BMC Mainframe: z/OS ICF Catalog Workshop

COURSE ABSTRACT

COURSE CODE

» MGRS-ZOIC-2021

APPLICABLE VERSIONS

» Not Applicable

DELIVERY METHOD 🌐

» Instructor-led Training (ILT)

COURSE DURATION 🌐

» 3 Days

PREREQUISITES

» At least one year of experience with z/OS.
» Familiarity with TSO/ISPF and JCL is essential.
» BMC Mainframe: VSAM Essentials Workshop

RECOMMENDED TRAININGS

» NA

Course Overview

The course is developed and delivered by © RSM Technology.

This three-day, hands-on course is vital for all z/OS technicians who need to be able to understand and work with the ICF catalog environment. The course's prime objective is to teach attendees how to evaluate catalog problems and then to take the appropriate and necessary corrective actions. The course also introduces and explains the tools available for catalog recovery.

Target Audience

» Systems Programmers
» Storage Administrators
» Senior Operations Analysts

Learner Objectives

» Explain the relationship between the data related components
» Detect and isolate the failing component of an ICF catalog
» Utilise the available diagnostic tools
» Perform appropriate recovery and repair procedures
» List the factors that affect catalog performance

For more information about BMC Education Services, visit **www.bmc.com/education**.

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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

ICF Environment
» Catalog overview
» Catalog search order
» Catalog environment
» Multi- level aliases
» Catalog address space
» VTOC and IXVTOC
» ICF environment review

VSAM File Structure
» VSAM file types
» VSAM hierarchy
» CI structure and usage
» RDF usage
» Spanned record RDF usage
» BCS - a KSDS
» Index CI format
» Alternate index
» Class exercise - VSAM file structures

Catalog Component Structure
» Catalog environment
» Basic Catalog Structure (BCS)
» VSAM Volume Data Set (VVDS)
» BCS record structure

» BCS record types
» BCS record cells
» Sphere records - cluster
» 3.9 Cluster name cell
» Ownership cell
» Security cell
» Data/index name cell
» Volume cell
» Class exercise - BCS cluster record
» Sphere records
» Alternate Index name cell
» Association cell
» Relation cell
» Path record
» Pass name cell
» Truename record
» Truename cell
» Class exercise - KSDS cluster record
» Sphere records - GDG
» GDG base name cell
» Generating Aging Table (GAT) cell
» GDS name cell
» Volume cell
» Extension name cell

» Non-VSAM record and name cell
» Alias record and name cell
» Catalog connector record and name cell
» Class exercise - user catalogs
» BCS/VVDS relationship
» VVDS record types
» VVDS record cells
» VVDS record structure
» VVCR and extensions
» VSAM Volume Record (VVR)
» VVR header cell
» VVR data set info cell
» VVR AMDSB cell
» VVR volume info cell
» Class exercise - VVCRs and VVRs
» Non-VSAM Volume Record (NVR) and header cell
» NVR data set info cell
» Volume Table Of Contents (VTOC)
» VTOC structure
» Describing a data set
» Managing the volume
» VTOC usage
» Solving VTOC performance problems: VTOCIX

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» VTOC index structure
» How the index works
» VTOC index entry record

Problem Diagnosis
» Problem analysis
» Data set processing flow
» Allocation
» OPEN
» I/O processing
» File extensions
» CLOSE
» DEALLOC/CATLG
» Problem severity
» Diagnostic tools
» IDCAMS EXAMINE
» IDCAMS DIAGNOSE (VVDS)
» IDCAMS DIAGNOSE (ICFCATALOG)
» Class exercise - problem diagnosis

Backup Techniques & Considerations
» User catalog backup
» Export/import
» Export/Import advantages
» Backup frequency
» User catalog strategy
» Validation
» User catalog backup recap
» Master catalogs
» Alternate master catalogs
» SYSCAT format
» Creating an alternate master catalog
» VVDS backup
» REPRO NOMERGECAT
» REPRO MERGECAT
» EXPORT DISCONNECT
» IMPORT CONNECT with ALIAS
» IMPORT CONNECT
» Practical exercise

Recovery, Repair & Maintenance
» Recovery vs. repair
» Entries
» Recovery/repair outline

» VTOC and IXVTOC
» VVDS catalog utility
» VVDS delete
» VVDS entry - VVCR
» VVDS entry - delete VVR/NVR
» BCS recovery import
» Import BCS
» Delete a user catalog
» Delete a user catalog with Noforce
» Delete a user catalog with Force
» Uncatalog a data set
» Catalog an existing VSAM object
» Delete TRUENAME
» Deleting VSAM data sets from a volume
» Forward recovery
» ICF SMF records
» Recovery tips
» Practical exercises

Performance & Integrity Considerations
» Sizing the BCS
» Sizing the VVDS
» Sizing the VTOC and index
» Catalog performance
» Performance - BCS data component
» Performance - BCS index component
» Performance - CAS
» Sharing catalogs with other systems
» Catalog SHROPTS
» Performance - CDSC
» Activating CDSC
» Sharing catalogs in a CDSC environment (VVDS)
» Sharing catalogs in a CDSC environment (ECS)
» Monitoring and controlling CDSC
» CDSC report information
» Monitoring catalog performance
» VVDS performance

Hands-on lab Exercises

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