

Monitoring System Internals During Test Execution

SOAtest can give you visibility into messages passing through middleware components and messaging brokers while its running tests against applications. This allows you to trace transaction events as they move throughout multitiered systems—helping you to better understand and debug problems. It also allows you to define validations on the monitored events use these as regression controls for automated test execution.

Monitoring Transactions Over JMS

To see how to gain visibility into transactions over JMS:

1. Complete [Testing Services Over JMS](#) if you have not already done so.
2. Right-click the **Loan Processor> Test Suite** node, then choose **Add New> Test**.
3. Set up an Event Monitor tool as follows:
 - a. Select **Event Monitor**, then click **Finish**. The Event Monitor tool traces the internal events within systems such as ESBs and business applications and allows you to make them part of SOAtest's end-to-end test scenarios.
 - b. Set up the Event Monitor as follows:
 - **Platform:** Generic JMS System
 - **URL:** tcp://localhost:61616/
 - **Initial Context:** org.apache.activemq.jndi.ActiveMQInitialContextFactory
 - **ConnectionFactory:** ConnectionFactory
 - **Destination Name:** queue.loans.*.mirror
 - **Destination Type:** Topic

The screenshot shows the configuration window for an Event Monitor. The 'Name' field is 'Event Monitor'. The 'Platform' is 'Generic JMS system'. Under the 'JMS' section, the 'Connection' details are: URL: tcp://localhost:61616/, Username: (empty), Password: (empty). The 'Monitoring Source' details are: Initial Context: org.apache.activemq.jndi.ActiveMQInitialContextFactory, Connection Factory: ConnectionFactory, Destination Name: queue.loans.*.mirror, Destination Type: Topic, and Message Selector (optional): (empty). There is a checkbox for 'Leave messages on the queue' which is unchecked.

- c. In the **Options** tab, ensure that **Clear the event viewer before each event monitor run** is checked.

The screenshot shows the 'Options' tab of the Event Monitor configuration. It contains three checkboxes:

- Clear the event viewer before each event monitor run
- Include test execution events in the XML event output to chained tools
- Wrap monitored messages with CDATA to ensure well-formedness of the XML event output

- d. Save the Event Monitor.
4. Run LoanProcessor.tst. It will succeed.

5. Double click the **Event Monitor** node and open the **Event Viewer** tab in the panel that opens. You will see a graphical representation of the actions taken after the Event Monitor's initialization.

