

# **Expanded IBM i (iSeries, AS/400) ILE Control Language Programming Workshop (CL15)**

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

This class provides a comprehensive introduction to the IBM i (iSeries, AS/400) Control Language, and focuses on writing programs using the ILE Control Language.

ILE Control Language is the main operating system scripting language for IBM i, and has been greatly enhanced in recent years. This class is current with all the newest Control Language enhancements.

The students will write, test and debug numerous ILE Control Language programs of increasing complexity.

**Prerequisites: IBM i (iSeries, AS/400) Concepts and Facilities Workshop (AS15) or equivalent knowledge/experience with IBM Programming Tools.**

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## **Course Outline**

### **Introduction to Control Language**

What is CL?  
Command Names  
Command Parameters  
The AS/400 User Interface

### **Basic CL Programming**

Creating CL Programs  
CLP and CLLE Programs  
Structure of a CLLE Source Member  
Declaring Variables  
Manipulating Variables  
Numeric and Character Manipulation  
Using the Built In Functions  
CL Control Structures  
Using Complex Expressions  
Restart-ability - Controlling Workflow  
Error Handling using MONMSG

### **Input/Output in a CL Program**

Passing Parameters  
Using external information  
Using the RTV\* Commands  
Using Files and Data Areas  
Using \*OUTFILES and QTEMP

### **Error Handling and Messages**

Working with Message Files  
Message Handling Commands  
Using the MONMSG Command  
Error Handling in CL programs  
Advanced message and error handling

### **Using IBM Supplied APIs in CL**

QCMDEXC  
QUSCMDLN  
Other APIs

### **Running CL Commands from RPG and COBOL**

### **Selective Prompting for Commands**

**Using CL Programs for Displays**  
Basics of Using Screen Design Aid  
SNDF RCVF SNDRCVF Commands

### **Understanding and Modifying CL Command Attributes**

CHGCMD  
CHGCMDDFT

### **Creating Your Own Commands**

Creating Proxy Command  
Command Definition  
CMD and PARM Usage  
Command Processing Programs

### **Newest CL Enhancements**

Structured Operations  
Additional Data Types  
Pointer Operations  
Multiple File Operations  
Compiler Directing Commands  
ILE Modular Programming  
New CL announcements

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