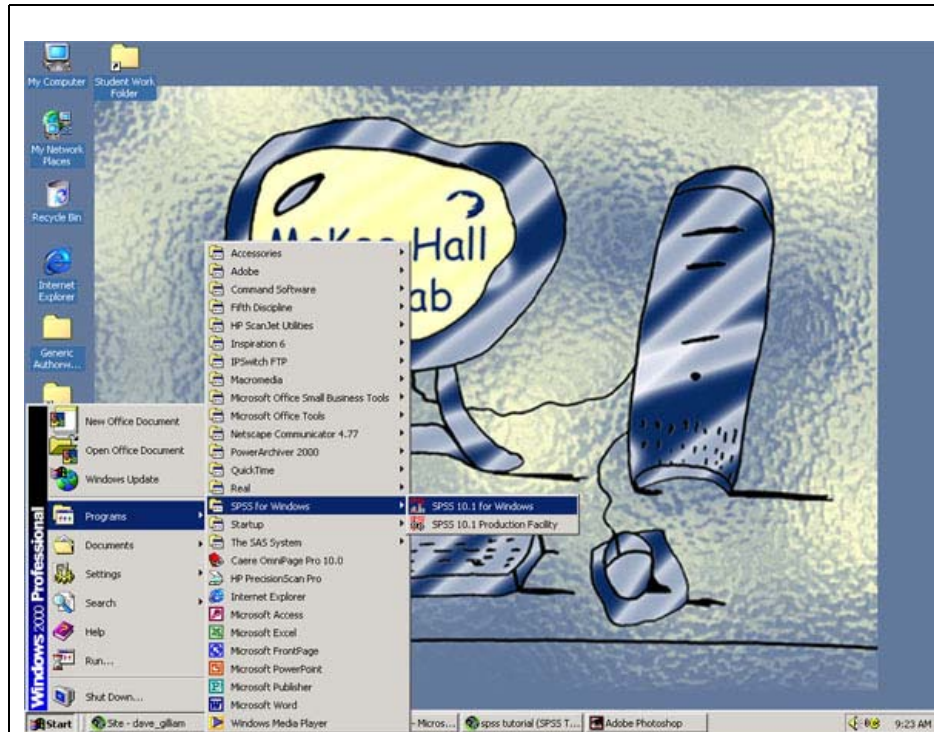


SPSS Tutorial # One



STARTING SPSS

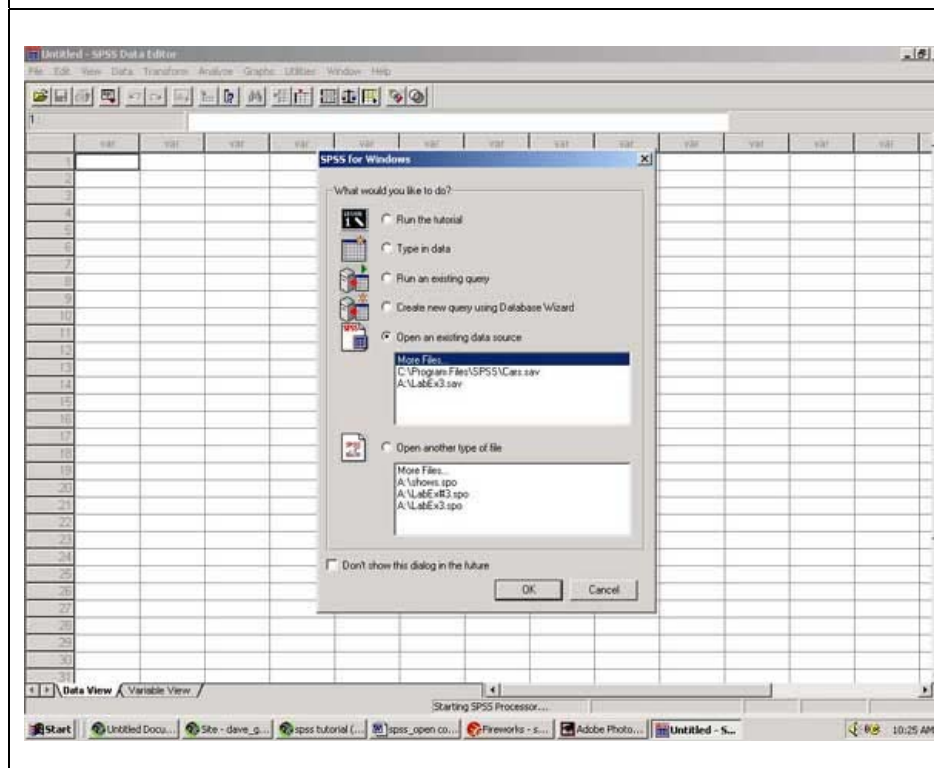
Close all other Windows applications.

Go to the Windows Start icon on the Windows Desktop menu.

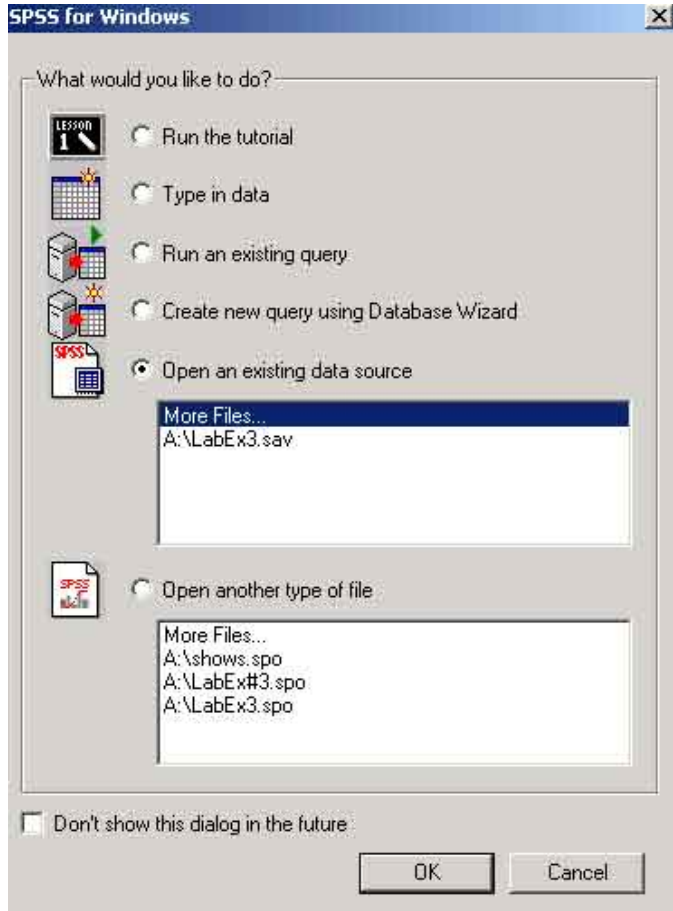
Click on Programs.

Click on SPSS for Windows.

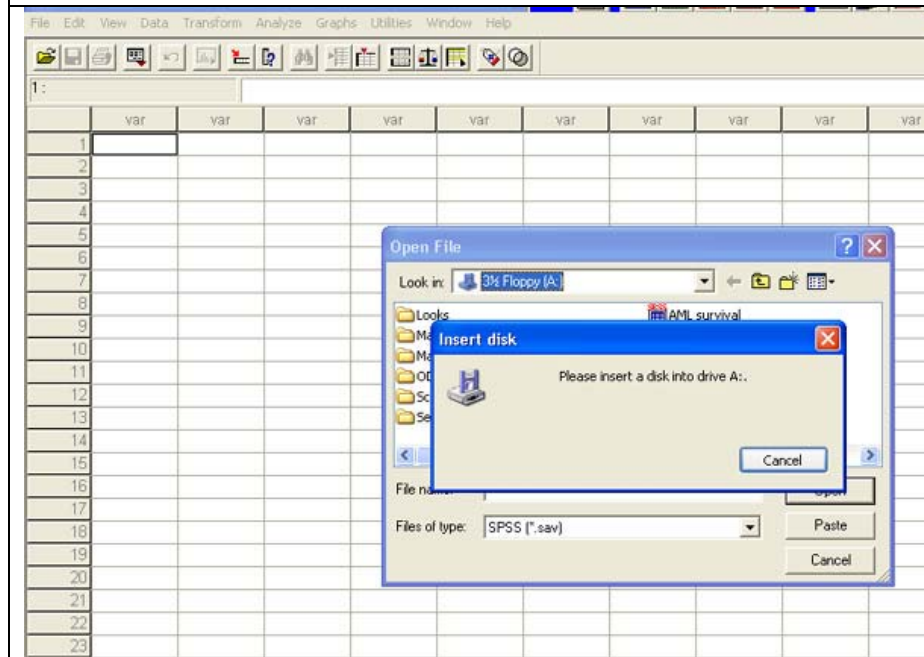
Click on SPSS 10.1 for Windows.



The 'Open an existing data source' option should be marked. If it is not, mark it by clicking in the empty circle. An enlargement of this dialog box is shown next...

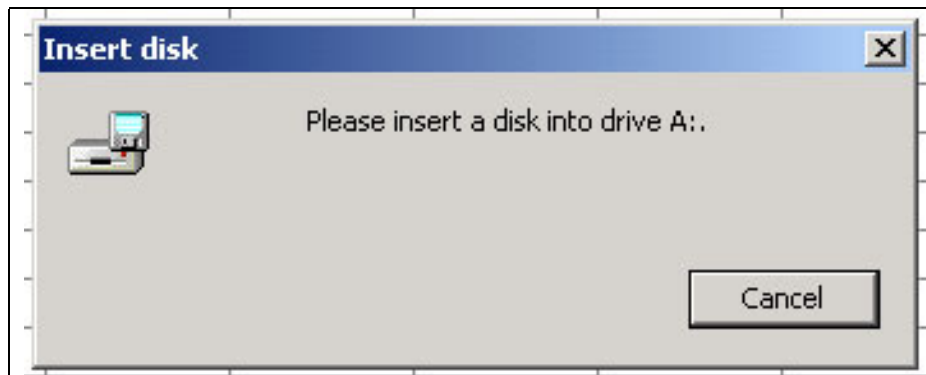


Click OK. If you click on Cancel, you may see the next screen...

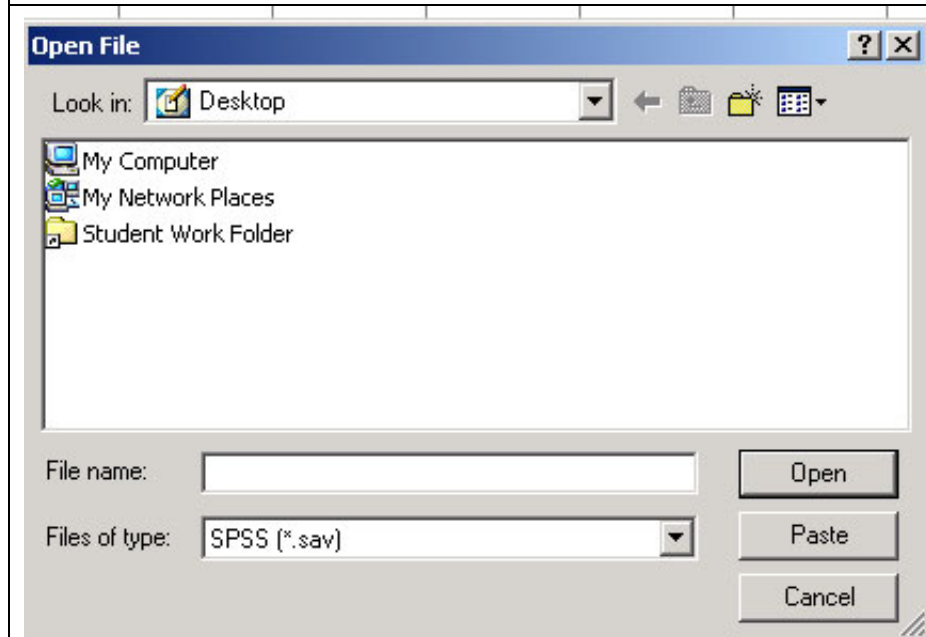


...with this dialog box instructing you to insert a disk into Drive A.

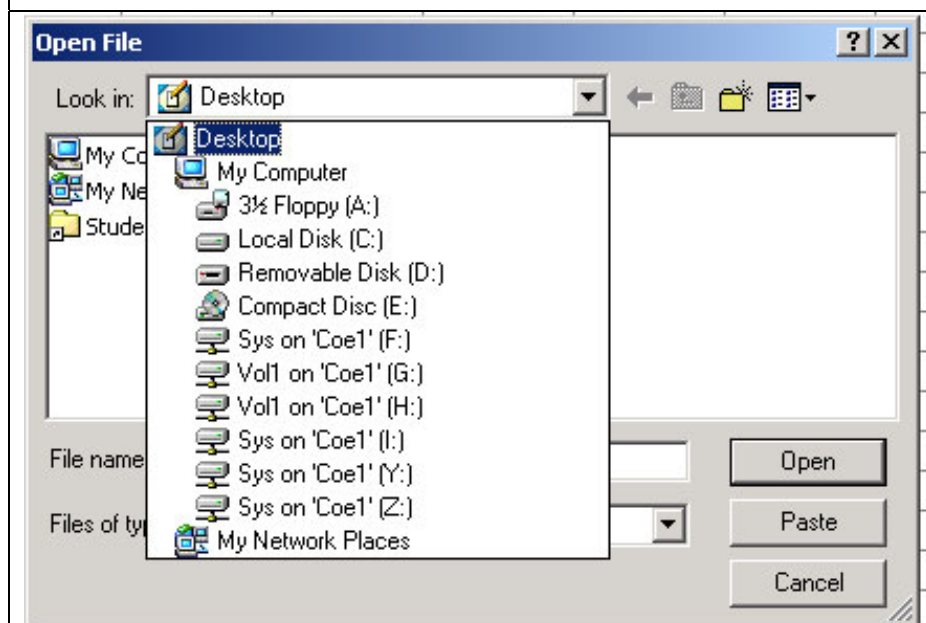
(If you see the SPSS Data Editor screen, scroll down to p. 7 to see what to do next.)



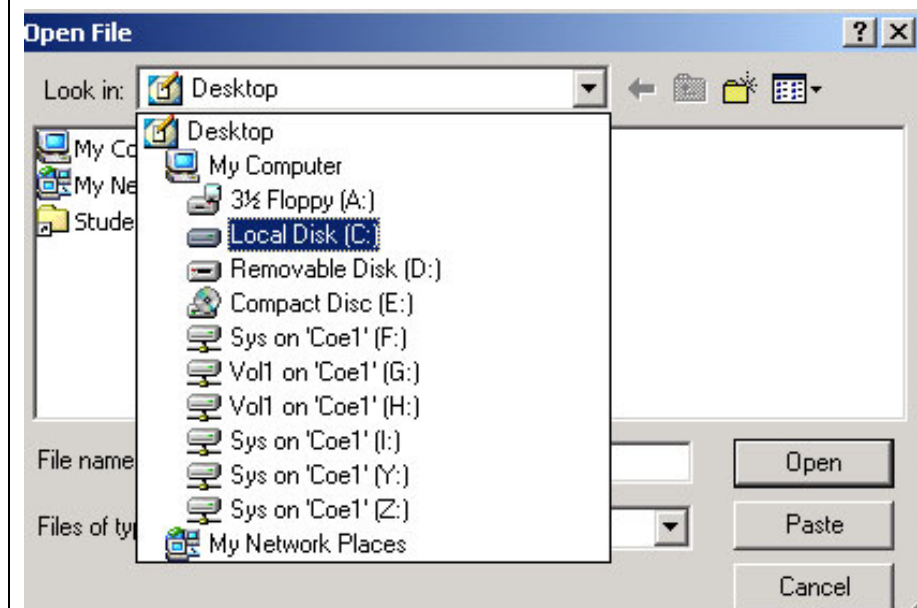
Click on Cancel. This will bring up the next screen...



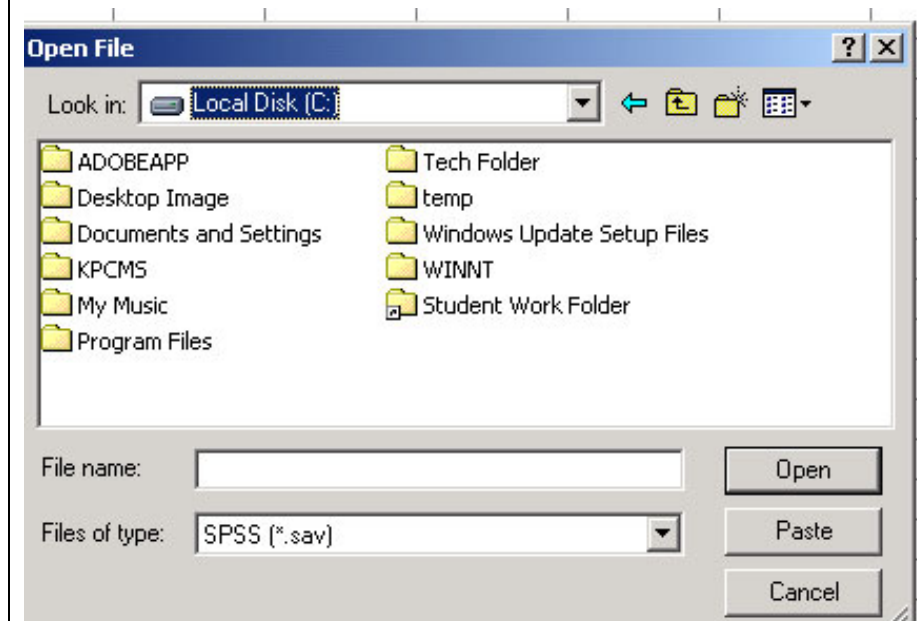
SPSS is looking for files with the *.sav extension. To find these files, we need to go to the C drive, that is Local Disk (C:) as shown in the next two pictures...



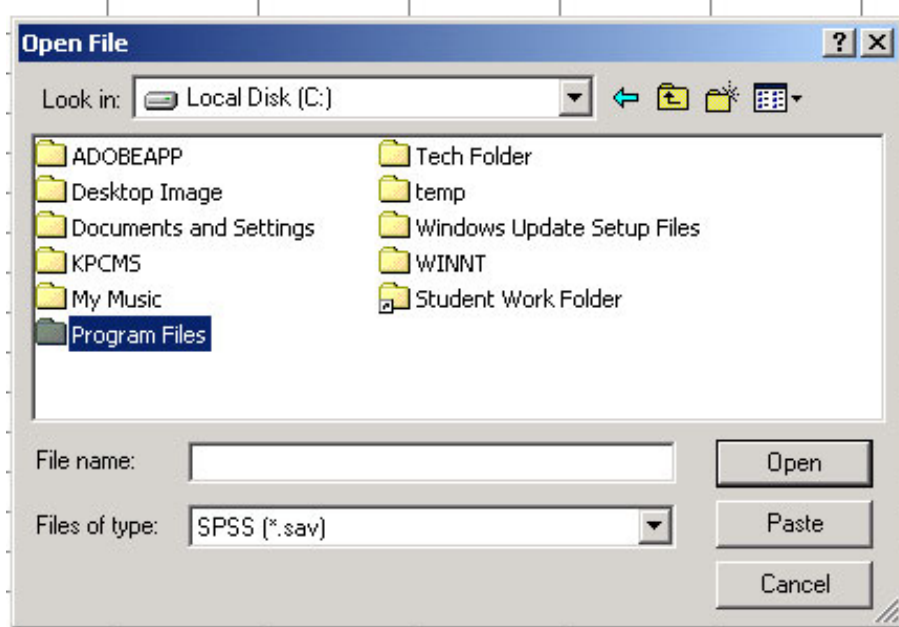
By clicking on Desktop, you will bring up all of the available drives...



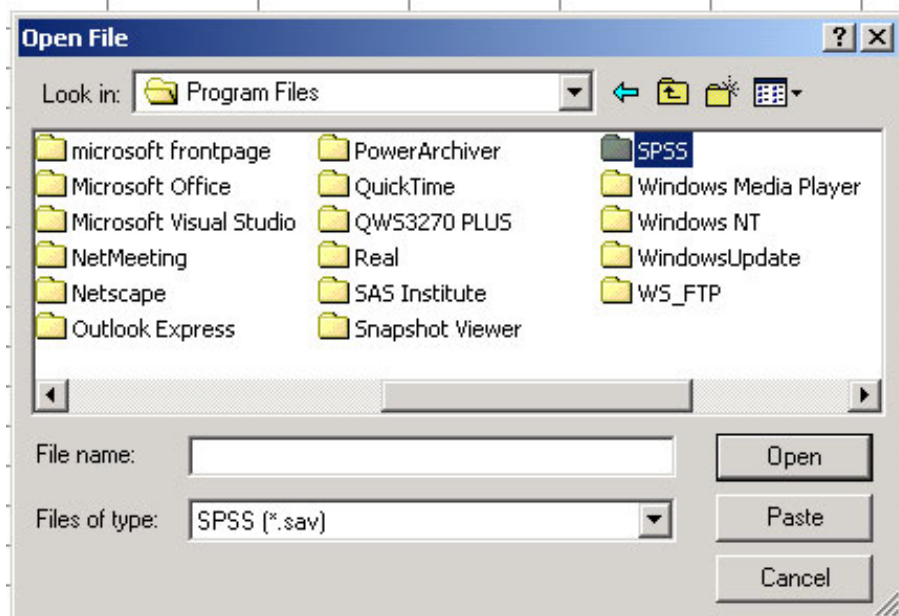
Then click on Local Disk (C:)...



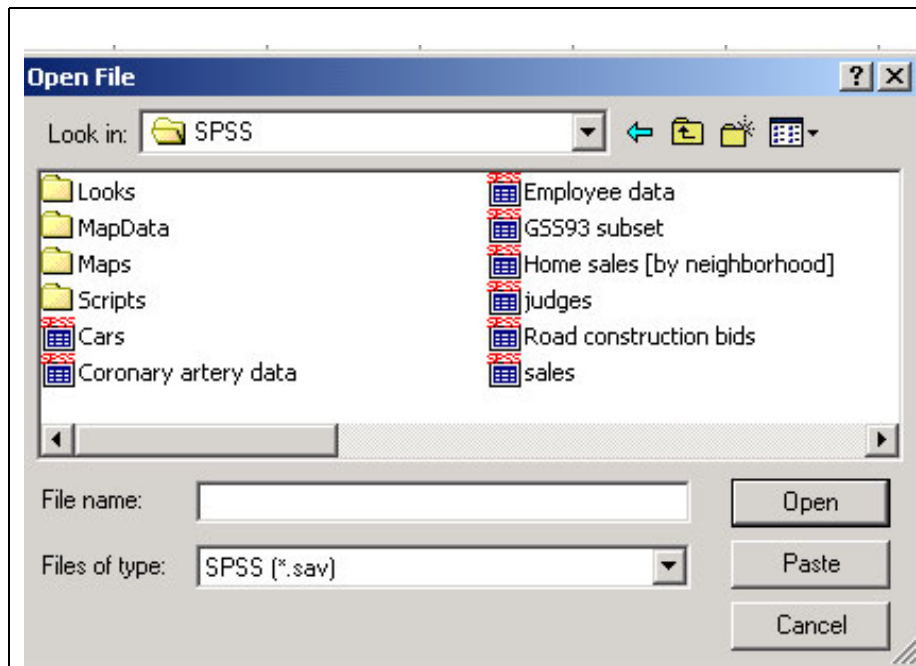
This will bring up all the available files on the C drive...



Click on Program Files as shown...



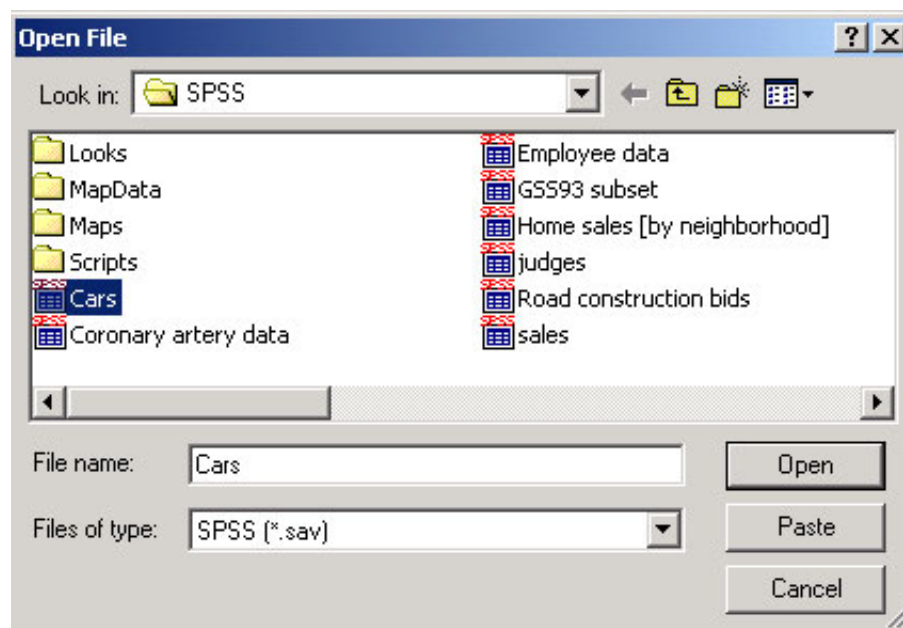
Find the SPSS folder by using the scroll bar at the bottom of the dialog box and double click to open...



This will open the SPSS folder and reveal other folders, but more importantly, data files with the *.sav extensions. These are shown by...

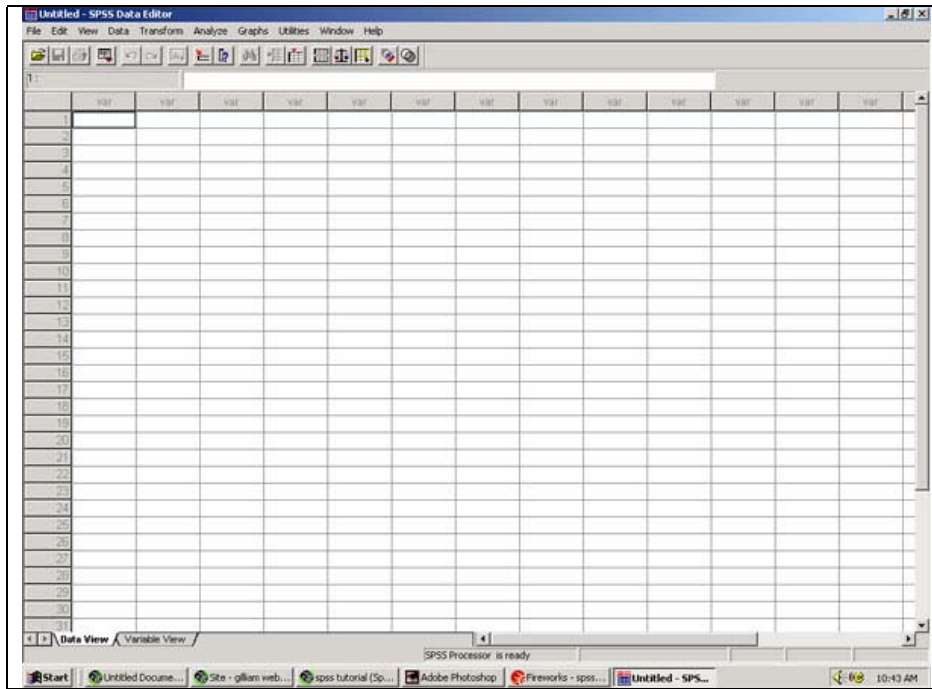


...this symbol.

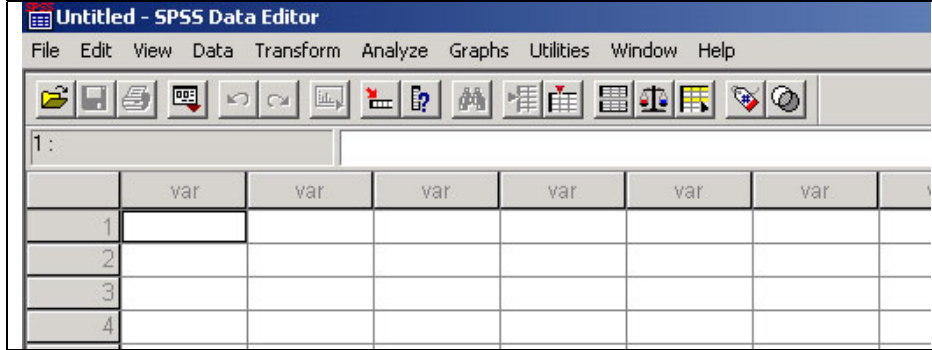


Click on the Cars data file as shown... and this will bring up a data file that we will use for this tutorial. If you get to this data file at this point, please proceed to a similar picture as the one shown to the left and follow those instructions...

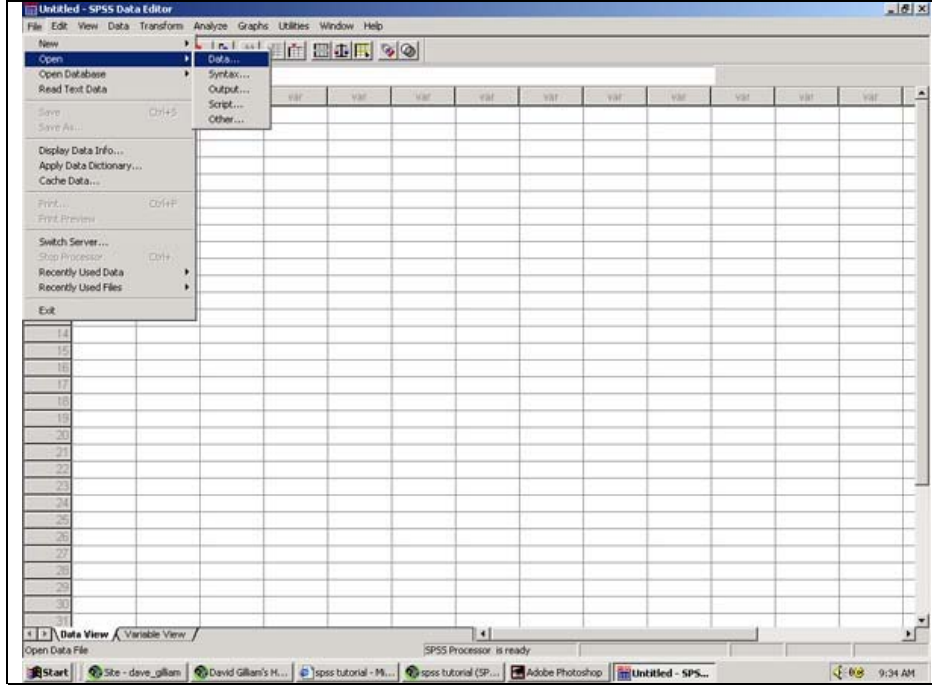
OR SCROLL DOWN TO THE BEGINNING OF p. 9



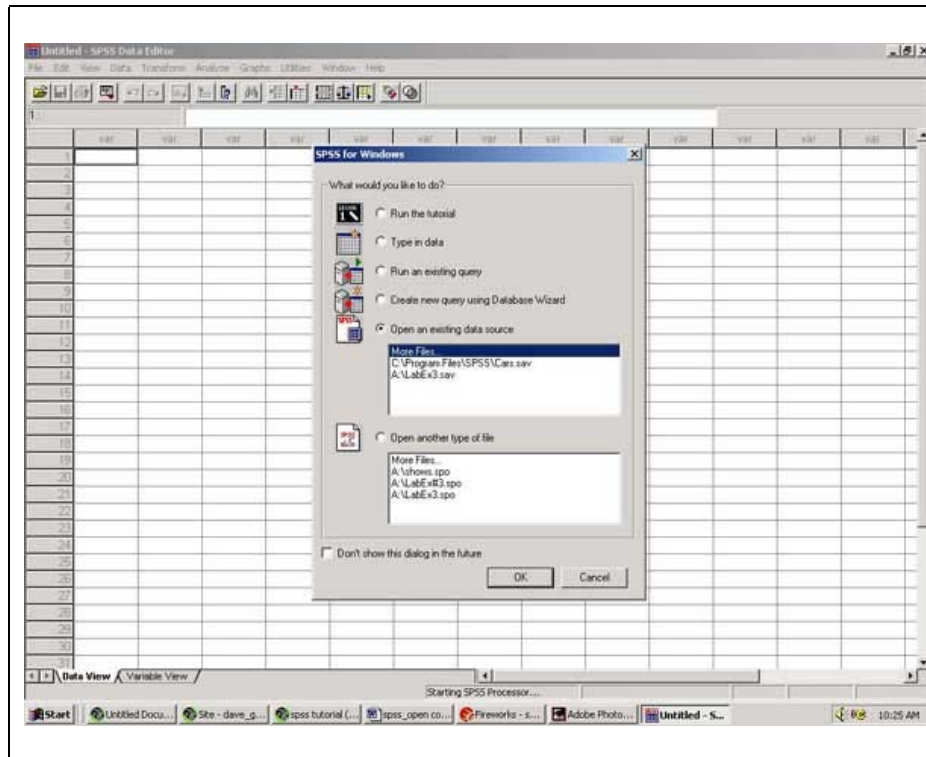
This is the SPSS Data Editor screen... On closer inspection, it looks like the next screen



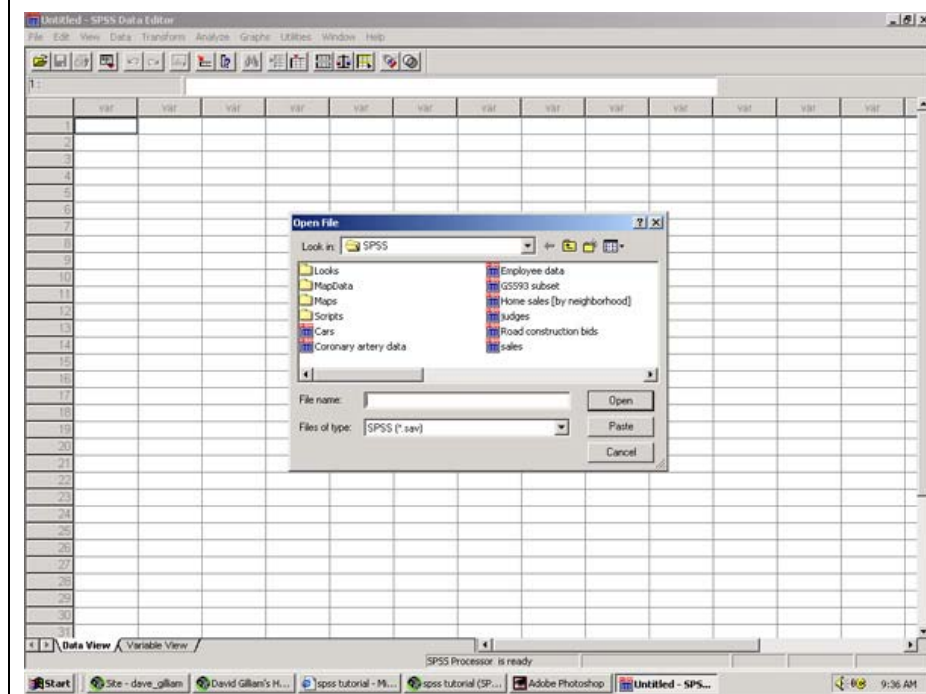
This shows an enlargement of the SPSS Data Editor menu.



Click on File > then Open > then Data as shown to the left...



This is the same SPSS for Windows dialog box we saw before... Click OK.

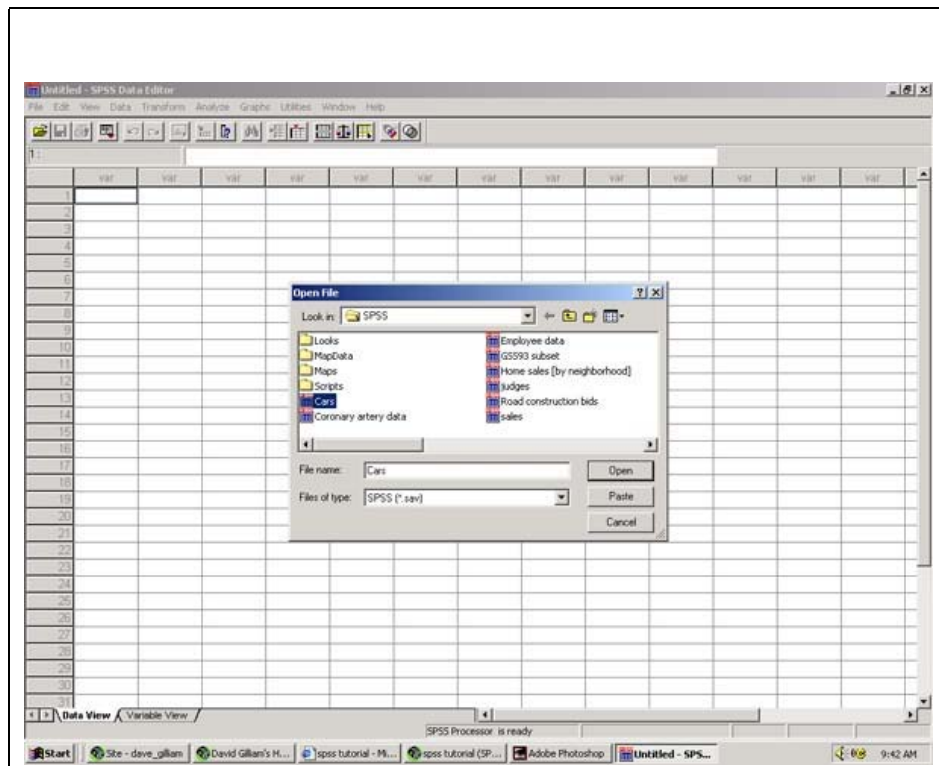


You will open the SPSS folder and reveal SPSS DATA files that look like...

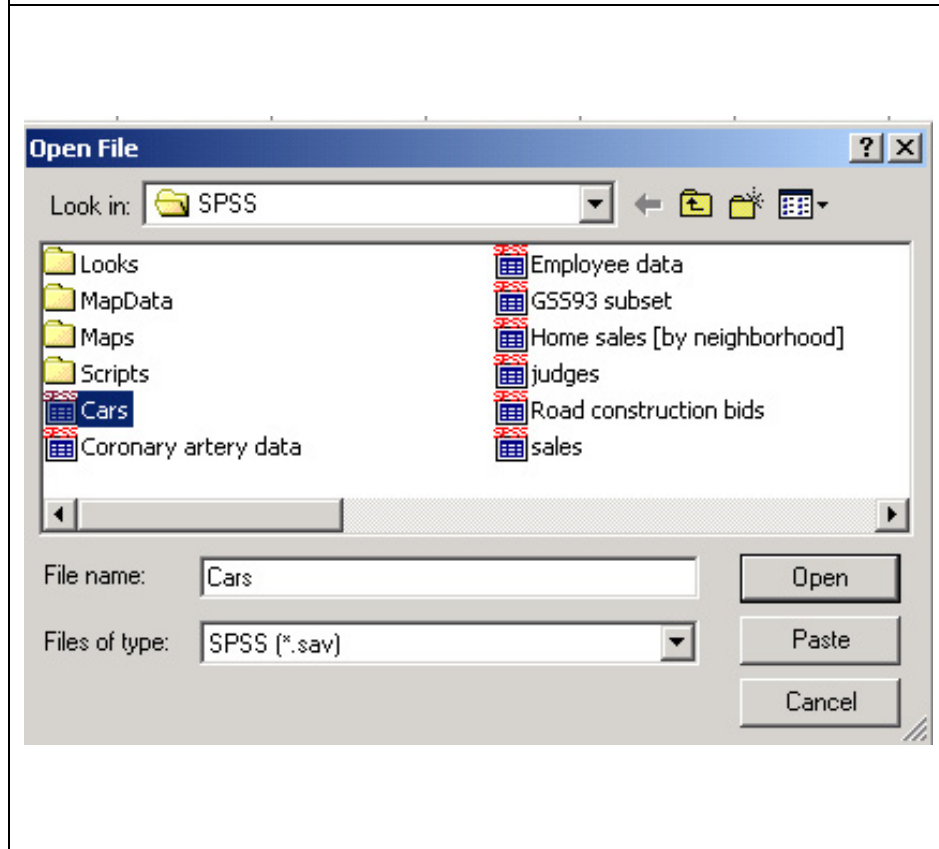


Cars

...this



Click on the Cars data file...

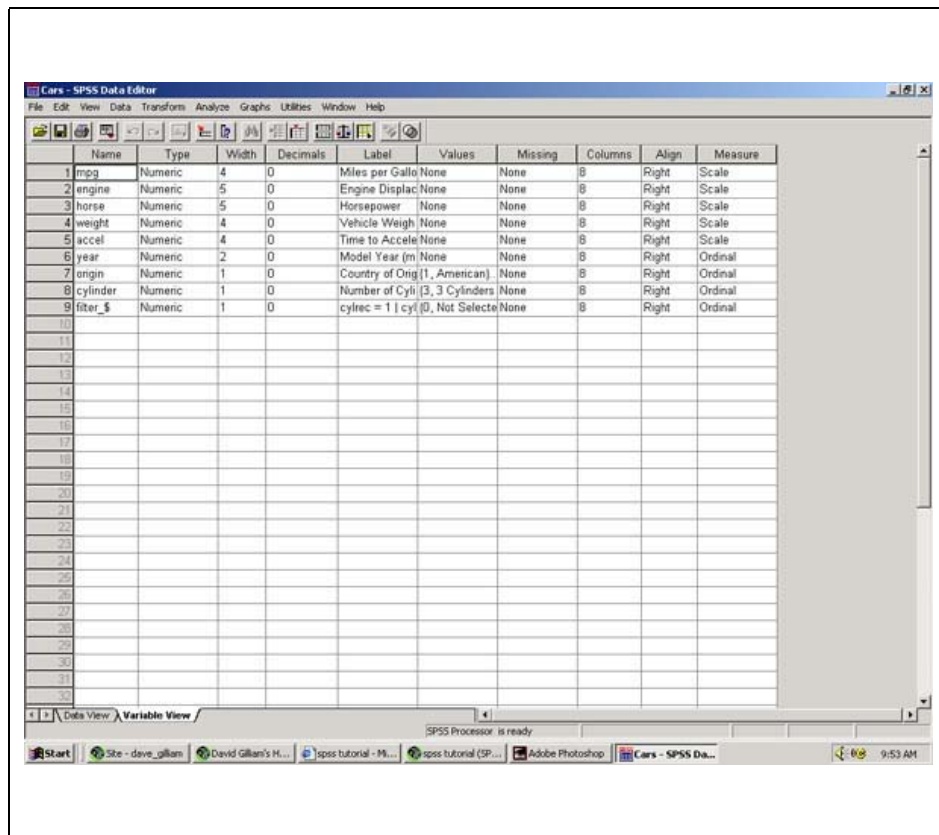


Or highlight the Cars data file and click Open...

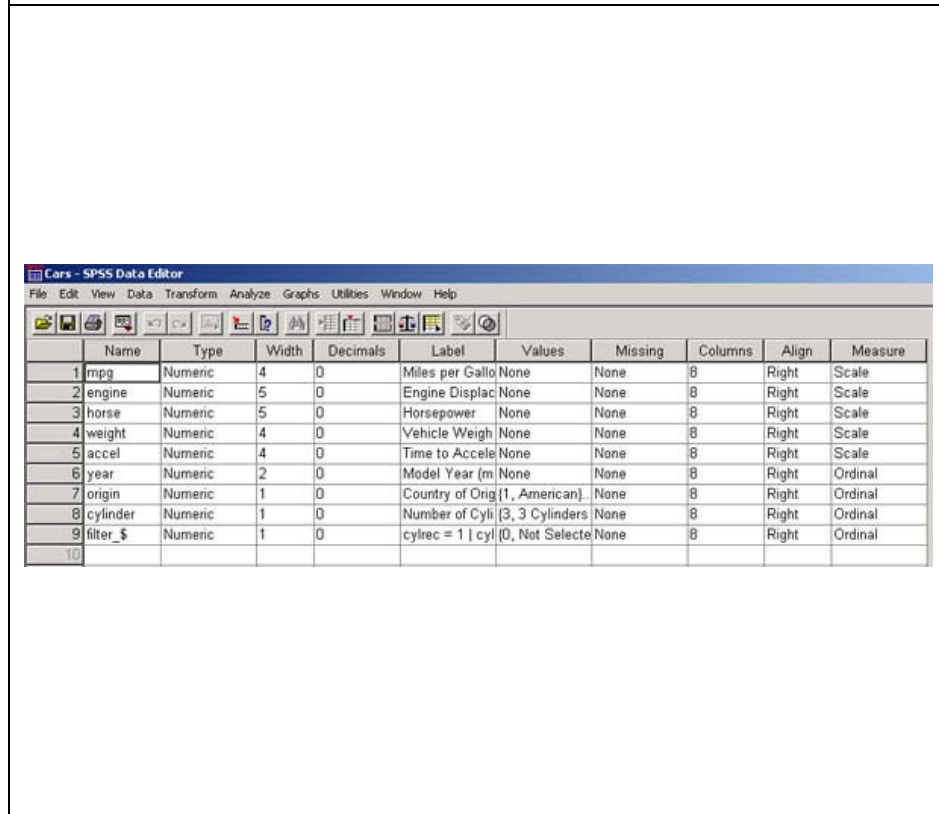
EXAMINING DATA USING THE Data View This will open the Cars data file into the SPSS Data Editor window...

Upon closer inspection, we see the variable names across the top of each column. In the first column we see mpg or miles per gallon, in the second column we see engine, third...horse, fourth...weight, etc...

At the bottom left corner of the SPSS Data Editor screen we see we are looking at the Data View... Click on the Variable View and you will see the next screen....



The Variable View presents the variables in rows while the columns are characteristics of the variables. The Variable View is useful when you want to enter your own data for analysis...you will define your variables (what the variable is measuring) and value labels (what values are associated with the measure). A close-up view of the Variable View is shown below...



The first row details the characteristics of the mpg variable. Moving from left to right, columns contain information that defines the variable. The first column is, obviously, the Name of the variable. Type shows that the variable is coded as a numeric variable. Width shows that the variable is 4 bytes. Decimals shows the decimal places of your measure. Label is an expanded explanation of what your variable is measuring.

Cars - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Window Help

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	mpg	Numeric	4	0	Miles per Gallon	None	None	8	Right	Scale
2	engine	Numeric	5	0	Engine Displacement (cu. inches)	None	None	8	Right	Scale
3	horse	Numeric	5	0	Horsepower	None	None	8	Right	Scale
4	weight	Numeric	4	0	Vehicle Weight (lbs.)	None	None	8	Right	Scale
5	accel	Numeric	4	0	Time to Accelerate from 0 to 60 mph (sec)	None	None	8	Right	Scale
6	year	Numeric	2	0	Model Year (modulo 100)	None	None	8	Right	Ordinal
7	origin	Numeric	1	0	Country of Origin	{1, American}	None	8	Right	Ordinal
8	cylinder	Numeric	1	0	Number of Cylinders	{3, 3 Cylinders}	None	8	Right	Ordinal
9	filter_\$	Numeric	1	0	cylrec = 1 cylrec = 2 (FILTER)	{0, Not Selected}	None	8	Right	Ordinal
10										

To view the entire Label for a variable you can expand the size of the column by moving the column separator at the top of the column, to the right of the Label...

Utilities Window Help

Decimals	Label	Values
	Miles per Gallon	None
	Engine Displacement (cu. inches)	None
	Horsepower	None
	Vehicle Weight (lbs.)	None
	Time to Accelerate from 0 to 60 mph (sec)	None
	Model Year (modulo 100)	None
	Country of Origin	{1, American}..
	Number of Cylinders	{3, 3 Cylinders}
	cylrec = 1 cylrec = 2 (FILTER)	{0, Not Selected}

Now you can see the entire label for each variable...

Cars - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Window Help

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	mpg	Numeric	4	0	Miles per Gallon	None	None	8	Right	Scale
2	engine	Numeric	5	0	Engine Displacement (cu. inches)	None	None	8	Right	Scale
3	horse	Numeric	5	0	Horsepower	None	None	8	Right	Scale
4	weight	Numeric	4	0	Vehicle Weight (lbs.)	None	None	8	Right	Scale
5	accel	Numeric	4	0	Time to Accelerate from 0 to 60 mph (sec)	None	None	8	Right	Scale
6	year	Numeric	2	0	Model Year (modulo 100)	None	None	8	Right	Scale
7	origin	Numeric	1	0	Country of Origin	{1, American}	None	8	Right	Ordinal
8	cylinder	Numeric	1	0	Number of Cylinders	{3, 3 Cylinders}	None	8	Right	Ordinal
9	filter_\$	Numeric	1	0	cylrec = 1 cylrec = 2 (FILTER)	{0, Not Selected}	None	8	Right	Ordinal

Variable Type dialog box:

- Numeric
- Comma
- Dot
- Scientific notation
- Date
- Dollar
- Custom currency
- String

Width: 4, Decimal Places: 0

Buttons: OK, Cancel, Help

SPSS Processor is ready

9:55 AM

Try moving the active cell across any row. Buttons will appear in all but two cells, the Name and Label columns. Click on the button under the Type column, to the right of the Numeric cell and you will see this view...

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	mpg	Numeric	4	0	Miles per Gallo	None	None	8	Right	Scale
2	engine	Numeric	5	0	Engine Displac	None	None	8	Right	Scale
3	horse	Numeric	5	0	Horsepower	None	None	8	Right	Scale
4	weight	Numeric	4	0	Vehicle Weigh	None	None	8	Right	Scale
5	accel	Numeric	4	0	Time to Accele	None	None	8	Right	Scale
6	year	Numeric	2	0	Model Year (m	None	None	8	Right	Ordinal
7	origin	Numeric	1	0	Country of Orig	{1, American}	None	8	Right	Ordinal
8	cylinder	Numeric	1	0	Number of Cyli	{3, 3 Cylinders	None	8	Right	Ordinal
9	filter_\$	Numeric	1	0	cylrec = 1 cyl	{0, Not Selecte	None	8	Right	Ordinal
10										

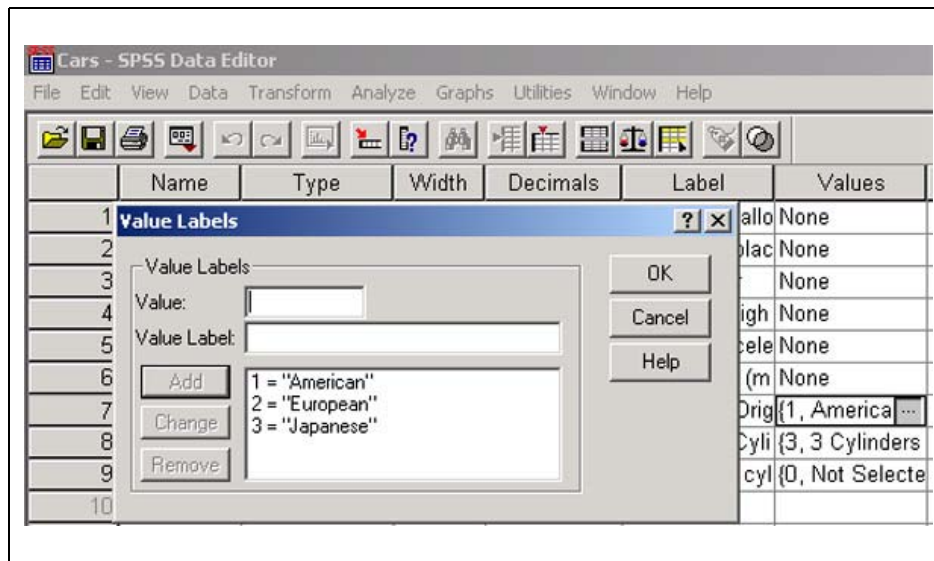
This brings up a Variable Type dialog box where you can define the type of data, how many spaces you want to use to input your data, and how many decimal places you used to record your data... Please note, your Width may be different from the one shown. Click on Cancel to close this dialog box.

The screenshot shows the SPSS Data Editor with the Value Labels dialog box open for the 'origin' variable. The dialog box has a 'Value' field containing '1' and a 'Label' field containing 'American'. There are buttons for 'OK', 'Cancel', and 'Help'. Below the dialog box, the Variable View table is visible, showing the 'origin' variable with a value label of '{1, American}'.

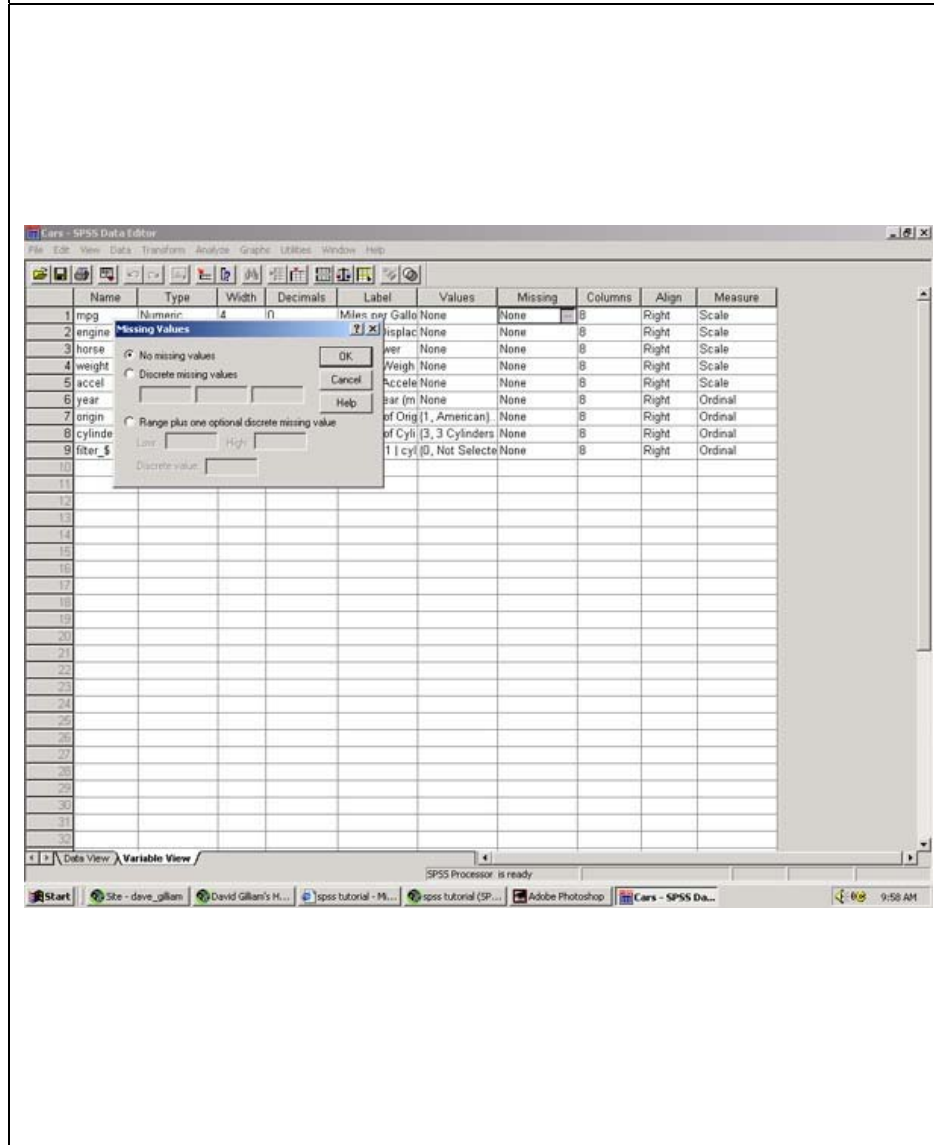
Under the Values column, click on the button next to

{1, America ...

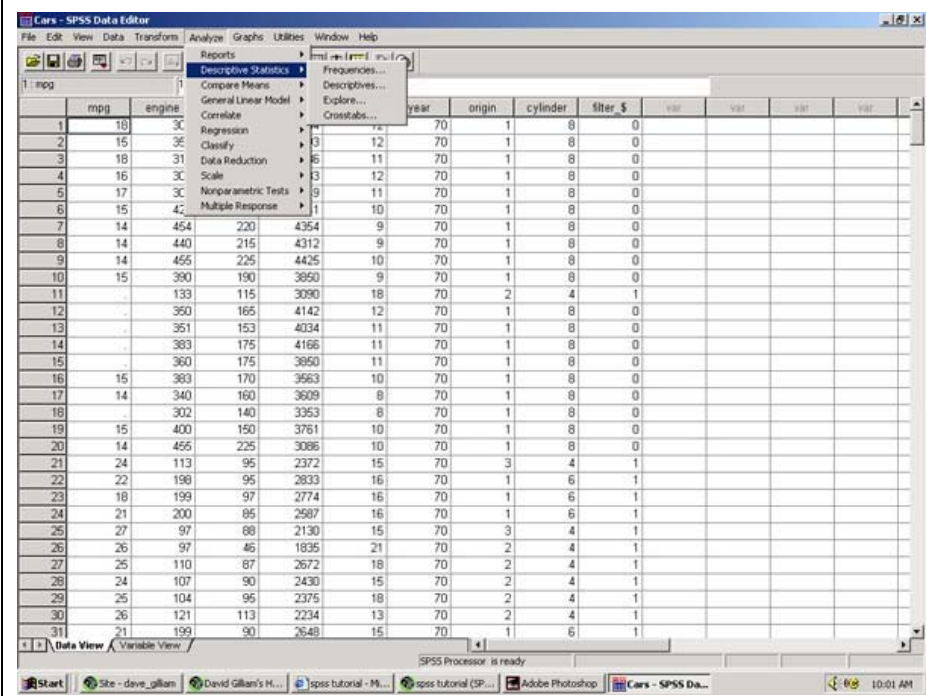
This will bring up the Value Labels dialog box where you can define values for your variables (like 1, 2, 3, etc.) and give each value a name (like American, European, etc.) An enlargement of this dialog box and other information is see in the next picture...



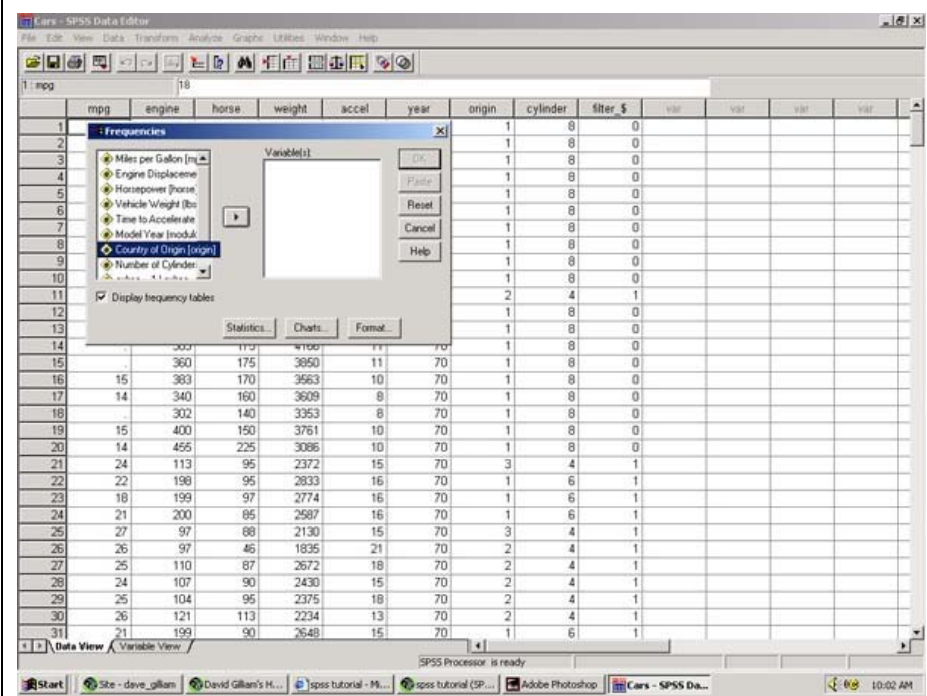
Click on Cancel to move to the next task.



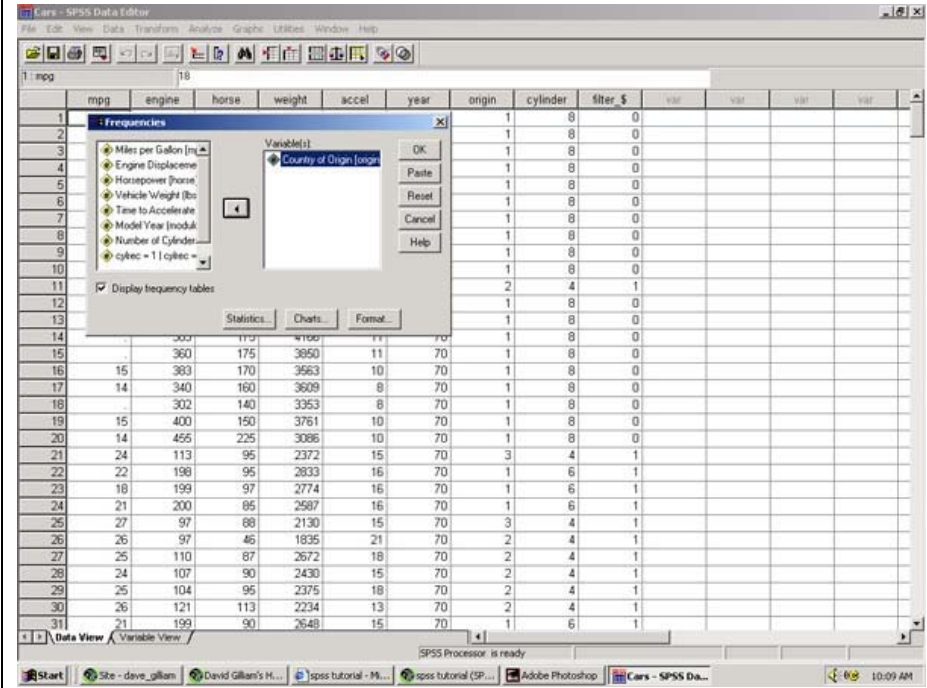
Click on a cell under the Missing column. Click on the button to the right of None. This dialog box allows you to define missing values for each variable. There are no missing values for any variable in the Cars data set. However, you may have missing values in your own data set in the future. SPSS allows you to insert up to three different missing value codes. For example, 1 = "no show", while a 2 = "not applicable". This allows you to discriminate between different causes for missing data. Click on the Data View tab in the lower left corner.



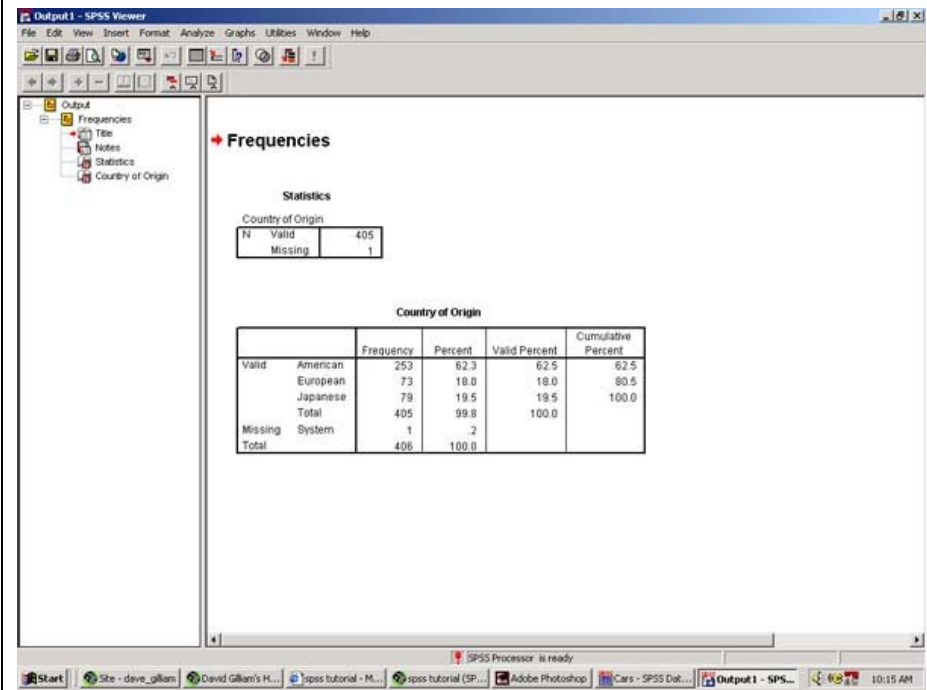
Click on Analyze and then on Descriptive Statistics and then on Frequencies. This will bring up a dialog box called Frequencies as seen in the next figure.



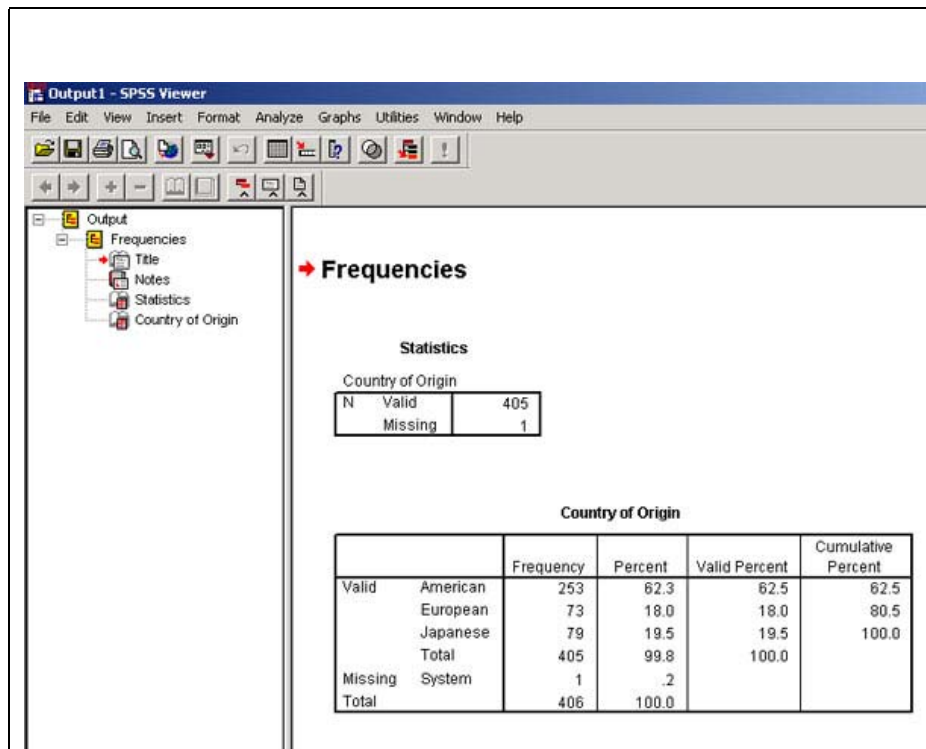
Click on Country of Origin and move this variable to the empty box on the right by clicking on the > button between the two boxes. This is shown in the next figure.



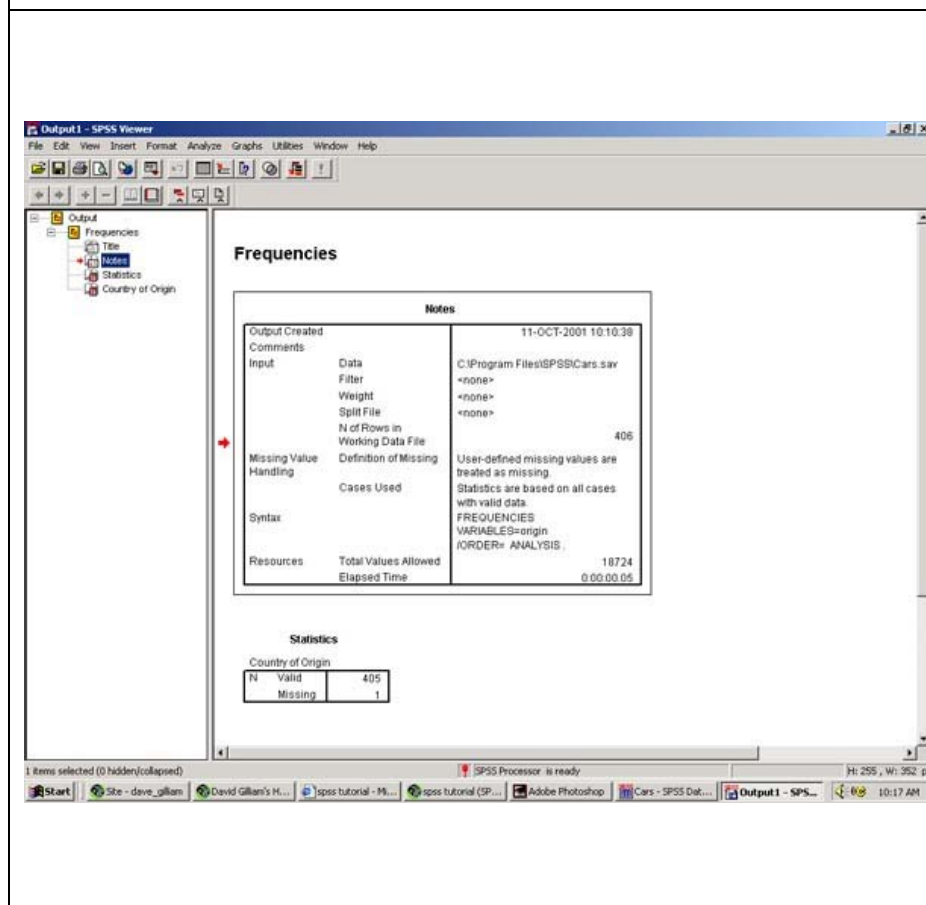
Click on OK.



By clicking on OK, you bring up a new window, called Output1 - SPSS Viewer. The SPSS Viewer screen will automatically appear as the active window on your computer monitor.



The SPSS Viewer window has two large display panes. On the left, the Viewer Outline pane shows the structure of the SPSS output. On the right, the pane shows information in the form of tables, charts, and text produced by SPSS statistical procedures.



To view output in the right pane, click on specific information you wish to see in the left pane. In this example, click on Notes in the left pane.

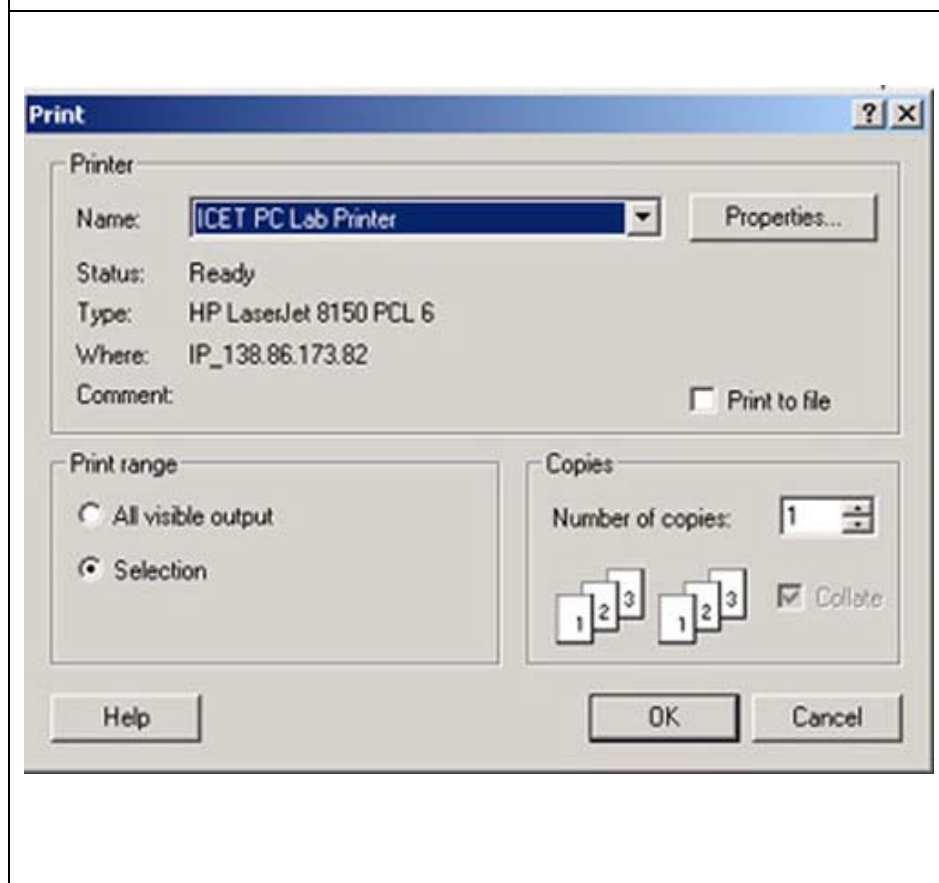
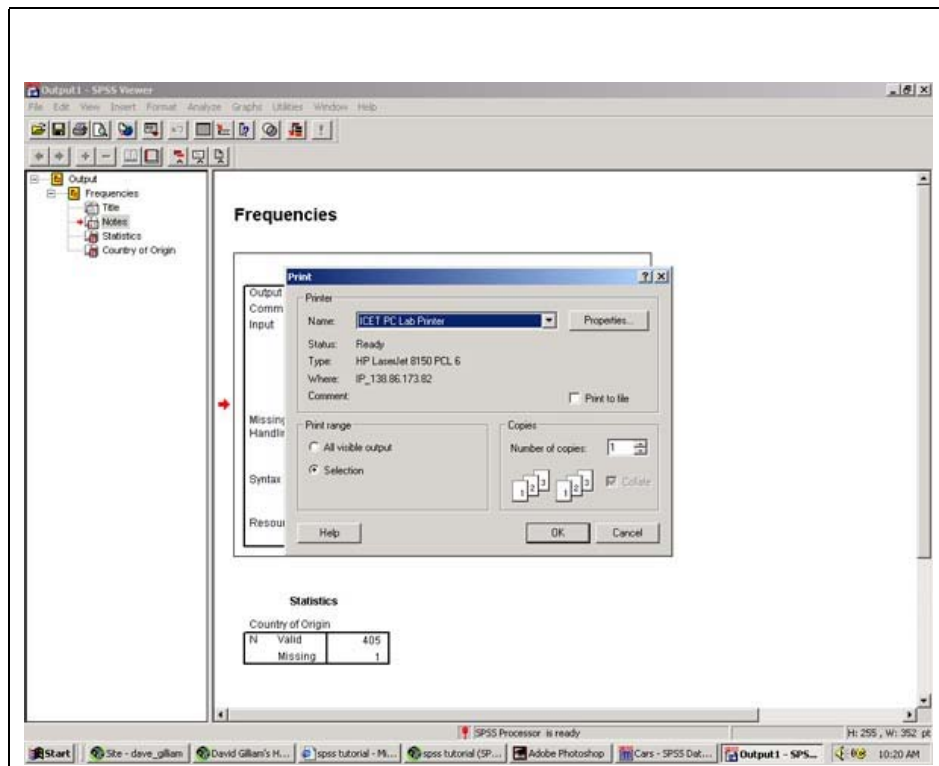
Frequencies

Notes		
Output Created		11-OCT-2001 10:10:38
Comments		
Input	Data	C:\Program Files\SPSS\Cars.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	406
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=origin /ORDER= ANALYSIS .
Resources	Total Values Allowed	18724
	Elapsed Time	0:00:00.05

This is an enlargement of the Notes box.

The screenshot shows the SPSS Output Viewer window. The 'Frequencies' output is displayed, with the 'Notes' section highlighted by a red arrow. The 'Notes' section contains the same information as the enlarged view above. Below the notes, a 'Statistics' table for 'Country of Origin' is visible.

Statistics		
Country of Origin		
N	Valid	405
	Missing	1



Notes

Output Created	29-NOV-2001 16:59:03	
Comments		
Input	Data	C:\Program Files\SPSS\Cars.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	406
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax	FREQUENCIES /VARIABLES=origin /ORDER= ANALYSIS .	
Resources	Total Values Allowed	18724
	Elapsed Time	0:00:00.08

Statistics

Country of Origin

N	Valid	406
	Missing	1

Country of Origin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	American	263	62.3	62.5	62.5
	European	73	18.0	18.0	80.5
	Japanese	79	19.5	19.5	100.0
	Total	405	99.8	100.0	
Missing	System	1	.2		
Total		406	100.0		

This is what your printout should look like.