SIERRA INFORMATION SERVICES

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

An in-depth examination of ODS capabilities which dramatically expand your ability to "deliver" SAS-generated output to different file formats and to control the output's appearance. Appropriate for programmers, data managers, analysts and others who work with SAS tools to report, manage and analyze data.

After taking this seminar you will be able to:

- **Understand the ODS' role within the overall SAS System framework**
- **Understand and apply core ODS concepts such as "table," "destination," "style" and "template."**
- **Reduce the number of tasks/steps required to create your final report or analysis.**
- **Open and close ODS "destinations" during your program to control what output is going where.**
- **Save analyses and statistics from Procedure Step "runs" in SAS Data Sets**
- **"Deliver" your reports and analyses to PDF, RTF and HTML files**
- **Control the appearance of your ODS-generated output with STYLE Templates**
- **Customize the appearance of PROC PRINT, REPORT and TABULATE output with ODS STYLE Statements**
- **Avoid tedious cutting and pasting to finalize your reports.**
- **"Traffic-light" your reports and analyses.**

Success with the SAS® Output Delivery System

Presentation Formats:
One day in classroom or multiple days with customization and hands-on exercises
Often combined with "*Exchanging Data Between SAS and Microsoft Products*" when delivered on-site.
Also see our **half-day** seminar, "*Introduction to the SAS Output Delivery System* "

Overview

This seminar provides a rigorous overview of the SAS Output Delivery System's capabilities to "deliver" Procedure-generated output to "destinations" such as PDF or HTML files. Attending this seminar enables you to master the ODS functionalities which create effective presentations of your analytic results quickly, easily and with limited manual intervention. You will also learn how to present your SAS output in PDF, HTML and RTF files, as well as how ODS tools are used to quickly transfer SAS output to file types that can be open/read by Excel and other spreadsheet file formats. *[Our half-day "Introduction to the SAS Output Delivery System" session covers some of the topics presented in this course. For a more detailed discussion of ways to move data between SAS and other file formats, please see our half-day "Exchanging Data Between SAS and Microsoft Products" seminar.]*

Intended Audience

Success with the SAS Output Delivery System is intended to be a successful learning experience for attendees who are already using SAS tools to generate reports and analyses. The materials presented assume you are familiar with SAS System concepts such as data set, data step, procedure, label, variable and observation.

Topics/Agenda

- ***Core Output Delivery System Concepts***
  - What is the role of ODS in Generating Procedure Output?
  - How Do SAS Procedures "Communicate" with ODS?
  - Data and Table Components, Table and Style Templates
- ***Tables and Destinations***
  - How to Learn the Names of Tables Generated During PROC Steps
  - Selecting or Excluding Specific Tables; Maintaining Selection or Exclusion Lists Across PROC Step boundaries
  - Opening/Closing ODS Destinations
  - Sending Multiple Tables to the Same Destination
  - Sending the Same Table to Multiple Destinations
- ***Creating SAS Data Sets from PROC Step Output***
- ***Saving Procedure Output as HTML, PDF and RTF Files***
- ***Moving Procedure Output to Spreadsheet-Readable File Formats***
  - The CSV / CSVALL and HTML Destinations
  - Using XML Tagsets
- ***Using SAS-Supplied Style Templates***
- ***Creating Customized Style Templates with PROC TEMPLATE***
- ***Customizing PROC REPORT, PRINT and TABULATE Output Appearance with ODS Style Statements***
- ***Traffic-Lighting Your Analyses and Reports with ODS***
- ***Using ODS DOCUMENT Resources Available in SAS 9 Software***

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 thirteen 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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