



IBM Software Group

# IMS in a Sysplex – Making it Manageable

*Andy Nguyen*

*IBM – IMS Tools Development*

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**ON** DEMAND BUSINESS™

# Agenda

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- **Review IMS Sysplex Exploitations**
- **Product Highlights**
- **Problem Scenarios**
- **Q & A**



# IMS Exploitations of the Parallel Sysplex

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- **Data Sharing**
- **Shared Queues**
- **VTAM Generic Resources**
- **Single Point of Control (SPOC)**
- **Sysplex Terminal Management**
- **Global Online Change**
- **Automatic Restart Manager (ARM)**

## How do you manage IMS in a Sysplex environment?

- Do you have single point of control?
- Do you have tool to debug DB long lock problem?
- Do you manage your Shared Queues effectively?
- Can you quickly check IMS resources' definition and status in real-time?
- Do you have command and message log for trouble shooting and audit purpose?

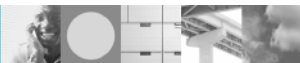
**IBM's new IMS Sysplex Manager can help provide the solutions you need**



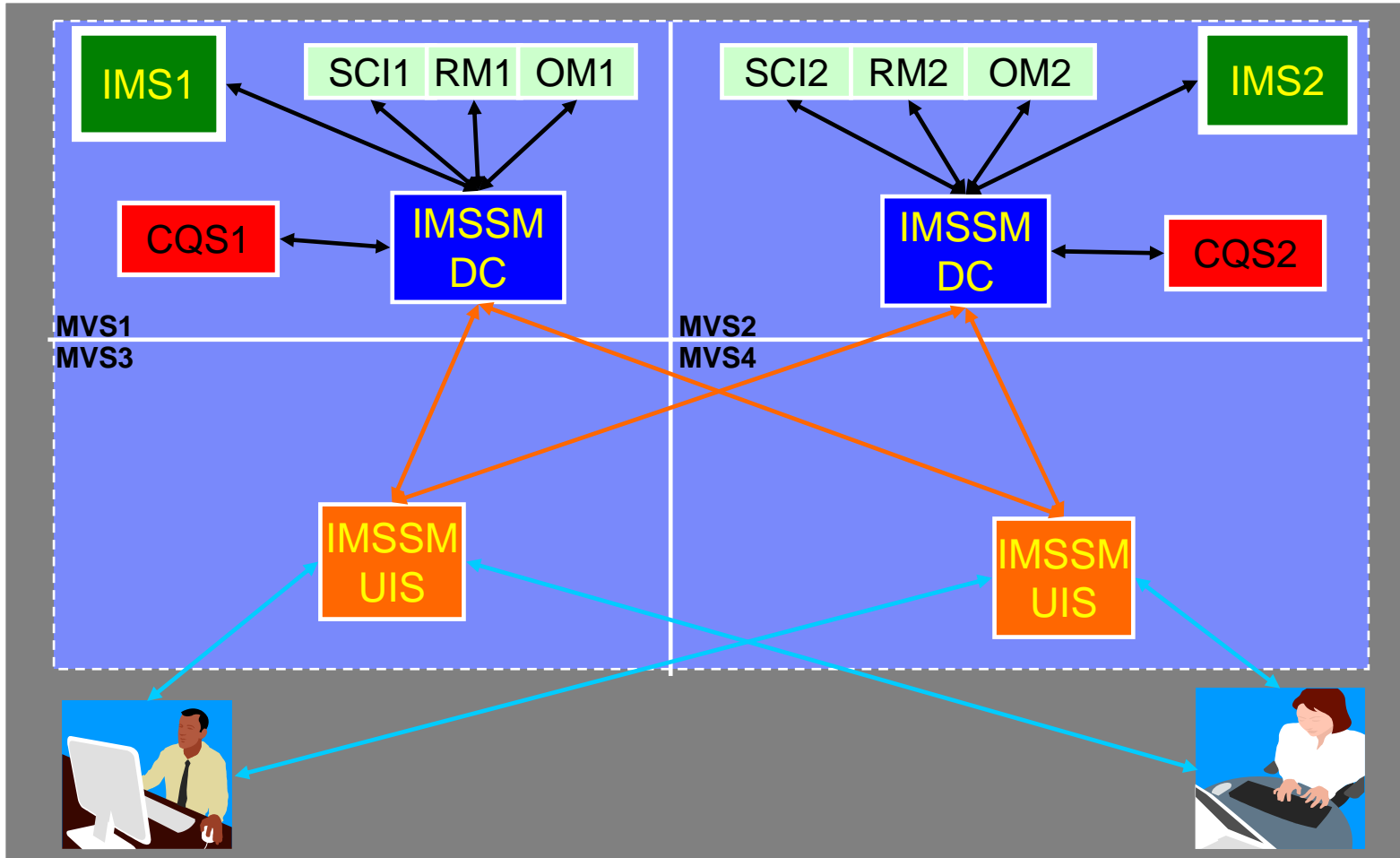
# IMS Sysplex Manager Highlights

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- **Real-time management of the IMS Sysplex Environment**
  - Single point of control
  - Single system image thru local and aggregate view of data
  - Simplified User Interface (TSO/ISPF)
  - Structured displays of IMS resources and CF structures
  - System exceptions and Console alerts
  - Global Type-1 command
  - Basic z/OS performance information
  - IRLM Long Lock Report
  - Shared Message Queues management and CQS statistics
  - Statistics for CSL (OM, RM and SCI)
  - RM Resource structure management
  - Support IMS DB/TM, DBCTL, and DCCTL for IMS v8 and later



# IMS Sysplex Manager Sample Configuration



# Scenarios

---

- **IMS**
  - **Scenario 1 – Taking Inventory**
  - Scenario 2 – Managing IMS System Parameters
  - Scenario 3 – Verifying IMS Resource Definitions
  - Scenario 4– Issuing IMS Commands
  - Scenario 5 – Maintaining Command Audit Trail
  - Scenario 6 – Managing Dependent Regions
  - Scenario 7 – Viewing IMS CF Structures
  
- **IMSpIex**
  - Scenario 8 – Managing CSL RM Structure
  - Scenario 9 – Viewing Aggregate SCI, RM, OM Statistics
  
- **Data Sharing**
  - Scenario 10 – Resolving Data Sharing Long Locks
  - Scenario 11 - Viewing Real-time IRLM / PI Locking Status
  - Scenario 12 - Viewing Aggregated IRLM Statistics
  
- **Shared Queue and CQS**
  - Scenario 13 – Managing Destination Queue Depth
  - Scenario 14 – Viewing CQS Structures
  
- **Dashboard**
  - Scenario 15 – Dashboard Sysplex at a Glance

## Scenario 1 – Taking Inventory

---

- **Many address spaces – IMS Control Region, IMS DLI/SAS, IMS DBRC, IRLM, CQS, RM, OM, SCI, etc..**
  - How do you identify related IMS components across the Sysplex?
  - What is the status of these components?
  - What version of IMS components are involved?
  - How much resource are they using from z/OS perspective?
  
- **IMS Sysplex Manger structured TSO/ISPF interface**
  - Guided display of IMS components
  - Provides component id, task or job name, version, status and basic z/OS information such as CPU time and EXCP counts
  - Drill-down to detailed component information



# Component List

```

Menu  Edit  Option
-----
GJEP600          IMSplex/SMplex Component List          Realtime snapshot
COMMAND ==>          Row 1 to 16 of 16
                                SCROLL ==> PAGE

    IMSplex: PLEX1          Date:          08/23/06          More:  >
    SM server: UIS          Time:          11:49:35

Enter 's' to display statistics for the selected component
      'i' to display z/OS information for the selected component
To exit without making a selection, enter END(PF3)

Cmd ID      Type  Version  OS-name  Jobname  DBRCname  DLIname  IRLMname  Status
-----
s_  IMS1      IMS   9.1.0   ECTST21  IMS1      DBRECSAI  DLIECSAI  IRLME2N  READY
   DBRC 9.1.0   ECTST21  DBRECSAI
   DSAS 9.1.0   ECTST21  DLIECSAI
   IRLM 2.1.0   ECTST21  IRLME2N
   CQS1  CQS   1.4.0   ECTST21  CQSEI1
   OM10M OM    1.2.0   ECTST21  OM1
   RM1RM RM    1.2.0   ECTST21  RM1
   SCI1SC SCI   1.2.0   ECTST21  SCI1
   IMS2  IMS   9.1.0   ECTST22  IMS2      DBRECSAI  DLIECSAI  IRLME2N  READY
   DBRC 9.1.0   ECTST22  DBRECSAI
   DSAS 9.1.0   ECTST22  DLIECSAI
   IRLM 2.1.0   ECTST22  IRLME2N
   CQS2  CQS   1.4.0   ECTST22  CQSEI2
   OM20M OM    1.2.0   ECTST22  OM2
   RM2RM RM    1.2.0   ECTST22  RM2
   SCI2SC SCI   1.2.0   ECTST22  SCI2
***** Bottom of data *****

```

# Component List (cont)

```

Menu  Edit  Option
-----
GJEP601          IMSplex/SMplex Component List          Realtime snapshot
COMMAND ===>          Row 1 to 16 of 16
                                SCROLL ==> PAGE

    IMSplex: PLEX1
    SM server: UIS
                                More: <

Enter 's' to display statistics for the selected component
    'i' to display z/OS information for the selected component
To exit without making a selection, enter END(PF3)

Cmd ID      Type  IMS/Datasharing  CQS/SMQ Structures  CPUtime(hs)  EXCPs
-----
s_  IMS1     IMS              Y                    .                2.37         13,276
   DBRC                    .09             648
   DSAS                    .23             1,535
   IRLM                    .96             413
   CQS1     CQS              Y                    1.36         2,595
   OM10M    OM                    .21             1,093
   RM1RM    RM                    .23             1,202
   SCI1SC   SCI                    .27             1,406
   IMS2     IMS              Y                    2.35         12,426
   DBRC                    .09             626
   DSAS                    .20             1,524
   IRLM                    .94             412
   CQS2     CQS              Y                    1.13         2,569
   OM20M    OM                    .17             1,089
   RM2RM    RM                    .23             1,198
   SCI2SC   SCI                    .28             1,402
***** Bottom of data *****

```

# IMS Menu Options

```
Menu Edit Option Filter
----- Realtime snapshot
GJEPYIM View IMS data
Option ==> _____

IMSplex: PLEX1
SM server: UIS
Route: IMS1

Select one of the following

1. System configuration options and parameters
2. Destination queue depths
3. IMS resource definitions
4. IMS operations
5. Latch statistics
6. IRLM statistics
7. IMS dependent region activity
8. Display z/OS information for IMS address spaces
```

# z/OS perspective for IMS address spaces

```

Menu  Edit  Option
-----
GJEPIAS      z/OS information for IMS address spaces      Realtime snapshot
COMMAND ==>                                     Row 1 to 24 of 24
                                                SCROLL ==> PAGE

IMSplex: PLEX1      Date:      08/23/06
SM server: UIS      Time:      11:46:24      more: >

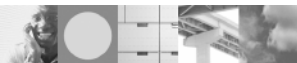
Jobname  Type  Prty  ASID  TCB time  SRB time  CPU time  EXCPs
-----
IMS1     IMS   C9    006F   1.73      .59       2.32     13,252
DBRECSAI DBRC  FE    0069   .08       .01       .09      648
DLIECSAI DSAS  FE    0072   .15       .08       .23     1,535
IRLME2N  IRLM  FE    0074   .09       .82       .91      413
CQSEI1   CQS   C1    0028   .60       .73       1.33     2,595
OM1      OM     C9    002E   .17       .04       .21     1,093
RM1      RM     C9    0026   .18       .05       .23     1,202
SCI1     SCI    C8    0073   .24       .03       .27     1,406
IMS2     IMS   C9    007F   1.71      .59       2.30     12,402
DBRECSAI DBRC  FE    007E   .08       .01       .09      626
DLIECSAI DSAS  FE    0025   .13       .07       .20     1,524
IRLME2N  IRLM  FE    0024   .06       .84       .90      412
CQSEI2   CQS   C1    0075   .40       .70       1.10     2,569
OM2      OM     C9    0028   .14       .03       .17     1,089
RM2      RM     C9    0076   .18       .05       .23     1,198
SCI2     SCI    C8    002F   .24       .03       .27     1,402
BMP3     BMP    C9    002A   .02       .00       .02      187
BMP1     BMP    C9    002C   .01       .00       .01      187
MPP02    TP     C7    002B   .03       .01       .04      444
MPP01    TP     C5    002F   1.28      .06       1.34     3,077
MPP21    TP     C8    002B   .01       .00       .01      195
MPP22    TP     C9    002D   .01       .00       .01      195
BMP2     BMP    C8    002C   .01       .00       .01      187
BMP21    BMP    C8    002E   .02       .00       .02      431
***** Bottom of data *****

```

## Scenario 2 – Managing IMS System Parameters

---

- **Many system run-time parameters**
  - Sources: DFSPBxxx, overrides via Control Region PARM=
  - Which ones are being used?
  - Are the parameters the same across the Sysplex?
  
- **System parameter display**
  - Real-time scrollable display of “resolved” values
  - Parameter values across all IMS systems for easy comparison



# IMS System Parameters

```

Menu Edit Option
-----
GJEP200 System configuration options and parameters Realtime snapshot
COMMAND ==> Row 1 to 30 of 262
SCROLL ==> PAGE

IMSplex: PLEX1 Date: 08/23/06
SM server: UIS Time: 11:55:16
Route: *

Keyword
IMSId Parameter Description Value
-----
IMS1 ALOT User auto logoff time, minutes 1440
IMS2 ALOT User auto logoff time, minutes 1440
IMS1 AOIP AOI pool upper limit, bytes 2147483647
IMS2 AOIP AOI pool upper limit, bytes 2147483647
IMS1 AOIS Cmd auth exit security option, A/C/N/R/S N
IMS2 AOIS Cmd auth exit security option, A/C/N/R/S N
IMS1 AOI1 Type 1 AOI cmd auth option, A/C/N/R/S
IMS2 AOI1 Type 1 AOI cmd auth option, A/C/N/R/S
IMS1 APPC Activate APPC/IMS LU 6.2 support, Y/N N
IMS2 APPC Activate APPC/IMS LU 6.2 support, Y/N N
IMS1 APPCSE APPC RACF security option, Check/Full/None F
IMS2 APPCSE APPC RACF security option, Check/Full/None F
IMS1 APPLID1 VTAM Applid for IMS subsys
IMS2 APPLID1 VTAM Applid for IMS subsys
IMS1 APPLID2 VTAM Applid for XRF alternate subsys
IMS2 APPLID2 VTAM Applid for XRF alternate subsys
IMS1 APPLID3 VTAM Applid for RSR tracking subsys APPL7
IMS2 APPLID3 VTAM Applid for RSR tracking subsys APPL7
IMS1 ARC OLDS automatic archiving interval 01
IMS2 ARC OLDS automatic archiving interval 01
IMS1 ARMRST MVS ARM to restart IMS after failure, Y/N N
IMS2 ARMRST MVS ARM to restart IMS after failure, Y/N N

```

# IMS System Parameters

```

Menu  Edit  Option
-----
GJEP200
COMMAND ===
      IMSplex:
      SM server:
      Route: *

      4  1. Autorefresh
         2. Preferences...
         3. Enter IMS commands
         4. Display unequal values

Realtime snapshot
parameters      Row 1 to 30 of 131
SCROLL ==> PAGE

08/30/06
10:46:18

Keyword
IMSId Parameter  Description  Value
-----
IMS1  ALOT        User auto logoff time, minutes  1440
IMS1  AOIP        AOI pool upper limit, bytes    2147483647
IMS1  AOIS        Cmd auth exit security option, A/C/N/R/S  N
IMS1  AOI1        Type 1 AOI cmd auth option, A/C/N/R/S
    
```

# IMS System Parameters – Showing Unequal Parm

```

Menu  Edit  Option
-----
GJEP201  System configuration options and parameters  Realtime snapshot
COMMAND ===>                                     Row 1 to 6 of 6
                                                SCROLL ===> PAGE

  IMSplex: PLEX1                               Date:      08/23/06
SM server: UIS                                 Time:      11:55:16
  Route: *

      Keyword
IMSId Parameter  Description                               Value
-----
IMS1  DC          DC proclib member suffix                 C01
IMS2  DC          DC proclib member suffix                 C02
IMS1  IMSID       IMS subsystem identifier                 IMS1
IMS2  IMSID       IMS subsystem identifier                 IMS2
IMS1  SHAREDQ     DFSSQxxx shared queues member suffix     EI1
IMS2  SHAREDQ     DFSSQxxx shared queues member suffix     EI2
***** Bottom of data *****

```



## Scenario 3 – Verifying IMS Resource Definitions

### ■ Resource definitions

- Transactions, Programs, Data Bases, Nodes, LTERMS, etc.
- Are the definitions the same across the Sysplex?
- What is the resource status across the Sysplex?
- How do you alter the status across the Sysplex?

### ■ Resource definition display

- Query resource by status or attribute
- Real-time scrollable display of resources
- Resource attributes and status across all IMS systems for easy comparison
- Integrated IMS Type 1 command interface to alter resource status
- Ability to drill-down to related resource (from transaction to PSB, from PSB to databases... )

# IMS Resource Definitions – Filter Specification

```
GJEP50S                               Transaction selection specification
COMMAND ==> _____

Enter a value for one of the selection criteria below. The default
is ALL (no filtering).

Transaction name: _____ PSB name: _____ Route code: _____

Execution class.....: _____ value (1-999)
Local system id.....: _____ value (0-9999)
Remote system id.....: _____ value (0-9999)

Status : _____ Place cursor and press enter for help.
Settings: WFI Place cursor and press enter for help.

Priority (value 0-99999 preceded by operator >, =, or <)
Current priority: _____ Normal priority : _____ Limit priority: _____

Counts (value 0-9999999 preceded by operator >, =, or <)
ENQ : _____ DEQ : _____ ONQ: _____
Limit : _____ Max region: _____ WFI: _____
Plimit: _____ PROCLIM : _____
```

# IMS Resource Definitions – Drill-down to PSB

```

Menu Edit Option Filter
-----
GJEP500          IMS Resource Information - Transactions      Realtime snapshot
COMMAND ==>>>                                     Row 1 to 24 of 27
                                                    SCROLL ==>> PAGE

    SMplex: ISM01          Date:          08/30/06
SM server: UIS          Time:           09:46:11
    Route: *
    Settings: WFI
                                                    more: >

Enter 's' to view transaction detail data
    'p' to view PSB detail data
    'c' under Cmd to exec IMS commands

    Cmd  IMSid  Tran      PSB      Route  Exec  ---Priority---  Segsz  Segno
           Name                               Code  Class  Curr  Norm  Lim
-----
    |   SYS3  AOBMP    TS2IAOB0  |   23   0    0    0    0    0
    |   SYS3  APOL18  APOL1     |   1    1    1    1    0    0
    | p_   SYS3  HPCSTCL1 HPC$M$00 |   1    1    1    1    0    0
    |   SYS3  HPCSTCL2 HPC$M$00 |   2    1    1    1    0    0
    |   SYS3  HPCSTCL3 HPC$M$00 |   3    1    1    1    0    0
    |   SYS3  HPCSTCL4 HPC$M$00 |   4    1    1    1    0    0
    |   SYS3  HPCSTCL5 HPC$M$00 |   5    1    1    1    0    0
    |   SYS3  HPCSTCL6 HPC$M$00 |   6    1    1    1    0    0

```

# IMS Resource Definitions – Drill-down to Database

```

Menu  Edit  Option  Filter
-----
GJEP510          IMS resource information - Programs          Realtime snapshot
COMMAND ===>          Row 1 to 1 of 1
                      SCROLL ===> PAGE

SMplex: ISM01          Date:          08/30/06
SM server: UIS         Time:          09:48:08
Route: *
Program: HPC$M$00          more: >

Enter 'c' to exec IMS commands
      's' to view program detail data
      'p' to view PCB (databases) detail data

Cmd IMSid Name      Type  Lang  PSBSize  PSBSize  Size of
p_  SYS3  HPC$M$00 TP    ASSEM  1,728   19,136  19,328  3,968   N    P
***** Bottom of data *****

```

## IMS Resource Definitions – Databases for a PSB

```
Menu Edit Option Filter                               Realtime snapshot
GJEP520                IMS resource information - Databases       Row 1 to 9 of 9
COMMAND ==>          SCROLL ==> PAGE

   SMplex: ISM01                                Date:           08/30/06
SM server: UIS                                        Time:           09:49:40
   Route: *                                           more: >
   Program: HPC$M$00

Enter 's' to view database detail data
   'c' under Cmd to exec IMS commands

Cmd  IMSId  Name                Area/          DMB          Gl DMB
      Name              Partition Type      Number       Number  DMBSize  DMBSuff  DBAcc
-----
  ___ SYS3  DBHDOJ01              DL/I              33           0           42          42       UP
  ___ SYS3  DBHDOK01              DL/I              34           0           49          49       UP
  ___ SYS3  DBOHIDK5              DL/I              40           0           53          53       UP
  ___ SYS3  DBOYLFPC              DL/I              41           0           44          44       UP
  ___ SYS3  DBVHDJ05              DL/I              42           0           46          46       UP
  ___ SYS3  DDYBTZ02              DL/I              43           0           45          45       EX
  ___ SYS3  DXYHIDK5              DL/I             251           0            8            8       UP
  ___ SYS3  D2XHDJ05              DL/I             262           0            8            8       UP
  ___ SYS3  D2XHIDK5              DL/I             264           0            8            8       UP
***** Bottom of data *****
```

# IMS Resource Definitions – Manage Transactions

```

Menu  Edit  Option  Filter
-----
GJEP50C      IMS Resource Information - Transactions      Row 1 to 24 of 1,288
COMMAND ==>  SCROLL ==> PAGE

  IMSplex: PLEX1          Date:          08/23/06
SM server: UIS           Time:          12:00:20
  Route: *
  Transact: *
                                     more: <>

Enter 's' to view transaction detail data
      'p' to view PSB detail data
      'c' under Cmd to exec IMS commands

  Cmd  IMSid  Tran  -----STATUS-----  -----SETTINGS-----
      Name  Stop Pstop Purge Lock Qerr Ustop Sched Seq Trunc WFI
                               Opt  Opt  Opt
c_    IMS1   ADDINY  Y   Y   Y   N   N   N   1   N   N   N
-----
      IMS2   ADDINY  N   N   N   N   N   N   1   N   N   N
-----
      IMS1   ADDPART N   N   N   N   N   N   1   N   N   N
-----
      IMS2   ADDPART N   N   N   N   N   N   1   N   N   N
-----
      IMS1   AOBMP   N   N   N   N   N   N   1   N   N   Y
-----
      IMS2   AOBMP   N   N   N   N   N   N   1   N   N   Y
-----
      IMS1   AOP     N   N   N   N   N   N   1   N   N   N
-----
      IMS2   AOP     N   N   N   N   N   N   1   N   N   N
-----
      IMS1   APOL11  N   N   N   N   N   N   1   N   N   N
-----
      IMS2   APOL11  N   N   N   N   N   N   1   N   N   N

```

# IMS Resource Definitions – Manage Transactions

```

Menu  Edit  Option  Filter
-----
GJEP50C      IMS Resource Information - Transactions      Row 1 to 24 of 1,288
COMMAND ==>                               SCROLL ==> PAGE

IMSplex:    GJEPTRCM ect an IMS command
SM server:
Route:      Resource name: ADDINV                more: <>
Transact:   Resource type: TRANSACTION

Enter 's' t      1_ 1. /START
            'p' t      2. /STOP
            'c' u      3. /PSTOP
                        4. /LOCK
                        5. /UNLOCK
                        6. /PURGE

Cmd  IMSid  N
---  ---  ---
c    IMS1   A      F1=HELP      F2=SPLIT      F3=END
---  ---  ---      F4=RETURN     F5=RFIND      F6=RCHANGE
---  ---  ---
---  IMS1   A
---  IMS2   ADDPART  N      N      N      N      N      N      1
---  IMS1   AOBMP    N      N      N      N      N      N      1
---  IMS2   AOBMP    N      N      N      N      N      N      1
---  IMS1   AOP      N      N      N      N      N      N      1
---  IMS2   AOP      N      N      N      N      N      N      1
---  IMS1   APOL11   N      N      N      N      N      N      1
---  IMS2   APOL11   N      N      N      N      N      N      1

SETTINGS-----
Seq  Trunc  WFI
Opt   Opt
---  ---  ---
N      N      N
N      N      N
N      N      N
N      N      N
N      N      N
N      N      N
N      N      N
N      N      N

```

## Scenario 4 – Issuing IMS Commands

---

- **Issue Type 1 command to all IMS systems**
  - Display same resource type across Sysplex
  - Alter resource status across Sysplex
  
- **Command issued to each IMS system**
  - Output recorded to command file and logged history file
  - ISPF Browse(view) used to display result
  - Scrollable, Primary and line commands (find, exclude, etc.)
  - Retrievable list of previously entered commands



# IMS Commands – Type-1

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
[Icons]

Menu Edit Option
-----
IMS SM                               Execute IMS commands           Row 1 to 4 of 25
COMMAND ===> _____ SCROLL ===> HALF

  IMSplex: PLEX1
  SM server: UIIMS1
  Route: *

Enter IMS command below

===> /dis olds_

Place cursor on choice and press Enter to retrieve command

=> /DIS OLDS
=> /DIS DB DBTEST
=> /DIS CLASS ALL
=> /OPN NODE T1302
. . . . .

MA b                                     13/016
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23  HP PSC 750xi on DOT4_001

```

# IMS Commands – Type-1

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
VIEW          USRT002.BOB2.OUTPUT          Columns 00001 00072
Command ==> _                               Scroll ==> HALF
***** Top of Data *****
000001 *-----*
000002 * FIRST Response from: IMS1          *
000003 *-----*
000004
000005 W70 OLDS-DDNAME % FULL RATE ARCH-JOB   ARCH-STATUS  OTHER-STATUS
000006 W00 *DFSOLP02          82      0                AVAILABLE
000007 W00  DFSOLP01                AVAILABLE
000008 W00  DFSOLP00                AVAILABLE
000009 W00  DFSOLP03                AVAILABLE
000010
000011 W01  SINGLE OLDS LOGGING, SINGLE WADS LOGGING
000012 W02  AUTOMATIC ARCHIVE = 01
000013 W03  WADS = *DFSWADS0 DFSWADS1
000014 W04  SLDSREAD ON
000015 X99 *06026/095526*
000016 *-----*
000017 * FIRST Response from: IMS2          *
000018 *-----*
. . . . .
MA  b                                     04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23  HP PSC 750xi on DOT4_001

```

# IMS Commands – Type-1

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
VIEW          USRT002.BOB2.OUTPUT          Columns 00001 00072
Command ==>> _          Scroll ==>> HALF
000016 *-----*
000017 * FIRST Response from: IMS2          *
000018 *-----*
000019
000020 W70 OLDS-DDNAME % FULL RATE ARCH-JOB   ARCH-STATUS   OTHER-STATUS
000021 W00 *DFSOLP01          5      0                IN USE
000022 W00 DFSOLP00                AVAILABLE
000023 W00 DFSOLP03                AVAILABLE
000024 W00 DFSOLP02                AVAILABLE
000025
000026 W01 SINGLE OLDS LOGGING, SINGLE WADS LOGGING
000027 W02 AUTOMATIC ARCHIVE = 01
000028 W03 WADS = *DFSWADS0 DFSWADS1
000029 W04 SLDSREAD ON
000030 X99 *06026/095847*
***** ***** Bottom of Data *****
. . . . .
MA  b                                     04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23 HP PSC 750xi on DOT4_001
  
```

## IMS Commands – Type-2

```
Menu Edit Option
-----
GJEPCMD          Execute IMS Type-2 commands          Row 1 to 24 of 25
COMMAND ==>>> _____ SCROLL ==>>> PAGE

  IMSplex: PLEX1
  SM server: UIS
  Route: *

Enter IMS command below

==>> QRY IMSPLEX SHOW(ALL)

  Place cursor on choice and press Enter to retrieve command

=> QRY DB NAME(AUTODB)
=> QRY IMSPLEX SHOW(ALL)
=>
=>
=>
```

# IMS Commands – Type-2

```

File Edit Edit_Settings Menu Utilities Compilers Test Help
VIEW      USRT005.IMSSM.CMDOUT1                      Columns 00001 00080
Command ==>                                         Scroll ==> PAGE
***** ***** Top of Data *****
==MSG> -Warning- The UNDO command is not available until you change
==MSG> your edit profile using the command RECOVERY ON.
000001 *-----*
000002 * FIRST Response from: SCI1 *
000003 *-----*
000004 IMSplex . . . . . : PLEX1
000005 Routing . . . . . : *
000006 Date. . . . . : 06/08/30
000007 Time. . . . . : 10:33:34.2
000008
000009 Response for: QRY IMSPLEX SHOW(ALL)
000010 IMSplex MbrName CC Member JobName Type Subtype Version OSName
000011 Status
000012 -----
000013 CSLPLEX1 OM10M 0 OM10M OM1 OM 1.2.0 ECTST21
000014 READY,ACTIVE
000015 CSLPLEX1 OM10M 0 IMS1 IMS1 IMS DBDC 9.1.0 ECTST21
000016 READY,ACTIVE
000017 CSLPLEX1 OM10M 0 DCIMS19 DCIMS19 OTHER 1.2.0 ECTST21
000018 READY,ACTIVE
000019 CSLPLEX1 OM10M 0 SCI1SC SCI1 SCI 1.2.0 ECTST21
000020 READY,ACTIVE
000021 CSLPLEX1 OM10M 0 RM1RM RM1 RM MULTRM 1.2.0 ECTST21
000022 READY,ACTIVE
***** ***** Bottom of Data *****

```

## Scenario 5 – Maintaining command Audit Trail

---

- **Keeping track of operations of your IMS systems**
  - Need for audit trail?
  - Easy way of viewing IMS commands & system messages?
  - Automatic archive of audit log?
  
- **Sysplex Manager with its history datasets**
  - Log most type-1 IMS commands, command responses and MTO messages from all IMS images regardless of origins (z/OS console, terminal, OTMA, AOI programs using CMD or ICMD interface)
  - Searchable, filterable online viewing of log data using ISPF dialog
  - Automatic archive for full history dataset
  - Archive Directory to assist locating archived data
  - Issue type-1 and type-2 IMS commands while viewing log data (similar to z/OS SDSF)

# Command Audit Trail

```
Menu Edit Option
-----
GJEPS00          System exceptions/log data selection specification
Command ==>

  IMSplex: PLEX1      SM server: UIS

Enter the criteria to view the system exceptions/Log data from history dataset:
Enter the System Exception Type for system exception view
      Data type : CMD          (LLKX, CQSX, LOG, MTO, CMD or *)

Enter the LOG, MTO, CMD filter : *          (IMSid or *)
Enter the CQS filter           : _____ (CQSid or *)

Enter the start date and time of data
      Start date: 08/25/06      (mm/dd/yy)
      Start time: 15:48:14     (hh:mm:ss)

Enter the end date and time of data
      End date   : 08/25/06     (mm/dd/yy)
      End time   : 15:49:39     (hh:mm:ss)
```

# Command Audit Trail

```

COLS11=80 COLS21=100 COLS31=120
COMMAND ==>
Route: *
IMSPLEX: PLEX1          REQUEST: Start date time: 01/03/07 14:25:04
SM server: UIS1         End   date time: 01/04/07 11:25:03
Filters:                RESPONSE: First record  : 01/03/07 14:29:16
Data Type: *           Last record   : 01/03/07 17:21:32
000035 IMS1 CMD 01/03/07 16:35:48 ----->  COMMAND ISSUED FROM: OTHER ORIGIN
000036 IMS1 CMD 01/03/07 16:35:48 BY USERID: LTERM: IMS1
000037 IMS1 CMD 01/03/07 16:35:48 /STO PGM HPC$M$00
000038 IMS1 CMD 01/03/07 16:35:48 DFS058I 16:35:48 STOP COMMAND COMPLETED
000039 IMS1 MTO 01/03/07 16:36:16 DFS551I MESSAGE REGION MPP11  STARTED ID=00001 TIME=1636 CLASS=001,002,003,00
000040 IMS1 MTO 01/03/07 16:36:16 4
000041 IMS1 MTO 01/03/07 16:36:17 DFS551I MESSAGE REGION MPP12  STARTED ID=00002 TIME=1636 CLASS=001,002,003,00
000042 IMS1 MTO 01/03/07 16:36:17 4
000043 IMS1 MTO 01/03/07 16:36:17 DFS551I MESSAGE REGION MPP13  STARTED ID=00003 TIME=1636 CLASS=001,002,003,00
000044 IMS1 MTO 01/03/07 16:36:17 4
000045 IMS2 CMD 01/03/07 16:36:29 ----->  COMMAND ISSUED FROM: OTHER ORIGIN
000046 IMS2 CMD 01/03/07 16:36:29 BY USERID: LTERM: IMS2
000047 IMS2 CMD 01/03/07 16:36:29 /STO PGM HPC$M$00
000048 IMS2 CMD 01/03/07 16:36:29 DFS058I 16:36:29 STOP COMMAND COMPLETED
000049 IMS2 MTO 01/03/07 16:36:58 DFS551I MESSAGE REGION MPP23  STARTED ID=00001 TIME=1636 CLASS=001,002,003,00
000050 IMS2 MTO 01/03/07 16:36:58 4
000051 IMS2 MTO 01/03/07 16:36:58 DFS551I MESSAGE REGION MPP22  STARTED ID=00002 TIME=1636 CLASS=001,002,003,00
000052 IMS2 MTO 01/03/07 16:36:58 4
000053 IMS2 MTO 01/03/07 16:36:58 DFS551I MESSAGE REGION MPP21  STARTED ID=00003 TIME=1636 CLASS=001,002,003,00
000054 IMS2 MTO 01/03/07 16:36:58 4
000055 IMS1 CMD 01/03/07 16:37:18 ----->  COMMAND ISSUED FROM: OTHER ORIGIN
000056 IMS1 CMD 01/03/07 16:37:18 BY USERID: LTERM: IMS1
000057 IMS1 CMD 01/03/07 16:37:18 /CLS NODE NDSL2A1
000058 IMS1 CMD 01/03/07 16:37:18 DFS551I BATCH REGION SMOBMP  STARTED ID=00004 TIME=1636
000059 IMS1 CMD 01/03/07 16:37:18 DFS2500I DATABASE DBHDOJ01 SUCCESSFULLY ALLOCATED
000060 IMS1 CMD 01/03/07 16:37:18 DFS2500I DATABASE DBHDOK01 SUCCESSFULLY ALLOCATED
000061 IMS1 CMD 01/03/07 16:37:18 DFS552I BATCH REGION SMOBMP  STOPPED ID=00004 TIME=1636
000062 IMS1 CMD 01/03/07 16:37:18 DFS058I 16:37:18 CLSDST COMMAND COMPLETED EXCEPT NODE NDSL2A1
000063 IMS1 CMD 01/03/07 16:37:50 ----->  COMMAND ISSUED FROM: OTHER ORIGIN
000064 IMS1 CMD 01/03/07 16:37:50 BY USERID: LTERM: IMS1
000065 IMS1 CMD 01/03/07 16:37:50 /STA DC
000066 IMS1 LOG 01/03/07 16:37:50 ----->  ACCOUNTING RECORD LOGREC 06
000067 IMS1 LOG 01/03/07 16:37:50 IMS ID: IMS1 VTAM RECONNECTED
000068 IMS1 LOG 01/03/07 16:37:50 PRILOG START TIME: 2007004F00330240 CURRENT TIME: 2007004F00375022
000069 IMS1 CMD 01/03/07 16:37:50 DFS2179I 16:37:19 QUICK VTAM SHUTDOWN REQUESTED
F1=HELP F2=SPLIT F3=FND F4=RETURN F5=REIND F6=CHANGE F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE

```



## Scenario 6 – Managing Dependent Regions

- **Transaction workload back-logged**
  - What dependent regions are available?
  - What transaction classes do they handle?
  - Are they occupied with work?
  - What are they doing?
  
- **Scrollable list of all dependent regions across Sysplex**
  - Enhanced IMS /DISPLAY ACTIVE REG
  - Displays overall DL/I DB/TM call counts
  - Resequenced by primary or secondary classes
  - Drill down to lower level of detail

# Dependent Region Display

```

B - STLVM1 - [24 x 80]
File Edit View Communication Actions Window Help
GJEP22S                                     Region selection specification
COMMAND ==> _____

Enter a value for one of the selection criteria below. The default
is ALL (no filtering).

Jobname. . . . . : * _____
Region type. . . . . : _____ Place cursor and press enter for help.
Transaction name . . . : _____
Program name . . . . . : _____
Stepname . . . . . : _____
Status . . . . . : _____ Place cursor and press enter for help.

Class1 . . . . . : _____ 1-999
Class2 . . . . . : _____ 1-999
Class3 . . . . . : _____ 1-999
Class4 . . . . . : _____ 1-999

Counts (value 0-99999999) preceded by operator >, =, or <)

TMCalls. . . . . : _____
DBCalls. . . . . : _____
F1=HELP      F2=SPLIT    F3=END      F4=PROMPT   F5=RFIND    F6=RCHANGE
F7=UP        F8=DOWN     F9=SWAP    F10=LEFT   F11=RIGHT   F12=RETRIEVE

MA b _____ 07/027
Connected to remote server/host stlvr ussvl1eb E280/02/E on ussvl1eb
  
```

# Dependent Region Display

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                      IMS dependent region activity      Realtime snapshot
COMMAND ===>                SCROLL ===> PAGE      Row 1 to 3 of 3

IMSplex: PLEX1                Date: 01/26/06
SM server: UIIMS1            Time: 07:58:56
Route: *                      more: >>
Enter any non blank character(s) to select a region for detailed activity

Cmd IMS Rgn  Type Jobname  Trancode Program  Status      ----Classes----
s_  IMS1   2    TP MPP02   SMQ6       SMQPSB6  ACTIVE      1  2  3  4
_   IMS1   1    TP MPP01                WAIT-UNKNOWN  1  2  3  4
_   IMS2   1    BMP BMP21                HPC$BA00 ACTIVE      0  0  0  0
***** Bottom of data *****

. . . . .

MA  b                                                                    13/003
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23  HP PSC 750xi on DOT4_001
    
```

# Dependent Region Display

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                      IMS dependent region activity      Realtime snapshot
COMMAND ===> _____ SCROLL ===> PAGE

  IMSplex: PLEX1                Date:          01/26/06
  SM server: UIIMS1             Time:          08:00:10
  Route: IMS1

  Jobname:  MPP02
  Region-id:  2  Type:  TP  Status:          ACTIVE  Classes:  1  2  3  4
  PSBname:  SMQPSB6  TRANCODE:  SMQ6
  In Cross Memory Window state: Y

  REQUESTS TO QMGR:
  Userid. . . . . : SMQLTM08
  Userid indicator. . . . . : L
  Originating Input Lterm . . : SMQLTM08
  LU6.2 network identifier . . :
  Date/time when message rcvd: 01/26/06
  07:46:15.5

  QUEUE MANAGER BUFFER COUNTS:
  Short buffer . . . . . : 0
  . . . . .

MA b 04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23  HP PSC 750xi on DOT4_001

```

# Dependent Region Display

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                      IMS dependent region activity      Realtime snapshot
COMMAND ===> _____ SCROLL ===> HALF
Row 41 to 50 of 129

  IMSplex: PLEX1                Date:          02/02/06
  SM server: UIIMS1            Time:          08:22:00
  Route: IMS1

  Jobname:   MPP02
  Region-id: 2  Type: TP  Status:          ACTIVE  Classes:  1  2  3  4
  PSBname:   SMQPSB6  TRANCODE:          SMQ6
  In Cross Memory Window state: Y

PCB INFORMATION SECTION . . .
PCB Type-TP/DB PCB . . . . . DB-PCB
Status code. . . . .
PCB name . . . . .
DBD name . . . . . DBHDOK01
Terminal name. . . . . N/A
Segment name feedback. . . . . HDAM
Function code. . . . . GHU
Processing option. . . . . AP

MA  b 04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI05 and port 23 HP PSC 750xi on DOT4_001

```

# Dependent Region Display

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                      IMS dependent region activity      Row 102 to 110 of 129
COMMAND ==> _                SCROLL ==> PAGE

  IMSplex: PLEX1              Date:          01/26/06
  SM server: UIIMS1          Time:          08:00:10
  Route: IMS1

  Jobname: MPP02
  Region-id: 2 Type: TP Status: ACTIVE Classes: 1 2 3 4
  PSBname: SMQPSB6 TRANCODE: SMQ6
  In Cross Memory Window state: Y

MSG calls:                   DB calls:
DL/I MSG GU CALLS. . . . . 1 DL/I DB GU CALLS . . . . . 0
DL/I MSG GN CALLS. . . . . 0 DL/I DB GN CALLS . . . . . 0
DL/I MSG CHNG CALLS. . . . . 0 DL/I DB GNP CALLS . . . . . 0
DL/I MSG ISRT CALLS. . . . . 0 DL/I DB GHU CALLS . . . . . 1
DL/I MSG PURG CALLS. . . . . 0 DL/I DB GHN CALLS . . . . . 0
DL/I MSG CMD CALLS. . . . . 0 DL/I DB GHNP CALLS . . . . . 0
DL/I MSG GCMD CALLS. . . . . 0 DL/I DB ISRT CALLS . . . . . 0
DL/I MSG AUTH CALLS. . . . . 0 DL/I DB DLET CALLS . . . . . 0
. . . . .

MA b 04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23 HP PSC 750xi on DOT4_001
    
```

## Scenario 7 – Viewing IMS CF Structures

---

- **Growing use of Coupling Facility Structures**
  - Data Sharing, Shared Message Queues, Resource Manager
  - No single source for list of in use structures and details
  
- **Coupling Facility Structure display**
  - Real-time display of structure list
  - Statistics, Connections, Coupling Facility information

# IMS Coupling Facility Structures

```

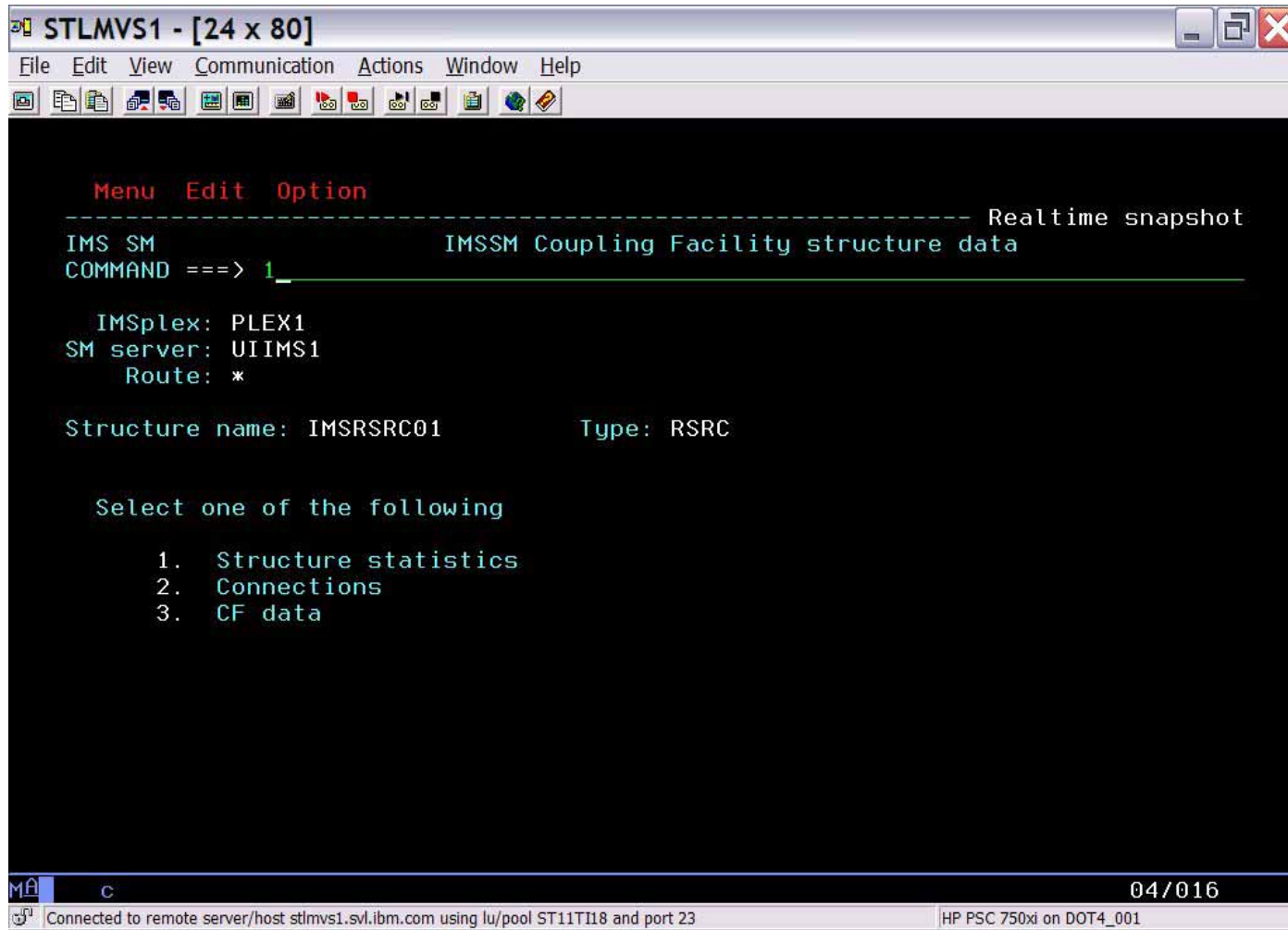
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                               Coupling Facility structures      Realtime snapshot
COMMAND ===>                        SCROLL ===> HALF                      Row 1 to 5 of 5

  IMSplex: PLEX1                      Date:      10/31/05
  SM server: UIIMS1                   Time:      13:36:46
  Route: *

Enter 's' or 'S' to select a structure for statistics
-----
Cmd Structure name      Type Status      -Connections-  ---Utilization---
                   Conns/Maxconns  Entries      Elements
-----
  ___ IMSMSGQ01          MSGQ ALLOCATED      2 /   32         0 %         0 %
  ___ IMSMSGQ010FLW     OVFL UNALLOCATE    0 /    0         0 %         0 %
  s_  IMSRSRC01         RSRC ALLOCATED     2 /   32        19 %         0 %
  ___ LT01              IRLM ALLOCATED     2 /   32         0 %         0 %
  ___ OSAMSESXI        OSAM ALLOCATED     3 /   32         0 %         0 %
***** Bottom of data *****
-----
MÁ  c                                                                    16/004
  Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23  HP PSC 750xi on DOT4_001
    
```



# IMS Coupling Facility Structures



The screenshot shows a terminal window titled "STLMVS1 - [24 x 80]". The window has a menu bar with "File", "Edit", "View", "Communication", "Actions", "Window", and "Help". Below the menu bar is a toolbar with various icons. The main content area is black with white text. At the top, it says "Menu Edit Option" in red. Below that, a dashed line separates the header "Realtime snapshot" from the main content. The main content displays "IMS SM" and "IMSSM Coupling Facility structure data". The command "COMMAND ==> 1\_" is entered. Below this, the following information is displayed: "IMSpdex: PLEX1", "SM server: UIIMS1", and "Route: \*". Further down, "Structure name: IMSR SRC01" and "Type: RSRC" are shown. A prompt "Select one of the following" is followed by a numbered list: "1. Structure statistics", "2. Connections", and "3. CF data". At the bottom of the terminal, there is a status bar with "MA" on the left, "c" in the middle, and "04/016" on the right. Below the status bar, a message reads "Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23" and "HP PSC 750xi on DOT4\_001".

```
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
----- Realtime snapshot
IMS SM                               IMSSM Coupling Facility structure data
COMMAND ==> 1_

IMSpdex: PLEX1
SM server: UIIMS1
Route: *

Structure name: IMSR SRC01           Type: RSRC

Select one of the following

1. Structure statistics
2. Connections
3. CF data

MA c                                04/016
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23
HP PSC 750xi on DOT4_001
```

# IMS Coupling Facility Structures

The screenshot shows a terminal window titled "STLMVS1 - [24 x 80]". The window contains the following text:

```

Menu  Edit  Option
-----
IMS SM                               CF structure statistics      Realtime snapshot
COMMAND ===> _____          SCROLL ===> HALF

    IMSplex: PLEX1                      Date:          10/31/05
    SM server: UIIMS1                   Time:         13:36:46
    Route: *

Structure name: IMSR SRC01              Type: RSRC

STRUCTURE STATISTICS
Entry count. . . . . : 430
Element count. . . . . : 14
Maximum entry count. . . . . : 2,161
Maximum element count. . . . . : 2,160
Entry ratio. . . . . : 1
Element ratio. . . . . : 1
Entries in use (%). . . . . : 19
Elements in use (%). . . . . : 0

Policy size. . . . . : 2,048K
Policy initial size. . . . . : 0K
  
```

At the bottom of the terminal window, there is a status bar with the following information:

- MA c
- 04/015
- Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23
- HP PSC 750xi on DOT4\_001

# IMS Coupling Facility Structures

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM          Coupling Facility structure connections      Realtime snapshot
COMMAND ==>>  _____      SCROLL ==>> HALF
Row 1 to 2 of 2

  IMSplex: PLEX1          Date:      10/31/05
  SM server: UIIMS1      Time:      13:36:46
  Route: *

Structure name: IMSRSRC01      Type: RSRC

Connection name  ID      Version  OS-name  Jobname  ASID      Status
-----
CQSCQS1CQS      0001   0001007B ECDBT09  CQSRG1   00000026  ACTIVE
CQSCQS2CQS      0002   0002001B ECDBT10  CQSRG2   00000026  ACTIVE
***** Bottom of data *****
  
```

MA c 04/015

Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23 HP PSC 750xi on DOT4\_001

# IMS Coupling Facility Structures

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                               Coupling Facility data      Realtime snapshot
COMMAND ===> _____          SCROLL ===> HALF

    IMSplex: PLEX1                      Date:          10/31/05
    SM server: UIIMS1                   Time:          13:36:46
    Route: *

Structure name: IMSRSRC01              Type: RSRC

COUPLING FACILITY DATA
ID. . . . . : 0000DCFF3
Name (node descriptor). . . . . : LF03
Side indicator (0 or 1) . . . . . : 1
Mode (PP or SI) . . . . . : SI
LPAR partition number . . . . . : 0
Node type . . . . . : SIMDEV
Model number. . . . . : 001
Node manufacturer . . . . . : IBM
Manufacturer plantid. . . . . : EN
Sequence number . . . . . : ND0300000000
CPCID . . . . . : 00000

MA  c                                     04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23  HP PSC 750xi on DOT4_001

```

# Scenarios

---

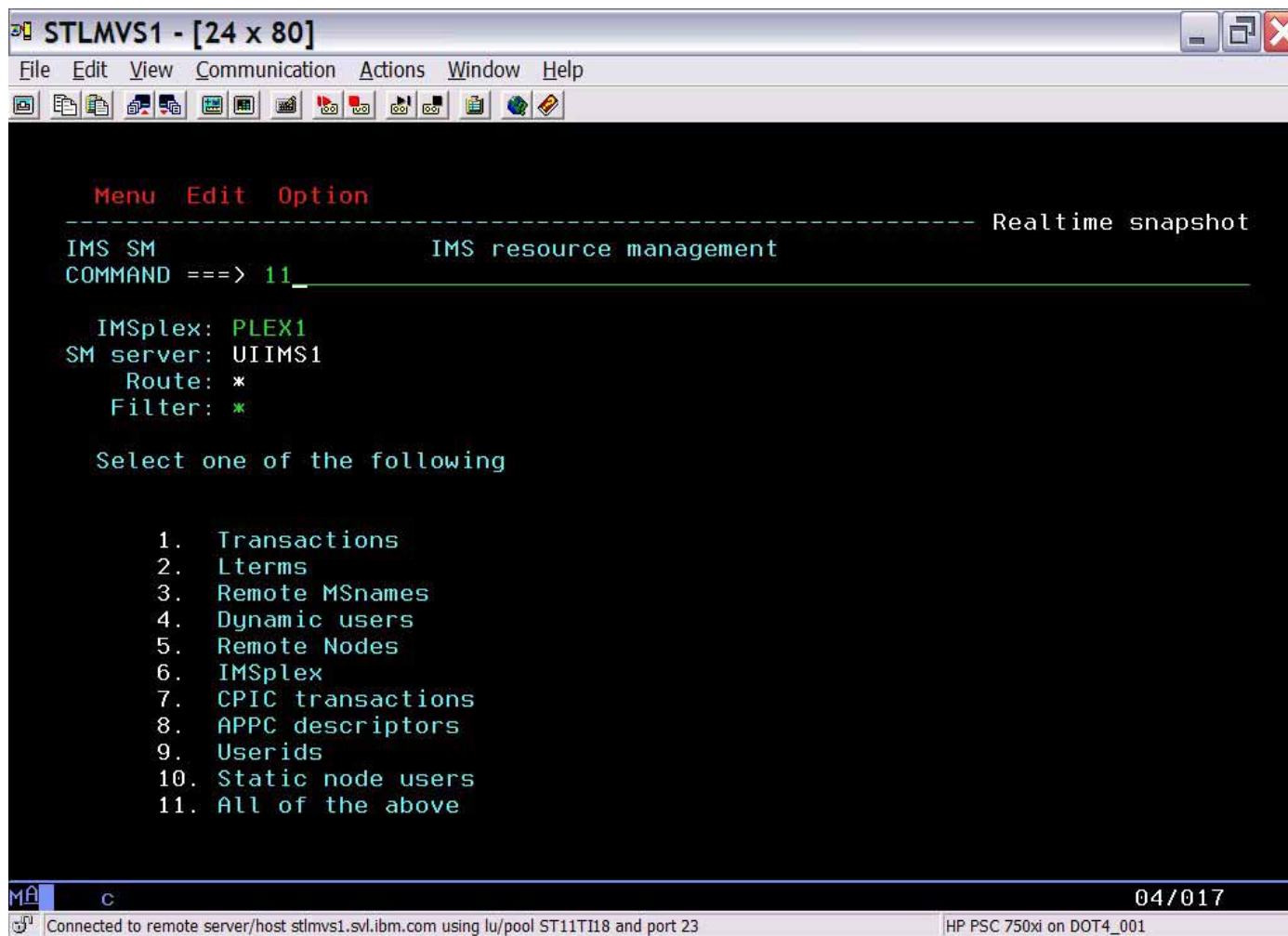
- **IMS**
  - Scenario 1 – Taking Inventory
  - Scenario 2 – Managing IMS System Parameters
  - Scenario 3 – Verifying IMS Resource Definitions
  - Scenario 4 – Issuing IMS Commands
  - Scenario 5 – Maintaining Command Audit Trail
  - Scenario 6 – Managing Dependent Regions
  - Scenario 7 – Viewing IMS CF Structures
  
- **IMSpIex**
  - **Scenario 8 – Managing CSL RM Structure**
  - Scenario 9 – Viewing Aggregate SCI, RM, OM Statistics
  
- **Data Sharing**
  - Scenario 10 – Resolving Data Sharing Long Locks
  - Scenario 11 - Viewing Real-time IRLM / PI Locking Status
  - Scenario 12 - Viewing Aggregated IRLM Statistics
  
- **Shared Queue and CQS**
  - Scenario 13 – Managing Destination Queue Depth
  - Scenario 14 – Viewing CQS Structures
  
- **Dashboard**
  - Scenario 15 – Dashboard Sysplex at a Glance

## Scenario 8 – Managing CSL RM Structure

---

- **Common Service Layer RM Structure Content**
  - Holds global status of IMS Resources in IMSplex
  - Determines IMSplex wide status of Trans, LTERMs, Users
  - No capability to view content
  - No capability to alter/delete inconsistently defined resources
  
- **Resource Management Structure display**
  - Real-time display of structure content
  - Selectable via resource type and name filtering
  - Capability to delete selected resource definitions
  - Eliminates need to scratch and reallocate resource structure

# IMS Resource Structure Content



The screenshot shows a terminal window titled "STLMVS1 - [24 x 80]". The window has a menu bar with "File", "Edit", "View", "Communication", "Actions", "Window", and "Help". Below the menu bar is a toolbar with various icons. The main content area is black with white text. At the top, it says "Menu Edit Option" and "----- Realtime snapshot". Below that, it says "IMS SM" and "IMS resource management". The command prompt is "COMMAND ==> 11\_". The output shows "IMSpdex: PLEX1", "SM server: UIIMS1", "Route: \*", and "Filter: \*". Below that, it says "Select one of the following" and lists 11 options: 1. Transactions, 2. Lterms, 3. Remote MSnames, 4. Dynamic users, 5. Remote Nodes, 6. IMSpdex, 7. CPIC transactions, 8. APPC descriptors, 9. Userids, 10. Static node users, and 11. All of the above. At the bottom of the terminal, there is a status bar with "MA" on the left, "c" in the middle, and "04/017" on the right. Below the status bar, there is a connection information bar that says "Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23" and "HP PSC 750xi on DOT4\_001".

```
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
----- Realtime snapshot
IMS SM                      IMS resource management
COMMAND ==> 11_

IMSpdex: PLEX1
SM server: UIIMS1
Route: *
Filter: *

Select one of the following

1. Transactions
2. Lterms
3. Remote MSnames
4. Dynamic users
5. Remote Nodes
6. IMSpdex
7. CPIC transactions
8. APPC descriptors
9. Userids
10. Static node users
11. All of the above

MA c 04/017
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23 HP PSC 750xi on DOT4_001
```

# IMS Resource Structure Content

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                                RM resource information      Realtime snapshot
COMMAND ===>                          SCROLL ===> HALF

IMSplex: PLEX1                          Date: 10/31/05
SM server: UIIMS1                        Time: 13:31:09
Route: *
Filter: *

Enter line command 'd' under Cmd to delete the resource.

Cmd Resource      Prompt      Resource-type Version      Owner
-----
_ BHA2             TRANSACT    0000000000000001
_ BHF1             TRANSACT    0000000000000001
_ BHG3             TRANSACT    0000000000000001
d_ CONV12M0        TRANSACT    0000000000000001
_ CONV21C0        TRANSACT    0000000000000001
_ CONV21M1        TRANSACT    0000000000000001
_ CONV21U0        TRANSACT    0000000000000001
_ DSPINV          TRANSACT    0000000000000001
_ ETRAN29         TRANSACT    0000000000000001
_ GMC             TRANSACT    0000000000000001

MA c 18/003
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23 HP PSC 750xi on DOT4_001
    
```



# IMS Resource Structure Content

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                                RM resource information      Realtime snapshot
COMMAND ==>                          Row 1 to 10 of 423
                                       SCROLL ==> HALF

  IMSplex:
  SM server:
  Route:      Resource name: CONV12M0
  Filter:     Resource type: TRANSACT

Enter line
  _ Set resource delete confirmation off

Cmd Resource
-----
  BHA2
  BHF1
  BHG3
  D  CONV12M
  CONV21C
  CONV21M
  CONV21U
  DSPINV      TRANSACT      000000000000000001
  ETRAN29    TRANSACT      000000000000000001
  GMC        TRANSACT      000000000000000001

ner
-----
  
```



# IMS Resource Structure Content

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                               RM resource information
COMMAND ===> _____ Realtime snapshot
                               Row 4 to 13 of 423
                               SCROLL ===> HALF

IMSplex: PLEX1                      Date: 10/31/05
SM server: UIIMS1                   Time: 13:31:09
Route: *
Filter: *

Enter line command 'd' under Cmd to delete the resource.

Cmd Resource      Prompt      Resource-type Version      Owner
-----
--- CONV12M0      Deleted    TRANSACT     0000000000000001
--- CONV21C0      TRANSACT   0000000000000001
--- CONV21M1      TRANSACT   0000000000000001
--- CONV21U0      TRANSACT   0000000000000001
--- DSPINV        TRANSACT   0000000000000001
--- ETRAN29       TRANSACT   0000000000000001
--- GMC           TRANSACT   0000000000000001
--- NQG1          TRANSACT   0000000000000001
--- NQHC1         TRANSACT   0000000000000001
--- NQH3          TRANSACT   0000000000000001

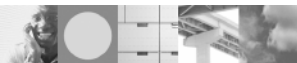
MA c 04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23 HP PSC 750xi on DOT4_001

```

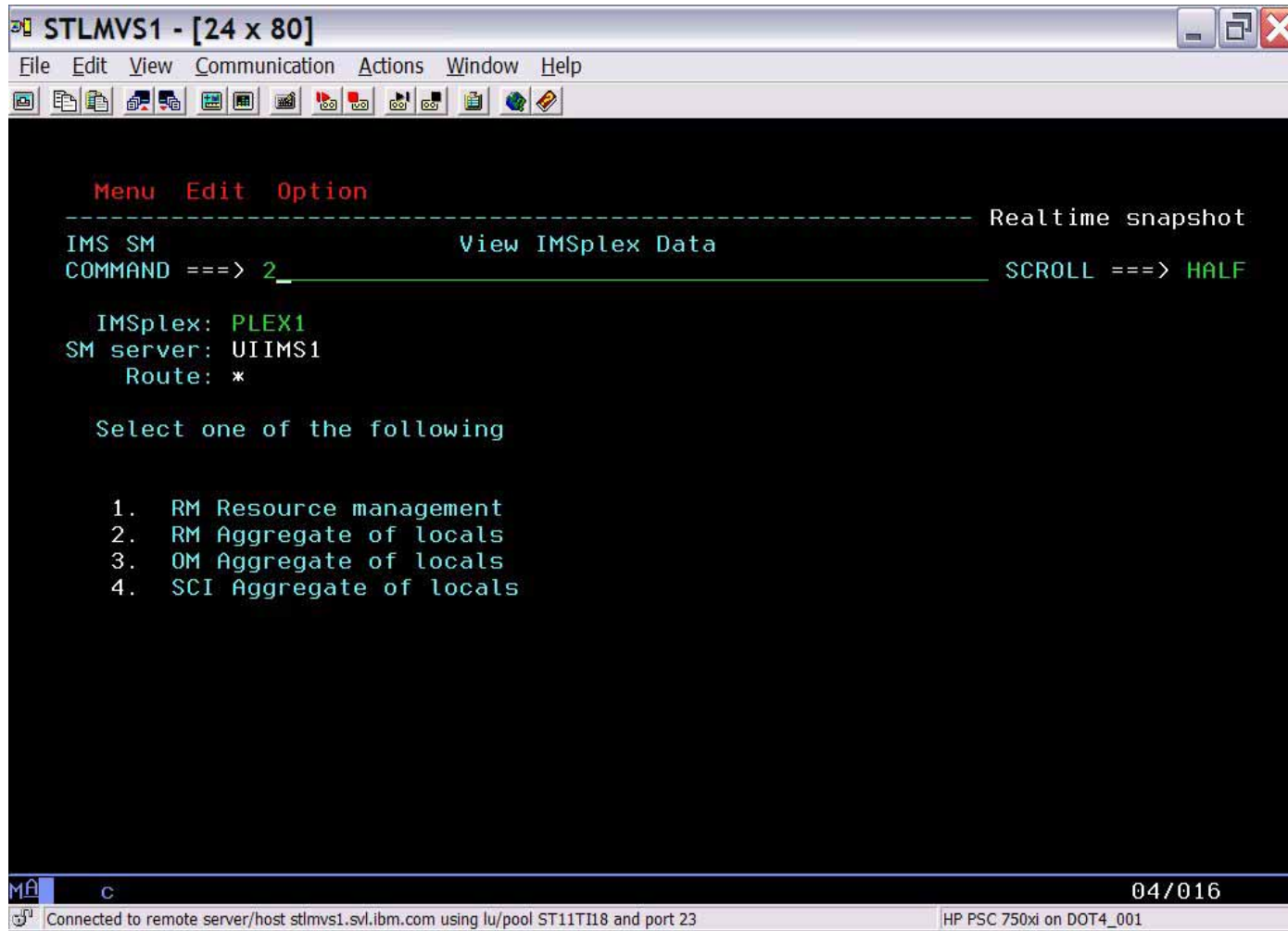
## Scenario 9 – Aggregated SCI, RM, OM Statistics

---

- **Managing the well being of Common Service Layer (CSL) address spaces**
  - Lack of tools to obtain CSL statistical information
  - Multiple instances to check
  
- **Information gathered from CSL address spaces across Sysplex**
  - Aggregated into single system image
  - Drill down for information from individual address space



# Aggregated RM Statistics



The screenshot shows a terminal window titled "STLMVS1 - [24 x 80]". The window has a menu bar with "File", "Edit", "View", "Communication", "Actions", "Window", and "Help". Below the menu bar is a toolbar with various icons. The main content area is black with white text. At the top, it says "Menu Edit Option" followed by a dashed line. Below this, it says "IMS SM View IMSplex Data" and "COMMAND ==> 2\_ SCROLL ==> HALF". Underneath, it lists "IMSplex: PLEX1", "SM server: UIIMS1", and "Route: \*". A prompt "Select one of the following" is followed by a numbered list: "1. RM Resource management", "2. RM Aggregate of locals", "3. OM Aggregate of locals", and "4. SCI Aggregate of locals". At the bottom of the terminal, there is a status bar with "MA c" on the left, "04/016" in the middle, and "Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23" on the left and "HP PSC 750xi on DOT4\_001" on the right.

```
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
Menu Edit Option
----- Realtime snapshot
IMS SM View IMSplex Data
COMMAND ==> 2_ SCROLL ==> HALF

IMSplex: PLEX1
SM server: UIIMS1
Route: *

Select one of the following

1. RM Resource management
2. RM Aggregate of locals
3. OM Aggregate of locals
4. SCI Aggregate of locals

MA c 04/016
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23 HP PSC 750xi on DOT4_001
```

# Aggregated RM Statistics

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                               Aggregated local RM statistics   Realtime snapshot
COMMAND ==>                          SCROLL ==> HALF

IMSplex: PLEX1                        Date: 10/31/05
SM server: UIIMS1                     Time: 13:34:27
Route: *

Enter 's' to view detailed RM statistics.  s _

LOCAL STATISTICS:
Update . . . . . : 31
Query. . . . . : 19
Delete . . . . . : 13
Register . . . . . : 10
De-register. . . . . : 0
Internal De-register (normal). : 0
Internal De-register(abnormal): 0
Initiate . . . . . : 0
Terminate: . . . . . : 0
Process: . . . . . : 0
Response . . . . . : 0

MA c 10/048
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23 HP PSC 750xi on DOT4_001

```

# Aggregated RM Statistics

STLMVS1 - [24 x 80]

File Edit View Communication Actions Window Help

Menu Edit Option

----- Realtime snapshot  
 IMS SM RM statistics Row 1 to 12 of 46  
 COMMAND ===> SCROLL ===> HALF

IMSplex: PLEX1 Date: 10/31/05  
 SM server: UIIMS1 Time: 13:34:27  
 Route: \*

RM-id	Description	Value
RM1RM	LOCAL STATISTICS:	
RM1RM	Update . . . . .	14
RM1RM	Query . . . . .	6
RM1RM	Delete . . . . .	1
RM1RM	Register . . . . .	5
RM1RM	De-register . . . . .	0
RM1RM	Internal De-register (normal):	0
RM1RM	Internal De-register (abnormal):	0
RM1RM	Initiate . . . . .	0
RM1RM	Terminate: . . . . .	0
RM1RM	Process: . . . . .	0
RM1RM	Response . . . . .	0

MA c 04/015

Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI18 and port 23 HP PSC 750xi on DOT4\_001

# Scenarios

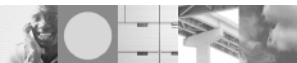
---

- **IMS**
  - Scenario 1 – Taking Inventory
  - Scenario 2 – Managing IMS System Parameters
  - Scenario 3 – Verifying IMS Resource Definitions
  - Scenario 4 – Issuing IMS Commands
  - Scenario 5 – Maintaining Command Audit Trail
  - Scenario 6 – Managing Dependent Regions
  - Scenario 7 – Viewing IMS CF Structures
  
- **IMSplex**
  - Scenario 8 – Managing CSL RM Structure
  - Scenario 9 – Viewing Aggregate SCI, RM, OM Statistics
  
- **Data Sharing**
  - **Scenario 10 – Resolving Data Sharing Long Locks**
  - Scenario 11 - Viewing Real-time IRLM / PI Locking Status
  - Scenario 12 - Viewing Aggregated IRLM Statistics
  
- **Shared Queue and CQS**
  - Scenario 13 – Managing Destination Queue Depth
  - Scenario 14 – Viewing CQS Structures
  
- **Dashboard**
  - Scenario 15 – Dashboard Sysplex at a Glance

## Scenario 10 – Data Sharing Long Locks

---

- **DB Lockouts by applications holding IRLM locks for an inordinate amount of time**
  - Could go unrecognized until it becomes critical
  - Lack of supported tools to assist in recognition and identification of problem
  - Manual intervention required to resolve
  
- **Exception processing for Long Locks**
  - Automatic real-time recognition when IRLM detects
  - Information consolidated, analyzed for top blocker, and presented
  - Information recorded in exceptions file and sent to z/OS console
  - Messages can be sent to z/OS console using user exit so that automated operations can resolve
  - Problem quickly resolved without manual intervention





# Data Sharing Long Lock Exceptions

```
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Display Filter View Print Options Help
-----
SDSF SYSLOG      4.102 STL1 STL1 01/23/2006 3W      4367      COLUMNS 51 130
COMMAND INPUT ==> _
0090 GJE0361I LOCKNAME = 090000040C800501D700000000000000 STRUCTURE = LT01
0090 GJE0361I Top Blocker-Message to IMS1
0090 GJE0361I PSTNumber=0001 PSBName=HPC$BA00 IMSID=IMS2
0090 GJE0361I Type=BMP Batch/Trans Name=BMP21 CICS Task=
0090 GJE0361I TranElapsedTime=00:07:00
0090 GJE0361I RecoveryToken=IMS2 40404040000000001
0090 GJE0361I Waiter -Message to IMS1
0090 GJE0361I PSTNumber=0002 PSBName=SMQPSB6 IMSID=IMS1
0090 GJE0361I Type=MPP Batch/Trans Name=SMQ6 CICS Task=
0090 GJE0361I TranElapsedTime=00:07:01
MA b 04/021
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TG44 and port 23 HP PSC 750xi on DOT4_001
```

# Data Sharing Long Lock Exceptions

```

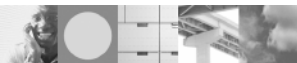
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Display Filter View Print Options Help
-----
SDSF SYSLOG      4.103 STL2 STL2 01/24/2006 2W      5721      COLUMNS 51 130
COMMAND INPUT ==>
SCROLL ==> HALF
0290 R 15,/STO REGION JOBNAME BMP21      ABDUMP.
0090 IEE600I REPLY TO 15 IS;/STO REGION JOBNAME BMP21      ABDUMP.
0090 DFS058I 10:09:46 STOP COMMAND IN PROGRESS  IMS2
0090 *16 DFS996I *IMS READY* IMS2
0090 DFS554A BMP21      00001 BMP      HPC$BA00(2)      000,0474 PSB
      2006/024 10:09:47 IMS2
0090 DFS552I BATCH REGION BMP21      STOPPED ID=00001 TIME=1009 IMS2
0090 WTSC      |S WTSC THIS |W (AUTOMASTER |DFS970I 9:09:|GJE2201I DATA
      |GJE2200I IMS S|DFS554A BMP21 |DFS552I BATCH |
0090 IEA995I SYMPTOM DUMP OUTPUT 520
0090 USER COMPLETION CODE=0474
0090 TIME=10.09.46 SEQ=00065 CPU=0000 ASID=002D
0090 PSW AT TIME OF ERROR 078D1000 9130664A ILC 2 INTC 01
0090 ACTIVE LOAD MODULE ADDRESS=113058B0 OFFSET=00000D9A
0090 NAME=DFSREXX1
0090 DATA AT PSW 11306644 - 5410AEF8 0A015850 92695860
0090 AR/GR 0: 80C62A4A/00000001 1: 00000000/1130C518
0090 2: 00000000/000069B0 3: 00000000/000000FF
0090 4: 00000000/1130C518 5: 00000000/113252D8
0090 6: 00000000/000000FF 7: 00000000/00000000
MA c 04/021
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TJ76 and port 23 HP PSC 750xi on DOT4_001

```

## Scenario 11 – Real-time IRLM / PI Locking Display

---

- **Identify resource contention**
  - Which IMS, dependent region, application is holding resources
  - Untangle queue of holder/waiters
  - Determine resources with contention
  
- **Display of resources with contention**
  - Select by dependent region and drill down to resource
  - Select by resource and drill down to dependent region



# Real-time IRLM Locking Display

```
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
Realtime snapshot
IMS SM IRLM Locks
COMMAND ===> 2_
-----
IMSpIex: PLEX1
SM server: UIIMS1
Route: *

Select one of the following

1. IRLM locks held by dependent regions
2. IRLM locks held by resource
3. IRLM lock contentions by dependent regions
4. IRLM lock contentions by resource

File Edit Edit_Settings Menu Utilities Compilers Test Help
MA b 04/016
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI05 and port 23
HP PSC 750xi on DOT4_001
```

# Real-time IRLM Locking Display

```

Menu Edit Option
----- Realtime snapshot
IMS SM                               IRLM locks held by resource   Row 1 to 1 of 1
COMMAND ==> _____ SCROLL ==> HALF

IMSplex: PLEX1                        Date:          02/02/06
SM server: UIIMS1                     Time:          08:19:28
Route: *

Enter any non blank character to see holder/waiter information

Cmd DBName          RBA          DCB   Lock   Global/   Waiter
          Number      Number   Type   Local     Count
s_  DBHDOK01  0000000000040C00      1     P       G         1
***** Bottom of data *****

File Edit Edit_Settings Menu Utilities Compilers Test Help

MA b
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI05 and port 23 HP PSC 750xi on DOT4 5 of 24 - Clipboard Item collected.

```

# Real-time IRLM Locking Display

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM                                IRLM locks held by resource      Realtime snapshot
COMMAND ===> _____             Row 1 to 2 of 2
                                       SCROLL ===> HALF

  IMSplex: PLEX1                       Date:          02/02/06
  SM server: UIIMS1                    Time:          08:19:28
  Route: *

Lock: DBHDOK01 0000000000040C00

Holder/ IMSID RGNID Jobname Stepname Job Lock Lock CurExecStatus
Waiter                                     Type State Time
HOLDER IMS2     1 BMP21   BMP   BMP   UPD   ACTIVE
WAITER  IMS1     2 MPP02  MPP   TP    ACTIVE
***** Bottom of data *****

File Edit Edit_Settings Menu Utilities Compilers Test Help
MA b                                                                 04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TI05 and port 23  HP PSC 750xi on DOT4_001
    
```

# Real-time PI Locking Display

```
C - STLVM1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
----- Realtime snapshot
GJEPPIF      Program Isolation Locks
Option ==> 2

IMSplex: PLEX1
SM server: UIS1
Route: *

Select one of the following

1. Program Isolation: Locks Held By Dependent Regions
2. Program Isolation: Locks Held By Resource
3. Program Isolation: Locks Contentions By Dependent Regions
4. Program Isolation: Locks Contentions By Resource

F1=HELP      F2=SPLIT     F3=END       F4=RETURN    F5=RFIND     F6=RCHANGE
F7=UP        F8=DOWN      F9=SWAP      F10=LEFT     F11=RIGHT    F12=RETRIEVE
MA c A ^ 04/015
Connected to remote server/host stlv1.svl.ibm.com using port 23
ussvlej-E-02-E280-Silicon Vall on ussvlej
```

# Real-time PI Locking Display

```

C - STLVM1 - [24 x 80]
File Edit View Communication Actions Window Help
Menu Edit Option Filter
----- Realtime snapshot
GJEP361      Program Isolation Locks Held By Resource      Row 1 to 2 of 2
COMMAND ==> _____ SCROLL ==> PAGE

  IMSplex: PLEX1          Date:      05/03/07
  SM server: UIS1        Time:      17:00:22
  Route: *

Enter 's' to select a LOCK for holders and waiters

  Cmd  IMSID  LockID      DBname      RBA      DCB      LOCK      Global/
      Address  Number  Type      Local      WAITcount
-----
s|  IMS1    LOCK    DBHDOK01    00000404    1        L        3
|  IMS2    LOCK    DIVNTZ02    041071C4    1        L        1
***** Bottom of data *****

F1=HELP      F2=SPLIT      F3=END      F4=RETURN      F5=RFIND      F6=RCHANGE
F7=UP        F8=DOWN       F9=SWAP     F10=LEFT       F11=RIGHT     F12=RETRIEVE

MA c A 15/003
Connected to remote server/host stvm1.svl.ibm.com using port 23
ussvillej-E-02-E280-Silicon Vall on ussvllej
    
```



# Real-time PI Locking Display

```

C - STLVM1 - [24 x 80]
File Edit View Communication Actions Window Help
Menu Edit Option Filter
----- Realtime snapshot
GJEP362      Program Isolation Locks Held By Resource      Row 1 to 4 of 4
COMMAND ==> | SCROLL ==> PAGE

  IMSplex: PLEX1          Date:      05/03/07
  SM server: UIS1        Time:      17:00:22
  Route: *

  IMSid: IMS1      DB NAME: DBHDOK1      RBA: 00000404

  Holder/  Region
  Waiter   ID    Job-name  Step-name  Type
  WAIER    2    MPPU2    MPP        TP
  WAIER    1    MPPU1    MPP        TP
  WAIER    4    MPPU4    MPP        TP
  HOLDER   3    MPPU3    MPP        TP      UPD
  Current-Execution
  Status

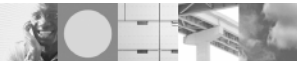
  F1=HELP      F2=SPLIT      F3=END      F4=RETURN      F5=RFIND      F6=RCHANGE
  F7=UP        F8=DOWN       F9=SWAP     F10=LEFT      F11=RIGHT     F12=RETRIEVE

MA  c                                     A                                     04/015
  Connected to remote server/host stlvm1.svl.ibm.com using port 23
  ussvllej-E-02-E280-Silicon Vall on ussvllej
  
```

## Scenario 12 – Aggregated IRLM Statistics

---

- **Managing the well being of IRLM(s)**
  - Deadlocks, false contentions, storage utilization?
  - Multiple IRLMs to check
  
- **Information gathered from IRLMs across Sysplex**
  - Aggregated into single system image
  - Drill down for information from individual IRLMs



# Aggregated IRLM Statistics

STLMVS1 - [24 x 80]

File Edit View Communication Actions Window Help

Menu Edit Option

----- Realtime snapshot  
 IMS SM Aggregated IRLM statistics Row 1 to 9 of 51  
 COMMAND ===> SCROLL ===> HALF

IMSplex: PLEX1 Date: 01/26/06  
 SM server: UIIMS1 Time: 08:11:48  
 Route: \*

Enter 's' to view detailed IRLM statistics. s \_

Description	Value
GLOBAL ACTIVITY COUNTERS:	
Total global LOCK request. . . . .	2,014
Child locks propagated . . . . .	0
IRLM to IRLM notify request. . . . .	0
REQUESTS	
Lock . . . . .	2,122
Unlock . . . . .	1,115
Change . . . . .	0

MA b 10/050

Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23 HP PSC 750xi on DOT4\_001

# Aggregated IRLM Statistics

STLMVS1 - [24 x 80]

File Edit View Communication Actions Window Help

Menu Edit Option

----- Realtime snapshot  
 IMS SM Aggregated IRLM statistics Row 32 to 40 of 51  
 COMMAND ===> SCROLL ===> HALF

IMSpIex: PLEX1 Date: 01/26/06  
 SM server: UIIMS1 Time: 08:23:48  
 Route: \*

Enter 's' to view detailed IRLM statistics. \_

Description	Value
RESOURCE CONTENTIONS:	
Local. . . . .	0
Global. . . . .	1
False. . . . .	0
SYSTEM ACTIVITY COUNTERS:	
Identify requests. . . . .	4
Quit requests. . . . .	0
Local deadlocks. . . . .	0

MA b 04/015

Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23 HP PSC 750xi on DOT4\_001

# Aggregated IRLM Statistics

STLMVS1 - [24 x 80]

File Edit View Communication Actions Window Help

Menu Edit Option

----- Realtime snapshot  
 IMS SM IRLM statistics Row 1 to 9 of 142  
 COMMAND ==> SCROLL ==> HALF

IMSplex: PLEX1 Date: 01/26/06  
 SM server: UIIMS1 Time: 08:23:48  
 Route: \*

IMSid	Description	Value
IMS1	GLOBAL ACTIVITY COUNTERS:	
IMS1	Total global LOCK request . . . . .	2,001
IMS1	Child locks propagated . . . . .	0
IMS1	IRLM to IRLM notify request . . . . .	0
IMS1	REQUESTS	
IMS1	Lock . . . . .	2,083
IMS1	Unlock . . . . .	1,084
IMS1	Change . . . . .	0

MA b 04/015

Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23 HP PSC 750xi on DOT4\_001

# Aggregated IRLM Statistics

STLMVS1 - [24 x 80]

File Edit View Communication Actions Window Help

Menu Edit Option

----- Realtime snapshot  
 IMS SM IRLM statistics Row 72 to 80 of 142  
 COMMAND ==> SCROLL ==> HALF

IMSplex: PLEX1 Date: 01/26/06  
 SM server: UIIMS1 Time: 08:23:48  
 Route: \*

IMSid	Description	Value
IMS2	GLOBAL ACTIVITY COUNTERS:	
IMS2	Total global LOCK request . . . . .	13
IMS2	Child locks propagatged . . . . .	0
IMS2	IRLM to IRLM notify request . . . . .	0
IMS2	REQUESTS	
IMS2	Lock . . . . .	39
IMS2	Unlock . . . . .	31
IMS2	Change . . . . .	0

MA b 04/015

Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23 HP PSC 750xi on DOT4\_001

# Scenarios

---

- **IMS**
  - Scenario 1 – Taking Inventory
  - Scenario 2 – Managing IMS System Parameters
  - Scenario 3 – Verifying IMS Resource Definitions
  - Scenario 4 – Issuing IMS Commands
  - Scenario 5 – Maintaining Command Audit Trail
  - Scenario 6 – Managing Dependent Regions
  - Scenario 7 – Viewing IMS CF Structures
  
- **IMSplex**
  - Scenario 8 – Managing CSL RM Structure
  - Scenario 9 – Viewing Aggregate SCI, RM, OM Statistics
  
- **Data Sharing**
  - Scenario 10 – Resolving Data Sharing Long Locks
  - Scenario 11 - Viewing Real-time IRLM / PI Locking Status
  - Scenario 12 - Viewing Aggregated IRLM Statistics
  
- **Shared Queue and CQS**
  - **Scenario 13 – Managing Destination Queue Depth**
  - Scenario 14 – Viewing CQS Structures
  
- **Dashboard**
  - Scenario 15 – Dashboard Sysplex at a Glance

## Scenario 13 – Destination Queue Depth

- **Managing Destination Queue Depth & CQS for Shared Queues**
  - Limited tools to browse, delete and recover messages on Shared Queues
  - Lack of tools to obtain CQS statistical information and manage messages on Shared Queues
  - Required to optimize Shared Queues environment
  
- **DQD data & List of Shared Queue Structures in use**
  - Filter based on Destination name or ID
  - High level information, Drill down to levels of detail
  - Browse, Delete and Recover messages from Cold queue
  - Statistics for: structure, rebuild, checkpoint
  - CQS processing counters



# Destination Queue Depth

```

Menu Edit Option Filter
-----
GJEP210          Destination Queue Depths          Realtime snapshot
COMMAND ==>>                                     Row 1 to 2 of 2
                                                SCROLL ==>> PAGE

  IMSplex: PLEX1          Date:          08/24/06
  SM server: UIS          Time:          10:08:12
  Route: IMS1

more: >

Enter 's' to list messages on the destination queue
      'd' to delete all messages on the destination queue
      'r' to recover all messages on the cold queue

-----Counts----- Affinity
Cmd ID  Destination      Type      On-Q    Enq     Deq  SDR  IMSI
s_  CQS1  SMQ6          TRANSERQ  1,000   N/A    N/A   IMS2
_   CQS1  SMQ6          TRANSERQ   560    N/A    N/A   IMS1
***** Bottom of data *****

```

# Destination Queue Depth

```
Menu Edit Option
-----
GJEP620          Destination Queue Depths          Row 1 to 24 of 1,000
COMMAND ==>                                SCROLL ==> PAGE
Realtime snapshot

IMSplex: PLEX1                Date:          08/24/06
SM server: UIS                Time:          10:09:21
Route: IMS1

SysID: CQS1  Destination: SMQ6                  Type: TRANSERQ

Enter 's' to view message on the destination queue
     'd' to delete message on the destination queue
     'r' to recover message on the cold queue

  Cmd Msg source                Message Security access RACF           -----Prompt-----
  ___ SMQLTM11                 source ID facility  UserID         Msg count Action
s_  SMQLTM11                   10                     SMQLTM11
_   SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
___ SMQLTM11                   10                     SMQLTM11
```

# Destination Queue Depth

```

Menu  Edit  Option
-----
GJEP630          Detailed message view          Realtime snapshot
COMMAND ==>>          Row 1 to 24 of 53
                                SCROLL ==>> PAGE

    IMSplex: PLEX1          Date:          08/24/06
    SM server: UIS          Time:          09:59:50
    Route: IMS1

Destination.....: SMQ6          Most severe status.....:
Message source...: SMQLTM11      Message id.....: 10

    Enter 'd' to delete this message
    Enter 'r' to recover this message

Message
INPUT MESSAGE QUEUED          MSGS LENGTH:00530
NODE NAME: SMQLU111          SOURCE LTERM: SMQLTM11
DEST LTERM/TRAN: SMQ6
ORIGIN IMS:IMS2          PROCESSING IMS: IMS2
MSG TIMESTAMP: 2006235173834360135
1ST/CURRENT DRRN:08000003/08000003
UOW: C9D4E2F240404040BF4C318B87947A1A
** SQ MESSAGE - PUT PROCESS **
    BASIC PREFIX
00000000  02120000  01C18110  08000003  08000003  .. .Aa.. .. <.>
00000010  01CE9000  C9D4E2F2  40404040  BF4C318B  .60 IMS2 |<.>
00000020  87947A1A  C9D4E2F2  40404040  BF4C318B  gm:.IMS2 |<.>
00000030  87947A1A  80000400  00000000  00000000  gm:~ .

    SYSTEM PREFIX
00000000  00408100  C8000000  E2D4D8D3  E4F1F1F1  a H SMQLU111
00000010  00040000  00000000  00000000  00000001  .
00000020  E2D4D8D3  E3D4F1F1  E2D4D8F6  40404040  SMQLTM11SMQ6
00000030  00000000  00000000  40404040  40404040
    
```

# Destination Queue Depth

```

Menu  Edit  Option
-----
GJEP620          Destination Queue Depths          Realtime snapshot
COMMAND ==>                               Row 2 to 25 of 1,000
                                           SCROLL ==> PAGE

  IMSplex:
SM server:
  Route:

SysID: CQS1

Enter 's' t
      'd' t
      'r' t

Cmd Msg sou
d  SMQLTM1
-- SMQLTM1
-- SMQLTM1
-- SMQLTM1
-- SMQLTM11      10      SMQLTM11
-- SMQLTM11      10      SMQLTM11
-- SMQLTM11      10      SMQLTM11
-- SMQLTM11      10      SMQLTM11
-- SMQLTM11      10      SMQLTM11

GJEPDMQ onfirm message delete
  QType: 00000004
  QName: 04E2D4D8F640404040C9D4E2F2404040
  _ Set message delete confirmation off

Press ENTER to confirm delete.
Press PF3 (END) to cancel delete.

---Prompt-----
g count Action

F1=HELP      F2=SPLIT      F3=END
F4=RETURN    F5=RFIND      F6=RCHANGE

TRANSERQ
    
```

# Destination Queue Depth

```

Menu  Edit  Option
-----
GJEP620          Destination Queue Depths          Realtime snapshot
COMMAND ===>          Row 2 to 25 of 1,000
                                SCROLL ==> PAGE

  IMSplex: PLEX1          Date:          08/24/06
  SM server: UIS         Time:          10:11:55
  Route: IMS1

SysID: CQS1  Destination: SMQ6          Type: TRANSERQ

Enter 's' to view message on the destination queue
      'd' to delete message on the destination queue
      'r' to recover message on the cold queue

Cmd Msg source      Message  Security access RACF      ----- Prompt-----
   SMQLTM11         source ID  facility  UserID    Msg count Action
--- SMQLTM11         10          SMQLTM11 SMQLTM11
   SMQLTM11         10          SMQLTM11 SMQLTM11
   SMQLTM11         10          SMQLTM11 SMQLTM11
   SMQLTM11         10          SMQLTM11 SMQLTM11
   SMQLTM11         10          SMQLTM11 SMQLTM11

```

The "Prompt" column in the table above is circled in orange, showing "1 Deleted".

# CQS Shared Message Queues

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM          IMS Common Queue Server structures      Realtime snapshot
COMMAND ===>   _____                               Row 1 to 2 of 2
                                                    SCROLL ===> HALF

  IMSplex: PLEX1          Date:          01/26/06
  SM server: UIIMS2      Time:          10:25:41
  Route: *
  Enter any non blank character to select a structure for statistics

  CMD Structure      Name                               ----Utilization---
                                           Entries  Elements
  ---
  _  EMHQ            IMSEMHQ01                               1 %      1 %
     OVFL            NOT-CONNECTED                           0 %      0 %

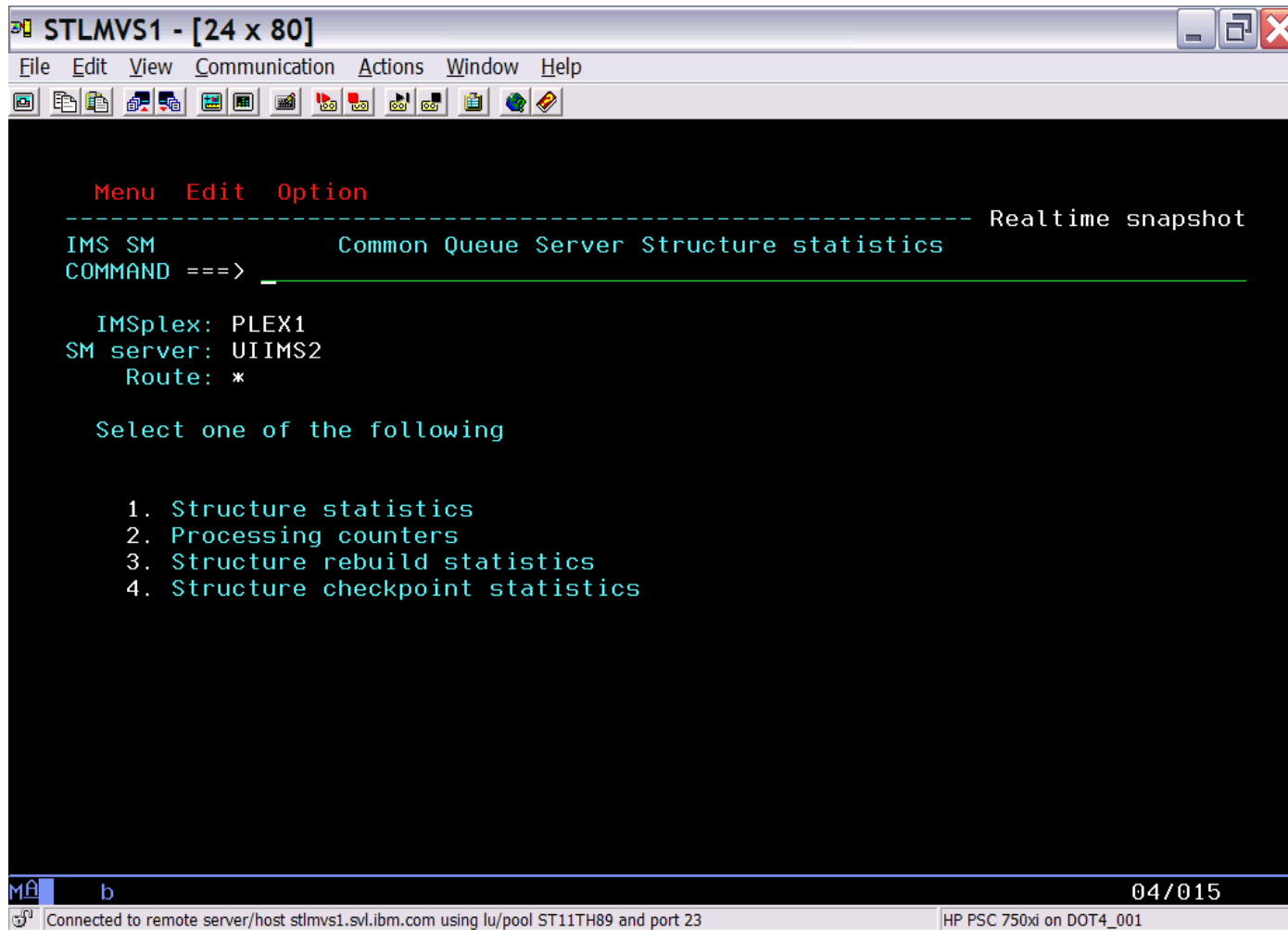
  s_ PRIM            IMSMSGQ01                               5 %     11 %
     OVFL            NOT-CONNECTED                           0 %      0 %

***** Bottom of data *****
  
```

MA b 17/004

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# CQS Shared Message Queues



```
STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
----- Realtime snapshot
IMS SM          Common Queue Server Structure statistics
COMMAND ===>  _

IMSplex: PLEX1
SM server: UIIMS2
Route: *

Select one of the following

1. Structure statistics
2. Processing counters
3. Structure rebuild statistics
4. Structure checkpoint statistics

MA b 04/015
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```

# CQS Shared Message Queues

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
----- Realtime snapshot
IMS SM          Common Queue Server structure statistics
COMMAND ==>
  IMSplex: PLEX1
  SM server: UIIMS2          Date:          01/26/06
  Route: *                   Time:          10:25:41
  Primary structure name : IMSMSGQ01      Type: PRIM
  Overflow structure name: NOT-CONNECTED  Type: OVFL
  Checkpoint
  System . . . . . : 0
  Structure. . . . . : 1
  Rebuild . . . . . : 2
  Overflow threshold processing . . . : 0
  Entry counts
  Total. . . . . : Primary      Overflow
  Maximum. . . . . : 1,016      0
  Entry ratio . . . . . : 18,084  0
  Percentage in use . . . . . : 5      0
  Element counts
  Total. . . . . : 2,026      0
  Maximum. . . . . : 18,084  0
  Element ratio . . . . . : 1      0
  Percentage in use . . . . . : 11     0
  
```

MA b 04/015

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# CQS Shared Message Queues

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM          Common Queue Server processing counters      Realtime snapshot
COMMAND ===>   _____      SCROLL ===> PAGE

    IMSplex: PLEX1          Date:          01/26/06
    SM server: UIIMS2      Time:          10:25:41
    Route: *

Requests:
CQSBWSE. . . . . : 0
CQSCHKPT. . . . . : 0
CQSCONN. . . . . : 0
CQSDDEL. . . . . : 0
CQSDISC. . . . . : 0
CQSINFRM. . . . . : 0
CQSMOVE. . . . . : 0
CQSPUT. . . . . : 0
CQSQUERY. . . . . : 10
CQSREAD. . . . . : 0
CQSRECV. . . . . : 0
CQSRSYNC. . . . . : 0
CQSUNLCK. . . . . : 0

MA  b 04/015
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```

# CQS Shared Message Queues

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM          Common Queue Server processing counters      Realtime snapshot
COMMAND ===>   _____      SCROLL ===> PAGE

    IMSplex: PLEX1          Date:          01/26/06
    SM server: UIIMS2       Time:          10:25:41
    Route: *

MVS requests:
IXGWRITE (MVS LOGGER) . . . . . : 4
IXGBRWSE (MVS LOGGER) . . . . . : 0
IXLLIST DEQ EVENTQ. . . . . : 2
IXLLIST WRITE . . . . . : 2,039
IXLLIST READ. . . . . : 2,044
IXLLIST MOVE. . . . . : 0
IXLLIST DELETE. . . . . : 2
IXLMG . . . . . : 9
IXLUSYNC. . . . . : 0

Data object:
PUT Object. . . . . : 0
PUT object and commit UOW . . . . : 0
PUT Non-recoverable Object. . . . : 0

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```

# CQS Shared Message Queues

The screenshot shows a terminal window titled "STLMVS1 - [24 x 80]". The window contains a menu bar (File, Edit, View, Communication, Actions, Window, Help) and a toolbar. The main content is a "Realtime snapshot" of CQS Shared Message Queue structure rebuild statistics. The statistics are presented in a table with columns for "Old" and "New (Rebuild)".

```

Menu  Edit  Option
----- Realtime snapshot
IMS SM      Common Queue Server structure rebuild statistics
COMMAND ===> _____

    IMSplex: PLEX1                Date:      01/26/06
    SM server: UIIMS2            Time:      10:25:41
    Route: *

                                     Old   New (Rebuild)
Data Elements in use. . . . . :    2,026    2,026
Data Elements allocated . . . . :   18,084   18,084
Data Entries in use . . . . . :    1,016    1,016
Data Entries allocated . . . . . :   18,084   18,084
EMCS in use . . . . . :          1,302     651
EMCS allocated. . . . . :        36,487   36,487
Size in 4K Blocks . . . . . :     4,352    4,352
CF Total space in 4K Blocks . . . :   13,632   13,632
CF Free space in 4K Blocks. . . . :    1,792    6,144
Old CF name Structure allocated on. :      LF03     LF03
  
```

At the bottom of the terminal window, there is a status bar showing "MA b" on the left, "04/015" on the right, and a connection message: "Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23". The hardware information "HP PSC 750xi on DOT4\_001" is also visible in the bottom right corner of the terminal area.

# CQS Shared Message Queues

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
-----
IMS SM          Common Queue Server structure checkpoint stats  Realtime snapshot
COMMAND ===>  _____  SCROLL ===> PAGE

  IMSplex: PLEX1          Date:          01/26/06
  SM server: UIIMS2      Time:          10:25:41
  Route: *

Return code for this Structure checkpoint .          00000000

QUIESCE TIME
Start date . . . . . 01/26/06
Start time . . . . . 10:12:59.1
End date . . . . . 01/26/06
End time . . . . . 10:12:59.9

DATA SPACE/DATA SET CAPTURE TIME
Start date . . . . . 01/26/06
Start time . . . . . 10:12:59.9
End date . . . . . 01/26/06
End time . . . . . 10:13:00.1

End data set capture date . . . . . 01/26/06

MA  b 04/015
Connected to remote server/host stlmvs1.svl.ibm.com using lu/pool ST11TH89 and port 23 HP PSC 750xi on DOT4_001
    
```

# CQS Shared Message Queues

```

STLMVS1 - [24 x 80]
File Edit View Communication Actions Window Help
-----
Menu Edit Option
----- Realtime snapshot
IMS SM      Common Queue Server structure checkpoint stat Row 20 to 34 of 34
COMMAND ===> _____ SCROLL ===> HALF

    IMSplex: PLEX1                Date:          01/26/06
    SM server: UIIMS2            Time:          10:25:41
    Route: *

Time all System checkpoints completed . . .      10:13:02.0

PRIMARY STRUCTURE
Allocated elements . . . . .          18,084
Elements in use. . . . .              2,026
Allocated list entries . . . . .      18,084
List entries in use. . . . .          1,016

OVERFLOW STRUCTURE
Allocated elements . . . . .           0
Elements in use. . . . .               0
Allocated list entries . . . . .       0
List entries in use. . . . .           0

SRDS WRITES required. . . . .         23

MA  b                                     04/015
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```

# Scenarios

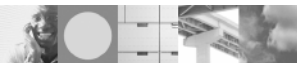
---

- **IMS**
  - Scenario 1 – Taking Inventory
  - Scenario 2 – Managing IMS System Parameters
  - Scenario 3 – Verifying IMS Resource Definitions
  - Scenario 4 – Issuing IMS Commands
  - Scenario 5 – Maintaining Command Audit Trail
  - Scenario 6 – Managing Dependent Regions
  - Scenario 7 – Viewing IMS CF Structures
  
- **IMSplex**
  - Scenario 8 – Managing CSL RM Structure
  - Scenario 9 – Viewing Aggregate SCI, RM, OM Statistics
  
- **Data Sharing**
  - Scenario 10 – Resolving Data Sharing Long Locks
  - Scenario 11 - Viewing Real-time IRLM / PI Locking Status
  - Scenario 12 - Viewing Aggregated IRLM Statistics
  
- **Shared Queue and CQS**
  - Scenario 13 – Managing Destination Queue Depth
  - Scenario 14 – Viewing CQS Structures
  
- **Dashboard**
  - **Scenario 15 – Dashboard Sysplex at a Glance**

## Scenario 15 – Dashboard Sysplex at a Glance

---

- **Managing the IMS Sysplex through key system indicators**
  - Determine overall Sysplex health at a Glance
  - Alert when indicators violate predefined thresholds
  
- **Critical data from key areas summarized on one or more screens**
  - User customized content, positioning, threshold value
  - One or more per user, default supplied
  - Automatic screen refresh capability for operational ease
  - Drill down for additional detail



# Dashboard

STLMVS1 - [24 x 80]

File Edit View Communication Actions Window Help

Menu Edit Option

----- Realtime snapshot

IMS SM Dashboard Page: \* (1 of 2)

COMMAND ===>

IMSpIex: PLEX1 Dashboard: IMSSM dashboard Date: 02/06/06 Time: 10:24:40

MSGQ % in use-----	Aggr. local OM requests	EMHQ % in use-----
P-Entry : 5	Reg commands : 12	P-Entry : 1
P-Element: 11	Notify rdy : 6	P-Element: 1
O-Entry : 0	Notify not rdy: 0	O-Entry : 0
O-Element: 0	Dereg normal : 0	O-Element: 0
S Msg queue depths (SMQ)-	Dereg abnormal: 0	CQS system resources---
COLDQ : 0	Commands : 0	Sys.chkp: 6
TRAN RDY Q : 0	Queries : 0	Str.chkp: 0
TRAN SPD Q : 0	A0 commands : 0	Msg queue depths(Local)
TRAN SER Q : 1,000	ZQRY requests : 14	TRANSACT: 0
LTRM RDY Q : 0	ZSHUT requests: 0	LTERM : 0
APPC RDY Q : 0	QRY IMSpIex cmd: 0	MSNAME : 0
RMTE RDY Q : 0	Reg. clients: 4	LU6.2 : 0
OTMA RDY Q : 0	Cmd timeouts: 0	OTMA : 0
PRGMRDYQ-FP: 0	Undel.output: 0	

MA b 11/004

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# Dashboard

STLMVS1 - [24 x 80]

File Edit View Communication Actions Window Help

Menu Edit Option

----- Realtime snapshot  
 IMS SM Destination Queue Depths Row 1 to 1 of 1  
 COMMAND ==> SCROLL ==> HALF

IMSpIex: PLEX1 Date: 02/06/06  
 SM server: UIIMS1 Time: 10:28:29  
 Route: \* more: >>

ID	Destination	Type	On-Q	Enq	Deq	Affinity/ SIDL/R
CQS1	SMQ6	TRANSERQ	1,000	0	0	IMS2

\*\*\*\*\* Bottom of data \*\*\*\*\*

MA b 04/015

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# References

---

- **IMS Sysplex Manager for z/OS**

- <http://www-306.ibm.com/software/data/db2imstools/imstools-library.html>



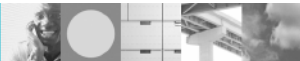
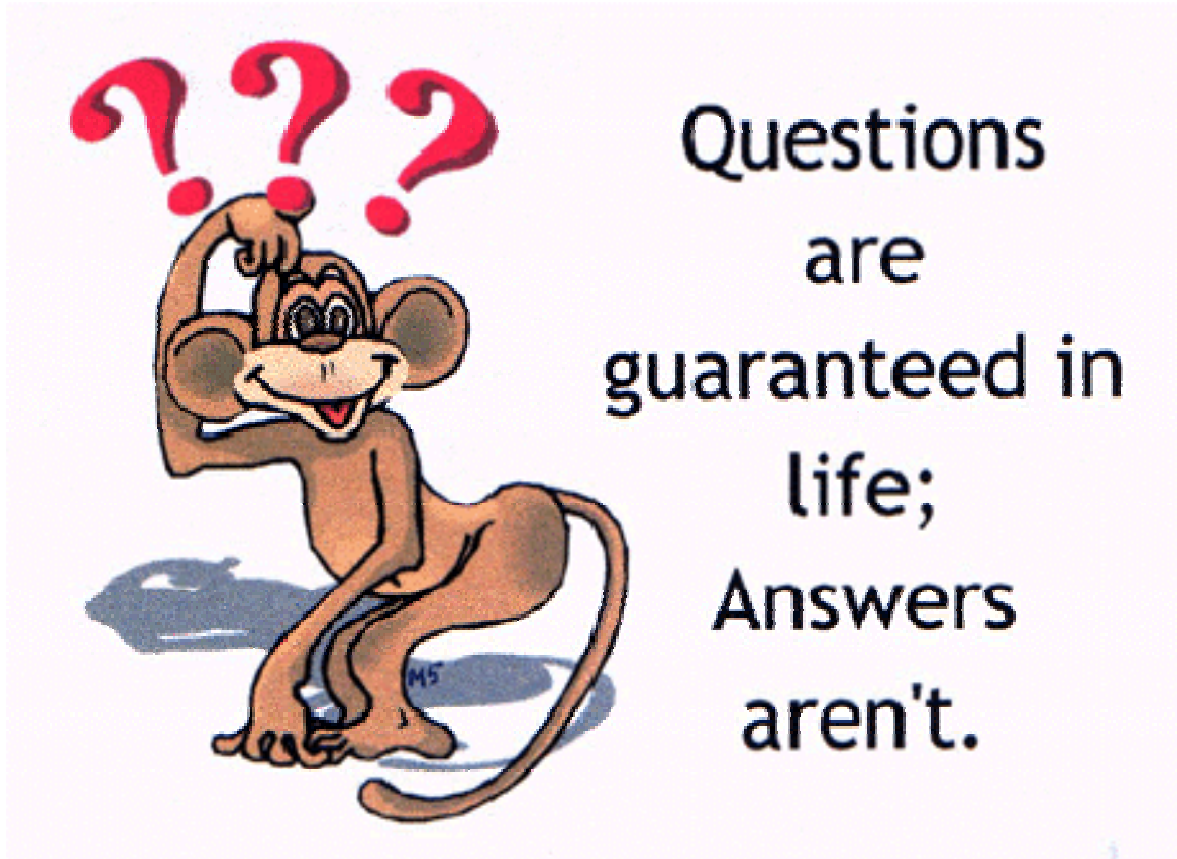
## Contact information

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- **Andy Nguyen**
- **E-mail address: [adn@us.ibm.com](mailto:adn@us.ibm.com)**



## Q & A



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