



Verity Systems, Inc.

Using the FDRABR® System

Course Outline

The FDRABR storage management system provides all of the functions necessary to manage data throughout its life cycle in the modern data center. These functions include operations such as backup / recovery, migration / recall, dataset copying, movement, and deletion, volume reconstruction, disaster recovery operations, and more. While conceptually simple, the FDRABR system includes many JCL and control-statement driven features that allow the administrator, operator, or user to perform the complex tasks of DASD storage management.

Introducing FDRABR

Storage Management Functions Overview

- Backup, Recovery, and Dataset Movement/Copying
- Archive and Automatic Recall
- Locating Backups, Reporting, and Disaster Recovery
- Using FDRABR
 - Batch-Driven JCL and How FDRABR differs from DFSMSHsm
 - ISPF interfaces to FDRABR functions

Programs of the FDRABR System

- Data Movers - FDR, FDRDSF, FDRCOPY, and FDRCPK
- Data Managers - FDRABR and related programs
- Backup Managers - FDRTCOPY/FDRTEL
- Report Utilities – FDRABRP and FDREPORT
- Administrative Utilities – FDRABRM, FDRABRCM, FDRSTART, FDRARCH,

Moving and Copying Datasets with FDRABR

- Using FDRCOPY – JCL, control statements, and function
- Using FDRDSF – JCL, control statements, and function
- Operational Considerations – Enqueue, Backup media, volume selection, et. al.
- Considerations for VSAM, SMS, or special types of data

Full Volume and Incremental Backup with FDRABR

FDRABR Backup Architecture

- Generations, Cycles, and Autocycles,
- ABR Use of the Format-1 DSCB, Importance of the ABR Model DSCB
- Backup File Naming Conventions and Requirements, and POOLDISK and LASTAE
- The FDRABR Catalog
 - Keeping track of backups with the FDRABR Backup Catalog
 - Restoring deleted datasets via the FDRABR Scratch Catalog

Backing Up Data with FDRABR

- Daily and Weekly Backup JCL and Control Statements
- Insuring Successful Completion, Email and other options

Restoring Data with FDRABR

- Dataset Restore vs. Volume Restore, JCL and Control Statements
- Options for Cataloging, Allocation, Renaming, and SMS management
- JCL restore vs. restore with ISPF

Non-disruptive backup with FDRINSTANT

- Point-in-time hardware and software architecture
- Techniques and Operation of Instant-Backup

Disaster Recovery Considerations

- Full-Volume Reconstruction Procedures
- Using FDRDRP to Eliminate Tape Mounts and Contention

Archive / Superscratch and Automatic Recall

FDRABR Archive Architecture

- Selecting Criteria for Archive
- Structure and Purpose of the FDRABR Archive Control File
- Maintaining the Archive Control File with FDRARCH

Archive and Superscratch Operation

- JCL and Control Statement Syntax for Archive and Recovery
- SMS management class / storage group criteria considerations
- Using FDRTSEL to Consolidate and Recycle Archive Backup Tapes

Recalling Archived Data

- Implementing Automatic Recall
- Explicit vs. Implicit Recall
- How the FDRABR Catalog Locate Exit Works

FDRABR Security and Encryption

- Security System Interfaces with the FDR System
- Using FDRCRYPT to Encrypt, Decrypt, and Manage Keys
- Using FDRCAMS for Dataset Encryption

FDRABR System Reporting and Instrumentation

Standard Reporting with FDRABRP

- Types of FDRABRP Reports – Backup, Catalog, Dataset, Scratch, and Archive

Customized Reporting with FDREPORT

- FDREPORT Architecture and Extended Selection Criteria
- FDREPORT selection fields from Volume, Dataset, Catalog, and Control Files
- Sorting, Summarizing, and Controlling the Format of Reports
- Using FDREPORT to create Control Statements for FDRABR and other Utilities
- Using the FDREPORT ISPF Dialog

FDRABR Options, Tuning, Security, and Other Considerations

- Default FDRABR Installation Options and the FDR Options Table (FDROPT)
- Establishing and Maintaining the Protect Lists and the Restore Allocation List
- Using FDRSTART and FDRSTATS to refresh FDROPT in Common Storage
- Security Considerations in FDRABR
- Installing New Releases of FDRABR