

# **ILE COBOL/400 Programming for COBOL Programmers**

**(CB15)**

**5 Days (40% Lecture, 60% Workshop)**

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.

**Prerequisites: Experience in writing COBOL programs. IBM i (iSeries, AS/400) Concepts and Facilities (AS15) or equivalent experience.**

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## **Course Outline**

### **Introduction**

Batch programming in COBOL/400  
DB2/400 Database Concepts  
File I/O Concepts  
Library List Concepts \*LIBL  
Overriding Database File Options  
DDS Fundamentals  
Working with Indicators in COBOL  
Externally vs. Program Described Files

### **Interactive Programming Concepts**

Conversational vs CICS  
Pseudo-Conversational Method  
Designing Display files  
DDS for Display Files

### **Using the Screen Design Aid (SDA)**

Creating Display Files  
Defining Display Files in COBOL  
Using Literals and I/O Data Fields  
Function Key Management  
Database Integration in Displays  
Single and Multi-format Displays  
User-friendly Pop-up Windows  
COBOL/400 Design Issues

### **Defining and Using Display File**

#### **Data Structures**

Using Indicators  
Using the I-O Feedback Area  
Using File Status Codes

### **Error Handling and Informational Messaging**

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

### **Modular Coding in ILE COBOL/400**

### **Detecting, Handling and Avoiding File and Record Locking Problems**

### **Advanced Screen Processing**

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

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