

CICS Command Level Application Programming

Course Summary

Description

Class participants learn how to write on-line applications using the CICS/TS command level interface. The fundamentals of terminal I/O, program control, file processing and program testing/debugging are presented. Programming techniques that maximize CICS/TS performance and efficiency are discussed in detail throughout the class. This course can be taught at the current release of CICS/TS or any previous release based on the client's needs.

Objectives

Upon completion of this course the student should be able to:

- Understand the major CICS/TS management functions and their corresponding tables (PPT, PCT, TCT, FCT, DCT).
- Design and code application programs for the CICS/TS environment using the following CICS/TS functions:
 - * Exception conditions (HANDLE CONDITION, IGNORE CONDITION)
 - * Program control (LINK, XCTL, LOAD, RELEASE, RETURN)
 - * Terminal control (SEND, RECEIVE, HANDLE AID)
 - * File control (READ, REWRITE, WRITE, DELETE, STARTBR, EADNEXT, ENDBR, RESETBR)
 - * Basic mapping support (MAPSETS, MAPS, SEND, RECEIVE, ATTRIBUTES, CURSOR POSITIONING)
 - * Transient data control (READQ TD, WRITEQ TD, DELETEQ TD)
 - * Temporary storage control (READQ TS, WRITEQ TS, DELETEQ TS)
 - * Storage control (GETMAIN, FREEMAIN)
 - * Access to other system information (ADDRESS, ASSIGN)
 - * Abnormal termination and recovery (HANDLE ABEND, ABEND, DUMP)
- Use the CICS/TS diagnostic facility (CEDF) for testing and debugging application programs.

Audience

This course is designed for application level programmers who are required to code and maintain programs which utilize the CICS/TS Command Level Interface.

Prerequisites

The student should have knowledge of COBOL, PL/I, or Assembler Language coding techniques and a conceptual understanding of DASD file organizations.

Duration

Five days

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Course Outline

- I. CICS/TS Overview**
 - A. Batch vs. on-line
 - B. Real-time
 - C. Think-time
 - D. Transactions
 - E. Pseudo-conversational
 - E. Components, functions and features
 - F. Definitions
 - G. Tables.
- II. Command Language Interface**
 - A. Program characteristics
 - B. Interface with CICS/TS
 - C. EXEC CICS/TS command format
 - D. Execute interface blockand argument conventions translator
- III. Program Structure**
 - A. Language considerations and restrictions
 - B. Linkage section usage
- IV. Exception Processing**
 - A. Handle condition and Ignore condition
 - B. Resp and Nohandle
 - C. EIBRESP
- V. Program Control**
 - A. Modular structure using XCTL, LINK, CALL and RETURN
 - B. Pseudo-conversational tasks using transid and commarea
- VI. Terminal Control**
 - A. SEND and RECEIVE
 - B. Attention identifiers
 - C. DFIL AID
 - D. HANDLE AID
- VII. File Control**
 - A. Random processing commands (read, update, delete, add)
 - B. Browsing commands (start browse, read next, read previous, end or reset browse)
 - C. Move mode (INTO) versus locate mode (SET)
 - D. Exclusive control
 - E. Syncpoint
- VIII. Basic Mapping**
 - A. Overview of BMS facilities
 - B. Map creation (mapset definition macro, map definition macro, field definition macro)
 - C. Attribute modification
 - D. Cursor positioning
 - E. mapping commands (SEND, RECEIVE)
- IX. Transient Data and Temporary Storage**
 - A. Reading writing and deleting queues
- X. Programing Considerations**
 - A. Access to system information (ADDRESS, ASSIGN)
 - B. Abnormal termination and recovery (HANDLEABEND, ABEND, DUMP)
 - C. Debugging facilities (CEDF)

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