



...Maximizing your investment in the SAS® System...
and those in your organization who use it...

An intensive, half-day, overview of new tools in SAS 9.2 dramatically expanding your ability to generate graphics which enhance the value of your SAS-generated analyses. Learn how to apply “Stat Graphics” tools to 60 existing SAS analytic procedures as well as harness the power of the four new “SG” Procedures in SAS/GRAPH Software.

After taking this seminar you will be able to:

- Understand the how Stat Graphics “fits” in to the overall SAS ODS framework
- Learn the existing analytic PROCs now able to generate statistical graphics, and the specific graphs each “enabled” PROC can create
- Harness the power of the new “SG” Procedures in SAS/GRAPH Software that create images you can save in PDF, RTF, HTML, PNG and other file types.
- Modify the appearance of your graphics images with SAS-supplied Style Templates
- Use the point-and-click Statistical Graphics Editor to modify, edit and save new versions of your graphics with any programming / coding steps.
- Create customized style templates using PROC TEMPLATE and the Graph Template Language
- Combine and arrange ODS Stat Graphics output with the ODS DOCUMENT and LAYOUT Destinations.

Getting Started with ODS Statistical Graphics in SAS® 9.2 Software



Presentation Formats:

Half-day online or in classroom

Also see our **half-day** seminar,

“Introduction to the SAS Output Delivery System,”

and our **full-day** seminars

“Success with the SAS Output Delivery System,”

and

“ODS Statistical Graphics in SAS 9.2 Software.”

Overview

This seminar offers a detailed overview of the new “ODS Statistical Graphics” capabilities added to **SAS 9.2** Software and how you can apply them to your analytic projects and programs. These new features include: 1) addition of four new “SG” (Statistical Graphics) Procedures in the SAS/GRAPH® Module, 2) enhancements to approximately 60 existing analytic PROCs enabling them to generate statistical graphic conveying the results of their analyses; 3) implementation of the point and click Statistical Graphics Editor allowing rapid, ad hoc, changes to images generated by “stat graph enabled” procedures; and, 4) the Graph Template Language (GTL), which allows experienced SAS users to create customized templates controlling the appearance of their “stat graph” output. **This seminar focuses on tools available in SAS 9.2 Software for which the SAS/GRAPH® software module must be included in your SAS installation in order for you to use them.**

Intended Audience

Getting Started with ODS Statistical Graphics in SAS 9.2 Software is intended to be a successful learning experience for attendees who are already comfortable applying SAS Procedure steps to analyze data and who already understand ODS concepts such as “destination,” “style,” “object,” “template” and “table.” The course materials assume you have taken our “Success with the SAS Output Delivery System” session or have an equivalent level of training/experience on ODS topics before taking this class. The materials also assume attendees are familiar with core SAS programming concepts such as variable, observation, data set, data step, label, format and procedure as well as with basic statistical concepts such as mean, sum, percentile and confidence interval.

Topics/Agenda

- **Core ODS Statistical Graphic Terms and Concepts**
 - How ODS Stat Graphics “fits” in to the overall “output delivery” framework
 - Overview of Key ODS Statistical Graphics Statements and Options
 - ODS “Destinations” Supporting Statistical Graphics Output
- **Using ODS Statistical Graphics with Existing Analytic Procedures**
 - Which BASE, STAT, ETS, and QC Procedures are “Stat Graph Enabled” and What Graphics Can They Generate?
 - Understanding and Applying the PLOTS Option to Select the Graphics You Want the Procedure to Generate
 - Changing the Graphics Output Appearance Using SAS-Supplied Style Templates

Unleashing the Power of the “SG” (Statistical Graphics) Procedures

- PROC SGPLOT
 - BASIC: Scatter, Series, Band, Needle and Vector Plots
 - FIT and CONFIDENCE: Regression, Loess, Penalized B-Spline and Ellipse Plots
 - DISTRIBUTION Plots: Histograms, Box Plots and Density Curves
 - CATEGORIZATION Plots: Bar Charts, Dot Plots, Bar-Line Charts
- PROC SGPANEL
 - PANEL, LATTICE, ROWLATTICE and COLUMNLATTICE Plots
- PROC SGSCATTER
 - PLOT, COMPARE and MATRIX Plots

Using the Statistical Graphics Editor to Modify Graphics Output Appearance

Contact Sierra Information Services For More Information:

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About the Instructor

This seminar is written and presented by Andrew Karp, who started his own SAS Software consulting and training firm, Sierra Information Services, in 1994. Prior to starting Sierra he used SAS Software to manage and analyze data while holding positions with PriceWaterhouseCoopers, Federal Express Corporation, Pacific Gas & Electric Company and Kaiser Foundation Health Plan. A 25-year SAS user, Andrew is a SAS Certified Professional™ who has presented numerous training seminars to SAS users in the United States, England, Scotland, Belgium, Australia, New Zealand and the People's Republic of China.

He has served on the technical review teams for seven books published by SAS Institute and has been an invited speaker at fourteen consecutive SAS Global Forum/SAS User Group International conferences, as well as other events for SAS users in seven countries. Andrew earned undergraduate and graduate degrees from The George Washington University and taught SAS classes for UC Berkeley's Extension Division from 1989 to 1995. He has also been a visiting lecturer in the Dept. of Experimental Statistics at Louisiana State University and at the University of Auckland in New Zealand.

About Sierra Information Services

Sierra Information Services is a **leading independent provider of SAS Software** consulting and training services. Our firm is based in the California Wine Country region north of San Francisco but travel both domestically and internationally to work with clients and present training seminars. Sierra offers clients a wide range of support, including SAS programming, data analysis/data mining with SAS tools, as well as the design and delivery of customized SAS Software training solutions tailored to the client's individual needs. Since its inception in 1994 Sierra has provided consulting and/or training services to, among others, Wells Fargo Bank, Bear Creek Corporation, Limited Brands, IBM, American Honda Motor Company, Lloyd's Bank/TSB, Capitol One Financial Services, Inc., the Sacramento Municipal Utilities District, Discover Financial Services, Inc., the US Department of Commerce and the US Federal Communications Commission. We have also provided consulting and training for numerous public and private sector entities in the United Kingdom, Belgium, Australia and New Zealand.

In addition to training solutions developed by Sierra's founder, Andrew Karp (see instructor's bio above), Sierra also works with other leading SAS experts to offer their training seminars around the United States. Sierra is proud to have other well-known experts such as Art Carpenter, Michael Raithel, and David Cassell present their training seminars under our auspices.

For the most current list of our public seminars, or to learn more about how Sierra can assist you and your organization, please visit our web site at www.Sierrainformation.com or call us a (707) 996 7380. We look forward to hearing from you soon!



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