

CICS/TS Command Level Programming

Course Summary

Description

Students will learn to write online application programs using CICS Command Level Interface. They will learn the fundamentals of program control, VSAM file processing, Terminal I/O, as well as program testing and debugging techniques. This course can be taught on current release of CICS/TS or any previous release.

Topics

- Definition and Overview of CICS
- Basic Architecture and Processing Concepts
- System Tables (PPT, PCT, FCT)
- Control and User Areas
- Program Design Considerations
- Technical Communication (Including BMS)
- File Operations (READ, WRITE, DELETE and browse options)
- Program and Task Communication
- Advanced File I/O and BMS (Basic Mapping Support)
- Debugging use CEDF (CICS Execution Diagnostic Facility)

Audience

Programmers and programmer/analysts who have a need to develop effective and efficient on-line systems

Prerequisites

- Experience with COBOL coding techniques
- Experience with VSAM
- Experience with TSO/ISPF
- Experience with IMS and/or DB2 is helpful, but not required

Duration

Five days

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Course Outline

- I. Introduction to CICS**
 - A. CICS On-Line Systems & Architecture
 - B. CICS - Customer Information Control System
 - C. Region Components
 - D. Storage Cushion
 - E. CICS/VS Characteristics
 - F. Conversational
 - G. Pseudo Conversational
- II. CICS System Considerations**
 - A. CICS System Considerations
 - B. CICS Functions
 1. Supervisory Functions
 2. Data Management Functions
 - C. CICS Multi-tasking & Multi-threading
 - D. System Control Tables
 - E. Program Control Table - DFHPCT
 - F. Processing Program Table - DFHPPT
 - G. File Control Table - DFHFCT
 1. REVIEW QUESTIONS
- III. CICS Program Preparations**
 - A. Translation Process
 - B. EIBLK Linkage Section Area
- IV. COBOL Considerations**
 - A. Modes
 1. Move Mode
 2. Locate Mode
 - B. Length Special Register
 - C. Return-Code Special Register
 - D. Return Options from VS COBOL II Program
 - E. Call Statement from VS COBOL II Program
 - F. Restrictions
 - G. Working-Storage
 - H. Working-Storage COMMAREA
 - I. Special Copy Members
 - J. Working-Storage COMMAREA - DFHCOMMAREA
 - K. Notes on DL/I Under CICS
 1. REVIEW QUESTIONS
- V. Basic Mapping Support**
 - A. CICS Communication Methods
 - B. Basic Mapping Support - BMS
 - C. BMS Macros
 - D. Sample Physical Map
 - E. Sample Symbolic Map
 - F. Symbolic Map
- VI. CICS Terminal Control**
 - A. Terminal Control & BMS Commands
 - B. Command Function
 1. REVIEW QUESTIONS
 - Lab 1
- VII. CICS Program Control Commands**
 - A. Program Control Commands
 - B. Command Function
 - C. Exception Conditions
- VIII. CICS File Control**
 - A. File Access
 - B. File Control Commands
 - C. READ Command Function
 - D. WRITE Command Function
 - E. REWRITE Command Function
 - F. DELETE Command Function
 - G. UNLOCK Command Function
 - H. STARTBR Command Function
 - I. RESETBR Command Function
 - J. READNEXT Command Function
 - K. READPREV Command Function
 - L. ENDBR Command Function
 1. REVIEW QUESTION
- IX. CICS Condition Control Commands**
 - A. Condition Control Command Functions
 - B. HANDLE AID Command Function
 - C. Manually Handling PF Keys
 - D. HANDLE CONDITION Command Function
 - E. Manually Handling Conditions
 - F. IGNORE CONDITION Command Function
 - G. PUSH HANDLE Command Function
 - H. POP HANDLE Command Function
 - Lab 2

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Course Outline (con't)

- X. CICS Temporary Storage Control Commands**
 - A. TEMPORARY STORAGE CONTROL Command Function
 - B. WRITEQ TS Command Function
 - C. READQ TS Command Function
 - D. DELETEQ TS Command Function
- XI. CICS Transient Data Control Commands**
 - A. TRANSIENT DATA Control Command Function
 - B. WRITEQ TD Command Function
 - C. READQ TD Command Function
 - D. DELETEQ TD Command Function
- XII. Program Debugging**
 - A. Programming Debugging Considerations
 - B. CEDF
 - C. System Recovery Program - DFHSRP
 - D. HANDLE ABEND Command Function
 - E. ABEND Command Function
 - Lab 3
- XIII. Appendices**
 - A. Appendix A - CEMT Commands
 - B. Appendix B - Execute Interface Abend Codes
 - C. Appendix C - INTERTEST Commands
 - D. Appendix D - Exception Conditions
 - E. Appendix E - Execute Interface Block
 - F. Appendix F - Standard List DFHBMSCA