

VSAM with Access Method Services

Course Summary

Description

This course is designed to introduce the concepts of VSAM. The materials contain a detailed description of using VSAM data sets and catalogs. Background information will be given on how to create and maintain files, and suggested ways to optimize performance and to provide data security and integrity.

Objectives

By the end of this course, students will be able to:

- Create and delete VSAM data sets, using Access Method Services (AMS)
- Load VSAM data sets, using AMS REPRO
- Use the AMS PRINT command to list all or parts of a VSAM data set, and the AMS LISTCAT command to list all or part of a VSAM catalog
- Create and use VSAM alternate indexes and paths
- Estimate the space required to hold a VSAM data set
- Maintain data sets using the AMS commands REPRO, EXPORT, IMPORT, VERIFY, ALTER, and EXAMINE
- Create and use Reusable data sets
- Know where to look for clues to tune performance of VSAM data sets, and know which parameters to work with for such tuning
- Be aware of certain advanced features such as Extended Format KSDS, Record Level Sharing (RLS), recoverable spheres, and the LOG and BWO options, all of which are only available when using SMS.

Topics

- Introduction
- Entry Sequenced Data Sets (ESDS) and Access Method Services (AMS)
- Job Alternatives
- Key Sequenced Data Sets (KSDS)
- Alternate Indexes
- Relative Record Data Sets (RRDS)
- Data Set Space Estimates
- Additional Topics
- AMS Support Facilities
- Final Topics

Prerequisite

Knowledge of JCL, a text editor, and submitting jobs is required.

Duration

Two Days

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Course Outline

I. *Introduction*

- A. VSAM Space Concepts
- B. CI's and CA's
- C. ESDS, KSDS, RRDS, LSDS
- D. RBA's
- E. JCL for VSAM data sets
- F. Catalog Hierarchy

II. *Entry Sequenced Data Sets (ESDS) and Access Method Services (AMS)*

- A. ESDS Characteristics
- B. Introduction to AMS
- C. DEFINE CLUSTER, REPRO, PRINT, DELETE commands
 - Computer Exercise: ESDS and AMS

III. *Job Alternatives*

- A. Single versus multiple steps and jobs
- B. JES2 vs JES3

IV. *Key Sequenced Data Sets (KSDS)*

- A. Creating KSDSs — Overview
- B. KSDS Terms and Concepts
- C. Free Space
- D. CI splits and CA splits
- E. DEFINE CLUSTER for KSDS
- F. LISTCAT Command
 - Computer Exercise: KSDS and AMS

V. *Alternate Indexes*

- A. AIX Concepts
- B. DEFINE AIX, BLDINDEX, DEFINE PATH Commands
 - Computer Exercise: AIX and AMS

VI. *Relative Record Data Sets (RRDS)*

- A. RRDS Concepts
- B. Randomizing Algorithms
- C. DEFINE CLUSTER for RRDS
- D. Variable Length Record RRDS Support

VII. *Data Set Space Estimates*

- Lab Exercise: Calculate Data Set Size

VIII. *Additional Topics*

- A. Reusable data sets
- B. Backup and Recovery

IX. *AMS Support Facilities*

- A. VERIFY
- B. EXPORT / IMPORT
- C. ALTER
- D. EXAMINE
 - Computer Exercise: EXPORT / IMPORT

X. *Final Topics*

- A. AMP JCL Parameter
- B. SMS - Storage Management Subsystem
- C. Performance Issues
- D. EAV / EAS