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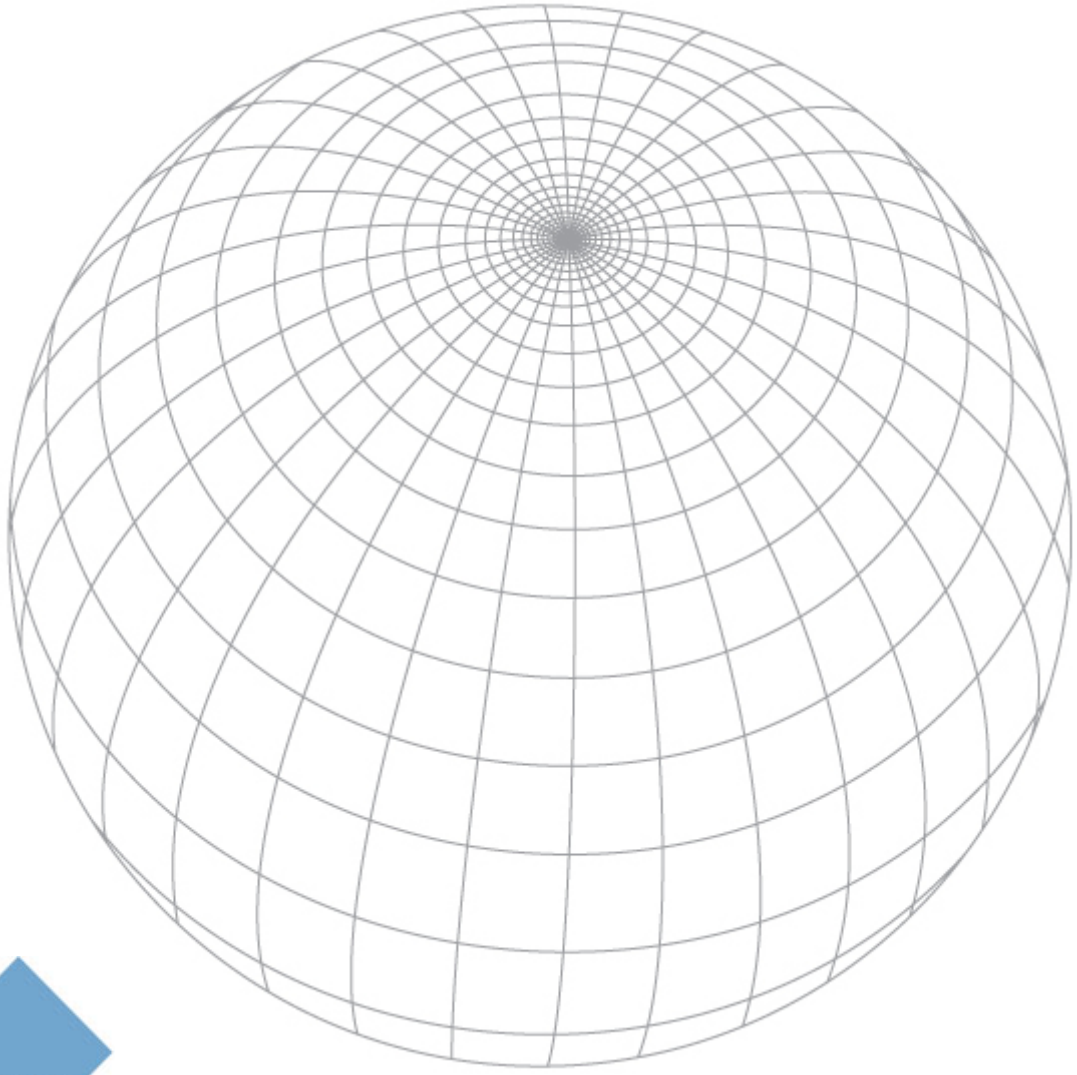
XProtect

Event Proxy User Guide



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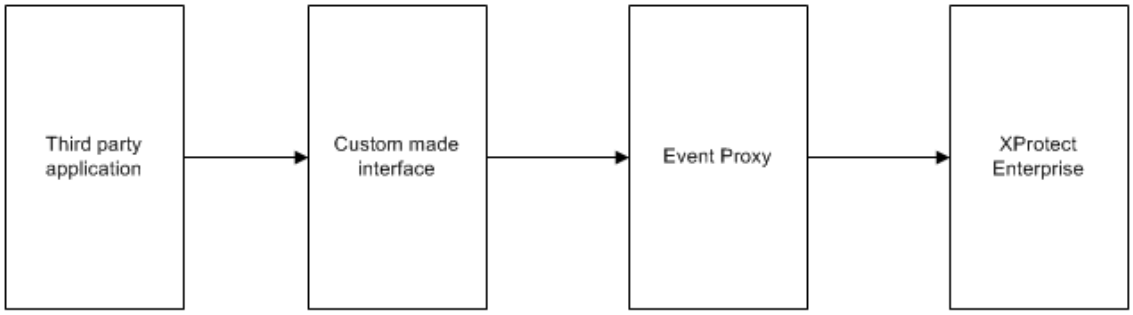
Contents

Introduction

Milestone Event Proxy is an add-on program to the Milestone XProtect Enterprise and Professional surveillance systems.

In order to minimise false alarms the Event Proxy acts as a filter on incoming input events from third party applications to the Milestone XProtect surveillance system. Third party applications communicate with the surveillance system through a custom made interface. The Event Proxy receives input from this interface and sends output to the surveillance system.

Based on rules using logical operators the Event Proxy decides if the input events should result in an event going to Milestone XProtect.



Application and communication overview

Prerequisites

To make use of the Event Proxy, a system must have been set up, containing:

- An application that sends generic events that the surveillance system can receive
- A Milestone XProtect Enterprise or Professional surveillance system
- The Event Proxy add-on

Installation

To install the event proxy, run the *EventProxyInstaller.exe* file and follow the instructions in the setup program.

After installation, the system is ready for configuration.

Event Proxy Components

The event proxy installation consists of:

File	Description
VideoOS.EventProxy.EventProxyService.exe	The application. Runs as a Windows service.
VideoOS.EventProxy.ProxySetup.exe	The GUI used to set up the system.
VideoOS.Diagnostics.Logging.dll, VideoOS.EventProxy.Common.dll, VideoOS.EventProxy.EventFilter.dll and VideoOS.EventProxy.ProxyConfiguration.dll	Four dll files used by the application.
VideoOS.EventProxy.EventProxyService.exe.config	The general configuration file for the application.
EventProxyConfig.xml	The specific configuration file for the application containing information on the events and rules that have been set up.

Configuration

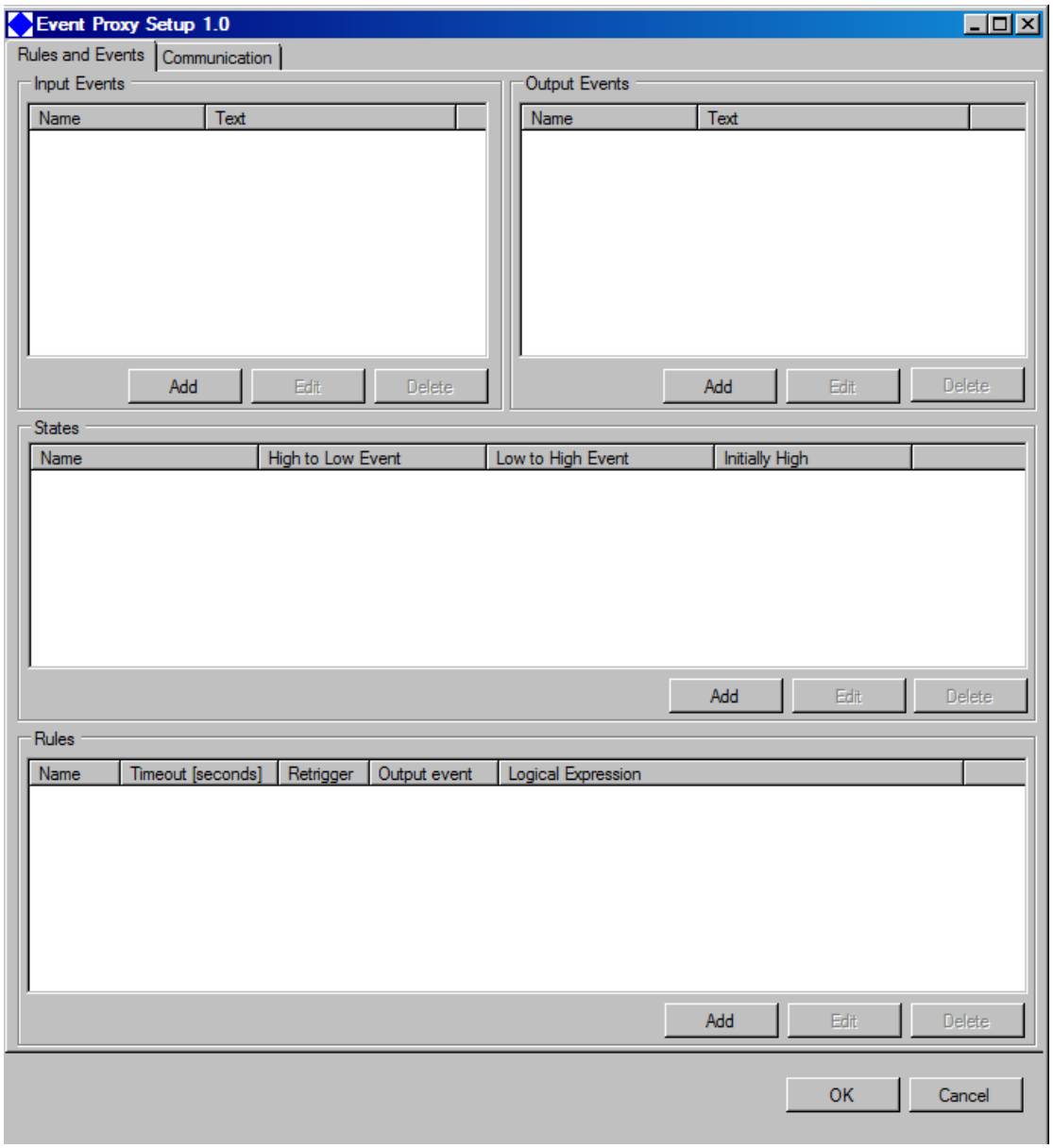
Double-click the *VideoOS.EventProxy.ProxySetup.exe* file to open the *Event Proxy Setup 1.0* window which gives you access to all configuration features.

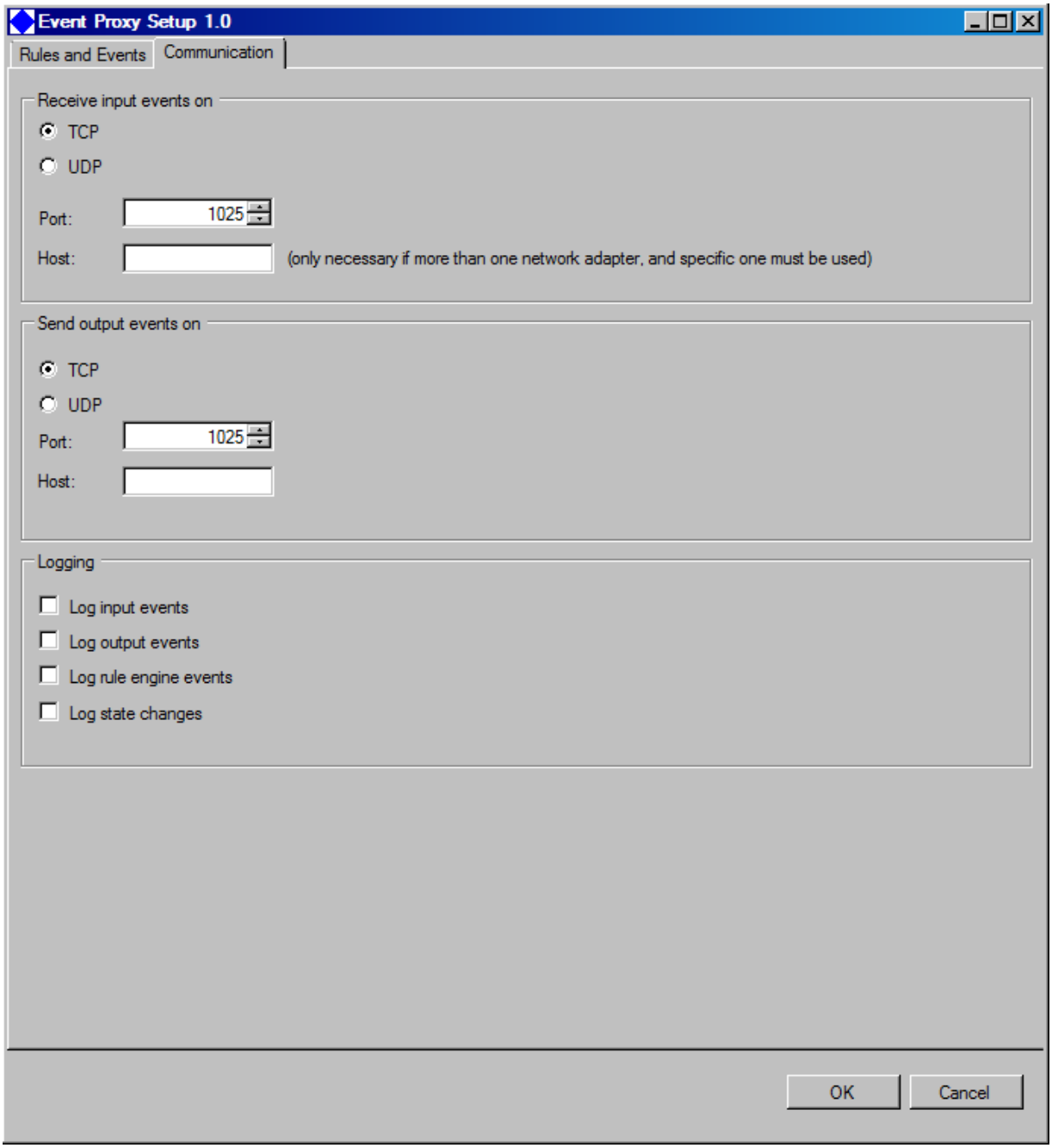
IMPORTANT: This version of the Event Proxy supports characters from Windows code page 20127 only, i.e. American 7-bit characters. Use of national characters anywhere in events or rules may cause the system to malfunction.

IMPORTANT: Always remember to save new or edited settings by clicking the *OK* button in the *Event Proxy Setup 1.0* window. Also remember to restart the Windows service called *VideoOS Event Proxy Service* for the new settings to take effect.

Tip: You are able to change the *VideoOS Event Proxy Service* service's startup type to automatic, so that the service will start automatically each time Windows is started.

The *Event Proxy Setup 1.0* window consists of two tabs.





The *Rules and Events* tab and the *Communication* tab.

The Rules and Events Tab

On the *Rules and Events* tab you are able to configure following settings:

- **Input events** (see *Input Events* on page 8 for more information)
- **Output events** (see *Output Events* on page 10 for more information)
- **States** (see *States* on page 11 for more information)
- **Rules** (see *Rules* on page 12 for more information)

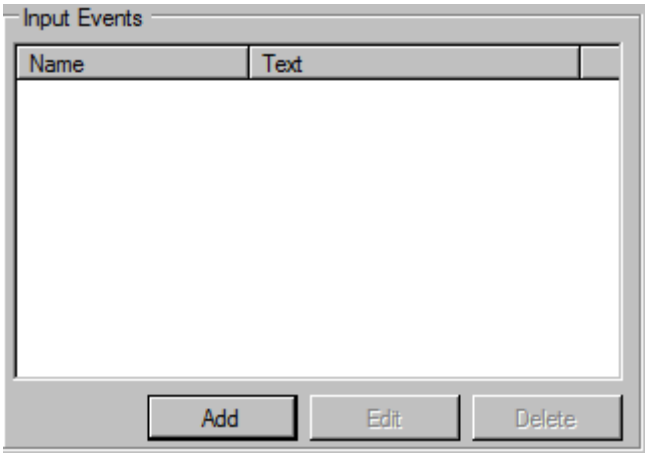
The Communication Tab

On the *Communication* tab you are able to configure following settings:

- **How to receive input** (see *Receiving Input Events* on page 14 for more information)
- **How to send output events** (see *Sending Output Events* on page 15 for more information)
- **Logs** (see *Logs* on page 15 for more information)

Input Events

You are able to add, edit and delete input events in the *Rules and Events* tab's *Input Events* group box.



The *Input Events* group box on the *Rules and Events* tab.

Adding an Input Event

To add an input event, do the following:

1. In the *Input Events* group box click the *Add* button. Alternatively press the *Insert* key on the keyboard when the input events list view is active.

   The *Create Input Event* window opens.

2. Enter a unique name for the input event in the *Event name* text box.

3. Enter the actual text that is received from the third party application in the *Event text* text box.

   Note: The text is case sensitive (e.g. "Fence 17 triggered" is NOT the same as "fence 17 triggered").

4. Click the *OK* button or press the *Enter* key on the keyboard to accept the entered values.

Editing an Input Event

To edit an input event, do the following:

1. Select the required input event in the *Input Events* group box.
2. Click the *Edit* button, or press the *F2* key on the keyboard.

   The *Edit Input Event* window opens.
3. Change the required settings, and click the *OK* button or press the *Enter* key on the keyboard to accept the changes.

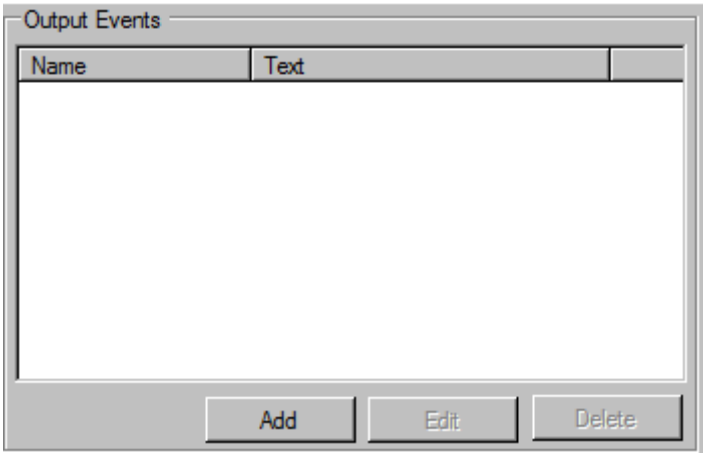
Deleting an Input Event

To delete an input event, select the input event in the *Input Events* group box, and then press the *Delete* button.

Note: If the event is used in a rule, you can't delete it, unless you remove the event from the rule or delete the rule first.

Output Events

You are able to add, edit and delete output events in the *Rules and Events* tab's *Output Events* group box.



The *Output Events* group box on the *Rules and Events* tab.

Adding an Output Event

To add an output event, do the following:

1. Click the *Add* button in the *Output Events* group box. Alternatively press the *Insert* key on the keyboard when the output events list view is active.

   The *Create Output Event* window opens.

2. Enter a unique name for the output event in the *Event name* text box.

3. In the *Event text* text box, enter the actual text that is to be sent to the XProtect surveillance system when this output event is triggered.

4. Click the *OK* button or press the *Enter* key on the keyboard to accept the entered values.

Editing an Output Event

To edit an output event, do the following:

1. Select the required output event in the *Output Events* group box.

2. Click the *Edit* button, or press the *F2* key on the keyboard.

   The *Edit Output Event* window opens.

3. Change the required settings, and click the *OK* button or press the *Enter* key on the keyboard to accept the changes.

Deleting an Output Event

To delete an output event, select the event in the *Output Events* group box, and press the *Delete* button.

Note: If the event is used in a rule, you can't delete it, unless you remove the event from the rule or delete the rule first.

States

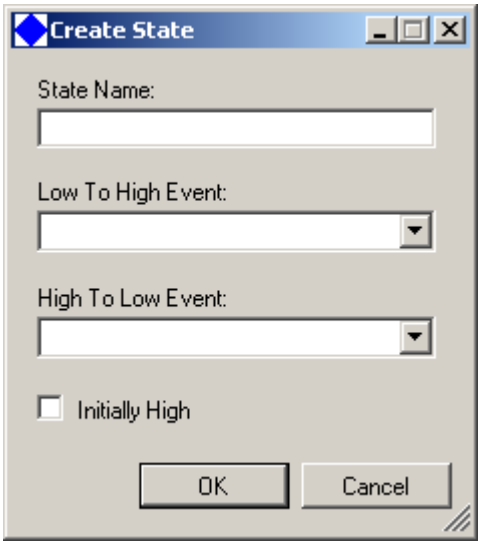
You are able to add, edit and delete states in the *Rules and Events* tab's *Rules* group box.

Adding a State

To add a state, do the following:

1. Click the *Add* button in the *Sates* group box. Alternatively press the *Insert* key on the keyboard when the states list view is active.

   The *Create State* window opens:



2. Enter a unique name for the state in the *State Name* text box.

3. In the *Low To High Event* combo box select which input event turns the state from Low (not set) to High (set).

4. In the *High To Low Event* combo box select which input event turns the state from High (set) to low (not set).

5. Check the Initially High checkbox if the state should be high (set) initially. Uncheck this box if the state should be initially Low.

6. Click the *OK* button or press the *Enter* key on the keyboard to accept the entered values.

Editing a State

To edit a state, do the following:

1. Select the required state in the *States* group box, and click the *Edit* button, or press the *F2* key on the keyboard.

   The *Edit State* window opens.

2. Change the required settings.

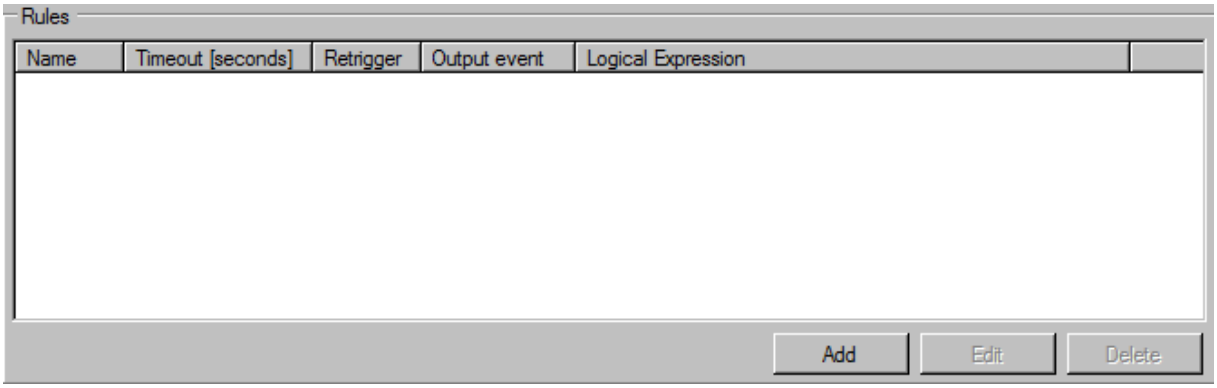
3. Click the *OK* button or press the *Enter* key on the keyboard to accept the changes.

Deleting a State

To delete a state, select the required state in the *Stats* group box, and press the *Delete* button.

Rules

You are able to add, edit and delete rules in the *Rules and Events* tab's *Rules* group box.



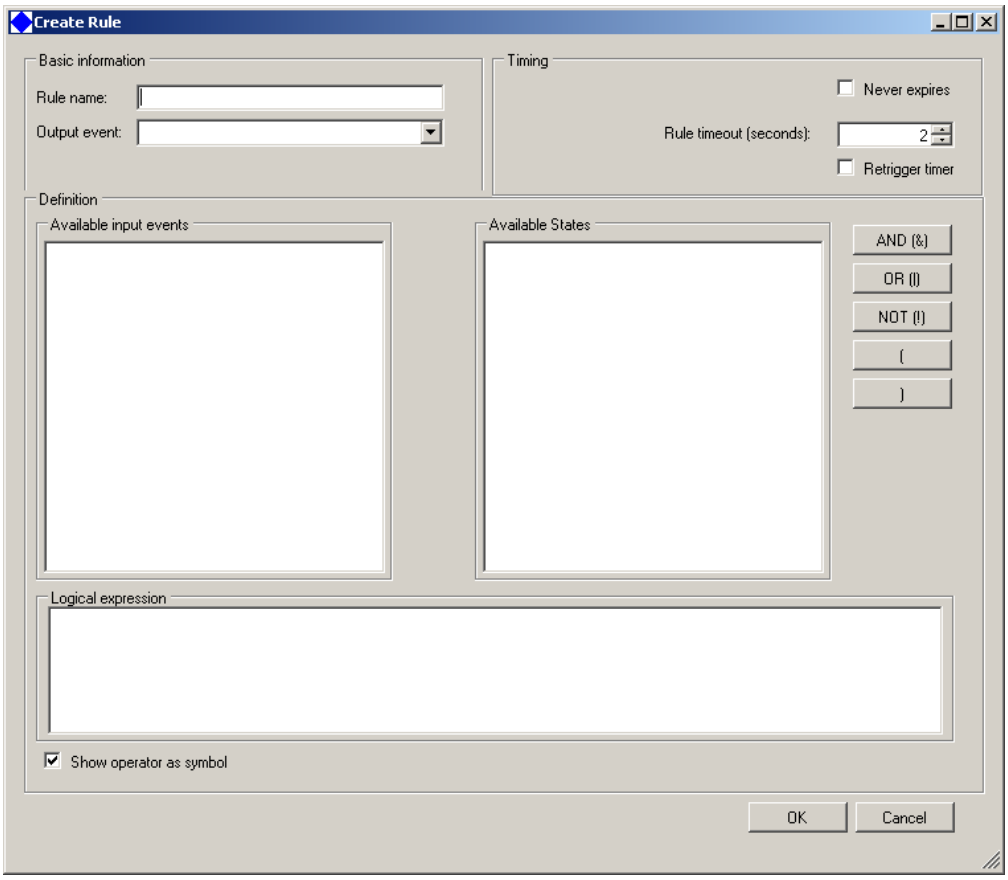
The *Rules* group box on the *Rules and Events* tab.

Adding a Rule

To add a rule, do the following:

1. Click the *Add* button in the *Rules* group box. Alternatively press the *Insert* key on the keyboard when the rules list view is active.

   The *Create Rule* window opens:



2. Enter a unique name for the rule in the *Rule name* text box.

3. In the *Output event* combo box select which output event to trigger when the conditions of the rule (input events and logical expression) are fulfilled.

4. Enter how many seconds the rule should be active by entering the number of seconds in the *Rule timeout (seconds)* control.

   Retrigger timer check box:

   - When the *Retrigger timer* check box is selected, the rule will be active for the selected number of seconds after arrival of the last input event used by this rule.

   - When the *Retrigger timer* check box is NOT checked, the rule will be active for the selected number of seconds after arrival of the first input event used by this rule.

   Note: Only if all the input events used by the rule arrive within its active period, the conditions of the rule are fulfilled. When the rule times out, it is reset and is no longer active, until a new relevant input event arrives.

5. Set up a logical expression for the rule by double-clicking input events in the *Available input events* list box, and states in *the Available States* list box, and clicking the logical operator buttons (AND, OR, NOT, "(" and ")"). Selected objects will be appended to the end of the existing logical expression.

   Alternatively a logical expression can be set up by writing it directly in the *Logical expression* text box.

   The logical expression can be written and shown using either operator symbols or operator

text (i.e. “&” or “AND”) by toggling the *Show operator as symbol* check box.

6. Click the *OK* button or press the *Enter* key on the keyboard to accept the entered values.

Logical operators

- “**AND**”: event 1 AND event 2 AND …
  - Means that all events must be High at the same time before an event is sent to Milestone XProtect
- “**OR**”: event 1 OR event 2 OR …
  - Means that at least one of the events must be High before an event is sent to Milestone XProtect
- “**NOT**”: Indicates that the “true” state is low instead of normal high
  - The state NOT will in a rule be combined with the logical operators “AND” or “OR”
- “**(**” and “**)**”: Is used to group logical statements, e.g. (event 1 AND NOT event 2) OR event 3
  - Means that if either event 1 is High and event 2 is Low at the same time or event 3 is High an event is sent to Milestone XProtect
    - Meaning that if event 1 is high and event 2 is Low an event is sent to Milestone XProtect regardless of what state event 3 is in.
    - Likewise, if event 3 is High an event is sent to Milestone XProtect regardless of the state of event 1 and event 2

Editing a Rule

To edit a rule, do the following:

1. Select the required rule in the *Rules* group box, and click the *Edit* button, or press the *F2* key on the keyboard.

   The *Edit Rule* window opens.

2. Change the required settings.

   Tip: You are able to edit a logical expression directly in the *Logical expression* window.

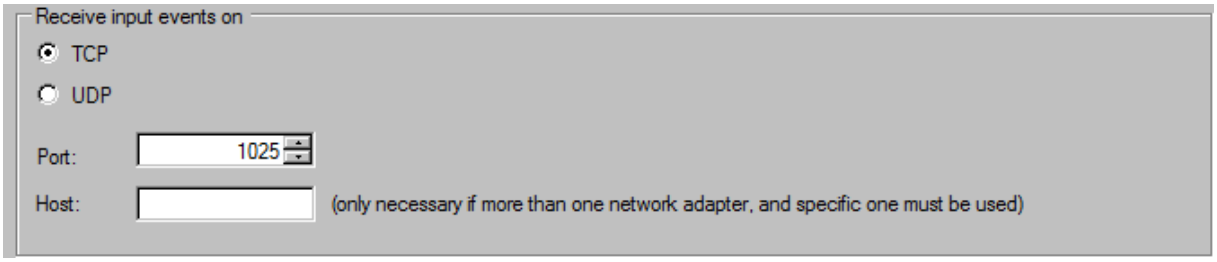
3. Click the *OK* button or press the *Enter* key on the keyboard to accept the changes.

Deleting a Rule

To delete a rule, select the required rule in the *Rules* group box, and press the *Delete* button.

Receiving Input Events

You are able to configure how input events from a third party application should be received by the event proxy in the *Communication* tab’s *Receive input events on* group box.



The *Receive input events on* group box on the *Communication* tab.

To configure how the event proxy should receive input events from a third party application, do the following:

1. From the *Communication* tab, select the *TCP* or *UDP* option button depending on it is a TCP or UDP-based event.
2. Enter the port number for the communication in the *Port* text box.
3. If the computer has more than one network adapter and a specific one must be used, enter the host name or IP address in the *Host* text box. If not you can leave the text box empty.

Sending Output Events

You are able to configure how output events should be sent to the XProtect surveillance system in the *Communication* tab's *Send output events on* group box.

The *Send output events on* group box on the *Communication* tab.

To configure how the event proxy should send output events to XProtect, do the following:

1. From the *Communication* tab, select the *TCP* or *UDP* option button depending on it is a TCP or UDP-based event.
2. Enter the port number for the communication in the *Port* text box.
3. Enter the host name or IP address in the *Host* text box.

Logs

You are able to configure how much information you would like to log in the *Communication* tab's *Logging* group box.

The *Logging* group box on the *Communication tab.*

To configure how much information you would like to log, select or deselect the following check boxes:

Check box	Description
Log input events	Logging of input event arrivals.
Log output events	Logging of output events sent.
Log rule engine events	Logging of rule engine events. A rule engine event is when the conditions of the rule (input events and logical expression) are fulfilled.

Input, output and rule engine events are by default logged in a file called *EventProxy.log* in Event Proxy's installation folder (typically the C:\Program Files\Milestone\Milestone Event Proxy folder).

Warnings and errors are by default always logged. They are logged in Windows *Event Viewer*. To open *Event Viewer* and view the log file, select *Run* in Windows *Start* menu. Then type *eventvwr* in the *Run* window, and in the *Event Viewer* window, select the *EventProxy.log*.

All event log settings can be altered by editing the *VideoOS.EventProxy.EventProxyService.exe.config* file. Note, that the settings in the *VideoOS.EventProxy.EventProxyService.exe.config* file take precedence of the settings defined in the *Communication* tab's *Logging* group box.

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