

JES2 Operation

Course Summary

Description

This course is designed to get MVS Operators familiar with JES2 concepts, control, and troubleshooting, presenting techniques and skills widely used by experienced system operators. Demos and hands-on Labs are used to reinforce presented topics.

Topics

- The JES2 processing phases
- JES2 commands for managing JES2 resources
- Moving jobs and SYSOUT between JES2 systems
- Managing a JES2 network
- Setting up JES2 automatic commands
- Starting and stopping JES2
- JES2 processing
- Controlling readers/initiators/job execution/printer and punches/job output
- Job transmitters and receivers
- Controlling remote devices and NJE
- Automatic commands
- JES2 startup and shutdown

Audience

This course is intended for MVS operators.

Prerequisites

The student should have a basic understanding of MVS.

Duration

Two days

JES2 Operation Course Outline

1. z/OS Overview

- A. zSeries Operating Systems
- B. zSeries vs. the Rest
- C. A Typical zSeries Data Center
- D. Real, Expanded, & Virtual Memory
- E. Multiprogramming vs. Multiprocessing
- F. Interrupts
- G. Bits and Bytes
- H. Bits and Bytes: EBCDIC vs. ASCII
- I. The CPU (Central Processing Unit)
- J. MVS in a TCP/IP Network
- K. Understanding the Network
 Controllers
- L. Understanding the 3270 Terminal
- M. zSeries Printer Hardware Categories
- N. Storage Devices
- O. Storage Devices: DASD
- P. Storage Device Connections
- Q. Storage Subsystems
- R. z/OS Address Spaces
- S. MVS Data Spaces
- T. z/OS 64 Bit Address Space
- U. MVS HiperSpaces
- V. MVS Dispatching
- W. MVS Customization
- X. The MCS Console
- Y. MVS Data Management
- Z. MVS Data Set Types
- AA. Sequential Datasets
- BB. Partitioned Datasets
- CC. VSAM Datasets
- DD. Systems Managed Storage (SMS)
- EE. Catalogs
- FF. Monitoring & Managing Catalogs
- GG. VTOC: Volume Table of
 Contents
- HH. Tape Labels
- II. Recovery / Termination Mgmt
- JJ. SMF - System Management
 Facilities
- KK. SMF Data Processing Flow
- LL. Serialization: ENQ / DEQ
- MM. Shared DASD &
 Reserve/Release
- NN. The Deadly Embrace
- OO. Shared DASD & GRS Ring
- PP. Security Overview
- QQ. JES Overview

- RR. Job Life Cycle Phases
- SS. Job Execution Phase
- TT. JES2 vs. JES3
- UU. A Parallel Sysplex
- VV. UNIX System Services
- WW. The UNIX Hierarchical File
 System
- XX. The UNIX Shell
- YY. Using the OMVS TSO Command
- ZZ. File Mgmt using the ISPF Shell
- AAA. Program Products
- BBB. How CICS Works
- CCC. CICS Transactions
- DDD. Program Products: DB2
- EEE. Program Products: IMS
- FFF. Classic MVS Applications
- GGG. Today's Application Architectures
- HHH. Program Products: WebSphere
 MQ
- III. What is a Job Scheduler?
- JJJ. MVS Overview: Quiz

2. JES2 Overview

- A. JES2 vs. JES3
- B. JES2 Startup and Shutdown
- C. JES2 Datasets
- D. JES2 Multi Access Spool
- E. JES2 Input Processing
- F. JES2 JCL Conversion
- G. Job Execution Phase
- H. Job Output & Purge Phases
- I. JES2 Initialization Parameters
- J. Types of MVS Tasks
- K. JES2 Commands
- L. Typical JES2 Commands
- M. Typical JES2 Devices
- N. JES2 Documentation Bookshelf
- O. JES2 Release Chart

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- 3. **Using the MCS Console**
 - A. MVS Command Aliases
 - B. Command Groups
 - C. Setting Console Authority w/ VARY
 - D. The INFO Command Group
 - E. The SYS Command Group
 - F. The IO Command Group
 - G. The CONS Command Group
 - H. The MASTER Command Group
 - I. MVS Route code (ROUTCDE) Info
 - J. Controlling Route Codes
 - K. Controlling Message Levels
 - L. Controlling Msg Roll Mode & Rate
 - M. Roll Delete Mode Example
 - N. Non-roll Mode Example
 - O. Conversational Delete Mode Example
 - P. Wrap Mode Example
 - Q. MPF – Console Color Example
 - R. Using Console Display Areas
 - S. Two Display Area Example
 - T. Using Console PF Keys
 - U. Display PFK Example
 - V. Activating Console PF Keys
 - W. Conversational PFK Example
 - X. Defining PF Key Tables
 - Y. Message Processing Facility
 - Z. Displaying Console Status
 - AA. Managing Console Buffers
 - BB. Example: WTO Buffer Shortage
 - CC. Console Failure Recovery
- 4. **Navigating MVS Documentation**
 - A. IBM Library Reader on CD
 - B. IBM Internet Library
 - C. MVS/QuickRef Overview
 - D. QuickRef Main Menu: Request by Category
 - E. Select Information By Category
 - F. Selecting a Specific Release
 - G. Selecting an Abend Code
 - H. Abend Code Display
 - I. QuickRef Main Menu: Request by Name
 - J. Select Information By Category
 - K. Selecting From Multiple Matches
 - L. Sample JCL Information: NOTIFY Keyword
 - M. Looking up an Error by Message ID
 - N. Example Error Message Info: IOS000I
 - O. Language Syntax Info: REXX Parse
 - P. QuickRef Main Menu: List Vendors, etc.
 - Q. Selecting Vendor, Product, Release
 - R. Selecting by Vendor
 - S. Selecting DASD Free Space Information
 - T. DASD Free Space – Selection Details
 - U. DASD Free Space – Sample Display
 - V. Displaying DASD Hardware Characteristics
- 5. **Monitoring and Controlling MVS Jobs & Tasks**
 - A. Types of MVS Tasks
 - B. Starting a Task at the Console
 - C. Stopping a Started Task
 - D. Example: Start & Stop RMF
 - E. Canceling a Job or Task
 - F. Example: Cancel STC w/ DSN wait
 - G. Forcing a Job or Task
 - H. Swapping Out a Job or Task
 - I. Communicating to Active Programs
 - J. Using Modify Commands
 - K. Replying to WTOR Messages
 - L. Action Message Retention Facility
 - M. Displaying System Requests
 - N. System Activity Displays
 - O. Example: System Activity Displays
- 6. **Using and Managing JES2 Readers**
 - A. Types of Readers
 - B. Built-in Readers
 - C. Starting a Reader
 - D. Draining and Halting a Reader
 - E. Canceling a Reader
 - F. Controlling a Reader
- 7. **Controlling JES2 Initiators**
 - A. Initiator Concepts
 - B. A Typical Initiator Structure
 - C. How Many Initiators?
 - D. WLM-Managed Initiators
 - E. Enhanced Batch Initiator Balancing
 - F. Displaying Initiators
 - G. Starting Initiators
 - H. Modifying Initiators
 - I. Halting Initiators
 - J. Recycling WLM Initiators
 - K. Draining Initiators
 - L. Holding and Releasing Queues

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- 8. Controlling JES2 Job Execution**
 - A. Dimensions of Job Execution
 - B. Displaying Job Status
 - C. Displaying Selected Status Info
 - D. Examples: Displaying Job Status
 - E. Displaying Active Jobs
 - F. Displaying Job Queue Contents
 - G. Holding Individual Jobs
 - H. Examples: Holding Individual Jobs
 - I. Releasing Individual Jobs
 - J. Examples: Release Individual Jobs
 - K. Holding and Releasing All Jobs
 - L. Restarting Jobs
 - M. Canceling Jobs
 - N. Adding Messages to Joblog
 - O. Initiator & Job Execution Lab
- 9. Controlling JES2 Printers and Output Devices**
 - A. Displaying JES2 Device Status
 - B. Starting JES2 Devices
 - C. Draining JES2 Devices
 - D. Halting & Resuming JES2 Devices
 - E. Restarting JES2 Devices
 - F. Interrupting JES2 Devices
 - G. Repeating Device Output
 - H. Backspacing Device Output
 - I. Forward Spacing Device Output
 - J. Canceling Device Output
 - K. Controlling Printer Characteristics
 - L. Printer Work Selection
 - M. Example: Controlling Printers
 - N. Built-in Writer - Syslog
 - O. External Writers
 - P. Controlling an External Writer
- 10. Managing JES2 Job Output**
 - A. Job Output Characteristics
 - B. Display Output Dataset Summaries
- 11. JES2 Spool Management**
 - A. Spool Processing Overview
 - B. Displaying the JES2 Spool
 - C. Adding a JES2 Spool Volume
 - D. JES2 Spool Offload
 - E. Start Spool Offload Device
 - F. Drain Spool Offload Device
 - G. Halt Spool Offload Device
 - H. Modify Spool Offload Device
 - I. Display Spool Offload Device
- 12. JES2 Networking**
 - A. Overview of NJE
 - B. NJE Nodes
 - C. Starting NJE Nodes
 - D. Controlling JES2/VTAM
 - E. Controlling JES2/TCPIP
 - F. Controlling NJE Lines
 - G. Controlling NJE Static Connections
 - H. Controlling NJE Devices
 - I. Sending Messages and Commands
- 13. JES2 Miscellaneous**
 - A. Resetting the Job Number Base
 - B. JES2 Automatic Commands
 - C. Chapter Summary
- 14. SDSF for Operators**
 - A. SDSF Overview & Features
 - B. SDSF Primary Option Menu
 - C. SDSF Key End-User Commands
 - D. SDSF Input Queue Display
 - E. SDSF Input Action Characters
 - F. SDSF Display Active Syntax
 - G. SDSF Active Display
 - H. SDSF DA Action Characters
 - I. SDSF Held Output Queue Display
 - J. SDSF Output Queue Display Cmd
 - K. SDSF H and O Action Characters
 - L. System Display Search Facility
 - M. SDSF Filtering
 - N. SDSF ST (Status) Display
 - O. More SDSF Commands
 - P. SDSF LOG
 - Q. SDSF System Requests
 - R. SDSF Multi Access Spool
 - S. SDSF Job Classes
 - T. SDSF Scheduling Environments
 - U. SDSF WLM Resources
 - V. System Initiator Display
 - W. SDSF Printers
 - X. SDSF Punches
 - Y. SDSF Readers
 - Z. SDSF Lines
 - AA. SDSF Nodes
 - BB. SDSF Spool Offload
 - CC. SDSF ULOG
 - DD. System Display Search Facility