Basic z/OS Job Control Language

Duration: 3 Days

Audience:

Application Programmers with little or no previous experience with z/OS JCL who require formal training in the basic language features and coding techniques.

Pre-requisites:

An understanding of computer concepts is assumed.

A working knowledge of TSO/ISPF is required. This can be gained from our z/OS TSO/ISPF Workshop.

Course Objectives

Each delegate will acquire a working knowledge of z/OS JCL and will be able to interpret and code z/OS JCL. Good coding practice is encouraged throughout. The course starts with the basics and furthers learning with 32 hands on.

Course Content

Module 1: Background and Syntax

A brief history
What JCL looks like
Statement structure and coding rules
Keyword vs Positional operands
Sub-parameter lists
Statement continuation
Handling special characters
JCL error points
JES2 Control statements
JES3 Control statements

Module 2: JCL, the Resource Manager

Where does resource management start?
Managing processor occupancy; TIME operand
Managing memory allocation; REGION, REGIONX and MEMLIMIT operands
Managing peripherals (I/O devices)
Types of DD statement
Selecting DDNAMEs
Utility DDNAMEs and reserved DDNAMES.

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Module 3: JOB statement

Influences on the JOB statement; Exits, JES, RACF and Standards
JOB Naming rules
Programmer's name field explained
Influencing JOB selection; CLASS and PRTY operands
Controlling system output; MSGCLASS and MSGLEVEL operands
Delaying JOB execution; TYPRUN operand
Changing security profile; GROUP, PASSWORD and USER operands
Displaying JOB completion status; NOTIFY operand
JES2 Job Accounting information explained

Module 4: EXEC statement

Influences on the EXEC statement; Exits, JES, RACF and Standards
EXEC statement naming rules
Executing a program vs procedure; PGM and PROC operands
Passing information to a program; PARM operand
Bypassing job steps; COND operand, and its logic

Module 5: Sequential Record File Processing

Data Set Organization (File types); DSORG
Assign an input stream data sets; *, DATA and DLM operands
Assign a print data set; SYSOUT operand
Assign an existing data set; DISP and DSN operands
Assign a new permanent disk data set; BLKSIZE, RECFM, LRECL and SPACE operands, (DCB, UNIT and VOL operands are also mentioned)
Additional operands; LABEL, EXPDT and RETPD
Assign a new temporary data set
Access an existing temporary data set

Module 6: Impact of System Managed Storage (SMS)

Impact overview
Automatic Class Selection; DATACLAS, MGMTCLAS, STORCLAS and STORGRP routines
Amending data set attributes for a new data set; DATACLAS operand
Amending management attributes for a new data set; MGMTCLAS operand
Directing a new data set to alternative volumes; STORCLAS operand
Device independent disk space allocation; AVGREC operand
Using an existing data set as a model; LIKE and REFDD operands
Using LEKE and REFDD with VSAM clusters

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Module 7: Other Miscellaneous Topics

Starting a JOB beyond the first step; RESTART operand
Automatic restart of a job after failure; RD operand
Concatenated data sets
Deferred data sets
Dummy data sets; DUMMY and DSN=NULLFILE operands
Backward references
The OUTPUT statement