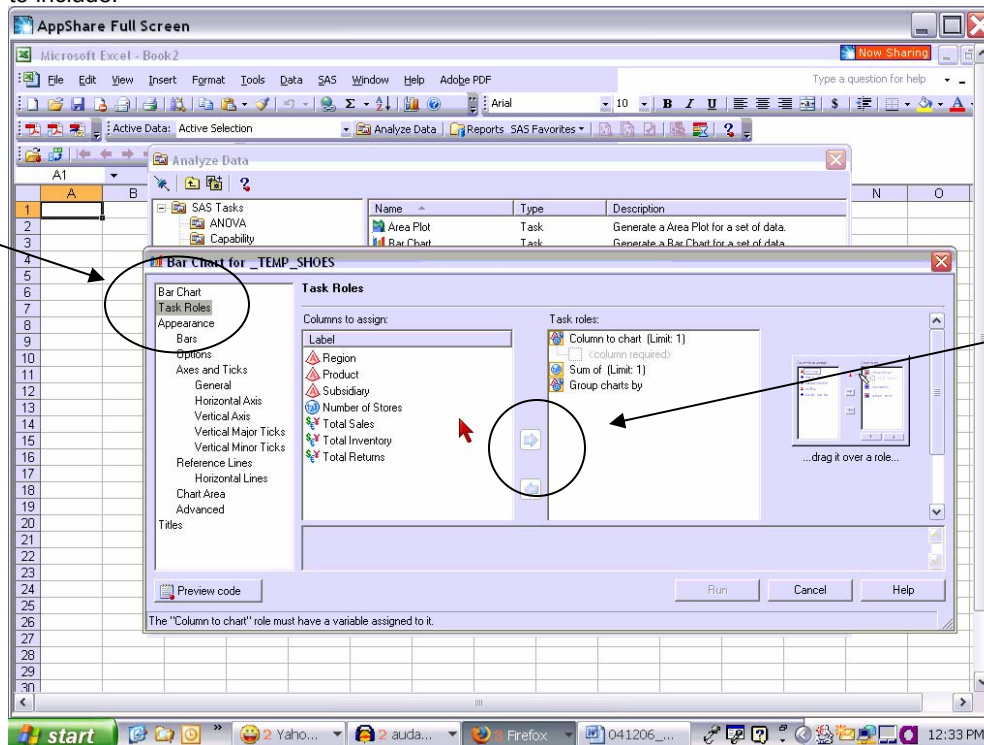
Additional Custom Tasks can be added, this is discussed in more detail in the Advanced Topics section.



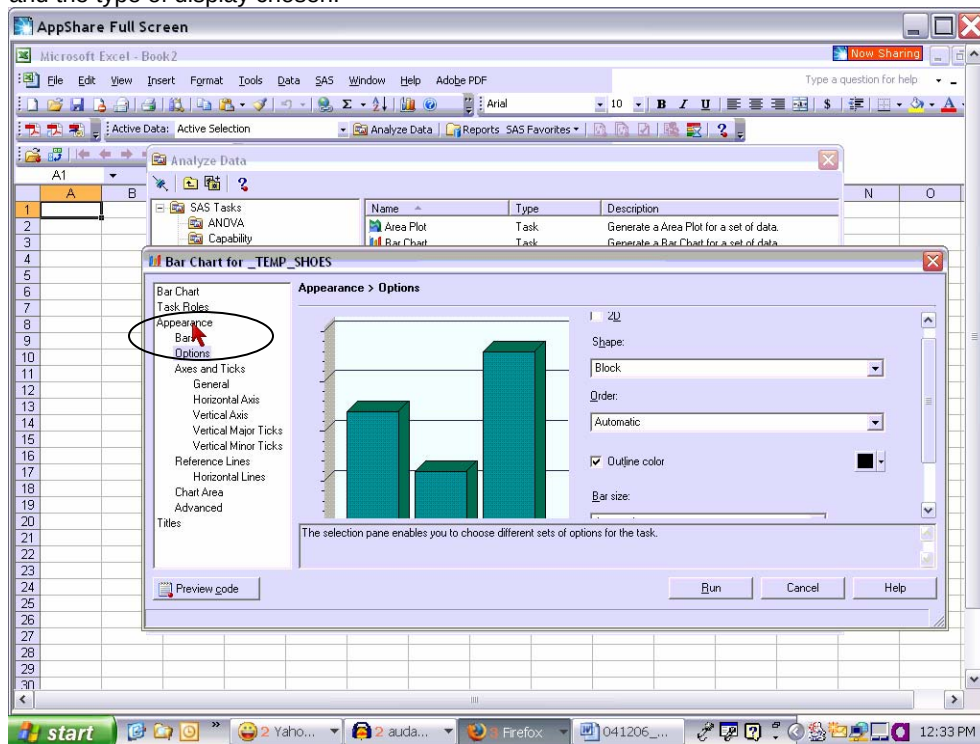
Analyze data tasks are very easy to use, included is an example for generating a BAR Chart. First you select the display type, these are similar to Excel Bar Charts.



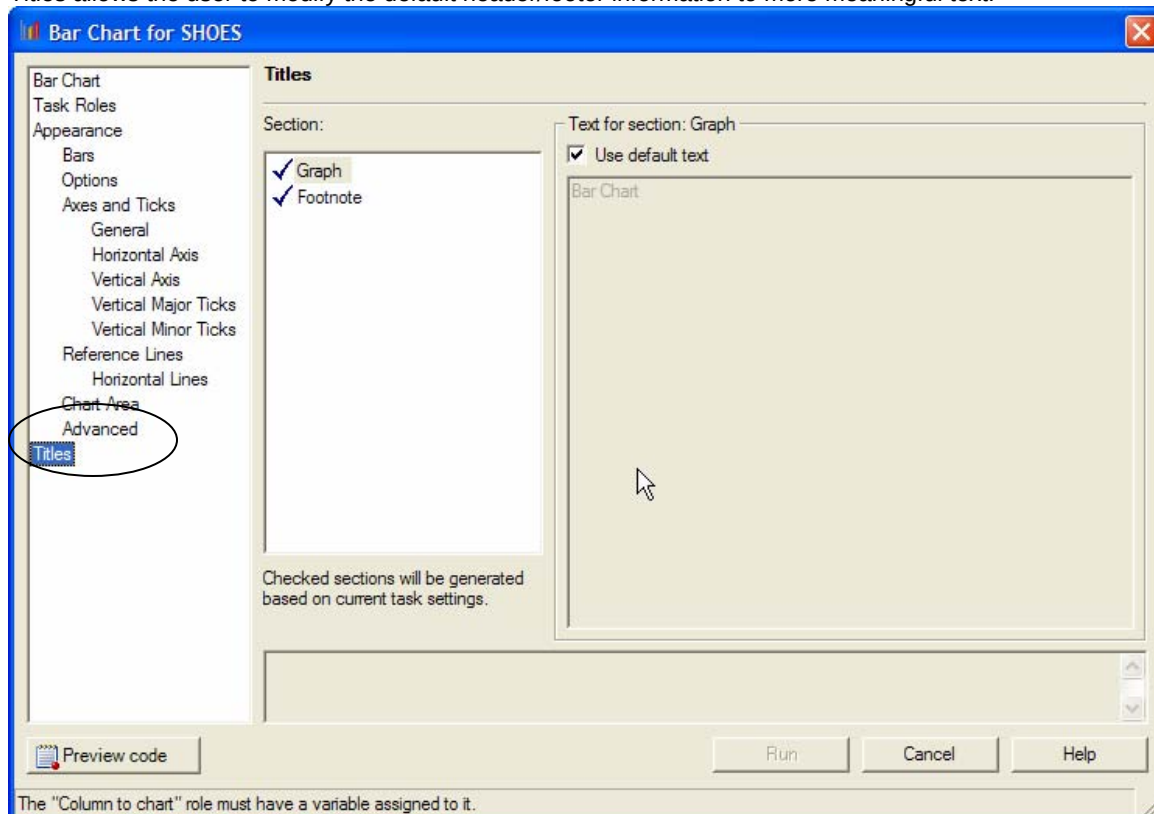
Next, you move to 'Task Roles' and select the required columns to produce the chart and the optional values to include.



The appearance tab allows users to specify display options. These are specific to the SAS Task selected and the type of display chosen.



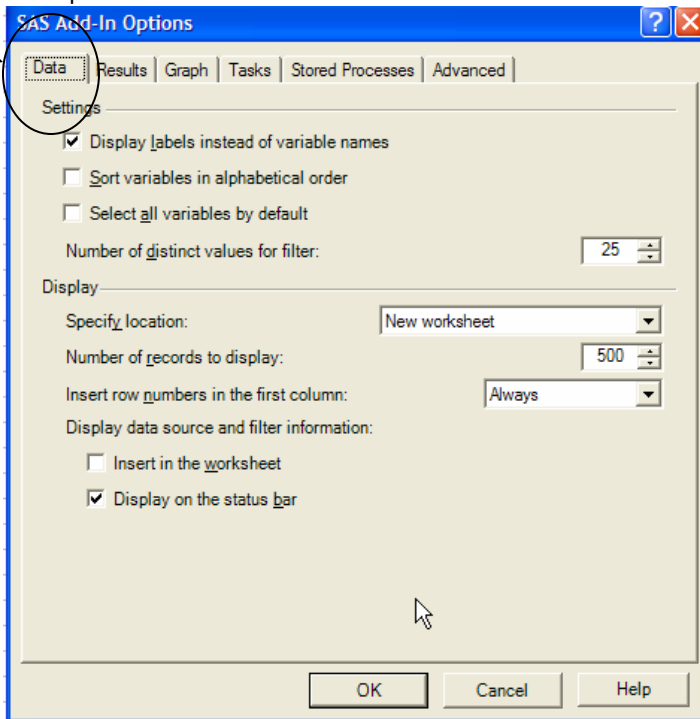
Titles allows the user to modify the default header/footer information to more meaningful text.



OUTPUT OPTIONS

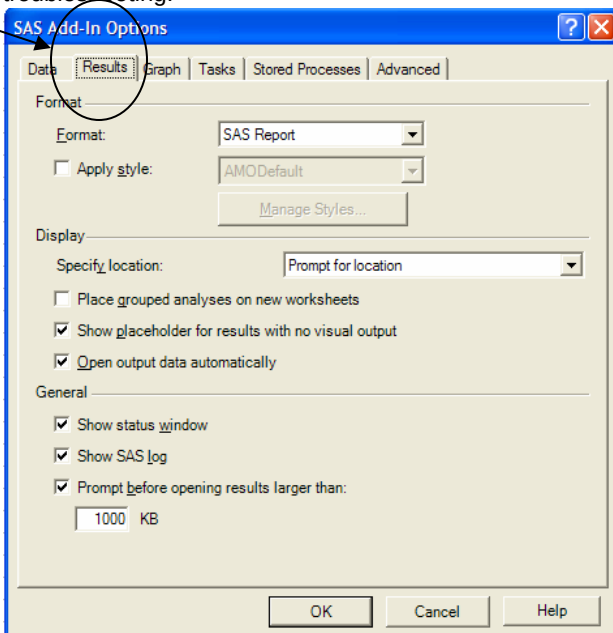
From the SAS Menu Bar, Select Options. This GUI provides users with the ability to customize items such as how the data table is displayed, the SAS style sheets for output formats, and how the worksheet behaves such as whether the results refresh on opening or require manual refresh. Users can also declare whether the SAS log should automatically display, a default Footnote.

1. Options – Data Tab:



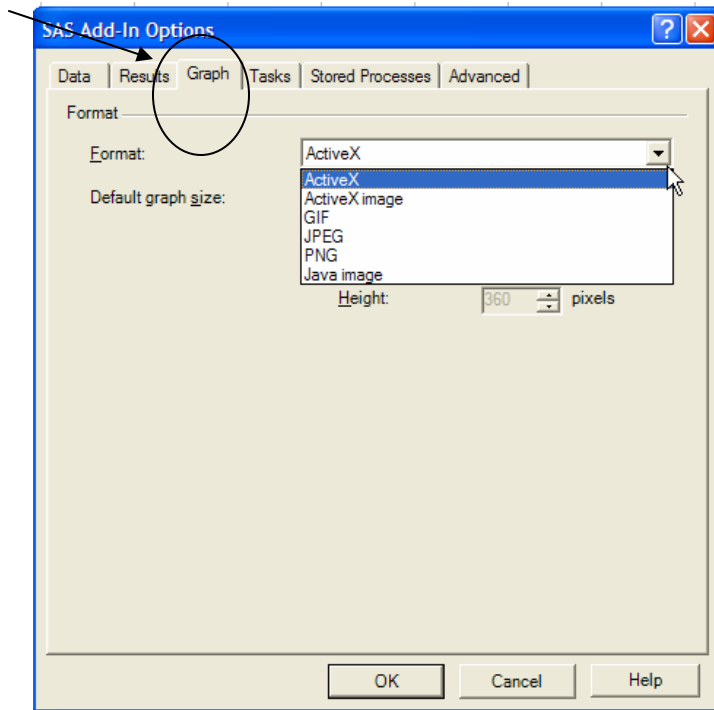
2. Options – Results Tab:

Select the ODS style and specify result processing options to improve performance and troubleshooting.



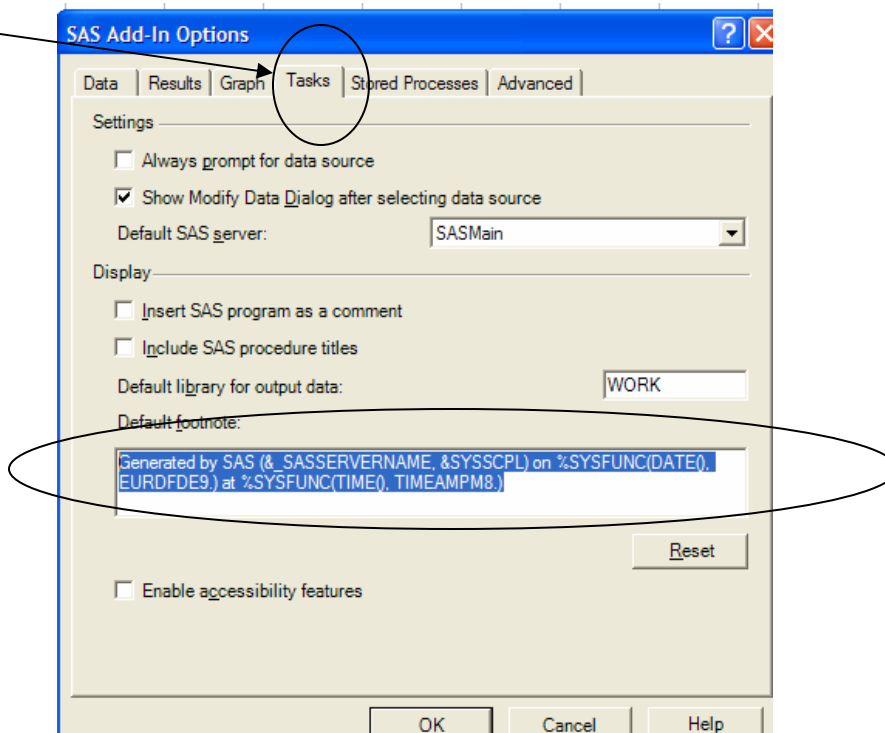
3. Options – Graph Tab

Choose the type and size of display image produced.

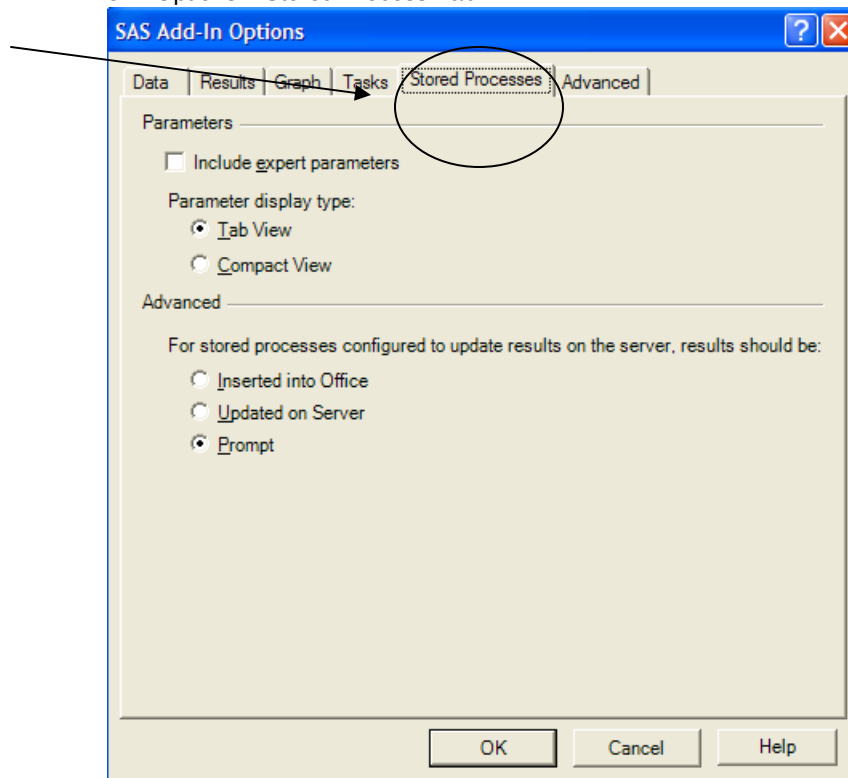


4. Options – Task Tab

Modify the default footnote.

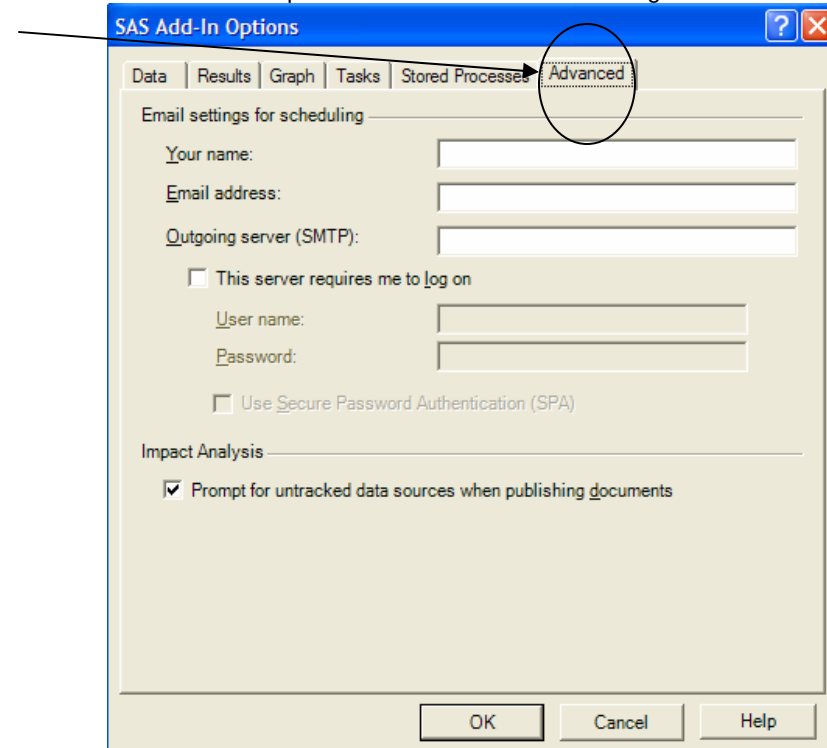


5. Options – Stored Process Tab



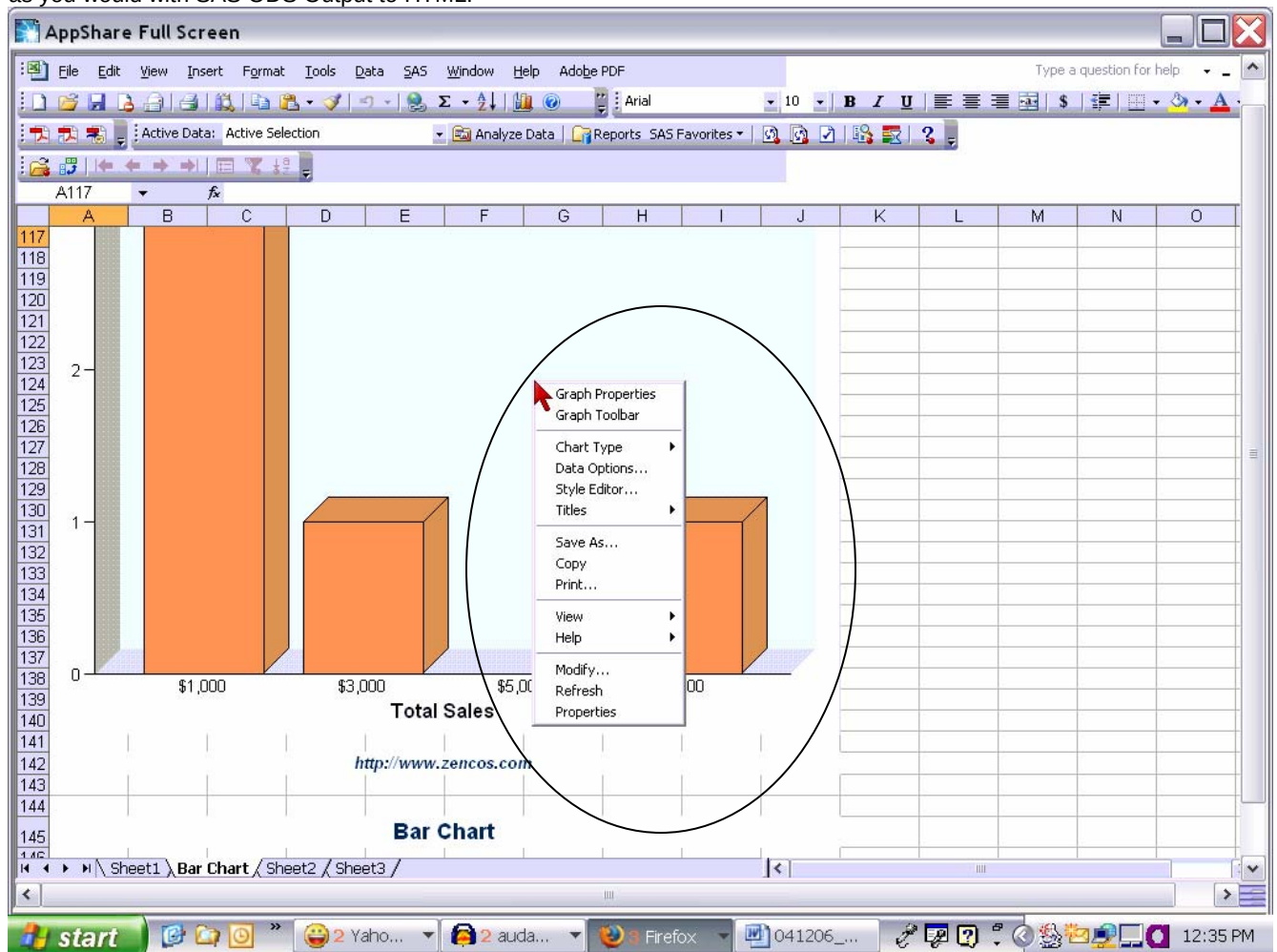
6. Options – Advanced Tab

The Advanced Options Tab also offers Email settings.



INTERACTING WITH OUTPUT

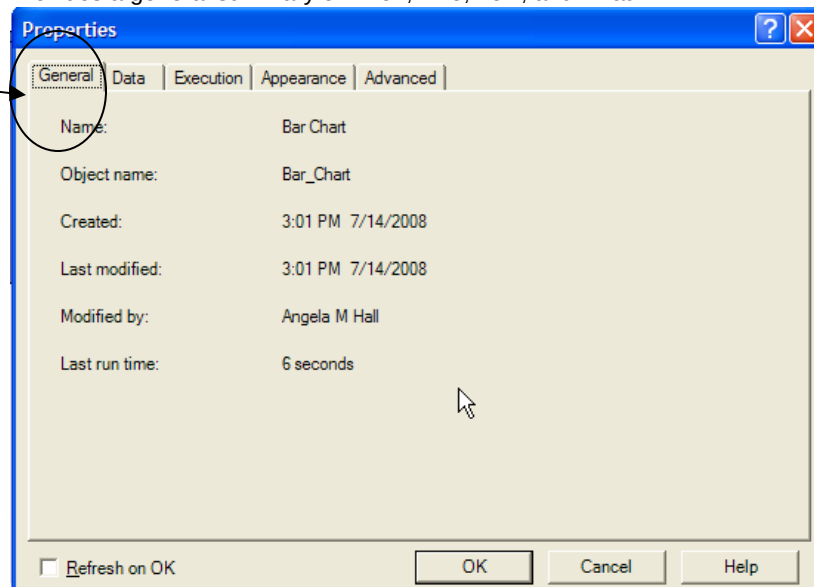
By right-clicking on the graph, you can (if using ActiveX or JAVA graphics device driver) do the same tasks as you would with SAS ODS Output to HTML.



By clicking on the last item 'Properties' of the above menu, you will then get to the following screenshot. This details the SAS Object properties.

1. Properties – General Tab

Provides a general summary of when, who, how, and what.



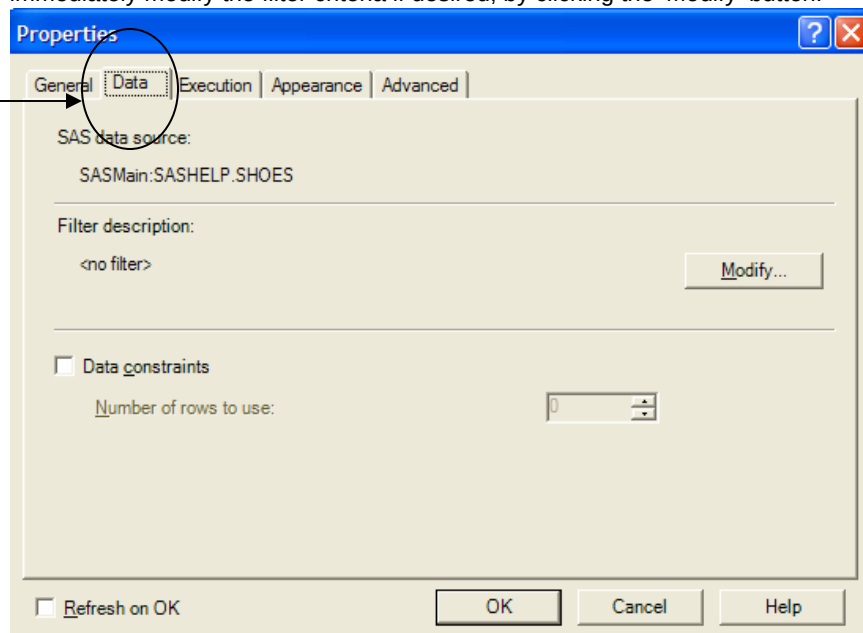
The screenshot shows the 'Properties' dialog box with the 'General' tab selected. The 'General' tab is circled with a black line, and an arrow points to it from the left. The dialog box has a blue title bar with a question mark icon and a close button. The tabs are 'General', 'Data', 'Execution', 'Appearance', and 'Advanced'. The 'General' tab contains the following information:

Name:	Bar Chart
Object name:	Bar_Chart
Created:	3:01 PM 7/14/2008
Last modified:	3:01 PM 7/14/2008
Modified by:	Angela M Hall
Last run time:	6 seconds

At the bottom, there is a checkbox for 'Refresh on OK' (unchecked), and three buttons: 'OK', 'Cancel', and 'Help'.

2. Properties – Data Tab

Gives users the ability to understand which data was used and how it was filtered. Users can immediately modify the filter criteria if desired, by clicking the 'Modify' button.



The screenshot shows the 'Properties' dialog box with the 'Data' tab selected. The 'Data' tab is circled with a black line, and an arrow points to it from the left. The dialog box has a blue title bar with a question mark icon and a close button. The tabs are 'General', 'Data', 'Execution', 'Appearance', and 'Advanced'. The 'Data' tab contains the following information:

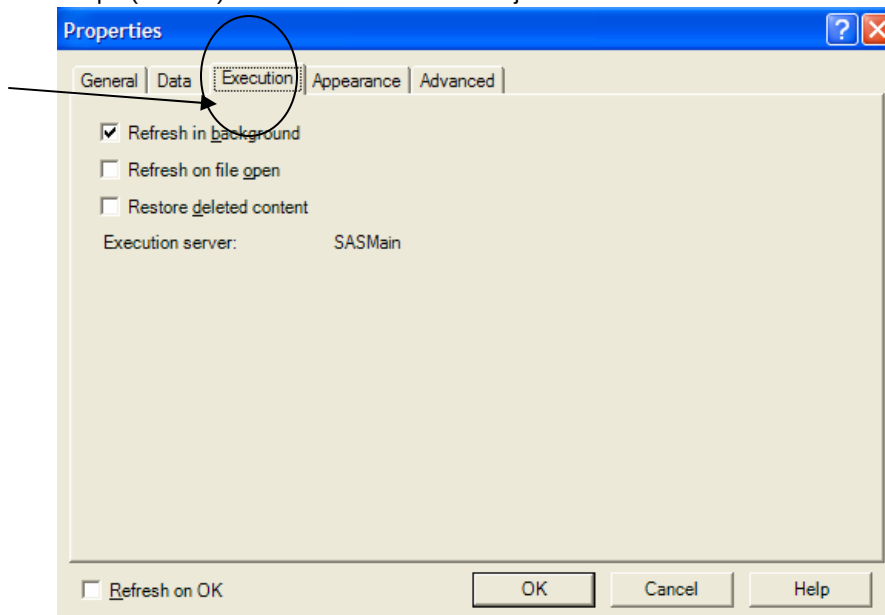
SAS data source:
SASMain:SASHELP.SHOES

Filter description:
<no filter> Modify...

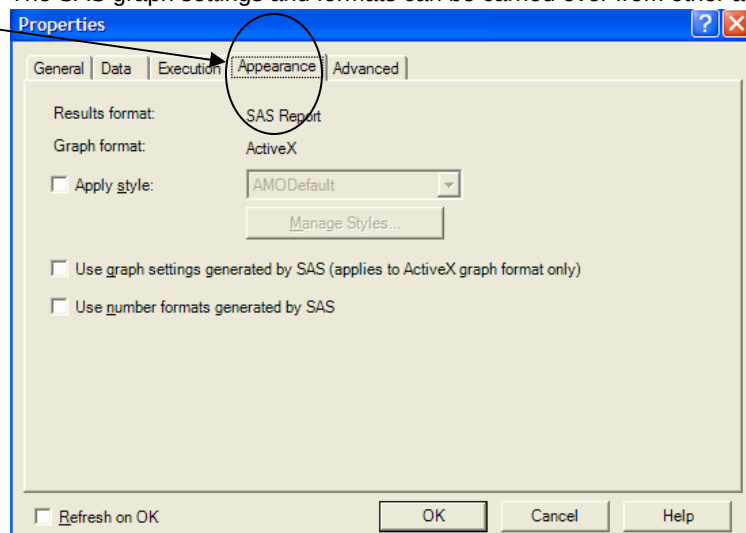
☐ Data constraints
Number of rows to use: 0

At the bottom, there is a checkbox for 'Refresh on OK' (unchecked), and three buttons: 'OK', 'Cancel', and 'Help'.

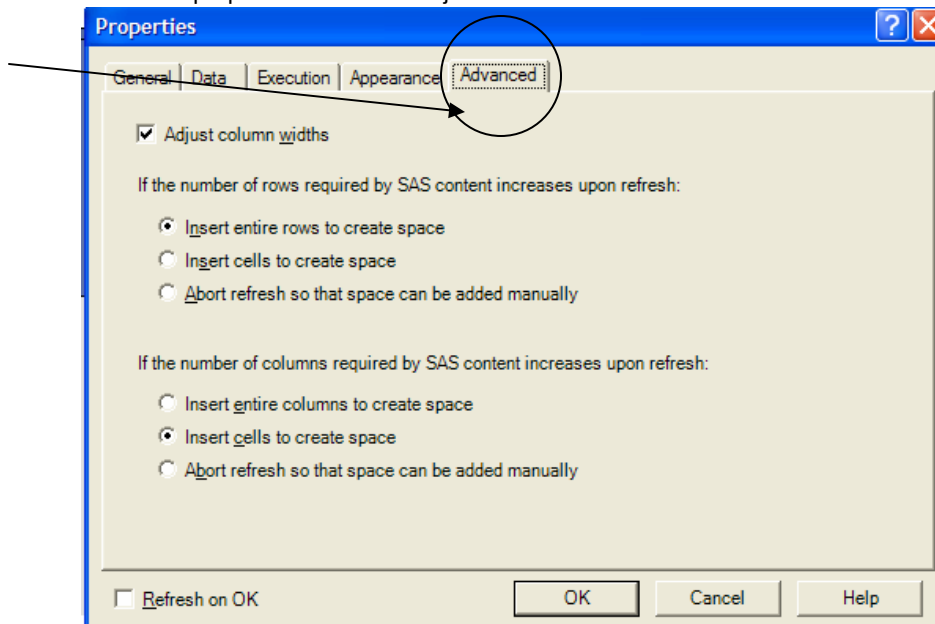
3. Properties – Execution Tab
Graph (or Data) Refresh defaults for the object.



4. Properties – Appearance Tab
The SAS graph settings and formats can be carried over from other applications.

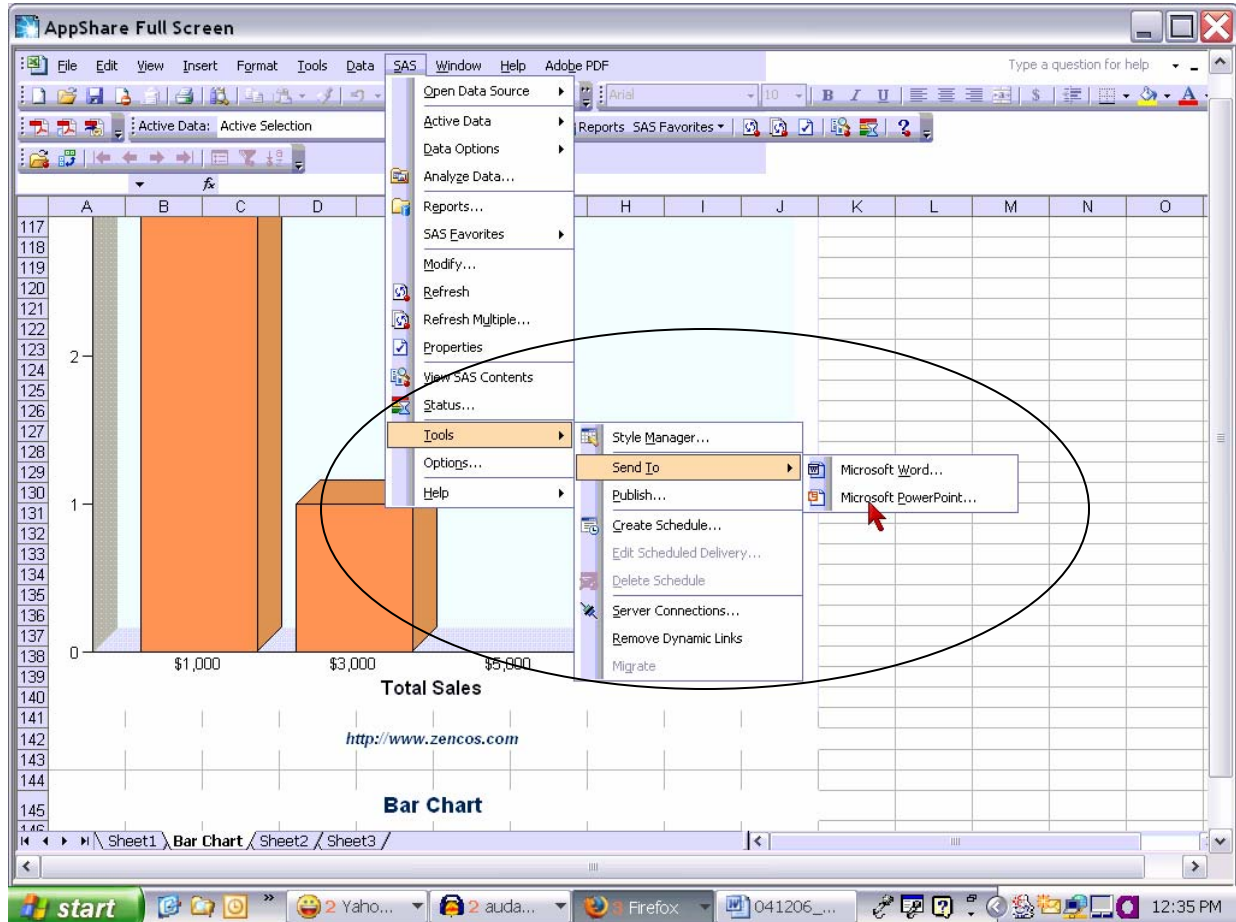


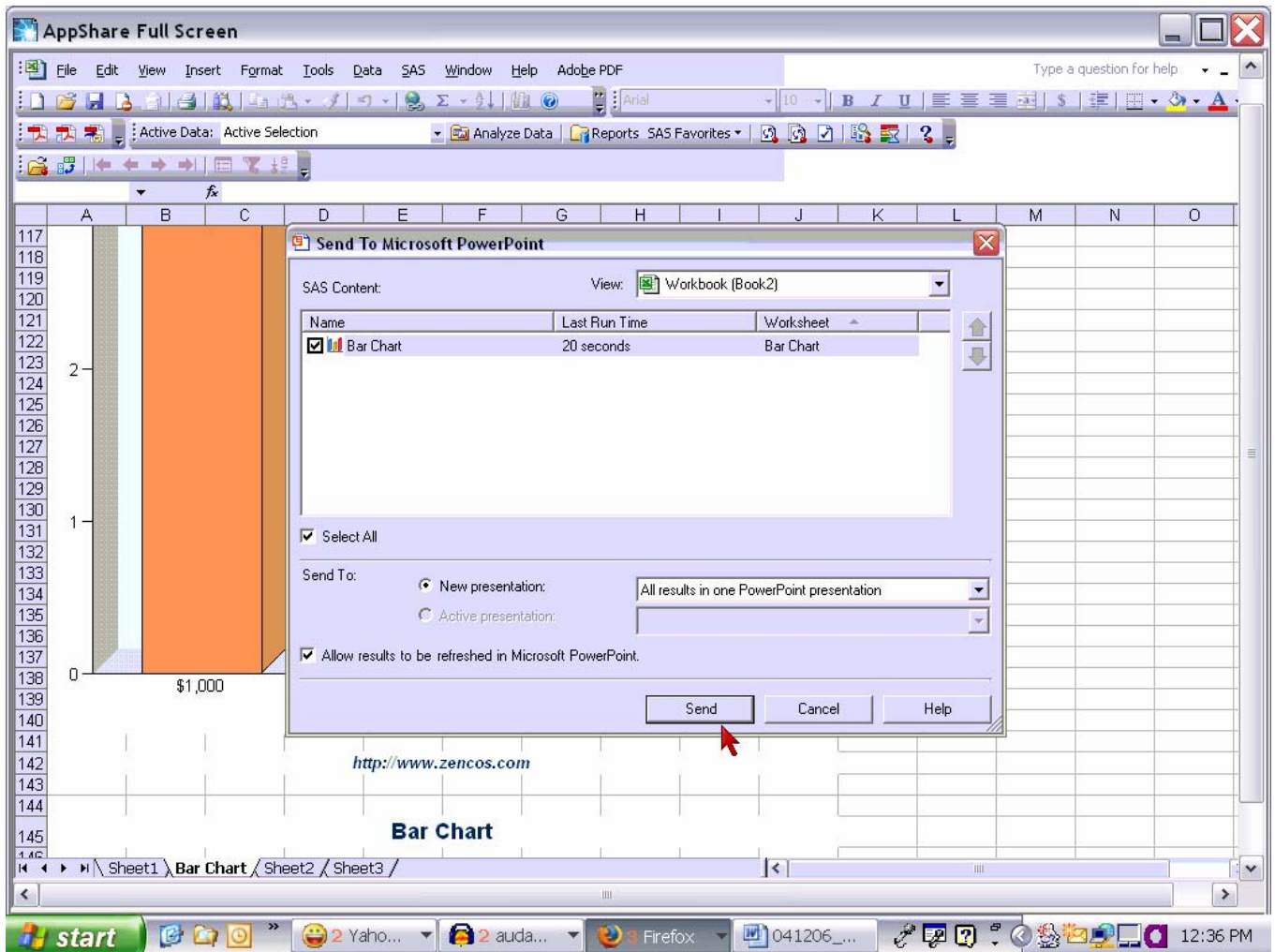
5. Properties – Advanced Tab
Additional properties users can adjust.



FORWARDING RESULTS TO OTHER OFFICE PRODUCTS

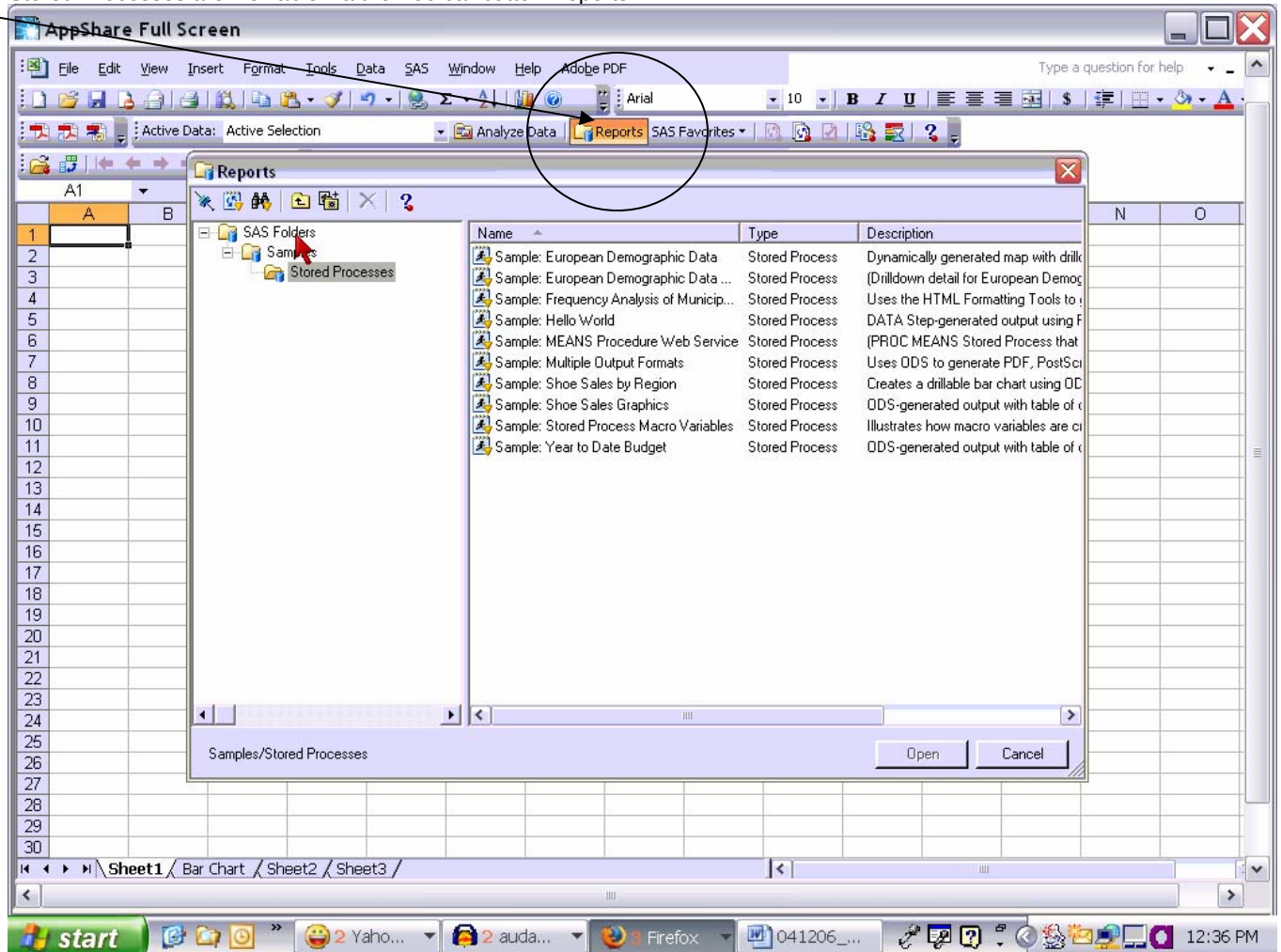
SAS -> Tools -> Send To -> Word/PowerPoint is a option for a SAS Object built through the SAS Analyze Data Tools.





STORED PROCESSES

Stored Processes are viewable via the Toolbar button Reports:



REFRESHING REPORTS

By clicking the Refresh Multiple Button, all the SAS Objects in the Excel Workbook can be refreshed, or you can pick and choose.

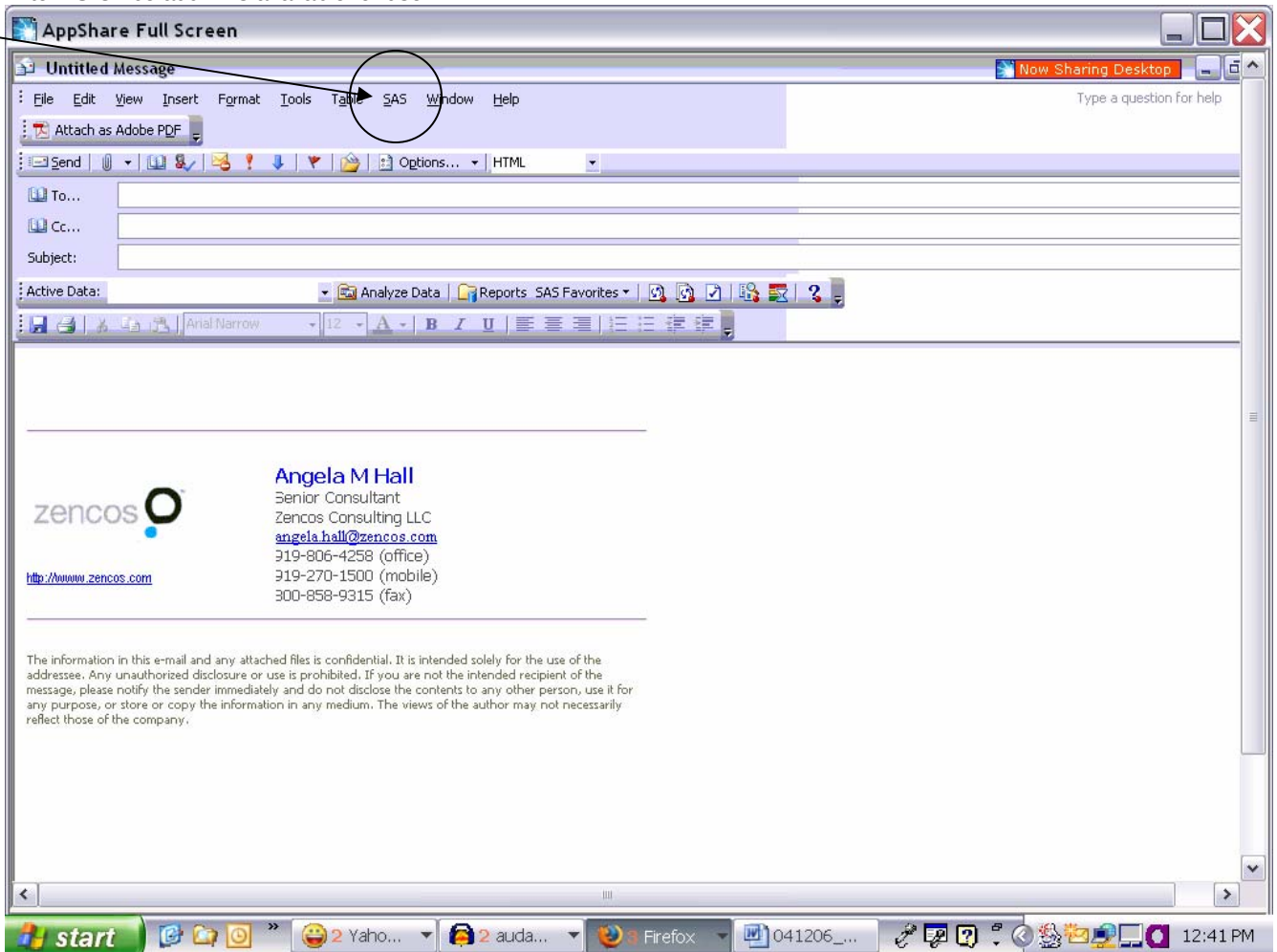
The screenshot shows the AppShare Full Screen interface. The main window displays a bar chart titled "Total Sales" with four bars representing values: \$72,000, \$84,000, \$96,000, and \$108,000. The chart is located in the "Bar Chart" worksheet. A "Refresh Multiple" dialog box is open, showing a list of items to refresh. The "Bar Chart" item is selected. The "Refresh" button is highlighted. The "Refresh Multiple" dialog box has the following content:

Name	Last Run Time	Worksheet
☐ Sample: Hello World	8 seconds	Sample: Hello World
☒ Bar Chart	20 seconds	Bar Chart

Below the table, there are checkboxes for "Select All", "Refresh items in order (Last run time for selected items: 20 seconds)", and "Modify items before refreshing". The "Refresh" button is highlighted.

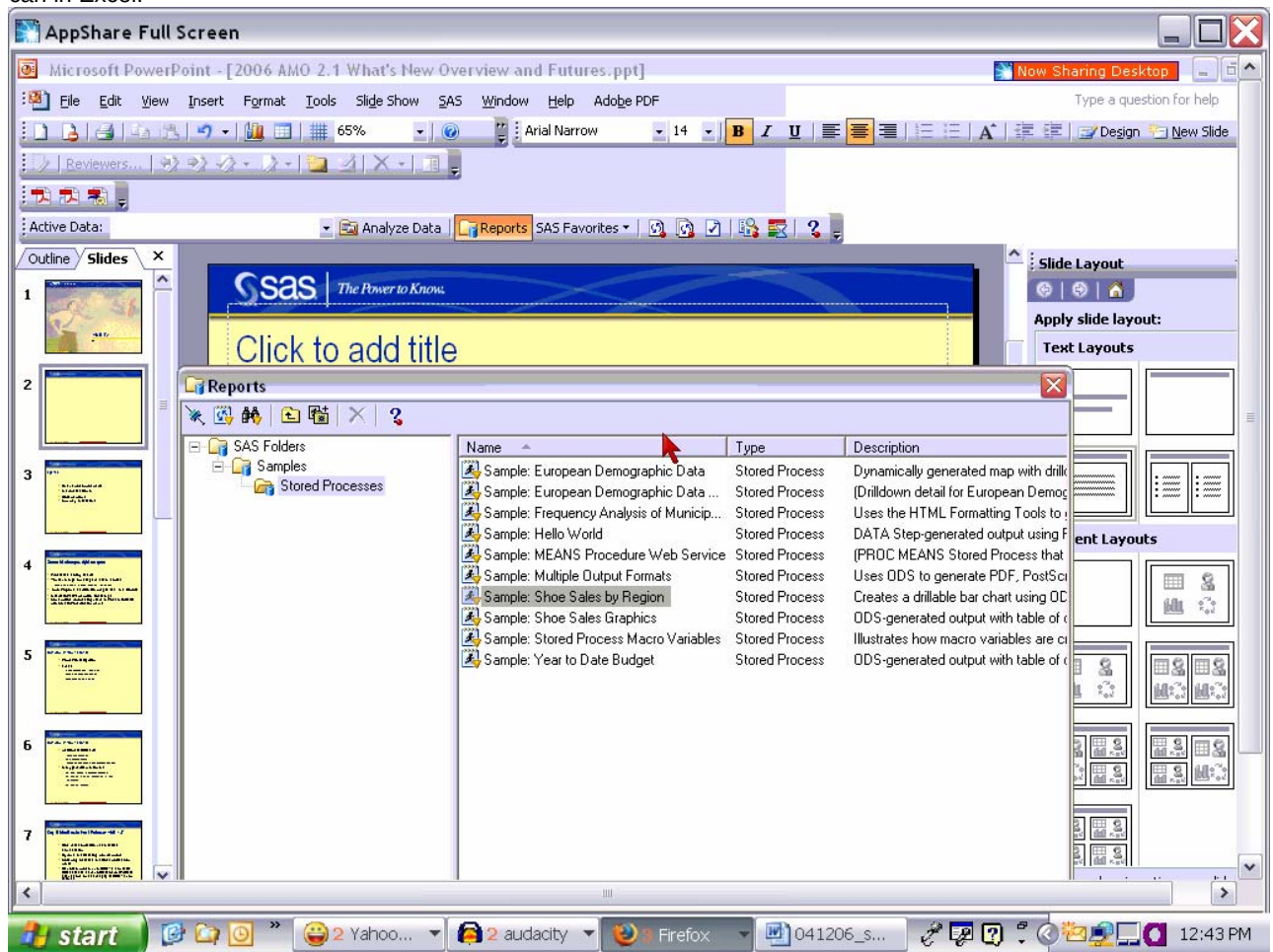
OUTLOOK INTEGRATION

An 'unsupported' SAS Feature is that by using Outlook with the Word Editor on for New Messages, the Add in to MS Office add-in is available for use.



MS POWERPOINT

The same functionality is now available in PowerPoint – HOWEVER, users cannot open datasets as they can in Excel.



REFERENCES

Additional tutorials are available from Zencos' Youtube Channel ZencosTV.

<http://www.youtube.com/zencostv>

CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the author at:

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