CICS COBOL Programming

Length 5 days

Course Description: CICS Command Level Programming provides an understanding of the CICS system, application environment and typical applications. The structure of CICS pseudo-conversational application programs are discussed and reviewed in detail. Basic Mapping Support (BMS) is used to develop screen layouts (maps). These maps, used in the class programming exercises, are the basis for understanding the CICS terminal interface. A model program is used to develop class programs. The major CICS commands and features are used in class exercises. Programming access will be use the CICS Command Level Interference of COBOL. The course consists of a series of lectures, discussions, class exercises, and with hands-on programming workshop problems.

AUDIENCE: CICS Command Level Programming is intended for programmers who must understand the flow of CICS and write and debug CICS COBOL application programs.

Prerequisites: Six months of experience with TSO/ISPF, COBOL programming and JCL is required.

Outline

Day 1

- CICS concepts and terminology
- CICS concepts, facilities, components
- Eight steps in CICS program development
- Using Basic Mapping Support (BMS)
- IBM 3270 display screen characteristics
- Coding BMS macros instructions

Day 2

- CICS Command Level programming
- Program design concepts - Pseudo-conversational
- Command Level COBOL
- Program Design (beyond the basic commands)
- The EXEC Interface Block (EIB)
- Terminal Control
- CICS File Control commands
- Exceptional Condition Control
- Special programming techniques

Day 3

- Program control facilities
- 'Transfer' to another program (XCTL)
- 'Link' to a sub-program (LINK)
- Return control (RETURN)
- The COMMunications Area

Day 4

- 6. Test and Debugging

Day 5

- 7. Overview of storage control facilities
- Transient data queues
- Temporary storage queues
- Journaling
- CICS system tables
- 9. Sample Application program - A review of a Program
- 10. Workshop exercises
- Testing your BMS map
- A first program
- Read and update a file

Appendices

- Appendix A - Exception Conditions
- Appendix B - EIB (Execution Interface Block) Fields

- Appendix C - Program Check Conditions
- Appendix D - Sample Attribute Byte Control Character Table
- Appendix E - Cobol Functions Not Supported By CICS
- Appendix F - Class Standards
- Appendix G - Class Refresher Questions
- Appendix H - 6 Model BMS Fields

- Appendix I – CICS Copy Books – DFHAID, DFHBMSCA (Continued)
- Appendix J – CICS Test VSAM file access Program
- Appendix K – CICS Test Map
- Appendix L – CICS Test VSAM Data
- Appendix M – CICS Test DB2 Table access Program
- Appendix N – CICS Test DB2 Table data
- Appendix - DTCN - IBM CICS Debug Tool
- Appendix - ENTER TRACENUM CICS Command
- Appendix - InterTest Overview