



The Problem:

Records were missing from the MQ Log files.

Quotes:

“We were concerned that some messages that we knew had been processed were not there”

“....there seemed to be no standard usage of the persistence setting by the different Application groups”

“This was a solution we could deploy immediately and enforce standards across all our applications”

InQuest™ for WebSphere® MQ enforces application standards

Cressida helps financial company overcome missing message records issue

A multinational financial company uses WebSphere MQ (WMQ or MQ) extensively for internal applications and data exchange with external customers. After a minor outage requiring the recovery of one of their applications, it was discovered that the MQ logs did not contain the expected records. *‘We were concerned that some messages that we knew had been processed were not there’* said their Operations Manager. Further investigation uncovered the cause – the application concerned was not using ‘persistent’ messages.

In WebSphere MQ a message can be defined as persistent or non-persistent. Only persistent messages are written to the MQ log so that they can be recovered to the queue in the event of a failure. Applications may specify if a message is to be persistent, non-persistent or if the default setting in the Queue Definition should be used. While logging of persistent messages may increase overhead, it is vital if recovery is required. The responsible Operations Manager added *‘We looked at other applications and discovered that the problem was not unique. There seemed to be no standard usage of the persistence setting by the different Application groups. Some applications set persistence; others allowed it to default to the Queue Definition setting. Some older ones, probably for storage or performance reasons, set the messages to non-persistent.’*

It was a serious concern for the company. The MQ logs are used not only for recovery but also as a basis for non-repudiation when there is a dispute with customers. There seemed to be only one solution to the problem – undertaking an expensive and time consuming investigation of all applications and rewriting where necessary. *‘This would mean a major and costly undertaking at a time when resources were already stretched due to a large rollout of new applications’* said the Applications Architect for the company.

Cressida’s ReQuest™ for WebSphere MQ was already being used by the company for message reporting and recovery from the MQ logs. Cressida support staff had helped with the investigation of the missing records and when the cause was discovered they suggested an alternative approach. *‘They suggested we take a look at a recently announced Cressida offering, InQuest™ for WebSphere MQ’.*

InQuest is a user-configurable tool that utilizes the WMQ API Exit to “intercept” MQI calls that meet certain criteria, and to perform specific user defined and approved actions. *‘The persistence setting is in the MQMD. With the InQuest Exit in place we were able to interrogate the setting of this field and if necessary change it’*, said the Application Architect. *‘This was a solution we could deploy immediately and enforce standards across all our applications’.*

With InQuest in place the operations team could be confident that all messages that required it were being written to the log and that any recovery or report would be accurate and full. *‘Deploying InQuest meant we did not have to divert costly resources away from other projects and it also saved us a lot of time’*, said the Operations Manager





QUOTES:

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“I am very interested in anything that can increase our security levels and improve our service to our customers”

The company is now looking at other ways that **InQuest** can be used. The same InQuest Exit can enforce standards such as naming conventions, UserIdentifier, SecurityID etc. Of particular interest is the ability to give certain critical transactions a higher processing priority.

The Applications Manager said *‘InQuest has the ability to interrogate the message contents and, based on what it finds, write a copy of the message to a log or another Queue. This function would enable us to keep track of sensitive accounts or unusually large funds transfers. I am very interested in anything that can increase our security levels and improve our service to our customers’.*

Cressida InQuest™ for WebSphere® MQ (InQuest) is a user-configurable tool that utilizes the power and functionality of the IBM WebSphere MQ API Exit to “intercept” MQI calls that meet certain criteria (as specified in **Filters**), and to perform specific functions (as defined in **Actions**).

The powerful and flexible Filter Editor allows the definition of Filters that combine any number of criteria to test if a certain API call requires further processing. Each criterion defines a comparison to be performed using the value of an attribute of the call against a comparison value. Depending on the data type of the attribute being tested, various comparison operators are available, including string scan and bit (option) test operations. The graphical front-end allows the creation of even very complex filter combinations with great ease, while the run-time component ensures that evaluation of these filters adds minimal overhead to the running applications.

In addition to InQuest, Cressida also offers:

- **ReQuest™ for WebSphere® MQ** - a WMQ Recovery Logs Analyzer solution
- **CeQuest for WebSphere MQ** - an MQ API Exit based Message Tracking solution

These products provide Point-in-Time Message Tracking, Message Reporting, Message Replay and Recovery, Charge-Back, Accounting, Compliance and Transactions Auditing solutions. ReQuest and CeQuest use advanced filtering technology to analyze critical message activity information already contained in the WMQ logs or available via the API Exit. ReQuest and CeQuest are non-intrusive and application changes are not required.



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