SPM Users Guide

About Our User's Guide

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Long Description: The User's Guides are is an introductory (hands-on) tutorial that will help orient you to the SPM graphical user interface (GUI) and familiarize you with many of the new features and options found in SPM.

The guides are not intended to fully instruct the user on the underlying SPM methodology, but rather to provide initial exposure to many of the technical aspects of the SPM software application. If you are new to SPM, we think you will find these guides an ideal way to start learning about this useful toolkit methodology.

Key Words: User's Guide, SPM methodology, help

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Our Company

Founded in 1983, Salford Systems specializes in providing new generation data mining and choice modeling software and consultation services. Applications in both software and consulting span market research segmentation, direct marketing, fraud detection, credit scoring, risk management, bio-medical research and manufacturing quality control. Industries using Salford Systems products and consultation services include telecommunications, transportation, banking, financial services, insurance, health care, manufacturing, retail and catalog sales, and education. Salford Systems software is installed at more than 3,500 sites worldwide, including 300 major universities. Some key customers include AT&T, Universal Card Services, Pfizer Pharmaceuticals, General Motors, and Sears, Roebuck and Co.

The Market

Reliable, easy to use, and easy to understand data mining tools are increasingly in demand as stores of customer and business information grow in corporate data warehouses and data marts. Corporations that leverage these data mining tools to develop better predictive models and to better understand their customer base are able to make more profitable long-term business decisions. Salford Systems is spearheading data mining tool development by maintaining an active R&D program staffed by Ph.D.s trained at Harvard, MIT, and UC Berkeley, and by leveraging existing ties to leading universities.

Main Products

CART®

Salford Systems' flagship data mining software is an affordable and robust multi-platform classification and regression tree package. CART automatically generates a wide variety of highly accurate data mining analyses. It is the only decision tree tool based on the proven methodology of the original CART code, which was developed by world-renowned Stanford University and University of California at Berkeley statisticians. Designed for both non-technical and technical business users, CART can quickly reveal important data relationships that could remain hidden using other data mining tools. In addition, it offers considerable flexibility and advanced capabilities for professional, production level applications.

MARS®

Jerome Friedman's MARS (Multivariate Adaptive Regression Splines) is stepwise regression done right for the first time. MARS does variable selection, variable transformation, interaction detection, and self-testing to prevent overfitting - all automatically. There is only one trademarked MARS and it is available exclusively from Salford Systems.

TreeNet®

Jerome Friedman's latest data mining tool is based on boosted decision trees. TreeNet® is an astonishingly accurate model builder and function approximation system that also serves as a powerful initial data exploration tool. Use TreeNet® to extract the most important relationships in your data and calibrate how predictable the outcomes are. Then you can either use the TreeNet® model directly or incorporate the results in CART, MARS, or conventional statistical models.

RandomForests®

Leo Breiman's latest data mining technology is based on learning ensembles of CART trees. By judiciously injecting randomness into the tree-building process and then combining hundreds of these trees, RF is able to deliver high performance predictive models and a variety of novel exploratory data analysis results. RF also incorporates new metric-free CLUSTER analyses that automatically select the variables used to define each cluster, with potentially different variables defining each cluster.

Our Services

Salford Systems offers corporations and management consulting companies a variety of analytical and strategic consulting services. Salford teams business consultants and technical Ph.D.s with experienced SAS® and scientific programmers to find innovative solutions for complex modeling and data analysis problems. Areas of specialization include database mining, segmentation, targeting and choice modeling. Salford Systems maintains a rapid response data mining center equipped with six high speed servers and massive storage capacity. Demonstration cost-effective projects and proof of concept studies can be planned and executed in as little as four weeks, and assessments of the value of large scale data mining projects can be generated quickly. Salford Systems conducts large scale data mining projects from initial conceptualization to the final installation of productivity software. To bolster its services, Salford Systems offers an ongoing series of database mining training seminars for its flagship product CART and other innovative tools. Companies can receive on-site training or send representatives to seminars presented periodically in most major U.S. cities and selected cities worldwide.

Our Founder

Dan Steinberg, Ph.D.
President and Founder

Dr. Dan Steinberg, the President of Salford Systems, founded the company in 1982 just after receiving his Ph.D. in Economics at Harvard. He has also served as a Member of Technical Staff at AT&T Bell Laboratories and Assistant Professor of Economics at the University of California, San Diego, and has participated in dozens of consulting projects for Fortune 100 clients. He has been honored by the SAS User's Group International (SUGI) and led the modeling teams that won the KDD Cup 2000 and the 2002 Duke/Teradata Churn modeling competition. Dr. Steinberg has published articles in statistics, econometrics, computer science, and marketing journals, and has been a featured data mining issues

speaker for the American Marketing Association, The American Statistical Association, the Direct Marketing Association, and the Casualty Actuarial Society.

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Typographical Conventions

The following typographical conventions will help you relate written material to information you see on your screen:

- Reference to menu names (File menu) or menu items (Close command) appear in bold font.

- When you are asked to choose an item from the main menu, this is written as "File–Close, meaning go to the File menu and choose the Close menu item. There are also scenarios where a menu item has multiple sub-menus. In these cases, we write "File–Open>Data File…", meaning go to the File menu, select Open, and choose the Data File… sub-menu.

- Likewise, items on popup menus and in dialog windows appear in bold font. In addition, you will be given more detailed instructions on where to find the corresponding item.

- References to variable names are shown in a mono-spaced font and are always displayed in upper case (for example; VAR_A, VAR_B, VAR_C).

- There are several locations in this documentation where you may read, "see [1] for more technical discussion," or something similar. This refers to the bibliography item [1] listed at the end of this manual. For example,

- [1] Breiman, L. (2001). Random Forests. Technical report, Dept. of Statistics, University of California, Berkeley.