

Course Code: ES35G

Course Title: Advanced Assembler Language Coding Workshop

## Description:

This course provides instruction and practice in the use of the more complex S/390 Assembler Language facilities for the experienced assembler language programmer. The course includes a discussion of standard linkage conventions, use of BSAM/QSAM and selected system macros, the macro definition language, and reentrant coding considerations.

Emasis is placed on enhancing skills in problem resolution through analysis of more complex system-provided dumps.

## Objectives:

- Identify data management considerations and access methods
- Code assembler language programs which:
  - Conform to standard linkage conventions using save area chaining
  - Define and use BSAM/QSAM datasets through standard I/O macros
- Define and execute user macros which contain:
  - Positional and/or keyword parameters
  - Fixed or variable entry parameter lists
  - Conditional assembly logic
- Use variable length storage operations (that is, EX, MVCL, and so on)
- Employ more complex instructions (that is, TR, TRT, BXLE, and so on)
- Access JCL parameter data
- Employ LE date/time handling services
- Identify reentrant coding considerations and dynamic storage acquisition

## Prerequisites:

You should be able to:

- Code and debug simple S/390 assembler language programs

## Duration:

32 Hrs

## Topics:

### Day 1

- (00:15) Welcome
- (01:00) Unit 1: Review
- (00:15) Unit 2: Assembler instructions
- (01:45) Unit 3: Linkage
- (01:30) Unit 4: LE date/time handling

- (02:30) Exercise 1: PARM handling and search

## **Day 2**

- (00:15) Lab review
- (03:00) Unit 5: Access methods: BSAM/QSAM
- (03:00) Exercise 2: File handling

## **Day 3**

- (00:15) Lab review
- (00:30) Unit 6: Assembler compile-time options
- (00:30) Unit 7: SNAP dumps
- (03:30) Unit 8: Macros and the Conditional Assembly Language
- (02:30) Exercise 3: Macro modification

## **Day 4**

- (00:25) Lab review
- (01:15) Unit 9: Miscellaneous instructions
- (00:25) Unit 10: Floating point data
- (00:25) Unit 11: Reentrant coding
- (00:15) Class wrap-up

## **Audience:**

This course is designed for application programmers and beginning system programmers who code, maintain, and debug application support programs or subroutines written in S/390 assembler language.