

ILE COBOL/400 Programming for COBOL Programmers

Course Summary

Description

This course is designed for those with some knowledge of the COBOL programming language who need to understand the extensions made for IBM's version of ILE COBOL/400. A main focus is Database I/O and the way that COBOL/400 interacts with IBM i DDS (Data Description Specifications) to process externally described database files and internally defined files. Additional Focus is placed on screen display files used for COBOL/400 interactive programming, as it replaces the common CICS programming model.

Topics

- Introduction
- Interactive Programming Concepts
- Using the Screen Design Aid (SDA)
- Defining and Using Display File Data Structures
- Error Handling and Informational Messaging
- Modular Coding in ILE COBOL/400
- Detecting, Handling and Avoiding File and Record Locking Problems
- Advanced Screen Processing

Audience

This course is designed for those with some knowledge of the COBOL programming language who need to understand the extensions made for IBM's version of ILE COBOL/400.

Prerequisites

Before taking this course, you should have experience in writing COBOL programs. You should also have taken the Programming Introduction to IBM i (iSeries, AS/400) course (PT1301), or have equivalent experience.

Duration

Five days

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Course Outline

I. Introduction

- A. Batch programming in COBOL/400
- B. DB2/400 Database Concepts
- C. File I/O Concepts
- D. Library List Concepts *LIBL
- E. Overriding Database File Options
- F. DDS Fundamentals
- G. Working with Indicators in COBOL
- H. Externally vs. Program Described Files

II. Interactive Programming Concepts

- A. Conversational vs CICS Pseudo-Conversational Method
- B. Designing Display files
- C. DDS for Display Files

III. Using the Screen Design Aid (SDA)

- A. Creating Display Files
- B. Defining Display Files in COBOL
- C. Using Literals and I/O Data Fields
- D. Function Key Management
- E. Database Integration in Displays
- F. Single and Multi-format Displays
- G. User-friendly Pop-up Windows
- H. COBOL/400 Design Issues

IV. Defining and Using Display File Data Structures

- A. Using Indicators
- B. Using the I-O Feedback Area
- C. Using File Status Codes

V. Error Handling and Informational Messaging

- A. How to Use IBM API's for Fast, Efficient Messaging
- B. Create and Apply User Message Files
- C. Tailor Dynamic Messaging for Program-specific Edits

VI. Modular Coding in ILE COBOL/400

VII. Detecting, Handling and Avoiding File and Record Locking Problems

VIII. Advanced Screen Processing

- A. Using Subfiles in COBOL
- B. Types of Subfile Displays
- C. Subfile Program Structure
- D. Subfile vs. Non-subfile Implementations
- E. DDS Keyword Interaction with COBOL/400
- F. Displaying a Subfile for Data Inquiry
- G. Subfile Loading Techniques
- H. Page-at-a-time vs. Full Load
- I. PageUp and PageDown Keys
- J. Record Selection and Positioning