Highlights

- Manage your IMS System components, parameters, dependent regions and issue IMS Type 1 and Type 2 commands

- Control your IMS Sysplex environment including the CSL Resource Manager (RM), IMS Coupling Facility (CF), and IMS Shared Queues structures

- Customize your own dashboard to monitor the overall health of your IMS systems

- Records command input and output messages from all sources together with MTO messages in the same history database for audit and troubleshooting purposes
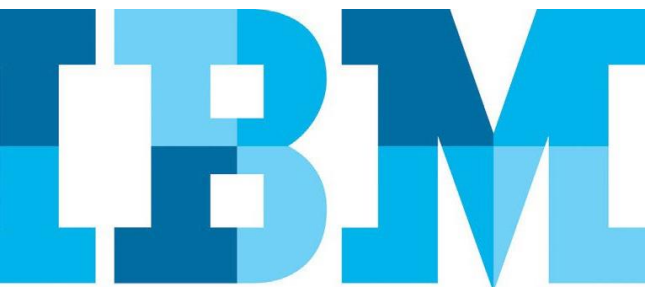
- Program Number: 5655-P01

IMS Sysplex Manager

Effectively manage IMS System environments

As IT operations become more complex, companies are looking to IBM to provide tooling to manage their system environments effectively. IT service management solutions simplify data center operations by monitoring and analyzing key data elements in the system and providing actionable intelligence to enhance performance and resource utilization.

The *IMS Sysplex Manager* product supports IMS systems whether they are complex sysplex environments or simply running as a standalone IMS system.

The *IMS Sysplex Manager* is a single point of control for IMS system operations. The product monitors key system analytics and displays it using a customizable user interface. The *IMS Sysplex Manager* automates the handling of specific error situations reducing complexity for system programmers.

Manage IMS Systems Effectively

The *IMS Sysplex Manager* is a key component of the *IMS System Management Solution* as shown in Figure 1.
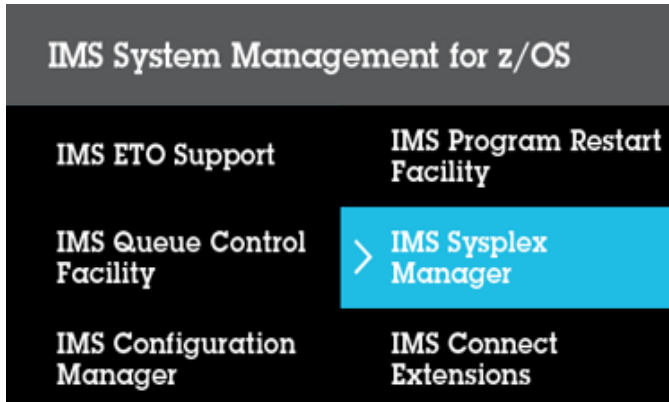

Figure 1: IMS System Management Solution Components

While the *IMS Sysplex Manager* product supports complex IMS Sysplex environments, it also provides support for standalone IMS systems.

Keeping an Inventory of IMS Components

The *IMS Sysplex Manager* keeps an inventory of all of the key IMS system components as shown in Figure 2.
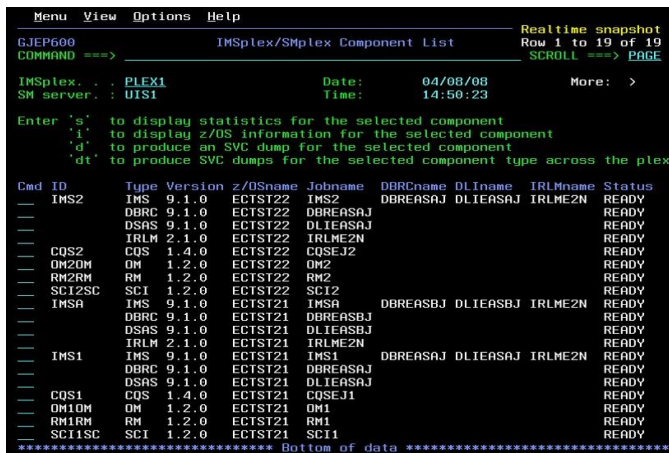

Figure 2: IMS Sysplex Manager IMS Component List

From this component list, the status, version and specific diagnostic data can be viewed for the IMS Control Region, the DLI/SAS region, the DBRC, IRLM, CQS, and CSL address spaces. The IMS Sysplex Manager also maintains information on the Coupling Facility structures including VSO. This is a single point of control to view the overall health of IMS system operations.

Knowing your current IMS System Parameters

The *IMS Sysplex Manager* keeps track of all of the IMS system parameters that are defined and active as shown in Figure 3. It will also show when values are unequal across multiple IMS systems. Since IMS system parameters are defined in multiple places and can be re-initialized at various points in time using IMS commands, it is understand the current parameter settings.

Issue IMS Type 1 and Type 2 Commands

The *IMS Sysplex Manager* product is capable of issuing both Type 1 and Type 2 IMS commands and both types of commands can be routed to multiple IMS systems. The command input and output from all sources together with MTO messages sysplex-wide are recorded in the same history database for audit and troubleshooting purposes.

Figure 3: IMS Sysplex Manager IMS System Parameter Settings

Manage your IMS Dependent Regions

The IMS dependent regions are critical components for application scheduling and prioritization. The *IMS Sysplex Manager* monitors the dependent regions and tracks availability, transaction classes, and which regions are holding the most database locks and creating the most contention.

Control your IMS Sysplex

While the *IMS Sysplex Manager* can manage standalone IMS Systems, it has a great deal of functionality to monitor and control IMS sysplex environments, too.

Verify IMS resources across the IMS Sysplex

The *IMS Sysplex Manager* product takes an overall view of the IMS sysplex environment. It understands the key resources that make up the IMS environment including transactions, programs, databases, LTERMs, and terminals. It ensures these resources are consistent throughout the IMS sysplex and it allows the user to alter resource status from a single point of control.

Manage CSL Resource Manager (RM) Content

In the Common Service Layer (CSL) environment, the IMS Resource Manager (RM) keeps track of the global state of key IMS resources. The *IMS Sysplex Manager* provides real-time monitoring of the RM resources by type and by name and allows users to delete selected resources by the owner or by the type of resource. Effectively, this eliminates the need to scratch and reallocate the RM structure for resource alteration needs.

Enhance IMS Datasharing and SQ's

The ability to run operations 24x7 has driven many IMS customers to utilize IMS Datasharing and IMS Shared Queues in their sysplex environment. While there are many advantages to running IMS in this manner, there are also many operational complexities to manage, too.

Detect and resolve IRLM "Long-Lock" issues

In an IMS Datasharing environment, applications can hold IRLM database locks for so long that they cause contention issues for specific database resources. This is often referred to as the IRLM "Long-Lock" problem. The IMS Sysplex Manager can automatically detect when this situation is occurring and can identify the application or "top blocker" that is causing the problem as shown in Figure 4.

Figure 4: IMS Sysplex Manager "Long-Lock" Detection

IMS Shared Queues Transaction Affinity Routing

In an IMS Shared Queues environment, transaction affinity routing gives users more control over transaction execution. Transactions can be configured to run on specific IMS systems which can lower the costs associated with database contention and false scheduling failures. Transaction affinity routing is is set up using user-supplied definitions. The *IMS Sysplex Manager* product keeps track of transaction routing statistics.

IMS Shared Queues Buffer Overflow Protection

The *IMS Sysplex Manager* provides buffer overflow protection by failing insert calls after user-specified thresholds have been reached. It also generates messages that identify users that exceed their buffer allotments to prevent buffer overflows before they become a critical issue in an IMS Shared Queues environment.

Customize your own Dashboard Monitor

The *IMS Sysplex Manager* allows user to create their own customizable Dashboard to monitor the IMS system activity. Through this Dashboard, the user can manage the overall health of the IMS system in a single glance. The user can set up "alerts" when user-defined "thresholds" are reached and these alert conditions are logged for future analysis. A sample Dashboard is shown in Figure 5.

```
  Menu  View  Options  Help
                                             Realtime snapshot
GJEPDBD              View Dashboard
COMMAND ===>                                          Page: * (1 of 1)
IMSplex. : PLEX1 Dashboard. : IMSSM dashboard   Date: 04/10/08 Time: 11:41:56
_ MSGQ % in use--------- _ Aggr. local OM request- _ EMHQ % in use---------
   P-Entry. :        <1    Reg commands .:      28    P-Entry. :          1
   P-Element:        <1    Notify rdy . .:      12    P-Element:          1
   O-Entry. :         0    Notify not rdy:       1    O-Entry. :          0
   O-Element:         0    Dereg normal .:       0    O-Element:          0
_ Msg queue depths (SMQ)-  Dereg abnormal:       0  _ CQS system resources---
   COLDQ . . .:       0    Commands . . .:       0    Sys.chkp:           0
   TRAN RDY Q.:       0    Queries. . . .:       0    Str.chkp:           2
   TRAN SPD Q.:       0    AO commands. .:       8  _ Msg queue depths(Local-
   TRAN SER Q.:       0    ZQRY requests.:   1,518    TRANSACT:           0
   LTRM RDY Q.:      39    ZSHUT requests:       0    LTERM. .:          40
   APPC RDY Q.:       0    QRY IMSplx cmd:       0    MSNAME .:           0
   RMTE RDY Q.:       0    Reg. clients .:       8    LU6.2. .:           0
   OTMA RDY Q.:       0    Cmd timeouts .:       0    OTMA . .:           0
   PRGMRDYQ-FP:       0    Undel.output .:       0  _ Aggr. local RM request-
_ DB processing stats---- _ Aggr. local SCI req.---    Update. . .:       20
   Lcl deadlocks.:    0    Local Regs. . .:      8    Query . . . .:      16
   Glbl deadlock.:    0    Remote Regs . .:      5    Delete. . . .:       0
_ SCI IXCMSGO statistics-  Notify Rmte reg:      5    Register. . .:       8
   Successful . .:  1,578   Local Ready . .:     8    Deregister. .:       0
   Bfr shortage .:    0    Remote Ready. .:      5    Initiate. . .:       0
   Othr Rsrc shtg:    0    Local Quiesce.:       0    Terminate . .:       0
_ Coupling facility stat-  Remote Quiesce.:      0    Process . . .:       0
   EMC high cnt :  1,243   Lcl Dereg norm.:      0    Response. . .:       0
   Max EMCs. . .:  36,487   Lcl Dereg abn .:     0    QRY struct. .:       0
   Max connects.:    32    Rmte Dereg norm:      0    Regtd.clients:       8
   IMS connects.:     2    Rmte Dereg abn.:      0    Rsrce create.:     682
   Max acc. time: NOLIMIT   Notify abend. .:     2    Rsrce update.:      11
_ Exceptions------------   Member init . .:      2    Rsrce delete.:       0
   Bfr ovrflw:        0
   Qbuff util:       75
   IRLM locks:        0
   PI locks .:        0
```

Figure 5: IMS Sysplex Manager Sample Customizable Dashboard

For more information

To learn more about the IBM IMS Tools products, please contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/data/db2imstools/products/ims-tools.html