

S44

Mastering the IMS Challenges with SMP/E

John Butterweck - jbutterw@us.ibm.com

Linda Weed - lweed@us.ibm.com



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Introduction



- **The objectives of this session are:**
 - **Review and explain IMS maintenance recommendations.**
 - **Review and explain IMS maintenance upgrade considerations.**
 - **Discuss common problems customers encounter.**

- **Audience participation is encouraged.**



General IMS/ESA Maintenance Recommendation

IMS Maint Recommendation Overview



- This general IMS maintenance recommendation provides guidelines that when implemented are intended to produce a more stable IMS environment.

- Risk assessment should be carefully considered. Numerous factors may be involved, some of which follow:
 - The quality level of the local test environment.

 - Business cycle.

 - IMS maintenance status.

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General IMS Maintenance Recommendation



- **The general IMS maintenance recommendation for an IMS production system:**
 - **Initial IMS production system base implementation service level.**
 - **Service levels 6 months behind current ESO/CBPDO level for planned migration date.**
 - **All HIPER PTFs fixes 3 months behind the planned migration date.**
 - **PE resolution.**
 - **A 3 month test cycle is recommended prior to production implementation.**

- ▲ **NOTE: Because IMS maintenance will continue to be distributed during the test cycle, the recommendations in the following foil should also be included in the initial IMS production base system implementation (See the following page.).**

General IMS Maint Recommendation

(cont...)



- Ongoing IMS production system service level.
 - Fully tested fixes for significant** software problems encountered.
 - Fully tested HIPER SYSMODs that are of direct applicability to the specific IMS environment and deemed significant**.
 - Fully tested SYSMODs which resolve PE's that are directly applicable to the specific IMS environment and deemed significant**.
- Review the IMS PSP bucket UPGRADE for the IMS release level and SUBSET FMIDs.
 - Important IMS product related information is continually added to these buckets and may require action.
- **NOTE:** The recommendations outlined above should be followed on an ongoing basis, and should also be included as part of the initial production implementation (See prior page.).

** A fix is considered "significant", when consequences which could not be tolerated may be encountered without the application of that fix.

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HIPER APAR Definition



- Today, HIPER APARs are defined as "those that fix a high impact problem for some customers".
- In the past, IBM included pervasive problems as HIPER, but this is no longer the case.

HIPER APAR Qualification



- All HIPER APARs must have 1 or more of the following characteristics:
 - Causes the customer to IPL or recycle the system or subsystem.
 - FLAG: SYSTEMOUTAGE/Y
 - ServiceLink: RESTART/BOOT/IPL
 - Destruction and/or contamination of customer data.
 - FLAG: DATALOSS/Y.... ServiceLink: DATALOSS
 - Causes major loss of function to the IMS system.
 - FLAG: FUNCTIONLOSS/Y ServiceLink: FUNCTIONLOSS
 - Causes severe impact to system performance/throughput.
 - FLAG: PERFORMANCE/Y ServiceLink: PERFORMANCE
- Has the potential to affect many customers.
 - FLAG: PERVASIVE/Y... ServiceLink: PERVASIVE

NOTE: Another HIPER symptom must also be identified along with PERVASIVE to qualify for HIPER classification.
- HIPERs flagged as follows:
 - FLAG: HIPER/Y.... ServiceLink: HIPER

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Enhanced Holddata



- **++HOLD statements for HIPER APARs against the FMID (Enhanced Holddata) as well as standard PE statements.**
 - **Available since 1/98.**
 - **Hold data available with install/service orders.**
 - **Entire OS/390 Platform is covered in a single set of HOLDDATA.**
 - **REPORT ERRORSYSMODS to identify HIPER service not currently installed as well as any PE PTF installed without resolving SYSMOD.**
 - a) **Available with OS390 V2.5, OS390 V2.4 (SPE) and OS390 1.3 (SPE).**
 - 1. **SPE IR35282**
 - **For complete descriptive information see Internet address:**
<http://service.boulder.ibm.com/390holddata.html>

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Perform Risk Assessment of Applicable PTFs



- **Perform risk assessment on processed PE'd PTFs for which the system is susceptible.**
 - **Courses of action can include:**
 - **Remove PTF in error if not already ACCEPTed.**
 - **Leave the PTF in place if the reported PE symptom is not significant.**
 - **Put in place operator procedures to restrict access to reported areas of exposure.**
 - **Apply corrective APAR/PTF fix if available.**
 - **Request a FIXTEST for the reported problem from software service.**
 - **Request a USERMOD code bypass for the reported problem from software service.**

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IMS PSP Bucket Names



The PSP buckets are organized by UPGRADE and SUBSET names.

■ **IMS release 6.1 UPGRADE name= IMS610.**

● **The GA SUBSET names (IMS related FMIDs) are:**

CHG/INDEX	HMK6600/GA	JMK6601/9912	JMK6602/GA	JMK6603/GA
JMK6604/GA	JMK6605/GA	HIR2101/9830	HMK6600/9912	JMK6601/GA
JMK6602/9912	JMK6603/9912	JMK6604/9912	JMK6605/9912	HIR2101/9717
HIR2101/9906	HIR2101/0014	HMK6600/GA2	HIR2101/0036	HMK6600A9912

ODBA

■ **IMS release 7.1 UPGRADE name= IMS710.**

● **The SUBSET names (IMS related FMIDs) are:**

CHG/INDEX	HIR2101/9906	HMK7700	JMK7701	JMK7702
JMK7703	JMK7704	JMK7705	JMK7706	HMK7707
JMK7708	HIR2010/0014	HMK7700/GA	JMK7701/GA	JMK7702/GA
JMK7703/GA	JMK7704/GA	JMK7705/GA	JMK7708/GA	
HIR2101/0036	HALDB			

■ **PSP buckets available via IBMLINK and software orders.**

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IMS PSP UPGRADE/SUBSET Layout



- Each UPGRADE level includes SUBSET entries for each IMS FMID within that release. The SUBSET for each installed FMID needs to be examined separately.

- Key areas for review within each SUBSET entry include the following:
 - Opening Text.
 - Change Summary.
 - Service Recommendation Summary.
 - Installation Information - Section 1.
 - Documentation Changes - Section 2.
 - General Information - Section 3.
 - Service Recommendations - Section 4
 - Cross Product Dependencies - Section 5.

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Consolidated Service Test (CST)



- **Goal: Enhance the way service is tested and delivered for OS/390 and z/OS, by providing a single coordinated service recommendation.**
- **Provides cross product testing for the following products:**
 - OS/390 BCP R9 and R10
 - z/OS V1R1
 - DFSMS
 - DB2 UDB for OS/390
 - IMS
 - MQSeries for OS/390
 - Will expand to include others
- **This is in addition to testing that was already being performed**
- **Standardize maintenance recommendation on OS/390 and z/OS platform**
- **See <http://www.ibm.com/servers/eserver/zseries/zos/servicetst/> for additional information**

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Consolidated Service Test - 2



- **Change in criteria for inclusion in the quarterly RSU:**
 - **Severity 1, 2, 3 & 4 APARs**
- **Testing of quarterly RSUs:**
 - **Three 30-day test cycles exercised**
 - **System upgraded every 30 days to include the next monthly RSU**
 - **HIPERs, PE fixes, security, integrity and fixes to CST problems**
 - **Stress and saturation testing, failure and recovery testing, and rolling IPL maintenance test of previous Quarterly RSU to current Quarterly RSU**
 - **Done prior to availability**
 - **Testing covers integrated workloads across all participating z/Series and S/390 products**
 - **Provides one clear consistent recommendation for the platform**
 - **Workloads will evolve over time**
- **Also available monthly**
 - **30 days of tested Hiper/PE and security/integrity APARs between quarterly testing**

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New SMP/E SYSTEMHOLDS



■ The following new SYSTEMHOLD REASON ID's have been added:

- **DB2BIND - Not applicable in IMS**

- Used to identify service that requires a DB2 application REBIND for the designated service to become effective
- BYPASS if the REBIND is planned or application is not affected

- **ENH (Enhancement)**

- Used to identify new function in the service stream
- BYPASS if acceptable to install new function

- **EXIT (Change to User Exit)**

- Used to identify changes required to User Exits
- For example, Reassembly required, change in interface, etc.
- BYPASS if not using user exits, or prepared to do required task

- **Continued on next foil**

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New SMP/E SYSTEMHOLDS - Cont.



■ New SYSTEMHOLD REASONIDs cont.:

● IPL (IPL)

- Used to identify *special* requirements (e.g., IPL with CLPA)
- Bypass when planning to IPL with CLPA to implement service

● RESTART

- Used to identify *special* requirements for subsystem restart
- BYPASS if special requirements are planned

● Additional REASONID's being considered

■ Don't BYPASS if condition is unacceptable (build exclude list)

■ See Information APAR II12867 for additional information

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Structured ++HOLD



- The initial information provided in ++HOLD statements will be in a consistent format across the OS390 / zOS platform
 - Same template for initial information used by all products
 - Key information will be provided in the first few statements
 - Enable system programmer to determine if they need to continue reading the ++hold information
 - The following fields will be contained within this template:

Function Affected

Description

Timing

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Function Affected



- The **FUNCTION AFFECTED** will identify the functional entity affected by the information in the **++HOLD** (may not be the same as **USERS AFFECTED**)
 - Meaningful to the system programmer that has to read and interpret the information.
 - May provide enough information for user to decide to continue reading or not
 - Identify functional entities affected by the **++HOLD**
 - Presented in a **HIERARCHY** of components
 - Product (**IMS**) at the top and lower levels for the various subcomponents
 - Applicable to the **++hold** card only
 - One line for each level
 - Example
 - IMS
 - IVP

Description



The DESCRIPTION field provides a short description to describe the detail provided by the ++HOLD.

- Key phrases and words used by all change teams for consistency across the platform
- Description will vary depending on hold REASONID
- Examples of descriptions for hold reason ACTION are:
 - Allocate new dataset
 - Control Block Size
 - Execute Utility
 - File Tailor
 - Installation Notes
 - Other
 - Reallocate existing dataset
 - Recompile/relink application
 - Record Change
 - RSR
- The list will be dynamically updated as needed

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Timing



- The **TIMING** field identifies when the ++hold action needs to be performed as follows:

TIMING	DEFINITION
Pre-APPLY	The action must be performed BEFORE APPLY processing
Post-APPLY	The action must be performed AFTER APPLY processing
Pre- or Post APPLY	The action must be performed either BEFORE of AFTER APPLY processing
Pre-ACCEPT	The action must be performed BEFORE ACCEPT processing
Post-ACCEPT	The action must be performed AFTER ACCEPT processing
PRE-IPL	The action must be performed BEFORE you IPL the system where the service has been applied
Post-IPL	The action must be performed AFTER you IPL the system where the service has been applied
Exploitation	The action enables you to exploit the new function added by the service
Pre-RESTART	The action must be performed BEFORE the subsystem restart
Post-RESTART	The action must be performed AFTER the subsystem restart
During-RESTART	The action must be performed during the subsystem restart
As Needed	No characteristic applies (Doc changes, etc.)

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Structured HOLDS



Template

Function Affected	: Hierarchy of functional entities (product specific)
Description	: Short description standardized across products
Timing	: <i>When to perform action</i>

Example

Function Affected	: IMS IVP
Description	: File Tailor
Timing	: Post-ACCEPT

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Web Address



The following contains information regarding the new HOLD REASONIDs and Structure ++HOLDS:

http://ps.software.ibm.com/www/usa/images/holddata_maintenance.pdf

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IMS Maintenance Upgrade .



IMS Maintenance Upgrade

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Maintenance Upgrade Abstract



The steps outlined in this section offer general processing recommendations which are intended to be executed when performing a major maintenance upgrade using SMP/E 'ACCEPT BYPASS(APPLYCHECK)' processing.

These steps have proven to be very thorough and effective when performing major maintenance upgrades or handling any PTF which requires 'ACCEPT BYPASS(APPLYCHECK)' processing.

▲ **NOTE:** These steps also exist, within Information APAR Item II08928 which is updated as necessary.

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IMS Upgrade Steps - 1

- 1) **Backup the IMS environment.**
 - a) **SMP/E datasets.**
 - **Global, Target, Distribution zones, SMPMTS, etc.**
 - b) **IMS datasets.**
 - **Target and Distribution datasets.**

- 2) **Either RESTORE or ACCEPT all outstanding service for all products present in the IMS Distribution and Target zones.**

- 3) **UNLOAD the Target zone DDDEFs using the SMP/E UNLOAD command.**

IMS Upgrade Steps - 2



- 4) List the SMP/E Target Zone.
- 5) ZONEDELETE and Redefine the Target zone.
 - a) ZONEDELETE the Target zone.
 - b) Delete and redefine Target CSI (the VSAM cluster) if no other zone is contained in this CSI.

IMS Upgrade Steps - 3



6) Re-Initialize the new Target zone.

- a) Repro GIMZPOOL to the new Target zone if step 5b was performed above.**
- b) Rebuild the relationship between the old DLIB zone and the new Target zone.**
- c) Run UCLIN for the Target zone DDDEFs using the file created in step 3 above.**

IMS Upgrade Steps - 4



- 7) **Scratch and re-allocate the following data sets:**
- **SMPMTS.**
 - **SMPSTS.**
 - **SMPSCDS.**

IMS Upgrade Steps - 5



- 8) Run RECEIVE and ACCEPT GROUPEXTEND BYPASS(APPLYCHECK) for the PTFs to be processed.

- 9) Run ZONEMERGE CONTENT to merge the Distribution zone into the new Target zone.

- 10) Run SMP/E JCLIN using the DFSISRCA/ADFSISRC (DFSJCLIN) as input.

IMS Upgrade Steps - 6



- 11) Run an updated (DSNAMES) copy of DFSJCLIN as a job.**

 - 12) For other products/features installed in the IMS Distribution zone, run the following:**
 - a) JCLIN using the materials supplied for each product/feature.**
 - b) Re-Link/copy each product/feature into its Target libraries.**
- ** NOTE for IMS V7 SMP/E GENERATE can be used to build the JCL necessary (ACCJCLIN set in DLIB zone). Service for PQ46628 and PQ49904 required.**

IMS Upgrade Steps - 7



- 13) Run an 'ALL' IMS system definition Stage1 and Stage2.
- 14) Run JCLIN using the IMS Stage2 as input.
- 15) Re-APPLY any desired IMS service that was not ACCEPTed.
 - This service was identified in step 2 above.
- 16) Re-APPLY any desired service for other products that was not ACCEPTed.
 - This service was identified in step 2 above.

Common Install and Maintenance Issues



Common Install and Maintenance Issues

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SYSLIB Concatenation

- **The SYSLIB concatenation is used during the assembly process to retrieve macros and copy statements as specified in the assembly source. This concatenation will vary depending on the process you are following and the IMS Version.**
- **The following pages will present this in detail.**



Syslib Concatenation Pre V7 - 1

■ SMP/E Apply

- IMS.OPTIONS
- SMPMTS
- IMS.MACLIB
- IMS.GENLIB
- IMS.GENLIBA
- IMS.GENLIBB
- MVS Macro Libraries

■ SMP/E Accept

- IMS.OPTIONS
- IMS.GENLIB
- IMS.GENLIBA
- IMS.GENLIBB
- MVS Macro Libraries

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Syslib Concatenation Pre V7 - 2



■ **IMS Sysgen Stage 1**

- **IMS.GENLIB**
- **IMS.GENLIBA**
- **IMS.GENLIBB**

■ **IMS Sysgen Stage 2**

- **IMS.OPTIONS**
- **IMS.GENLIB**
- **IMS.GENLIBA**
- **IMS.GENLIBB**
- **MVS Macro Libraries**

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Syslib Concatenation V7

■ SMP/E Apply

- IMS.OPTIONS
- SMPMTS
- IMS.SDFSMAC
- MVS Macro Libraries
 - SYS1.PP.MACLIB added for V7 (concept 14 macros)

■ SMP/E Accept

- IMS.OPTIONS
- IMS.ADFSMAC
- MVS Macro Libraries
 - SYS1.PP.MACLIB added for V7 (concept 14 macros)

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Syslib Concatenation V7 - 2



- **IMS Sysgen Stage 1**
 - **IMS.ADFSMAC**

- **IMS Sysgen Stage 2**
 - **IMS.OPTIONS**
 - **IMS.ADFSMAC**
 - **MVS Macro Libraries**

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Binder Return codes

- **The following is a list of the acceptable return codes from the various Binder processes:**
 - **Apply processing - Return code 0.**
 - **Unresolved external references ARE NOT ok.**
 - ▶ **The exception being binds into SMPLTS.**
 - **Accept processing - Return code 4.**
 - **Unresolved external references ARE ok.**
 - **Sysgen Stage 2 - Return code 0.**
 - **Unresolved external references ARE NOT ok.**

- **Suggest pointing to a different utility entry in SMP/E for APPLY and ACCEPT processing.**
 - **SMP/E Utility entries added in V7.**

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- Informational APAR II11589 documents issues between High Level Assembler V3, High Level Assembler V4 and IMS.

JCLIN members



- Member DFSJCLIN is used to create the non-sysgen components for IMS.
 - Its importance has increased tremendously since version 6.1.
 - Examples of non-sysgen components since version 6.1 are:
 - BPE.
 - IVP dialog.
- Members DFSJIRLT and DFSJIDLT are used to create components for their corresponding features (RLT and DLT).
- SMP/E Generate must be used to build JCL for IMS JAVA (JMK7708).
 - Can/should be used to build JCL for all FMID's (V7).
 - See PQ46628.
- These jobs must be run when:
 - Rebuilding the target zone from the distribution zone.
 - When building a new IMS execution library RESLIB/SDFSRESL.
- These jobs must be used as input to SMP/E JCLIN processing pointing to the target zone.

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APAR SYSMOD Naming conventions

- The prefix name for APARs is currently 'pq'.
- One APAR may result in multiple SYSMODS.
- The prefix name in the actual sysmod(s) will vary depending on the FMID as follows:

IRLM 2.1		IMS 6.1		IMS 7.1	
FMID	PRE	FMID	PRE	FMID	PRE
HIR2101	Aq	HMK6600Aq		HMK7700Dq	
		JMK6601	Vq	JMK7701	Aq
		JMK6602	Gq	JMK7702	Vq
		JMK6603	Wq	JMK7703	Gq
		JMK6604	Xq	JMK7704	Wq
		JMK6605	Zq	JMK7705	Xq
				JMK7708	Jq

where q represents the second character of the APAR prefix

- The prefix will be followed by the 5 digit APAR number.

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APAR Naming conventions - Part 2

The name of the APAR fix available on DLL/IBMLINK will vary depending on the IMS release as follows:

■ **PQxxxxxz.**

- **PQ - Prefix name for the APAR.**
- **xxxxx - The number for the APAR.**
- **z - The suffix will identify the IMS release as follows:**
 - * **L - IRLM 2.1**
 - * **A - IMS 6.1**
 - * **F - IMS 7.1**

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USERMOD Naming Conventions on DLL/IBMLINK



The naming conventions for usermods will vary depending on the type of usermod as follows:

■ **Fixtest for an APAR.**

● **FQxxxxxz.**

- **F** - Identifies this as a fixtest.
- **Q** - Indicates the second character of the apar currently being used.
- **xxxxx** - The number portion of the apar associated with this fixtest.
- **z** - The version of this fixtest (A=1st, B=2nd, etc.).

■ **Relief for an APAR.**

● **RQxxxxxz.**

- **R** - Identifies this as a relief.
- **Q** - Indicates the second character of the apar currently being used.
- **xxxxx** - The number portion of the apar associated with this fixtest.
- **z** - The version of this fixtest (A=1st, B=2nd, etc)

■ **Trap or bypass (no APAR #).**

- **The name will be determined via an internal CLIST.**

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USERMOD SYSMOD Naming Conventions



The naming conventions of the sysmod for usermods will vary depending on the type of usermod as follows:

- **Fixtest and relief for an APAR.**
 - **pzxxxxx.**
 - **p** - The apar prefix depending on the fmid/compid.
 - **z** - The version of this fixtest/relief (A=1st, B=2nd, etc).
 - **xxxxx** - The number portion of the apar associated with this fixtest.
- **Trap or bypass (no apar #).**
 - **pzxxxxx.**
 - **p** - The apar prefix depending on the fmid/compid.
 - **z** - The last character of the fix name supplied by the internal CLIST.
 - **xxxxx** - The number portion supplied by the internal CLIST.

SMP/E Holderror Processing



Many times 1 or 2 PTF's in error can keep many other PTFs from processing.

- **The following is a technique we developed to quickly identify the problem PTF's:**
 - **Bypass holdsys,holderr during 'CHECK' processing.**
 - **Using the output from the 'CHECK' run do a find for 'gim35934'.**
 - **Be sure to analyze all SMP/E messages.**

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SMP/E Zone Setup



■ Considerations.

- How to Implement Preventative Service.
- Sysgens when systems contain different levels of service.
- How to Process Emergency Service.
- SMP/E processing should never be done directly to the libraries being used.

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SMP/E Zone Setup 1 to 1



- **The simplest way to set up SMP/E is:**
 - **One TLIB, DLIB and set of datasets for each IMS system.**
 - **Easiest for the human to understand.**
 - **Uses the most resources (time, dasd, etc).**
 - **May not be practical!**
 - a) **What if supporting 100+ systems.**

SMP/E Zone Setup Many to 1



■ A second method is:

- One TLIB Zone For Each IMS - Common DLIB Zone.
 - Service can be applied to each system selectively.
 - Any SYSMOD in APPLY only status may be regressed via SYSGEN.
 - a) Re-process any service in APPLY only status after SYSGEN.
 - ACCEPT service once it has been applied to all systems.

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SMP/E Zone setup 1 ZONE



- **A third method is:**
 - **One DLIB and TLIB Zone for many systems.**
 - **Implement to all systems at one time or manage outside of SMP/E.**
 - a) **Most complex.**
 - b) **Uses less computer resources.**

Regression / Mismatch



Regression is when elements are at a level prior to the level that is expected. Mismatch is when an inconsistent level of elements is encountered (e.g a fix is partially on).

- **The following are common causes of this within IMS:**
 - **SYSGEN regressed an element that is in apply status.**
 - **SYSGEN used back level version of a macro.**
 - **V7 provides a target library for macros reducing this exposure.**
 - **SYSGEN jobs were run in the wrong order.**
 - **SMP/E processing used back level version of a macro.**

- **Whenever there is service in apply only status, the user must know which elements are affected and ensure they are handled properly.**

- **Normally addressed by doing either of the following:**
 - **Re-apply sysmods in apply only status.**
 - **Accept sysmods in apply only-status, run an 'ALL' sysgen, followed by JCLINs (DFSJCLIN, DFSJIRLT, DFSJIDLT | SMP/E GENERATE).**

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Unreleased/Wrong Hold Error

Customer complains that the wrong hold was placed on a PTF or the correcting PTF superseded the wrong one.

- Example UQ49596 is pe'd by DQ58298/UQ45703. UQ45703 does not sup DQ48298 it sups AQ48298.
 - The following hold cards are in the bucket concerning APAR PQ58298:
 - 00/12/03 THE FOLLOWING UPDATE WAS INCLUDED ON PDO0048 */.
 - ++HOLD(UQ49596) FMID(HMK7700) ERROR REASON(DQ58298) DATE(00335).
 - ++HOLD(UQ49597) FMID(JMK7701) ERROR REASON(AQ58298) DATE(00335).
 - 01/01/06 THE FOLLOWING UPDATE WAS INCLUDED ON PDO0101 */.
 - ++RELEASE(UQ49596) FMID(HMK7700) ERROR REASON(DQ58298) DATE(01005).

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No Target Library



- Applying service and receive one of the following two warning message:
 - **GIM43401W aaaaaaaaa bbbbbbbb IN SYSMOD ccccccc WAS NOT INSTALLED IN ANY TARGET LIBRARY.**
 - **GIM44402W aaaaaaaaa WAS NOT ASSEMBLED FOR bbbbbbbb ccccccc IN FOR aaaaaaaaa.**

APAR/USERMOD SMP/E Regression



- **IMS APARs and USERMODs only PRE SYSMODS with code dependencies. The PRE will specify the APAR as opposed to the PTF.**
- **This may cause regression messages to be encountered when processing IMS supplied APARs and USERMODs.**
- **The following are samples of some of the messages that may be received:**
 - **GIM38201 THERE IS A MODID ERROR FOR aaaaaaaaa ENTRY bbbbbbbb IN SYSMOD ccccccc.**
 - **GIM38202 THERE IS A MODID ERROR FOR ASSEMBLY aaaaaaaaa FOR bbbbbbbb ENTRY ccccccc IN SYSMOD dddddddd.**
 - **GIM31901 SYSMOD aaaaaaaaa DOES NOT SPECIFY bbbbbbb ON THE PRE OR SUP OPERAND. bbbbbbb IS THE RMID FOR ccccccc dddddddd THAT IS CURRENTLY INSTALLED.**
 - **GIM31902 SYSMOD aaaaaaaaa DOES NOT SPECIFY bbbbbbb ON THE PRE OR SUP OPERAND. bbbbbbb IS THE UMID FOR ccccccc dddddddd THAT IS CURRENTLY INSTALLED.**
- **Messages of this type are expected, but each one must be analyzed.**
- **Determine if regression will actually take place by doing the following:**
 - **Look at the prereq on the sysmod, determine if the prereqs match the PTF.**
 - **Look at the code to see if there is any dependencies/intersections.**
 - **Contact the support center for assistance.**
- **If no regression will occur ignore these messages (specify bypass id for RMIDs).**

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MVS Upgrade



The following are the IMS issues to be considered when MVS is being upgraded:

- **MVS / IMS interfaces must be considered.**
 - **IMS/ESA Installation Volume 2.**
 - **IVP 'd' series of jobs provide samples.**
 - **DFSMRCL0 and its zap.**
 - **DFSAFMD0 and its zap.**
 - **T2 SVC.**
 - **T4 SVC.**
- **Check the PSP buckets for all involved products.**
 - **OS390.**
 - **DFSMS.**
 - **IMS.**

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Key IMS V7 Service



The following are some key IMS V7 SYSMODS:

- **PQ44052/UQ50802(9101) - IPST macro assembly failure.**
- **PQ43076/UQ50551(9101) - Misc. source/macro part issues.**
- **PQ46628/UQ55785 and PQ49904 - SMP/E Generate Issues.**

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Thank You



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