

## Sas User Guide

Describes the main tasks that you can perform in SAS Data Integration Studio, including: data access; data integration; metadata management; data cleansing and enrichment; extract, transform, and load (ETL); extract, load, and transform (ELT); and service-oriented architecture (SOA) and message queue integration.

Contains the complete reference for all Base SAS procedures. Provides information about what each procedure does and, if relevant, the kind of output that it produces. This title is also available online. SAS Products and Releases: Base SAS: 9.3\_M2. Operating Systems: All

Book excerpt from SAS/STAT 9.22 user's guide.

Provides step-by-step instructions for performing tasks such as preparing data, exploring data, and designing reports using SAS Visual Analytics. This guide also explains how to view reports on a mobile device or in a web browser. This title is also available online.

Survey Data Analysis (Book Excerpt)

Power User's Guide to SAS Programming

SAS Programming for R Users

SAS/Genetics 9.1

Basics, Version

**SAS user's guide basis, version 5 edition.**

**Although the web and online SAS® communities can provide volumes of information for programmers, these resources are often overwhelming and lack a simple path to guide coding SAS. This reference, however, does provide such a path from a data user's standpoint vs. seeing things as a code writer. Written by an experienced SAS programmer, this book lets SAS coders easily find explanations and clarification to typical programming problems. This book presents practical real-world data analysis steps encountered by analysts in the field. These steps include the following: Getting to know raw data Understanding variables Getting data into SAS Creating new data variables Performing data manipulations, including sorting, ranking, grouping, subtotal, total, and percentage Statistical testing under a broad range of logical and conditional settings Data visualization Throughout this book, statements and codes are accompanied by thorough annotation. Line-by-line explanations ensure that all terms are clearly explained. Code examples and sample codes have broad usages. All the examples are related to highway transportation where the use of big data is exploding and presenting new challenges and opportunities for growth. Clear and precise practical introductory material on statistics is integrated into the relevant SAS procedures to bolster users' confidence in applying such methods to their own work.**

Comprehensive and foundational coverage, systematic introduction of programming topics, thoroughly annotated code examples, and real-world code samples combine to make SAS® Coding Primer and Reference Guide an indispensable reference for beginners and experienced programmers.

**An Up-to-Date, All-in-One Resource for Using SAS and R to Perform Frequent Tasks**The first edition of this popular guide provided a path between SAS and R using an easy-to-understand, dictionary-like approach. Retaining the same accessible format, *SAS and R: Data Management, Statistical Analysis, and Graphics, Second Edition* explains how to easily p

*Carpenter's Guide to Innovative SAS Techniques* offers advanced SAS programmers an all-in-one programming reference that includes advanced topics not easily found outside the depths of SAS documentation or more advanced training classes. Art Carpenter has written fifteen chapters of advanced tips and techniques, including topics on data summary, data analysis, and data reporting. Special emphasis is placed on DATA step techniques that solve complex data problems. There are numerous examples that illustrate advanced techniques that take advantage of formats, interface with the macro language, and utilize the Output Delivery System. Additional topics include operating system interfaces, table lookup techniques, and the creation of customized reports.

**Survival Analysis (Book Excerpt)**

*Data Management, Statistical Analysis, and Graphics, Second Edition*

**SAS and R**

**User's Guide**

**The Phreg Procedure (Book Excerpt)**

*Contains procedure documentation and introductory information about SAS/STAT procedures that relate to survival analysis. This book is an excerpt from the SAS/STAT User's Guide; it contains the chapters "Introduction to Survival Analysis Procedures," "The LIFEREG Procedure," "The LIFETEST Procedure," and "The PHREG Procedure," and an excerpt from the chapter "Shared Concepts and Topics."*

*Learning to use SAS Enterprise Guide has never been easier! Whether you are using SAS Enterprise Guide for the first time, or are looking to expand your skills, this is the book for you! With *The Little SAS Enterprise Guide Book*, award-winning authors Susan Slaughter and Lora Delwiche help you quickly become productive in the SAS Enterprise Guide point-and-click environment. A series of carefully designed tutorials help you master the basics of the tasks you'll want to do most frequently. The reference section of the book expands on the tutorial topics, covering specific features in more depth. This edition has been completely rewritten, and updated with new features in SAS Enterprise Guide.*

*Describes usage of the Output Delivery System for statistical graphics in SAS/STAT 9.22. This title is also available online.*

*SAS Programming for R Users, based on the free SAS Education course of the same name, is designed for experienced R users*

*who want to transfer their programming skills to SAS. Emphasis is on programming and not statistical theory or interpretation. You will learn how to write programs in SAS that replicate familiar functions and capabilities in R. This book covers a wide range of topics including the basics of the SAS programming language, how to import data, how to create new variables, random number generation, linear modeling, Interactive Matrix Language (IML), and many other SAS procedures. This book also explains how to write R code directly in the SAS code editor for seamless integration between the two tools. Exercises are provided at the end of each chapter so that you can test your knowledge and practice your programming skills.*

*SAS Visual Analytics 6.1*

*SAS Essentials*

*SAS/STAT 9.22 User's Guide*

*SAS User's Guide*

*Power Analysis (book Excerpt)*

*A step-by-step introduction to using SAS® statistical software as a foundational approach to data analysis and interpretation Presenting a straightforward introduction from the ground up, SAS® Essentials: Mastering SAS for Data Analytics, Second Edition illustrates SAS using hands-on learning techniques and numerous real-world examples. Keeping different experience levels in mind, the highly-qualified author team has developed the book over 20 years of teaching introductory SAS courses. Divided into two sections, the first part of the book provides an introduction to data manipulation, statistical techniques, and the SAS programming language. The second section is designed to introduce users to statistical analysis using SAS Procedures. Featuring self-contained chapters to enhance the learning process, the Second Edition also includes: Programming approaches for the most up-to-date version of the SAS platform including information on how to use the SAS University Edition Discussions to illustrate the concepts and highlight key fundamental computational skills that are utilized by business, government, and organizations alike New chapters on reporting results in tables and factor analysis Additional information on the DATA step for data management with an emphasis on importing data from other sources, combining data sets, and data cleaning Updated ANOVA and regression examples as well as other data analysis techniques A companion website with the discussed data sets, additional code, and related PowerPoint® slides SAS Essentials: Mastering SAS for Data Analytics, Second Edition is an ideal textbook for upper-undergraduate and graduate-level courses in statistics, data analytics, applied SAS programming, and statistical computer applications as well as an excellent supplement for statistical methodology courses. The book is an appropriate reference for researchers and academicians who require a basic introduction to SAS for statistical analysis and for preparation for the Basic SAS Certification Exam.*

*This book brings together a wealth of ideas about strategic and tactical solutions to everyday situations experienced when transferring, extracting, processing and reporting data. Most of the solutions can be achieved using the SAS components you already license, so you won't need to throw money at the problems.*

*This title provides the latest, detailed reference material for all of the procedures in SAS/STAT software, and syntax, usage, and examples.*

*The ACECLUS Procedure. The ANOVA Procedure. The CALIS Procedure. The CANCELL Procedure. The CANDISC Procedure. The CATMOD Procedure. The CLUSTER Procedure. The CORRESP Procedure. The DISCRIM Procedure. The FACTOR Procedure. The FASTCLUS Procedure. The FREQ Procedure.*

*The REG Procedure (Book Excerpt)*

*SAS Data Integration Studio 4.9: User's Guide*

*Version 6*

*SAS/ETS User's Guide*

*Version 6, Fourth Edition*

In *SAS Statistics by Example*, Ron Cody offers up a cookbook approach for doing statistics with SAS. Structured specifically around the most commonly used statistical tasks or techniques--for example, comparing two means, ANOVA, and regression--this book provides an easy-to-follow, how-to approach to statistical analysis not found in other books. For each statistical task, Cody includes heavily annotated examples using ODS Statistical Graphics procedures such as SGPLOT, SGSCATTER, and SGPANEL that show how SAS can produce the required statistics. Also, you will learn how to test the assumptions for all relevant statistical tests. Major topics featured include descriptive statistics, one- and two-sample tests, ANOVA, correlation, linear and multiple regression, analysis of categorical data, logistic regression, nonparametric techniques, and power and sample size. This is not a book that teaches statistics. Rather, *SAS Statistics by Example* is perfect for intermediate to advanced statistical programmers who know their statistics and want to use SAS to do their analyses. This book is part of the SAS Press program.

*Statistical Programming in SAS Second Edition* provides a foundation for programming to implement statistical solutions using SAS, a system that has been used to solve data analytic problems for more than 40 years. The author includes motivating examples to inspire readers to generate programming solutions. Upper-level undergraduates, beginning graduate students, and professionals involved in generating programming solutions for data-analytic problems will benefit from this book. The ideal background for a reader is some background in regression modeling and introductory experience with computer programming. The coverage of statistical programming in the second edition includes Getting data into the SAS system, engineering new features, and formatting variables Writing readable and well-documented code Structuring, implementing, and debugging programs that are well documented Creating solutions to novel problems Combining data sources, extracting parts of data sets, and reshaping data sets as needed for other

analyses    Generating general solutions using macros    Customizing output    Producing insight-inspiring data visualizations    Parsing, processing, and analyzing text    Programming solutions using matrices and connecting to R    Processing text    Programming with matrices    Connecting SAS with R    Covering topics that are part of both base and certification exams.

The SAS/STAT User's Guide, Version 6, Fourth Edition, Volume 1 and Volume 2, documents the procedures available with Release 6.06 of SAS/STAT software. Volume 1 contains the introductory chapters and documents the ACECLUS through FREQ procedures. Volume 2 documents the GLM through VARCOMP procedures. The GLM procedure uses the method of least squares to fit general linear models. Among the statistical methods available in PROC GLM are regression, analysis of variance, analysis of covariance, multivariate analysis of variance, and partial correlation.

OVERVIEW 1 SAS regression procedures. 2 SAS analysis-of-variance procedures. 3 SAS categorical data procedures. 4 SAS multivariate procedures. 5 SAS discriminant procedures. 6 SAS clustering procedures. 7 SAS survival analysis procedures. 8 SAS scoring procedures. 9 The four types of estimable functions. PROCEDURES 10 ACECLUS. 11 ANOVA. 12 CANCELL. 13 CANDISC. 14 CATMOD. 15 CLUSTER. 16 DISCRIM. 17 FACTOR. 18 FASTCLUS. 19 FREQ. 20 GLM. 21 LIFEREG. 22 LIFETEST. 23 NEIGHBOR. 24 NESTED. 25 NLIN 26 NPAR1WAY. 27PLAN. 28 PRINCOMP. 29 PROBIT. 30 RANK. 31 REG. 32 RSQARE. 33 RSREG 34 SCORE. 35 STANDARD. 36 STEPDISC.

SAS/STAT 9.2 User's Guide, Chapter 1: What's New in SAS/STAT.

Data Analysis Using SAS Enterprise Guide

SAS/STAT User's Guide

The GENMOD Procedure (Book Excerpt)

*SAS/STAT User's GuideVersion 6*

*Contains procedure documentation and introductory information about SAS/STAT procedures that relate to survey data analysis. This book is an excerpt from the SAS/STAT User's Guide; it contains the chapters "Introduction to Survey Sampling and Analysis Procedures," "The SURVEYFREQ Procedure," "The SURVEYLOGISTIC Procedure," "The SURVEYMEANS Procedure," "The SURVEYREG Procedure," and "The SURVEYSELECT Procedure," and an excerpt from the chapter "Shared Concepts and Topics." This title is also available online.*

*Contains procedure documentation and introductory information about SAS/STAT procedures that relate to survival analysis. This book is an excerpt from the SAS/STAT User's Guide; it contains the chapters "Introduction to Survival Analysis Procedures," "The LIFEREG Procedure," "The LIFETEST Procedure," and*

"The PHREG Procedure," and an excerpt from the chapter "Shared Concepts and Topics." This title is also available online.

R is a powerful and free software system for data analysis and graphics, with over 5,000 add-on packages available. This book introduces R using SAS and SPSS terms with which you are already familiar. It demonstrates which of the add-on packages are most like SAS and SPSS and compares them to R's built-in functions. It steps through over 30 programs written in all three packages, comparing and contrasting the packages' differing approaches. The programs and practice datasets are available for download. The glossary defines over 50 R terms using SAS/SPSS jargon and again using R jargon. The table of contents and the index allow you to find equivalent R functions by looking up both SAS statements and SPSS commands. When finished, you will be able to import data, manage and transform it, create publication quality graphics, and perform basic statistical analyses. This new edition has updated programming, an expanded index, and even more statistical methods covered in over 25 new sections.

Mastering SAS for Data Analytics

Statistical Programming in SAS

The Little SAS Enterprise Guide Book

SAS user's Guide: Basics

Version 8

***Easily Use SAS to Produce Your Graphics*** Diagrams, plots, and other types of graphics are indispensable components in nearly all phases of statistical analysis, from the initial assessment of the data to the selection of appropriate statistical models to the diagnosis of the chosen models once they have been fitted to the data. ***Harnessing the full graphics capabilities of SAS, A Handbook of Statistical Graphics Using SAS ODS*** covers essential graphical methods needed in every statistician's toolkit. It explains how to implement the methods using SAS 9.4. The handbook shows how to use SAS to create many types of statistical graphics for exploring data and diagnosing fitted models. It uses SAS's newer ODS graphics throughout as this system offers a number of advantages, including ease of use, high quality of results, consistent appearance, and convenient semiautomatic graphs from the statistical procedures. Each chapter deals graphically with several sets of example data from a wide variety of areas, such as epidemiology, medicine, and psychology. These examples illustrate the use of graphic displays to give an overview of data, to suggest possible hypotheses for testing new data, and to interpret fitted statistical models. The SAS programs and data sets are available online.

***Using the SAS System. The data step. The PROC step. Features for the both data and PROC steps. SAS procedures.***

***SAS Programming and Data Visualization Techniques: A Power User's Guide*** brings together a wealth of ideas about strategic and tactical solutions to everyday situations experienced when transferring, extracting, processing, analyzing, and reporting the valuable data you have at your fingertips. Best, you can achieve most of the solutions using the SAS components you already license, meaning that this book's insights can keep you from throwing money at problems needlessly. Author Philip R. Holland advises a broad range of clients throughout Europe and the United States as an independent consultant and founder of Holland Numerics Ltd, a SAS technical consultancy. In this book he explains techniques—through code samples and example—that will enable you to increase your knowledge of all aspects of SAS programming, improve your coding productivity, and interface SAS with other programs. He also provides an expert's overview of Graph Templates, which was recently moved into Base SAS. You will learn to create

*attractive, standardized, reusable, and platform-independent graphs—both statistical and non-statistical—to help you and your business users explore, visualize, and capitalize on your company’s data. In addition, you will find many examples and cases pertaining to healthcare, finance, retail, and other industries. Among other things, SAS Programming and Data Visualization Techniques will show you how to: Write efficient and reusable SAS code Combine look-up data sets with larger data sets effectively Run R and Perl from SAS Run SAS programs from SAS Studio and Enterprise Guide Output data into insightful, valuable charts and graphs SAS Programming and Data Visualization Techniques prepares you to make better use of your existing SAS components by learning to use the newest features, improve your coding efficiency, help you develop applications that are easier to maintain, and make data analysis easier. In other words, it will save you time, money, and effort—and make you a more valuable member of the development team. What You'll Learn How to write more efficient SAS code—either code that runs quicker, code that is easier to maintain, or both How to do more with the SAS components you already license How to take advantage of the newest features in SAS How to interface external applications with SAS software How to create graphs using SAS ODS Graphics Who This Book Is For SAS programmers wanting to improve their existing programming skills, and programming managers wanting to make better use of the SAS software they already license.*

*Contains chapter 64, The PHREG procedure, of SAS/STAT 9.2 user's guide.*

*Statistical Graphics Using ODS (Book Excerpt)*

*SAS/STAT 9.2 User's Guide*

*SAS Statistics by Example*

*A Power User's Guide*

*A Handbook of Statistical Graphics Using SAS ODS*

*This book presents the basic procedures for utilizing SAS Enterprise Guide to analyze statistical data. SAS Enterprise Guide is a graphical user interface (point and click) to the main SAS application. Each chapter contains a brief conceptual overview and then guides the reader through concrete step-by-step examples to complete the analyses. The eleven sections of the book cover a wide range of statistical procedures including descriptive statistics, correlation and simple regression, t tests, one-way chi square, data transformations, multiple regression, analysis of variance, analysis of covariance, multivariate analysis of variance, factor analysis, and canonical correlation analysis. Designed to be used either as a stand-alone resource or as an accompaniment to a statistics course, the book offers a smooth path to statistical analysis with SAS Enterprise Guide for advanced undergraduate and beginning graduate students, as well as professionals in psychology, education, business, health, social work, sociology, and many other fields.*

*The REG procedure is a general-purpose procedure for linear regression.*

*The GENMOD procedure fits generalized linear models. This title is also available online.*

*The SAS® Certified Specialist Prep Guide: Base Programming Using SAS® 9.4 prepares you to take*

*the new SAS 9.4 Base Programming -- Performance-Based Exam. This is the official guide by the SAS Global Certification Program. This prep guide is for both new and experienced SAS users, and it covers all the objectives that are tested on the exam. New in this edition is a workbook whose sample scenarios require you to write code to solve problems and answer questions. Answers for the chapter quizzes and solutions for the sample scenarios in the workbook are included. You will also find links to exam objectives, practice exams, and other resources such as the Base SAS® glossary and a list of practice data sets. Major topics include importing data, creating and modifying SAS data sets, and identifying and correcting both data syntax and programming logic errors. All exam topics are covered in these chapters: Setting Up Practice Data Basic Concepts Accessing Your Data Creating SAS Data Sets Identifying and Correcting SAS Language Errors Creating Reports Understanding DATA Step Processing BY-Group Processing Creating and Managing Variables Combining SAS Data Sets Processing Data with DO Loops SAS Formats and Informats SAS Date, Time, and Datetime Values Using Functions to Manipulate Data Producing Descriptive Statistics Creating Output Practice Programming Scenarios (Workbook)*

*SAS/STAT 9. 22 User's Guide*

*Base Programming Using SAS 9.4*

*SAS/STAT 12. 1 User's Guide*

*SAS® Coding Primer and Reference Guide*

*SAS user's Guide*

SAS/Genetics is a collection of SAS procedures along with a SAS macro specifically designed for the statistical analysis of genetic marker data. This set of tools enables you to genetically dissect a complex disease or trait by analyzing marker data in a commonly collected form using the familiar SAS environment. This guide is intended to provide you with the statistical genetics background and the procedural syntax needed to use this software, as well as examples showing some common applications of the methods in these procedures. These methods include marker statistics such as measures of heterozygosity and allele and genotype frequencies, tests for disequilibrium both within and between markers, the analysis of marker-trait relationships in case-control or pedigree data, and algorithms for estimating haplotype frequencies from genotype data. This guide also demonstrates how to obtain a graphical representation of the procedures' results using a new SAS macro. This title is also available online. This guide is intended for those with at least a basic understanding of statistical and genetic concepts who



are interested in analyzing genetic marker data either from a population genetics or a genetic epidemiology perspective. Supports releases 9.1 and higher of SAS software.

SAS Certified Specialist Prep Guide

Basics

SAS/STAT 9.2 User's Guide

R for SAS and SPSS Users

Base SAS 9.3 Procedures Guide