

## **MVS Job Control Language Workshop**

### **Course Summary**

#### **Description**

This course covers MVS Job Control Language for the z/OS operating system through lecture, examples, and hands-on exercises using common IBM Utility Programs. Frequent updates insure that the course addresses MVS/JCL for the latest version of the z/OS operating system. This course is 3 days, but may be extended to 4.5 with additional labs.

#### **Topics**

- MVS/JCL Overview
- MVS/JCL Syntax
- JES Statements
- JOB, EXEC, IF, ELSE, and ENDIF Statements
- The Data Definition (DD) Statement
- OUTPUT Statements
- EXPORT and SET Statements
- Generation Data Groups
- PROC, PEND
- TSO Terminal Monitor Program – IKJEFT01
- DF/SMS Utilities: IEFBR14, IEBGENER, IDCAMS, IEBCOPY, and SORT utilities
- DF/SMS Operands
- PROCs and PROC execution
- INCLUDEs and INCLUDE Groups

#### **Audience**

This course is designed for programmers, operators, and systems personnel who develop or execute applications using MVS/JCL.

#### **Prerequisites**

Before taking this course, students should have basic TSO/ISPF or IDE editing skills.

#### **Duration**

Three to four and one half days

## MVS Job Control Language Workshop

### Course Outline

- I. MVS/JCL Overview**
  - A. JCL statements
  - B. JOB streams
  - C. Procedures (PROCS)
  - D. Include Groups
- II. JCL Syntax**
  - A. Identification and Name fields
  - B. Operation field
  - C. Operands and continuation
  - D. Comments
  - E. Sequence Numbers and ISPF
- III. JES statements**
  - A. JES2
    - 1. JOBPARM, ROUTE, XEQ
  - B. JES3
    - 1. MAIN and ROUTE
- IV. JOB statement**
  - A. Positional operands
    - 1. Account and Programmer name
  - B. Keyword operands
    - 1. CLASS, MSGLEVEL, MSGCLASS
    - 2. NOTIFY, REGION, UJOBCORR
    - 3. TYPRUN, RESTART, USER, SCHENV
    - 4. JOBRC, COND, TIME
- V. EXEC Statement**
  - A. The IEFBR14 Utility
  - B. Positional operands
    - 1. PGM, PROC
  - C. Keyword operands
    - 1. PARM, PARMDD, REGION, TIME
    - 2. COND
- VI. IF...THEN, ELSE, and ENDIF**
  - A. Operators
  - B. Relational keywords
  - C. COND= and IF equivalents
- VII. DD Statements (Data Definition)**
  - A. Link between programs and JCL
    - 1. COBOL, REXX
    - 2. Compile and Link (binder) JCL
  - B. TSO Terminal Monitor Program (TMP) – IKJEFT01
  - C. The IEBGENER Utility
  - D. Assigning input or output to a NULLFILE
  - E. In-stream data inputs
  - F. SYSOUT (system printer output) and refer-back
  - G. SYMBOL - JES2 System and Dynamic Symbols
- VIII. OUTPUT statements**
  - A. OUTPUT operand for the DD statement
- IX. Data set definition**
  - A. DISP, DSN, and refer-back
    - 1. Temporary data sets
    - 2. Partitioned data set members
  - B. UNIT, DCB and common attributes
  - C. SPACE and SAPCE Abends
  - D. IEFBR14 utility - delete
  - E. IDCAMS utility - delete
- X. EXPORT (JES2) statement**
  - A. Sharing symbolics with in-stream inputs
- XI. SET statement**
  - A. Assigning symbolics
- XII. Generation Data Groups**
  - A. The IDCAMS utility – Define GDG
  - B. ISPF VSAM Utilities option
- XIII. Data set concatenation with DD statements**
- XIV. DFSMS Utilities**
  - A. IEBCOPY
  - B. SORT

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### **Course Outline (cont'd)**

#### **XV. Additional DD operands**

- A. DFSMS
  - 1. General
    - a) MGMTCLAS, STORCLAS, DATACLAS
    - b) AVGREC, DSNTYPE, LIKE, REFDD
  - 2. UNIX
    - a) FILEDATA, PATH, PATHMODE, PATHOPTS
  - 3. VSAM
    - a) RECOR, KEYLEN, KEYOFF, etc.
  - 4. RACF
    - a) SECMODEL

#### **XVI. Tape data set DD operands**

- A. UNIT, VOL, LABEL

#### **XVII. Special DD names**

- A. SYSIN generated statement
- B. JOBLIB
- C. STEPLIB
- D. CEEDUMP, SYSABEND, SYSUDUMP, SYSMDUMP

#### **XVIII. JCL Procedures**

- A. PROC limitations
- B. Cataloged versus In-stream PROC
- C. PROC and PEND Statements
- D. Symbolics
  - 1. On PROC statement
  - 2. On EXEC statements
- E. PROC override statements in a JOB

#### **XIX. JCLLIB Statement**

- A. Defining a user PROCLIB and executing PROCs

#### **XX. INCLUDE Statement**

- A. Creating INCLUDE members with SYMBOLICS