

## IBM System i (AS/400) Concepts with Control Language

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### Course Summary

#### Description

This course provides an introduction to the IBM System i (AS/400) for programmers, system administrators, and other technical personnel. Students learn programming tools and operational concepts which are supported by supervised Hands-on Lab exercises.

This class also provides an introduction to IBM i Programming using the i/OS Control Language. Among the class materials that each student receives are two textbooks and a student guide for their reference after the class.

This class provides the prerequisites needed to attend the RPG IV and COBOL Programming Workshops.

#### Topics

- What is an IBM System i?
- The System i User Interface
- Work Management Concepts
- The Object Based Architecture
- Using Program Development Mgr (PDM)
- Using the Source Entry Utility (SEU)
- System i Database Concepts
- Introduction to IBM Query for i
- Introduction to SQL / STRSQL
- Screen Design Aid (SDA)
- Control Language Programming
- Introduction to Control Language
- Basic CL Programming
- Input/Output in a CL Program

#### Audience

This course is designed for programmers, system administrators, and other technical personnel.

#### Prerequisites

Before taking this course, you should have a basic knowledge of computer concepts.

#### Duration

Five days

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### Course Outline

- I. *What is an IBM System i?***
  - A. Introduction to the IBM I (AS/400)
  - B. System i Architecture
- II. *The System i User Interface***
  - A. The Menu System
  - B. Control Language
    - 1. The Command Line Interface
    - 2. Commands and Parameters
    - 3. The Prompt Facility
  - C. The Help Facility
  - D. Tailoring Assistance Levels
  - E. Attn and SysReq Keys
  - F. Messages and Message Queues
    - 1. Sending Messages
    - 2. Viewing and Responding
- III. *Work Management Concepts***
  - A. Interactive and Batch Jobs
  - B. Managing Job and Print Queue
  - C. Operations for Controlling Jobs
  - D. Submitting and Scheduling Jobs
- IV. *The Object Based Architecture***
  - A. Library Concepts
  - B. Object Types and Attributes
  - C. Library Lists
  - D. Libraries Objects and Members
  - E. The Integrated File System (IFS)
- V. *Using Program Development Mgr (PDM)***
  - A. Working with Libraries, Objects and Members
    - 1. Using PDM
  - B. Customizing PDM for your use
- VI. *Using the Source Entry Utility (SEU)***
  - A. The Edit Display
  - B. SEU Line Commands
  - C. Find/Change Options
  - D. Browse/Copy Options
- VII. *System i Database Concepts***
  - A. Database Capabilities
  - B. Storage Management
  - C. Data Description Specifications
  - D. Creating Physical Files
  - E. Using Field Reference Files
  - F. Creating Logical Files
- VIII. *Introduction to IBM Query for i***
- IX. *Introduction to SQL / STRSQL***
- X. *Screen Design Aid (SDA)***
  - A. Creating your own Menus
  - B. Customizing the Sign-On Display
- XI. *Control Language Programming***
- XII. *Introduction to Control Language***
  - A. What is CL?
  - B. Command Names
  - C. Command Parameters
- XIII. *Basic CL Programming***
  - A. Creating CL Programs
  - B. Structure of a CL Source Member
  - C. Declaring Variables
  - D. Manipulating Variables
  - E. CL Control Structures
  - F. Expressions
  - G. Controlling Workflow
  - H. Basic Error Handling
  - I.
- XIV. *Input/Output in a CL Program***
  - A. Passing Parameters
  - B. Using external attributes
  - C. Using Files and Data Areas
  - D. Writing your own administrative utilities