

Optimization Techniques in SAS Software

Duration: 2 days

CEUs: 1.2

Audience

This course is designed to show all of the differences available in Version 9 of SAS Software. The primary goal of Version 9 is to provide support for a new level of computing that supports faster execution of applications, centralized access of data and support of the latest computing technology. The new SAS Open Metadata Architecture is designed to allow all registered data in an organization to be centrally managed and accessed. The SAS Management Console will offer one point of control for all SAS servers and applications in the organization. The new multi-threaded architecture is automatically turned on to support most procedures that sort and summarize data. The Output Delivery System has been enhanced to support many new styles of markup, along with custom markup tag sets. SAS also supports the industry standard Application Response Measurement (ARM) protocol for monitoring SAS processes. Cross Environment Data Access (CEDA) is still supported on all operating systems. SAS Version 9 is designed to better support ADA 508 handicapped standards. This course is designed to discuss as many issues as possible, from the installation of SAS to the finer aspects of operating under the new release.

Benefits

After completing this course, you should be able to:

- Understand how to benchmark to choose the right programming method
- Organize and sort data sets
- Index and compress data sets
- Understand the best table lookup technique to avoid merging
- Make the best use of system resources

Prerequisites

Completion of Programming II: Data Manipulation Using the Data Step course and an understanding of:

- HTML output
- Creating summary information
- SAS functions

- Transforming data
- DROP, KEEP and RENAME processing
- Match merging and interleaving data
- Data step compile and execution
- Basic operating system commands
- Operating system file structures
- Libname statements
- Array Processing and Do Loops
- Macro Processing

Course Topics

Installation of SAS

- Configuration File Changes
- SETINIT Changes
- Display Manager Changes
- Enhanced Interface
- Pull down Menu Selections
- Online Help Facility
- Explorer Window
- Data Set Properties Viewer
- List View Copy Command - DMCOPYLSV
- Catalog Properties Viewer
- Object/Class Properties Viewer
- Filename Viewer
- New Access to My Computer Icon
- Results Window
- ODS Document Viewer
- SAS/Connect Monitor
- Return of the V6 Windows

Data and Catalog Migration

New Formats and Informats

Any Date Informat

DATESTYLE Option

New Functions and Options

Perl Regular Expressions and Pattern Matching

Optimized Joins

Resetting the SAS Date on Output

Putlog Statement

New Data Step Object Dot Syntax

- DECLARE Statement
- Hash Table for Lookups

New SAS Architectures

- Multi-Threaded Architecture
- Scalable Performance Data Architecture

New/Enhanced Procedures

CONTENTS, COPY, EXPORT, FORMAT, FREQ, IMPORT, MEANS, PRTDEF, PRTEXP, REGISTRY, REPORT, SORT, SUMMARY, SQL, TABULATE, TIMEPLOT, UNIVARIATE

Call Symputx Macro Statement

Application Response Measurement (ARM)

Macro Changes

ODS Enhancements

XML, CHTML, CSV, CSVALL, DOCBOOK, DOCUMENT, HTMLCSS, IMODE, LATEX, MARKUP, PCL, TROFF, WML, WMLOLIST

New ODS Options

- Columns Option
- Margin and Indent Options
- Text Options
- Orientation Option
- Page X of Y Support

New ODS Styles

Decimal Alignment

Atlas Utility

SAS/Connect Changes and Enhancements

- Cross Environment Data Access (CEDA)
- Libref Inheritance
- %SYSLPUT CONNECTREMOTE= Option
- Remote Library Services
- MP CONNECT and Piping

SAS/Graph Changes and Enhancements

New Procedures

- GBARLINE
- GAREABAR
- MAPIMPORT
- Style Uniformity
- Support for the ANNOTATE= option
- Server Side Rendering
- Colors
- Java Applets Supported by SAS/Graph
- Treeview Java Applet
- Constellation Java Applet
- Java Applet CHORO Map
- Java Applet DRILLMAP
- Java Applet DRILLMAP3

SAS Management Console

Enterprise Guide

- SAS Version 9 / DMS Support
- Program Editing Enhancements
- Function Keys
- Version 9 Graphs
- Open Metadata Repository (OMR)
- BIP Integration Support
- Stored Processes
- Intelligent Query Integration
- XML Integration
- Queries and Tasks
- APIs
- Workflow Enhancements
- Automation Interface
- New Tasks
- User Defined Code
- Naming Task Tables
- Task Data Sorting

- User Defined CSS
- ### Operating Systems Supported