



ActiveMQ Integration (Alarm Export)



- LightSpeed PM – A Certified Quest Partner



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ActiveMQ Integration – Highlights

This cartridge simplifies the effort to export/send alarms to a Queue:

- Give users greater control without needing to create Custom Event driven rules to integrate with ActiveMQ
- Eliminates the needs for Groovy scripting
- Provides Customizable fields
- Enables direct Insertion to a queue
- Remotely administer the solution across all Foglight servers
- Decision engine for total and precise control
 - 20 Levels of granularity
 - Severity Level control

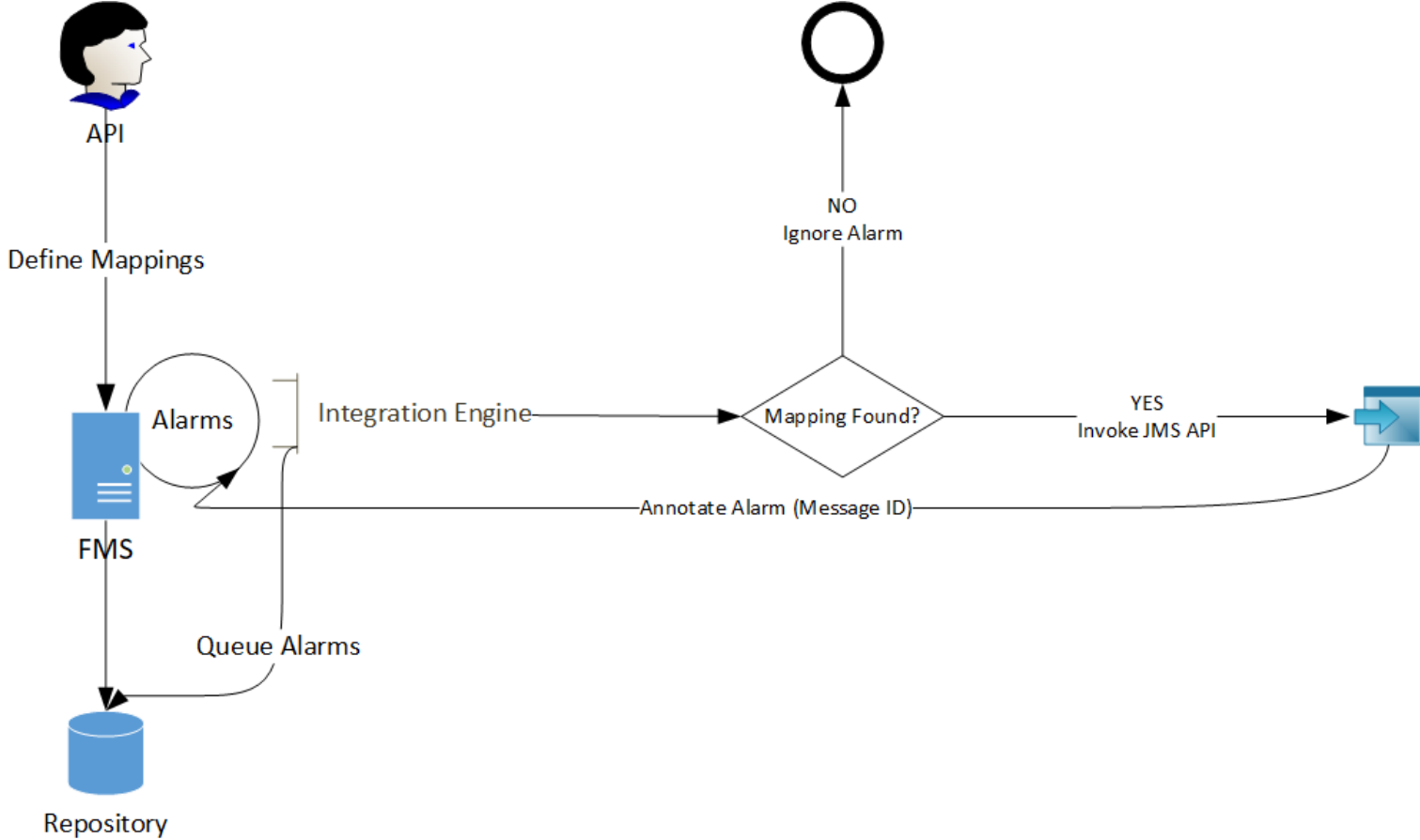
ActiveMQ Integration – Highlights

- Pattern editor to easily access many of the information related to the alarm. (No groovy required)
 - Access to dozens of fields to easily provide values to parameters
 - A dozen common operators available to easily avoid any coding
- Use of groovy scripts for power users
 - Use of groovy scripting with complete injected flow context
 - Ability to reject/delay ticket generation
- Persisted Queue so no events are lost
 - Guaranteed delivery
 - Keep history for rejected, failed and successful operations for total control
 - Pause or delay control
 - Consumer Thread settings/control as to manage concurrency and volume.

ActiveMQ Integration – Highlights

- Alarm Transition Support
 - Can be turned ON or OFF
 - Update tickets when alarm is transitioning from one severity to another.
 - Can be either to higher severity only or any transition
 - Close ticket only when the last alarm in the transition has been cleared
 - All transition information is accessible from the Pattern Editor
- Alarm Flood Prevention
- Auto Acknowledge Alarms

ActiveMQ Integration – Flow



ActiveMQ Integration – Decision Engine

- The decision engine is based on various mappings defined within the solution. A very rich UI is provided to create the mappings.

- Low Priority

	Service	Host	Agent Type	Agent	Topology Object	Rule
0						
1		x				
2			x			
3				x		
4						x
5					x	
6		x				x
7			x			x
8				x		x
9					x	x
10	x					
11	x	x				
12	x		x			
13	x			x		
14	x					x
15	x				x	
16	x	x				x
17	x		x			x
18	x			x		x
19	x				x	x

No Service

With Service

- High Priority

ActiveMQ Integration – Changing Settings

Integration Pack Registry Settings - Local FMS

Save Undo Filter

Name	Value	Scoping	
ActiveMQ Integration			
Open Ticket			
PSO.ActiveMQIntegration.OpenTicket.NoEmptyValue	false		If true any tag that returns a null will be replaced by a space. If false null values are simply not outputted.
PSO.ActiveMQIntegration.OpenTicket.TimeZone	GMT		Defines the time zone to use when outputting date and time in the Command.
PSO.ActiveMQIntegration.OpenTicket.DateTimeFormat	dd/MM/yyyy:HH:mm:ss		Defines the format for the date and time to use when outputting date and time in the Command.
Queue			
Ignore			
PSO.ActiveMQIntegration.Queue.Ignore.Normal	true		Should cleared alarms be ignored by the queuing engine? Ignored alarms are not queued thus reducing the overall load on the system and engine.
PSO.ActiveMQIntegration.Queue.Ignore.Warning	false		Should Warning alarms be ignored by the queuing engine? Ignored alarms are not queued thus reducing the overall load on the system and engine.
PSO.ActiveMQIntegration.Queue.Ignore.Critical	false		Should Critical alarms be ignored by the queuing engine? Ignored alarms are not queued thus reducing the overall load on the system and engine.
PSO.ActiveMQIntegration.Queue.Ignore.Fatal	false		Should Fatal alarms be ignored by the queuing engine? Ignored alarms are not queued thus reducing the overall load on the system and engine.
PSO.ActiveMQIntegration.Queue.Ignore.Rules			A list of comma separated rule names that the queue should ignore. Alarms generated by ignored rules are not queued thus reducing the overall load on the system and engine.
Delay			
PSO.ActiveMQIntegration.Queue.Alarm.DelayPeriod.Warning	0		Time in minutes a warning alarm should be delayed in the queue before being forwarded to the target system if still active (not cleared) after the delay period.
PSO.ActiveMQIntegration.Queue.Alarm.DelayPeriod.Critical	0		Time in minutes a critical alarm should be delayed in the queue before being forwarded to the target system if still active (not cleared) after the delay period.
PSO.ActiveMQIntegration.Queue.Alarm.DelayPeriod.Fatal	0		Time in minutes a fatal alarm should be delayed in the queue before being forwarded to the target system if still active (not cleared) after the delay period.
PSO.ActiveMQIntegration.Queue.AlarmTransition.Enable	false		Should alarm transition be supported. If enabled the integration will update a ticket vs creating a new one when an alarm goes from severity to severity and back.
PSO.ActiveMQIntegration.Queue.Alarm.AcknowledgeUponSuccess	false		Should the alarm be acknowledged when the alarm has been successfully processed.
PSO.ActiveMQIntegration.Queue.Alarm.EnforceServiceFilter	false		When an alarm is being processed enforce the filters applied to the service. If true a service is not considered to be a hit (mapping wise) if the alarm is excluded by the filters.
PSO.ActiveMQIntegration.Queue.PausePeriod	0		Time in minutes no alarms should be forwarded to the target system. This is useful when the target system is unavailable due to maintenance in which case you want to prevent the system from being flooded with alarms.
Export			
PSO.ActiveMQIntegration.Export.Queue			The queue to send the data to.
PSO.ActiveMQIntegration.Export.OutputMarkup			The output pattern to produce the XML sent to the Queue.

ActiveMQ Integration – Connection Pool

ActiveMQ Integration Connection Settings

Protocol:

Host Name:

Port:

Username:

Password:

Max Connections:

ActiveMQ Integration – Customizable XML Message

ActiveMQ Integration Markup

Queue Output Markup Elements

Add Insert Edit by Element Save Undo Test

Pattern Element

Remember to click Apply if you manually edit the pattern.
Spaces are automatically trimmed, please use Edit Complete to insert spaces and have them preserved.

```
<?xml version="1.0" encoding="UTF-8"?>
<Alarm>
  <Timestamp>@PROCESSED_TIME</Timestamp>
  <Record name="@RECORD_ID">
    <SimpleValue name="Short_Description">@RULE_NAME</SimpleValue>
    <SimpleValue name="Event_Message">@ALARM_MESSAGE</SimpleValue>
    <SimpleValue name="Event_Severity">@ALARM_SEVERITY_NAME_NORMAL</SimpleValue>
    <SimpleValue name="sourceID">@HOSTNAME</SimpleValue>
    <SimpleValue name="topID">@TOP_OBJECT_UID</SimpleValue>
  </Record>
</Alarm>
```

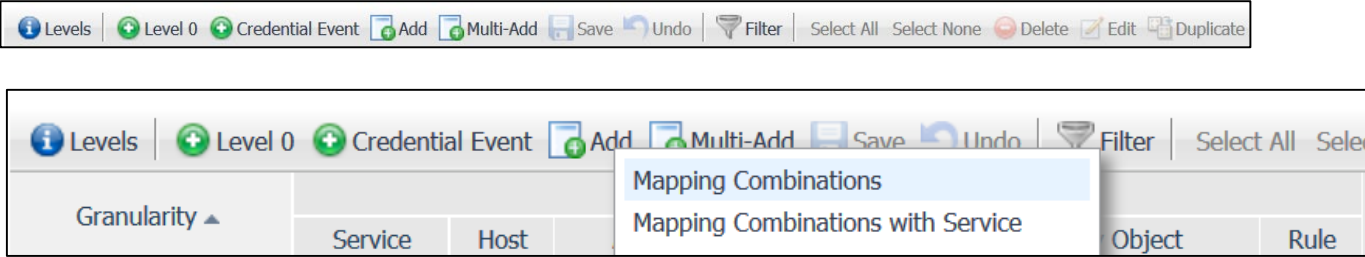
Apply

Tag	Caption
AGENT_NAME	Agent Name
AGENT_TYPE	Agent Type
AGENT_UID	Agent UID
ALARM_ACKNOWLEDGED_BY	Alarm Acknowledged By
ALARM_ACKNOWLEDGED_TIME	Alarm Acknowledged Time
ALARM_CLEARED_BY	Alarm Cleared By
ALARM_CLEARED_TIME	Alarm Cleared Time
ALARM_CREATED_TIME	Alarm Created Time
ALARM_ID	Alarm ID
ALARM_IS_ACKNOWLEDGED	Is Alarm Acknowledged
ALARM_IS_CLEARED	Is Alarm Cleared
ALARM_LINK	Alarm Link
ALARM_MESSAGE	Alarm Message
ALARM_MESSAGE_CLEAN	Alarm Message Clean
ALARM_SEVERITY	Alarm Severity
ALARM_SEVERITY_NAME	Alarm Severity Name
ALARM_SEVERITY_NAME_NORMAL	Alarm Severity Name with support for Normal
ALARM_SEVERITY_NORMAL	Alarm Severity with support for Normal

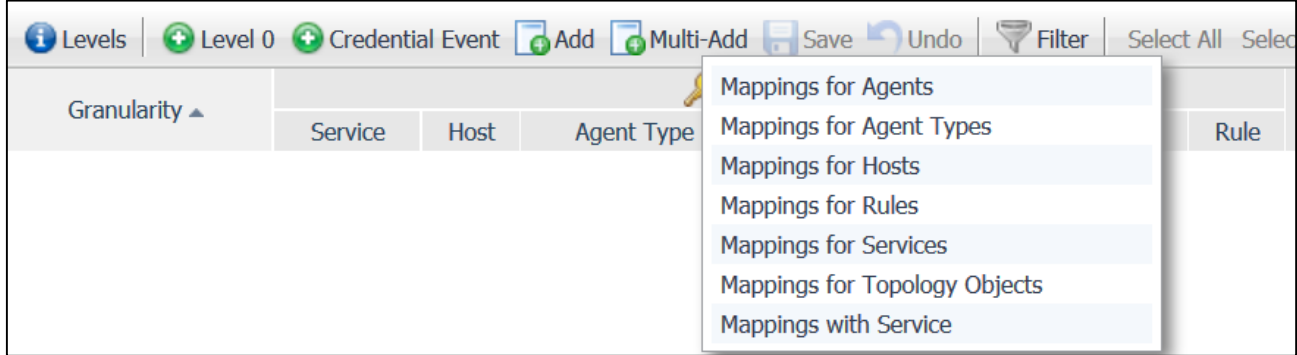
Operator	
?[]	If tag has a value.
[]	If tag does not have a value.
?[]:[]	If tag has a value else.
^{}{}	Replace string with another.
=()	Equality
=()?[]:[]	If equal else
![[]]!	Groovy Script
^U	Uppercase
^L	Lowercase
^T	Trim
^N	New Line Output
^R	Return

ActiveMQ Integration – Mappings Editor

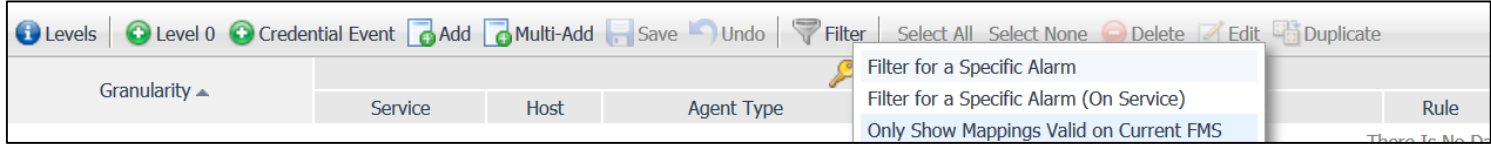
- Combinations



- Multiple Mappings



- Filtering



- . . .

ActiveMQ Integration – Pattern Editor

ActvieMQ Integration Markup Reports ▾

Queue Output Markup Elements

Add Insert Edit by Element Save Undo Test

Pattern Element

<alarmID>@ALARM_ID</alarmID> <alarmSeverity>@...

Please select a Pattern Element

Apply

TAGS

Search

Tag ▲	Caption
AGENT_NAME	Agent Name
AGENT_TYPE	Agent Type
AGENT_UID	Agent UID
ALARM_ACKNOWLEDGED_BY	Alarm Acknowledged By
ALARM_ACKNOWLEDGED_TIME	Alarm Acknowledged Time
ALARM_CLEARED_BY	Alarm Cleared By
ALARM_CLEARED_TIME	Alarm Cleared Time
ALARM_CREATED_TIME	Alarm Created Time
ALARM_ID	Alarm ID
ALARM_IS_ACKNOWLEDGED	Is Alarm Acknowledged
ALARM_IS_CLEARED	Is Alarm Cleared
ALARM_LINK	Alarm Link
ALARM_MESSAGE	Alarm Message
ALARM_MESSAGE_CLEAN	Alarm Message Clean
ALARM_SEVERITY	Alarm Severity
ALARM_SEVERITY_NAME	Alarm Severity Name
ALARM_SEVERITY_NAME_NORMAL	Alarm Severity Name with support f

OPERATORS

Operator	Short Description
?[]	If tag has a value.
:[]	If tag does not have a value.
?[]:[]	If tag has a value else.
^{}{}	Replace string with another.
=()	Equality
=()?:[]	If equal else
![[]]	Groovy Script
^U	Uppercase
^L	Lowercase
^T	Trim
^N	New Line Output
^R	Return

ActiveMQ Integration – System Requirements

- **Minimum required FMS version**

5.9.3

- **Supported Databases**

Microsoft SQL

Oracle

MySQL

PostgreSQL

Minimum Version

2008 (version 10.0.1600 or later)

9i R2

5.1.45

9.4.0