HOLDDATA FOR IMS 9.1 PUT Level 0712

** Please read all of the HOLDDATA before acting on any of it. **

************************************************************************

Please pay close attention to the holddata for the following PTFs with action items.
UK32071 (UK16767)
UK32266 (UQ95508)

********** HOLDDATA ****************************************************

UK32054   TYPE            = PTF
STATUS          = REC
DATE/TIME REC   = 08.029  12:36:03
SOURCEID        = PUT0712   SMCCOR
SREL VER(001) = PUT0712   SMCCOR
FMID VER(001) = HMK9900
PRE VER(001) = UK00775 UK03234 UK05588 UK05627 UK08775 UK10319 UK19395 UK21110 UK22206
UK25099 UK25265 UK27489 UK28536 UQ83384 UQ83860 UQ87270 UQ87941 UQ90735
UQ91843 UQ92119 UQ94593 UQ94998 UQ95015 UQ96310 UQ97010
SUPING VER(001) = DK29839 DK37843 DK37899 DK39411 DK39827 DK43836 JK37843 UK22731 UK23079
UK25549 UK29319 UK30067
MACUPD          = PARMBLK
MOD             = DFSCPY00  DFSDLA00  DFSFXC30  DFSJVM00  DFSPCJB0  DFSPCJM0  DFSRCJM0  DFSTMS00
SRCUPD          = DFSCPY00  DFSDLA00  DFSFXC30

HOLDSYSTEM(INT) = DEP       ++ HOLD(UK32054) SYS FMID(HMK9900) REASON(DEP) DATE(07341)
COMMENT
(+-------------------------------------------------------------+
 + Hold for APAR PK37843 +
 +-------------------------------------------------------------+
 + This PTF has a software dependency on PTF UK21775 +
 + (apar PK38082) , JAVA FOR Z/OS SDK 5 SERVICE REFRESH (SR4) +
 +-------------------------------------------------------------+).

HOLDSYSTEM(INT) = DOC       ++ HOLD(UK32054) SYS FMID(HMK9900) REASON(DOC) DATE(07341)
COMMENT
(DOCUMENTATION CHANGE FOR APAR PK37843
THIS MAINTENANCE IS BEING HELD SO YOU WILL BE
AWARE OF DOCUMENTATION CHANGE TO MANUAL(S):
GC17783100
GC18782700
SC18782100
GC18782300
- 

THE FOLLOWING TEXT DESCRIBES THE DOC CHANGE:
-
-----------------------------------------------
GC17-7831
BOOK: Release Planning Guide
-----------------------------------------------

Add a couple of statements indicating the behavior change of
GU/CHKP processing for a JMP application and the removal of the
U118 abend as follows:

- If an application uses a U118 to enforce a rollback (for
  example, it detects a rollback situation and instead of driving
  the rollback just ends without doing a commit), the application
  will need to be changed to properly issue
  IMSTransaction.getTransaction().rollback Relying on the U118
  for rollback processing is not a recommended programming
  technique. This affects only JMP applications.

- If an application directly calls CHKP using the low level Java
  API, the application will now receive the next input message as
  part of CHKP processing. This affects only JMP applications.

-----------------------------------------------
GC18-7827
BOOK: Messages and Codes Volume 1
Delete abend code 0118 (ABENDU0118)

SC18-7821
BOOK: Java Guide and Reference - section
"Enterprise COBOL interoperability w/ JMP and JBP applications"

Add the following statement:

Users wishing to take advantage of transactions using IMS Java and OO COBOL executing in a Java Dependent Region and invoking legacy business logic written in COBOL can do so without changing their existing legacy COBOL applications.

Delete ALL of the following lines:

When Java is the front-end language, you must perform all message-queue and message-synchronization processing in Java.

For example, you must call both the IMSMessageQueue.getUniqueMessage method (to read messages from the queue) and the IMSTransaction.getTransaction().commit() method (to commit changes) before reading subsequent messages from the message queue or exiting the application.

Important:
Do not mix the languages that are used to read messages from the message queue or to commit resources. The IMS Java library tracks the calls that are made in Java to ensure that the syncpoint rules are followed, but it does not track calls made in COBOL.

The COBOL application must commit resources before reading subsequent messages or exiting the application. A COBOL GU call does not implicitly commit resources when the program is running in a JMP or JBP region as it does when the program is running in an MPP region.

Use D/I calls for message processing (GU and GN) and transaction synchronization (CHKP). A CHKP call in a JMP or JBP region does not automatically retrieve a message from the message queue.

Delete JVMOPWKR= description and state this parm is now obsolete and ignored if specified.

Delete DEBUG= description.

Replace the description of JVMOPMAS= with the following:

Sets the name of the member in IMS.PROCLIB that contains the JVM options for the standalone JVM for Java Dependent Regions (JBPs and JMPs). member name is a maximum of 8 uppercase characters.

This JVM options member must contain the following:

- Specify -Xoptionsfile=<HFS JVM properties file> and then specify the -Djava.class.path=<application class path> option in the options file. -Xoptionsfile allows you to specify pathnames greater than 255 characters in length on the -Djava.class.path option.
OR

- Specify `-Djava.class.path=<application class path>` directly in this member.

Specify the path name (or path names) of your IMS Java application class files. If your .class files are contained in a .jar file, the path name to the .jar file must be fully qualified, including the name of the .jar file.

Comments are supported for this options member. The comments begin with an asterisk (*) in the first column.

Each line in the options file must not be longer than 72 bytes, including the continuation mark. Use a greater-than symbol (>) at the end of the line as a continuation character.

If you do not use the `-Xoptionsfile` JVM option, path strings can be a maximum of 255 bytes in length (any characters over 255 bytes will be ignored). A path string can be one path name or several path names. If you are specifying multiple path names, separate each by a colon (:) .

The sample member, DFSJVMMS, demonstrates how to specify the JVM options for Java Dependent Regions (JBPs and JMPs)

```
=====
Add following to description of ENVIRON=:

Environment variables in the form X=Y can be specified where X is the environment variable and Y is the value of the environment variable. For example, you can specify JAVA_DUMP_OPTS=ONINTERRUPT(ALL),ONANYSIGNAL(ALL) in the member and IMS will set the environment variable "JAVA_DUMP_OPTS" to the value "ONINTERRUPT(ALL),ONANYSIGNAL(ALL)".

HOLDSYSTEM(INT) = ENH ++ HOLD(UK32054) SYS FMID(HMK9900) REASON(ENH) DATE(07341)
COMMENT
(bars continued)
APAR PK37843 adds new IMS function.
-
Function name: JDK 5.0 Support in Java Dependent Regions
-
See APAR closing text or PTF cover letter for complete details.
(bars continued)

HOLDSYSTEM(INT) = DOC ++ HOLD(UK32071) SYS FMID(HMK9900) REASON(DOC) DATE(07343)
```

UK32071 TYPE = PTF
STATUS = REC
DATE/TIME REC = 08.029 12:36:04
SOURCEID = HIPER PUT0712 SMCCOR
SREL VER(001) = P115
FMID VER(001) = HMK9900
PRE VER(001) = UK10124 UK25099 UQ83769 UQ95199
SUPING VER(001) = AK15509 DK15509 DK21786 DK23577 UK15663 UK16767
MACUPD = DFSDSG
MOD = DFSLRH00
SRCUPD = DFSLRH00

HOLDSYSTEM(INT) = ACTION ++ HOLD(UK16767) SYS FMID(HMK9900) REASON(ACTION) DATE(07343)
COMMENT
(+ bars continued)
+ HOLD FOR APAR PK23577 +
+ TO FIX THE PROBLEM REPORTED BY THIS APAR, THIS FIX HAS TO BE +
+ INSTALLED ON ALL DATA SHARING IMS SYSTEMS. FOR ANY IMS +
+ VERSION 8 SYSTEMS, THE CORRESPONDING APAR IS PK27902. THIS +
+ FIX DOES NOT NEED TO BE APPLIED TO ALL SYSTEMS SIMULTANEOUSLY+
+ bars continued)

HOLDSYSTEM(INT) = DOC ++ HOLD(UK32071) SYS FMID(HMK9900) REASON(DOC) DATE(07343)
The text in this section needs to be changed to the following:

IN A NON DATA SHARING ENVIRONMENT USING PI LOCKING:

IF YOU USE THE Q COMMAND CODE ON A ROOT SEGMENT, OTHER
PROGRAMS IN WHICH THE PCB DOES NOT HAVE UPDATE CAPABILITY CAN
ACCESS THE DATABASE RECORD. PROGRAMS IN WHICH THE PCB HAS
UPDATE CAPABILITY CANNOT ACCESS ANY OF THE SEGMENTS IN THAT
DATABASE RECORD. IF YOU USE THE Q COMMAND CODE ON A DEPENDENT
SEGMENT, OTHER PROGRAMS CAN READ THE SEGMENT USING ONE OF THE
GET CALLS WITHOUT THE HOLD. THE Q COMMAND CODE DOES NOT HOLD
SEGMENTS FROM ONE STEP OF A CONVERSATION TO ANOTHER.

IN A DATA SHARING ENVIRONMENT USING IRLM LOCKING:

IF YOU USE THE Q COMMAND CODE ON EITHER A ROOT OR DEPENDENT
SEGMENT, OTHER PROGRAMS IN WHICH THE PCB DOES NOT HAVE UPDATE
CAPABILITY CAN ACCESS THE DATABASE RECORD. PROGRAMS IN WHICH
THE PCB HAS UPDATE CAPABILITY CANNOT ACCESS ANY OF THE
SEGMENTS IN THAT DATABASE RECORD.

UK32072  TYPE       = PTF
STATUS     = REC
DATE/TIME REC = 08.029  12:36:04
SOURCEID   = HIPER     PUT0712   SMCCOR
SREL  VER(001) = P115
FMID  VER(001) = JMK9901
PRE  VER(001) = UK24282 UK27490 UQ86097 UQ94594
REQ  VER(001) = UK29673 UK32071
SUPING VER(001) = AK15509 AK48815 AK49955 AK50590 AK54135 DK15509 DK50590 UK27795 UK28788
       UK29674 UK30369
MOD       = DFSDLR00
SRCUPD    = DFSDLR00
HOLDSYSTEM(INT) = DOC       ++ HOLD(UK32072) SYS FMID(JMK9901) REASON(DOC) DATE(07343)

COMMENT
(DOCUMENTATION CHANGE FOR APAR PK15509
THIS MAINTENANCE IS BEING HELD SO YOU WILL BE
AWARE OF DOCUMENTATION CHANGE TO MANUAL(S):
SC18780900

THE FOLLOWING TEXT DESCRIBES THE DOC CHANGE:

Required Documentation Change:

Manual: Application Programming: Database Manager
SC18-7809-00
Section: Chapter 10 Command Code Reference
- General Command Codes for DL/I Calls
- Q Command Code
- Considerations For Root and Dependent Segments
  (Full Function Only)

The text in this section needs to be changed to the following:

IN A NON DATA SHARING ENVIRONMENT USING PI LOCKING:

IF YOU USE THE Q COMMAND CODE ON A ROOT SEGMENT, OTHER PROGRAMS IN WHICH THE PCB DOES NOT HAVE UPDATE CAPABILITY CAN ACCESS THE DATABASE RECORD. PROGRAMS IN WHICH THE PCB HAS UPDATE CAPABILITY CANNOT ACCESS ANY OF THE SEGMENTS IN THAT DATABASE RECORD. IF YOU USE THE Q COMMAND CODE ON A DEPENDENT SEGMENT, OTHER PROGRAMS CAN READ THE SEGMENT USING ONE OF THE GET CALLS WITHOUT THE HOLD. THE Q COMMAND CODE DOES NOT HOLD SEGMENTS FROM ONE STEP OF A CONVERSATION TO ANOTHER.

IN A DATA SHARING ENVIRONMENT USING IRLM LOCKING:

IF YOU USE THE Q COMMAND CODE ON EITHER A ROOT OR DEPENDENT SEGMENT, OTHER PROGRAMS IN WHICH THE PCB DOES NOT HAVE UPDATE CAPABILITY CAN ACCESS THE DATABASE RECORD. PROGRAMS IN WHICH THE PCB HAS UPDATE CAPABILITY CANNOT ACCESS ANY OF THE SEGMENTS IN THAT DATABASE RECORD.

UK32259 TYPE = PTF
STATUS = REC
DATE/TIME REC = 08.029 12:36:06
SOURCEID = PUT0712 SMCCOR
SREL VER(001) = P115
FMID VER(001) = HMK9900
PRE VER(001) = UK00539 UK05612 UK06465 UK09301 UK10128 UK12563 UK13803 UK15838 UK16546
UK16566 UK18490 UK19243 UK19292 UK19339 UK23065 UK23438 UK27460 UK27489
UQ83168 UQ85969 UQ86204 UQ87046 UQ87864 UQ89585 UQ89992 UQ91187 UQ91195
UQ91230 UQ91504 UQ93063 UQ93745 UQ94415 UQ94593 UQ97017
SUPING VER(001) = DK36909 DK48440 DQ87521 UK28324 UQ89603
MAC = DFSORSTT
MACUPD = DFSBRLSB DFSBRLSC DFSOLRW DSPAQHP DSPDBHRC
MOD = DFSORP00 DFSORP10 DFSORP20 DFSORP30 DFSORP60 DSPAPQ22 DSPCRTR0 DSPKWTL DSPOLRSO
DSPTRAC1 DSPUCLAO DSPURCM8 DSPURCM9 DSPURL2 DSPURLC0 DSPURLGR DSPURL00 DSPURM10
DSPURN00 DSPURPDB DSPURPHI DSPURT20
HOLDSYSTEM(INT) = DOC ++ HOLD(UK28324) SYS FMID(HMK9900) REASON(DOC) DATE(07351)
COMMENT
(DOCUMENTATION CHANGE FOR APAR PK48440
THIS MAINTENANCE IS BEING HELD SO YOU WILL BE AWARE OF DOCUMENTATION CHANGE TO MANUAL(S):
ZES1234100
- THE FOLLOWING TEXT DESCRIBES THE DOC CHANGE:
- The DBRC Guide and Reference manual (ZES1-2341-00) has been changed as follows:

In Appendix B. Sample Listing of RECONs,
  Figure 70. Sample Listing of a RECON at the Active Site - DB (HALDB and PART) and Related Records
  (Part 1 of 10),
change the example of the TYPE=HALDB listing to the following:
(note: Some lines have been modified to fit in this document.
This is only to illustrate the new placement of DBRCVGRP)

DB
DBD=HBHDOJ01 DMB#=1 CHANGE#=4 TYPE=HALDB
SHARE LEVEL=3 GSGNAME=**NULL**
change all examples of the TYPE=PART listings to the following:
(note: Some lines have been modified to fit in this document.
This is only to illustrate the removal of DBRCVGRP)

DB
DBD=HDHDOJA MASTER DB=HBHDOJ01 IRLMID=*NULL CHANGE#=1 TYPE=PART
USID=00000000001 AUTHORIZED USID=0000000000 HARD USID=00000000
RECEIVE USID=0000000000 RECEIVE NEEDED USID=0000000000
DSN PREFIX=IMSTESTL.HBHDOJ01 PARTITION ID=00001
PREVIOUS PARTITION=**NULL** NEXT PARTITION=HDHDOJB
OLRIMSID=**NULL** ACTIVE DBDS=A-J
REORG#=00000

In Appendix 1.2.4.13 Fields Present in a DB (PART) Record, move the reference to DBRCVGRP to
Appendix 1.2.4.12 Fields Present in a DB (HALDB) Record
and change the reference to “partition” to “HALDB Master DB”.

HOLDSYSTEM(INT) = DOC ++ HOLD(UK32259) SYS FMID(HMK9900) REASON(DOC) DATE(07351)
COMMENT
(DOCUMENTATION CHANGE FOR APAR PK36909
THIS MAINTENANCE IS BEING HELD SO YOU WILL BE AWARE OF DOCUMENTATION CHANGE TO MANUAL(S):

- IMS V9 Command Reference(SC18-7814)
IMS V9 DBRC Guide and Reference(SC18-7818)
IMS V9 Messages and Codes, Volume 1(GC18-7827)
THE FOLLOWING TEXT DESCRIBES THE DOC CHANGE:

- IMS V9 Command Reference(SC18-7814)

In the /DIS DATABASE command section, add the following:
Note:
The Display DB OLR command can be issued to obtain the number of BYTES moved for an OLR that has been stopped for some reason such as a TERM OLR command or a user abend. The data associated with the terminated OLR will be maintained and provided under any of the following conditions:
1. TERM OLR command is issued
2. Abnormal OLR termination occurs (i.e., DFS2971W message is issued)
3. IMS is normally shut down. Note: the stats will not be available via the /DIS DB OLR command until the OLR is resumed but can be obtained via the LIST.DB or LIST.RECON commands.

IMS V9 DBRC Guide and Reference(SC18-7818)
The CHANGE.DB command is updated to include the new parameters OLRROOTS, OLRBYTES, OLRSEGS.
The RECON listing output is updated to include the new fields in the database record.
IMS V9 DBRC Application Programming Interface (API) Reference (SC18-7818) is updated to include the new fields,
apqhp_OLRBytes DIS CL8 OLR Bytes moved
apqhp_OLRSegs DIS CL8 OLR Segments moved
apqhp_OLRRoots DIS CL4 OLR Root Segments
in DSECT DSPAPQHP on the QUERY call.
### Table 9 - Parameter Definitions for HALDB Partition and Master

<table>
<thead>
<tr>
<th>CHANGE.DB</th>
<th>TYPE=HALDB</th>
<th>TYPE=PART</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OLRBYTES</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OLRSEGS</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OLRROOTS</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**ims V9 Messages and Codes, Volume 1 (GC18-7827)**

DSP0222I - New parameters not allowed with ALL, UNAUTH, OLRCAP|OLRNOCAP
DSP0204I - Invalid values for OLRBYTES, OLRSEGS, OLRROOTS
DSP0195I - Keywords not allowed for HALDBs
DSP0224I - Keyword not allowed for partition database that is not allowed to run OLR (OLRNOCAP)).

### HOLDSYSTEM(int) = ENH ++ HOLD(UK32259) SYS FMID(HMK9900) REASON(ENH) DATE(07351)

**COMMENT**

 APAR PK36909 adds new IMS function.
 - Function name: HALDB integrated Online Reorganization Enhancement to store bytes moved, segments moved and roots moved in the RECON across TERM/INIT OLR.
 - See APAR closing text or PTF cover letter for complete details.

### HOLDSYSTEM(int) = MULTSYS ++ HOLD(UK32259) SYS FMID(HMK9900) REASON(MULTSYS) DATE(07351)

**COMMENT**

 APAR PK36909

 The application of this APAR does not require a SYSPLEX outage but it needs to be applied on all members of the SYSPLEX to function properly.
 For example: If the enhancement was applied to IMSA but not on IMSB and OLR was started and then stopped, with the TERM OLRERG command, on IMSA and then resumed on IMSB. The ONLINE OLRERG statistics in the RECON would only reflect the time the OLR was running in IMSA and would not be updated during the time the OLR was running in IMSB.

### UK32260 TYPE = PTF

**STATUS = REC**

**DATE/TIME REC = 08.029 12:36:07**

**SOURCEID = PUT0712 SMCCOR**

**SREL VER(001) = P115**

**FMID VER(001) = JMK9901**

**REQ VER(001) = UK08321 UK12061 UK13307 UK19972 UK32354 UQ97159**

**SUPING VER(001) = AK07952 AK10927 AK13433 AK17922 AK19393 AK20449 AK22622 AK24278 AK26248 AK28824 AK39443 AK43203 AQ090272 AQ090957 AQ96976 AQ97337 DK10927 DK13433 DK17922 DK22622 DK28824 DK43203 DQ90272 UK08322 UK08938 UK12062 UK13308 UK13649 UK14674 UK15326 UK15545 UK16397 UK26133 UQ93587 UQ96029 UQ96328 UQ97160 VK22622**

**MOD = DFSDBDR0**

**SRCUPD = DFSDBDR0**

**HOLDSYSTEM(int) = AO ++ HOLD(UK32260) SYS FMID(JMK9901) REASON(AO) DATE(07351)**

**COMMENT**

 APAR PK43203 changes an output line for a /DISPLAY command.
 - Command: /DISPLAY
The DISPLAY FIDs D18 and D77 are modified as follows:
- Change to have single spacing between columns
- Move status to FID D19 and D78
- Add SEGS, ROOTS and STARTTIME columns
The DISPLAY FIDs D19 and D78 are added with this APAR.

Any user exits or non-IBM vendor software which is sensitive to this message may need to be changed.

See APAR closing text or PTF cover letter for complete details.

*********************************************************

HOLDSYSTEM(INT) = DOC       ++ HOLD(UK32260) SYS FMID(JMK9901) REASON(DOC) DATE(07351)
COMMENT
(DOCUMENTATION CHANGE FOR APAR PK43203
THIS MAINTENANCE IS BEING HELD SO YOU WILL BE AWARE OF DOCUMENTATION CHANGE TO MANUAL(S):

THE FOLLOWING TEXT DESCRIBES THE DOC CHANGE:

The IMS V9 Command Reference (SC18-7814) will be updated with the following:

/DISPLAY DB
----------
The IMS Command reference requires the following changes for the
/DISPLAY DATABASE command specifically for /DISPLAY DB OLR command.

1. Delete the following paragraph:
   A /DISPLAY DB OLR command returns the number of bytes that have been moved to the output data set while the HALDB OLR was running continuously. If this HALDB OLR was terminated and resumed, the value of the BYTES reflects only the number of bytes moved to the output data set since the subsequent INITIATE OLREORG command. The number of bytes move before the TERMINATE OLREORG command was entered is not included in the output of a QUERY OLREORG command that was issued after the resumption of the HALDB OLR.

2. Modify the preceding paragraph as follows:
The /DISPLAY DB OLR command displays the status of a specified partition locally, that is, the status is only from the IMS where the command was issued.
/DISPLAY DB OLR returns OLR information and status of all partitions that have HALDB Online Reorganization (OLR) cursor-active status. The following information is returned:
   RATE - the rate at which the HALDB OLR is running, from 1 to 100
   BYTES - the total number of bytes moved to the output data sets
   SEGMENT - the total number of segments moved to the output data sets
   ROOTS - the total number of roots moved to the output data sets
   STARTTIME - the local time the OLR was first started
   STATUS - HALDB OLR status. One or more of the following statuses are returned:
   RUNNING - OLR is running
   WAITLOCK - OLR is waiting for a lock
   WAITRATE - OLR is waiting due to the intentional delay because a value of less than 100 was specified on the RATE parameter.
   OPTDEL - Output data sets will be deleted at end of OLR
   OPTNODEL - Output data sets will not be deleted at end of OLR
   RESUMED - OLR is resumed at this IMS after being
stopped for some reason such as a TERM OLREORG command or a user abend.

NOTOWNED - OLR is NOTOWNED by this IMS

Note:
The Display DB OLR command can be issued to obtain the above information for an OLR that has been stopped for some reason such as a TERM OLREORG command or a user abend. The data associated with the terminated OLR will be maintained and provided under any of the following conditions:
1. TERM OLR command is issued
2. Abnormal OLR termination occurs (i.e., DFS2971W message is issued)
3. IMS is normally shut down. Note: the stats will not be available via the /DIS DB OLR command until the OLR is resumed but can be obtained via the LIST.DB or LIST.RECON commands.

3. Replace Example 9 with below:
Entry ET:

/DIS DB OLR

>>Response ET:

<table>
<thead>
<tr>
<th>DATABASE PART</th>
<th>RATE</th>
<th>BYTES</th>
<th>SEG</th>
<th>ROOTS</th>
<th>STARTTIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBHDOJ01</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>07295/143354</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WAITRATE, OPTNODEL</td>
</tr>
<tr>
<td>DBHDOJ01</td>
<td>1</td>
<td>3330</td>
<td>17</td>
<td>1</td>
<td>07295/143354</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WAITRATE, OPTDEL</td>
</tr>
<tr>
<td>DBHDOJ01</td>
<td>1</td>
<td>1400</td>
<td>5</td>
<td>2</td>
<td>07295/143354</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WAITLOCK, OPTNODEL <em>07295/143358</em></td>
</tr>
</tbody>
</table>

<<

Explanation: Issue the /DIS DB OLR command to obtain information about all HALDB online reorganizations that are running in cursor-active status. The following information is returned:

* Master database name
* Partition name
* OLR rate
* Number of bytes moved
* Number of segments moved
* Number of roots moved
* Start time of the OLR when it was first started
* Status of the OLRs in progress
* OLR inactive data set option
* Date/Time stamp when the command was processed

Note: For partitions in NOTOWNED status, if the OLR statistics information is not available, only the Master database name, Partition name, and Status are displayed.

QUERY OLREORG command changes
---------------------------------
The IMS Command reference requires the following changes for QUERY OLREORG command.

1. Add the following new parameters to the SHOW keyword in syntax diagram: ROOTS, SEGMENTS, STARTTIME, OPTION

2. Add following new parameters to the STATUS keyword in syntax diagram: RESUMED, WAITRATE, WAITLOCK
3. Add or Modify the following under SHOW keyword description:

BYTES
Returns the total number of bytes that have been moved to the output data set.

SEGMENTS
Returns the total number of segments that have been moved to the output data set.

ROOTS
Returns the total number of roots that have been moved to the output data set.

OPTION
Returns the current OPTION.

DEL - The output data sets will be deleted at the end of OLR
NODEL - The output data sets will not be deleted at the end of OLR

RESUMED
Identifies if the OLR was resumed after being stopped for some reason such as a TERM OLREORG command or a user abend.

Y - OLR was resumed

STARTTIME
Returns the local time when OLR has started

4. Add or Modify following under STATUS:

RESUMED : OLR is resumed after being stopped for some reason such as a TERM OLREORG command or a user abend.

WAITRATE : OLR is waiting due to the intentional delay because a value of less than 100 was specified on the RATE parameter.

WAITLOCK : OLR is waiting for a lock

5. Add|Modify Table 129. Output Fields of QUERY OLREORG:

<table>
<thead>
<tr>
<th>ShortLabel</th>
<th>ShowKeyWORD</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATE</td>
<td>RATE, ALL</td>
<td>The speed at which HALDB OLR runs. A value of 1 to 100 percent.</td>
</tr>
<tr>
<td>BYTES</td>
<td>BYTES, ALL</td>
<td>Total number of bytes moved</td>
</tr>
<tr>
<td>SEGMENTS</td>
<td>SEGMENTS, ALL</td>
<td>Total number of segments moved</td>
</tr>
<tr>
<td>ROOTS</td>
<td>ROOTS, ALL</td>
<td>Total number of roots moved</td>
</tr>
<tr>
<td>OPT</td>
<td>OPTION, ALL</td>
<td>Option specified on INIT</td>
</tr>
<tr>
<td>RESM</td>
<td>n/a</td>
<td>RESUMED status if HALDB OLR is resumed</td>
</tr>
<tr>
<td>STRTT</td>
<td>STARTTIME, ALL</td>
<td>OLR StartTime</td>
</tr>
</tbody>
</table>

6. Completion codes:
Add the following completion code to QRY OLREORG command completion code table:

<table>
<thead>
<tr>
<th>CompletionCode</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF</td>
<td>The OLR workarea is not available. The OLR statistics information is not returned.</td>
</tr>
</tbody>
</table>

7. Replace the example with below:

TSO SPOC input:
QRY OLREORG NAME(*) SHOW(ALL)

TSO SPOC output:
Partition MbrName   CC LclStat Rate Bytes-Moved Segs-Moved...
POHIDKA IMS1 0 RUNNING 100  15678  97...
PVHDJ5A IMS1 0 RUNNING 100  4630  29...

... Roots-Moved Option Resumed StartTime
... 11 NODEL Y 2007.296 10:20:21.61
...  5 DEL 2007.296 10:20:21.84

OM API input:
CMD (QRY OLREORG NAME(*) SHOW(ALL))

OM API output:
8. Add the following note:

Note:
The QRY OLREORG command can be issued to obtain OLR statistics for an OLR that has been stopped for some reason such as a TERM.
OLREORG command or a user abend. The data associated with the
terminated OLR will be maintained and provided under any of the
following conditions:
1. TERM OLR command is issued
2. Abnormal OLR termination occurs (i.e., DFS2971W message
is issued)
3. IMS is normally shut down. Note: the stats will not be
available via the QRY OLREORG command until the OLR is
resumed but can be obtained via the LIST.DB or
LIST.RECON commands.

The IMS V9 DBRC Guide and Reference (SC18-7818) is updated
to list the new field in the OLR record as the last line of
the record.

TOTAL NUMBER OF RAPS PROCESSED = value (if not zero-PHDAM)
or
TOTAL NUMBER OF ROOTS TO PROCESS = value (if not zero-PHIDAM)

The DBRC Application Programming Interface (API) will return the
new fields on the QUERY call. DSECT DSPAPQRR is changed to
reflect the new fields.

DSECT of DSPAPQRR -- new additions

|   60 | (3C) UNSIGNED | 4 | APQHP_PRAPs |
|   64 | (40) UNSIGNED | 4 | APQHP_Roots |

The Diagnosis Guide and Reference (LY37-3203) will be updated
with the following:

Add the following to Table 6. Table of Control Block
Definitions:

<table>
<thead>
<tr>
<th>PDEX</th>
<th>DFSDDIR</th>
<th>PARTITION DIRECTORY EXTENSION</th>
</tr>
</thead>
</table>

The Release Planning Guide (GC17-7831) will be updated
with the following:

The OLR Display (/DISPLAY DB OLR) and Query (QRY OLREORG)
commands have been enhanced in APARs PK36909 and PK43203 to
provide additional data for tracking the progress of a HALDB
integrated Online Reorganization.

After the application of these APARs all the OLR statistics data
(e.g., bytes moved, segments moved, and roots moved) can be
obtained by the LIST.DB or LIST.RECON commands even after OLR
processing has been stopped with a TERM OLREORG command.

The /DIS DB OLR and QRY OLREORG commands are enhanced to display
the following OLR related data:

Three new status conditions have been added:
RESUMED - This OLR has been resumed after being stopped for
 some reason such as a TERM OLREORG command or a user
abend.
WAITRATE - This OLR is in a wait state due to a rate value of
less than 100 being specified.
WAITLOCK - This OLR is waiting for a segment lock that is held
by a concurrently running application.

Four new SHOW options have been added:
ROOTS - Number of Roots moved
SEGMENTS - number of Segments moved
START TIME - local start time of the OLR
OPTION - DEL/NODEL option that was specified on the INIT
OLREORG command).
HOLDSYSTEM(INT) = ENH ++ HOLD(UK32260) SYS FMID(JMK9901) REASON(ENH) DATE(07351)
COMMENT
**********************************************************
APAR PK43203 adds new IMS function.
- Function name: /DISPLAY DB OLR and QUERY OLREORG commands.
- See APAR closing text or PTF cover letter for complete details.
**********************************************************

HOLDSYSTEM(INT) = MULTSYS ++ HOLD(UK32260) SYS FMID(JMK9901) REASON(MULTSYS) DATE(07351)
COMMENT
**********************************************************
APAR PK43203
The application of this APAR does not require a SYSPLEX outage but it needs to be applied on all members of the SYSPLEX to function properly.
For example: If the enhancement was applied to IMSA but not on IMSB and OLR was started and then stopped, with the TERM OLREORG command, on IMSA and then resumed on IMSB. A QRY OLREORG with SHOW(ALL) that was routed to all the members of the SYSPLEX or to a member in the SYSPLEX without the enhancement, would not display any of the new SHOW keywords, just RATE and BYTES. If the QRY is routed to a member in the SYSPLEX where the enhancement is applied then the new SHOW keywords are displayed.
**********************************************************

UK32266 TYPE = PTF
STATUS = REC
DATE/TIME REC = 08.029  12:36:07
SOURCEID = PUT0712   SMCCOR
SREL   VER(001) = P115
FMID   VER(001) = HMK9900
PRE    VER(001) = UK02435   UK03138   UK22010   UK26804   UK27917   UK28536   UK28540   UQ83584   UQ85967   UQ86252   UQ86681   UQ87517   UQ89285   UQ90081   UQ90538   UQ91510   UQ91804   UQ95029
SUPING VER(001) = DK25691   DK35133   DK53423   DQ82559   DQ88479   DQ96964   UK15950   UK20900   UQ83516   UQ95508
MACUPD          = DFSDCCB
MOD             = DFSCBDL0  DFSCIO30  DFSIIDC0  DFSRCP30  DFSRMD00  DFSSLGF0  DFSWDCDF  DFSWDCH9
SRCUPD          = DFSCBDL0  DFSRCP30

HOLDSYSTEM(INT) = ACTION ++ HOLD(UQ95508) SYS FMID(HMK9900) REASON(ACTION) DATE(07347)
COMMENT
(+--------------------------------------------------------------+
+ Hold for APAR PQ96964                                        +
+ This APAR correctly resets full function response mode as +
+ documented in the IMS Release Planning Guide under "Full +
+ Function Response Mode". (GC27-1305-01) +
+ Full Function response mode is no longer recoverable +
+ following a session outage. +
+--------------------------------------------------------------+).

HOLDSYSTEM(INT) = DOC ++ HOLD(UK32266) SYS FMID(HMK9900) REASON(DOC) DATE(07347)
COMMENT
DOCUMENTATION CHANGE FOR APAR PK53423
THIS MAINTENANCE IS BEING HELD SO YOU WILL BE AWARE OF DOCUMENTATION CHANGE TO MANUAL(S):
-
THE FOLLOWING TEXT DESCRIBES THE DOC CHANGE:
-
Administration Guide: Transaction Manager
-------------------------------------------------------------
Several changes are made to this manual.
RCVYRRESP=YES is added to the list of end-user significant
status options, which include RCVYCONV, RCVYFP, and RCVYSTSN. References to full-function response mode are changed to reflect that it is now recoverable following terminal logoff and user signoff when the RCVYRESP=YES option is specified.

In summary, changes are made to the following chapters:

- Chapter 2: Planning the Network
  section 'Resource Modes and States'
- Chapter 6: Planning for Generic Resource Groups
  section 'Terminating Affinities That Persist'
  section 'Resetting Terminal Status'
- Chapter 9: Administering the Extended Terminal Option
  section 'Improving Performance by Deleting ETO Control Blocks'
  section 'Conversation Mode and Response Mode with ETO'

Command Reference
-----------------
- /CLSDST

In 'Usage', delete 'response mode' from the following:

'/CLSDST resets preset mode, test mode, response mode, lock node,...'

In 'Usage', add the following after the RCVYFP=NO paragraph:

RCVYRESP=NO
/CLSDST resets full-function response mode.

/QUIESCE

In 'Usage', the changes are the same as detailed above for /CLSDST.

/RCLSDST

In 'Usage', the changes are the same as detailed above for /CLSDST.

/SIGN OFF

In 'Usage', under the description of the keyword 'OFF', the changes are the same as detailed above for /CLSDST.

/START

In the description of the keyword 'NODE', delete 'response mode' from the following:

'/START NODE no longer resets response mode, test mode,...'

In the description of the keyword 'USER', delete 'response mode' from the following:

'/START NODE no longer resets response mode, test mode,...'

/STOP

In the description of the keyword 'NODE', the changes are the same as detailed above for /CLSDST.

In the description of the keyword 'USER', the changes are the same as detailed above for /CLSDST.
In the chapter titled 'Tailoring the IMS System to Your Environment', in the section titled 'DFSDCxxx',
add the following keyword and description:

RCVYRESP=

Specifies whether the status of full-function response mode can be recovered (YES) or not (NO). RCVYRESP applies to full-function response mode status, not to output messages. Even if full-function response mode status is not recovered, response mode output continues to be recoverable and is delivered asynchronously.

The following table describes the default values for RCVYRESP as they relate to the values specified on the SRMDEF keyword.

<table>
<thead>
<tr>
<th>RCVYRESP=YES</th>
<th>RCVYRESP=NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMDEF=GLOBAL</td>
<td>Invalid</td>
</tr>
<tr>
<td>SRMDEF=LOCAL</td>
<td>Valid</td>
</tr>
<tr>
<td>SRMDEF=NONE</td>
<td>Valid (*)</td>
</tr>
</tbody>
</table>

(*) - RCVYRESP=YES may be specified with SRMDEF=NONE. However, only those terminals or users that are assigned SRM=LOCAL as an override to SRMDEF=NONE (via user descriptor or user exit) are eligible to recover full-function response mode. All other terminals and users will use RCVYRESP=NO.

Restrictions:

- RCVYRESP=YES is invalid when IMS is using an RM resource structure for maintaining TM resources (STM=YES in DFSDCxxx PROCLIB member).
- RCVYRESP=YES applies only to terminals or users that have a status recovery mode of LOCAL. If a terminal or user has a status recovery mode of GLOBAL or NONE, then the terminal or user will automatically be assigned RCVYRESP=NO.
- Full-function response mode is not recovered following an IMS shutdown or failure. After an IMS cold start, warm start, or emergency restart, the node or user will no longer be in full-function response mode.
- Full-function response mode is recovered following an XRF takeover for class-1 terminals only.
- The RCVYRESP value specified cannot be overridden for individual nodes or users. There is no support to override this value in ETO user descriptors, the user logon exit (DFSLGNX0), or the user signon exit (DFSSGNX0). Therefore, RCVYRESP=YES automatically applies to all terminals and users with a LOCAL status recovery mode.
- If RCVYRESP is specified incorrectly, message DFS1920I is issued and IMS will use the appropriate default from the table.
Release Planning Guide

In the chapter titled 'Overview of IMS Version 9 Enhancements', section titled 'IMS Transaction Manager Enhancements', add a new subsection that describes the new function:

**Full-Function Response Mode Recovery**

A new option is introduced that allows an installation to decide whether or not full-function response mode is to be recovered following a session termination or a user signoff.

This option is only supported in an IMS system that does not use an RM resource structure for TM resources (STM=NO is specified in the DFSDCxxx PROCLIB member).

You specify this option with the RCVYRESP keyword in the DFSDCxxx PROCLIB member. RCVYRESP=NO (full-function response mode is not recovered) is the default.

```
HOLDSYSTEM(INT) = ENH ++ HOLD(UK32266) SYS FMID(HMK9900) REASON(ENH) DATE(07347)
COMMENT
(* *********************************************************
APAR PK53423 ADDS NEW IMS FUNCTION.
- FUNCTION NAME: Full-Function Response Mode Recovery
- SEE APAR CLOSING TEXT OR PTF COVER LETTER FOR COMPLETE DETAILS.
*********************************************************)
```

```
UK32354 TYPE = PTF
STATUS = REC
DATE/TIME REC = 08.029 12:36:10
SOURCEID = PUT0712  SMCCOR
SREL VER(001) = P115
FMID VER(001) = HMK9900
PRE VER(001) = UK00896 UK06465 UK08103 UK08318 UK08766 UK09301 UK10128 UK11634 UK12016
           UK12563 UK13803 UK15129 UK16546 UK16656 UK19243 UK19292 UK19339 UK23065
           UK23438 UK25099 UK26394 UK27460 UK27489 UK29692 UK31320 UK32259 UQ85969
           UQ86139 UQ86977 UQ87046 UQ87355 UQ87506 UQ87864 UQ88167 UQ88191 UQ88396
           UQ89585 UQ89765 UQ89992 UQ90541 UQ91195 UQ91230 UQ91447 UQ91995 UQ93745
           UQ94066 UQ94415 UQ94593 UQ94746 UQ95984 UQ97139
SUPING VER(001) = AK43203 DK37439 DK43203 DK48556 DK50131 UK22034 UK27502 UK28601
MAC = DFSORSTT
MACUPD = DFSBCBPI DFSGBT00 DFSCMDDR DFSOLRW DISPLAY DSPAPQRR DSPRRGRC
MOD = DFSGBT10 DFSGBT20 DFSGBT30 DFSGBT40 DFSGBT50 DFSIDP50 DFSNOTB0 DFSODB10 DFSORC00
      DFSORP00 DFSORP10 DFSORP20 DFSORP60 DFSPSM10 DFSRDBL0 DSPAPQ21 DSPOLRSO DSPURLB3
SRCUPD = DFSGBT10 DFSGBT20 DFSGBT30 DFSGBT40 DFSGBT50 DFSIDP50 DFSNOTB0 DFSRDBL0
HOLDSYSTEM(INT) = AO ++ HOLD(UK32354) SYS FMID(HMK9900) REASON(AO) DATE(07351)
COMMENT
(* *********************************************************
APAR PK43203 changes an output line for a /DISPLAY command.
- Command: /DISPLAY
The /DISPLAY FIDs D18 and D77 are modified as follows:
- Change to have single spacing between columns
- Move status to FID D19 and D78
- Add SEGS, ROOTS and STARTTIME columns
The /DISPLAY FIDs D19 and D78 are added with this APAR.
- Any user exits or non-IBM vendor software which is sensitive to this message may need to be changed.
- See APAR closing text or PTF cover letter for complete details.
*********************************************************)
```
The IMS Command reference requires the following changes for the /DISPLAY DATABASE command specifically for /DISPLAY DB OLR command.

1. Delete the following paragraph:
A /DISPLAY DB OLR command returns the number of bytes that have been moved to the output data set while the HALDB OLR was running continuously. If this HALDB OLR was terminated and resumed, the value of the BYTES reflects only the number of bytes moved to the output data set since the subsequent INITIATE OLREORG command. The number of bytes move before the TERMINATE OLREORG command was entered is not included in the output of a QUERY OLREORG command that was issued after the resumption of the HALDB OLR.

2. Modify the preceding paragraph as follows:
The /DISPLAY DB OLR command displays the status of a specified partition locally, that is, the status is only from the IMS where the command was issued.
/DISPLAY DB OLR returns OLR information and status of all partitions that have HALDB Online Reorganization (OLR) cursor-active status. The following information is returned:

   RATE  - the rate at which the HALDB OLR is running, from 1 to 100
   BYTES - the total number of bytes moved to the output data sets
   SEGMENT - the total number of segments moved to the output data sets
   ROOTS  - the total number of roots moved to the output data sets
   STARTTIME - the local time the OLR was first started
   STATUS  - HALDB OLR status. One or more of the following statuses are returned:
              RUNNING - OLR is running
              WAITLOCK - OLR is waiting for a lock
              WAITRATE - OLR is waiting due to the intentional delay because a value of less than 100 was specified on the RATE parameter.
              OPTDEL   - Output data sets will be deleted at end of OLR
              OPTNODEL - Output data sets will not be deleted at end of OLR
              RESUMED  - OLR is resumed at this IMS after being stopped for some reason such as a TERM OLREORG command or a user abend.
              NOTOWNED - OLR is NOTOWNED by this IMS

Note:
The Display DB OLR command can be issued to obtain the above information for an OLR that has been stopped for some reason such as a TERM OLREORG command or a user abend. The data associated with the terminated OLR will be maintained and provided under any of the following conditions:
1. TERM OLR command is issued
2. Abnormal OLR termination occurs (i.e., DFS2971W message
is issued)

3. IMS is normally shut down. Note: the stats will not be available via the /DIS DB OLR command until the OLR is resumed but can be obtained via the LIST.DB or LIST.RECON commands.

3. Replace Example 9 with below:
Entry ET:

/DIS DB OLR

>>Response ET:

>> DATABASE PART RATE BYTES SEGS ROOTS STARTTIME
STATUS
DBHDOJ01 PDHDOJB 1 0 0 0 07295/143354
WAITRATE, OPTNODEL
DBHDOJ01 PDHDOJA 1 3330 17 1 07295/143354
WAITRATE, OPTDEL
DBHDOJ01 PDHDOJC 1 1400 5 2 07295/143354
WAITLOCK, OPTNODEL
*07295/143358*
<<

Explanation: Issue the /DIS DB OLR command to obtain information about all HALDB online reorganizations that are running in cursor-active status. The following information is returned:

* Master database name
* Partition name
* OLR rate
* Number of bytes moved
* Number of segments moved
* Number of roots moved
* Start time of the OLR when it was first started
* Status of the OLRs in progress
* OLR inactive data set option
* Date/Time stamp when the command was processed

>>

Note: For partitions in NOTOWNED status, if the OLR statistics information is not available, only the Master database name, Partition name, and Status are displayed.

QUERY OLREORG command changes

The IMS Command reference requires the following changes for QUERY OLREORG command.

1. Add the following new parameters to the SHOW keyword in syntax diagram: ROOTS, SEGMENTS, STARTTIME, OPTION

2. Add following new parameters to the STATUS keyword in syntax diagram: RESUMED, WAITRATE, WAITLOCK

3. Add or Modify the following under SHOW keyword description:
   BYTES
   Returns the total number of bytes that have been moved to the output data set.
   SEGMENTS
   Returns the total number of segments that have been moved to the output data set.
   ROOTS
   Returns the total number of roots that have been moved to the output data set.
   OPTION
Returns the current OPTION.
DEL - The output data sets will be deleted at the end of OLR
NODEL - The output data sets will not be deleted at the end of OLR
RESUMED
Identifies if the OLR was resumed after being stopped for some reason such as a TERM OLREORG command or a user abend.
Y - OLR was resumed
STARTTIME
Returns the local time when OLR has started

4. Add or Modify following under STATUS:
RESUMED : OLR is resumed after being stopped for some reason such as a TERM OLREORG command or a user abend.
WAITRATE : OLR is waiting due to the intentional delay because a value of less than 100 was specified on the RATE parameter.
WAITLOCK : OLR is waiting for a lock

5. Add|Modify Table 129. Output Fields of QUERY OLREORG:

<table>
<thead>
<tr>
<th>ShortLabel</th>
<th>ShowKeyword</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATE</td>
<td>RATE, ALL</td>
<td>The speed at which HALDB OLR runs. A value of 1 to 100 percent.</td>
</tr>
<tr>
<td>BYTES</td>
<td>BYTES, ALL</td>
<td>Total number of bytes moved</td>
</tr>
<tr>
<td>SEG5</td>
<td>SEGMENTS, ALL</td>
<td>Total number of segments moved</td>
</tr>
<tr>
<td>ROOTS</td>
<td>ROOTS, ALL</td>
<td>Total number of roots moved</td>
</tr>
<tr>
<td>OPT</td>
<td>OPTION, ALL</td>
<td>Option specified on INIT</td>
</tr>
<tr>
<td>RESM</td>
<td>n/a</td>
<td>RESUMED status if HALDB OLR is resumed</td>
</tr>
<tr>
<td>STRTT</td>
<td>STARTTIME, ALL</td>
<td>OLR StartTime</td>
</tr>
</tbody>
</table>

6. Completion codes:
Add the following completion code to QRY OLREORG command completion code table:

<table>
<thead>
<tr>
<th>CompletionCode</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF</td>
<td>The OLR workarea is not available. The OLR statistics information is not returned.</td>
</tr>
</tbody>
</table>

7. Replace the example with below:
TSO SPOC input:
QRY OLREORG NAME(*) SHOW(ALL)

TSO SPOC output:
Partition MbrName CC LclStat Rate Bytes-Moved Segs-Moved...
P0HIDKA IMS1 0 RUNNING 100 15678 97...
PVDHJ5A IMS1 0 RUNNING 100 4630 29...

... Roots-Moved Option Resumed StartTime
... 11 NODEL Y 2007.296 10:20:21.61
... 5 DEL 2007.296 10:20:21.84

OM API input:
CMD (QRY OLREORG NAME(*) SHOW(ALL))

OM API output:
<imsout>
<ctl>
<omname>OM1OM </omname>
<omvsn>1.2.0</omvsn>
<xmlvsn>1 </xmlvsn>
<statime>2007.296 17:43:42.714976</statime>
<stotime>2007.296 17:43:42.715488</stotime>
<staseq>C163CD37F5860D82</staseq>
<stoseq>C163CD37F5A60342</stoseq>
<rqsttkn1>USRT011 10104342</rqsttkn1>
<rc>00000000</rc>
8. Add the following note:

Note:
The QRY OLREORG command can be issued to obtain OLR statistics for an OLR that has been stopped for some reason such as a TERM OLREORG command or a user abend. The data associated with the terminated OLR will be maintained and provided under any of the following conditions:
1. TERM OLR command is issued
2. Abnormal OLR termination occurs (i.e., DFS2971W message is issued)
3. IMS is normally shut down. Note: the stats will not be available via the QRY OLREORG command until the OLR is resumed but can be obtained via the LIST.DB or LIST.RECON commands.
The IMS V9 DBRC Guide and Reference (SC18-7818) is updated to list the new field in the OLR record as the last line of the record.

TOTAL NUMBER OF RAPS PROCESSED = value (if not zero-PHDAM)
or
TOTAL NUMBER OF ROOTS TO PROCESS = value (if not zero-PHIDAM)

The DBRC Application Programming Interface (API) will return the new fields on the QUERY call. DSECT DSPAPQRR is changed to reflect the new fields.

DSECT of DSPAPQRR -- new additions

60 (3C) UNSIGNED 4 APQHP_PRAPs
64 (40) UNSIGNED 4 APQHP_Roots

The Diagnosis Guide and Reference (LY37-3203) will be updated with the following:

Add the following to Table 6. Table of Control Block Definitions:

<table>
<thead>
<tr>
<th>PDEX</th>
<th>DFSDDIR</th>
<th>PARTITION DIRECTORY EXTENSION</th>
</tr>
</thead>
</table>

The Release Planning Guide (GC17-7831) will be updated with the following:

The OLR Display (/DISPLAY DB OLR) and Query (QRY OLREORG) commands have been enhanced in APARs PK36909 and PK43203 to provide additional data for tracking the progress of a HALDB integrated Online Reorganization.

After the application of these APARs all the OLR statistics data (e.g., bytes moved, segments moved, and roots moved) can be obtained by the LIST.DB or LIST.RECON commands even after OLR processing has been stopped with a TERM OLREORG command.

The /DIS DB OLR and QRY OLREORG commands are enhanced to display the following OLR related data:

Three new status conditions have been added:
RESUMED - This OLR has been resumed after being stopped for some reason such as a TERM OLREORG command or a user abend.
WAITRATE - This OLR is in a wait state due to a rate value of less than 100 being specified.
WAITLOCK - This OLR is waiting for a segment lock that is held by a concurrently running application.

Four new SHOW options have been added:
ROOTS - Number of Roots moved
SEGMENTS - number of Segments moved
START TIME - local start time of the OLR
OPTION - DEL/NODEL option that was specified on the INIT OLREORG command.

HOLDSYSTEM(INT) = ENH ++ HOLD(UK32354) SYS FMID(HMK9900) REASON(ENH) DATE(07351)

COMMENT
******************************************************************************
APAR PK43203 adds new IMS function.
- Function name:
/DISPLAY DB OLR and QUERY OLREORG commands.
- See APAR closing text or PTF cover letter for complete details.
******************************************************************************
The application of this APAR does not require a SYSPLEX outage but it needs to be applied on all members of the SYSPLEX to function properly. For example: If the enhancement was applied to IMSA but not on IMSB and OLR was started and then stopped, with the TERM OLR command, on IMSA and then resumed on IMSB. A QRY OLR command with SHOW(ALL) that was routed to all the members of the SYSPLEX or to a member in the SYSPLEX without the enhancement, would not display any of the new SHOW keywords, just RATE and BYTES. If the QRY is routed to a member in the SYSPLEX where the enhancement is applied then the new SHOW keywords are displayed.

THE FOLLOWING TEXT DESCRIBES THE DOC CHANGE:

In the Utilities Reference: System manual

In the chapter
Deadlock Trace Record Analysis Utility (DFSKTDL0)
Under the topic:
Deadlock Trace Analysis Summary Report Example
In the sample report:

A> Before the existing line:
INPUT LOG DATA SET NAME(S)

The following new lines are added:

* EXTERNAL SUBSYSTEM PDN1 DETECTED A DEADLOCK DURING NORMAL CAL
* REGION TYPE : MPP   REGION NUMBER : 002D
* JOB NAME : IMSGR12   PSB NAME : M5342GRC
* SMB NAME : GRSGUB00
* RECOVERY TOKEN: C7D9E4D740404040088499E00000001

B> Following the existing line:
TOTAL # OF 67FF TRACE RECORDS EVALUATED

The following new line is added:
* TOTAL # OF 67FF EXT SUBSYS DEADLOCKS EVALUATED : 4

end of doc change

Part DFSKTDL0 was changed to recognize and report the External Subsystem deadlocks from the x'67FF' snap records containing a value of 'ESSD' in the SNCALLID field.)
COMMENT

(Documentation change for APAR PK56926
This maintenance is being held so you will be aware of documentation change to manual(s):
GC18782700)

The following text describes the doc change:

DFS4305W THE MAXIMUM NUMBER OF VOLSERS WAS EXCEEDED FOR THE DATA SET: data set name
Explanation: The indicated data set spans multiple volumes. The maximum number of volumes which are automatically extracted by utility DFSKARCO is 8; however in this case, the number of volsers exceeds this value. The first 8 volsers are included in the generated JCL; however any subsequent volsers are omitted.

System Action: Processing Continues. At end of processing, Cond Code 4 is returned.

System Programmer Action: Update the generated JCL to supply the omitted volser values to the DD statement associated with the indicated data set name prior to submitting the JCL.

Module: DFSKARCO

end of doc change

- Part DFSKARCO was changed to extract multiple volsers from the results of the LIST.LOG DBRC command. Up to 8 volsers can be mapped into the generated JCL. If there are more than 8 volsers associated with a single data set, the generated JCL will contain the first 8. In such a case, the utility will return Cond Code 4 upon termination and will generate the following warning message:

DFS4305W THE MAXIMUM NUMBER OF VOLSERS WAS EXCEEDED FOR THE DATA SET: data set name
The generated JCL can be modified by the user to include any omitted volsers.

Message part DFSKMSG was changed to include the number and text for the warning message.

Panel DFSKBVOL was changed to expand the number of volsers which can be specified from 1 to 8. The specification must follow correct JCL syntax: If multiple volsers are specified, the list must be enclosed with parentheses. There must be a comma between each volser and there can be no embedded blanks.

Help Panel DFSK6014 was changed to describe the JCL syntax for specifying multiple volsers.

Rexx program DFSKWDSN was changed to ensure that the volsers are mapped out to ISPF internal storage such that the JCL generator logic driven by panel DFSKBVOL always picks up the volser values.).