



# **SAS® Programming 3: Advanced Techniques**

## **Course Description**

This course is for SAS programmers who want to learn advanced techniques within the DATA step and procedures. The course builds on the concepts that are presented in the SAS Programming 2: Data Manipulation Techniques course.

#### Learn how to

- Use additional functions (LAG, FINDC/FINDW, and COUNT/COUNTC/COUNTW).
- Perform pattern matching using PRX functions.
- Process repetitive code, rotate data, and perform table lookups using arrays.
- Perform table lookups and sort data using hash and hash iterator objects.
- Create numeric templates using the FORMAT procedure.
- Create custom functions using the FCMP procedure.

### **Course Prerequisites**

Before attending this course, you should have completed the SAS Programming 2: Data Manipulation Techniques course or have equivalent knowledge. Specifically, you should be able to do the following:

- Create an accumulating column and process data in groups.
- Manipulate data with functions.
- Convert column types.
- Create custom formats.
- Concatenate and merge tables.
- Process repetitive code.
- Restructure tables.

### Who Should Attend?

Experienced SAS programmers

### **Course Contents**

**Getting Started** 

- Setting up for this course.
- DATA step review. Using Advanced Functions
- Using a variety of advanced functions.
- Performing pattern matching with Perl regular expressions.Defining and Processing Arrays
- Defining and referencing one-dimensional arrays.
- Doing more with one-dimensional arrays.

- Defining and referencing two-dimensional arrays.Defining and Processing Hash Objects
- Declaring hash objects.
- Defining hash objects.
- Finding key values in a hash object.
- Writing a hash object to a table.
- Using hash iterator objects.Using Utility Procedures
- Creating picture formats with the FORMAT procedure.
- Creating functions with the FCMP procedure.

## **Course Duration**

2 days

### **SAS Products Covered**

Base SAS

## For More Information Please Contact: Vnohow (Thailand) Co., Ltd.

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