

MF1010 - MVS/JCL, TSO/ISPF & MVS Utilities

Course Synopsis

Duration:	MVS/TSO/ISPF (2 days) MVS JCL & Utilities (3 days)
Audience:	This course is directed toward application developers in a technical support role in a z/OS environment.
Prerequisites:	Students should have basic key-boarding skills.
Delivery Method:	Instructor led, Hands-on workshops.

Brief Description

Teaches the fundamentals of TSO/ISPF, MVS JCL and MVS Utilities for use by IBM Mainframe personnel.

Course Objectives What You'll Learn

Upon successful completion of this course, the student will be able to:

TSO/ISPF:

- Logon/Logoff a TSO/ISPF session
- Use Browse, Edit, Utilities, IOF or SDSF
- Allocate sequential and partitioned data sets
- Use the Edit (Option 2) primary and line commands
- Use the KEYS function to tailor session PFKeys
- Learn methods of copying and moving data members and data sets within ISPF

MVS JCL:

- Learn Data and data set types, basic syntax of the JOB, EXEC and DD statements, debug basic JCL errors using either IOF or SDSF, allocate permanent and temporary data sets, conditionally execute JOB steps, write in-stream procedures, catalog procedures, pass parameters to programs via JCL, code JCL to pass data generated to subsequent step(s).

MVS Utilities:

- Code JCL to execute SORT, IDCAMS, and create a Generation Data Group (GDG).
- Write JCL to Compile and Linkedit a COBOL batch program.

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Part I - MVS/TSO/ISPF

I. Introduction

- Preliminary Concepts and Terminology
 - What Every TSO User Needs to Know About IBM Mainframe Computers
 - An Introduction to MVS and TSO
 - How to Use a 3270 Information Display System and Access TSO

II. An Introduction to ISPF

- The Basics of Using ISPF
- How to Set Up Your ISPF Defaults

III. How to Browse a Data Set

- Basic Browse Operation
- Advanced Browse Operations

IV. How to Edit a Data Set

- Basic Edit Operations
- How to Control the Edit Profile
- Advanced Edit Operations

V. How to Perform Utility Functions

- Option 3.4: The DSLIST Utility
- Other Utilities to Manage Libraries and Data Sets
- The Compare and Search Utilities

Part II – MVS JCL & Utilities

VI. Introduction

- The Shock of JCL
- The Role of JCL
- The Difficulty of JCL
- The Approach to JCL

VII. Introduction to JCL and z/OS

- z/OS Concepts and Vocabulary
- z/OS Hardware Architecture
- Computer Data
- Data Storage

VIII. JCL Within a Job

- JCL Statements
- Computer Jobs
- Creating Programs
- Sort Example
- Compile, Linkage Edit, Execute Example
- Cataloged Procedure

IX. JCL Statement Formats and Rules

- JCL Statement Format
- Parameters in the Operand Field
- Parameter Rules
- General JCL Rules
- Continuing JCL Statements
- Commenting JCL
- Style in Writing JCL
- Placement of JCL Statements

X. The JOB Statement

- Jobname: Name of Job
- Accounting Information
- Name: Programmer Name
- CLASS: Job Class
- TIME: Time Limit
- MSGCLASS: System Messages
- MSGLEVEL: Printing JCL Statements
- TYPRUN: Special Job Processing

XI. The EXEC Statement

- Stepname: Name of Job Step
- PGM: Name of Program
- Procedure: Name of Cataloged Procedure
- Keyword Parameters
- Region Size
- COND: Conditions for Bypassing Job Steps
- IF/THEN/ELSE/ENDIF Statement Construct
- PARM: Pass Parameters to Job Steps
- ACCT: Job Step Accounting Information
- SYSUDUMP, SYSABEND, SYSMDUMP: Abnormal Termination Dumps

XII. The DD Statement

- Overview of Data Sets
- Data Control Block
- DD Statement Format
- ddname: Data Definition Name
- Referback: Referback Parameter
- DCB: Data Control Block Parameter
- DSN: Data Set Name
- DISP: Data Set Disposition
- Unit: I/O Unit
- VOL: Volume Parameter

XIII. More on the DD Statement

- Sequential and Partitioned Data Sets
- DUMMY, NULLFILE: Dummy Data Sets
- Concatenating Data Sets

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Topics
Covered Continued

XIV. DD Statements for Input Stream and Print Data Sets

- *,DATA: Input Stream Data Sets
- SYSOUT: Output Stream Data Sets
- The OUTPUT JCL Statement and Output DD Parameters
- The JES /*OUTPUT Statement
- The JES3 /*FORMAT PR Statement
- Parameters Coded on Several Statements

XV. Direct-Access Storage Devices

- Direct-Access Hardware Devices
- Space Allocation
- The SPACE Parameter
- DCB Parameters
- Virtual I/O (VIO) Temporary Data Sets
- Estimating Space
- The LABEL Parameter: Data Set Labels
- Multivolume Data Sets
- Using Data Sets on Direct-Access Volumes
- ABSTR: Requesting Specific Tracks

XVI. Cataloged and Instream Procedures

- Modifying Statements in Cataloged Procedures
- Cataloged Procedures
- Instream Procedures
- Symbolic Parameters
- Nesting Procedures and the INCLUDE Statement
- DDNAME: Postponing Definition of Data Sets
- Example of Cataloged Procedure

XVII. Generation Data Groups

- Creating the Generation Data Group Base Entry
- Creating the Model Data Set Label (Non-SMS-Managed Data Sets Only)
- Creating a Generation Data Set
- Retrieving Generation Data Sets
- Listing Generation Data Group Catalog Information
- Deleting Generation Data Groups

XVIII. Miscellaneous JCL Features

- Checkpoint/Restart
- Spanned Records
- Data Set Protection
- Job Execution Priority
- Other JCL Parameters
- Null Statement
- Operator Commands
- CNTL/ENDCNTL Program Control Statements
- XMIT Data Transmission Statements

XIX. The Linkage Editor and Loader

- The Linkage Editor
- The Loader

XX. IBM Utility Programs

- The IDCAMS Utility
- The Icedool Utility Programs
- The IBM Utility Programs

XXI. Sort/Merge

- Sorting Concepts
- The DFSORT Program
- The SORT Statement
- MERGE Statement
- Other SORT Statements
- Sort Efficiency