TexaSoft's
USING WINKS
Reference Guide, Condensed Disk Version

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On the WINKS disk is a file named LATENEWS.TXT, which contains information about the program that is not in the manual.

An Overview of WINKS

WINKS is a statistical data analysis program. It is the Windows version of the DOS KWIKSTAT program and was designed by professional statistical consultants and researchers to allow you to quickly and easily use the most commonly needed statistical data analysis procedures and graphs.

Managers and researchers must make decisions. Data analysis is a tool that allows you to make informed decisions. Today's business graduates, scientists and researchers have been trained in the use of data analysis. However, the mainframe statistics programs they used in college are often not available on the job, or are difficult to use and understand. These programs often require programming expertise to use and a statistical expert to interpret. WINKS was created to provide access to data analysis in an easy to understand Windows format. It was designed with the decision-maker and researcher in mind.

Why Use WINKS?

The designers of WINKS are interested in helping the user:

1. select the appropriate data analysis procedure to use,

2. enter data or use data already in popular formats such as dBASE, 1-2-3 or ASCII,

3. provide a complete analysis in one pass so the user does not have to run multiple programs to perform a single analysis, and

4. provide interpretation of the results to assist the user in making decisions based on the outcome of the analysis.

These objectives have been addressed by the program and supporting documentation:

1. WINKS provides a Help procedure that guides you to the most appropriate analysis for your data. The manual provides a decision tree to help guide you to an appropriate analysis procedure.

2. WINKS provides an easy to use data entry system as well as the ability to automatically read and write industry standard DBF (dBASE III and IV) files. In addition, WINKS can also import data directly from 1-2-3 and ASCII files, and paste data directly into the WINKS data editor from any Windows spreadsheet program.

3. WINKS is designed to anticipate your analysis needs and lead you to a conclusion, unlike many statistical programs that make you run each part of an analysis separately. For example, in the case of Analysis of Variance procedures, multiple comparisons are automatically performed to show you where specific pair-wise differences lie.

4. WINKS provides interpretation of analysis both on screen and in the printout. Interpretations may be in the form of warnings when common assumptions are not met and in suggestions about how a particular outcome could be interpreted. For most tests, an explicit hypothesis is stated to help you understand the exact intention of the analysis.

The following sections contain an overview of how to use the WINKS manual and program.

Installation

Place the WINKS distribution disk (disk 1 if there is more than 1 disk) in the A: (or B:) drive. From the Windows *File* menu choose "Run " (or choose "Run" from the *Start* menu in Windows 95) Enter or select the command

A:\SETUP.EXE   or (B:\SETUP.EXE)

Follow the installation instructions on the screen. When you begin WINKS for the first time, a dialog box will appear allowing you to choose some program options. Select options you want to change, or leave the default options in place and choose Ok. You can change these options at any time by choosing "Change Setup Options" from the *Help* menu.

WINKS Compatibility with KWIKSTAT

WINKS data files are compatible with all versions of KWIKSTAT. If a file is created in WINKS, it can be used in KWIKSTAT, and vice versa. The only difference is that formulas entered in the WINKS data editor will not be used in the KWIKSTAT data editor.

Definitions

The following definitions discuss some of the terms that will be used in this chapter and throughout the manual.

DATABASE - a collection of data records defined by common fields or information (such as survey results). A record (row) represents one complete entry in a database file. The field (or columns) represent individual elements (or variables) within a record (such as AGE, HEIGHT, etc.). WINKS uses the .dbf dBASE file structure for defining computer

database files.

FIELD - a unique element (or variable) of a database record. A field may contain information that is numeric, character, date or logical. A field or variable is the name given a set of values or character descriptions (such as a grouping label for an ANOVA analysis.)

GROUP - a specific field intended to be used to classify data within the database (such as gender.) For example, a group field could be SEX, and contain the information F or M. If the SEX grouping field in the record contained an F, the data would be about a female. If the SEX grouping field contained an M, the data would be about a male.

LABEL - a database field containing information that will be used as labels on a plot.

STATISTICS - calculated values that summarize a collection of numbers. For example, the arithmetic average (also called a mean) is a statistic.

VARIABLE - same as Field. See Field above.

Using the WINKS Menus

WINKS menus are similar to any Windows program, and are similar to the KWIKSTAT menu. In the documentation main menu items are shown in italics, such as File. Options on main menus appear in quotes, such as "New Database" Here is a brief description of each menu:

Using the File Menu

Before you can create a graph or calculate statistics, you must create a database and enter data. The options on the File menu are:

o New Database - You must usually create a new database and enter data before doing an analysis or creating a graph. The program creates and reads dBase (.DBF) type file format databases.

o Open Database - Open an existing database. A database must be opened so the program will know where the data is located.

o Delete Database - Deletes a database file from your disk.

o Utilities - Imports information, creates reports, sorts database or outputs data.

o Journal - Allows you to print, clear or edit the current contents of your Journal file.

o Printer Setup - Allows you to choose which printer to use.

o Exit - Ends the program.

Using the Edit Menu

The Edit menu contains options that allow you to enter new data into a database, or edit data currently in a database.

Using the Analyze Menu

The WINKS Analyze menu allows you to choose which analysis module to run. The menu items on the Analyze menu are:

o Descriptive Statistics

o Graphs/Charts

o t-tests and ANOVA

o Non-parametric Comparisons

o Regression & Correlation

o Crosstabs, Frequencies, Chi Square

o Life Tables, Survival Analysis

o Advanced ANOVA (Professional edition)

o Advanced Regression (Professional edition)

o Multiple Comparisons (Professional edition)

o Time Series Analysis (Professional edition)

o Quality Control Charts (Professional edition)

o Pareto Charts (Professional edition)

Using the Windows Menu

The Windows menu is used to select which menu will be displayed, when more than one

menu is defined. An example of displaying two windows side by side is given in the tutorial in this chapter.

Using the Help Menu

The WINKS Help system contains items to help you operate the program. These include:

o Help Contents - Contains general program help information.

o Print order form - Prints order form for WINKS.

o View/Print Docs -View or print supplemental documentation

o Change Setup Options - Default directory, hints, etc.

o About WINKS - Program copyright information

TUTORIALS

These short tutorials will give you a feeling for how to use WINKS. They is not intended to be thorough, but simply to lead you through some common procedures. Begin WINKS by double clicking on the WINKS icon in Windows. The initial WINKS screen appears. Notice the parts of the WINKS screen.

At the top are the menu options (the menu bar), File, Edit, Analyze, Window, and Help. Below the menu bar is an icon tool bar (unless you turned it off in the program options setup.) These icons are shortcuts to commonly used procedures. Make note of the "Repeat" icon (shows several repeating pages) and the "Journal" Icon (notebook and pencil.) The "Repeat" icon allows you to repeat the last procedure you performed. The "Journal" option allows you to collect your analysis output from any WINKS procedure into a single file that you can use later to print or import into your word processor. Menu bar icons are:

ICON MENU ITEMS ON THE ICON BAR

o File Cabinet Icon - Open a file

o Spreadsheet Icon - Edit data

o Xbar Icon - Calculate statistics and display a histogram

o Scatterplot Icon - Display a scatterplot graph

o Charts Icon - Displays the First Impression Chart Gallery

o Repeat Procedure Icon - Repeat the last procedure

o Report Icon - Display or print a simple data report

o Journal Icon - display the contents of the journal.

o Help Icon - Display Help

o Exit Icon - Exit the program

EXAMPLE 1 - Descriptive Statistics

This example shows you how to open an existing database, display descriptive statistics on a single variable, and display a histogram. Follow these steps:

Step 1: The Detailed Statistics analysis is represented on the icon tool bar by the (X-bar) icon. Click on the X-bar icon. A dialog box will appear asking you if you want to CReate a database, Open a database, or Cancel the analysis. Click on the Open a database button. (You could also choose File/Open or click on the file cabinet icon to open a database file). The Open dialog box will appear. Select the file named EXAMPLE.DBF. (You may have to scroll the file list to see the EXAMPLE.DBF file name. Either double click on EXAMPLE.DBF, or click on example, then click on OK.) Notice at the bottom of the screen, a message tells you that the EXAMPLE.DBF database is opened.

Step 2: Once you have opened the EXAMPLE.DBF database, a dialog box will appear where you can choose a field name. Click on AGE, then on OK.

Step 3: - After a few seconds, a screen appears containing descriptive statistics from the data in the AGE field. Scroll this window to view information off the screen. The viewer that contains the text output for an analysis is called the "View Results" window. Later, we'll also see a "Graphics Viewer". The View Results Window (or "Viewer" for short) will appear following calculations for most analyses, allowing you to see the textual results of your analysis. You should become familiar with the options on this viewer. View Results Window MENU OPTIONS:

Exit - Exit the window. NOTE: This is different than the EXIT Arrow. The Exit button closes the View Results Window only. The Exit Arrow exits the program.

Print - Prints the contents of the View Results Window to a printer.

Clipbd - Places the contents of the viewer into the Windows clipboard, so you can paste it into another application such as a word processor.

Save - Save the contents of the View Results Window to a file.

Journal - Copy the contents of the Viewer into the Journal.

Graph - Display a graph appropriate to this analysis.

Step 4: Click the "Graph" button to display the histogram associated with this data. A screen will appear showing a histogram of the AGE data. Click on the "Bell" button to add a bell curve (normal curve) to the graph. The menu options on the Graph viewer are:

GRAPHICS VIEWER MENU OPTIONS

Exit - Exit the graph window. Note: Notice the difference between the EXIT Button in the Graph Viewer and the EXIT Arrow, which is the program exit.

Print - Print the graph to the printer.

Clipbd - Capture the graph into the Windows Clipboard, so you can paste it into another application such as a word processor.

Save - Save the graphic as a .BMP file.

+ (plus) or -(minus) - Change the size of the class interval for the histogram. This usually changes the number of bars on the plot.

Bell - Displays a bell-shaped curve over your data.

Counts - Displays counts for each bar on the histogram.

Distribution - Cycles through three options: No distribution displayed, Cumulative Distribution, and Cumulative Normal Distribution Displayed.

Title - Allows you to specify a title for the graph.
Step 5: From the Window menu at the top of the screen, select the "Tile" option. This causes the two output windows (text and graphic) to be displayed side by side. Notice that the graph is resized to fit into the smaller window. The View Results Window, also resized, contains both vertical and horizontal scroll bars, allowing you to view any part of the output report. You can still choose the button options in either the graph or report viewer. You can exit either viewer by clicking on the "Exit" option in the viewer window. When you begin another analysis, the contents of the current viewers are erased to make room for the information from the new analysis.

Step 6: This ends the first example.

EXAMPLE 2 - Creating a Database

This example shows you how to create a database, then use the information in the database to perform an analysis and display a graph.

Suppose you are testing the effectiveness of four kinds of hog feed. You randomly assign 15 hogs to 4 groups and feed each group one of the feeds. You want to use a one-way analysis of variance (independent group) to analyze this data. This example shows how you would create an appropriate database, enter the data, and perform the analysis.

Step 1: From the File menu, choose "New Database." You are asked to enter the name for your new database. Enter HOG (Or any DOS compatible filename.) Choose OK. (Note:This database is the same as the HOGDATA.DBF file on your disk.)

Step 2: - A dialog box will appear listing database types. Click on the down arrow at the right of the text field to display the options.

To create a database for this analysis, choose the option "Independent Group t-test or ANOVA" from the list and choose OK.

Step 3: An empty spreadsheet will appear containing the two fields: GROUP and OBS. The GROUP field will contain a code for feed type. For this example we'll use 1,2,3, and 4. The OBS field will contain the variable you observed. In this case it is weight gain. Enter the following data into the spreadsheet. Enter one row at a time. When you enter a complete row, and press Enter on the OBS field cell, a new row will be added to the spreadsheet.

The HOG database values are:

GROUP	OBS (WEIGHT)
1	60.8
1	67.0
1	54.6
1	61.7
2	78.7
2	77.7
2	76.3
2	79.8
3	92.6
3	84.1
3	90.5
4	86.9
4	82.2

4	83.7
4	90.3

Step 4: When you have finished entering the data, select the "Exit Edit" option from the File menu. You will be asked if you want to save the data before exiting. Answer "Yes."

Step 5: Click on the Analyze menu and select the "test and ANOVA" option. A sub menu will appear. From the sub-menu, choose the "Independent Group (t-test/ANOVA) option.

Step 6: Choose what fields to use. A dialog box appears allowing you to select which fields to use for this analysis. Select the GROUP field, and click on the GROUP button. Then select the OBS field and click on the ADD button. Click OK to continue.

Step 7: After a few moments of calculation, the View Results Window will appear containing the output information for this analysis. See Example 1 for more information on the View Results Window. Use the scroll bars to view output analysis text that is off-screen. Print the output by clicking on the "Print" button.

Note: If you only want to print or save a portion of the output, first highlight the text by clicking and holding the mouse button, and dragging the mouse to highlight the area, then choose "Print" or "Save."

Step 8: Click on the "Graph" button on the View Results Window to view the graph associated with this analysis. The default graph, shows a box and whiskers plot comparison.

Step 9: From the group comparison plot, you can select from among a variety of display options. Click on the "Options" button to display the options menu for the graph.

Step 10: For this example, check the following options (and uncheck all other options) on Graph Options dialog box:

o Display Means
o Error Bar (+/- St. Error of the Mean)
o Connect Means
o Bar Graph of Means

The graph will be displayed. Print the graph by clicking on the "Print" button.

Step 11: This ends the examples. Exit WINKS by clicking on the Exit Arrow on the WINKS icon bar or by choosing Exit from the File menu.

More Examples in Help

For more examples of how to use WINKS, refer to the Help Contents in WINKS.

Please Register

This is an unregistered copy of WINKS. For continued use, you must purchase a licensed copy. Print the file WORDER.TXT on disk, or from the Help menu, select "Supplemental Documents" and print the order form from that menu.

Or, call TexaSoft at 800-955-TEXAS or 214-291-2115 or Fax:214-291-3400. Our e-mail address is 70721.3145@compuserve.com and our Web site is

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