

# SPSS Output and Graphics for Publication

Academic Computing Services  
A Division of Information Services

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**Abstract:** This document is used in conjunction with the workshop “SPSS: Output and Graphics for Publication” and focuses on strategies for creating tables and charts suitable for publishing in print and electronic publications (journals, books, Web sites, and so on).

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**ACS Computer Training**  
SPSS Output and Graphics for Publication

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## Introduction

In this workshop, you will learn how to create publication- and presentation-quality graphics and statistical tables in SPSS. We will change the layout and formatting of the standard SPSS table output and charts, using the SPSS output and chart editors, and prepare tables and charts for export to Word, PowerPoint, the Web, and other publication or presentation tools.

## Prerequisites

A basic understanding of statistical analysis, and the means of performing that analysis using SPSS, is a prerequisite for working with SPSS tables and charts (output). Attending the **SPSS: Introduction** workshop prior to the **SPSS: Output and Graphics for Publication** workshop is highly recommended.

## Related Training Available from ACS

All workshops offered by Academic Computing Services (ACS), a division of Information Services, are free to KU students, staff, faculty, and [approved affiliates](#). The general public is also welcome to most workshops, but some ACS workshops require a [registration fee](#) for them.

To learn more about or register for workshops, receive automatic announcements of upcoming workshops, and track workshops you've registered for and have attended, visit the ACS Web site at [www.ku.edu/acs/train](http://www.ku.edu/acs/train). You can also check our online schedule at [www.ku.edu/acs/schedule](http://www.ku.edu/acs/schedule) for a list of class offerings and their availability. For further workshop related questions, please email [training@ku.edu](mailto:training@ku.edu).

## Creating and Modifying Pivot Tables

### *Modifying Table Contents and Structure*

#### Delete Data

To delete data from a cell, row, or column, select the cell, or row/column (you can select the row or column by pressing and holding Ctrl+Alt, then clicking the row or column), then press Delete key or click the **Edit** menu and choose **Clear**. This will leave the category but remove the data and headings.

#### Hide (and Show) Data

To completely hide a row or column, select it (by pressing and holding Ctrl+Alt, then clicking the row or column), then click the **View** menu and choose **Hide**.

To show any rows or columns that you've hidden in a table, double-click inside the table, then click the **View** menu and choose **Show All**.

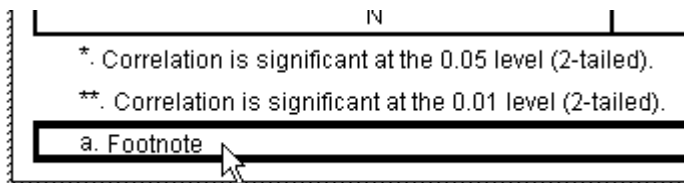
#### Rename a Heading or Title

Double-click the text you want to change, and type in the new text.

#### Add Footnotes and Captions

To add a footnote to a pivot table:

1. Double-click the table to select it.
2. Click the cell in which you want to insert the footnote.
3. Click the **Insert** menu and select **Footnote**. This will insert a footnote marker in the cell, and add a space at the bottom of the table to type in the footnote text, as shown here:



4. Scroll to the bottom of the table, double-click the footnote text area, and type in the footnote text.

To add a caption to a table:

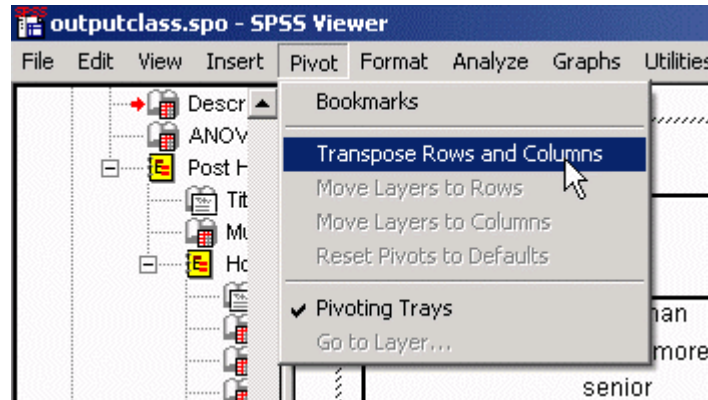
1. Double-click the table to select it.
2. Click the **Insert** menu and select **Caption**.
3. Scroll to the bottom of the table, double-click the caption text area, and type in the caption.

To remove a caption or a footnote, click it (the note or caption itself, not the superscripted number) and press the Delete key.

## Transpose Rows and Columns

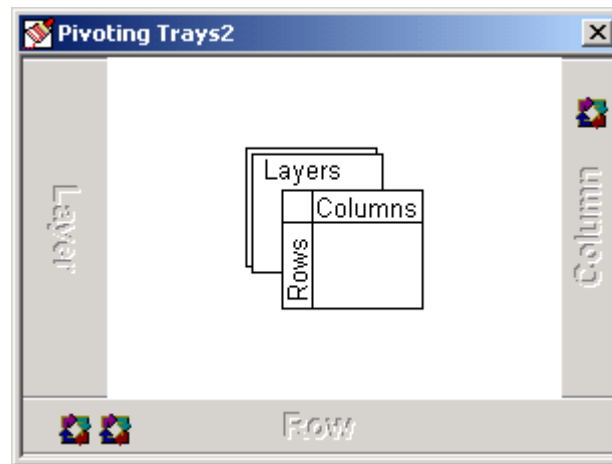
To transpose the layout of a table (change rows into columns and vice versa),

1. Double-click the table to select it.
2. Click the **Pivot** menu, and then click **Transpose Rows and Columns**.



## Restructure a Pivot Table using Pivoting Trays

If the Pivoting Trays are not already visible, double-click to select the table, click the **Pivot** menu, and click **Pivoting Trays**.

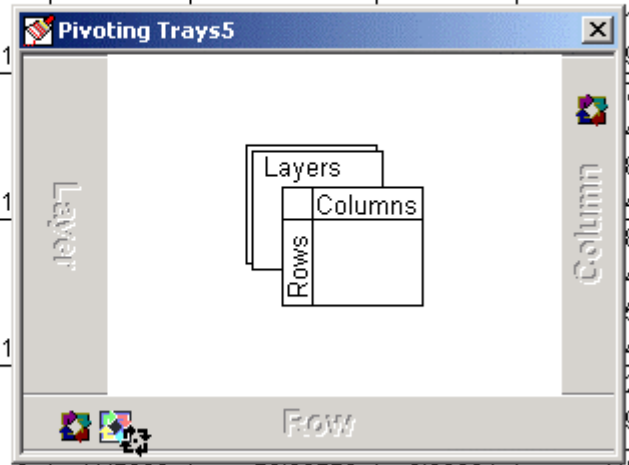


To change the structure of a table, click and drag one of the icons ( ). These can be moved

- from a row to a column or vice versa;
- from a row or column to a layer, which creates a layer in the table (that you can view in the table by clicking a drop-down menu);
- within a row or column to change the order in which categories are displayed.

**Hint:** clicking an icon causes the items it represents to be shaded in the pivot table, like this:

		N	Mean	Std. Deviation	Std. Error	Lower Bound
Fouls	freshman	4	29.7500	7.18215	3.59108	18.321
	sophomore	3	46.3333	10.69268	6.17342	19.771
	senior					141
	Total	1				902
	freshman					749
	sophomore					476
	senior					873
	Total	1				474
3	freshman					806
	sophomore					415
	senior					566
	Total	1				416
	freshman					273
	sophomore					978
	senior					747
	Total	12	10.2500	14.13651	4.08086	1.268
	freshman	4	11.5000	8.34666	4.17333	-1.781



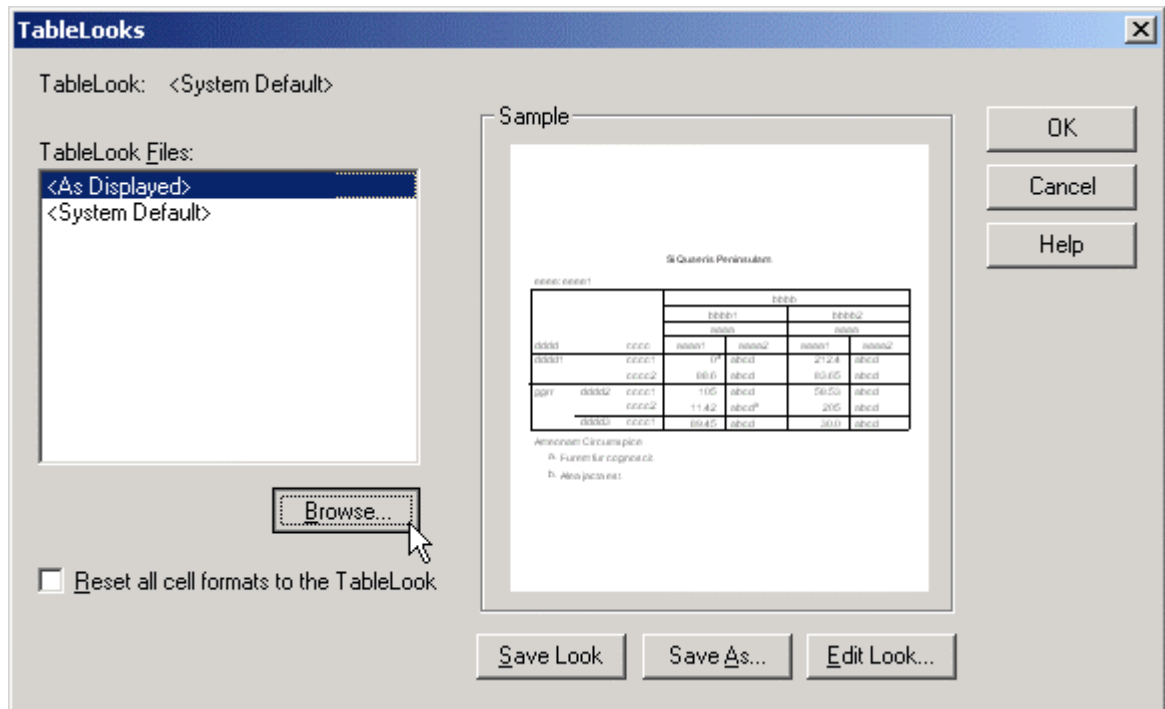
## Modifying Table Formatting

### TableLooks

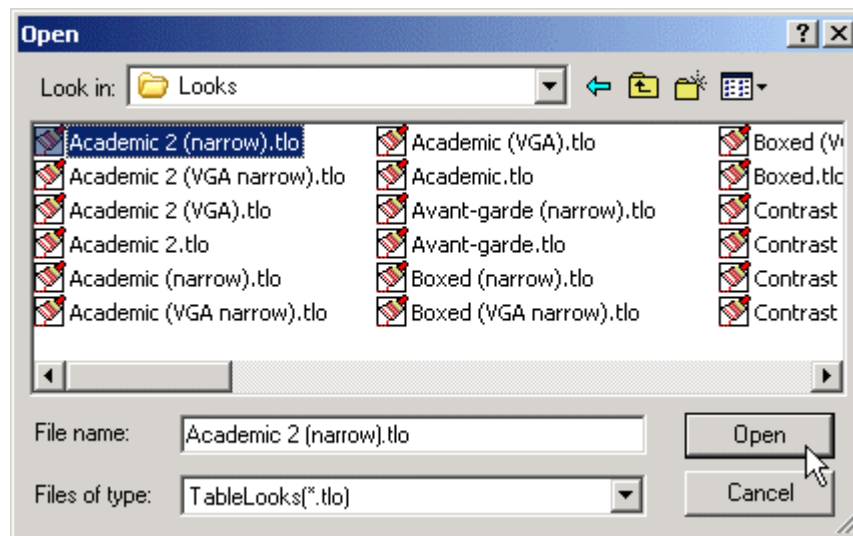
One of the simplest ways to change the formatting of a pivot table is to apply a different TableLook. TableLooks are preset templates that control the appearance of a table (font and font size, borders, colors, and so on).

To apply a TableLook:

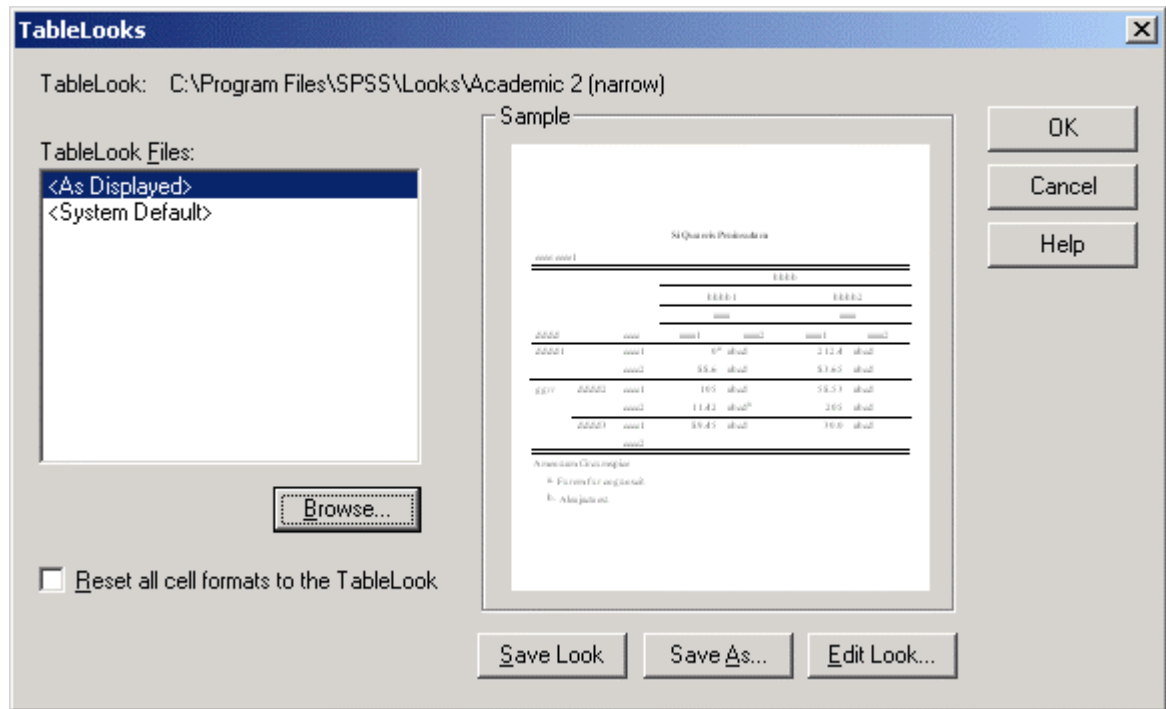
1. Double-click the table to select it.
2. Click the **Format** menu and click **TableLooks...**



3. In the TableLooks dialog box, click the Browse button, and browse to the **Looks** folder, located in the **SPSS** program folder (usually this will be in the **Program Files** folder).
4. Click to select the TableLook (.tlo file) that you want to preview, and click the **Open** button.



5. In the TableLooks dialog box, you will see a preview of your table with the TableLook applied:



6. To apply this look to the table, click **OK**; otherwise, click **Browse** and select another look to preview, or click **Cancel** and format the table manually.

## Formatting Tables Manually

There are several ways to set properties for tables and table cells:

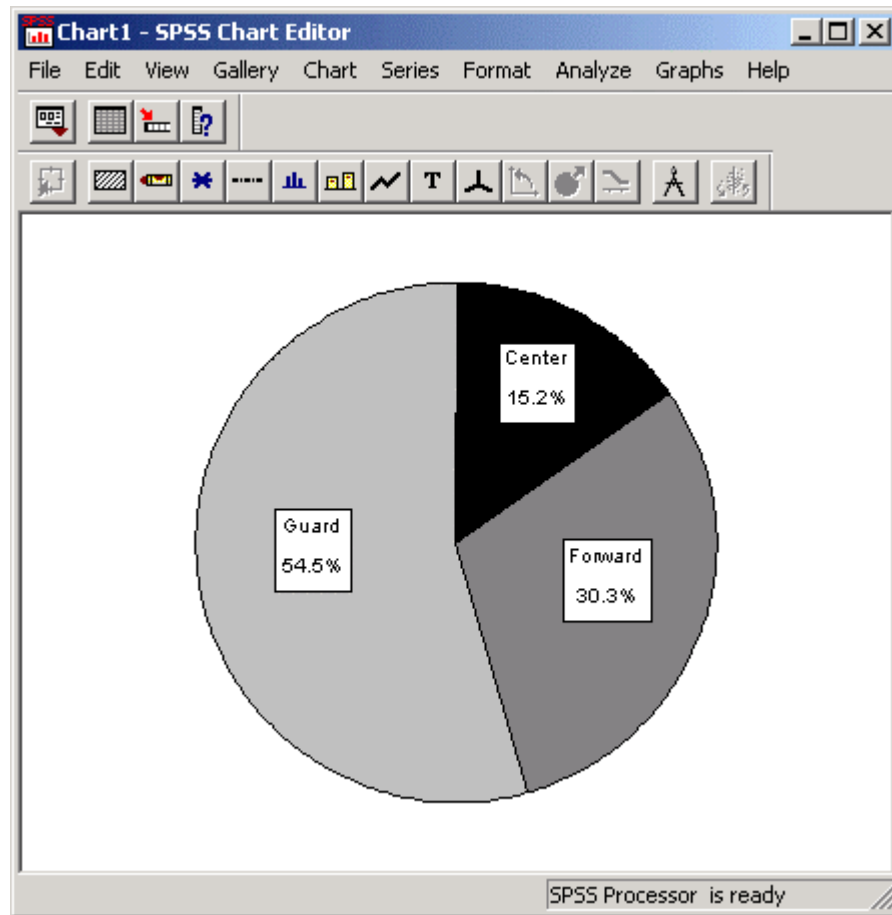
- Select the area you want to format (a table, row, column, or cell), and use the tools on the formatting toolbar to change the fonts, font sizes, colors, and so on.
- Select the table, click the **Format** menu, and then click **Table Properties**.
- Select the rows, columns or cells you want to format, click the **Format** menu, and then click **Cell Properties**.

Once you make the formatting changes you want to your table, you can save those settings as a TableLook and apply it to other tables by selecting the table, clicking the **Format** menu and clicking **TableLooks**, then clicking the **Save As** button. Name the look (the .tlo file), and click **Save**.



## Modifying Charts

Once you have created the chart you want, you can change the formatting of that chart by double-clicking it in the SPSS Viewer, which launches the SPSS Chart Editor, as seen here:



You can use the Chart Editor to modify

- colors and fill patterns used in the chart;
- line styles
- text and placement of the chart labels
- titles and captions
- marker types (for scatterplots)
- 3-D and other visual effects

## Chart Templates

### Saving a Chart Template

Once you have the chart looking the way you want it to, you can save those formatting settings as a Chart Template, using the Chart Editor. To do this, click the **File** menu in the Chart Editor, and choose **Save Chart Template**. Name the file and save it.

## Applying a Chart Template

To apply a chart template that you've saved, double-click the chart in the SPSS Viewer to launch the Chart Editor. In the Chart Editor, click the **Format** menu and choose **Apply Chart Template**. Browse to one of the chart templates you've created (.sct files) and open it. The formatting for that template will be applied to your chart.

## Exporting Tables and Charts to Other Programs

### Exporting vs. Copying and Pasting

If you want to insert a table or chart created in SPSS in documents or presentation files, there are two basic ways to do it. The first is to copy the item from the SPSS output (.spo) file and paste it directly into the document or presentation file. The second is to export the table or chart, saving it as an independent file, which can then be inserted into the document or presentation file.

	Tables	Charts
<b>Print publication</b> (word processor or desktop publishing file)	Adjust formatting in SPSS as needed, then copy/paste into the document (recommended). - or - Export as tab-separated data, then import into the document and format as needed.	Adjust formatting in SPSS as needed, then export as an EPS, TIFF, BMP, or JPEG file. Consult the help file of the word processing or desktop publishing program to determine the best image file type (recommended).  Adjust formatting in SPSS as needed, then copy/paste into the document.
<b>Presentation</b> (PowerPoint or similar)	Adjust formatting in SPSS as needed, then copy/paste into the document (recommended). - or - Export as tab-separated data, then import into the document and format as needed.	Adjust formatting in SPSS as needed, then export as a BMP, or JPEG file. Consult the help file of the word processing or desktop publishing program to determine the best image file type (recommended).  Adjust formatting in SPSS as needed, then copy/paste into the document.
Web Page	Adjust formatting in SPSS as needed, then export as HTML; copy and paste the HTML code for the table into the Web page.	Adjust formatting in SPSS as needed, then export as a JPEG or PNG file. Use a text editor or Web authoring tool to insert the image in the Web page, then publish the page and the image file using an FTP program or Web authoring tool.

## For Print Publications

If you are reporting the results of your research in a journal article, monograph, dissertation, or other document that will be printed, you can use several methods to move tables and charts from the SPSS Output window to your new document.

### Copy and Paste

To copy the table or chart from the SPSS Output window and paste it into the new document:

1. Click the table or chart in the SPSS Output window, click the **Edit** menu and choose **Copy** or **Copy Object**.

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**Note:** If you choose **Copy** when copying a table from the SPSS Output window and then paste it into a document, the results will be **editable** (you can change the text of the table, the formatting, and so on).

If you choose **Copy Object** and then paste, the table will be pasted in as a graphic object that **cannot be edited or modified**.

Charts are always pasted as graphic objects that cannot be edited or modified.

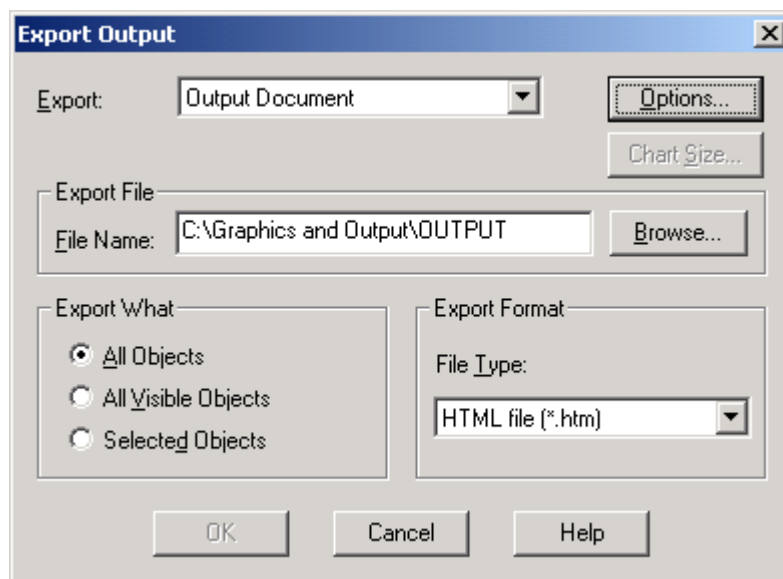
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2. Switch to the document window (such as Word or WordPerfect), click the **Edit** menu and choose **Paste**.

### Export and Import/Insert/Place

To export a table from the SPSS Output window:

1. Click the table once to select it.
2. Click the **File** menu and choose **Export**. The Export Output dialog box will appear:



3. In the **Export** drop-down box, select either “Output Document” or “Output Document (No Charts).”

4. In the **Export File** box, type in the path and file name for the exported file, or click the **Browse** button and select the folder in which you want to save the exported file.
5. Under **Export What**, choose “All Object” to export the contents of the entire output (.spo) file. Choose “All Visible Objects” to export only the contents that appear on the screen. Choose “Selected Objects” to export only the table you have selected.
6. Under **Export Format**, choose the type of file you want to create. “HTML” will create a Web page; the HTML code can also be inserted into another HTML file. “Text file” is used to create either a tab- or space-delimited text file (click the **Options** button to choose which). Choosing “XML” results in XML-formatted data that can be viewed like HTML or parsed by an XML editor.

## For the Web

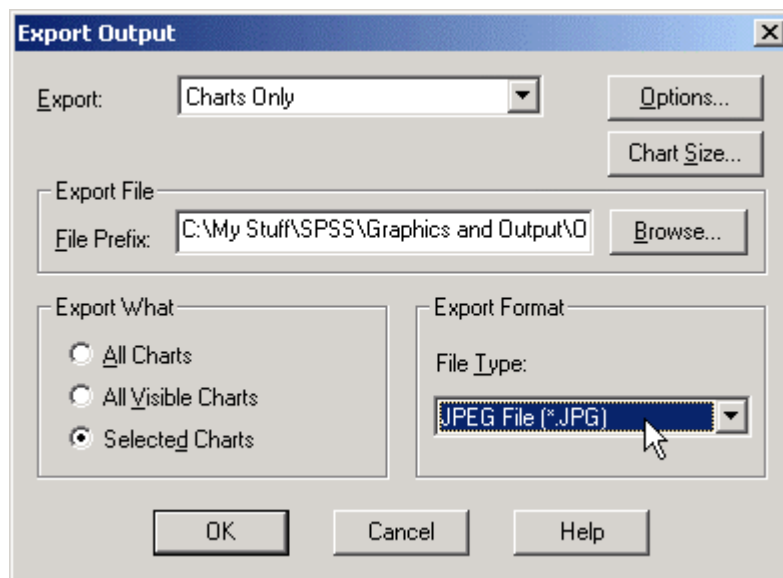
Saving output (table, charts or both) for the Web requires some working knowledge of HTML – or help from someone who has that knowledge. Unlike print documents, there is no way to copy and paste output directly into a Web document; instead, you must export the charts as Web-friendly images, and the tables as HTML code.

## Charts for the Web

When exporting charts for the Web, you will need to select an image file type that is compatible with Web browsers. In SPSS, your two choices are **JPEG** and **PNG**; the other image file types will not work on the Web. Additionally, the **PNG** file format may not work with older browsers. (Internet Explorer version 4 for PC and 5 for Mac and above, and Netscape 4.04 and above can display PNG files.)

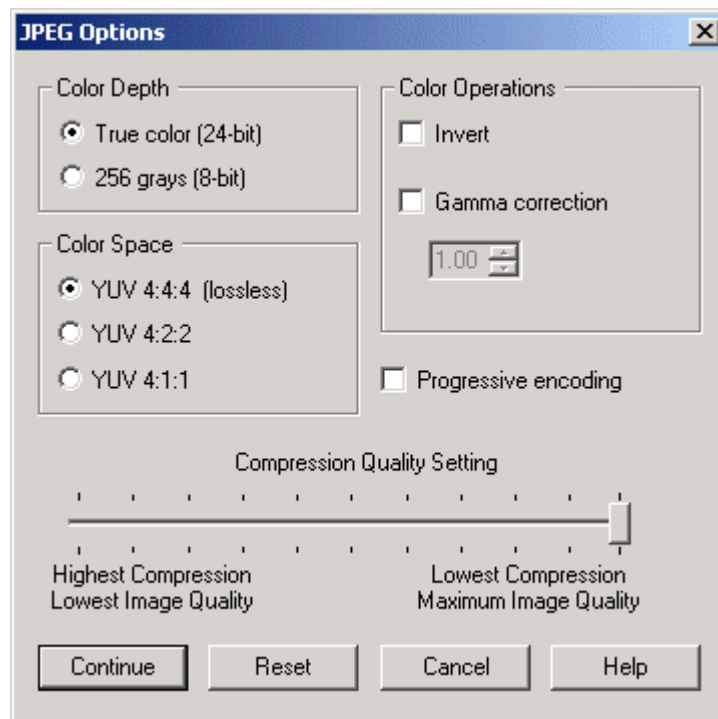
To export a single chart:

1. Click the chart once in the SPSS Viewer to select it.
2. Click the **File** menu and choose **Export**. The Export Output dialog box will appear:

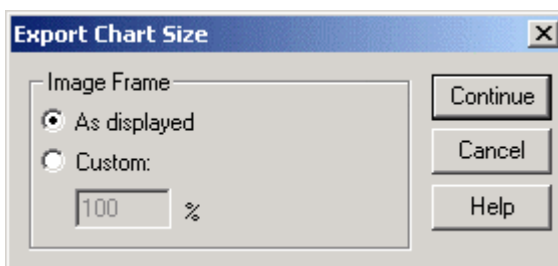


3. In the **Export** drop-down box, choose **Charts Only**.

4. In the Export File text box, browse to the folder in which you want to save the chart, and type in the file prefix you want to use (the default is “OUTPUT”).
5. Under **Export What**, choose **Selected Charts**.
6. Under **Export Format**, choose either **JPEG File** or **PNG File**.
7. To change the files size and color settings for the image, click the **Options** button. To reduce the file size of the image, you can change the Color Depth to 256 grays, choose a decreased Color Space, and/or adjust the Compression Quality Setting (a higher compression/lower image quality results in a smaller file size for the image). Click **Continue** to apply the changes.



8. In the Export Output dialog box, click the **Chart Size** button to make the exported image bigger or smaller than the original. Click **Custom** and type in the percentage value (can be less than or greater than 100% of the original chart size). Click **Continue** to apply the change.



9. In the Export Output dialog box, click **OK** to export the image.

## Tables for the Web

When you export tables for the Web, the result is a plain text file containing HTML code. This code can be copied and pasted into another Web page, or published as an independent Web page.

To export a table for the Web:

1. Click the table you want to export, then click the **File** menu and choose **Export**.
2. In the **Export** drop-down box, choose **Output Document** or **Output Document (No Charts)**.
3. In the **Export File** text box, browse to the folder in which you want to save the table, and type in the file prefix you want to use (the default is "OUTPUT").
4. Under **Export What**, choose **Selected Objects**.
5. Under **Export Format**, choose **HTML**.
6. Click **OK** to export the table.

Once you've exported the table as HTML, you can view the file in a Web browser, edit or copy the HTML code in a Web authoring tool (such as Dreamweaver) or a text editor (such as Notepad), and paste the code into another Web page file.

## For More Information

Here are some additional sources of information about graphics and tables in SPSS:

### *Print*

- *SPSS Base 11 User's Guide* and *SPSS 11 Interactive Graphics User's Guide* (bundled)
- *SPSS 11 for Windows Brief Guide* (contains basic tutorials)
- Field, Andy. *Discovering Statistics Using SPSS for Windows: Advanced Techniques for the Beginners*. London: Ism, 2000.

### *Online*

- **SPSS Tutorial** (included with SPSS); to launch the tutorial, start SPSS, click the **Help** menu, then click **Tutorial**.
- **SPSS Technical Support** (<http://www.spss.com/tech/>). Contains links to AnswerNet (below); SPSS patches, macros, and utilities; and email lists/newsgroups dedicated to SPSS and statistical analysis.
- **SPSS AnswerNet** (<http://www.spss.com/tech/answer/>). Allows the user to search the SPSS technical support database for answers to common questions and solutions to common problems.

## Getting Additional Help

Academic Computing Services provides consulting and Q&A help in a variety of ways:

785/864-0200

[question@ku.edu](mailto:question@ku.edu)

[www.ku.edu/acs/help](http://www.ku.edu/acs/help)

To evaluate this course online, please visit [www.ku.edu/acs/training/evaluation](http://www.ku.edu/acs/training/evaluation)

*Last Update: 07/22/2002*