



# XML Integration (Alarm Export)



- LightSpeed PM – A Certified Quest Partner

# No Foglight XML out of the box

- Foglight's only XML out of the box solution is achievable via custom services
  - Custom Event Driven Rule must be created
    - Command Invocation is required
    - Actions
  - Groovy Scripting
  - There is very Little control over event information
    - Control requires lots of groovy scripting
  - There are no options offered or available to define BPPM Fields in Foglight

# XML Custom Integration Cartridge – Highlights

- Our Custom XML Integration simplifies exporting alarms to disk:
  - Customizable fields
  - Ability to generate XML files
- **Remote Administration** of solution across servers
- Decision engine for total and precise control
  - 20 Levels of granularity
  - Severity Level control

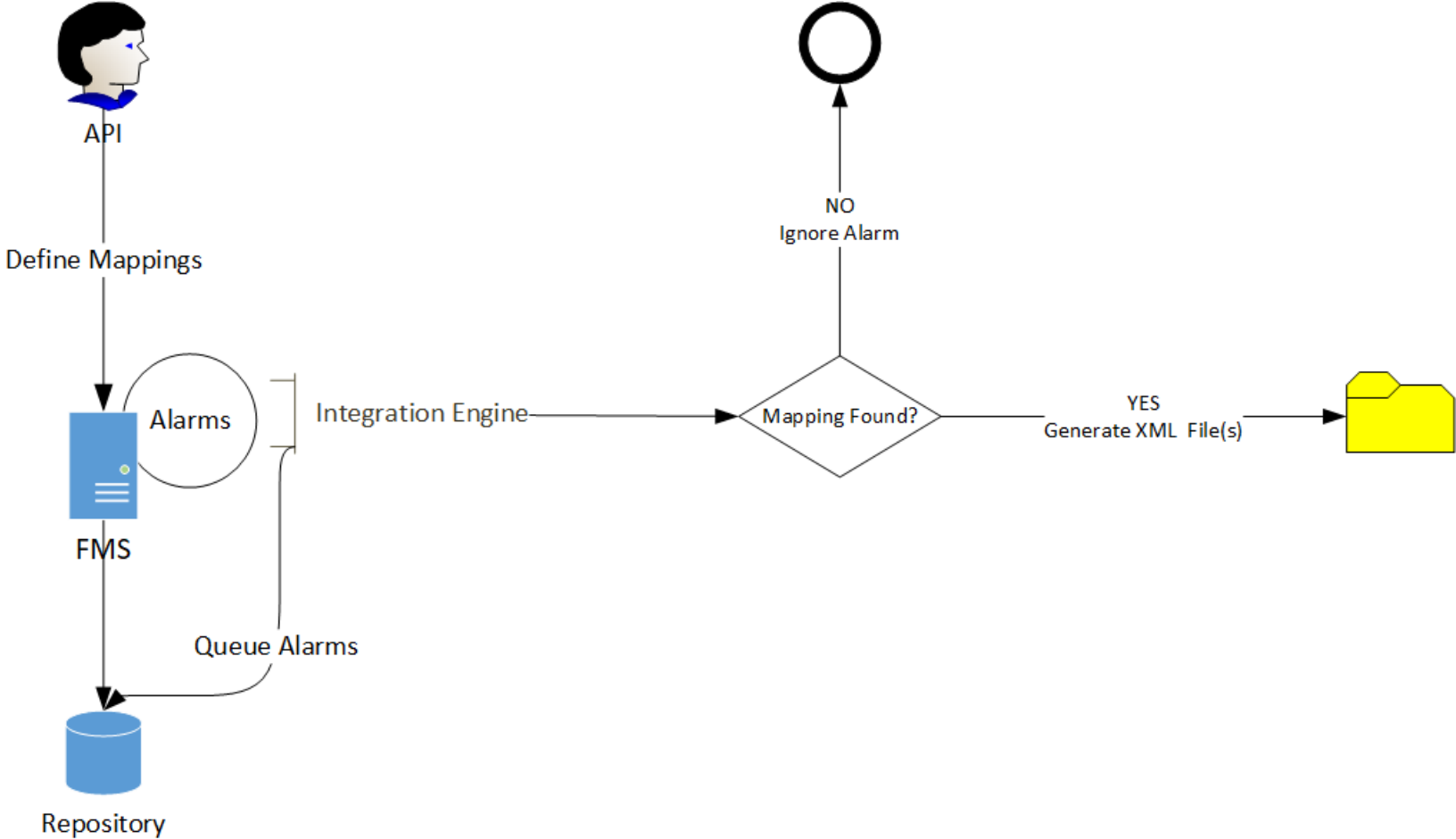
# XML Integration – Highlights

- 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.

# XML 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

# XML Integration – Flow



# XML 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

# XML Integration – Changing Settings

**Navigation**

Expert View

- Bookmarks  
There are no bookmarks
- Homes
- Dashboards
- Highlight Servers
- Local FMS
- Host Name

There Is No Data To Display

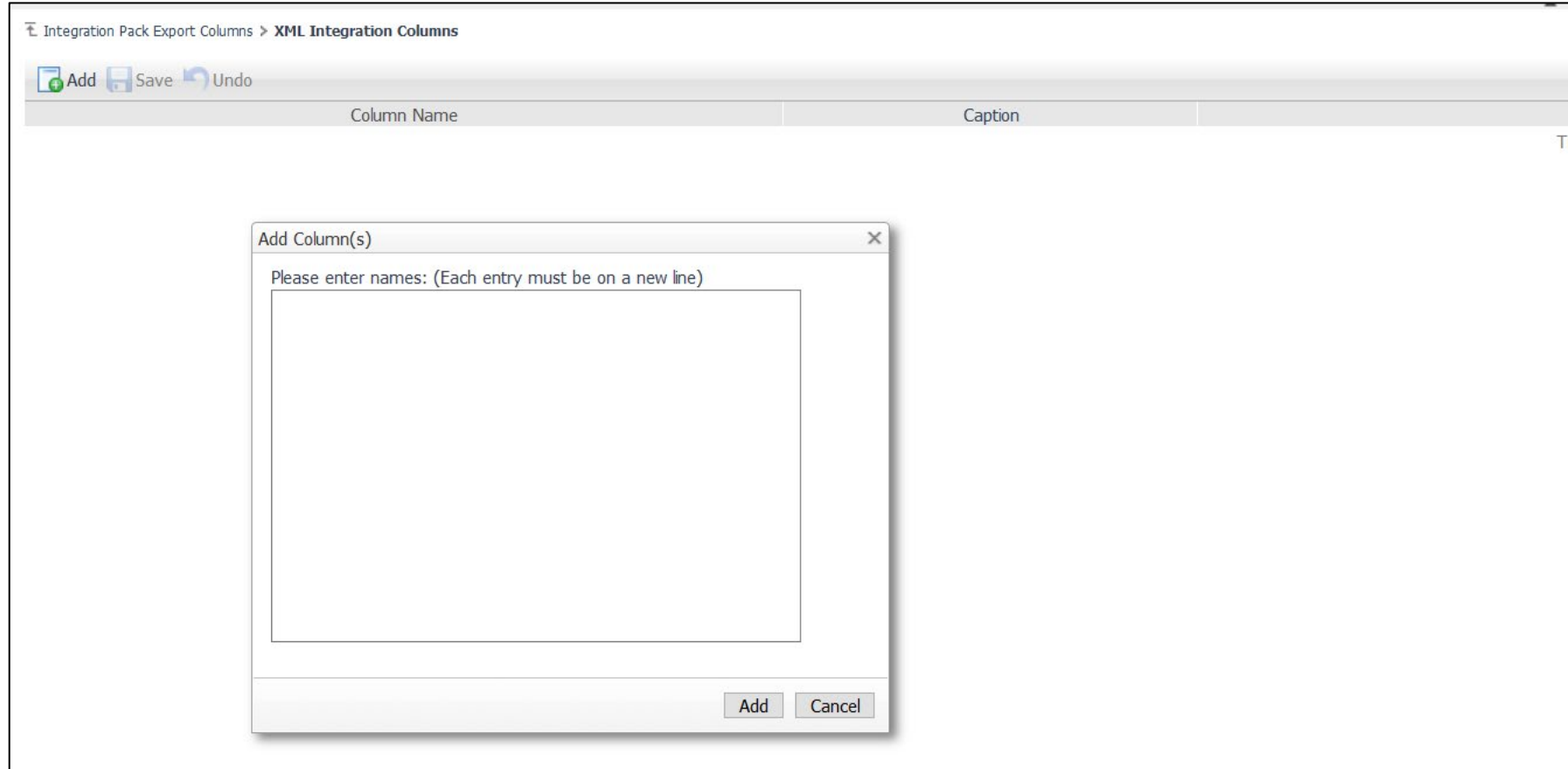
Integration Pack Registry Settings - Local FMS

Save Undo Filter

Name	Value	Scoping	Description
<b>XML Integration</b>			
<b>Open Ticket</b>			
PSO.XMLIntegration.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.XMLIntegration.OpenTicket.TimeZone	GMT		Defines the time zone to use when outputting date and time in the Command.
PSO.XMLIntegration.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.
<b>Queue</b>			
<b>Ignore</b>			
PSO.XMLIntegration.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.XMLIntegration.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.XMLIntegration.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.XMLIntegration.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.XMLIntegration.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.
<b>Delay</b>			
PSO.XMLIntegration.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 expires.
PSO.XMLIntegration.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 expires.
PSO.XMLIntegration.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 expires.
PSO.XMLIntegration.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 will also only clear the e
PSO.XMLIntegration.Queue.Alarm.AcknowledgeUponSuccess	false		Should the alarm be acknowledged when the alarm has been successfully processed.
PSO.XMLIntegration.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 define
PSO.XMLIntegration.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 alarms are queued but
<b>Export</b>			
PSO.XMLIntegration.Export.OutputMarkup			The output pattern to produce the XML file.
PSO.XMLIntegration.Export.Home			Indicates the home directory where the files are to be stored. (i.e.: C:/xml-exports)
PSO.XMLIntegration.Export.Folder.Fatal			Indicates the folder name under the Home directory where the Fatal files are to be stored. (i.e.: fatal)
PSO.XMLIntegration.Export.Folder.Warning			Indicates the folder name under the Home directory where the Warning files are to be stored. (i.e.: warning)
PSO.XMLIntegration.Export.Folder.Critical			Indicates the folder name under the Home directory where the Critical files are to be stored. (i.e.: critical)



# XML Integration – Customizable Fields



# XML Integration – Customizable Output

XML Integration Markup

**XML Output Markup Elements**

Add Insert Edit by Element Save Undo Test

Pattern Element

<alarmID>@ALARM\_ID</alarmID> <alarmSeverity>@ALA...

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.

```

<alarmID>@ALARM_ID</alarmID>
<alarmSeverity>@ALARM_SEVERITY</alarmSeverity>
<alarmSeverityName> @ALARM_SEVERITY_NAME</alarmSeverityName>
<alarmCreatedTime>@ALARM_CREATED_TIME</alarmCreatedTime>
<alarmMessage>@ALARM_MESSAGE_CLEAN</alarmMessage>
<alarmLink> @ALARM_LINK</alarmLink>
<alarmIsAcknowledged> @ALARM_IS_ACKNOWLEDGED</alarmIsAcknowledged>
<alarmAcknowledgedTime> @ALARM_ACKNOWLEDGED_TIME</alarmAcknowledgedTime>
<alarmAcknowledgedBy> @ALARM_ACKNOWLEDGED_BY</alarmAcknowledgedBy>
<alarmIsCleared>@ALARM_IS_CLEARED</alarmIsCleared>
<alarmClearedTime>@ALARM_CLEARED_TIME</alarmClearedTime>
                    
```

Apply

TAGS

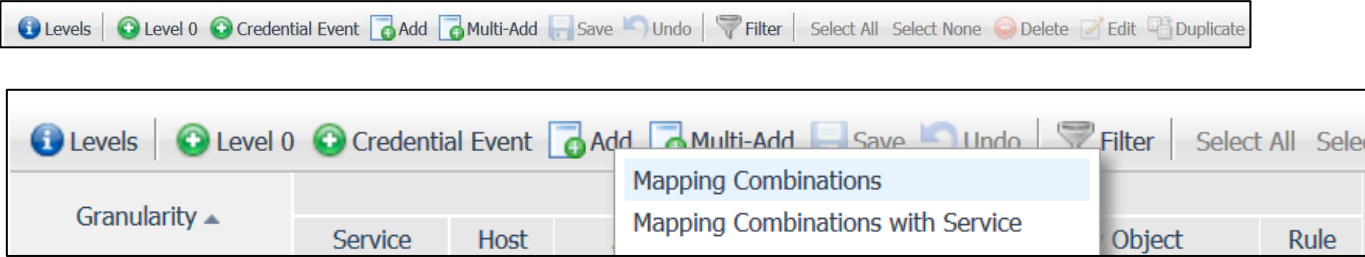
Tag	Caption
AGENT_NAME	Agent Name
AGENT_TYPE	Agent Type
AGENT_UID	Agent UID
ALARM_ACKNOWLEDGED_BY	Alarm Acknowledged By
ALARM_ACKNOWLEDGED_TIME	Alarm Acknowledged Time
ALARM_CLEARED_BY	Alarm Cleared By
ALARM_CLEARED_TIME	Alarm Cleared Time
ALARM_CREATED_TIME	Alarm Created Time
ALARM_ID	Alarm ID
ALARM_IS_ACKNOWLEDGED	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

OPERATORS

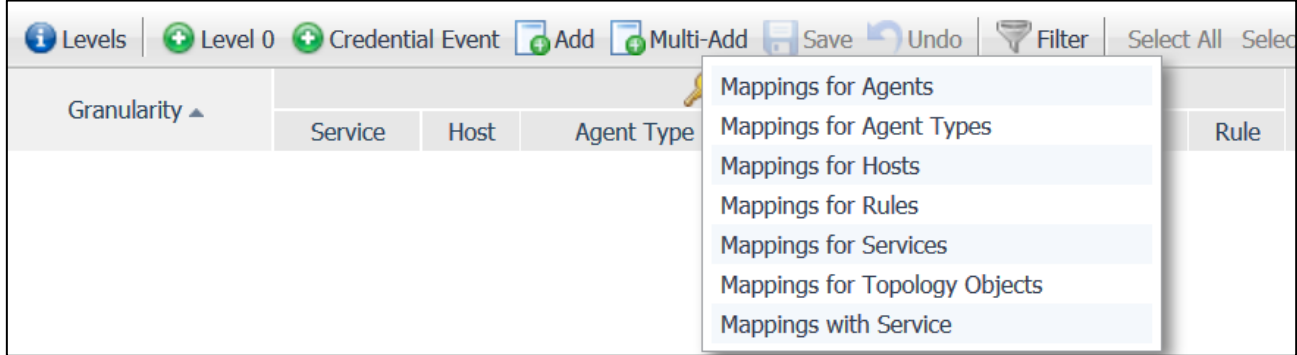
Operator	
?[]	If tag has a value.
:[]	If tag does not have a value.
?[]:[]	If tag has a value else.
^{}{}	Replace string with another.
=()	Equality
=()?[]:[]	If equal else
![[ ]]	Groovy Script
^U	Uppercase
^L	Lowercase
^T	Trim
^N	New Line Output
^R	Return

# XML Integration – Mappings Editor

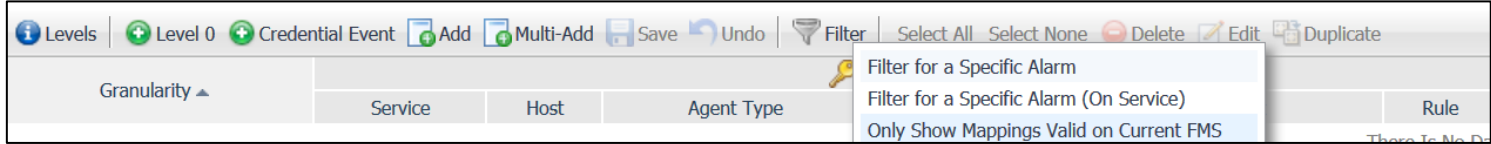
- Combinations



- Multiple Mappings



- Filtering



- . . .

# XML Integration – Pattern Editor

**XML Output Markup Elements**

Add Insert Edit by Element Save Undo

Pattern Element

<alarmID>@ALARM\_ID</alarmID> <alarmSeverity>@.

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.

```
<alarmID>@ALARM_ID</alarmID>
<alarmSeverity>@ALARM_SEVERITY</alarmSeverity>
<alarmSeverityName> @ALARM_SEVERITY_NAME</alarmSeverityName>
<alarmCreatedTime>@ALARM_CREATED_TIME</alarmCreatedTime>
<alarmMessage>@ALARM_MESSAGE_CLEAN</alarmMessage>
<alarmLink> @ALARM_LINK</alarmLink>
<alarmIsAcknowledged> @ALARM_IS_ACKNOWLEDGED</alarmIsAcknowledged>
<alarmAcknowledgedTime> @ALARM_ACKNOWLEDGED_TIME</alarmAcknowledgedTime>
<alarmAcknowledgedBy> @ALARM_ACKNOWLEDGED_BY</alarmAcknowledgedBy>
<alarmIsCleared>@ALARM_IS_CLEARED</alarmIsCleared>
<alarmClearedTime>@ALARM_CLEARED_TIME</alarmClearedTime>
```

Apply

TAGS

Tag	Caption
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_LINK	Alarm Link
ALARM_MESSAGE	Alarm Message
ALARM_MESSAGE_CLEAN	Alarm Message Clean
ALARM_SEVERITY	Alarm Severity
ALARM_SEVERITY_NAME	Alarm Severity Name
GROOVY	Groovy Script
HOSTNAME	Hostname
HOSTNAME_NO_FQDN	Hostname No FQDN

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.
=0	Equality
=0?[]:[]	If equal else
![[ ]]	Groovy Script
^U	Uppercase
^L	Lowercase
^T	Trim
^N	New Line Output
^R	Return

# XML 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