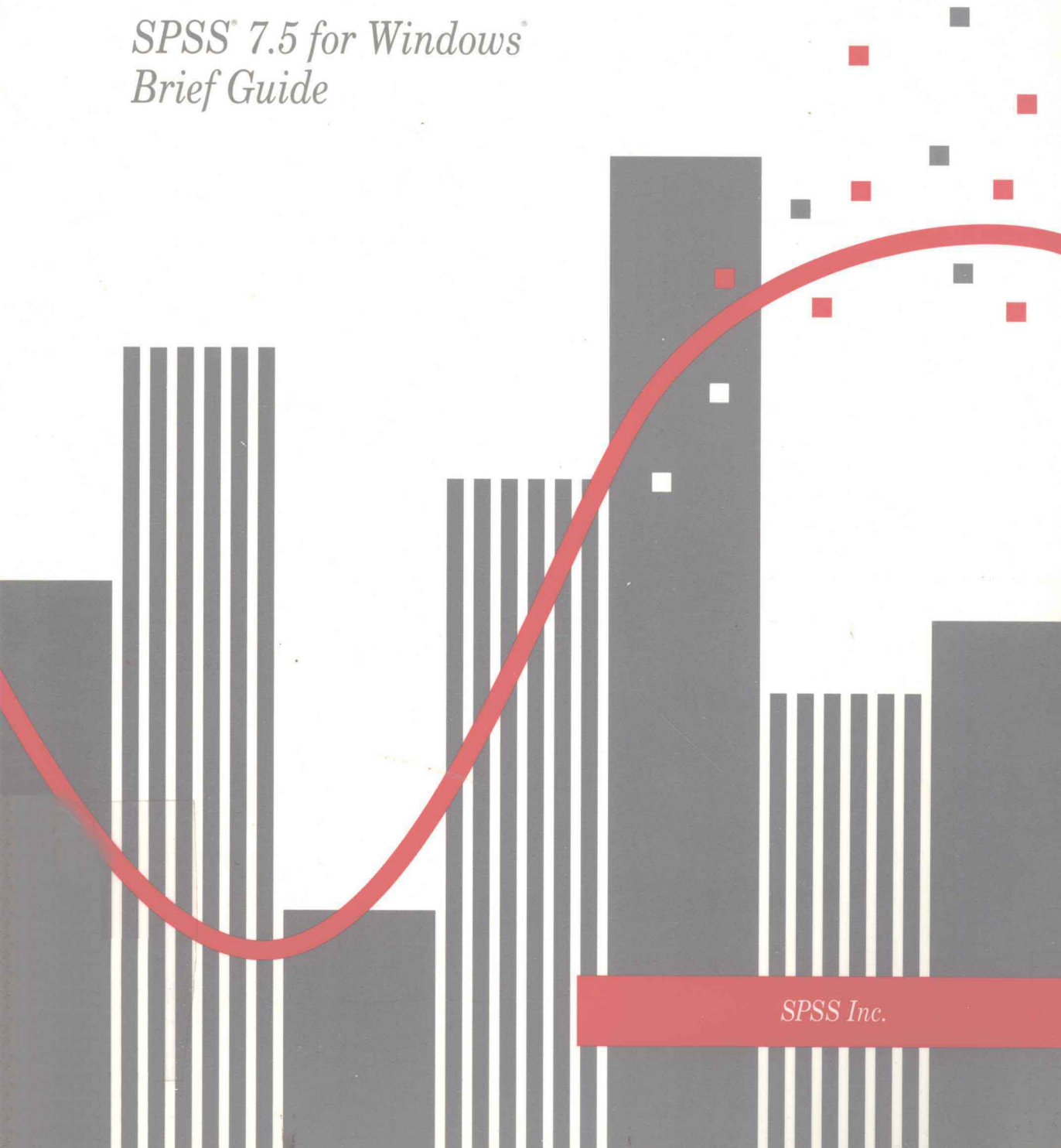


SPSS

*SPSS® 7.5 for Windows®
Brief Guide*



SPSS Inc.



SPSS® 7.5 for Windows® Brief Guide

SPSS Inc.

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Simon & Schuster / A Viacom Company
Upper Saddle River, New Jersey

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Printed in the United States of America.

1 2 3 4 5 6 7 8 9 0 03 02 01 00 99 98 97

ISBN 0-13-656885-8

Preface

SPSS for Windows

SPSS 7.5 is a comprehensive system for analyzing data. SPSS can take data from almost any type of file and use them to generate tabulated reports, charts and plots of distributions and trends, descriptive statistics, and complex statistical analyses.

SPSS makes statistical analysis more accessible for the beginner and more convenient for the experienced user. Simple menus and dialog box selections make it possible to perform complex analyses without typing a single line of command syntax. The Data Editor offers a simple and efficient spreadsheet-like facility for entering data and browsing the working data file. High-resolution, presentation-quality charts and plots are included as part of the Base and Student Version systems.

The *SPSS 7.5 for Windows Brief Guide* provides a set of tutorials designed to acquaint you with the various components of the SPSS system. You can work through the tutorials in sequence or turn to the topics for which you need additional information. You can use this book as a supplement to the online tutorial that is included with the SPSS 7.5 system or ignore the online tutorial and start with the tutorials found here.

Internet Resources

The SPSS home page on the World Wide Web offers answers to frequently asked questions about installing and running SPSS software, access to the SPSS newsletter *Keywords*, data files, and other useful information. The URL (address) for the SPSS home page is <http://www.spss.com>.

In addition, the SPSS USENET discussion group (not sponsored by SPSS) is open to anyone interested in SPSS products. The USENET address is comp.soft-sys.stat.spss. It deals with computer, statistical, and other operational issues related to SPSS software.

You can also subscribe to an E-mail message list that is gatewayed to the USENET group. To subscribe, send an E-mail message to listserv@uga.cc.uga.edu. The text of the E-mail message should be: subscribe SPSSX-L firstname lastname. You can then post messages to the list by sending an E-mail message to SPSSX-L@uga.cc.uga.edu.

Sample Data

The data used for all but one example in this book are from a file named *Employee data.sav*. This file is included with SPSS 7.5 for Windows and the Student Version. The time series example uses a file named *Inventor.sav*. This file is included only with the Student Version.

These files are also available through the following methods:

SPSS WWW site. You can download the files from the SPSS home page at <http://www.spss.com/Support>. Look for the link to Datasets under Ftp Archives.

Anonymous FTP. The files are also available via anonymous FTP at <ftp.spss.com>. The location is `|pub\spss\sample\datasets` and the filename is `75brief.exe`.

Additional Publications

The *SPSS 7.5 Guide to Data Analysis* introduces the concepts of data analysis, from collecting and coding data to interpreting the results of statistical analyses. The guide is appropriate for students and professionals, and includes instructions for operating SPSS 7.5 for Windows and the Student Version.

For additional information about the features and operations of SPSS Base 7.5, you can consult the *SPSS Base 7.5 for Windows User's Guide*. A companion guide, *SPSS Base 7.5 Applications Guide*, provides examples of statistical procedures found in SPSS Base 7.5.

In addition, beneath the menus and dialog boxes, SPSS uses a command language. Some extended features of the system can be accessed only via command syntax. (Those features are not available in the Student Version.) Complete command syntax is documented in the *SPSS Base 7.5 Syntax Reference Guide*.

The complete title and ISBN for each of these publications are listed below:

- *SPSS 7.5 Guide to Data Analysis* ISBN 0-13-656877-7
- *SPSS Base 7.5 for Windows User's Guide* ISBN 0-13-657214-6
- *SPSS Base 7.5 Applications Guide* ISBN 0-13-656992-7
- *SPSS Base 7.5 Syntax Reference Guide* ISBN 0-13-656943-9

Individuals in the United States can order these manuals by calling Prentice Hall at 1-800-947-7700. If you represent a bookstore or have a Prentice Hall account, call 1-800-382-3419. In Canada, call 1-800-567-3800. Outside of North America, contact your local Prentice Hall office.

Individuals worldwide can also order manuals directly from the SPSS WWW site at <http://www.spss.com/Pubs>. For telephone orders in the United States and Canada, call SPSS Inc. at 1-800-253-2565. For telephone orders outside of North America, contact your local SPSS office, listed on p. ix.

SPSS Options

The following options are available as add-on enhancements to the full (not Student Version) SPSS Base system:

SPSS Professional Statistics™ provides more advanced regression techniques, including weighted and two-stage least-squares, logistic regression, and nonlinear regression, plus multidimensional scaling and reliability analysis.

SPSS Advanced Statistics™ includes sophisticated techniques such as general linear models, variance component analysis, loglinear and probit analysis, Cox regression, and Kaplan-Meier and actuarial survival analysis.

SPSS Exact Tests™ calculates exact p values for statistical tests when small or very unevenly distributed samples could make the usual tests inaccurate.

SPSS Tables™ creates a variety of presentation-quality tabular reports, including complex stub-and-banner tables and displays of multiple response data.

SPSS Trends™ performs comprehensive forecasting and time series analyses with multiple curve-fitting models, smoothing models, and methods for estimating autoregressive functions.

SPSS Categories® performs conjoint analysis and optimal scaling procedures, including correspondence analysis.

SPSS CHAID™ simplifies tabular analysis of categorical data, develops predictive models, screens out extraneous predictor variables, and produces easy-to-read tree diagrams that segment a population into subgroups that share similar characteristics.

AMOS performs powerful structural equation modeling and confirmatory factor analysis through an easy-to-use interface.

Neural Connection™ provides state-of-the-art neural network power and flexibility for prediction, classification, time series analysis, and data segmentation.

MapInfo® creates thematic maps for data visualization. Choose geographic regions from country to street level or create your own boundary files.

aIICLEAR™ III is a full-featured flowchart program. Create diagrams for causes and effects, process flow, network and deployment; build decision trees, organizational charts, and procedural charts.

Training Seminars

SPSS Inc. provides both public and onsite training seminars for SPSS. All seminars feature hands-on workshops. SPSS seminars will be offered in major U.S. and European cities on a regular basis. For more information on these seminars, call your local office, listed on p. ix.

Technical Support

The services of SPSS Technical Support are available to registered customers of SPSS. (Student Version customers should read the special section on technical support on p. vii.) Customers may contact Technical Support for assistance in using SPSS products or for installation help for one of the supported hardware environments. To reach Technical Support, see the SPSS home page on the World Wide Web at <http://www.spss.com>, or call your local office, listed on p. ix. Be prepared to identify yourself, your organization, and the serial number of your system.

Tell Us Your Thoughts

Your comments are important. Please send us a letter and let us know about your experiences with SPSS products. We especially like to hear about new and interesting applications using the SPSS system. Write to SPSS Inc. Marketing Department, Attn: Director of Product Planning, 444 N. Michigan Avenue, Chicago IL, 60611.

SPSS for Windows Student Version

Capability

SPSS 7.5 for Windows Student Version is a limited but still powerful version of SPSS for Windows. The Student Version contains all of the important data analysis tools contained in the full SPSS Base system, including:

- Spreadsheet-like Data Editor for entering, modifying, and viewing data files.
- Statistical procedures including *t* tests, analysis of variance, crosstabulations, and multiple regression.
- High-resolution graphics for an extensive array of analytical and presentation charts and tables.

Limitations

Created for classroom instruction, the use of the Student Version is limited to students and instructors for educational purposes only. The Student Version does not contain all of the functions of SPSS 7.5 for Windows. The following limitations apply to SPSS 7.5 for Windows Student Version:

- Data files cannot contain more than 50 variables.
- Data files cannot contain more than 1500 cases.
- SPSS add-on modules (such as Professional or Advanced Statistics) cannot be used with the Student Version.
- SPSS command syntax is not available to the user. This means that it is not possible to repeat an analysis by saving a series of commands in a syntax or “job” file, as can be done in the full version of SPSS.
- Scripting and automation are not available to the user. This means that you cannot create scripts that automate tasks that you repeat often, as can be done in the full version of SPSS.

Customer Service

To report any damaged or missing components of your SPSS 7.5 for Windows Student Version, call Prentice Hall Customer Service at 1-800-922-0579 (1-800-567-3800 in Canada). Outside of the United States, contact your local Prentice Hall representative.

Technical Support for Students

Students should obtain technical support from their instructors or from local support staff identified by their instructors. Technical support from SPSS for SPSS 7.5 for Windows Student Version is provided *only to instructors using the system for classroom instruction*.

Before seeking assistance from your instructor, please write down the information described below. Without this information, your instructor may be unable to assist you:

- The type of PC you are using, as well as the amount of RAM and free disk space you have.
- The operating system of your PC.
- A clear description of what happened and what you were doing when the problem occurred. If possible, please try to reproduce the problem with one of the sample data files provided with the program.
- The exact wording of any error or warning messages that appeared on your screen.
- How you tried to solve the problem on your own.

Technical Support for Instructors

Instructors using the Student Version for classroom instruction may contact SPSS Technical Support for assistance. In the United States and Canada, call SPSS Technical Support at 1-312-329-3410, or send an E-mail to *support@spss.com*. Please include your name, title, and academic institution.

Instructors outside of the United States and Canada should contact your local SPSS office through the SPSS home page at *<http://www.spss.com>*, or call your local office, listed on p. ix.

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If you would like to be on our mailing list, contact one of our offices below. We will send you a copy of our newsletter and let you know about SPSS Inc. activities in your area.

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1

A Quick Tour

This tour provides a quick preview of SPSS for Windows. More detailed information is available in later chapters and in the online Help system. The following techniques are briefly demonstrated:

- Starting and exiting from SPSS
- Opening a data file in the SPSS Data Editor
- Using the SPSS Statistics menu to obtain a frequency table and bar chart
- Viewing output
- Getting information from online Help and the online tutorial

This session will use the mouse. If you need information about using Windows or the mouse, see your Windows documentation.

The Online Tutorial

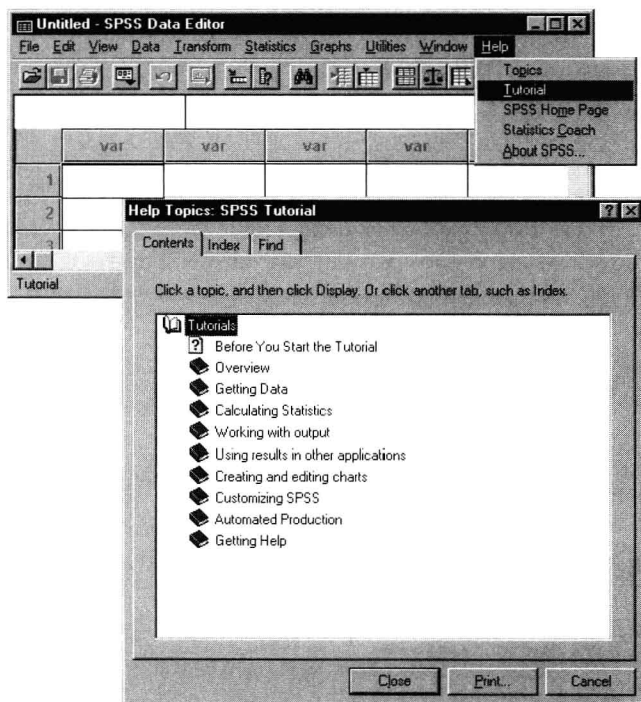
The SPSS online tutorial, which is part of the SPSS Help that is installed with the SPSS for Windows software, provides an overview of SPSS. While the online tutorial lacks the “hands-on” approach of the tutorials in this manual, it provides a more complete introduction to a number of SPSS features, such as the toolbar. (Other topics, such as data transformations, are covered more extensively in the manual.)

The tutorial can be accessed from any SPSS window. (See “Getting Started” on p. 2 for details on starting SPSS.) To start the tutorial, choose Tutorial from

the Help menu in any SPSS window. This opens the Contents tab, as shown in Figure 1.1.

Figure 1.1 Help Topics: online Tutorial

If SPSS is already running, you can run the tutorial by choosing Tutorial from the Help menu.



The Contents tab is organized by topic, like a table of contents. Double-click on items with a book icon to expand or collapse the contents. Double-click on an item to go to that help topic.

Getting Started

To start an SPSS session:

- ① Choose SPSS 7.5 for Windows or SPSS 7.5 for Windows Student Version from the Programs submenu on the Windows Start menu.