BMC Mainframe: JES2 Implementation & Customisation

COURSE ABSTRACT

COURSE CODE

» MGRS-JWIC-2021

APPLICABLE VERSIONS

» Not Applicable

DELIVERY METHOD 🌐

» Instructor-led Training (ILT)

COURSE DURATION 🌐

» 3 Days

PREREQUISITES

» A sound knowledge of z/OS concepts, JCL and utilities.

RECOMMENDED TRAININGS

» NA

Course Overview

The course is developed and delivered by © RSM Technology.

If you are a Systems Programmer working in a z/OS JES2 environment, it is vitally important that you have a thorough understanding of IBM's Job Entry Subsystem 2 (JES2).

This course describes and explains what functions there are in JES2 and teaches how to set up a JES2 system in order to fully exploit the features and capabilities of the product.

Target Audience

The course is primarily designed for experienced z/OS Systems Programmers.

Learner Objectives

» Describe how JES2 works within the z/OS environment
» Control the start and stop processes of JES2
» Describe the JES2 functions and facilities
» Set up and install an efficient JES2 system
» Dynamically change JES2 parameters
» Customize JES2 to your specific requirements
» Set up and manage the RJE and NJE environments

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COURSE ACTIVITIES
» Classroom Presentations
» Demonstration

BMC MAINFRAME INFRASTRUCTURE AND PLATFORMS LEARNING PATH
» https://www.bmc.com/education/courses/find-courses.html#filter/%7B%22type%22%3A%22edu-specific-types-159150236%22%7D

CERTIFICATION PATHS 🌐
» This course is not part of a BMC Certification Path

DISCOUNT OPTIONS 🌐
» Have multiple students? Contact us to discuss hosting a private class for your organization
» **Contact us for additional information** 🌐

Course Modules

z/OS and JES2 - How They Relate
» The hardware
» Architectural requirements
» IBM's mainframe architecture
» Standard address spaces in z/OS
» z/OS overview
» JES2 and Job Management
» The JES2 functions
» JES2 components
» Parameters for JES2
» The Operator and the Three Phases
» Operator communications

Starting & Stopping z/OS JES2
» Starting and initiating JES2
» Starting JES2
» JES2 start parameters
» Default JES2 start parameters
» JES2 Initialization parameters (JES2PARM)
» Activating JES2
» JES2 cold start
» JES2 warm starts
» Example of JES2 warm start
» Starting other functions
» Stopping JES2

» Stopping JES2 - 'crash landing'
» Accidental crash landing of JES2
» Message $HASP095
» JES2 termination codes

z/OS Workload & the Active System
» Program execution environments
» Batch processing
» Started Tasks
» Time Sharing Option (TSO)
» Executing program requirements
» Program identification with JCL
» All the JCL statements
» The most used JCL statements
» JES2 and JES3 statements
» Relationships between JCL statements
» Getting work into the system
» Getting a started task into the system
» Getting a TSO user into the system
» Getting a Batch Job into the system
» Batch Job Queues
» Job initiation
» Step initiation
» The job schedule
» Reports and listings

» Standard reports
» Job Log examples
» The active system
» What is a batch job?
» JES2 information in the job stream
» A Job's phases
» What is a System Task?
» What is a TSO logon?
» JES2 job processing
» Input Processor
» Converter Processor
» Execution Processor
» Output Processor
» DISPLAY active jobs
» Examples of $DA
» Examples of DISPLAY activity in z/OS
» Display of queues - $DQ and $DN
» Examples of $DQ and $DN
» Information on specific jobs - $DQ
» Cancelling jobs
» Examples of CANCEL
» The $C command

JES2 & the Subsystem Interface
» Why the Subsystems Interface (SSI)?

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COURSE ABSTRACT

» Subsystem Interface
» Using the Subsystem Interface
» Defining subsystems
» SSI Control blocks
» What the function IDs represent?

JES2 Installation
» JES2 installation components
» JES2 load modules
» JES2 libraries
» JES2 procedure
» Subsystem definition
» PROCLIB & INCLUDE
» JES2 datasets
» Allocating Spool and Checkpoint
» Program Properties Table (PPT)
» Secondary subsystems
» Defining Secondary Subsystems
» Review tasks

JES2 Initialization
» JES2 initialization flow
» Types of JES2 start
» Specifying type of JES2 startup
» JES2 start options
» Initialization parameter format
» JES2PARM
» Console statements
» Key initialization statements
» SPOOLDEF
» CKPTDEF
» MASDEF
» MAS display commands
» INITDEF and INITnnn
» JOB/STC/TSUCLASS
» ESTLNCT
» CONDEF
» PCEDEF
» JES2 Monitor

Input & Conversion Processors
» Processes and Queues
» Input processing

» Job Queue
» Job Queue Element (JQE)
» Job Control Table (JCT)
» Input Output Table (IOT)
» Peripheral Dataset Definition Block (PDDB)
» Input Processing Control Blocks overview
» Controlling input processing
» Internal readers
» Job characteristics
» Conversion process
» Dynamic PROCLIB
» Conversion process - Internal Text

Checkpoint & Spool Processing
» Checkpointing
» Checkpoint layout
» Duplex Mode
» Dual Mode
» Checkpoint recovery
» Checkpoint changes
» JES2 Spool Management
» Spool Volumes (SPOOLDEF)
» SPOOL fencing
» Spool Affinity
» Spool Track Groups
» Allocating Spool
» Spool status
» Changing the spool configuration
» Spool partitioning
» Spool Offload facility
» Offload Transmitters/Receivers
» Controlling OFFLOAD devices
» Controlling Transmitters/Receivers
» Offload dataset
» Specifying the JOB Transmitter/Receiver
» Specifying the SYSOUT receiver
» Specifying the SYSOUT transmitter
» Review tasks

JES2 Exits
» What are JES2 Exits?
» Uses for JES2 Exits

» IBM-supplied JES2 Exits Points
» Defining and controlling Exits
» JES2 EXIT initialization
» Calling environment
» Linkage and Return Codes
» Exit coding and macros

Execution Processor
» Executing batch jobs - Initiators
» Initiator management
» Execution Processor
» Executing in z/OS - the address space
» Execution - the initiators
» Batch Initiators
» JES2 and Initiators
» Controlling initiators
» Jobs in z/OS
» Active jobs
» DISPLAY active jobs
» Cancelling jobs
» The $C command
» ZAPJOB

Output & Purge Processor
» Output processing
» Print/Punch processor
» Output services
» Output group
» Demand set-up
» Work selection criteria
» Controlling output
» Define local printers
» Define printer globals
» Output listings

RJE & NJE
» Remote Job Entry (RJE)
» Network Job Entry
» NJE routing
» SNA example
» Who is in the Network?
» Path resistance
» Resistance computation

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