

# PRODUCT LISTING

## Recent Statistical Software

The following information is from press releases or other material provided by publishers.

### DOS SYSTAT Version 5.0

SYSTAT, Inc., announces the release of SYSTAT Version 5.0, a comprehensive statistical analysis, data management, and graphics software package for IBM PC/ATs and DOS-compatible systems with 640K RAM and a hard disk.

SYSTAT Version 5.0 integrates graphics and analysis procedures through its menu-driven interface. New pull-down hierarchical menus organize procedures intuitively, with a command window available at any time should the user wish to edit commands. Context-sensitive help is available throughout. All graphics procedures support color output, with default settings fully controllable by the user.

In addition to standard graphs, plots, bar charts, histograms, and scatterplots, DOS SYSTAT 5.0 features graphs rarely found in other commercial packages. The new version incorporates all the features of SYGRAPH plus new graphs. These include spherical mapping, dot plots that display densities, arrow or vector plots for fluid flow and other problems, and weathervane plots. SYSTAT offers a spinning procedure that enables users to visualize data in 3-D space. Superscripts, subscripts, overstrikes, and embedded font changes for scientific equations and other specialized typesetting are available everywhere text can be written. DOS SYSTAT 5.0 also supplies its own device drivers for the most common printers and output devices.

Major statistical improvements include enhancements to model estimation and hypothesis testing (MGLH) with support of the means model. This model is useful for designs that have missing cells or cells with unequal  $n$  values that reflect population differences. Stepwise regression output now has options for forward, backward, and interactive stepping. Additional hypothesis tests include an intuitive method for arbitrary contrasts of effects or means, and new post hoc methods: Scheffé, Dunnett one- and two-sided, Bonferroni, Fisher's *LSD*, and Tukey-Kramer. Post hoc methods are now automatic with one-way or factorial designs.

Other statistical procedures include descriptive statistics, frequency distributions,  $t$  tests, cluster analysis, analysis of variance, multidimensional scaling, nonparametric statistics, repeated measures, correlations, simple linear and multiple linear regression, forecasting and exponential smoothing, common factor analysis, and nonlinear regression. DOS SYSTAT 5.0 has the capacity to analyze between 125 and 250 variables, depending on procedure.

Documentation for DOS SYSTAT 5.0 is entirely rewritten and is in four paperback manuals—*Getting Started*, *Data*, *Graphics*, and *Statistics*. Each chapter introduces the statistical concepts behind the procedure, with step-by-step instructions and examples. Tips and shortcuts give hints that make new users productive quickly.

SYSTAT Version 5.0 requires an IBM-compatible system running MS/PC-DOS 3.0 or higher, with 640K RAM and at least a 20MB hard disk. SYSTAT supports all common video displays and popular hard-copy devices such as the HP Laserjet, IBM and HP plotters, Epson, Toshiba, and other printers. DOS SYSTAT Version 5.0 costs \$895. Current users of SYSTAT on DOS systems may upgrade to Version 5.0 for \$195.

For more information, contact SYSTAT, Inc., 1800 Sherman Ave., Suite 801, Evanston, IL 60201 (phone: 708-864-5670) or contact bulletin board at 708-492-3570.

### Mac MYSTAT with Brushing Tools

Teachers of statistics and students of data analysis on the Macintosh may use scatterplot brushing tools newly available in Mac MYSTAT 1.1, the instructional version of SYSTAT software. Single copies of the program are available free upon written request to SYSTAT, Inc., developers of statistical analysis, mapping, and graphics software for Apple, IBM, Data General, Digital Equipment Corp., and other platforms.

Mac MYSTAT 1.1 now includes scatterplot brushing tools that enable a user to relate the data points in the MYSTAT Editor to the data points in a graph or plot. Scatterplot brushing allows users to isolate data points in a graph to see the corresponding cases in the Editor file. The brushing tools appear in the upper left corner of the View Window any time that Mac MYSTAT 1.1 draws a scatterplot. A flashlight function lets users select a case in the MYSTAT Editor, click on the View Window and see the data point(s) highlighted in the corresponding graph or plot. In addition, Mac MYSTAT 1.1 provides basic descriptive statistics, contingency tables,  $t$  tests, ANOVA, multiway factorial ANOVA, several nonparametric tests, regression analysis, correlations, and numerous data display procedures. Data sets in Mac MYSTAT 1.1 are limited to 50 variables.

While single copies are here, multiple copies of Mac MYSTAT 1.1 are available at \$5 per copy. Bulk orders for academic institutions may be eligible for a discount. For more information, write to SYSTAT, Inc., Attention: Mac MYSTAT Version 1.1, 800 Sherman Ave., Evanston, IL 60201 (phone: 312-864-5670; Fax: 312-864-5670).

## SYTRAN

The transfer of data files between applications software programs gives many users nothing but headaches. Remedies often consist of quick-fix macros and undocumented public domain programs. Now, SYSTAT, Inc. and Conceptual Software, Inc. of Houston announces the release of SYTRAN, a new program to transfer data files between SYSTAT software and many other popular spreadsheets, databases, statistical analysis, and data entry software programs for IBM-compatible computers.

SYTRAN has been designed to read data from a given database management or applications software program, and to write that same data in a format compatible with SYSTAT and SYGRAPH on IBM-compatible microcomputers. SYTRAN may also read a SYSTAT or SYGRAPH data file and write it in a format compatible with other software. Supported packages include: BMDP, Rbase, Reflex, SAS, SPSS, Symphony, and many other popular packages.

Conversion of variable names, variable types, value formats, and missing values are discussed according to each package's system conventions. A concise manual accompanies each SYTRAN package, which sells for \$110, plus shipping.

For more information, contact SYSTAT, Inc., 1800 Sherman Ave., Suite 801, Evanston, IL 60201 (phone: 312-864-5670; Fax: 312-492-3567).

## EzPATH

SYSTAT, Inc. and Professor James H. Steiger announce the release of EzPATH, a new program for latent variable causal modeling. It is the first such program whose input is a path diagram.

Users no longer need to use matrices or equations to specify models and interpret output. EzPATH includes a full range of residual diagnostics and significance tests. Its coefficient estimates are identical to those of LISREL and other popular latent variable modeling programs. EzPATH can handle models with more than 100 parameters.

EzPATH is available exclusively as a supplement to SYSTAT on IBM and compatible microcomputers. A concise manual accompanies each EzPATH package, which sells for \$150, plus shipping.

For more information, contact SYSTAT, Inc., 1800 Sherman Ave., Suite 801, Evanston, IL 60201 (phone: 312-864-5670; Fax: 312-492-3567).

## STAT-STAR

STAT-STAR is an easy-to-use microcomputer-based data-analysis package, designed especially for beginning statistics students who have little or no computer background, plus an integrated, tutorial workbook that teaches all of the data-analysis and interpretation skills appropriate for the introductory statistics student.

Class time may be used to teach concepts, and STAT-STAR can teach the data-analysis part of the course—*outside the classroom*. STAT-STAR is an integrated microcomputer-based data analysis program and student

workbook designed especially for the beginning statistics student. It can be used with *any* statistics textbook.

STAT-STAR is easy to learn and use. All functions are menu driven and are organized in the same way that they are presented in basic statistics texts. Students can learn to use STAT-STAR on their own.

STAT-STAR uses scrollable windows for inputting data and displaying statistical results. The program employs a unique "Explain" window to show the student how each statistic was computed, giving the actual values used in each step of the computations.

STAT-STAR functions include descriptive analysis, Pearson correlation, single-sample inference, two-sample inference, one-way ANOVA, and chi-square.

The student workbook contains an instruction manual for using STAT-STAR, a complete interpretive guide for all statistical procedures available in STAT-STAR, and 50 realistic and interesting data-analysis problems. Each problem contains a sequence of questions that guide the student through the analysis of the data. Problems are printed on separate perforated pages for easy tear-out and submission. A solutions manual is provided to instructors who adopt STAT-STAR.

STAT-STAR requires a 1-floppy drive, 512K IBM-compatible computer. A graphics system *is not* needed.

The program and 165-page student workbook are sold directly to college bookstores for \$22.95.

For more information, contact Academy Software, Inc., 4139 Daventry Lane, Palm Harbor, FL 34685 (phone: 800-541-0292).

## SigmaPlot 4.0

SigmaPlot 4.0 is a new version of PC software for the production of publication-quality scientific charts and graphs on IBM or compatible personal computers.

Designed with the scientist in mind, SigmaPlot 4.0 is easy to use with a pull-down menu interface, mouse, and keyboard support, novice prompting, and full context-sensitive interactive help. Data may be input from the keyboard, or from Lotus 123, or ASCII files, into SigmaPlot's worksheet (16,000 columns by 65,000 rows). Version 4.0's full mathematical transform language lets the user plot mathematical functions or transform data. SigmaPlot 4.0 also provides sophisticated nonlinear curve fitting and error bars that are complemented by confidence intervals and quality-control lines.

High-quality output is given, and the user has control over the appearance of graphs, page layout, as well as width, color, and position of independent graphic elements, fonts, scales, and graph types. Graphs can be exported into WordPerfect 5.0, Pagemaker, Ventura Publisher, and many other programs, as well as plotters, slide makers, dot matrix printers, Postscript, and HP Laserjet printers.

Priced under \$500, SigmaPlot 4.0 comes with a money-back guarantee and full technical support.

For more information, contact Jandel Scientific, 65 Koch Rd., Corte Madera, CA 94925 (phone: 800-874-1888 or, in California and Canada, 415-924-8640; Fax: 415-924-2850).

## GB-STAT

GB-STAT from Dynamic Microsystems is a new program that accepts and automatically converts data from all leading programs, analyzes and transforms it, and displays the results as graphs. Reading data from the keyboard file, GB-STAT gives data to read into the original program and shows statistics in graphic form to enable the user to see regression lines and frequency distributions. Results can be printed on hundreds of kinds of printers and plotters. Graphs are fully DTP compatible.

For more information, contact Dynamic Microsystems, Inc., 13003 Buccaneer Road, Silver Spring, MD 20904 (phone: 301-384-2754).

## Add-Ons for SOLO 3.0 Statistics Package

BMDP, a leader in statistical software for more than 30 years, has introduced two new add-on modules for the SOLO 3.0 statistics package: Survival Analysis and Time Series/Forecasting. Both add-ons offer numeric analysis with impressive high-resolution graphics capabilities. With the introduction of these new add-ons, SOLO now features four add-on modules to complement its basic package of statistics and graphics. The Advanced Set of statistical routines and the Experimental Design Quality Control add-ons were introduced in 1988.

The Time Series/Forecasting add-on includes several popular techniques for analyzing time series data and generating forecasts. The methods range from classical forecasting and decomposition to autocorrelation, spectral analysis, and harmonic regression. There are also programs for ARIMA and ARMA modeling. The ARMA Search program automatically selects the appropriate forecast model for the data, and the ARMA Model Analysis generates theoretical models based on user-defined characteristics. The ARIMA program fits both regular and seasonal ARIMA models.

The Time Series/Forecasting programs feature high-resolution color graphics, and are capable of generating and saving forecasts. This add-on presents a diverse set of tools for exploring time series data.

Survival Analysis provides a set of statistical programs for analyzing response data over time, using data from laboratory and clinical research studies. This module includes two programs with nonparametric tests, for either two-group or multigroup comparisons, plus a survival analysis program that generates the product-limit estimates of the survivor function. This add-on also features Proportional Hazards Regression to study the influence of covariates on survival time, Censored Regression to apply multiple regression techniques to censored data, and Probit Analysis to analyze dose-response relationships. The Survival Analysis module includes the most widely used techniques for clinical research with excellent high-resolution graphics.

General enhancements to the SOLO package were introduced in late 1990 for Version 3.0. New features in-

clude a keyboard macro language, Lotus spreadsheet import and export, printer graphics capabilities, and database update/merge functions. SOLO was initially developed for the occasional user of statistics, who demanded an easy-to-use but complete statistical package. The package has since grown, however, attracting many experienced statisticians as well.

SOLO runs on all IBM PCs, PS/2s, and compatibles, requires 512K RAM, and is compatible with CGA, EGA, VGA, and Hercules graphics cards.

For more information, contact BMDP Statistical Software, Inc., 1440 Sepulveda Boulevard, Suite 316, Los Angeles, CA 90025 (phone: 213-479-7799).

## EQS: Structural Equations Program Version (3.0)

EQS, developed by Peter M. Bentler of UCLA, tests the complete range of structural equation models: multiple and multivariate regression, path analysis, simultaneous equations, latent variable models, confirmatory factor analysis, structured means analysis, and multiple population comparisons.

For more information, contact BMDP Statistical Software, Inc., 1440 Sepulveda Boulevard, Suite 316, Los Angeles, CA 90025 (phone: 213-479-7799).

## PC-90

PC-90, for IBM PC compatibles, contains BMDP's complete library of time-tested programs. It yields the same statistical output, uses identical input, and is supported by the same documentation as the mainframe BMDP package. For over 20 years, BMDP has produced one of the most reliable and complete statistical packages available. BMDP software is installed on a wide variety of computer platforms.

PC-90 has a completely redesigned interface, context-sensitive help support throughout, documentation examples on line, and a QuickStart utility to get the user up and running quickly.

PC-90's new user interface makes BMDP easy and straightforward to use, even for the beginner. From the main menu, QuickStart can be used to input data, and descriptive statistics are available within minutes. Adding a few command lines using the PC-90 editor enables the user to access the entire range of BMDP statistical programs and options.

The PC-90 editor can be used to create and modify BMDP input files and to interactively run the PC-90 programs. Statistical output files (or any ASCII file) can be edited with this utility. The PC-90 editor features built-in easy menus for the new user and offers context-sensitive help. Advanced users can bypass menus by using the quick keys provided or by redefining the editor keystrokes to taste.

For more information, contact BMDP Statistical Software, Inc., 1440 Sepulveda Blvd., Suite 316, Los Angeles, CA 90025 (phone: 213-479-7799; Fax: 213-312-0161; Telex: 4972934 BMDP UI).

**RPlot**

RPlot, a product of RSoft Inc., is a new MS-DOS utility for plotting scientific data. Developed by a physicist, RPlot is a tool that enables quick viewing of experimental and theoretical results.

Data are graphed by simply typing "plot" followed by one or more data file names. Compared with other programs, RPlot's command line interface bypasses tedious and time-consuming menus. RPlot directly uses the ASCII data files that are created by data acquisition systems or theoretical computer codes; no file conversion is necessary. Within each file, RPlot automatically handles a wide range of formats, including multiple data sets and textual comments.

RPlot's command line interface also allows specialized plotting utilities to be created to graph the results of several experiments in different ways, using a one-line batch file that calls RPlot with the appropriate options to accomplish the task.

RPlot's abilities go beyond the simple viewing of data. Numerous options allow the creation of publication quality figures, including error bars, logarithmic axes, data transformation, flexible labeling, multiple fonts, superscripts, subscripts, scientific symbols, and a full Greek alphabet. Plotting templates can be saved for later use.

RPlot can work with other software by exporting its graph to a "computer graphics metafile." This file, in turn, can be imported by word processing or technical drawing programs that understand the CGM format.

RPlot will run on IBM or compatible personal computers with 256K RAM, a CGA, EGA, VGA, or Hercules

video adapter, and MS-DOS version 3.0 or higher. RPlot supports color output to an HP-compatible pen plotter or an HPGL file. RPrint, the high-resolution printing program supplied with RPlot, will work with Epson-compatible dot matrix printers or HP LaserJet/DeskJet printers.

RPlot is available for \$79, plus \$5 shipping and handling.

For more information, contact RSoft Inc., 345 Riverside Drive, Suite 2G, New York, NY 10025 (phone: 212-666-0959).

**StatXact: Statistical Software Package for Exact Nonparametric Inference**

Conventional statistical software packages produce  $p$  values and confidence intervals that are valid only asymptotically. StatXact computes exact  $p$  values or confidence intervals quickly, effortlessly, and routinely for ordered or unordered  $r \times c$  contingency tables, two-sample, or  $k$ -sample tests, and stratified  $2 \times 2$  contingency tables.

StatXact is especially useful with small, sparse, or imbalanced data sets.

StatXact runs on IBM PC-compatible machines and offers many useful features. The most important of these is a comprehensive and easy-to-use manual that lets the user either jump right into the applications or browse through "Theory and Methods" sections within each chapter, for a tutorial on nonparametric inference.

For more information, contact CyTEL Software Corporation, 137 Erie Street, Cambridge, MA 02139 (phone: 617-661-2011; Fax: 617-661-4405).