

E33

IMS Version 7 Installation and Generation

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Introduction

- The objectives of these sessions are:
 - Review the steps involved in the installation and IVP dialog process of IMS
 - Discuss IMS sysgen describing what it is as well as why we have it
- Audience participation is encouraged

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IMS Installation



Screen Formats

- **Some of the screens shown in this presentation have been altered to fit on the Foil. The content from the actual screen has been preserved**
- **The format of the IVP dialogs has been slightly altered for Version 7. They have been updated to use the CUA standards**
- **The basic flow and functions have not been changed**

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Distribution Media

- The IMS product can be distributed by a variety of methods. Which are as follows:
 - **IMS IVP Supported:**
 - **CBPDO - DBS Feature distribution tapes**
 - **SERVERPAC - DBS Feature pre-built SMP/E, DLIBs and TLIBs**
 - **ISD - IMS distribution tapes from ISD**
 - Being withdrawn
 - Service not included
 - **Not directly IMS/IVP supported:**
 - **SYSTEMPAC - DBS FEATURE may be customized**

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Documentation Precedence



- **Installation Documentation Precedence follows:**
 - **Documentation Provided with CBPDO, SERVERPAC, etc**
 - **PSP Bucket**
 - **Program Directory**
 - **IMS Installation Volume 1**

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Dataset Name Changes



The following shows dataset name changes between Version 6 and Version 7:

Old Dist. Lib.	Old Target Lib.	New Dist. Lib.	New Target Lib.
GENLIB	SMPMTS	ADFSMAC	SDFSMAC
GENLIBA	MACLIB	ADFSMAC	SDFSMAC
GENLIBB	MACLIB/SMPMTS	ADFSMAC	SDFSMAC
LOAD	-	ADFSLOAD	-
-	RESLIB	-	SDFSRESL
DBSOURCE	SMPSTS	ADFSSRC	SMPSTS
SVSOURCE	SMPSTS	ADFSSRC	SMPSTS
TMSOURCE	SMPSTS	ADFSSRC	SMPSTS
DFSCCLSTA	DFSCCLST	ADFSCCLST	SDFSCCLST
DFSEXECA	DFSEXEC	ADFSEXEC	SDFSEXEC
DFSISRCA	DFSISRC	ADFSISRC	SDFSISRC
DFSRTRMA	DFSRTRM	ADFSRTRM	SDFSRTRM
DFSMLIBA	DFSMLIB	ADFMLIB	SDFMLIB
DFSPLIBA	DFSPLIB	ADFPLIB	SDFPLIB
DFSSLIBA	DFSSLIB	ADFSSLIB	SDFSSLIB
DFSTLIBA	DFSTLIB	ADFSTLIB	SDFSTLIB

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INSTALL/IVP What Does it Do?

- **The IMS Install/IVP process performs the following functions:**
 - **Installation of the IMS product and its optional features**
 - **System Verification**

- **IMS provides a dialog which will build the jobs/tasks to perform these functions**

- **The IMS Install/IVP process does not support IMS JAVA**
 - **The IMS Program Directory contains the information necessary to install IMS JAVA**

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Loading the Install Dataset

- Subsequent to performing items identified by the accompanying documentation, the first activity is to unload the datasets that the INSTALL/IVP dialog will use
- This consists of the following steps:
 - Create the user catalog and its alias's (optional)
 - Job DFSIVJ01
 - Allocate the install datasets and build copy job DFSIVJ03
 - Job DFSIVJ02
 - Copy the install datasets from the distribution tape
 - Job DFSIVJ03
 - JCL for these jobs provided in the Program Directory and IMS Install Volume 1
- When installing via SERVERPAC/SYSTEMPAC these datasets are loaded by those processes

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The IVP Dialog Input Datasets

- The following are input datasets used by the IVP dialog (loaded by job DFSIVJ03):
 - **IMS.SDFSISRC** - Contains sample application and miscellaneous source
 - **IMS.SDFSCCLST** - Contains TSO clists
 - **IMS.SDFSEEXEC** - Contains REXX EXECs
 - **IMS.SDFSMLIB** - Contains ISPF message members
 - **IMS.SDFSPLIB** - Contains ISPF panels
 - **IMS.SDFSSLIB** - Contains ISPF file tailoring skeletons
 - **IMS.SDFSTLIB** - Contains ISPF table members
 - **IMS.SDFSRTM** - Contains description members used by the INSTALL/IVP dialog

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The IVP Dialog Output Datasets

- The following are output datasets used by the IVP dialog:
 - **IMS.INSTALIB** - JCL for the jobs to be run
 - **IMS.INSTATBL** - ISPF tables used to keep track of variables
 - **ISPPROF** - ISPF profile dataset

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Invoking the IVP Dialog

- The IVP dialog is started by issuing the following command from ISPF option 6:
 - EX 'IMS.SDFSCCLST(DFSIXC01)' 'HLQIV(iii) HLQDL(hhh) HLQSY(sss) PDF(ddd)'
 - iii - High level qualifier for IVP output datasets
 - hhh - High level qualifier for IMS distribution library datasets
 - sss - High level qualifier for IMS system datasets
 - ddd - ISPF applid for the ISPF/PDF application (removed from version 7)
 - The clist parm of 'DEBUG' is available
 - Help is available for all panels by pressing 'PF1'
 - Parm 'HLQ' can be used to identify high level qualifier for IVP, system and distribution libraries

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LOGO Panel



- When the dialog is started for the first time the following panel will be displayed:

```
====  ===  ===  =====  
====  =====  =====  =====  
==  =====  =====  ==  ==  
==  =====  =====  ==  
==  ==  =====  ==  ==  
==  ==  ===  ==  ==  ==  
====  ===  ===  ===  =====  
====  ===  =  ===  =====
```

Information Management System / Enterprise Systems Architecture (IMS)

**INSTALL/IVP Dialog
for
IMS Version 7.1**

ENTER to continue or END to exit

Copyright Panel



**Information Management System (IMS)
Version 7.1**

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Initial Installation Environment Options Panel

```
Help

INSTALL/IVP      Initial Install Environment Options      IMS 7.1
Command ===>

Select the desired option and press Enter.

          INSTALL/IVP Environments (New or Current User)
Option 3_ 1 DBB - Database Management (Batch)
          2 DBC - Database Management (DBCTL)
          3 DBT - Database and Transaction Management (DB/DC)
          4 XRF - DB/DC with Extended Recovery Facility (DB/DC with XRF)
          5 DCC - Transaction Management (DCCTL)

          Additional Installation Option Menus
          A SUB - Subsequent Feature Installation
          B SPL - Special Installation Situations Support
```

- Select the highest number representing the system you wish to install
- The option selected will be used in determining the names for most of the members to be placed in IMS.INSTALIB
- One of the first five initial environments must be complete before additional installation options can be used

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Sub-Option Selection Panel

Help

INSTALL/IVP Sub-Option Selection - IMS 7.1
Command ==>

Select the desired Sub-Options and press ENTER

/ Install IRLM - use IRLM in IVPs

/ Install ETO Feature

Install RSR Recovery-Level Tracking (RLT) Feature

Install RSR Database-Level Tracking (DLT) Feature

Use existing SMP/E Global Zone and SMPPTS

Copy SMP/E Distribution Zone from a prior IMS system

Install Optional Source Tapes

Note: Your Sub-Option selection affects the user variables, jobs, and tasks that will be presented. If you later change your selection, you must redo the entire INSTALL/IVP process, Table Merge, Variable Gathering, File Tailoring, and Execution.

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Distribution Media Selection Panel



Help

INSTALL/IVP Distribution Media Selection - DBT IMS 7.1
Command ==>

Select the proper IMS Distribution Media and press Enter.

- 1 1. CBPDO Distribution tapes
2. ServerPac Distribution tapes
3. ISD Distribution tapes

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Table Merge Request Panel

Help

INSTALL/IVP

Table Merge Request - DBT

IMS 7.1

Command ===>

The **INSTALL/IVP** Dialog is driven from a set of ISPF tables which contain information about the variables, **JOB**s, **TASK**s and sequence of presentation you will need to perform your specific installation.

Since the tables will be updated by the dialog, working copies must be made the first time you use the dialog.

If service is applied to your **IMS** system, or if you decide to use the **INSTALL/IVP** dialog to build a different environment, then either the existing copies must be updated or new copies created.

Please indicate whether you wish to perform Table Merge/Create:

- 1** 1. **YES** - Create / Update working tables from master tables.
2. **NO** - Use existing tables.

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VG Table Merge in Progress Panel

INSTALL/IVP VG Table Merge In Progress - DBT IMS 7.1

Table Merge Progress Indicator

Variable Gathering Table . . . : DFSIXBV3
Current Row : IXUSVOPS
Percent completed : 3

File Tailoring Table : DFSIXBF3
Current Row : Patience
Percent completed : 000

Execution Table : DFSIXBE3
Current Row : Patience
Percent completed : 000

Please do not interrupt this process.

IBM Software



Table Merge Has Completed Panel

INSTALL/IVP ---- Table Merge has completed - DBT ---- IMS 7.1

The Table Merge process has completed and the Phase Complete flags have been turned off for all phases.

If Table Merge has just been performed for the first time for this option, then the resetting of Phase Complete flags is of no special interest.

If Table Merge has been performed for some other reason, then the resetting of Phase Complete flags will force you to revisit each of the phases in sequence (Variable Gathering, File Tailoring, and Execution). Make use of this opportunity to examine the tables for changes (the "!" indicator will be set in the action field for items which have been added or changed by service). Your position in each phase has been retained so that you may return to your last position after you have browsed for changes.

Press ENTER to continue.

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Global Update in Progress Panel



INSTALL/IVP ---- Global update in progress - DBT ---- IMS 7.1

Global Update in progress for IXUSRC

Please do not interrupt this process

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INSTALL/IVP Phase Selection #1 Panel

Help

INSTALL/IVP

INSTALL/IVP Phase Selection - DBT

IMS 7.1

Command ===>

Select the desired Phase and positioning option and press Enter.

VG - Variable Gathering - (Define user values for variables)

- 1 1. VG1 Start/Restart from the beginning of the phase**
- 2. VG2 Start/Restart from the last known position within the phase**

FT - File Tailoring - (Create customized INSTALIB members)

- 3. FT1 Start/Restart from the beginning of the phase**
- 4. FT2 Start/Restart from the last known position within the phase**
- 5. FT3 Start/Restart from the beginning of a selected step**

EX - Execution - (Run the INSTALL/IVP jobs)

- 6. EX1 Start/Restart from the beginning of the phase**
- 7. EX2 Start/Restart from the last known position within the phase**
- 8. EX3 Start/Restart from the beginning of a selected step**

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VG Complete Verification Panel



Help

INSTALL/IVP

VG Complete Verification - DBT

IMS 7.1

Command ==>

You have just ENDED the Variable Gathering Phase of the INSTALL/IVP dialog.

If you have completed your customization of the dialog variables, you may set the Variable Gathering Complete flag and proceed to the File Tailoring Phase. You may return to Variable Gathering at any time.

If you have not completed your customization of the dialog variables, you should return to the Variable Gathering Phase.

If Variable Gathering is complete: Press ENTER

If Variable Gathering is NOT complete: Press END

NOTE: After the phase complete flag has been set, this panel will no longer be displayed and the phase execution sequence for this phase will not be enforced.

The phase complete flags are reset by re-running Table Merge.

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INSTALL/IVP Phase Selection #2 Panel

Help

INSTALL/IVP

INSTALL/IVP Phase Selection - DBT

IMS 7.1

Command ==>

Select the desired Phase and positioning option and press Enter.

VG - Variable Gathering - (Define user values for variables)

- 3 1. VG1 Start/Restart from the beginning of the phase**
- 2. VG2 Start/Restart from the last known position within the phase**

FT - File Tailoring - (Create customized INSTALIB members)

- 3. FT1 Start/Restart from the beginning of the phase**
- 4. FT2 Start/Restart from the last known position within the phase**
- 5. FT3 Start/Restart from the beginning of a selected step**

EX - Execution - (Run the INSTALL/IVP jobs)

- 6. EX1 Start/Restart from the beginning of the phase**
- 7. EX2 Start/Restart from the last known position within the phase**
- 8. EX3 Start/Restart from the beginning of a selected step**

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File Tailor ALL Request Panel

**INSTALL/IVP ----- File Tailor ALL Request - DBT -----
COMMAND ===>**

You are entering the File Tailoring Phase. For one of the following reasons, the File Tailoring Complete flag is not set:

- * - You are entering File Tailoring for the first time.**
- * - You are re-entering File Tailoring and you did not cause the File Tailoring Complete flag to be set when you last exited this Phase.**
- * - The File Tailoring Complete flag was reset by Table Merge.**

If you wish, File Tailoring will be performed for ALL JOBS at this time. Please select one of the following:

- 1 1 YES - Perform the ALL action before going to File Tailoring**
- 2 NO - Go directly to the File Tailoring Panels**

NOTE: YES is recommended the first time you enter File Tailoring for an Option and any time service is applied.

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File Tailoring in Progress Panel

INSTALL/IVP ----- File Tailoring in progress - DBT ---- IMS 7.1

File Tailoring Progress Indicator

Current row : IV3B101J

Percent completed . . : 1

Please do not interrupt this process

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FT ALL has completed Panel

**INSTALL/IVP ----- FT ALL has completed - DBT ----- IMS 7.1
COMMAND ===>**

File Tailoring has completed the ALL action for members used by the DBT INSTALL/IVP option.

- * If you requested the ALL action upon entry to the File Tailoring Phase, then members were processed beginning at the top of the File Tailoring Table.**
- * If you requested the ALL action on one of the File Tailoring panels, then members were processed from the point of request to the end of the File Tailoring Table.**

When you leave this panel, you will be returned to the File Tailoring LST MODE panel. The File Tailoring panels may be used at a later time to individually re-run file tailoring for one or more members.

Press ENTER to continue

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File Tailoring (LST Mode) Panel

INSTALL/IVP ----- File Tailoring (LST Mode) - DBT -----
COMMAND ==>

Row 1 of 407
SCROLL ==> CSR

Action Codes : All brM brS Doc Edm eNt Ftl

v	Member..	Skeleton	Step	Title.....
___	IV3A001T	IVPA001T	A0	NOTE- Step Introduction - Dialog Set-up
*_	IV3A301N	DFSIXSA4	A3	CLIST- Offline Formatted Dump - IVP1/2/3/4
*_	IV3A302N	DFSIXSA5	A3	CLIST- Offline Dump Formatter - BATCH
*_	IV3A303N	DFSIXSA6	A3	CNTRL - MSDB Load Cntrl Stmts - DBFSAMD1/D2
___	IV3B001T	IVPB001T	B0	NOTE - Step Introduction - DLIB Build - IMS
*_	IV3B101J	DFSIXSB0	B1	JOB - Allocate SMP/E Data Sets
*_	IV3B102J	DFSIXSB1	B1	JOB - Allocate IMS DLIB Data Sets
*_	IV3B103J	DFSIXSB2	B1	JOB - Allocate IMS SYSLIB Data Sets
*_	IV3B202J	DFSIXSB4	B2	JOB - Initialize SMP/E zones >>> SEE DESCRIPTION
*_	IV3B208J	DFSIXSBA	B2	JOB - CBPDO - RECEIVE
___	IV3B209T	IVPB209T	B2	TASK - CBPDO - Print PDIRs
*_	IV3B210J	DFSIXSBC	B2	JOB - Print SMP/E HOLDDATA
___	IV3B211T	IVPB211T	B2	TASK - Research Exception SYSMODs
*_	IV3B303J	DFSIXSBF	B3	JOB - SMP/E Processing - System Services
*_	IV3B305J	DFSIXSBH	B3	JOB - SMP/E Processing - Data Base Management
*_	IV3B307J	DFSIXSBJ	B3	JOB - SMP/E Processing - Transaction Management
*_	IV3B310J	DFSIXSBM	B3	JOB - SMP/E Processing - ETO Feature



FT Complete Verification Panel

**INSTALL/IVP ----- FT Complete Verification - DBT ----- IMS 7.1
COMMAND ==>**

You have just ENDED the File Tailoring Phase of the INSTALL/IVP dialog.

If you have completed your customization of the dialog jobs, you may set the File Tailoring Complete flag and proceed to the Execution Phase. You may return to File Tailoring at any time.

If you have not completed your customization of the dialog jobs, you should return to the File Tailoring Phase.

If File Tailoring is complete: Press ENTER

If File Tailoring is NOT complete: Press END

NOTE: After the phase complete flag has been set, this panel will no longer be displayed and the phase execution sequence for this phase will not be enforced.

The phase complete flags are reset by re-running Table Merge.

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INSTALL/IVP Phase Selection #3 Panel

Help

INSTALL/IVP

INSTALL/IVP Phase Selection - DBT

IMS 7.1

Command ===>

Select the desired Phase and positioning option and press Enter.

VG - Variable Gathering - (Define user values for variables)

- 6 1. VG1 Start/Restart from the beginning of the phase**
- 2. VG2 Start/Restart from the last known position within the phase**

FT - File Tailoring - (Create customized INSTALIB members)

- 3. FT1 Start/Restart from the beginning of the phase**
- 4. FT2 Start/Restart from the last known position within the phase**
- 5. FT3 Start/Restart from the beginning of a selected step**

EX - Execution - (Run the INSTALL/IVP jobs)

- 6. EX1 Start/Restart from the beginning of the phase**
- 7. EX2 Start/Restart from the last known position within the phase**
- 8. EX3 Start/Restart from the beginning of a selected step**

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Execution (LST Mode)

Help
INSTALL/IVP ----- Execution (LST Mode) - DBT ----- Row 1 of 195
COMMAND ==> SCROLL ==> CSR

Action Codes : Brm Doc Edm eNt eXe spR

v	JOB/Task	Step	Title.....
___	IV3A001T	A0	NOTE - Step Introduction - Dialog Set-up
___	IV3A301N	A3	CLIST - Offline Formatted Dump - IVP1/2/3/4
___	IV3A302N	A3	CLIST - Offline Dump Formatter - BATCH
___	IV3A303N	A3	CNTRL - MSDB Load Cntrl StmtS - DBFSAMD1/DBFSAMD2
___	IV3B001T	B0	NOTE - Step Introduction - DLIB Build - IMS
e ___	IV3B101J	B1	JOB - Allocate SMP/E Data Sets
___	IV3B102J	B1	JOB - Allocate IMS DLIB Data Sets
___	IV3B103J	B1	JOB - Allocate IMS SYSLIB Data Sets
___	IV3B202J	B2	JOB - Initialize SMP/E zones >>> SEE DESCRIPTION
___	IV3B208J	B2	JOB - CBPDO - RECEIVE
___	IV3B209T	B2	TASK - CBPDO - Print PDIRs
___	IV3B210J	B2	JOB - Print SMP/E HOLDDATA
___	IV3B211T	B2	TASK - Research Exception SYSMODs
___	IV3B303J	B3	JOB - SMP/E Processing - System Services
___	IV3B305J	B3	JOB - SMP/E Processing - Data Base Management
___	IV3B307J	B3	JOB - SMP/E Processing - Transaction Management

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Edit Job Panel

```
EDIT    JBUTTER.IMS710C.INSTALIB(IV3B101J) - 01.00    Columns 00001 00072
Command ==>                                         Scroll ==> CSR
***** ***** Top of Data *****
000001 //IV3B101J JOB ACTINFO1,
000002 // 'PGMRNAME',
000003 // CLASS=A,MSGCLASS=H,MSGLEVEL=(1,1),
000004 // USER=JBUTTER,
000005 // NOTIFY=JBUTTER,
000006 // REGION=32M
000009 //*****
000010 //* INSTALL/IVP IMS 7.1
000011 //*
000012 //* SKELETON: DFSIXSB0
000013 //*
000014 //* FUNCTION: ALLOCATE SMP/E DATA SETS
000015 //*****
000016 //*
000017 //***** @SCPVRT**
000018 //* *
000019 //*    LICENSED MATERIALS - PROPERTY OF IBM *
000020 //* *
```

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EX Complete Verification Panel

INSTALL/IVP ----- EX Complete Verification - DBT -----

COMMAND ===>

You have just ENDED the Execution phase of the INSTALL/IVP dialog.

In order to use the Subsequent Features and Special Functions Options of the INSTALL/IVP Dialog, you must indicate that you have successfully completed the execution of all JOBS and Tasks for the DBT option.

This is done by setting the Execution Complete flag.

You may return to Execution at any time.

If Execution is complete: Press ENTER

If Execution is NOT complete: Press END

NOTE: After the phase complete flag has been set, this panel will no longer be displayed and the phase execution sequence for this phase will not be enforced.

The phase complete flags are reset by re-running Table Merge.

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INSTALL/IVP Steps

- The INSTALL/IVP process consists of multiple steps. The first item for each step describes that step.
- The following is a list of the steps:
 - STEPSa - INSTALL/IVP Preparation
 - STEPSb - DLIB Build
 - STEPSc - System definition
 - STEPSd - Interface IMS to MVS and VTAM
 - STEPSe - Prepare IVP Applications and System
 - STEPSf - IVP Execution - DDB System (Batch)
 - STEPSg - IVP Execution - DBC System (DBCTL)
 - STEPSh - IVP Execution - DBT System (DB/DC)
 - STEPSi - IVP Execution - XRF System
 - STEPSj - IVP Execution - DCC System (DCCTL)
 - STEPSl - Execution - IMS Sample Application
 - STEPSm - FP Sample application
 - STEPSn - Partition Data Base Sample (V7)
 - STEPSz - Index of additional PDS members

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INSTALL 'A' Steps



The items within the 'Ax' series of steps are used to perform initialization for the INSTALL/IVP Dialog

- **There are no user executable JOBS within these steps**
- **Honorable Mentions:**
 - **IV_A303N - This member contains statements used to load MSDBs. These statements may need to be changed to point to LTERMS in the sysgen if you alter the vanilla IVP SYSGEN**

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INSTALL/IVP 'B' Steps

The "Bx" series of steps comprise the "INSTALL" portion of the INSTALL/IVP process. The "Bx" series of steps perform the JOBS and TASKs necessary to establish the SMP/E environment for IMS and to create the IMS product distribution libraries (DLIBs)

- When installing via SERVERPAC the SMP/E processing is already done
 - Identify service not incorporated and process as appropriate
- Honorable Mentions
 - IV_B303J thru IV_B315J - Jobs to do SMP/E processing for FMIDs
 - These FMIDs are processed accept bypass(applycheck), zonemerge
 - IV_B352J thru IV_B355J - Installs FMIDs for IRLM, RLT and DLT
 - These FMIDs are processed apply and accept

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INSTALL/IVP 'B' Steps - 2

■ **Honorable Mentions - Continued**

- **IV_B330J - Process service for FMIDs installed using ACCEPT BYPASS APPLYCHECK**
 - Check SOURCEID and ensure it contains proper values.
 - Resolve PE chains

- **IV_B340J - JCLIN for Non-Sysdef Functions**
 - Change SMPJCLIN DD to point to ADFSISRC
 - ▶ PQ50808/UQ58843 (0110) corrects this

- **IV_B350J - Finish Install of Non-Sysdef Function . If service indicates Re-File tailor this job, see PSP bucket or II12910 for instructions**
 - Need to run first step to IEBCOPY from DLIB's to TLIB's before Re-File tailor to pick up changes

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INSTALL/IVP 'B' Steps - 3

■ Honorable Mentions - Continued

- **IV_B357J- Process service for FMIDs installed using apply accept (V7)**
 - Check SOURCEID and ensure it contains proper values.
 - Resolve PE chains

■ When 'B' series complete IMS is installed



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INSTALL/IVP 'C' Steps

The "IVP" portion of the INSTALL/IVP process begins with the "Cx" series of steps. The "IVP" is an elaborate set of examples built around several sample applications and several different types of execution environments. All of the INSTALL/IVP materials, beginning with the "Cx" series of steps, are designed to support the "IVP"

■ Honorable Mentions

- **IV_C201T - Task to browse STAGE 1 Source Deck.**
 - If you don't want FastPath in your system modify this member
 - ▶ Info. APAR II11421 contains instructions for removing FastPath
- **IV_C301J - Job to run SYSDEF STAGE2**
 - Contains a dummy place holder and is filled in when SYSDEF STAGE1 is run (IV_C203J)
- **IV_C401J - Job to run SMP/E JCLIN**
 - Should be run after every SYSGEN

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INSTALL/IVP 'D' Steps

The "Dx" series of EXAMPLES identify the JOBS and TASKs which the user must perform in order to establish the interfaces between IMS and OS390 / zOS and between IMS and VTAM

- These steps must be accounted for when upgrading releases of the operating system
- Honorable Mentions
 - **IV_D209T - XMPL - Install TYPE 2 SVC**
 - Recommend using a different number from that being used by a previous version
 - The TYPE 2 SVC is downward compatible. See Release Planning Guide
 - If in both IEANUC0x and NML - IEANUC0x will be used
 - ▶ See OY45706 for how to remove a CSECT from IEANUC0x
 - **IV_D210T - XMPL - Link-edit TYPE 4 SVC**
 - Recommend using a different number from that being used by a previous version
 - The TYPE 4 SVC is downward compatible. See Release Planning Guide
 - **IV_D211T - XMPL - Link-edit Resource Cleanup Module**
 - Need to use latest version. It is downward compatible

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INSTALL/IVP 'D' Steps - Continued

■ **Honorable Mentions - Continued**

- **IV_D212T - XMPL - Link-edit Abend Formatting Module**
 - **Need to use latest version. It is downward compatible**

- **IV_D213T - XMPL - DFSMRCL0 IVEAVTRML CSECT IGC0001C**
 - **Be sure to re-do this zap when upgrading the Operating System. Not being done is a common cause of CSA not being released causing IPL**

- **IV_D214T - XMPL - DFSAFMD0 IEAVADFM CSECT IGC0805A**
 - **Be sure to re-do this zap when upgrading the Operating System**

- **IV_D401T - TASK - IPL MVS with MLPA or CLPA OPTION**
 - **Be sure to IPL with this option to make changes effective**

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INSTALL/IVP 'E' Steps

The "Ex" series of steps identify the JOBS and TASKs which the user must perform in order to prepare the sample applications (INSTALL/IVP, IMS, and Fast Path) and the sample IMS system for execution

■ Honorable Mentions

- **IV_E203J - Job - ACBGEN**
 - This is the first job to use the T2 SVC. A failure in this job quite often is due to a problem with this SVC
- **IV_E204J - Job MFS Language Utility**
 - May need to update DEV statements in MFS source to match appropriate device type
- **IV_E312J - Job - ASM/LKED DFSISIS0 - AGN Exit**
 - If SYSGEN or IV_B350J is re-done this job must be re-ran as well. Default exit built by SYSGEN or IV_B350J rejects all AGN checks - this version accepts all AGN checks
- **IV_E315J - Job - Copy Staging Libraries**
 - IF SYSGEN is re-done this job must be re-ran as well. SYSGEN updates staging libraries. This job copies from staging to libraries used by online region

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INSTALL/IVP 'F' Steps

The "Fx" series of steps identify the JOBS and TASKs which the user must perform during the execution of the "DBB" (Batch) Sample System.

This sequence of items is designed to be run in the order presented and restarted only from the beginning

■ Honorable Mentions

- **IV_F206J - Job - FF HIDAM Update**
 - Be sure to read the instructions (action 'n') before running this job as they will ask you to cancel the job
- **IV_F207J - Job - FF HDAM Update**
 - Be sure to read the instructions (action 'n') before running this job as they will ask you to cancel the job
- **IV_F401J - Job - Scratch Data Sets**
 - Done so this series of steps can be run again from the top
 - All following steps will contain a similar job, be sure to run if restarting a step

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INSTALL/IVP 'H' Steps

The "Hx" series of steps identify the JOBS and TASKs which the user must perform during the execution of the "DBT" (DB/DC) Sample System

Most of the utility processing in this sequence relies upon OLDS input. The JCL for these utilities has been prepared under the assumption that the execution sequence will be run from start to finish, as documented, without additional OLDS switches, IMS restarts, etc. If the OLDS usage sequence is altered, the utility JCL which relies upon OLDS input will have to be changed

- Contains jobs/tasks to start/stop the control region as well as test various recovery scenarios and utilities
- Be sure to view the documentation associated with each job/task before performing it (action 'n')

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Migration Considerations

- **The IMS/ESA Release Planning Guide contains a chapter on Migration considerations**
 - **Standard Considerations**
 - **Release Planning Guide for versions skipped**
 - **ACBGEN**
 - **DBRC Migration SPE**
 - ▶ **For IMS 6.1 DBRC RECON upgrade procedure see APAR II10131**
 - **Productivity Aids compatibility**
 - **PSP Buckets**
 - **Fallback Plan**
 - **For IMS 6.1 SDEP SPEs**
 - ▶ **PN91450/UQ17090 (9805) - IMS 5.1**
 - ▶ **PQ09402/UQ17091 (9805) - IMS 5.1**
 - ▶ **PQ13214/UQ17091 (9805) - IMS 5.1**
 - ▶ **PQ17938/UQ21403 (9809) - IMS 5.1**

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IMS 7.1 Unique Migration Considerations

■ IMS 7.1 Unique Considerations

● SMPLTS is a PDSE (required for IMS JAVA)

– See II12221 for information on unmanaged PDSE and HFS

– If not installing IMS JAVA (JMK7708), SMPLTS can be a standard PDS

▶ CBPDO users will have to add ***EXCLUDE(JMK7708)*** to RECEIVE job IV_B208J

● PSB compatibility service

– IMS 6.1, PQ37636/UQ44444 (0007)

– IMS 5.1, PQ37653/UQ44445 (0007)

● The IBM High-Level Assembler Toolkit (5696-234) required

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MVS Routines



■ **The following modules are unique to each copy of the Operating System:**

- **DFSMRCL0 - Resource Cleanup Manager.**
 - **Cleans up environment after termination.**
 - **Use the one from the highest level of IMS. Downward compatible**
 - **Must be zapped into module IGC0001C CSECT
IEAVTRML**

- **DFSAFMD0 - Abend Formatting Routine**
 - **Online dump formatter. Not normally used depends on FMTO option specified (or defaulted to). Recommend default to FMTO=D**
 - **Must be zapped into module IGC0805A CSECT
IEAVADFM**
 - **Consider providing SYSMDUMP in JCL as opposed to
SYSUDUMP/SYSABEND in the online regions**

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IMS Sysgen



What/Why IMS Sysgen

- The direction of the IMS product is the eventual removal of Sysgen
- As of IMS 6.1 Sysgen no longer builds a complete system
- IMS uses the Sysgen process to tailor each system to the customer's unique environment
- Used to determine which features/components are to be included in the system
 - Eventually which features/components to be included will be determined at execution time
- Defines resources that are to be made available to the system
- Defines the environment in which the system is to be run
- Builds the system from the IMS distribution libraries

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Sysgen Phases Summary



- **IMS Sysgen consists of multiple phases which are as follows:**
 - **Coding of the IMS macros which will define the system (stage 1 input)**
 - **Running the preprocessor to verify the system definition (optional)**
 - **Running the assembly using the IMS macros as input (stage 1)**
 - **Running the job(s) built by stage 1 to actually build the system (stage 2)**

Sysgen Phases Summary - cont.



- **Running SMP/E JCLIN to update the target zones**
- **Security Maintenance Utility (SMU)**

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Types of Sysgen

- The types of Sysgen are specified in the 'SYSTEM' keyword of the 'IMSCTRL' macro
- The following screens will describe the different types of Sysgen that can be run

Modblks Sysgen



- **Generates control blocks members for resources to be added online using online change (e.g., APPLCTN, DATABASE, TRANSACT, and RTCODE macros)**

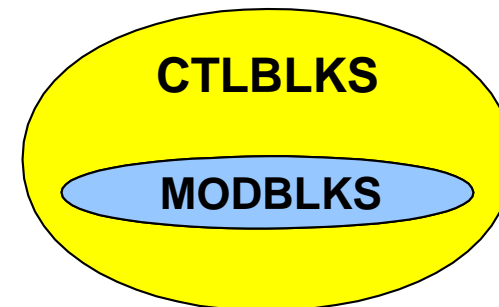
MODBLKS

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Ctlblks Sysgen



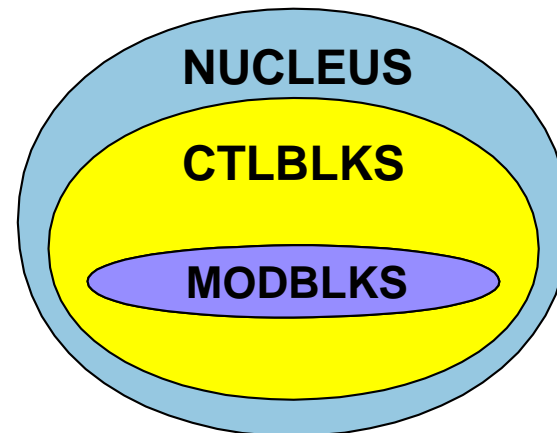
- **Generates modules for all IMS control blocks**
- **Normally done to define network definitions like TERMINAL and LINE macros**



Nucleus Sysgen



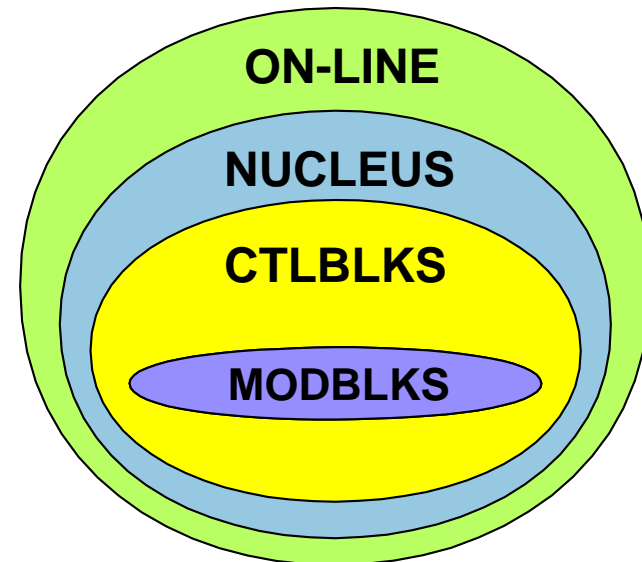
- **Generates an IMS nucleus for the control region**
- **Also used to create a new IMS nucleus**



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- **Generates all modules and procedures needed for the online environment**



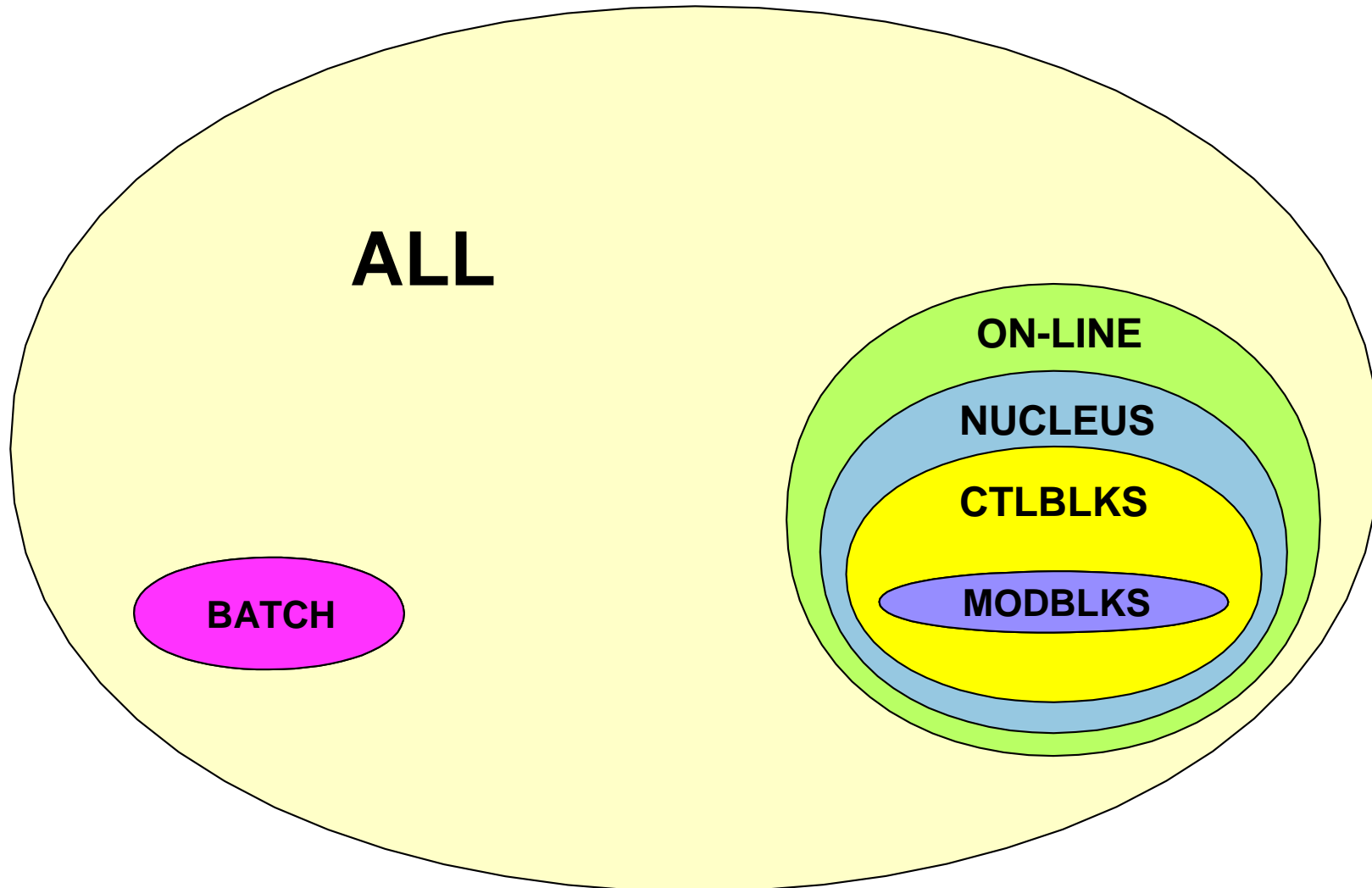
Batch Sysgen



- **Generates modules and procedures needed to build a complete batch system**

BATCH

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- **Combines ON-LINE and BATCH Sysgens**
- **This type of Sysgen must be done during the initial install of a system (other than batch only)**
- **In releases prior to IMS 6.1, it will completely rebuild the execution library (reslib/sdfsresl) for all modules supplied by IMS (exits excluded). It must also be done when processing maintenance with accept bypass applycheck, and is part of the procedure to rebuild the target libraries from the distribution libraries**

The preprocessor



- In addition to being required for LGEN, the preprocessor can be used to verify the system definition
 - The following are additional functions of the preprocessor:
 - Check to ensure resources' names are alphanumeric
 - Check for duplicate names WITHIN resources. The following are the resources for which this is checked:
 - DBD names
 - PSB names
 - VTAM node names
 - MS link names
 - Logical terminal names (lterms)
 - Transaction codes
 - Routing codes
 - Subpool names
 - MSLINK partner IDs
 - MSPLINK physical link names
 - Remote system VTAM node names
 - If used, can specify NAMECHK=NO on IMSCTRL macro

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Running the stage 1

- Two types of systems can be configured which will determine how stage 1 is run
 - Standard System
 - LGEN System

- The configuration is specified as a parm on the **SYSTEM** keyword for the **IMSCTRL** macro
 - Requires an ON-LINE or ALL sysgen to change

- Return code of '0' or '2' indicates stage 1 was successful

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Running the stage 2



- The stage 2 jobs must be run in the order created
- Recommend using ONEJOB parm on MSGEN macro
- Return code of '0' is expected from all but the MFS steps
 - Return code of '4' is expected from MFS steps

JCLIN after Sysgen



- **JCLIN pointing to the target zone should be run after every Sysgen for libraries maintained by SMP/E**
 - **The SMP/E target zone will be updated to accurately represent the running system**
 - **When not done, errors may be encountered the next time service is applied using SMP/E**
 - **SMP/E JCLIN JCL will vary depending on the Sysgen configuration used**

Parameter Override Sequence



- **Most keyword parameters can be specified in multiple places. The following is the precedence of these overrides (from lowest to highest):**
 - **IMS Default Value**
 - **SYSGEN Supplied Value**
 - **DFSPBxxx Proclib Member**
 - **Specified on Execution JCL**

Online Change



- **Change, add, and delete resources online**
 - **Consists of the following steps:**
 - **Sysgen**
 - **Online Change Utility (OLCUTL)**
 - **IMS Online '/MODIFY PREPARE XXXXXXXX' Command**
 - **IMS Online '/MODIFY COMMIT' Command**
 - **Can also be used to introduce changes to ACBs and FORMATS**

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Key Web Addresses



■ The following are key Web addresses:

● IMS home page

www.ibm.com/ims

● Enhanced Holddata

<http://service.boulder.ibm.com/390holddata.html>

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IMS Informational Apars

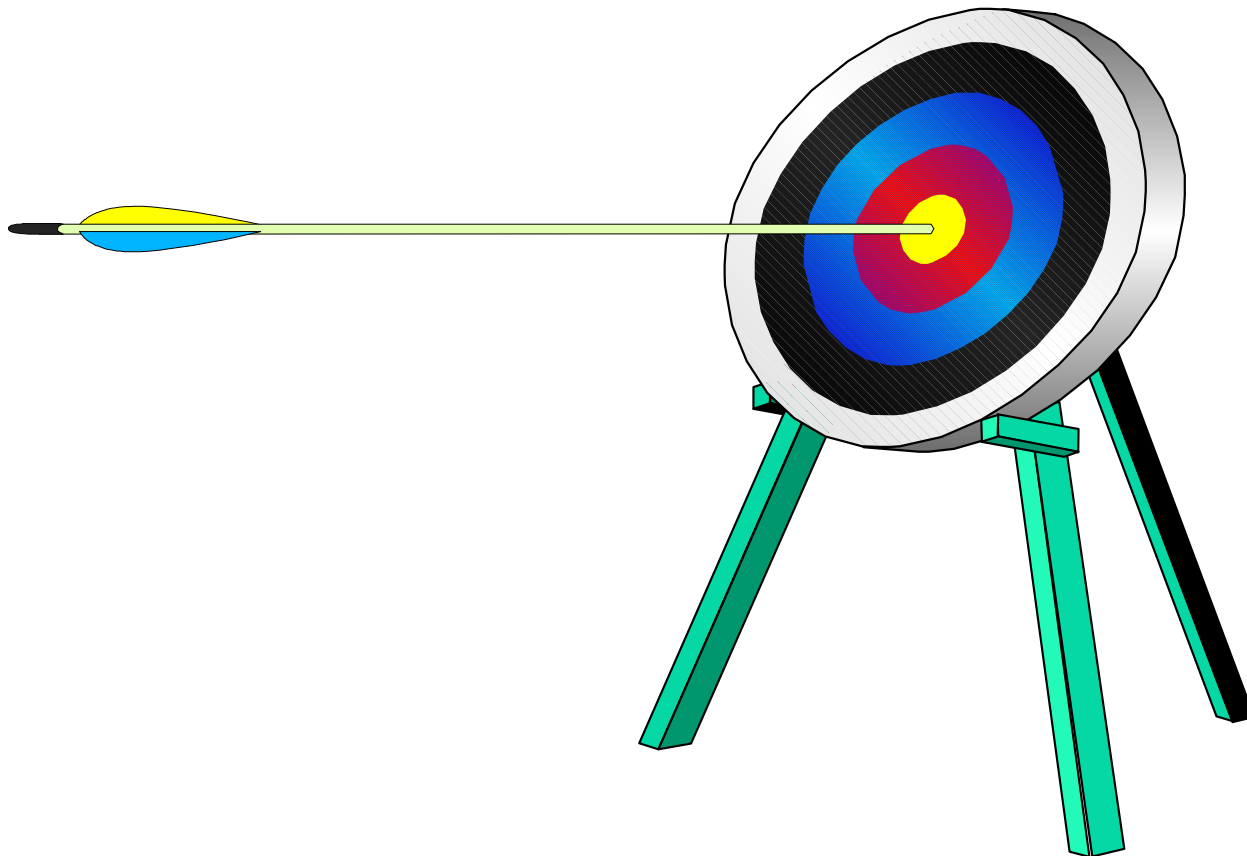


■ The following is the list of Informationl APARs referenced in this presentation:

- [II12221](#) - Information on support for unmanaged HFS and PDSE
- [II10131](#) - RECON Upgrade procedure to 6.1
- [II12910](#) - Actions necessary when ++hold indicates IVP jobs IV_B331J thru IV_B350J need to be file-tailored
- [II11421](#) - Steps for excluding Fastpath from IVP
 - This is an IVP option in IMS V8
- [OY45706](#) - How to remove a CSECT from IEANUC0x

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Thank You



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