



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

This half-day session equips you with the knowledge to apply often little-known or overlooked Format Facility capabilities that simplify your programs, improve their efficiency and enhance the value of your SAS-generated analyses.

After taking this seminar you will be able to:

- **Understand how Formats “work” within the SAS System**
- **Create customized formats for your numeric and character variables**
- **Exploit the new MULTI-LABEL Format capabilities added in SAS 8 and enhanced in SAS 9 Software**
- **Avoid unnecessary and tedious Data Step “recodes” with Value Formats**
- **Create and manage Permanent SAS Format Libraries**
- **Avoid tedious data step coding by understanding the power and flexibility of PICTURE Formats**
- **Apply keywords such as HIGH, LOW, OTHER and MISSING when assigned Format Labels**
- **Understand PROC FORMAT options and statements**
- **Generate Format labels with Input Control Data Sets**
- **Manage your Format Libraries with PROC FORMAT**

**Half Day Seminar from
Sierra Information Services**

Getting the Most from the SAS® Format Facility

Overview

This half-day seminar provides an in-depth look at the power and flexibility of the SAS Format facility, which is used to control how data are aggregated and displayed by the rest of the SAS System. By attending this session you will learn not only how the Format facility “works,” but how to make it work for you. Starting from the basics, and continuing through advanced topics, **Getting the Most from the SAS Format Facility** covers a broad range of techniques and capabilities demonstrating often overlooked or forgotten ways that this core element of the SAS System “powers” your projects and programs.

Intended Audience

Getting the Most from the SAS Format Facility is designed for those who have at least a basic level of understanding of core SAS programming concepts such as Data Set, Data Step, Procedure, Label and, of course, Format. It is also an appropriate session for more experienced SAS users who want to gain a deeper understanding of the Format Facility and what it can offer them.

Topics/Agenda

- SAS Format Essentials:
 - What Does a Format “Do”?
 - Using SAS-Supplied Formats
 - SAS Format Libraries: the Basics
 - Why Do Some Format Names Have Dollar Signs and Others Don’t?
- Creating Your Own Value Formats
 - Core Rules for Creating Your Own Formats
 - Mapping Values to Labels
- Using Formats in Procedure Steps
 - Avoiding Data Step Recodes with Formats
- Understanding the PICTURE Format
 - What Do Picture Templates Do that Value Formats Don’t?
 - Templates, Digit Selectors, Templates and Directives
- Creating and Applying Multilabel Formats
 - Assigning One Variable Value to Multiple Format Labels
 - Why MLFs Make “Roll-Ups” and Aggregations a Snap in PROCs MEANS, SUMMARY and TABULATE
- Generating Customized Date Formats
 - Specifying Date Ranges in Your Value Formats
 - Customized Date Ranges and Multilabel Formats
- Using “Formats Within a Format”
- Creating Format Labels with Input Control Data Sets
- Creating Output Control Data Sets from Format Libraries
- Understanding Key PROC FORMAT Statement Options
- Using Formats as “Traffic-Lighting” Tools in PROC REPORT

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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