Enterprise COBOL Update - Course Objectives

On successful completion of this class, the student, with the aid of the appropriate reference materials, should be able to:

1. Code programs using the features of the Enterprise COBOL compiler, including features such as:

   Intrinsic functions
   External data and file attributes
   Passing data to subroutines by reference, by content, and by value
   Receiving returned values from subroutines or functions
   Access files in the Hierarchical File System (HFS) using line
        sequential processing
   Dynamically allocate files at run time

2. Run programs compiled using the Enterprise COBOL compiler, providing the correct run-time parameters and JCL

3. Describe the role of Language Environment (LE), and the major functional capabilities supported by LE

4. Be able to use the Millennium Language Extensions (MLE), if interested.

Enterprise COBOL Update - Topical Outline

<u>Day One</u>

The Legacy of VS COBOL II
   COBOL II Recap
      Mixed-case and un-named filler
      Packed-decimal and binary data declarations
      Tables: dimensions, sizes, and initialization
      Reference modification and hex notation
      Pointers and addresses
      Nested programs
      CALL ... BY CONTENT ... ON EXCEPTION enhancements
      PERFORM ... WITH TEST AFTER
      Scope terminators
      In-line PERFORM
      SET ... TO TRUE
      CONTINUE
      INITIALIZE
      EVALUATE
      Some Compiler Parm changes
      Changes in OPEN Behavior

COBOL Evolves
   COBOL/370 (Version 1, Release 1)
   New reserved words
   Compiler option changes
   Run-time JCL changes
   Language Environment Run-Time Parameters of interest

COBOL Intrinsic functions
   Concepts and Syntax
   Date and Time Related Functions
   String Related Functions
   Arithmetic, Business, and Mathematical Functions
   The ALL Intrinsic Function

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Introduction to Language Environment
    What Is Language Environment?
    LE Services
    Benefits of Using LE
    Using LE Services

Day Two

A Deeper Look at LE
    LE Program management
    Survey of LE services
    Code fragments: Condition handler, storage management
    A Quick look at an LE Dump

COBOL for MVS & VM (Version 1, Release 2) Changes
    General Changes
        Apostrophes and Quotes
        Null-terminated non-numeric literals
        Long names, mixed case names
        Enhanced currency support
        Local-storage
        Recursive programs
        RETURNING on procedure division header and call
        Pass arguments BY VALUE
        Procedure-pointer extensions
    New Reserved Words
    New / Changed Compiler Options
    New / Changed Run-time Options
    INTDATE COBOL Compiler Installation Option
    Introduction of Object Oriented COBOL

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Day Two, continued

COBOL for OS/390 & VM (Version 2, Release 1) Changes
    DLL Support
    New ACCEPT options
    New functions: DATE-TO-YYYYMMDD, DAY-TO-YYYYDDD,
        YEAR-TO-YYYY
    New compiler option

COBOL for OS/390 & VM (Version 2, Release 2) Changes
    ADDRESS OF available for WORKING-STORAGE
    New usage: comp-5
    31-digit numbers
    Line sequential files
    New / changed compiler options
    Dynamic file allocation
    z/OS UNIX support

Enterprise COBOL changes
    Enterprise COBOL V3R1
    Enterprise COBOL V3R2
    Enterprise COBOL V3R3
    Enterprise COBOL V3R4
    Enterprise COBOL V4R1
    Enterprise COBOL V4R2

Enterprise COBOL Compiler: V3R1
    New reserved words
    Compiler option changes
    DB2 coprocessor (from earlier compiler)
    CICS integrated translator
    Multithreading support
    Function-pointers
    ADDRESS OF in CALL

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Day Two, continued

Enterprise COBOL Compiler: V3R2
    New / changed reserved words, compiler options
    New functionality: overview

Enterprise COBOL Compiler: V3R3
    New / changed reserved words, compiler options
    New functionality: overview

Enterprise COBOL Compiler: V3R4
    New / changed reserved words, compiler options
    New functionality
        Larger table limits
        Unicode support, stage2
        REDEFINES extension

Enterprise COBOL Compiler: V4R1
    Compiler option changes
    New reserved words
    Enhanced XML support

Enterprise COBOL Compiler: V4R2
    Compiler option changes
    New functionality
        Underscore in user-defined names
        XML PARSE with validation

Appendix: MLE - Millennium Language Extensions