Cressida Message Delivery Assurance and Governance Solutions for WebSphere® MQ

Transaction Reporting, Tracking, Auditing, Compliance, Charge-Back, Replay and Recovery

CRESSIDA TECHNOLOGY

Introduction:

For point-in-time visibility, access and control over MQ processed critical business transactions and messages and to quickly isolate and handle tracking, auditing and regulatory compliance reporting and recovery requirements, Cressida offers a complete suite of Message Delivery Assurance and Governance solutions:

- **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. Our products have been successfully implemented at a number of leading customer organizations to help manage their WMQ environments.
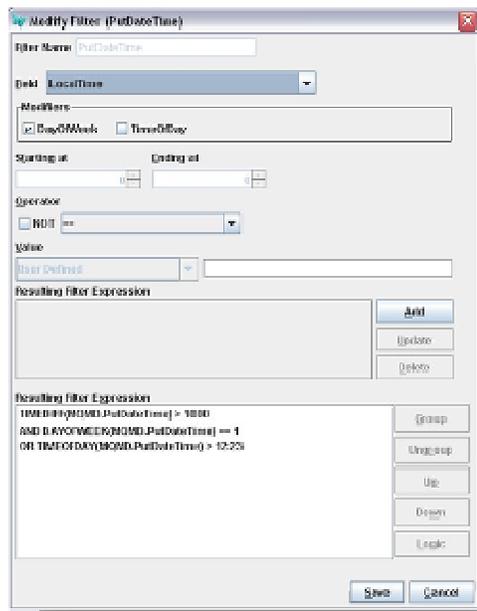
Background:

Cressida ReQuest™ for WebSphere® MQ provides reporting, tracking, replay and recovery capabilities based on the information in the WebSphere MQ (WMQ) recovery log files. The information in the log files includes changes to configuration items and puts and gets of persistent messages. Using ReQuest, application analysts and administrators are able to track a message across a WMQ network to see which path it took among multiple servers, what the message did and exactly how long it took each application or WMQ channel to process it. Although the message information is available as soon as it is written to a WMQ log, the collection and reporting of statistics is, by design, accomplished in a post-processing as opposed to a "real-time" mode.

The newest solution, CeQuest™ for WebSphere® MQ, utilizes the standard WMQ API Exit facility to collect message related information in a JDBC compliant database, allow users to analyze the collected data and provide message tracking, reporting, accounting and auditing for both persistent and non-persistent messages. CeQuest can also concurrently capture message data to screen where messages may be analyzed by authorized users.
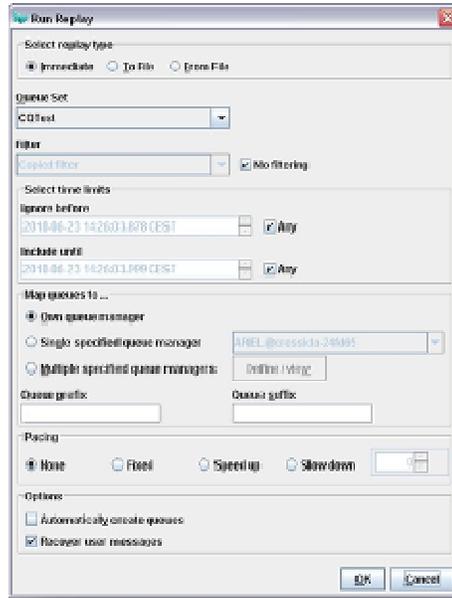
CeQuest key features and capabilities will allow the user to:

1) Select and filter messages by queue and by message content. CeQuest supports the tracking of more than one set of queues at a time. The selection and filtering mechanisms are extremely powerful features:

   - filter on any field in the MQMD and MQRFH headers, on the message data, on completion code and on time.
   - filter for strings using the comparisons:

i) string equals, string starts with, string ends with, string contains, and the negation of each.

ii) for numeric data, you can do any of the five standard comparisons (=, >, ≥, <, ≤) and their negations.

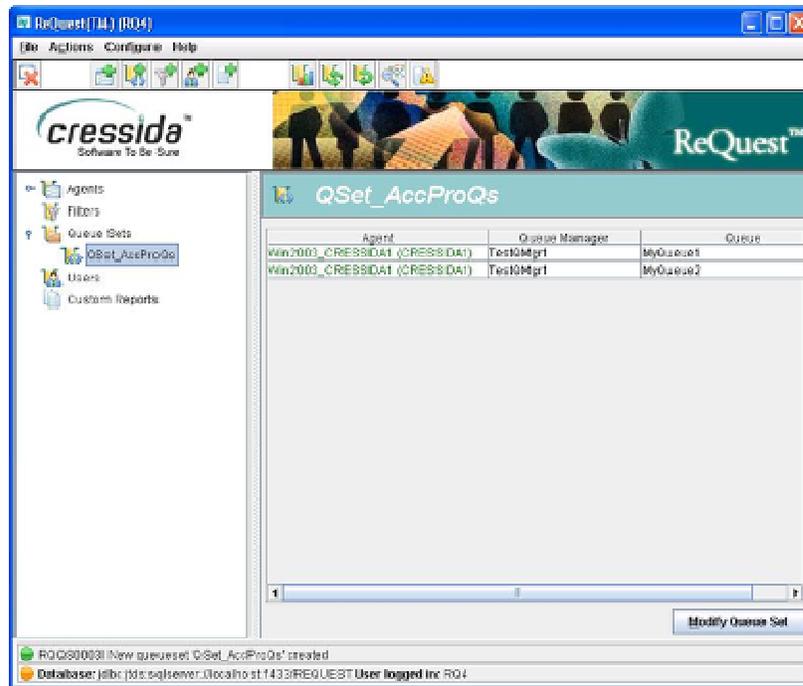iii) combine operations by logical (NOT) ANDs, and logical (NOT) ORs.

2) Report on the progress of an application message/transaction across an MQ network on several MQ based platforms, e.g. reporting on the message and any subsequent messages with the same message ID or correlation ID that are spawned as a result of the original message.

3) Generate reports that show the time at which each message is written to a single or set of queues and the time that the message was removed from the queue(s).

4) Track and report on both persistent and non-persistent messages.

5) Switch 'tracking' on and off on an application basis.

6) List which captures and tracking are enabled.

7) Report on the API exit usage and call parameters.

8) Helps ensure regulatory reporting compliance by providing access to required data for Sarbanes-Oxley, BASEL II, HIPAA EC Directives, etc.

WebSphere MQ Recovery Analysis:

Cressida's ReQuest™ supports a multi-queue manager, multi-platform WebSphere MQ environment running either linear or circular logging and can be driven from a GUI or Command Line Interface. The recovery log can be accessed while the queue manager is running and all functions can be applied on defined 'applications', which are sets of local queues, across queue managers if necessary. There is no application or queue manager overhead.
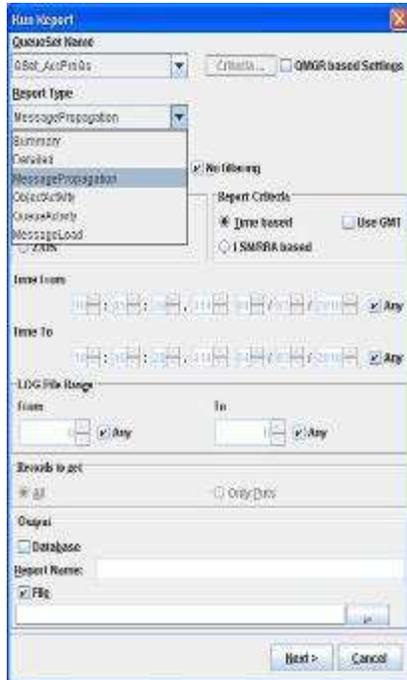

ReQuest key features and capabilities:

The '*Report'* function, using the MQ log files as input, will enable you to run comprehensive reports on messages and queue managers to track message activity, find missing messages, handle charge-back and accounting, provide regulatory-compliant data for Sarbanes-Oxley, BASEL II and HIPAA requirements. You will be able to run a report that will detail the exact path of a specific message, identifying all queues and queue managers that have processed it.

The '*Recovery'* function will allow you to recover the queues to a specific valid timestamp.

The *'Replay'* function will allow you to capture existing production message flows and then run them through new code or new system configurations to see what will happen. The message rates can be increased to see how it may affect the new code. This function is also quite useful for regression and performance testing, and problem determination.

1. **Reporting**
   i. at the individual message level
   ii. includes timestamp information
   iii. open architecture allows for interfacing with the reporting tool of your choice or with in-house written applications.
   iv. advanced filtering options
   v. identifies the path a message took and may optionally include related messages, for example, those based on the correlation-ID.
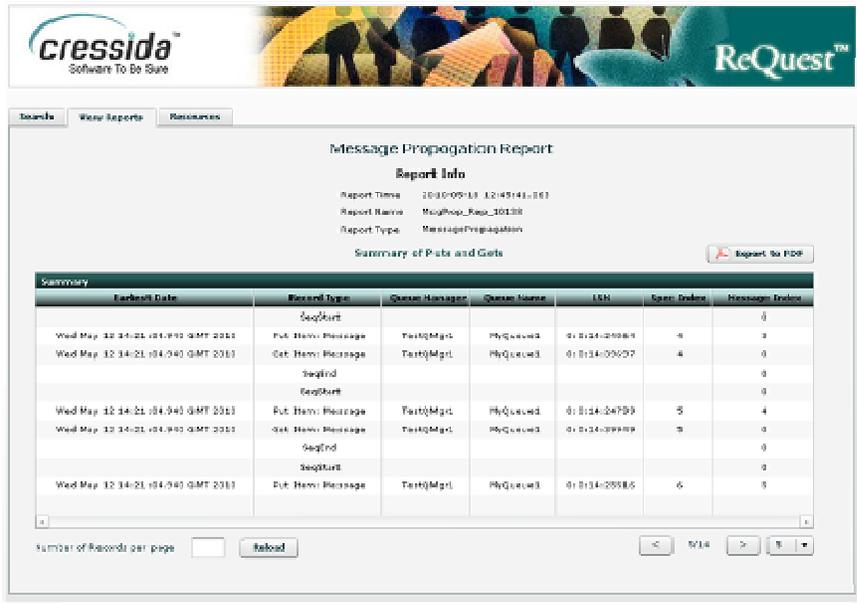
2. **Workload re-creation (Replay)**
   i. Update rate can be changed
   ii. Workload can be re-created on an alternative queue manager.

3. **Recovery function**
   i. Timestamp recovery.
   ii. Detection of valid recovery timestamps.
   iii. Allows MQ-data to be recovered in sync with DBMS data.
   iv. Recovers deleted queues and purged data.
   v. Allows for timestamp recovery- based SLA's.

    vi.   Allows analysis of damage by a rogue application.

    vii.   Recovery can be performed on an alternative queue or queue manager.

About Cressida Technology

Cressida is an IBM®, Sun™, HP™, Microsoft®, VMWare® and Citrix® development and marketing partner that provides WebSphere® MQ message assurance solutions comprised of products, services and training. Cressida also operates www.mqseries.net, a worldwide accessed MQSeries discussion forum community for WebSphere MQ professionals.

For additional information and a list of local contacts nearest to you please visit our website on
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