

IBM
CICS VSAM
Recovery VSE/ESA
Version 1.2
(5686-011)

Storage Systems Division
San Jose

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Trademarks

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ACF/VTAM

**CICS Transaction Server
for OS/390**

Common User Access

S/390

VSE/ESA

CICS

CICS/ESA

CICS/VSE

CICS/TS

CICSPLEX SM

CUA

OPC

SAA

**Systems Application
Architecture**

AGENDA

- Customer Requirements
- Why Use CICSVR?
- Backup Basics
- Transaction Processing Primer
- VSAM Sphere Recovery
- Release 1.2 Enhancements
- Recovery Example
- Summary

CICSVR Customer Requirements:

- Commitment to CICS/VSE
- High Data Availability
- Data Integrity
- Full Functionality
- Include All Vendors Hardware
- Integrated Solution
- Easy To Use

CICSVR - Recovery of CICS VSAM

Due To:

- Physical Loss
 - Hardware Failure
 - Disaster/Recovery
- Data Contamination/Deletion
- Incorrect Update - CICS Application
- Failure - CICS Transaction Backout
- Failure - During Emergency Restart Backout

CICS Recovery Basics

- Evaluate Backup Process
 - Utility
 - Frequency
 - Media
- Assume Nothing
- Check Everything
- Develop Procedures
- Test and Periodically Practice

CICSVR VSE 1.2 Limitations

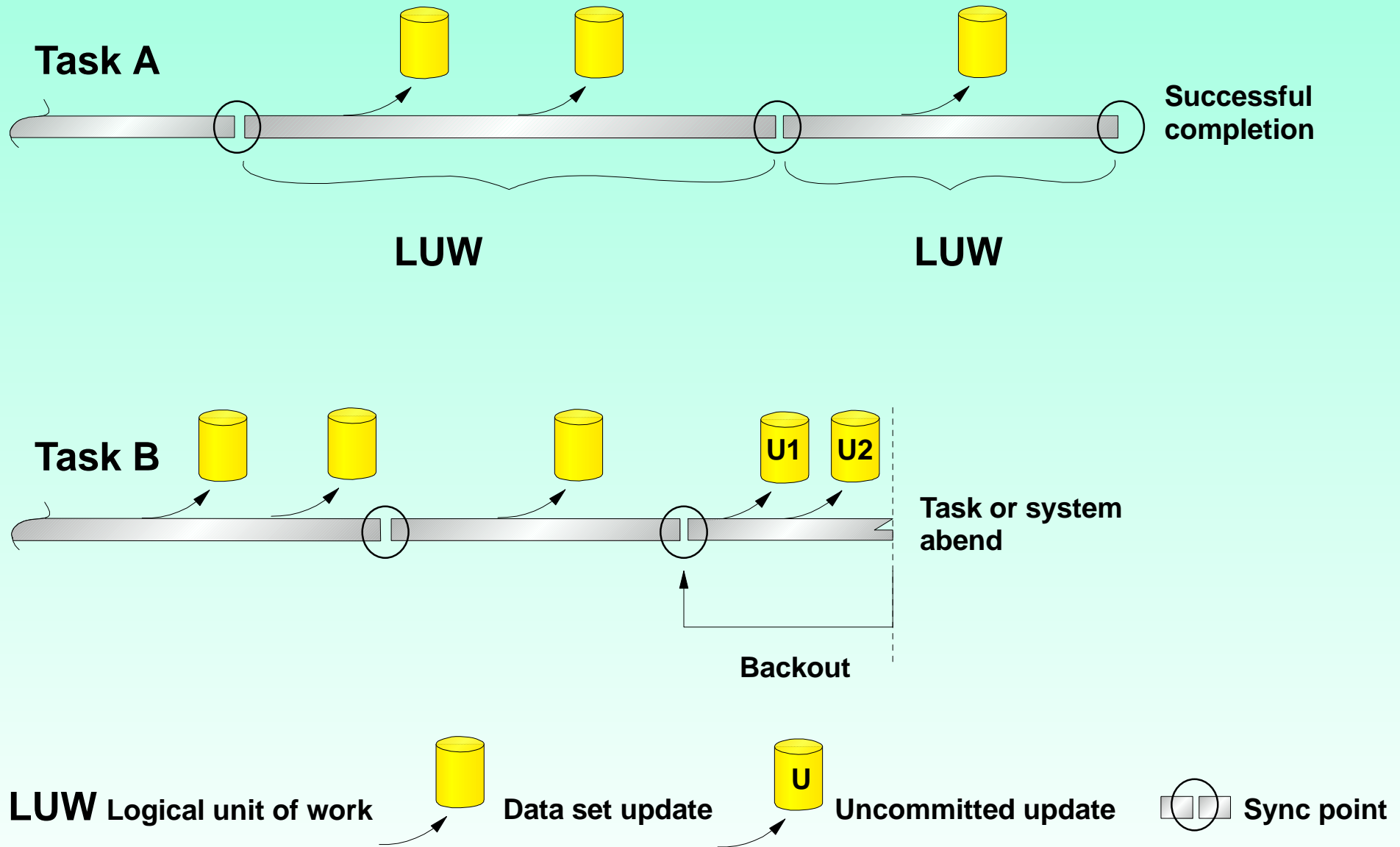
- CICSVR Cannot:

- Forward Recover VSAM Sphere which has no associated journal containing after images.
- Backout VSAM Sphere which has no associated journal containing after images.
- Forward Recover where no backup exists.
- Recover Batch (non-CICS) Updates.

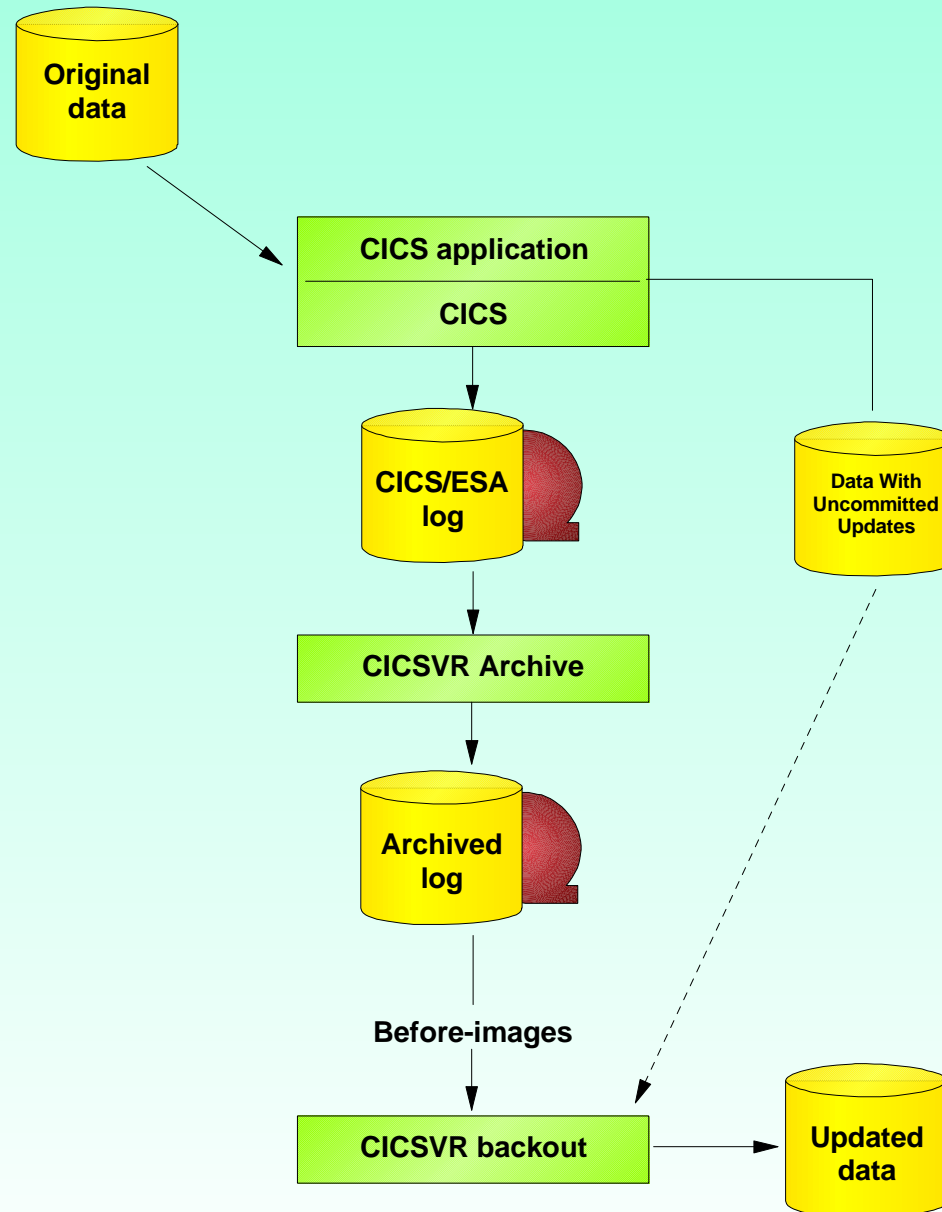
Transaction Processing Primer

- Transaction Processing Concepts
- Transaction Backout
- Forward Recovery

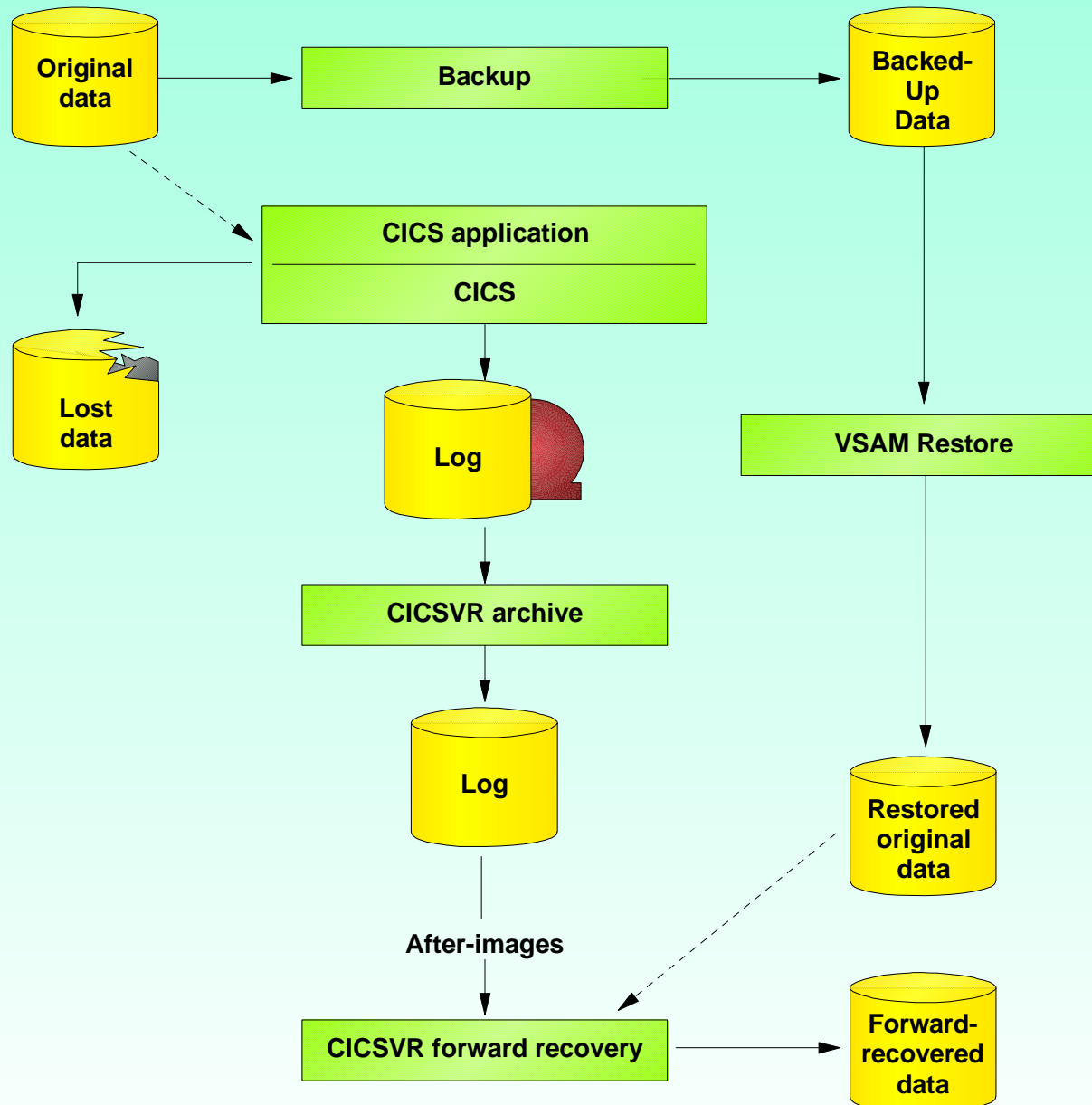
CICS Transaction Processing Concepts



CICSVR Backout Function



CICSVR Forward-Recovery Function



CICSVR VSE 1.2 Enhanced Functions

- **Archive Utility:**
 - **Generates Report**
 - **All VSAM Data Sets on Journal**
 - **Duplicates System Log or User Journals**
- **Backout Function**
- **Forward Recovery**

CICSVR VSE 1.2 Enhanced Functions

Support For:

- CICS Transaction Server
- Transaction Backout
- Automatic Journal Archive
 - New TS Function
- Enhanced Forward Recovery
 - VSAM ESDS
 - Marked for Deletion

CICSVR VSE 1.2 Recommendation

- Use CICSVR to Archive CICS Journals
- Implement as part of CICS Task
- Use CICSVR Archive Reports
 - Archive Verification
 - For Recovery Job Setup
- Save Output and Cycle Tapes

CICSVR Example (1)

```
// JOB CICSVR
// DLBL IMC1,'STOCKR.PLACE1.BASE',,VSAM
// DLBL IMP1,'STOCKR.PLACE1.PATH',,VSAM
// DLBL DLOG1,'PRODCICS.DFHJ03B' ,,PS
// EXTENT SYS010,VOL001
// TLBL TARC1,'PRODCICS.LOG.D1999150.COPY1'
```

CICSVR Example (2)

```
// EXEC DWWCO
  ALLOCATE (SPHERE)
  ALLOCATE LOG(DLOG1  TARC1 *) -
    DEVTYPE(DISK TAPE TAPE) -
    DEVADDR(*  SYS011 SYS012)
  RECOVER SPHERE(STOCK.PLACE1.BASE1) -
    STARTIME(99159) -
    STOPTIME(99159/23:59:59)
  FCTCOMP FCTNAME(STOCK) -
    RECFORM(FIXED) -
    STARTIME(99159/07:30:00)
```


CICSVR Example (3)

```
RELATE PATH(STOCK.PLACE1.PATH) -  
      NEWPATH(STOCKR.PLACE1.PATH)  
BLDVRP B4K(50) B2K(20)  
DEFEXIT PREAPPLY(PREAPPL) -  
      ERROR(ERRX) -  
      TERMINATION(TERMMX)  
SEQCHKL OUTOFSEQUENCE(IGNORE) -  
      GAPINSEQUENCE(IGNORE)  
SEQCHKR OUTOFSEQUENCE(WARNING)
```

/*

/*

Summary

- **Review Your Backup Procedures**
- **Install CICSVR for CICS Transaction Server**
- **Use CICSVR 1.2 to Replace CICSVR 1.1**
- **Use CICSVR to Archive CICS Journals**
- **Two Recovery Types**
- **Test Procedures**
- **Easy To Use**