

Unit 11d – Prepare your Operating System for IMS

Some steps related to preparing z/OS for IMS

Help

Execution (LST Mode) - DBT

Row 14 to 28 of 261

Action Codes: Brm Doc Edm eNt eXe Ftl spR

JOB/Task	Step	Title.....
IV3D001T	D0	NOTE - Introduction - z/OS and VTAM Interface
IV3D101T	D1	XMPL - Allocate Interface Data Sets
IV3D200T	D2	XMPL - Update JESx Procedure
IV3D201T	D2	XMPL - Update IEAAPFxx or PROGxx - Authorized DSN
IV3D202T	D2	XMPL - Update IEALPAxx - MLPA Modules
IV3D206T	D2	XMPL - Update IEFSSNxx - RLM Subsystem Names
IV3D207T	D2	XMPL - Update IEASVCxx - SVC Numbers
IV3D209T	D2	XMPL - Install TYPE 2 SVC
IV3D210T	D2	XMPL - Link-edit TYPE 4 SVC
IV3D212T	D2	XMPL - Link-edit Abend Formatting Module
IV3D214T	D2	XMPL - Add DFSAFMD0 to IEAVADFM CSECT of IGC0805A
IV3D215T	D2	XMPL - Update BLSCECTX IPCS Exits
IV3D216T	D2	XMPL - IPCS ISPF Dataset Concatenation
IV3D217T	D2	XMPL - Define z/OS Dump Options
IV3D218T	D2	XMPL - Define RACF Security Profile

Command ==>

Scroll ==> CSR

F1=Help

F3=Exit

F7=Backward

F8=Forward

F10=Actions

IV3D201T: PROCLIB definition in SYS1.PROCLIB member JES2

```
//JES2      PROC M=JES2PARM,MC=JES2COMM,MN=JESWMNEW,
//          PDSN='SYS1.TSO.PROCLIB'
//IEFPROC EXEC PGM=HASJES20,DPRTY=(15,15),TIME=1440,PERFORM=9
//*
//*  JES2 JCL FOLLOWS
//*
//PROC00     DD DSN=&PDSN,DISP=SHR
//           DD DSN=SYS1.PROCLIB,DISP=SHR
//           DD DSN=CICS.PROCLIB,DISP=SHR
//           DD DSN=DB2.PROCLIB,DISP=SHR
//           DD DSN=AS.PROCLIB,DISP=SHR
//           DD DSN=MQS.PROCLIB,DISP=SHR
//           DD DSN=IMS.STC.PROCLIB,DISP=SHR           IMS or common STARTED TASK LIBRARY
//           DD DSN=SYS1.JES.PROCLIB,DISP=SHR DD
//           DSN=SYS1.WEBSRV.PROCLIB,DISP=SHR DD
//PROC01     DSN=&PDSN,DISP=SHR
//           DD DSN=SYS1.PROCLIB,DISP=SHR
//PROC02     DD DSN=IMS.DBC1.PROCLIB,DISP=SHR
//           DD DSN=SYS1.PROCLIB,DISP=SHR
//PROC03     DD DSN=IMS.DBC.PROCLIB,DISP=SHR
//           DD DSN=SYS1.PROCLIB,DISP=SHR
//           DD DSN=IMS.PROCLIB,DISP=SHR
//PROC04     DD DSN=SYS1.PROCLIB,DISP=SHR
//           DD DSN=IMS.DBT1.PROCLIB,DISP=SHR
//PROC05
```

IV3D203T: Update PROGxx – Authorized data sets

Contents of member PROGxx in SYS1.PARMLIB

```
      .  
      .  
APF  FORMAT (DYNAMIC)  
APF  ADD  DSNAME (SYS1.PPLINK)                                VOLUME (PROD00)  
      .  
      .  
      .  
      .  
      .  
  
APF  ADD  DSNAME (IMS.SDFSRESL)                                VOLUME (DBDC02)  
APF  ADD  DSNAME (IMS.SDXRRESL)                                VOLUME (DBDC02)  
APF  ADD  DSNAME (IMS.MODBLKSA)                                VOLUME (DBDC02)  
APF  ADD  DSNAME (IMS.MODBLKSB) .                            VOLUME (DBDC02)
```

IV3D207T: Update IEASVCxx – SVC numbers

```
EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE
EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE
EXAMPLE--                                --EXAMPLE
EXAMPLE--          NOT INTENDED FOR USER EXECUTION          --EXAMPLE
EXAMPLE--                                --EXAMPLE
EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE
EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE--EXAMPLE
/*                                                                    */
```

```

          .
          .
          .
SVC Parm 254 REPLACE,          /* IMS TYPE 2 SVC */
          TYPE(2)
SVC Parm 255 REPLACE,          /* IMS TYPE 4 SVC FOR DBRC */
          TYPE(4)
```

IV3D208T: Update SCHEDxx – PPT entries

```

.
.
/* IRLM - RESOURCE LOCK MANAGER */
PPT PGMNAME(DXRRLM00) /* BITS WERE '6870FFFF00000000' */
    CANCEL /* PROGRAM CAN BE CANCELLED (DEFAULT) */
    KEY(7) /* PROTECT KEY ASSIGNED IS 7 */
    NOSWAP /* PROGRAM IS NOT-SWAPPABLE */
    NOPRIV /* PROGRAM NOT PRIVILEGED (DEFAULT) */
    DSI /* DOES NOT REQUIRE DATA SET INTEGRITY (DFLT) */
    SYST /* PROGRAM IS A SYSTEM TASK */
    NOPASS /* CAN BYPASS PASSWORD PROTECTION */
    AFF(NONE) /* NO CPU AFFINITY (DEFAULT) */
    NOPREF /* NO PREFERRED STORAGE FRAMES (NODEFAULT) */
/* IMS ONLINE CONTROL REGION */
PPT PGMNAME(DFSMVRC0) /* BITS WERE '6870FFFF00000000' */
    CANCEL /* PROGRAM CAN BE CANCELLED (DEFAULT) */
    KEY(7) /* PROTECT KEY ASSIGNED IS 7 */
    NOSWAP /* PROGRAM IS NOT-SWAPPABLE */
    NOPRIV /* PROGRAM NOT PRIVILEGED (DEFAULT) */
    DSI /* DOES NOT REQUIRE DATA SET INTEGRITY (DFLT) */
    SYST /* PROGRAM IS A SYSTEM TASK */
    NOPASS /* CAN BYPASS PASSWORD PROTECTION */
    AFF(NONE) /* NO CPU AFFINITY (DEFAULT) */
    NOPREF /* NO PREFERRED STORAGE FRAMES (NODEFAULT) */
.
.
.
```

IV3D209T: Link Edit (Bind) TYPE 2 SVC into z/OS nucleus

```
● //STEP02 EXEC PGM=IEWL,REGION=512K,
● // PARM='LIST,XREF,NCAL,SCTR,LET,SIZE=(1024K,128K)'
● //SYSPRINT DD SYSOUT=*
● //RESLIB DD DISP=SHR,DSN=IMS.SDFSRESL
● //SYSLMOD DD DSN=SYS1.NUCLEUS,DISP=SHR,UNIT=3390,VOL=SER=MRSALL
● //SYSUT1 DD UNIT=VIO,SPACE=(CYL,(3,1))
● //SYSLIN DD *
●
●
● OUTPUT DATA SET SYS1.NUCLEUS IS ON VOLUME MRSALL
● +
● + INSERT/ORDER STATEMENTS FROM PREVIOUS z/OS NUCLEUS LINK
● +
● IEW0000 INSERT IEAVNIP0
● IEW0000 INSERT IEAVFX00
● IEW0000 ORDER MPL,IEAVEIO,IEAVESVC,IEAVEEXP,IEAVESLK
● IEW0000 ORDER IEAVBK00
● IEW0000 ORDER IEAVESVT
● IEW0000 INCLUDE RESLIB(IGC254) DFSVC200 (IMS TYPE 2 SVC)
● IEW0000 INCLUDE SYSLMOD(IEANUC01) OLD Z/OS NUCLEUS
● IEW0000 NAME IEANUC02(R) NEW Z/OS NUCLEUS WITH IMS SVC
● IEW0461 IECDDED C
● IEW0461 IOSRMIH3
● ** IEANUC02 REPLACED AND HAS AMODE 31
●
●
●
```

IV3D210T: Link Edit (Bind) TYPE 4 SVC into LPALIB

```
.  
.  
//LINKSVC4 EXEC PGM=IEWL,  
//          PARM='LIST,LET,XREF,RENT,REFR'  
//SYSPRINT DD SYSOUT=*  
//RESLIB   DD DISP=SHR,DSN=IMS.SDFSRESL  
//SYSLMOD  DD DISP=SHR,DSN=SYS1.LPALIB.IMS  
//SYSUT1   DD UNIT=3390,SPACE=(CYL,(3,1))  
//SYSLIN   DD *
```

<<<<< YOUR MLPA LIBRARY

```
.  
.  
.  
JOB IV2D210T      STEP LINKSVC4  
INVOCATION PARAMETERS - LIST,LET,XREF,RENT,REFR  
ACTUAL SIZE=(317440,86016)  
OUTPUT DATA SET SYS1.LPALIB.IMS IS ON VOLUME XASYST
```

```
IEW0000      INCLUDE RESLIB\(IGC0025E\)          DSP00MVS DBRC TYPE 4 SVC - 255  
IEW0000      NAME IGC0025E\(R\)
```

CROSS REFERENCE TABLE

CONTROL SECTION

ENTRY

NAME ORIGIN LENGTH

NAME LOCATION

NAME LOCATION

.
.
.

IV3D212T: Link Edit (Bind)

ABEND Dump Format Module into LPALIB

```

//LINKAFMD EXEC PGM=IEWL,
//          PARM='LIST,LET,XREF,RENT,REFR'
//SYSPRINT DD SYSOUT=*
//RESLIB   DD DISP=SHR,DSN=IMS.SDFSRESL
//SYSLMOD  DD DISP=SHR,DSN=SYS1.LPALIB.IMS
//SYSUT1   DD UNIT=3390,SPACE=(CYL,(3,1))
//SYSLIN   DD *

```

<<<<< YOUR MLPA LIBRARY

```

JOB IV2D212T STEP LINKAFMD
INVOCATION PARAMETERS - LIST,LET,XREF,RENT,REFR
ACTUAL SIZE=(317440,86016)
OUTPUT DATA SET SYS1.LPALIB.IMS IS ON VOLUME XASYST

```

```
IEW0000 INCLUDE RESLIB(DFSADFMD0) DFSADFMD0
```

```
IEW0000 SETCODE AC(1)
```

```
IEW0000 NAME DFSADFMD0(R) ABEND DUMP FORMATTING ROUTINE
```

0

0

CROSS REFERENCE TABLE

0

CONTROL SECTION

ENTRY

0

NAME ORIGIN LENGTH

NAME LOCATION

NAME LOCATION

.
.
.



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IV3D401T: IPL z/OS with MLPA or CLPA option

You might need

IPL

NUC=0x

CLPA

- If SYS1.LPALIB
or user.LPALIB included in LPALSTxx

MLPA

- To temporarily load modules included
in IEALPAxx into a LPA extension.

IMS recent Versions Enhancements

- The following IMS Features can be used to defer the need for *upgrade* IPL of IMS:
 - Type 2 and Type 4 SVCs can be installed using the IMS DFSUSVCO utility without an IPL
 - Run DFSUSVCO and specify SVCTYPE= (2,4)

DFSUSVC0 Utility

- IMS SVC Update Utility (DFSUSVC0) ...
 - Since IMS V11 , ...
 - Continues to support dynamic updates of the TYPE 2 SVC
 - Adds support for Type 4 SVC
 - Loads either (or both) of the SVCs from the data set associated with the DFSRESLB DDNAME

```
//STEP001 EXEC PGM=DFSUSVC0,PARM='SVCTYPE=(4)'
//STEPLIB DD DSN=IMS.SDFSRESL, DISP=SHR
//DFSRESLB DD DSN=IMS.SDFSRESL, DISP=SHR
//SYSPRINT DD SYSOUT=*
// DCB=(RECFM=FBA,LRECL=121,BLKSIZE=605),
// SPACE=(605,(10,10),RLSE,,ROUND)
```

New Type 2/4
SVC module

- DBRC does not have to be down when the update runs
- Determines the SVCs to be updated:
 - SVCTYPE=(2) or SVCTYPE=(4) or SVCTYPE=(2,4)
 - Dynamically changes the z/OS SVC table to point to new versions of the SVC modules
- IMS still needs to be inactive if the Type 2 SVC is being updated

IV3D301T - IV3D307T: VTAM – Interface highlights

IMS - Definition		VTAM - Definition	
COMM	APPLID= IMSX , RECANY=(nnn,size), OPTIONS=(VTAMAUTH...)	HUGO	VBUILD APPL AUTH=(ACQ),EAS=50, ACBNAME= IMSX
	.		
	.		
	.		or
TYPE	UNITYPE=SLUTYPE2	IMSX	APPL AUTH= (ACQ),EAS=50
TERMINAL	NAME=NODE1		
NAME	1termname		
		RP1	VBUILD PU PUTYPE=2
		NODE1	LU LOCADDR=2,

IMS Gen VTAM Node definition

```
*****
*  LOCAL TERMINALS   SNA CONTROLLED      CLASS-ROOM   2-404
*****
*
      TYPE           UNITYPE=SLUTYPE2,TYPE=3270-A02,SIZE=(24,80),
                      FEAT=IGNORE,OPTIONS=TRANRESP,OUTBUF=1536
*
      TERMINAL      NAME=FD079013
      NAME          LT40401S
```

VTAM definition (1 of 2)

✖ Member ATCCON21 in SYS1.VTAMLST

```
*/ *-----  
*/ * A T C C O N 2 1 - SUBAREA 21 (HEROS1)  
*/ *-----
```

AM01HER1,

LX7610S, LZ7611S, LZ7612S, LY76620N, LX766A0N, LZ7613S,
LZ7614S, JES328, CTC21T10, CTC21T11, CTC21T12, CTC21T15, CTC21T22,
PFADE21, CDRMHB, CDRSCHB

✖ Member **AM01HER1** in SYS1.VTAMLST

```
*****
```

*

* I M S X

*

```
*****
```

```
FDJAIMS  APPL  EAS=160,          ESTIMATED CONCURRENT SESSIONS  
          ACBNAME=IMSX,        REAL APPLID  
          AUTH=(ACQ,BLOCK,PASS) IMS CAN ACQUIRE & PASS TMLS  
*          IMS CAN REQUEST BLOCKED INPUT
```

VTAM definition (2 of 2)

× Member ATCCON21 in SYS1.VTAMLST

```
AM01HER1,  
LX7610S, LZ7611S, LZ7612S, LY76620N, LX766A0N, LZ7613S,
```

× Member LZ7611S in SYS1.VTAMLST

```
FD079013 LU LOCADDR=14, PORT A12  
DLOGMOD=MOD2,  
MODETAB=MT327BE2
```

× MODETAB member MT327BE2 in SYS1.SOURCE

```
*          327X MODELL 2  
*-----  
MOD2  MODEENT LOGMODE=MOD2, FMPROF=X'03', TSPROF=X'03',  
        PRIPROT=X'B1', SECPROT=X'B0', COMPROT=X'3080',  
        RUSIZES=X'88C7',  <===== FOR OUTBUF ==  
        PSERVIC=X'028000000000000000000000200'  
MODEEND  
END
```


Formula to verify OUTBUF size

Secondary LU (Sendsize **from** Screen)

Primary LU (Sendsize **to** Screen)

RUSIZES= **X' 8 8 C 7 '**

$$12 * (2 * * 7) = 12 * 128 = 1536 \text{ bytes}$$

for OUTBUF

$$8 * (2 * * 8) = 8 * 256 = 2048 \text{ bytes}$$

Lower or equal to RECEIVE ANY BUFFER SIZE