

Migrating Applications from VSE to OS/390

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IBM
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Topics of Discussion

- Migration Overview
- Pre-Conversion Preparation
- Project Planning & Control
- Program & JCL Conversion
- Conversion Workflow
- Automated Conversion Tools
- Conversion Vendors

Migration Overview

■ Identify VSE Components

- System Software
- Vendor Products
- Application Software

■ Select Migration Strategy

- Retain & Upgrade
- Replace
- Convert

System Software

■ Operating System

- Existing MVS or OS/390 Environment
- New OS/390 Environment

■ Environmental/Operational Products

- Do We Need It?
- OS/390 Version?
- Replacement Product?

Environmental / Operational Products

- Security System
- Editor
- Library System / Configuration Mgmt
- Automated Scheduler
- Tape Management System
- Report Distribution / Print Utilities

Application Software

■ In-House Developed

- Convert
- Re-engineer
- Vendor Package
- New Platform

■ Vendor Products

- OS/390 Version
- Convert
- Replacement Package

Pre-Conversion Preparation

■ Application Inventory

- Production JCL
- Source Libraries
- Core Image Libraries
- CICS PPT / RDO
- VSE Production LISTCATs

Pre-Conversion Preparation

- Application Analysis
 - Source Languages
 - Files / Databases
 - Vendor / Home-Grown Utilities
 - Exception Items

Pre-Conversion Preparation

- Standards & Naming Conventions
 - Dataset Names
 - Program / Job Names
 - Library Structure
 - JCL Standards

Project Planning

- Migration Strategy
 - Phased vs. Mass Conversion
- Conversion Work Groups (Kernels)
 - Application Dependencies
 - Ease of Testing
- Conversion Procedures
 - Program / JCL Transfer
 - Translation Process
 - Testing Procedures

Project Control

- Project Staffing
 - Conversion Specialists
 - Application Knowledge
- Schedule & Timelines
 - On-going Workload
 - Migration Pace
 - Desired Completion Date

Program Conversion

- COBOL for OS/390
 - DOS/VSE COBOL
 - COBOL II
 - COBOL for VSE/ESA
 - COBOL REPORT WRITER
- BAL
 - Called Subroutine
 - Main Program / Driver
 - High Level Assembler
 - 31-bit Addressing

Program Conversion

- PL/I
- RPG, 4GLs
- Macro Level CICS
- Code Generators

Program Conversion

■ Special Considerations

- ISAM / BDAM
- Console Messages
- ABEND Handling
- COMREG
- Print Output
- SEGMENT Macro

JCL Conversion

■ VSE JCL

- Input Stream
- PROCs & SLIs
- Standard Label Track
- Default Assignments
- Carry-Forward File Definitions
- Vendor Generated JCL

JCL Conversion

- // DATE Usage
- // UPSI
- // PAUSE
- Power LST Statements
- Conditional JCL / Return Codes

OS/390 JCL

- MVS-Style PROCs
- Symbolic Parameters
- I/O Efficiency
- DISP Parameter
- Conditional JCL / COND Parameter
- Control Statement PDS

File / Database Considerations

- Sequential DASD
- Tape Files
- VSAM
- Databases
- File / Database Transfer
- File Sharing

Batch Systems Workflow

- VSE Baseline Run
- Program & JCL Translation
- OS/390 Volume Testing
- Output Verification
- Problem Resolution

CICS Systems Workflow

- Program Translation
- BMS Map Assembly
- Difference Resolution
- Unit Testing
- Load Testing
- Problem Resolution

Automated Conversion Tools

■ Inventory Tools

- Inventories Programs, Jobs, Files
- Program, Job, File Cross-references
- Identifies Vendor Utilities
- Provides Counts of Job, Jobsteps, Programs, Files

Automated Conversion Tools

■ Language Translators

- COBOL, BAL, PL/I, RPG, 4GLs
- Supports Library System
- Supports Database Coding
- Processes COPY/INCLUDE Members Dynamically
- Translation Audit Trail

Automated Conversion Tools

■ JCL Translator

- Generates PROCs / In-line JCL
- Provides Automated Renaming of Files, JOBS & Other Elements
- Recalculates Blocksize & SPACE Allocations
- Automates Replacement of Utility Steps
- Generates PROC Overrides for Testing
- Generates File Compare Steps for Output Verification

Conversion Vendors

- Proven Track Record
- Multiple Conversion Strategies
- Automated Tools
- Fixed Price
- Supports Client Migration Pace
- Provides Support of Client Testing

Questions ?