

Application Development: Building SCL Applications

Duration: 3.0 days

CEUs: 1.8

AUDIENCE

This course is designed for students who need to develop applications in SAS to be used by non-programmers, but need the analysis, reporting and graphing offered in SAS. SAS Component Language is introduced and discussed in this course. Students will learn to design advanced, interactive menu driven systems using SAS/AF and SAS/FSP software. We cover an extensive discussion of SCL as it is used to interact with the user, submit batch SAS programs, perform lookups, use extended tables, create screens, choice groups, push buttons, selection lists and customized pull down menus. Innovative SCL examples the students can take with them are used in class discussions. It is designed to be taught in conjunction with the Application Development I course in graphical environments.

BENEFITS

Students will be able to:

- Design applications
- Build SCL and test it
- Create a multiple windowing environment
- Capture user input
- Use messages for feedback
- Implement branching logic
- Submit Base SAS code for processing
- Create pull down menus, icons, buttons and more

PREREQUISITES

Programming I: SAS Essentials course or equivalent understanding and knowledge of:

- The SAS Interactive Display Manager environment
- Writing simple base SAS programs using the data step and proc steps
- SAS library assignment
- Subsetting data with where clauses
- SAS commands in a windowing environment
- Issue basic commands for window management
- Conditional logic such as IF THEN ELSE

COURSE TOPICS

Introduction

- What is SAS Component Language
- SAS library organization
- The difference between SAS/AF software and SCL

Creating Simple SAS/AF Applications

- The different types of catalog entries
- Creating a catalog to store your application
- The difference between a Frame and Program Entry
- Setting up Help entries

Screen Control Language Basics

- Why we write SCL programs
- How to write a simple SCL program
- How to compile the program
- Testing your logic
- Using the Debugger to validate your logic

Creating Custom Observation Level Screens

- What is FSEDIT
- How we set up fields
- How we establish application parameters
- How to customize the display
- How to embed SCL for logic processing

Loading Observations from a SAS Data Set onto the Screen

- OPENing SAS data sets
- Applying where clauses
- Using FETCH functions to retrieve observations
- Using GETVAR functions to move data

User Interface Styles

- Using the PMENU facility for pull down menus
- Changing the interface
- How to set up GUI instead of character based displays

Running Base SAS Programs From AF Applications

- How to set up your Base SAS code in SCL
- What is a Submit Block
- Capturing User Input
- Running and Testing the code
- What is the Preview Window
- Looking at Output

Menu Driven Applications

- Using Call routines to branch to other screens
- What are Menu Entries
- Passing values between screens

Moving The Application To Production

- How to compile without the source code
- How to set up Autoexec and Config files for production
- Managing catalogs

Software Used: Base SAS, SAS/AF®, and SAS/FSP® Software