



BMC Mainframe: z/OS System Anatomy Part 2 - z/OS Infrastructure & Services

COURSE ABSTRACT

COURSE CODE

» MGRS-ZSA2-2021

APPLICABLE VERSIONS

» Not Applicable

DELIVERY METHOD

» Instructor-led Training (ILT)

COURSE DURATION

» 5 Days

PREREQUISITES

» BMC Mainframe: z/OS System Anatomy Part 1 - z Architecture
Or equivalent experience

RECOMMENDED TRAININGS

» NA

Course Overview

The course is developed and delivered by © RSM Technology.

This course, and its associated Part 1, together form the heart of RSM's definitive z/OS training curriculum for Systems Programmers.

In this second course attendees learn the functions of the major z/OS components in considerable detail. They will also learn how the interaction of job, task, storage and data management provides service to the end user. This is done by following the sequence of events as a unit of work passes through the z/OS system from initial submission to completion.

Target Audience

This course is designed for individuals who wish to further their understanding of z/OS as gained in z/OS System's Anatomy Part 1, in order to provide z/OS system support.

Learner Objectives

- » Describe the functions of MVS and JES2
- » Use GRS effectively
- » Exploit program management
- » Explain how the dispatcher works
- » Describe Cross Memory Services (XMS) and how it works
- » Install user SVCs
- » Describe how MVS invokes recovery and when to use ESTAE routines
- » Explain how WLM works to manage z/OS resources
- » Design and setup the DASD subsystem
- » Isolate I/O problems



BMC Mainframe: z/OS System Anatomy Part 2 - z/OS Infrastructure & Services

COURSE ABSTRACT

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

Job Management

- » Job processing
- » SSI
- » Input phase
- » Internal readers
- » Initiators
- » SWA control blocks
- » ENQs
- » Allocation
- » PPT
- » Job termination
- » Output phase

Subsystem Interface (SSI)

- » Why Subsystem Interface?
- » SSI - a universal tool
- » The Master Subsystem (MSTR)
- » ES services via SSI
- » Establishing a subsystem
- » Defining the subsystem to MVS
- » Setting up SSI
- » Starting a subsystem
- » Initialising a subsystem
- » Asking for subsystem service
- » SSI at work...

- » Dynamic SSI
- » Chapter Review
- » Subsystem Lab

Resource Control

- » Resource serialization and how it is accomplished through the use of ENQ/DEQ sequences
- » Shared DASD
- » GRS & Sysplex
- » Locking
- » Lock categories
- » SETLOCK, SPIN & SUSPEND
- » Lock manager processing

Program Manager

- » The search sequence used by the program manager when attempting to load a module
- » Performance and load module integrity issues
- » Using LOAD
- » LINK
- » XCTL
- » Linkage Stack
- » Control blocks

- » JOBLIB/STEPLIB

Dispatcher

- » Units of work- SRBs & TCBS
- » Dispatching sequence
- » Address space structure
- » ASCB/ASXB contents
- » TCB contents

Inter Address Space Communication

- » Hiperspaces
- » Data spaces
- » Cross memory services
- » Service request blocks (SRBs)
- » The cross-system coupling facility (XCF)

SVC Processing

- » Installing SVC routines in an MVS system
- » SVC types
- » SVC FLIH
- » Status saving
- » SVC coding conventions
- » SVCUPDTE facility
- »

BMC, BMC Software, and the BMC Software logo are the exclusive properties of BMC Software, Inc., are registered with the U.S. Patent and Trademark Office, and may be registered or pending registration in other countries. All other BMC trademarks, service marks, and logos may be registered or pending registration in the U.S. or in other countries. All other trademarks or registered trademarks are the property of their respective owners. ©2021 BMC Software, Inc. All rights reserved.



BMC Mainframe: z/OS System Anatomy Part 2 - z/OS Infrastructure & Services

COURSE ABSTRACT

Recovery Termination Manager

- » Recovery routines available to user programs and the Recovery Termination Manager
- » RMS
- » Program termination types
- » ESPIE
- » ESTAE
- » FRR routines

Workload Manager

- » WLM's purpose
- » WLM's tools
- » Compatibility mode
- » Dispatching priorities
- » Storage isolation
- » Logical swapping
- » User & system think times
- » Goal mode implications
- » Classification rules
- » Response time goals
- » Velocity goals
- » Discretionary goals

Direct Access Storage Devices

- » Track formats
- » CKD format
- » RPS
- » VTOCs
- » DSCB types
- » VTOC Index
- » VTOC listing
- » Catalogs
- » Opening data sets
- » SMS

Data Management

- » Access methods
- » DCB concepts
- » OPEN & TIOT
- » DEB; DCB merge
- » Open processing
- » Channel programs
- » ECBs & IOBs
- » EXCP
- » QSAM

- » Synchronising the I/O
- » Analysing completed I/O
- » Close processing

IOS and its Drivers

- » IOS
- » IOS drivers & components
- » Building an IOQ
- » Building an ORB
- » CSS at work
- » I/O interrupt handler
- » Post status
- » VSAM
- » Control intervals
- » Linear data sets
- » PDSEs
- » The ACB
- » Open processing
- » Get & Put
- » VSAM control blocks