Programming III: Advanced Techniques

Duration: 2.0 days CEUs: 1.2

AUDIENCE

This course is designed to show SAS programmers how to use the Data Step to read and manipulate complex forms of data, and how to use SAS utilities to manage SAS libraries

BENEFITS

You will learn to:

- *Read any type of raw data into SAS*
- *Create information with ODS and multiple versions of data*
- *Perform complex merging and joining of data*
- *Work with data audit trails and complex, multidimensional arrays*
- *Set up data constraints*
- *Join summary and detail data*

PREREQUISITES

Programming II: Data Manipulation Using The Data Step and understand:

- *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 and directory structures*
- *Libname statements*

COURSE TOPICS

Reading Data Into SAS

- *Reading all types of flat files and hierarchical data*
- *Reading mixed records formats*
- *Reading packed and zoned decimal data*
- *Working with EBCDIC and ASCII data*
- *Advance INFILE Statement options*
- *Setting up indexes in SAS*
- *Joining summary information with detail data*

Data Utilities in SAS

- *Viewing information with Data Step Views*
- *Outputting SAS data sets with ODS*
- *Using Generation Data Sets to create historical information*

Understanding Data

- *Working with Data Storage in SAS libraries*
- *Comparing data sets with Proc Compare*

Manipulating Data With Utility Procedures

- *Using Proc Transpose to restructure data*
- *Using Proc Copy to copy data sets and upgrade them to Version 8*
- *Using Proc Datasets to modify data set structure and attributes*
- *Using a single libref to reference all SAS libraries*

SAS Utilities To Manage Data

- *Using the MODIFY statement to update data in place*
- *Data transformation*
- *Using Audit trails to track changes*
- *Using Arrays for repetitive calculations*
- *Setting up Integrity Constraints to maintain clean data*

Formatting Data For Better Presentations

- *How to set up user defined formats*
- *How to use permanent formats*
- *How to set up dynamic formats with SAS data sets*

Software Used: Base SAS Software