

Highlights

- Ensure IMS messages on the IMS Message Queues and the IMS Shared Message Queues are maintained with security
- Requeue unprocessed and processed IMS messages back onto the IMS message queues
- Recover IMS messages following IMS system outages and perform maintenance of the IMS Message Queues and IMS Shared Message Queues
- Program Number: 5655-N50

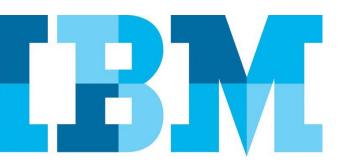
IMS Queue Control Facility

Manage the IMS Message Queues with integrity

IMS is a Transaction and Database Manager that relies on a messaging and queuing paradigm for application scheduling. A user submits a transaction in the form of an input message which is immediately stored on an IMS Message Queue. IMS schedules the application associated with this transaction to perform the business logic. If the application produces a response, it is in the form of an output message which gets stored on an IMS Message Queue. Finally, the response message is delivered to the user.

In IMS, message integrity is of paramount importance. The *IMS Queue Control Facility* ensures messages are maintainable and recoverable in both standalone IMS systems and in IMS sysplex environments that use the IMS Shared Queues in a Coupling Facility.

The *IMS Queue Control Facility* allows input and output messages to be queried, viewed, loaded and unloaded, requeued and reprocessed. It also ensures the IMS message queues can be protected from critical overflow conditions.



Maintaining the IMS Message Queues

The *IMS Queue Control Facility* is one of the key components of the *IMS System Management Solution* as shown in Figure 1.



Figure 1: IMS System Management Solution Components

IMS messages are the lifeblood of IMS transaction processing. Transactions are driven from IMS input messages and transaction responses are delivered in output messages. The ability to manage IMS messages is crucial to the smooth operation of the IMS environment.

Managing IMS Messages

The *IMS Queue Control Facility* has the ability to browse, query, unload, load, and reprocess IMS messages in the IMS Message Queue data sets or the IMS Shared Queues structures on the Coupling Facility. The primary functions of the *IMS Queue Control Facility* are shown in Figure 2.

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QCF Main Menu

Select an option or press END to exit.

APAR . : PI50885 2015/11/
Server . : IDC1QCFS JDTE . : 2016.048

IMS ID . : IDC1 TIME . : 18:43:45
DATE . : 2016/02/17

Server and IMS selection

O Select - PLEX, Server and IMS to be used

Transaction Queue Interactive Functions

1 Status - IMS environment and queue statistics
2 Query - List destinations with queued messages
3 Load - Re-insert removed queued messages
3a View - View unloaded messages data set

Queue Overflow Protection Functions

4 Wait - List and operate on waited tasks
5 Tables - View, modify, and load overflow parameters
6 Notify - Modify queue space utilization notification parameters

Option 6 is active, so mutually exclusive option 5 is unavailable
Option ==>
FI=Help F3=End F7-Up F8=Down F10=Actions F12=Cancel
```

Figure 2: IMS Queue Control Facility Primary Menu

Browsing IMS Messages

The *Browse* function allows users to copy messages or extract information from messages to produce a report. With this report, the user can determine if specific messages need to be cleaned up or requeued for a later date. Queue maintenance can prevent buffer shortages that result from IMS messages remaining on the message queues for a long time.

Querying IMS Messages

With the *Query* function, the user can produce a report containing information about the messages themselves including message age and summary information about message destinations as shown in Figure 3.

Unloading and Loading the IMS Messages

The *Unload* function provides the user with the ability to delete unnecessary messages from the IMS Message Queue data sets or the IMS Shared Queues. These messages can be deleted permanently or requeued using the *Load* function for subsequent reprocessing. A report is produced showing the deleted and requeued messages. The unloading and loading of messages can be used for application and regression testing and as a migration and fallback aid.

Figure 3: IMS Queue Control Facility Query Function

Reprocessing IMS Messages

The *Reprocess* function allows both unprocessed and previously processed messages to be re-inserted onto the IMS message queues. Messages can be selected for reprocessing using a specific criteria that is specified on control cards. It is often desirable to reprocess messages following an IMS Cold Start or following an application

failure. It can also be a good idea to reprocess IMS messages after planned or unplanned IMS system outages.

Message Queue Overflow Protection

When the IMS message queues become full, the IMS system abnormally terminates with a User 758 abend. The *IMS Queue Control Facility* can prevent this critical situation from occurring by monitoring the IMS message queues, sending out alerts and performing actions to eliminate these overflow conditions.

For more information

To learn more about the IBM IMS Tools product line, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/soft-ware/data/db2imstools/products/ims-tools.html

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