

# ***STATISTICA*: Demonstration Program**

Welcome to the *STATISTICA* version 5.5 Demonstration Program. This Demonstration Program is not a self-running demo; it is a program with many features of the *Basic Statistics* module of *STATISTICA* and it allows you to run your own analyses and produce customized graphs. Note that this *Demonstration Program* came with several example data files (located in the *EXAMPLES* subdirectory inside the *Demonstration Program* directory) on which you can perform various analyses and create different kinds of graphs.

To run a 'Guided Tour' (requires a sound card) select the respective option from the *Help* menu.

## **QUICK REFERENCE**

**ELECTRONIC MANUAL:** Press *F1* at any point in the program to access the comprehensive *Electronic Manual*.

## **EXAMPLE: CORRELATIONS**

After starting the program, the last-used data file is automatically opened (when you start the Demo program for the first time, the data file *ADSTUDY.STA* will open). Select *Correlation Matrices* from the start up panel (the same selections are available from the pull-down menu *Analysis*). The *Correlation* dialog will appear. Press the first button (*One variable list (square...)*) to choose the variables for the correlation matrix; for example, highlight 10 variables in the list: *MEASUR1* through *MEASUR10* and click *OK*. Then, click *OK* to see the default output: a Scrollsheet showing the correlation matrix.

The numbers in the correlation matrix represent relations between the variables; the higher the absolute value of a correlation coefficient, the stronger the relation between the two respective variables.

To see graphs related to a particular correlation coefficient, point to that coefficient with the right-mouse button. A flying menu will pop-up. Select the first option in the menu: *Quick Stats Graphs*, and then, from the list of quick graphs, select the first one: a *Scatterplot*. The graph will appear on the screen.

Now you can explore the other quick graphs which visualize the variables from the correlation matrix. You can also return to the previous dialog to review other options (press the *Continue* button on the correlation matrix Scrollsheet or the floating *Cont* button near the bottom of the *STATISTICA* window).

For a comprehensive selection of graphs, try the pull-down menu *Graphs* or the toolbar button *Graphs Gallery*.

## **TOOLS**

**"Flying menus."** Point to any object on the screen and press the right-mouse-button to bring up a context-sensitive "flying menu" of options related to the object. Try it for a

spreadsheet cell -- the options will include a selection of relevant graphs, formats, recoding, etc. In graphs, the "flying menu" options allow you to quickly customize the selected object (e.g., a scale, title).

**Toolbars.** The most common tools are accessible from the toolbars. The toolbars change when you switch between output windows (e.g., graphs have different toolbars than spreadsheets). To review the short toolbar-button descriptions on the status bar (at the bottom of the window), keep the selected toolbar button pressed; then, release the mouse outside the toolbar to release the toolbar button without invoking its function.

## DATA

**Data files.** *STATISTICA* data files are organized into *cases* (rows in the spreadsheet) and *variables* (columns in the spreadsheet). *Cases* are like records in data base management files and they consist of a number of variables (e.g., each case may represent one patient in a medical study). *Variables* (columns) are like fields in data base management files (e.g., each variable may represent one type of measurement, such as the cholesterol level, blood pressure, etc.).

**Variables.** To review or edit the specifications of a variable, double-click on the respective column name in the spreadsheet.

**Text values; value labels.** In *STATISTICA*, all values can simultaneously have numeric and text identities (e.g., 1=*MALE*, 2=*FEMALE*). Switch between displaying the two by pressing the spreadsheet toolbar *ABC* button. All values can also have long labels; to review/edit the labels for the highlighted variable, press the toolbar *ABC/123* button.

**Subsets of cases.** To specify a subset of cases to be included in (or excluded from) an analysis, double-click on the clickable *Sel: OFF* field on the status bar (at the bottom of the *STATISTICA* window).

## FLOW OF INTERACTIVE ANALYSES

**Self-prompting dialogs.** To perform an analysis, select it from the startup panel (or the pull-down menu *Analysis* or *Graphs*). If you are not sure what to select in a dialog, press *OK*; then, if necessary, *STATISTICA* will request that you make additional selections.

**Queues of Scrollsheets and graphs.** The Scrollsheets (output tables with built-in customization and data visualization facilities) and graphs are displayed in queues of windows of a fixed length (by default, 3 windows in each queue) and they are closed on a first-in-first-out basis. You can customize this system using the pull-down *Options* or *Window* menus.

**Text and graphics reports.** In addition to the printer and disk file output, the content of all Scrollsheets and graphs can be directed to a report window; double-click on the *Output: OFF* field on the status bar (at the bottom of the window) to review some of the relevant options.

## CUSTOMIZATION OF THE USER-INTERFACE

*STATISTICA* supports a selection of user-interfaces (various interactive interfaces, internal macros, command languages, macros written in other applications which support *DDE*). Practically all aspects of the user-interfaces are customizable. For example, to review some of the output reporting options, double-click on the *Output: OFF* field on the status bar (at the bottom of the window) or use the pull-down menu *Options*.

## GRAPHS

**Types of graphs.** Many specialized graphs are part of the output from respective analyses and they are automatically generated or are available from the respective *Results* dialogs and/or *Scrollsheets*. The "general purpose" graphs are available from the pull-down menu *Graphs* or the *Graphs Gallery* (accessible by pressing a toolbar button). In that menu:

The *Stats Graphs* options offer hundreds of types of pre-defined statistical graphs produced from raw data;

The *Quick Stats Graphs* (also accessible from "flying menus" and all toolbars) offer a selection of the most often-used types of *Stats Graphs*; they are "quick" in the sense that they do not require going through any intermediate dialogs; they do not even require selecting variables because the variables indicated by the highlight position in the current spreadsheet or *Scrollsheet* are automatically used;

The *Custom Graphs* options (also accessible from "flying menus" and all toolbars) allow you to convert any combination of numbers from rows and/or columns (and their subsets) in the current spreadsheet or *Scrollsheet* into graphs;

The *User-Defined Graphs* offer types of graphs which were not available as pre-defined graphs but were "constructed by the user" and added to the menu or floating toolbars for repeated use;

The *Blank Graphs* create "empty" graph windows where other graphs (and/or drawings, diagrams, and other artwork) can be pasted or linked/embedded; the same effect can be achieved by starting with an existing graph and extending its margins to make room for other objects.

**Customization of graph layout.** The "flying menu" of *global* graph customization options can be popped up by pressing the right-mouse-button anywhere on the "empty" outside background of the graph. The most commonly-used global customization options are included in the *General Layout* dialog accessible from that menu (see the first option of the menu) or by double-clicking anywhere on the "empty" outside background of the graph.

**Customization of graphic objects.** The "flying menu" with customization options applicable to a graph object (e.g., scale, title, gridlines, markers) can be quickly accessed by pressing the right-mouse-button on the object, e.g., on a graph scale. The most commonly-used customization dialog for an object (e.g., for a marker -- the *Patterns, colors, and sizes* dialog) can be accessed by double-clicking on the object.

**Drawing, zooming, etc.** If you press one of the toolbar buttons to enter a graph

drawing, zooming, inserting, resizing, etc. mode, press the wide arrow button on the graph toolbar (or press the *Esc* key) to return to the default pointing mode. To edit an existing custom-drawn object (e.g., a freehand line or rectangle), click on it with the mouse -- then, you can resize it (by dragging the black resizing squares), or change its color, pattern, etc. (by using the respective toolbar buttons). Freehand lines support the "second-level" *line shape editing* mode: the editing squares will appear in every point where the line changes its direction -- you can now drag any one of them with the mouse to modify the local shape of the drawing (to edit fine details, zoom on the object with the toolbar magnifying glass (zoom +) tool).

## **ORDERING INFORMATION**

Thank you for trying *STATISTICA*. To order or to get more information, you can contact StatSoft USA:

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or a local StatSoft sales office (or an authorized representative); please refer to the enclosed brochures for details.