

UNIT 12

IMS Installation and the IVP

Unit objectives

After completing this unit, you should be able to:

- Describe the IMS installation process
- Identify the functions of the IMS IVP ISPF Dialogs
- List the different phases of the IVP Dialog
- Recognize the different series of steps that are part of the Execution phase of the IVP Dialog
- Understand Version upgrade and migration tasks and procedures

...

- *IMS 11+ versus IMS 10 publications - be aware of new doc structure / naming :*

IMS Version 11+ Titles	IMS Version 10 Titles
■ <i>Command Reference, Volume 1: IMS Commands A-M</i>	■ <i>Command Reference, Volume 1</i>
■ <i>Command Reference, Volume 2 : IMS Commands N-Z</i>	■ <i>Command Reference, Volume 2</i>
■ <i>Command Reference, Volume 3: IMS Component and z/OS Commands</i>	■ <i>Command Reference, Volume 3</i>
■ <i>Database Utilities</i>	■ <i>Database Utilities Reference</i>
■ <i>System Utilities</i>	■ <i>System Utilities Reference</i>

SMP/E Installation

Distribution media

The IMS product can be distributed by a variety of methods which are as follows:

- **CBPDO:** DBS Feature distribution tapes
- **SERVERPAC:** DBS Feature pre-built SMP/E, DLIBs and TLIBs
- **SYSTEMPAC:** DBS Feature can be customized

Packaging overview

Program Numbers – V15.5 : PID 5635-A06

<u>IMS</u> <u>Database Mgr</u> <u>Feature</u>	<u>Services</u>	<u>IMS</u> <u>Transaction Mgr</u> <u>Feature</u>
DLI	DASD Logging	VTAM/BTAM*
MSDB	DBRC	MFS
DEDB	IVP	MSC/ISC
DB Utilities	GSAM	MPP/IFP/BMP
BMP (nmd)	IMS Connect	TCO
IRLM		APPC
(RSR)		(ETO)

Packaging

- IMS 15 product number: 5635-A06

FMID	Feature Description
HMK1500	System Services
JMK1501	Database Manager
JMK1502	Transaction Manager
JMK1503	Extended Terminal Option (ETO)
JMK1504	Recovery Level Tracking (RSR)
JMK1505	Database Level Tracking (RSR)
JMK1506	IMS Java and On Demand
HIR2230	IRLM 2.3

SMP/E Processing (1 of 2)

- Unlike in earlier IMS Versions, SMP/E processing is like other z/OS products
 - IMS IVP Dialogs are not used until after product is installed
 - IMS INSTALL/IVP Dialog was renamed to IMS IVP Dialog in IMS8
- All FMIDs are installed using SMP/E RECEIVE -> APPLY -> ACCEPT:
 - Conform to packaging standards
 - Results in multiple SMP/E messages indicating no target library for parts defined by SYSGEN
 - Program Directory contains message IDs
 - Sample jobs provided will process service as well as FMIDs
- **Always RECEIVE current Enhanced HOLDDATA prior to SMP/E processing**
 - For complete descriptive information relating to Enhanced Holddata see Internet address:
 - <https://www.ibm.com/support/pages/enhanced-holddata-zos>

SMP/E Processing (2 of 2)

- Be sure to resolve PEs during processing
 - Contact the IBM Support Center for assistance if needed
- Installation Documentation Precedence:
 - Documentation provided with CBPDO, ServerPac, a.s.o.
 - PSP Bucket , RELEASE PLANNING , ...
 - Contains the latest information
 - Program Directory
 - IMS Installation Guide

SMP/E Setup and SMP/E Jobs: List

The following is a list of the SMP/E Setup and SMP/E sample jobs provided:

- **DFSALA:** Allocate and initialize new CSI data sets (optional but recommended)
- **DFSALB:** Initialize SMP/E zones allocated (optional but recommended)
- **RECEIVE:** Receive job provided by CBPDO
 - Program Directory contains instructions for obtaining the JCL
- **DFSALLOC:** Allocate target and distribution libraries
- **DFSJSMKD:** Invoke DFSJMKDR EXEC to allocate HFS paths for IMS
JAVA
- **DFSDDEF1:** Define SMP/E DDDEFs for IMS
- **DFSDDEF2:** Define SMP/E DDDEFs for IMS JAVA
- **DFSAPPLY:** SMP/E APPLY of FMID's and service (Be sure to resolve PEs)
- **DFSACCEP:** SMP/E ACCEPT of FMIDs and service (Be sure to resolve PEs)

Optional sample jobs

- Optional jobs provided to install IMS in its own unique SMP/E environment (GLOBAL Zone):
 - **DFSALA:** Allocate and initialize new CSI
 - **DFSALB:** Initialize CSI zones, allocate SMP/E data sets, build DDDEF entries for SMP/E
- Recommend using these jobs
 - If these jobs are NOT used, be sure ACCJCLIN is set in the IMS distribution zone prior to ACCEPT processing:
 - ACCJCLIN is set in sample job DFSALB
 - SMP/E OPTION and UTILITY entries added in sample job DFSALB

SMP/E GENERATE command (1 of 2)

- Used to create JCL necessary to build non-SYSGEN parts:
 - An IMS Gen no longer builds a complete system
 - IMS product is moving away from the need to perform a SYSGEN
 - Dependent on ACCJCLIN being set up in distribution zone BEFORE processing FMIDs
- Non-SYSGEN parts are created during SMP/E APPLY processing
 - Inline (++)JCLIN) provided with FMIDs used by SMP/E to accomplish this
- Used as part processing of service via ...

ACCEPT BYPASS APPLYCHECK

... or when target environment needs to be rebuilt from the distribution environment:

- Not needed when processing using RECEIVE, APPLY, ACCEPT
 - See Informational APAR II13024

SMP/E GENERATE command (2 of 2)

- Sample command:

SET BDY(targlib)

GENERATE FORFMID(HMK1510) JOBCARD(CNTL,J) REPLACE

(**Note:** This sample requires DD CNTL to contain member 'J' which is a sample job card)

IMS SMP/E data set names (1 of 4)

Distribution (DLIB) data sets

IMS distribution libraries (DLIBs) contain the master copy of elements in IMS and can be used to restore SYSMODs in the target library or to rebuild a target environment. These data sets are maintained by SMP/E.

System services data sets ...used by the System Services component FMID:

IMS.ADFSBASE	IMS.ADFSCLST	IMS.ADFSDATA
IMS.ADFSEXEC	IMS.ADFSISRC	IMS.ADFSLOAD
IMS.ADFSMAC	IMS.ADFSMLIB	IMS.ADFSPLIB
IMS.ADFSRLTRM	IMS.ADFSSLIB	IMS.ADFSSMPL
IMS.ADFSSRC	IMS.ADFSTLIB	IMS.ADFSJLIB

...

Database Manager data sets ...used by the Database Manager FMID:

IMS.ADFSCLST	IMS.ADFSLOAD	IMS.ADFSPLIB
IMS.ADFSSRC	IMS.ADFSSMPL	

IMS SMP/E data set names (2 of 4)

Distribution (DLIB) data sets ...

Transaction Manager data sets ...used by the Transaction Manager FMID:

IMS.ADFSEEXEC

IMS.ADFSLOAD

IMS.ADFSPLIB

IMS.ADFSSMPL

IMS.ADFSSRC

IMS Extended Terminal Option Support data sets

IMS.ADFSLOAD

IMS SOA Integration Suite (JAVA in common , incl. TMRA / IC4J a.s.o.)

IMS.ADFSJLIB

IMS.ADFSIC4J

IMS.ADFSJHFS

IMS.ADFSJRAR

IMS.ADFSJCPI

IMS.ADFSJSAM

IMS.ADFSJCIC

IMS.ADFSJCPS

zFS pathes

IMS SMP/E data set names (3 of 4)

Target (TLIB) data sets

The TLIB data sets are the IMS™ SMP/E target libraries (SYSLIBs), and are the libraries that are used to run and use IMS.

IMS data sets maintained by SMP/E

The following data sets are maintained by the SMP/E APPLY processing:

IMS.MODBLKS	IMS.SDFSBASE	IMS.SDFSCLST
IMS.SDFSDATA	IMS.SDFSEEXEC	IMS.SDFSISRC
IMS.SDFSJLIB	IMS.SDFSJSID	IMS.SDFSMAC
IMS.SDFSMLIB	IMS.SDFSPLIB	IMS.SDFSRESL
IMS.SFSRTRM	IMS.SDFSSLIB	IMS.SDFSSMPL
IMS.SDFSSRC	IMS.SDFSTLIB	...

IMS SMP/E data set names (3 of 4)

Target (TLIB) data sets ...

The following data sets residing in UNIX System Services file system are also maintained by the SMP/E APPLY processing:

SDFSJCPS
SDFSJCIC
SDFSJRAR

SDFSJTOL
SDFSJCPI
SDFSJSAM

SDFSIC4J
SDFSJHFS

IMS system definition data sets

The following data sets are initially loaded or updated by Stage 2 of the IMS system definition process:

IMS.MODBLKS IMS.SDFSRESL

Additional SMP/E-managed libraries

- Distribution data sets:
 - ADFSBASE: Sample jobs used for installation.
 - ADFSDATA: OM translatable text file, English.
 - ADFSJHF8: File system for Version 8.
 - ADFSJHF9: File system for Version 9.
 - ADFSJHF: File system for Version 10.
 - ADFSSMPL: Samples (exit code, DBD source, ...)
- Target data sets:
 - SDFSBASE: Sample jobs used for installation.
 - SDFSDATA: OM translatable text file, English.
 - SDFSSMPL: Samples (exit code, DBD source, ...)
 - SDFSSRC: Source code Target lib created for distribution lib ADFSSRC
 - SMPSTS: No longer used. by IMS product (DDDEF still required)

IMS IVP Dialog overview – What does it do?

- IMS-provided dialog which will **build the jobs/tasks to perform Installation Verification:**
 - This includes the testing (and indirectly, the demonstration and learning) of new function added by new IMS versions
 - Of course, function added in earlier IMS versions is also tested
 - Since IMS V8, Installation Verification is only function of this dialog
 - Prior to IMS V8, SMP/E Jobs were built by the dialog
 - IMS INSTALL/IVP dialog renamed to IMS IVP dialog in IMS V8
- Additional enhancements to assist in Installation Verification are added in any new version
 - Some of these enhancements will be listed on the next few pages

IVP is constantly changing

- CQS (Shared Queues) optional samples provided
- Enhanced Command Environment samples added
 - SPOC samples with SCI and OM automatically started and without RM
- Samples for setup of IMS dump formatter and to provide example of using IMS dump formatting and processing an IMS dump
- Sample for setting up z/OS dump options
- A new and separate high-level-qualifier variable for VSAM data sets
- SMS Storage Class and SMS Management Class parameters are available for allocating all data sets
- Export/Import functions added
 - Copy variables from one release or system to another

More IVP changes

- Option to include and test RACF in sample IVP system added
- Option to include and test JAVA in sample IVP system added
- Ability to File-tailor individual members in Execution phase added
- Dynamic Resource Definition User Interface (DRD) samples
- IMS Connect added in sample IVP system
- DB setup for XQUERY
- SPOC Audit Trail
- Parallel Recon Access (PK54245 SPE)

IVP changes: V11+

New IVPs

- Open Database (OPDB)
- Callout application (COUT)

Help Text Cleanup

- Some new and more complete help

IVP Enhancements: V11+ (cont.)

- Repository usage for DRD is added to IVP
 - IVP provides sample JCL to create repository catalog data sets and the IMS repository
 - IVP provides sample repository server PROC and its configuration file
 - Sample JCL is provided to:
 - Add an IMS repository into the repository catalog
 - Rename a repository in the repository catalog
 - Delete a repository in the repository catalog
 - List the status information for all repositories
 - List the detailed information for a single repository
- Asynchronous and Synchronous Callout will be added to IVP
 - Added by IMS 11 APAR PK97597
 - IMS TM applications act as clients and send requests to external applications
- (Open DB function was added in IMS 11)

IMS IVP Dialog processing

The IVP Dialog input data sets :

- IMS.SDFSISRC: Contains sample application and miscellaneous source
- IMS.SDFSCLST: Contains TSO CLISTs
- IMS.SDFSEEXEC: Contains REXX execs
- IMS.SDFSMLIB: Contains ISPF message members
- IMS.SDFSPLIB: Contains ISPF panels Contains
- IMS.SDFSSLIB:- ISPF file tailoring skeletons Contains
- IMS.SDFSTLIB: ISPF table members
- IMS.SDFSRTM: Contains description members used by the IMS IVP dialog

IMS IVP Dialog processing (cont.)

The IVP Dialog output data sets:

- IMS.INSTALIB: JCL for the jobs to be run
- IMS.INSTATBL: ISPF tables used to keep track of variables
- ISPPROF: ISPF profile data set

IVP Export

Example: 'IMS.SDFSEXEC (DFSIVPEX) '
'HLQ(IMS) '

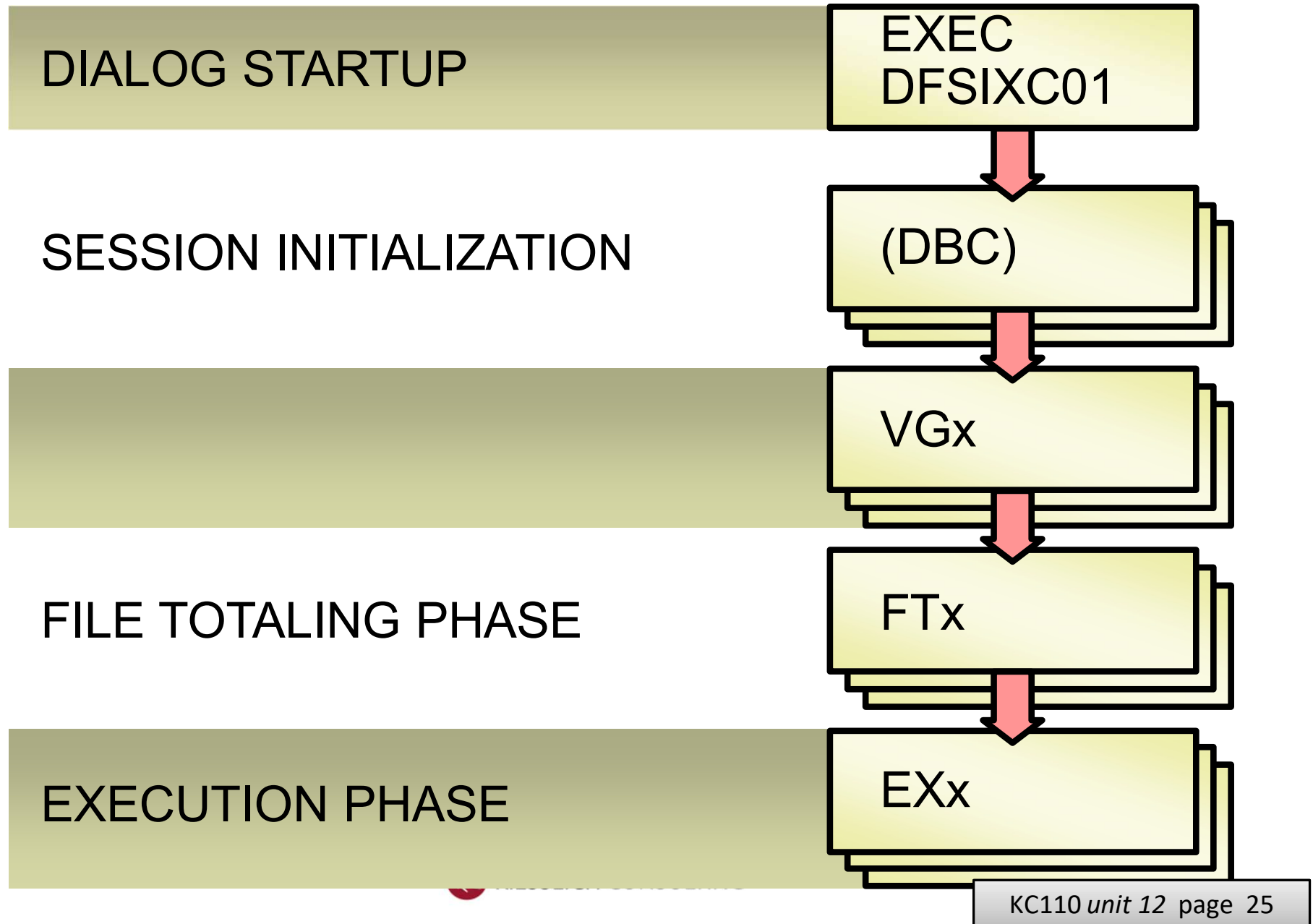
IVP Variable Export Utility

Command ==>

Enter the following information, then press enter.

- _ 1. Select the IVP Environment
 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)
2. Specify the IVP High Level Qualifier (IVP) of the INSTATBL dataset
*IMS15V5*_____
3. Specify the Export Dataset. (If the dataset does not exist, you will be prompted to create the dataset)
*'IMS15V3.EXPORT'*_____

Dialog phase overview



Dialog Startup

The IVP dialog is started by issuing the following command from ISPF Option 6:

```
----- TSO COMMAND PROCESSOR -----  
  
ENTER TSO COMMAND, CLIST, OR REXX EXEC BELOW:  
  
==> EX 'IMS.SDFSCCLST(DFSIXC01)' 'HLQIV(iii) HLQDL(hhh) HLQSY(sss)'  
  
iii - High-level qualifier for IVP output data sets  
hhh - High-level qualifier for IMS distribution library data sets  
sss - High-level qualifier for IMS system data sets  
  
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  
  
EX 'IMS.SDFSCCLST(DFSIXC01)' 'HLQ(IMS)'
```

Dialog Startup (2)

Or from the IMS APPLICATION MENU ...

===> EXEC 'user01.SDFSEEXEC(DFSAPPL)' 'HLQ(user01),

choosing 6 – IVP :

Help

IMS Application Menu

Select an application and press Enter.

- 1 Single Point of Control (SPOC)
- 2 Manage resources
- 3 Reserved for future use
- 4 HALDB Partition Definition Utility (PDU)
- 5 Syntax Checker for IMS parameters (SC)
- 6 Installation Verification Program (IVP)
- 7 IVP Export Utility (IVPEX)
- 8 IPCS with IMS Dump Formatter (IPCS)
- 9 Abend Search and Notification (ASN)

To exit the application, press F3.

Copyright IBM Corp. 2003. All rights reserved.

Command ===> _____

F1=Help F12=Cancel

Initial Installation Environment Options panel

- *Select the highest number representing the system you want to install*
- *The option selected will be used in determining the names for most of the members to be placed in IMS.INSTALIB*

Help

IVP

IVP Environment Options

IMS 15.1

Command ==>

Select the desired option and press Enter.

Option . . 3

IVP Environments

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)

Sub-Option Selection panel

Help

IVP

Sub-Option Selection -

IMS 12.1

Select the desired Sub-Options and press ENTER

- / IRLM - Use IRLM in IVP Applications
- / FP - Use Fast Path in IVP Applications
- / ETO - Use Extended Terminal Option
- / CQS - Add CQS to CSL Applications
- / RACF - Use RACF Security
- / JAVA - Use JAVA Applications and Open Database
- PRA - Use Parallel RECON Access
- / ICON - Use IMS Connect
- / REPO - Use IMSRSC Repository
- COUT - Use Callout Applications

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 IVP Table Merge, Variable Gathering, File Tailoring, and Execution processes. RACF is required when Java sub-option is selected.

Command ==>

F1=Help

F3=Exit

F7=Backward

F8=Forward

F10=Actions

Sub-Option Change Verification panel

This panel appears because CQS was changed from the default of 'N' (no '/') to 'Y' on the previous panel.

Help

Sub-Option Change Verification - DBT

Command ==>

The Sub-Options you have just chosen are not the same as the Sub-Options which were last active. If you change Sub-Options, Table Merge and the three Dialog Phases must be re-run from the beginning.

From To

Y	Y	- IRLM - Use IRLM in IVP Applications (not available for DCCTL)
Y	Y	- FP - Use Fast Path in IVP Applications (not available for DCCTL)
Y	Y	- ETO Feature Installed (not available for Batch and DBCTL)
N	Y	- CQS - Add CQS Applications (not available for Batch and DBCTL)
N	N	- RACF - Use RACF Security (not available for Batch)

To confirm your change of Sub-Options: Press ENTER

To return to the Sub-Option Selection menu: Press END

Table Merge Request panel

Help

IVP

Table Merge Request - DBT

IMS 15.1

Command ==>

The IVP Dialog is driven from a set of ISPF tables which contain information about the variables, JOBS, TASKs and sequence of presentation you will need to perform the verifications.

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 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.

VG Table Merge In Progress panel

IVP

VG Table Merge In Progress - DBT

IMS 15.1

Table Merge Progress Indicator

Variable Gathering Table . . : DFSIXBV3
Current Row : IXULESPC
Percent completed : 24

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.

Table Merge has completed panel

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

Help

IVP

Table Merge has completed - DBT

IMS 15.1

Command ==>

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.

IVP Phase Selection panel

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

```
Help
-----
      IVP                IVP Phase Selection - DBT                IMS 15.1
Command ==>

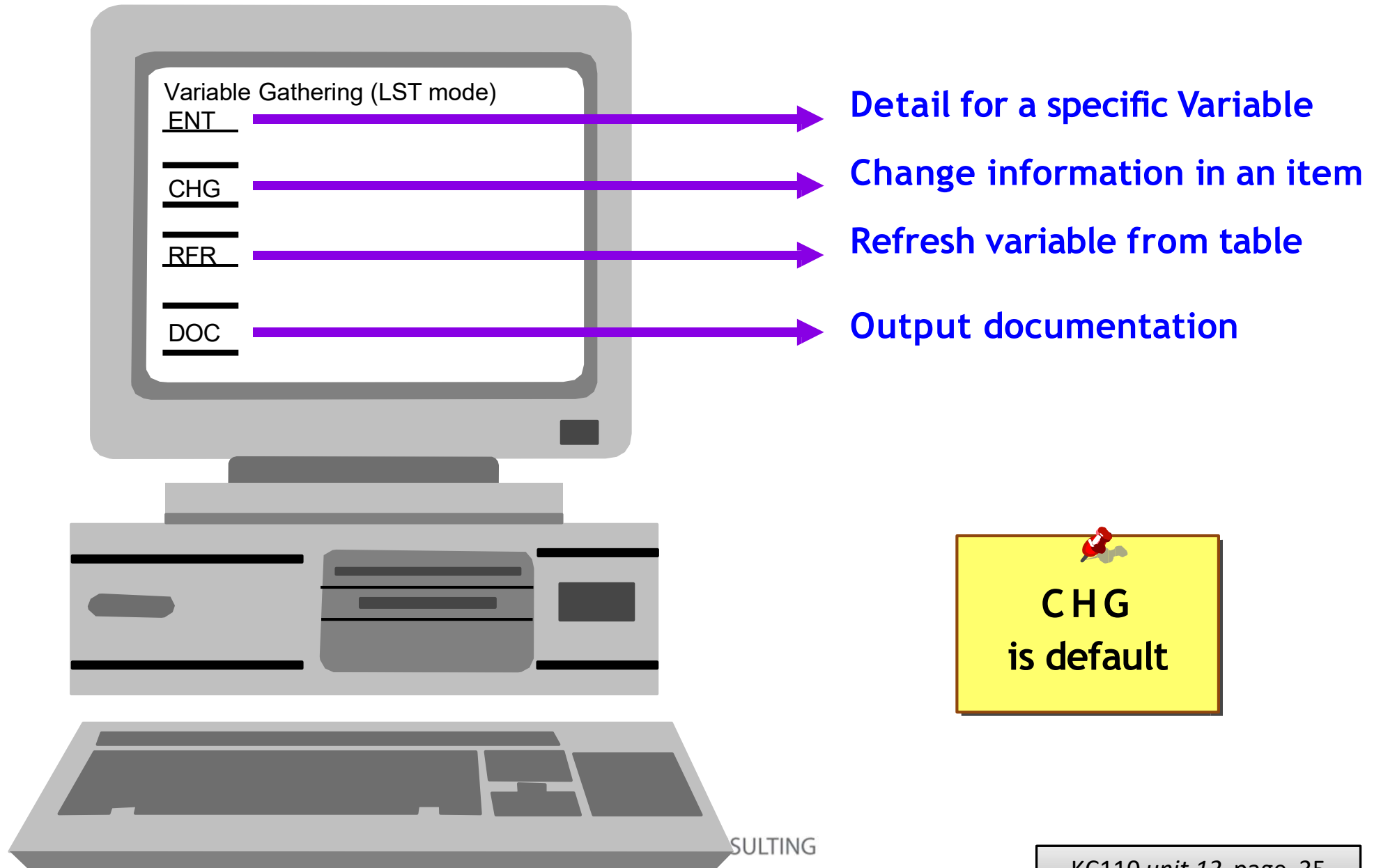
Select the desired Phase and positioning option and press ENTER
1  A.  Variable Export Utility (Export variables to a data set)

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

Variable Gathering overview



Variable Gathering panel: LST Mode

When we specify action 1 on Phase Selection, this panel will be displayed.

```
Help
IVP          Variable Gathering (LST Mode) - DBT          .. Row 1 to 8 of 169
Command ==>          Scroll ==> CSR

Action Codes: Chg Doc eNt Rfr Imp Exp -- CHG is default if item modified
Variable = Value.....
Var-Title.....
* IXUIVPHQ = IMS
    IVP - High level DSNAME qualifier for IVP (IVP) data sets
! IXURLMHQ = IVPRLM10
    IVP - High level DSNAME qualifier for IRLM (RLM) data sets
* IXUDLBHQ = IMS
    IVP - High level DSNAME qualifier for IMS DLIB (DLB) data sets
N IXUSYSHQ = IMS
    IVP - High level DSNAME qualifier for IMS System (SYS) data sets
! IXUEXEHQ = IVPEXE10
    IVP - High level DSNAME qualifier for Execution (EXE) data sets
! IXUUTLHQ = IVPUTL10
    IVP - High level DSNAME qualifier for Utility (UTL) data sets
! IXUVSMHQ = IVPVSM10
    IVP - High level DSNAME qualifier for VSAM (VSM) data sets
! IXUSSCLS =
    SMS - Storage Class
```

IVP Selection: Start File Tailoring phase

- *We returned to this panel (in this example) by ending Variable Gathering phase*
- *Note that the default action is now set to 3 to begin the File Tailoring phase*

Help

IVP IVP Phase Selection - DBT IMS 15.1
Command ==>

Select the desired Phase and positioning option and press ENTER

3 A. Variable Export Utility (Export variables to a data set)

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

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

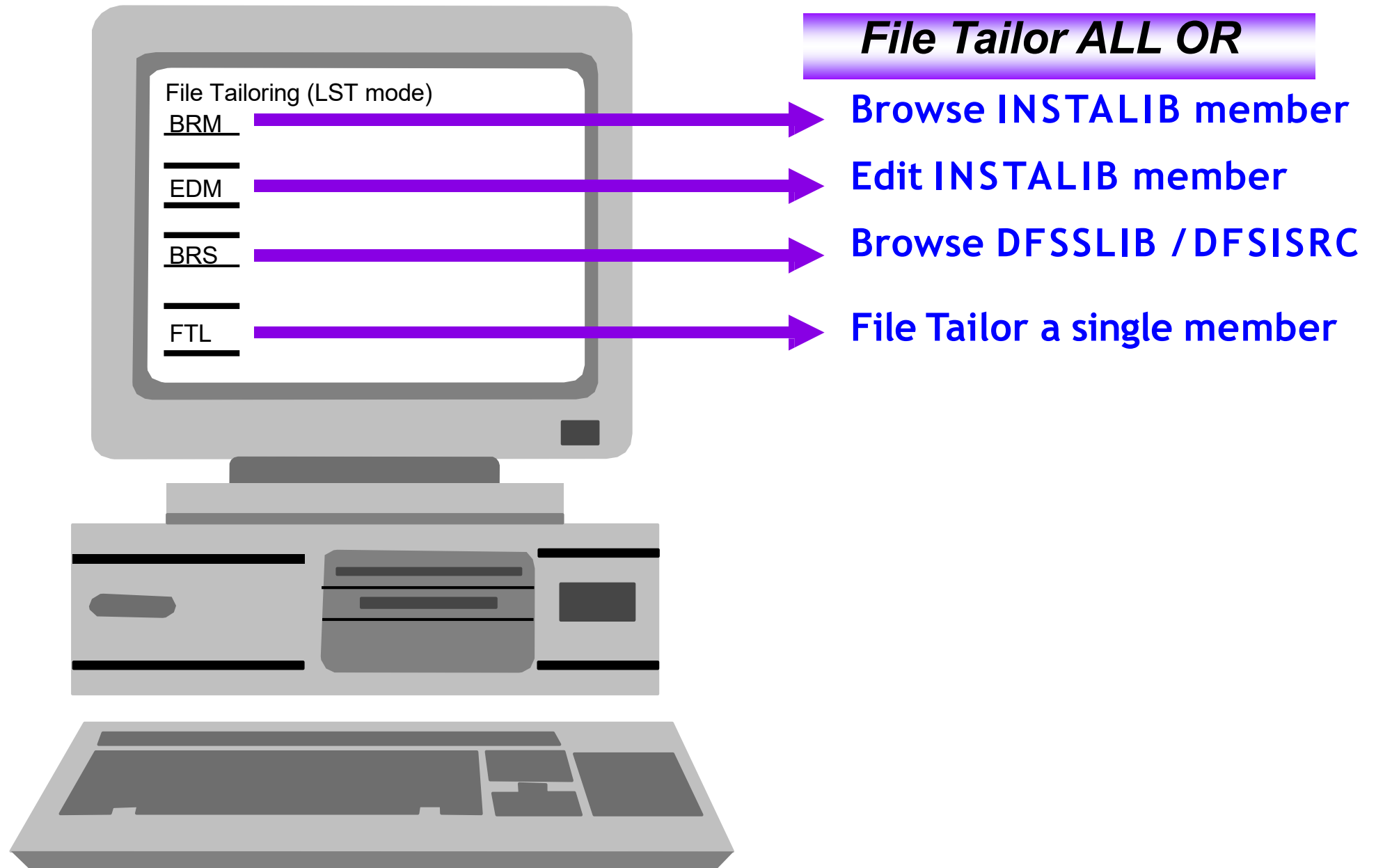
FT - File Tailoring - (Create customized INSTALIB members)

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 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

File Tailoring overview



File Tailor ALL OR

Browse INSTALIB member

Edit INSTALIB member

Browse DFSSLIB / DFSISRC

File Tailor a single member

File Tailoring ALL Request panel

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

Help

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:

- o You are entering File Tailoring for the first time.
- o 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.
- o 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.

File Tailoring in Progress panel

IVP

File Tailoring in Progress - DBT

IMS 15.1

File Tailoring Progress Indicator

Current Row : IV3C201T

Percent completed . . : 1

Please do not interrupt this process.

File Tailoring panel: LST Mode

- Do not use 'Edm' from File Tailoring phase
- PF3 to get out of File Tailoring

```
Help
-----
IVP                      File Tailoring (LST Mode) - DBT                      Row 1 to 17 of 409
Command ==>                      Scroll ==> CSR

Action Codes: All brM brS Doc Edm eNt Ftl
Member.. Skeleton Step Title.....
! IV3A001T IVPA001T A0 NOTE - 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/DBFSA
! IV3C001T IVPC001T C0 NOTE - Introduction - System Definition
* IV3C101J DFSIXSC0 C1 JOB - Alloc SYSDEF Data Sets
* IV3C201T DFSIXSC1 C2 TASK - Browse the STAGE1 Source Deck
* IV3C202J DFSIXSC2 C2 JOB - Run SYSDEF Preprocessor
* IV3C203J DFSIXSC3 C2 JOB - Run SYSDEF STAGE1
* IV3C301J DFSIXSC4 C3 JOB - Run SYSDEF STAGE2 >>> SEE DESCRIPT
* IV3C401J DFSIXSC5 C4 JOB - Run SMP/E JCLIN
! IV3C405T IVPC405T C4 TASK - Edit IMS PROCLIB Members
! IV3D001T IVPD001T D0 NOTE - Introduction - z/OS and VTAM Interface
* IV3D101T |-----| Sets
* IV3D201T | DFSIX049: DFSIXX09 - "ALL" action complete |
* IV3D203T |-----| xx - Authorized
* IV3D204T DFSIXSD4 D2 XMPL - Update IEALPAXx - MLPA Modules
```

IVP JOBS / TASKs Overview

- Ax - IVP Preparation
- Cx - System definition
- Dx - Interface IMS to z/OS and VTAM
- Ex - Prepare IVP Applications and System
- Fx - IVP Execution - DBB System (Batch)
- Gx - IVP Execution - DBC System (DBCTL)
- Hx - IVP Execution - DBT System (DB/DC)
- Ix - IVP Execution - XRF System
- Jx - IVP Execution - DCC System (DCCTL)
- Nx - Partition Data Base Sample
- Ox - Common Service Layer
- ~~Px - Enhanced Command Environment (V9): No RM~~
- Qx - IMS Connect Sample
- Rx - Parallel RECON Access sample
- Sx - IMS Callout samples (ICAL) sync. & async by IMS TM Resource Adapter, IMS Enterprise Suite SOAP Gateway, or User-supplied IMS/Connect client application.
- Tx - Open Database sample application
- Ux - IMSRSC Repository sample application
- Zx - Index of additional PDS members
- ... and maybe more

<https://www.ibm.com/docs/en/ims/15.5.0?topic=information-ivp-jobs-tasks>

FT Complete Verification panel

- If we press **Enter**, we will be returned to the Phase Selection panel and be prepared to continue into the Execution phase

Help

IVP FT Complete Verification - DBT IMS 15.1

Command ==>

You have just ENDED the File Tailoring Phase of the 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.

DFSIX033: DFSIXX09 - File Tailoring Phase ended for "DBT"

IVP Selection: Start Execution phase

- *Note that our default option now is 6, to start the Execution phase from the beginning*

Help

IVP

IVP Phase Selection - DBT

IMS 15.1

Command ==>

Select the desired Phase and positioning option and press ENTER

6 A. Variable Export Utility (Export variables to a data set)

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

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

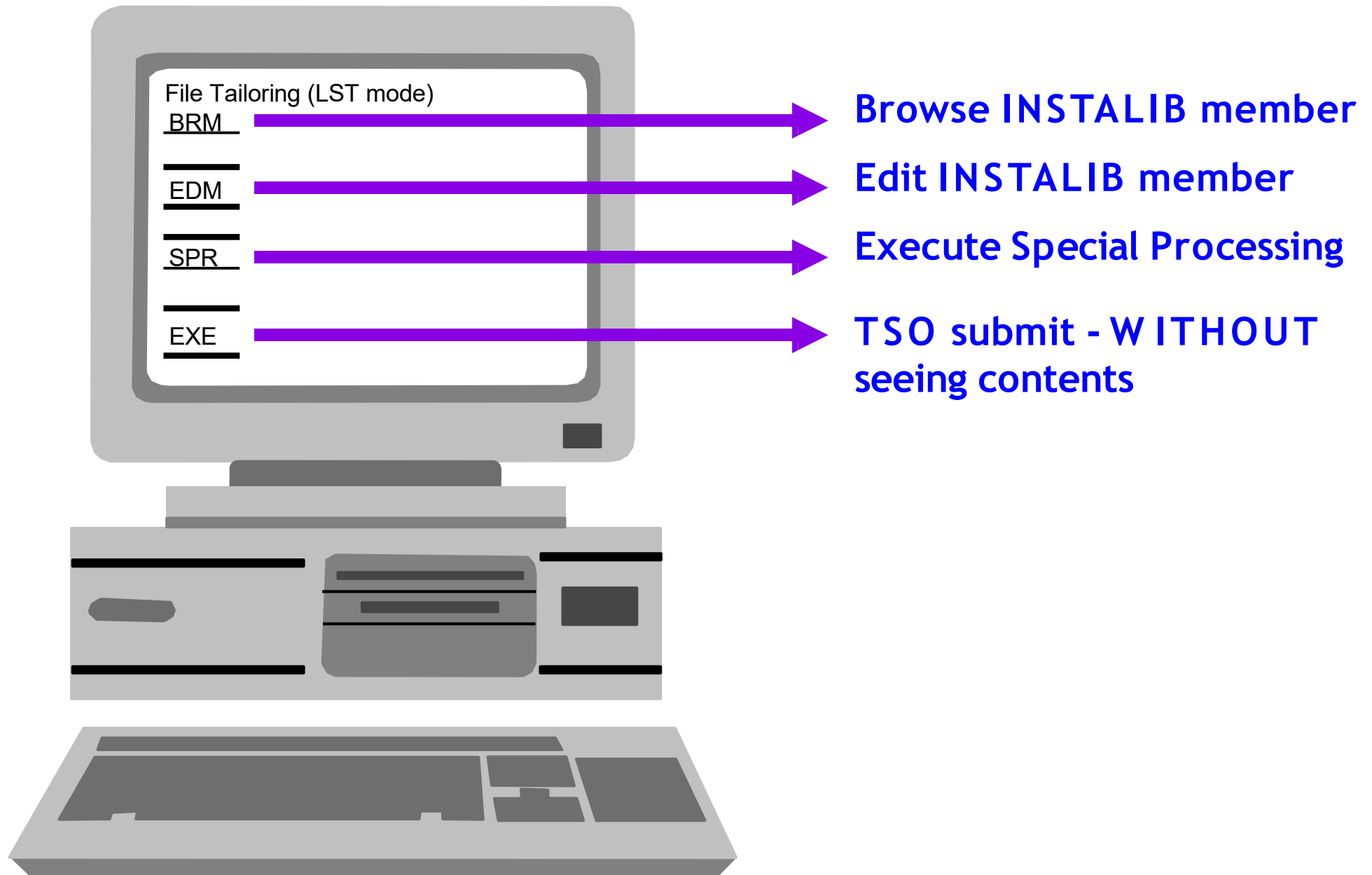
FT - File Tailoring - (Create customized INSTALIB members)

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 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

Execution phase overview



Execution panel: LST Mode

Help

Execution (LST Mode) - DBT

Row 5 to 21 of 215

Command ==>

Scroll ==> PAGE

Action Codes: Brm Doc **Edm** eNt eXe Ftl spR

	JOB/Task	Step	Title.....
!_	IV3C001T	C0	NOTE - Introduction - System Definition
!_	IV3C101J	C1	JOB - Alloc SYSDEF Data Sets
!_	IV3C201T	C2	TASK - Browse the STAGE1 Source Deck
E _	IV3C202J	C2	JOB - Run SYSDEF Preprocessor
!_	IV3C203J	C2	JOB - Run SYSDEF STAGE1
!_	IV3C301J	C3	JOB - Run SYSDEF STAGE2 >>> SEE DESCRIPTION
!_	IV3C401J	C4	JOB - Run SMP/E JCLIN
!_	IV3C405T	C4	TASK - Edit IMS PROCLIB Members
!_	IV3D001T	D0	NOTE - Introduction - z/OS and VTAM Interface
!_	IV3D101T	D1	XMPL - Allocate Interface Data Sets
!_	IV3D201T	D2	XMPL - Update JESx Procedure
!_	IV3D203T	D2	XMPL - Update IEAAPFxx or PROGxx - Authorized DSN
!_	IV3D204T	D2	XMPL - Update IEALPAXx - MLPA Modules
!_	IV3D206T	D2	XMPL - Update IEFSSNxx - RLM Subsystem Names
!_	IV3D207T	D2	XMPL - Update IEASVCxx - SVC Numbers
!_	IV3D208T	D2	XMPL - Update SCHEDxx - PPT Entries
!_	IV3D209T	D2	XMPL - Install TYPE 2 SVC

Edit Job panel

File Edit Edit_Settings Menu Utilities Compilers Test Help

```
EDIT          USER01.INSTALIB(IV3C202J) - 01.00          Columns 00001 00072
***** Top of Data *****
==MSG> -Warning- The UNDO command is not available until you change
==MSG>          your edit profile using the command RECOVERY ON.
000001 //IV3C202J JOB ACTINF01,
000002 // 'PGMRNAME',
000003 // CLASS=A,
000004 // MSGCLASS=H,MSGLEVEL=(1,1),
000005 // NOTIFY=USER01,
000006 // REGION=64M
000007 //*
000008 //*
000009 //*****
000010 //* IVP IMS 12.1
000011 //*
000012 //* SKELETON: DFSIXSC2
```

DFSIX039: DFSIXX10 - ISPF/PDF Edit Recovery is not supported by INSTALL/IVP

Command ==> _____ Scroll ==> PAGE

F1=Help	F2=Split	F3=Exit	F5=Rfind	F6=Rchange	F7=Up
F8=Down	F9=Swap	F10=Left	F11=Right	F12=retrieve	

EX Complete Verification panel

Help

EX Complete Verification - DBT

Command ==>

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

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.

```
|-----|
| DFSIX046: DFSIXX10 - Execution Phase ended for "DBT" |
|-----|
```


IVP 'A' Series

The items within the 'An' Series of steps are used to perform initialization for the 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 might need to be changed to point to LTERMS in the SYSGEN if you alter the vanilla IVP SYSGEN .

IVP 'B' Series

- There are no longer any 'B Series' steps in any IMS support configuration (for example, DB/DC, DBCTL, and so on)

*(the IMS INSTALL/IVP Dialog was renamed the IVP Dialog in IMS V8 ;
since then ,B' is gone)*

IVP 'C' Series

The “Cn” Series of the IVP provides an elaborate set of examples for the system definition process built around several sample applications. The Dialog-generated system definition input will be slightly different depending on the execution environment selected – DB/DC in our class. All of the remaining Series of steps support and exercise the IVP system as defined in the C Series of steps.

- Honorable Mentions:
 - **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

IVP 'D' Series (1 of 2)

The "Dn" series of EXAMPLES identify the JOBS and TASKs which the user must perform in order to establish the interfaces between IMS, z/OS and between IMS and VTAM:

- These steps must be accounted for when upgrading releases of z/OS
- 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*.

*** SEE SPEAKER NOTES.**

IVP 'D' Series (2 of 2)

- Honorable Mentions: Continued
 - **IV_D211T:** XMPL – Link-edit Resource Cleanup Module
DFSMRCLO:
 - Not used by IMS V10+ : Provided for downward compatibility.
 - **IV_D212T:** XMPL – Link-edit ABEND Formatting Module
 - Need to use latest version. It is downward-compatible.
 - ~~**IV_D213T:** XMPL – DFSMRCL0 IVEAVTRML CSECT IGC0001C~~
 - ~~Same comments as Step D211T above. Present for compatibility.~~
 - **IV_D214T:** XMPL – DFSAFMD0 IEAVADFM CSECT IGC0805A
 - **IV_D401T:** TASK – IPL z/OS with MLPA or CLPA OPTION
 - Be sure to IPL with this option to make changes effective.

IVP 'E' Series

The "En" series of steps identify the JOBS and TASKs which the user must perform in order to prepare the sample applications 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**
 - Might need to update DEV statements in MFS source to match appropriate device type.
 - **IV_E318J: Job – Copy Staging Libraries**
 - IF SYSGEN is redone, this job must be re-run as well. SYSGEN updates staging libraries. This job copies from staging to libraries used by online region.

IVP 'F' Series

The "Fn" 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 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 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, so be sure to run if restarting a step

IVP 'H' Series

- The "Hn" 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, and so on. 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 (Execution phase action 'n')

Migration / V2V Considerations V15

- Review the IMS 15 *Release Planning* publication
- Check PSP bucket
- Review the Program Directory
 - Available through the Info Center
- Review the installation information in Chapter 1 of the *Installation* publication
- Check the hardware prerequisites for new version
- Install prerequisite software and maintenance
 - Check your IMS tools and related products
- Apply coexistence maintenance to other IMS systems

Migration / V2V Considerations V15 ...

- Evaluate and update IMS exit routines
 - RECON I/O Exit Routine (DSPCEXT0)
 - DFSMSCE0 must be reassembled
 - All IMS Connect exits must be reassembled when migrating IMS Connect
 - HWSIMSO0 and HWSIMSO1 are not shipped with IMS 11
- Install IMS 11 using SMP/E installation process
 - CBPDO or ServerPac may be used
- System definition
- Install the Type 2 and Type 4 SVCs
- Upgrade RECONs
 - Specify RECON qualifier after the upgrade
- ACBGEN
- Run the IVP

Supported Migrations and Coexistence V15

- IMS 13 to IMS 15
 - Apply DBRC coexistence SPE to IMS 13
 - Upgrade RECONs from IMS 13 to IMS 15
 - Any MINVERS value below 13 will get updated onto 13 now

- IMS 14 to IMS 15
 - Apply DBRC coexistence SPE to IMS 14
 - Upgrade RECONs from IMS 14 to IMS 15
 - Any MINVERS value below 13 will get updated onto 13 now

RECON Listings

- "COEXISTENCE LEVEL" in subsystem record listing
 - Added since IMS V10
 - May be used to determine if subsystems would cause an upgrade failure

```
SSYS
SSID=IMS1      LOG START=23.067 17:25:44.2
SSTYPE=ONLINE  ABNORMAL TERM=OFF  RECOVERY STARTED=NO  BACKUP=N
TRACKED=NO     TRACKER TERM=OFF   SHARING COVERED DBS=NO
IRLMID=**NULL** IRLM STATUS=NORMAL      GSGNAME=**NULL**
COEXISTENCE LEVEL=15.1
AUTHORIZED DATA BASES/AREAS=4      VERSION=14.1  XRF CAPABLE=NO
                                     ENCODED
-DBD-      -AREA-    -LEVEL-   -ACCESS INTENT-  -STATE-
PDHDOKA    **NULL**    0         UPDATE             6
...
```

- In this example the subsystem is at 14.1 but has the V15 coexistence maintenance applied

RECON Upgrade

- RECONs are upgraded after IMS 15 is installed
 - Upgrade must use the IMS 15 DBRC utility (DSPURX00)
- Two RECONs and a spare must be available
- CHANGE.RECON UPGRADE
 - May be executed while subsystems are running
 - Upgrade fails if there is a subsystem record for an IMS 9 or IMS 10 subsystem without the DBRC coexistence SPE
 - Some utilities do not create subsystem records
 - They are not protected by the check for subsystem records
 - If they are running without the SPE, unpredictable results may occur
 - Examples: Change Accumulation, Log Archive, DSPURX00, HALDB Partition Definition Utility (PDU), some DBRC API applications
 - May be invoked using the DBRC API