

## ISPF and JCL on z/OS

---

### Course Summary

#### Objectives

By the end of this course, students will be able to:

- Use full-screen terminals, including the appropriate Function keys, to accomplish work under ISPF/PDF
- Use the CUA interface (action bars, pull-downs, point-and-shoot fields, etc.), and tailor the look and feel of ISPF to meet individual preferences
- Describe the characteristics of, and differences between, sequential data sets, partitioned data sets (PDSs), and PDSEs (Partitioned Data Set Extended)
- View a sequential data set or a member of a PDS/PDSE
- Allocate, rename, and delete data sets or members, and print or display the attributes or contents of a data set
- Copy and move data sets and members
- Use productivity features such as command stacking and split screen processing, the CMDE command and command retrieval techniques
- Edit data sets or members: create new members or files, and modify existing members or files
- Understand the basic flow of work in z/OS, including JES Readers, Writers, Initiators, the role of the Interpreter, and the purpose of Allocation
- Code JCL statements as necessary to accomplish work in the z/OS environment, including JOB, EXEC, DD, OUTPUT, IF/THEN, ELSE, ENDIF, INCLUDE, SET, JCLLIB, PROC and PEND statements
- Copy files for backup, restore, and testing purposes using the IBM utility IEBGENER and use some basic services of IDCAMS, the VSAM utility
- Use a Sort/Merge program product to sort a sequential data set
- Use ISPF/PDF 3.8 and / or SDSF, Flasher, IOF, or (E)JES facilities for tracking jobs and examining job output
- Code cataloged procedures, including the use of symbolic parameters and defaults, nested procedures, and private proclibs
- Describe the implications of Storage Management Subsystem (SMS) and Partitioned Data Sets, Extended (PDSE's)

#### Topics

- ISPF Introduction
- ISPF Look and Feel
- Working With Data
- Allocating Data Sets
- Looking at Data — Edit, View, and Browse
- More on Edit, View, and Help
- More Utility Functions
- Productivity Tips and Techniques
- EDIT
- Edit and View Primary Commands
- More on Edit / View
- Edit / View — Passing and Receiving Data
- Edit Profiles
- Data Set List Utility and Commands
- Introduction to JCL
- Running Jobs
- Introduction to Data Management
- Tape and Disk Data Sets
- SMS - System Managed Storage
- Utilities and Job Output Viewing
- Sort / Merge
- OUTPUT Statements
- Condition Code Testing and Memory Management
- JCL procedures
- JCL procedures: inserts and overrides

## ISPF and JCL on z/OS

---

### Course Summary (cont.)

#### Topics (cont.)

- Symbolic Parameters
- JCL SETs, INCLUDEs and Nested Procedures
- Additional Data Set Handling Techniques

#### Prerequisite

There are no prerequisites for this course, although some experience with programming languages is helpful.

#### Duration

Five Days

## ISPF and JCL on z/OS

---

### Course Outline

#### I. *ISPF Introduction*

- A. TSO/ISPF/PDF
- B. The Logon Process
- C. ISPF/PDF Primary Option Menu
- D. Standard Panel Format, CUA Panel Formats
- E. Using Action Bars
- F. Getting Around in ISPF
- G. Leaving ISPF
  - Computer Exercise: A First Encounter with ISPF / PDF

#### II. *ISPF Look and Feel*

- A. The Settings Panel
- B. LIST and LOG Data Sets
- C. Function Keys Settings, Working With Keylists
- D. Color, Intensity, and Highlighting
- E. Look and Feel: Options, Status
  - Computer Exercise: Changing the Look and Feel of ISPF

#### III. *Working With Data*

- A. Files and Data Sets
- B. Data Set Organizations
- C. Data Set Naming
- D. Locating Data Sets
- E. Data Set Properties
- F. SMS — Storage Management Subsystem
- G. Finding a Data Set's Properties
  - Computer Exercise: Finding a Data Set's Properties

#### IV. *Allocating Data Sets*

- A. Reserving Space
- B. Allocating a Data Set Using ISPF
  - Computer Exercise: Allocating New Data Sets

#### V. *Looking at Data — Edit, View, and Browse*

- A. Edit, View, and Browse
- B. Member Selection Lists
- C. Some View / Edit Commands
  - Computer Exercise: Introduction to 'View'

#### VI. *More on Edit, View, and Help*

- A. More Edit / View Commands
- B. String types
- C. Help
  - Computer Exercise: More Edit and View, and Help

#### VII. *More Utility Functions*

- A. Move / Copy
- B. Deleting a Data Set, Renaming a Data Set
- C. The Library Utility
- D. Sorting Member Lists
  - Computer Exercise: Utility Functions

#### VIII. *Productivity Tips and Techniques*

- A. Quick Advance and Jump Functions
- B. Split Screen
- C. Command Stacking
- D. CMDE command
- E. Retrieving Commands
  - Computer Exercise: Great Tricks

#### IX. *EDIT*

- A. Sequence numbers and nulls
- B. Line Commands: COLS, I, D, R, M, C, A, B, X, F, S, L, LC, UC, (, ), <, >
  - Computer Exercise: Working With EDIT

#### X. *Edit and View Primary Commands*

- A. EXCLUDE, FLIP, HIDE, LOCATE, FIND, CHANGE
- B. RFIND, RCHANGE, DELETE
- C. SAVE, CANCEL, RESET, UNDO
  - Computer Exercise: More Work With EDIT

#### XI. *More on Edit / View*

- A. Labels
- B. LOCATE — Edit / View Primary Command
- C. Line Commands: O, TS
- D. EDIT — Under — EDIT
- E. SORT — Edit / View Primary Command
  - Computer Exercise: Sorts and Copies in Edit

## ISPF and JCL on z/OS

---

### Course Outline (cont.)

#### XII. *Edit / View — Passing and Receiving Data*

- A. CREATE, REPLACE, COPY, MOVE Edit Primary Commands
- B. CUT and PASTE Edit Primary Commands
- C. EDITSET (EDSET) Edit Primary Command
  - Computer Exercise: Copy, Cut, and Paste in Edit

#### XIII. *Edit Profiles*

- A. Profile options
- B. Bounds, Mask, Tabs lines
- C. Edit Action Bar Choices
- D. Language-sensitive Color Editing
- E. Recent Edit / View Line commands: AK, BK, OK, HX
  - Computer Exercise: Using Tabs and other Profile Characteristics

#### XIV. *Data Set List Utility and Commands*

- A. Option 3.4: Data Set List Does It All
- B. Commands
  - Computer Exercise: DSLIST and Commands .

#### XV. *Introduction to JCL*

- A. MVS - Multiple Virtual Storages
- B. The Road to z/OS
- C. z/OS Workflow
- D. JES - The Job Entry Subsystem
- E. JCL statement syntax
- F. JOB, EXEC Statements
  - Computer Exercise:

#### XVI. *Running Jobs*

- A. The Work Load Manager (WLM)
- B. The SCHENV parameter
- C. Submitting Jobs
- D. SUBMIT Edit - Browse - View Primary Command
- E. Monitoring Jobs and Examining Job Output Using ISPF Option 3.8
  - Computer Exercise: Running a Job

#### XVII. *Introduction to Data Management*

- A. Data Management Terms
- B. SYSIN-type data and SYSOUT-type data
- C. Reserved DDnames
  - Computer Exercise: SYSIN and SYSOUT Files

#### XVIII. *Tape and Disk Data Sets*

- A. Tape and Disk Data Sets
- B. Tape layout
- C. DASD Concepts
- D. Data Set Naming Rules
- E. Units, Volumes, Catalogs
- F. Tape and DASD DD Statements
- G. Building Tape and DASD DD statements
- H. Sample DD Statements
- I. Data Flow Diagrams
  - Computer Exercise: JOB Using Tape And Disk Data Sets

#### XIX. *SMS - System Managed Storage*

- A. STORCLAS, DATACLAS, MGMTCLAS
- B. ISMF
- C. Output DD Statements With SMS
- D. Looking at Job output
- E. Other DD techniques and parameters
- F. Temporary data sets
- G. Concatenation
  - Computer Exercise: NEWF2F

#### XX. *Utilities and Job Output Viewing*

- A. IEFBR14, IEBCGENER, IDCAMS
- B. SDSF, Flasher, IOF, (E)JES
  - Computer Exercise: Utilities

#### XXI. *Sort / Merge*

- A. JCL Requirements
- B. Control Statements
  - Computer Exercise: SORT

## ISPF and JCL on z/OS

---

### Course Outline (cont.)

#### XXII. *OUTPUT Statements*

- Computer Exercise: OUTPUT Statements

#### XXIII. *Condition Code Testing and Memory Management*

- REGION parameter
  - MEMLIMIT parameter
  - Program termination
  - JOBRC parameter
  - IF / THEN / ELSE / ENDIF statements
- Computer Exercise: Conditional Processing

#### XXIV. *JCL procedures*

- Cataloged procedures
  - JCLLIB statement
- Computer Exercise: A Cataloged Procedure

#### XXV. *JCL procedures: inserts and overrides*

- Procedures and inserts
  - Procedures and overrides
- Computer Exercise: Inserts and Overrides

#### XXVI. *Symbolic Parameters*

- Symbolic parameters
  - SYSUID
- Computer Exercise: A Procedure With Symbolic Parameters

#### XXVII. *JCL SETs, INCLUDEs and Nested Procedures*

- The SET Statement; The INCLUDE statement
  - Nested Procedures
- Computer Exercise: Using Nested Procedures and INCLUDEs

#### XXVIII. *Additional Data Set Handling Techniques*

- Generation Data Groups
- PDSE - Partitioned Data Set, Extended
- Sources of Information
- IBM publications
- IBM Web-based information
- Book Manager
- Quick Reference