



# Fast Service Upgrade from IBM z/VSE to 21C VSE<sup>n</sup> 6.3

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# Agenda

- Introduction
- Motives
- Considerations
- Tape preparation
- FSU stages
  - Down-level check
  - FSU preparation
  - FSU installation
- Post-Stage 2 Processing
- Conclusion

# Introduction

**Table 32: Comparing Initial Installation against FSU**

	<b>Initial Installation</b>	<b>FSU</b>
<b>Eligible for:</b>	All users	IBM z/VSE 5.2, 6.1, 6.2. and VSE <sup>n</sup> users
<b>Requirements:</b>	No special requirements	(see <a href="#">Required Status of Current System</a> )
<b>Hardware configuration:</b>	Must be done	Kept as is
<b>User profiles, selection panels, application profiles:</b>	Must be migrated	Kept as is (only system data on DOSRES and SYSWK1 replaced)
<b>User-specific data:</b>	Access to VSE <sup>n</sup> /VSAM data must be re-established VSE <sup>n</sup> /ICCF user libraries must be restored	Kept as is For example: System layout, VSE <sup>n</sup> /VSAM data, VSE <sup>n</sup> /ICCF file, etc. System startup is to be adapted
<b>VSE<sup>n</sup> optional programs:</b>	Must be installed	Should be refreshed
<b>Additional 21CSW or non-21CSW programs:</b>	Must be installed	Should be refreshed
<b>User application programs:</b>	Must be re-established (update of VSE <sup>n</sup> /VSAM catalogs, OLTP for VSE <sup>n</sup> tables, etc.)	Kept as is (recompile may be necessary)
<b>System Modifications:</b>	Possible	(see <a href="#">Restrictions for System Modifications</a> )

# Motives

## When is FSU possible?

- IBM z/VSE 5.2, 6.1 or 6.2 FSU is possible
- No change of the system disk architecture (DOSRES, SYSWK1)
- An English system language
- No Switch from the 2-digit subarea naming convention to the 4-digit subarea naming convention.

# Considerations

## General considerations

- Don't modify a members in the ICCF system libraries
- Don't delete the user "AAAA"
- Don't save or copy members of IJSYSRS into PRD2.SAVE
- Don't save your own generated Power phases in PRD2.CONFIG or PRD2.SAVE
- PRD2.SAVE must not contain any phases

# Backups

- DOSRES
- SYSWK1

## Optional Tasks

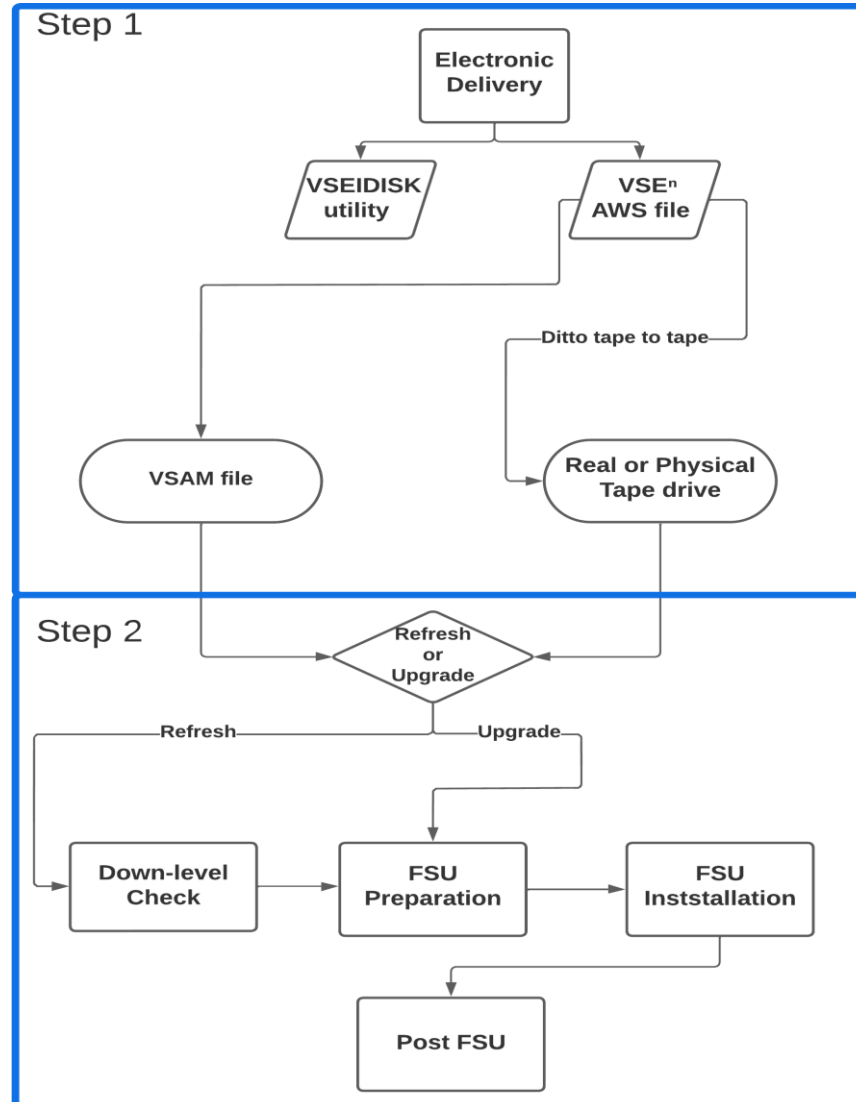
- To refresh the generation features they must be previously installed
- Install any optional programs you have



# FSU Processing and Space Requirements

- Library structure : IJSYSRS.SYSLIB, PRD1.\*, PRD2.CONFIG, PRD2.SAVE, PRD2.SCEEBASE, PRD2.TCPIPC, PRD2.TCPIPB
- System volumes must be DOSRES and SYSWK1
- The Master and User catalog must be available
- From IBM z/VSE 5.2 migrate DTSECTXN to the BSM control file
- Check if there is enough VSAM space available

# Tape preparation



## Prepare FSU from a real tape

- Connection to a tape library
- Copy the tape image into a volume
- Mount the volume with LIBSERV

## Prepare FSU from a VSAM Virtual Tape File

- Need LFP or TCPIP
- Define two tape units with the type 3490E (for SKVTACPY)
- Define VSAM space in the user catalog
- Connector Tool: VTAPE Server up and running
- Create a virtual tape file with SKVTAPE in ICCF 59
- Use SKVTASTJ in ICCF 59 to catalog TAPESRVR and LDVTA, then load TAPESRVR.

## Prepare FSU from a VSAM Virtual Tape File (Contd.)

Now we can transfer the tape image into a VSAM file with one of the following methods:

- Using FTP with TCPIP
- Using LFP and DITTO tape to tape
- Using IND\$FILE transfer to a host transfer file (not recommended)

# FSU Stages

1. Down-level Check
2. FSU Preparation
3. FSU Installation

## Down-level Check

Version or Release Upgrade	Service Refresh
<p><b>Do not perform a downlevel check</b></p>	<p><b>Perform a down-level check</b> Your current system status is checked and compared with the refresh level. This step does not change your system.</p>

- IJSYSRS.SYSLIB
- PRD1.BASE PRD1.MACLIB
- PRD2.SCEEBASE PRD2.GEN1 PRD2.TCPIPC PRD2.TCPIPB

# Down-level Check (Contd.)

```

IESADMSL.IESEADM          VSEn FUNCTION SELECTION          APPLID: DBDCCICS
Enter the number of your selection and press the ENTER key:

 1  Installation
 2  Resource Definition
 3  Operations
 4  Problem Handling
 5  Program Development
 6  Command Mode
 7  OLTP-Supplied Transactions

There is at least one message waiting for you to retrieve it.

PF1=HELP          3=SIGN OFF          6=ESCAPE (U)
                  9=Escape (m)

==> 143
  
```



## Down-level Check (Contd.)

```

IESADMSL.IESEFSU          FAST SERVICE UPGRADE
                                APPLID: DBDCCICS

Enter the number of your selection and press the ENTER key:

    1  Down-Level Check
    2  FSU Preparation
    3  FSU Installation

There is at least one message waiting for you to retrieve it.

PF1=HELP          3=END          4=RETURN          6=ESCAPE (U)
                  9=Escape (m)

==> 1
Path: 143
M G
G
24/007

```

## Down-level Check (Contd.)

```

SRV$FS01                                FAST SERVICE UPGRADE

Enter the required data and press ENTER.

TAPE UNIT ADDRESS..... 181             For a list of valid addresses see
                                         HELP

VIRTUAL TAPE..... 1                     Enter 1 if FSU is to be done from
                                         virtual (VSAM) tape, enter 2 if a
                                         real tape is used.

                                         Virtual tape is only possible if the
                                         installation tape is loaded to VSAM.
                                         If virtual tape is selected, enter
                                         the VSAM file name:

VSAM FILE NAME..... VTAPE1             Unique name of the VSAM file

PF1=HELP          2=REDISPLAY  3=END
  
```

## Down-level Check (Contd.)

SUB\$PR05	JOB DISPOSITION	
Enter the required data and press ENTER.		
JOB DESTINATION.....	3	Enter 1 to submit the job to batch. Enter 2 to file in library. Enter 3 to do both.
JOB NAME.....	DOWNLVL	The name under which the job will be saved in VSEn/ICCF.
PRIORITY.....	9	Priority 0-9 for this job.
CLASS.....	0	Changing * has no effect.
DISPOSITION.....	D	D,H,K or L. Changing * has no effect.
JOB ACCOUNTING.....		
HOLD LIST IN QUEUE.....	2	Enter 1 to hold output in list queue. Enter 2 to print output immediately
TIME EVENT SCHEDULING.....	2	Enter 1 if TIME EVENT SCHEDULING required, otherwise enter 2.
OTHER PARAMETERS.....	2	Enter 1 to change any other POWER JOB parameters, otherwise enter 2.
PF1=HELP            2=REDISPLAY    3=END		

## Down-level Check (Contd.)

```

SYSTEM:  VSEn          VSEn 6.3          TURBO (01)          USER:  SYS
                                     TIME:  10:11:41

BG 0000 1YM3I  TAPE DATA HANDLER INITIALIZATION IN PROGRESS
AR 0015 1C39I  COMMAND PASSED TO VSEn/POWER
F1 0001 1R88I  OK : 1 ENTRY PROCESSED BY PRELEASE RDR,TAPESRVR
R1 0001 1Q47I  R1 TAPESRVR 00272 FROM (SYSA) , TIME=10:05:16, LOG=NO,
          TKN=00000028
R1 0045 ID (PARAMETERS SUPPRESSED)
BG 0000 1YM4I  TAPE DATA HANDLER INITIALIZATION COMPLETED
BG 0000 1YM6I  TAPE DATA HANDLER ACCESSED SPECIFIED FILE SUCCESSFULLY
BG-0000 // PAUSE VIRTUAL TAPE READY?

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN          PAUSE: 01  SCROLL: 1          MODE:  CONSOLE

M  H

```

## Down-level Check (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                           TIME:  10:24:12

BG 0000 * -----
BG 0000 *      ***  DOWNLEVEL CHECK FOR IPV6  LIBRARY PRD2.TCPIPB      ***
BG 0000 *
BG 0000 *      **    SAVE THE LISTING OF THE DOWNLEVEL DELTA, BECAUSE **
BG 0000 *      **    YOU HAVE TO REAPPLY THIS SERVICE AFTER FSU.    **
BG 0000 * -----
BG 0000 4A87I AUTOMATIC CLOSE HAS BEEN STARTED

BG 0000 4A88I AUTOMATIC CLOSE FOR 1 FILE(S) COMPLETED

BG 0000 * VIRTUAL TAPE 181 IS RELEASED
BG 0000 EOJ DOWNLVL  MAX.RETURN CODE=0000
          DATE 06/13/2022, CLOCK 10/12/32, DURATION  00/07/17
BG 0001 1Q34I  BG WAITING FOR WORK
R1 0001 1QC7I  R1 TAPESRVR 00272 FROM (SYSA) , TIME=10:13:02 COMPLETE

==>

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE

M  H  ↑

```

# FSU Preparation

Version or Release Upgrade	Service Refresh
<p><b>Perform the FSU preparation</b>            A job stream is created which restores the latest level of the FSU function from tape. In this case, it is the FSU function from the new VSE<sup>n</sup> system.</p>	<p><b>Perform the FSU preparation</b>            A job stream is created which restores the latest level of the FSU function from tape.</p>

1. **DTRSTFSU:** Builds the Job Manager environment.
2. **DTRFSU02:** Loads the FSU program into IJSYSRS.SYSLIB.
3. **DTRFSU03:** Loads FSU skeletons into VSE<sup>n</sup>/ICCF library.
4. **DTRFSU04:** Job Manager Environment clean up
5. **DTRCLFSU:** Does a final clean up, and connect the DTSTFILE

**Do not run the FSU Installation dialog until these jobs have completed**

# FSU Preparation (Contd.)

```

IESADMSL.IESEADM                z/VSE FUNCTION SELECTION                APPLID: DBDCCICS

Enter the number of your selection and press the ENTER key:

  1  Installation
  2  Resource Definition
  3  Operations
  4  Problem Handling
  5  Program Development
  6  Command Mode
  7  CICS-Supplied Transactions

There is at least one message waiting for you to retrieve it.

PF1=HELP                3=SIGN OFF                6=ESCAPE (U)
                        9=Escape (m)

==> 143
M A | D                ↑                24/009

```

# FSU Preparation (Contd.)

```

IESADMSL.IESEFSU          FAST SERVICE UPGRADE
                                APPLID: DBDCCICS

Enter the number of your selection and press the ENTER key:

    1  Down-Level Check
    2  FSU Preparation
    3  FSU Installation

There is at least one message waiting for you to retrieve it.

PF1=HELP          3=END          4=RETURN          6=ESCAPE (U)
                  9=Escape (m)

==> 2
Path: 143
M A | D
                                     ↑
                                     24/007
  
```



# FSU Preparation (Contd.)

```

SRV$FS01                                FAST SERVICE UPGRADE

Enter the required data and press ENTER.

TAPE UNIT ADDRESS..... 181              For a list of valid addresses see
                                          HELP

VIRTUAL TAPE..... 1                     Enter 1 if FSU is to be done from
                                          virtual (VSAM) tape, enter 2 if a
                                          real tape is used.

                                          Virtual tape is only possible if the
                                          installation tape is loaded to VSAM.
                                          If virtual tape is selected, enter
                                          the VSAM file name:

VSAM FILE NAME..... VTAPE1              Unique name of the VSAM file

PF1=HELP          2=REDISPLAY  3=END
  
```

# FSU Preparation (Contd.)

```

SUB$PR05                                JOB DISPOSITION

Enter the required data and press ENTER.

JOB DESTINATION..... 3                Enter 1 to submit the job to batch.
                                        Enter 2 to file in library.
                                        Enter 3 to do both.

JOB NAME..... FSUPREP                 The name under which the job will be
                                        saved in VSE/ICCF.

PRIORITY..... 9                       Priority 0-9 for this job.
CLASS..... 0                           Changing * has no effect.
DISPOSITION..... *                     D,H,K or L. Changing * has no effect.
JOB ACCOUNTING.....
HOLD LIST IN QUEUE..... 2              Enter 1 to hold output in list queue.
                                        Enter 2 to print output immediately
TIME EVENT SCHEDULING..... 2          Enter 1 if TIME EVENT SCHEDULING
                                        required, otherwise enter 2.
OTHER PARAMETERS..... 2               Enter 1 to change any other POWER JOB
                                        parameters, otherwise enter 2.

PF1=HELP          2=REDISPLAY  3=END

A  JOB MANAGED SEQUENCE IS GENERATED => JOBNAME-PREFIX "DTR" IS USED
  
```

# FSU Preparation (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  10:44:37

R1 0045 * // OPTION SVABUF=YES
R1 0045 * // OPTION LRGBUF=YES
BG 0000 1YM4I  TAPE DATA HANDLER INITIALIZATION COMPLETED
BG 0000 1YM6I  TAPE DATA HANDLER ACCESSED SPECIFIED FILE SUCCESSFULLY
BG-0000 // PAUSE  VIRTUAL TAPE READY?

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE

M  F                                ↑                                20/006

```

# FSU Preparation (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  10:48:29

BG 0000 * -----
BG-0000 // PAUSE

==> /DISCONN DTSFILE

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE

M R | F                                ↑                                20/006

```

# FSU Preparation (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  10:50:22

BG 0000 * -----
BG-0000 // PAUSE
/DISCONN DTSFILE
AR 0015 1C39I COMMAND PASSED TO VSE/ICCF
F2 0126 K131I  DTSFILE IS DISCONNECTED

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE

M A | F
                                           20/007

```

# FSU Preparation (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  10:54:06

BG 0000 *
BG 0000 *      *****  NOW YOU CAN PERFORM FSU INSTALLATION  *****
BG 0000 *      *****  PRESS ENTER TO CONTINUE              *****
BG 0000 * -----
BG-0000 // PAUSE
R1 0001 1QC7I  R1 TAPESRVR 00200 FROM (SYSA) , TIME=10:52:51 COMPLETE

==> /CONN DTSFILE

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE

M A | F                                ↑                                20/006

```

# FSU Preparation (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  10:55:49

BG 0000 *
BG 0000 *      *****      NOW YOU CAN PERFORM FSU INSTALLATION      *****
BG 0000 *      *****      PRESS ENTER TO CONTINUE                    *****
BG 0000 * -----
BG-0000 // PAUSE
R1 0001 1QC7I      R1 TAPESRVR 00200 FROM (SYSA) , TIME=10:52:51 COMPLETE
/CONN DTSFILE
AR 0015 1C39I  COMMAND PASSED TO VSE/ICCF
F2 0126 K001I  DEVICE TYPE IS ECKD
F2 0126 K088I  HI FILE RECORDS=          740,371 (84%)
F2 0126 K019I  ICCF LIBRARY TEMPORARY AREAS NOT FREED
F2 0126 K129I  DTSFILE IS CONNECTED

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE
M A | F                                                                    20/007

```

# FSU Preparation (Contd.)

```

SYSTEM:      z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  11:35:07

BG 0000 *
BG 0000 *      *****  NOW YOU CAN PERFORM FSU INSTALLATION  *****
BG 0000 *      *****  PRESS ENTER TO CONTINUE                *****
BG 0000 * -----
BG-0000 // PAUSE
R1 0001 1QC7I    R1 TAPESRVR 00200 FROM (SYSA) , TIME=10:52:51 COMPLETE
/CONN DTSFILE
AR 0015 1C39I  COMMAND PASSED TO VSE/ICCF
F2 0126 K001I  DEVICE TYPE IS ECKD
F2 0126 K088I  HI FILE RECORDS=      740,371 (84%)
F2 0126 K019I  ICCF LIBRARY TEMPORARY AREAS NOT FREED
F2 0126 K129I  DTSFILE IS CONNECTED
0
BG 0000 EOJ DTRCLFSU  MAX.RETURN CODE=0000
          DATE 06/13/2022, CLOCK 11/34/51, DURATION    00/42/30
BG 0001 1Q34I    BG WAITING FOR WORK

==>

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE

M R | F                                ↑                                20/006

```



# FSU Installation

Version or Release Upgrade	Service Refresh
<p><b>Perform the FSU installation</b> Your system is replaced by the new VSE<sup>n</sup> version.</p>	<p><b>Perform the FSU installation</b> Your system is replaced by the new service refresh.</p>

FSU installation consist of two stages:

Stage 1 : running From DOSRES

Stage 2 : running From SYSWK1

# FSU Installation (Contd.)

```

IESADMSL.IESEFSU          FAST SERVICE UPGRADE
                                APPLID: DBDCCICS

Enter the number of your selection and press the ENTER key:

    1  Down-Level Check
    2  FSU Preparation
    3  FSU Installation

There is at least one message waiting for you to retrieve it.

PF1=HELP          3=END          4=RETURN          6=ESCAPE (U)
                  9=Escape (m)

JOB HAS BEEN SUBMITTED AND FILED AS FSUPREP .
==> 3 Path: 143
  
```

# FSU Installation (Contd.)

```

SRV$FS02                                FAST SERVICE UPGRADE

Enter the required data and press ENTER.

TAPE UNIT ADDRESS..... 181              For valid addresses see HELP

Enter 1 if FSU is to be done from virtual tape, else enter 2 for real
tape.
VIRTUAL TAPE..... 1                    FSU from virtual (VSAM) tape?
If virtual tape is selected, enter:
VSAM FILE NAME..... VTAPE1_            Unique name of the VSAM file

Enter 1 for YES and 2 for NO to the following questions.
REORGANIZE DTSFILE..... 2              Do you want to reorganize DTSFILE ?
BACKUP LIBRARIES..... 2                Do you want to backup base libraries?
BACKUP DTSFILE..... 2                  Do you want to backup the DTSFILE ?
OWN POWER PARAMETERS..... 2           Do you have your own POWER parameters
                                     (Phase, Partition allocs, Partition
                                     size, or PFIX value) ?

PF1=HELP          2=REDISPLAY  3=END
  
```

M R

D

↑

17/031

# FSU Installation (Contd.)

```

SUB$PR05
Enter the required data and press ENTER.

JOB DESTINATION..... 3
JOB NAME..... DTRFSU
PRIORITY..... 9
CLASS..... 0
DISPOSITION..... *
JOB ACCOUNTING.....
HOLD LIST IN QUEUE..... 2
TIME EVENT SCHEDULING..... 2
OTHER PARAMETERS..... 2

PF1=HELP      2=REDISPLAY  3=END

A JOB MANAGED SEQUENCE IS GENERATED => JOBNAME-PREFIX "DTR" IS USED
  
```

## Stage 1

- Installs IJSYSR1.SYSLIB (base code and NLS) to SYSWK1 and PRD1.MACLIB
- Optionally, the generation feature into PRD2.GEN1

# Stage 1 (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  12:49:44

BG 0000 *                - BACKUP HISTORY FILE
BG 0000 *
BG 0000 *      1. REPLY "CANCEL (END/ENTER)" TO CANCEL THIS JOB.
BG 0000 *      2. MAKE SURE THAT NO OTHER JOB STILL NEEDS THE WORK HISTORY FILE
BG 0000 *      3. RELEASE THE JOB:DTRSTFSU AGAIN      (R RDR,DTRSTFSU)
BG 0000 *
BG 0000 *                --- OR ---
BG 0000 *
BG 0000 *      REPLY "(END/ENTER)" AT THE FOLLOWING PAUSE-STATEMENT TO
BG 0000 *      CONTINUE THIS JOB
BG 0000 *
BG 0000 *      NOTE: THIS WILL CAUSE THE INFORMATION STORED IN THE WORK HISTORY
BG 0000 *      FILE TO BE LOST.
BG 0000 * -----
BG-0000 // PAUSE

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE

M A | F                ↑                20/007

```

# Stage 1 (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  12:50:32

BG 0000  EOJ DTRSTFSU  MAX.RETURN CODE=0004
          DATE 06/13/2022, CLOCK 12/50/31, DURATION  00/22/01
BG 0001  1Q47I  BG DTRFSU14 00216 FROM (SYSA) , TIME=12:50:31 , TKN=00000060
BG 0000  // JOB DTRFSU14
          DATE 06/13/2022, CLOCK 12/50/31

BG 0000  * -----
BG 0000  *      FSU STAGE I
BG 0000  *      THIS FAST SERVICE UPGRADE IS
BG 0000  *      FROM  Z/VSE 6.2 TO VSEn 6.3
BG 0000  *      IF ABOVE UPGRADE IS NOT EXPECTED, YOU MAY HAVE MISSED TO RUN
BG 0000  *      THE PREPARATION STEP.
BG 0000  *      REPLY "(END/ENTER)" TO CONTINUE THE UPGRADE, OR CANCEL
BG 0000  *      THE JOB AND RERUN THE PREPARATION STEP.
BG-0000 // PAUSE

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
M A | F                                                                    20/007

```

# Stage 1 (Contd.)

```

SYSTEM:      z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  12:52:17

BG 0000 *                SAVE THE LISTING OF THE DOWNLEVEL DELTA, BECAUSE
BG 0000 *                YOU HAVE TO REAPPLY THIS SERVICE.
BG 0000 * -----
BG 0000 * TAPE DRIVE 181 IS RELEASED
BG 0000 1YM3I TAPE DATA HANDLER INITIALIZATION IN PROGRESS
AR 0015 1C39I COMMAND PASSED TO VSE/POWER
F1 0001 1R88I  OK : 1 ENTRY PROCESSED BY PRELEASE RDR,TAPESRVR
R1 0001 1Q47I  R1 TAPESRVR 00234 FROM (SYSA) , TIME=12:52:16, LOG=NO,
      TKN=00000028
R1 0045 ID (PARAMETERS SUPPRESSED)
BG 0000 1YM4I TAPE DATA HANDLER INITIALIZATION COMPLETED
BG 0000 1YM6I TAPE DATA HANDLER ACCESSED SPECIFIED FILE SUCCESSFULLY
BG-0000 // PAUSE VIRTUAL TAPE READY?

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE
M R | F                                                                    20/007

```



# Stage 1 (Contd.)

```

SYSTEM:      z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  12:52:59

BG 0000      IJSYSR1                INTO  IJSYSR1
BG-0000 M249D ENTER "GO" TO CONTINUE OR "CANCEL" TO TERMINATE

==> 0 go

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE

M R | F                                                                    20/010

```

## Stage 1 (Contd.)

```

SYSTEM:      z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
VM USER ID: PTHVSE18                TIME:  12:53:49
BG 0000 *      ARE AVAILABLE, LABELS ARE DELETED AND ADDED AGAIN WITH
BG 0000 *      SYSTEM DEFAULT VALUES. THIS AVOIDS PROBLEMS WITH WORKFILES
BG 0000 *      DEFINED ON VIRTUAL DISKS.
BG 0000 *
BG 0000 * -----
BG-0000 // PAUSE

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV
ACT_MSG:  HOLDRUN                PAUSE:  01  SCROLL:  1                MODE:  CONSOLE
M A | F                                                                    20/007

```

# Stage 1 (Contd.)

```

SYSTEM:  z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  12:54:23

BG 0000 *      ARE AVAILABLE, LABELS ARE DELETED AND ADDED AGAIN WITH
BG 0000 *      SYSTEM DEFAULT VALUES. THIS AVOIDS PROBLEMS WITH WORKFILES
BG 0000 *      DEFINED ON VIRTUAL DISKS.
BG 0000 *
BG 0000 * -----
BG-0000 // PAUSE
R1 0001 1QC7I    R1 TAPESRVR 00234 FROM (SYSA) , TIME=12:54:04 COMPLETE
0
BG 0000 EOJ DTRCLFSU  MAX.RETURN CODE=0000
      DATE 06/13/2022, CLOCK 12/54/23, DURATION    00/00/47
BG 0001 1Q34I    BG WAITING FOR WORK

==> msg f2,data=cemt p shut i

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
M A | F                                                                    20/031

```

# Stage 1 (Contd.)

```

SYSTEM:      z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  12:56:02

F2 0126 K125I  ICCF HAS BEEN TERMINATED
F3 0003 IST804I CLOSE IN PROGRESS FOR DBDCCICS OPENED BY DFHEVID1
F3 0003 IST400I TERMINATION IN PROGRESS FOR APPLID DBDCCICS
F3 0003 IST805I VTAM CLOSE COMPLETE FOR DBDCCICS
F2 0002 DFHDU0303I DBDCCICS Transaction Dump Data set DFHDMPA  closed.
F2 0002 DFHKE1799 DBDCCICS TERMINATION OF CICS IS COMPLETE.

F2 0002 4A87I  AUTOMATIC CLOSE HAS BEEN STARTED

F2 0002 4A88I  AUTOMATIC CLOSE FOR 8 FILE(S) COMPLETED

F2 0002 EOJ  CICSICCF  MAX.RETURN CODE=0000
          DATE 06/13/2022, CLOCK 12/56/01, DURATION  02/59/57
F2 0001 1Q4DI  JOB CICSICCF 00180 FINISHED PROCESSING IN PARTITION F2
F2 0001 1Q34I  F2 WAITING FOR WORK

==> z net q

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
M A | F                                                                    20/013

```

# Stage 1 (Contd.)

```

SYSTEM:      z/VSE                z/VSE 6.2                TURBO (01)                USER:  SYS
                                           TIME:  12:56:48

F3 0003  IST105I VTMCA2 NODE NOW INACTIVE
F3 0003  IST105I VTMCA3 NODE NOW INACTIVE
F3 0003  IST105I ISTGROUP NODE NOW INACTIVE
F3 0003  IST412I VTAM COMMAND PROCESSING TERMINATED
F3 0003  IST984I USER EXIT ISTEXCSD IS INACTIVE
F3 0003  IST102I VTAM IS NOW INACTIVE
F3 0003  EOJ VTAMSTRT  MAX.RETURN CODE=0000
                                           DATE 06/13/2022, CLOCK 12/56/48, DURATION  03/00/47
F3 0001  1Q34I      F3 WAITING FOR WORK

==> pend

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE

M A | F                                ↑                                20/010

```

# Stage 1 (Contd.)

```

SYSTEM:      z/VSE                      z/VSE 6.2          TURBO (01)          USER:  SYS
                                           TIME:  13:00:19

F3-0003  1I00D  READY FOR COMMUNICATIONS.
F7-0007  1I00D  READY FOR COMMUNICATIONS.
F2-0002  1I00D  READY FOR COMMUNICATIONS.
F4-0004  1I00D  READY FOR COMMUNICATIONS.
F5-0005  1I00D  READY FOR COMMUNICATIONS.
F6-0006  1I00D  READY FOR COMMUNICATIONS.
F8-0008  1I00D  READY FOR COMMUNICATIONS.
F9-0009  1I00D  READY FOR COMMUNICATIONS.
FA-0010  1I00D  READY FOR COMMUNICATIONS.
BG-0000  1I00D  READY FOR COMMUNICATIONS.

          DATE 06/13/2022, CLOCK 13/00/11, DURATION  00/01/01
F1-0001  1C10D  PLEASE ASSIGN SYSRDR.
FB 0011  1N90I  EOP WAS FORCED BY EOJ
FB 0011  EOJ SECSERV  MAX.RETURN CODE=0099
          DATE 06/13/2022, CLOCK 13/00/11, DURATION  00/01/01
FB-0011  1C10D  PLEASE ASSIGN SYSRDR.

==> REIPL 241,LOADP=..P

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN          PAUSE:  01  SCROLL:  1          MODE:  CONSOLE
M A | F                               ↑

```

## Stage 2

- Restores DTFILES (base and NLS)
- Installs LE into PRD2.SCEEBASE
- Installs PRD1.BASE products
- Restores the OME
- Refreshes IESTRFL, updates CSD file
- Copies back IJSYSR1, updates refresh level in history file
- Copies back work history file and changes residence information
- Starts basic OLTP and VCDD for first steps on new level.

# Continued

```
0I04I IPLDEV=X'0241',VOLSER=SYSWK1,CPUID=FF0111108562  
0I03D ENTER SUPERVISOR PARAMETERS OR ASI PARAMETERS  
IPL=$IPLESA,JCL=$$JCLFSU
```

M R

F

↑

03/026



## Stage 2 (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                           TIME:  13:14:37

F1 0001 1Q0HI  CURRENT LEVEL V9R5 OF VSEN/POWER DIFFERENT FROM LEVEL V9R4 OF
        QUEUE STARTING WARM
F1-0001 1Q0HD  IF SPOOL FILE MIGRATION TO V9R5 IS INTENDED REPLY 'YES', ELSE
        'NO '

==> 1 yes

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
M A | F                                                                    20/011

```

## Stage 2 (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                                TIME:  13:18:10

F1 0001 1Q0HI  CURRENT LEVEL V9R5 OF VSEN/POWER DIFFERENT FROM LEVEL V9R4 OF
        QUEUE STARTING WARM
F1-0001 1Q0HD  IF SPOOL FILE MIGRATION TO V9R5 IS INTENDED REPLY 'YES', ELSE
        'NO'

1 yes
F1-0001 1QFFD VSEN/POWER WARMSTART AND VSEN ACCESS CONTROL NOT
        ACTIVATED(SEC=NO). DO YOU WISH TO CONTINUE? (YES/NO)

==> 1 yes

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE

M A | F

```

## Stage 2 (Contd.)

```

SYSTEM:  VSEn          VSEn 6.3          TURBO (01)          USER:  SYS
                                TIME:  13:19:13

BG 0000 *          VIRTUAL TAPE SPECIFIED, ON ADDRESS
BG 0000 *              181
BG 0000 *          INSTALLATION TAPE VSEn6.X.X-YY STILL LOADED
BG 0000 *          ON FILE VTAPE1 ?
BG 0000 * -----
BG 0000 * TAPE DRIVE 181 IS RELEASED
BG 0000 1YM3I  TAPE DATA HANDLER INITIALIZATION IN PROGRESS
AR 0015 1C39I  COMMAND PASSED TO VSEn/POWER
F1 0001 1R88I  OK : 1 ENTRY PROCESSED BY PRELEASE RDR,TAPESRVR
R1 0001 1Q47I  R1 TAPESRVR 00278 FROM (SYSA) , TIME=13:19:10, LOG=NO,
          TKN=0000003A
R1 0045 * // OPTION SVABUF=YES
R1 0045 * // OPTION LRGBUF=YES
BG 0000 1YM4I  TAPE DATA HANDLER INITIALIZATION COMPLETED
BG 0000 1YM6I  TAPE DATA HANDLER ACCESSED SPECIFIED FILE SUCCESSFULLY
BG-0000 // PAUSE VIRTUAL TAPE READY?

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN          PAUSE:  01  SCROLL:  1          MODE:  CONSOLE
M A | F

```

## Stage 2 (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                           TIME:  13:22:43

BG 0000 *          5. RE-IPL FROM DOSRES (IJSYSRS) USING 'REIPL CUU,LOADP=...'
BG 0000 *          COMMAND.
BG 0000 *          6. REBUILD THE STAND ALONE DUMP DEVICE (TAPE OR DISK).
BG 0000 *  -----
BG-0000 // PAUSE
R1 0001 1QC7I    R1 TAPESRVR 00278 FROM (SYSA) , TIME=13:22:43 COMPLETE

==> 0

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE

M A | F                                                                    20/007

```

## Stage 2 (Contd.)

```

SYSTEM:      VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
              TIME: 13:25:20

BG 0000 * USE, DUPLICATION OR DISCLOSURE                *
BG 0000 * RESTRICTED BY                                *
BG 0000 * GSA ADP SCHEDULE CONTRACT WITH IBM CORP.    *
BG 0000 * 2121-VN6 (C) COPYRIGHT                      *
BG 0000 * 21ST CENTURY SOFTWARE, INC. 2022           *
BG 0000 * *****
BG 0000 * START MODE FOR BG-PARTITION IS BASIC
BG-0000 IESIO065D IS THE LOCAL CONTROL UNIT AN SNA CU? YES/NO

==> 0 no

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE

M A | F                                                                    20/010

```

## Stage 2 (Contd.)

```

SYSTEM:  VSEn          VSEn 6.3          TURBO (01)          USER:  SYS
          TIME: 13:25:51

BG 0000 * USE, DUPLICATION OR DISCLOSURE          *
BG 0000 * RESTRICTED BY                              *
BG 0000 * GSA ADP SCHEDULE CONTRACT WITH IBM CORP. *
BG 0000 * 2121-VN6 (C) COPYRIGHT                    *
BG 0000 * 21ST CENTURY SOFTWARE, INC. 2022         *
BG 0000 * *****
BG 0000 * START MODE FOR BG-PARTITION IS BASIC
BG-0000 IESI0065D IS THE LOCAL CONTROL UNIT AN SNA CU? YES/NO
0 no
BG 0000 IESI0064I DEFINE UP TO 3 LOCAL VCDD TERMINALS
BG-0000 IESI0059D ENTER A 3270 ADDRESS (PCUU) OR "END"

==> 0 080

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN          PAUSE: 01  SCROLL: 1          MODE:  CONSOLE

M A | F          ↑
20/011

```

# Stage 2 (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                           TIME:  13:26:21

BG 0000 *  USE, DUPLICATION OR DISCLOSURE                *
BG 0000 *  RESTRICTED BY                                *
BG 0000 *  GSA ADP SCHEDULE CONTRACT WITH IBM CORP.    *
BG 0000 *  2121-VN6 (C) COPYRIGHT                      *
BG 0000 *  21ST CENTURY SOFTWARE, INC. 2022            *
BG 0000 *  *****
BG 0000 *  START MODE FOR BG-PARTITION IS BASIC
BG-0000 IESIO065D IS THE LOCAL CONTROL UNIT AN SNA CU? YES/NO
0 no
BG 0000 IESIO064I DEFINE UP TO 3 LOCAL VCDD TERMINALS
BG-0000 IESIO059D ENTER A 3270 ADDRESS (PCUU) OR "END"
0 080
BG-0000 IESIO059D ENTER A 3270 ADDRESS (PCUU) OR "END"

==> 0 081

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
M A | F                                                                    20/011

```

## Stage 2 (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                           TIME:  13:26:56

BG 0000 *  USE, DUPLICATION OR DISCLOSURE                *
BG 0000 *  RESTRICTED BY                                *
BG 0000 *  GSA ADP SCHEDULE CONTRACT WITH IBM CORP.    *
BG 0000 *  2121-VN6 (C) COPYRIGHT                      *
BG 0000 *  21ST CENTURY SOFTWARE, INC. 2022           *
BG 0000 *  *****
BG 0000 *  START MODE FOR BG-PARTITION IS BASIC
BG-0000 IESIO065D IS THE LOCAL CONTROL UNIT AN SNA CU? YES/NO
0 no
BG 0000 IESIO064I DEFINE UP TO 3 LOCAL VCDD TERMINALS
BG-0000 IESIO059D ENTER A 3270 ADDRESS (PCUU) OR "END"
0 080
BG-0000 IESIO059D ENTER A 3270 ADDRESS (PCUU) OR "END"
0 081
BG-0000 IESIO059D ENTER A 3270 ADDRESS (PCUU) OR "END"

==> 0 082

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
M A | F                                                                    20/011

```



## Stage 2 (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                TIME: 13:28:01

0 082
BG-0000 IESI0062D CHECK YOUR ANSWERS. DO YOU WANT TO CONTINUE? YES/NO

==> 0 yes

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE

M R | F

```

## Stage 2 (Contd.)

```

SYSTEM:  VSEn                VSEn 6.3                TURBO (01)                USER:  SYS
                                           TIME:  13:28:58

        DATE 06/13/2022, CLOCK 13/28/55
F3 0003 IST052I CUSTNO IS AN INVALID START OPTION KEYWORD - IGNORED
F3 0003 IST052I VTAMPW IS AN INVALID START OPTION KEYWORD - IGNORED
F3 0003 IST1449I DEFAULT(S) WILL BE USED IF NO OVERRIDE IS SPECIFIED
F3-0003 IST1311A ENTER START OPTION OVERRIDES OR ENTER HALT TO EXIT VCDD
BG 0000 1S47I  PRELEASE RDR,CICSBSX                START CICS
F2 0001 1Q47I  F2 CICSBSX 00319 FROM (SYSA) , TIME=13:28:58 , TKN=00000077
F2 0002 // JOB CICSBSX                ** CICS/ICCF BASIC STARTUP ENVIRONMENT
        DATE 06/13/2022, CLOCK 13/28/58
BG 0000 EOJ TPSTBSX
        DATE 06/13/2022, CLOCK 13/28/58, DURATION 00/00/03
BG 0001 1Q34I  BG WAITING FOR WORK
F2 0002 1T20I  SYS009 HAS BEEN ASSIGNED TO X'009' (TEMP)
F2 0002 LOG
F2 0002 ID (PARAMETERS SUPPRESSED)
F2 0002 NOLOG
F2 0002 *      WAITING FOR VTAM TO COME UP
==> 3

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG:  HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
M A | F                                ↑                                20/007

```

## Post-Stage 2 Processing

- Update your selection panels
- Update your application profiles
- Performing OLTP updates
- New Keys for TCP/IP

# Shutdown the System and Re-IPL from DOSRES

1. MSG F2,DATA=CEMT P SHUT I
2. Z NET,QUICK
3. PEND
4. REIPL 240,LOADP=...

## Conclusion

- We added the option to update from IBM z/VSE 5.2
- FSU is functionally identical to the one for IBM z/VSE 6.2



# Thank you