

# Enterprise COBOL: Advanced

## Course Description:

This is the third course of a multi-part series that teaches the basics of Enterprise COBOL application development. It focuses on multi-module programs using CALL and LINKAGE SECTION, internal SORT, Variable blocked record processing, STRING, UNSTRING, INSPECT, more intrinsic functions, LE functions and XML parsing and generation.

## Duration: 5 - 8 days

(Course length depends on the experience and background of the students.)

## Participants:

Experienced programmers responsible for developing and maintaining COBOL application programs.

## Course Objectives:

Upon successful completion of this course, you will be able to:

- Code main and subprograms and call subprograms from other programs, passing appropriate data.
- Pass data from JCL PARMs into your main COBOL program.
- Process VB records.
- Code internal SORTs and use a variety of advanced SORTING techniques.
- Generate XML documents and parse XML documents (*optional*).

## Course Prerequisites:

Students need to have completed the Enterprise COBOL: Intermediate course, and have basic experience with z/OS JCL for JES2 or JES3, and TSO/ISPF.

## Format:

Lecture and hands-on computer workshops. Throughout the course, students perform many hands-on workshops and coding exercises to reinforce material presented in lectures..

## Topic Outline:

Multi-module CALLing and CALLED programs

- Linkage Section
- Passing parameters
- Static and dynamic CALLs
- GOBACK vs. STOP RUN vs. EXIT PROGRAM
- CANCEL
- JCL to compile and link static calls
- JCL to compile and link dynamic calls
- Passing parameter values into the main program
- AMODE, RMODE
- DATA compile option
- Passing data by reference, by value, by context

STRING, UNSTRING, INSPECT

- Concatenating values
- Parsing values
- Converting values into others
- Tallying

# Enterprise COBOL: Advanced, *continued*

## Internal SORT

- SD for SORT
- SELECT/ASSIGN
- SORT statement syntax
- USING and GIVING
- INPUT and OUTPUT PROCEDURES
- Special Registers for SORT
- RELEASE and RETURN
- Sorting a Working-Storage table
- SORT compiler options

## Variable length Tables and Advanced Table Topics

- Dynamically loading variable length tables
- SEARCH, SEARCH ALL
- SSRANGE
- Table efficiencies

## Variable length Records (RECFM=VB)

- Why use VB
- VB architecture
- Different techniques for defining VB records
- AWO efficiency

## XML

- What is an XML document?
- XML Parsing in COBOL
- XML Generation in COBOL
- CODEPAGEs

## Intrinsic Functions

- Date functions
- Other functions not already taught

## LE Callable Routines

- Typical LE CALLs
- Feedback area

## Highlights of COBOL 5 and 6 Differences