

Triggering Software 'Generic Events' from the Windows Scheduler

Background

OnSSI's NetDVR and NetDVMS NVR software platforms have the ability to change certain settings based on external events.

As an example, let's say you want to speed up the frame rate on certain cameras based on a schedule (rather than on motion or on event, which are both natively supported). The following describes how to use the Windows Scheduler in order to change frame rates on a recurrent basis.

1st Step: Create an Event in the NVR Administrator:

- Launch the *NVR Administrator*
- Select the *Generic Events* option
- Click on the *Generic icon*
- Click on the *Add new event* button
- Enter an event name in the *Event Name* field, e.g. "Increase Frame Rate"
- Enter a *string* (any combination of letter and numbers) in the *Event substring* field, e.g. "front door opened". This indicates the TCP or UDP commands listened for by the NVR from outside the software, which triggers the Generic Event.

This process can be repeated, specifying different strings the software would listen for (e.g., in addition to "front door opened", enter "front door closed"). This second event may be used to "undo" the first event. (See example below)

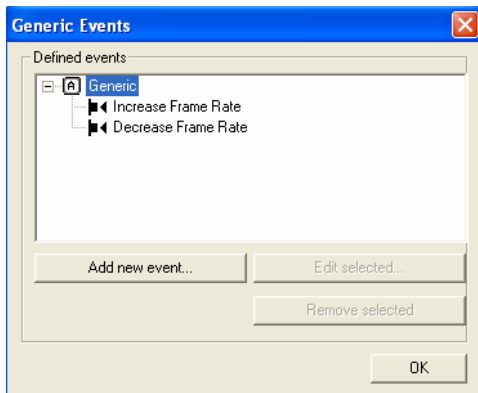


Fig. #1: The Generic Events window where events are added. In this example, there are two events: "Increase Frame Rate", and "Decrease Frame Rate".

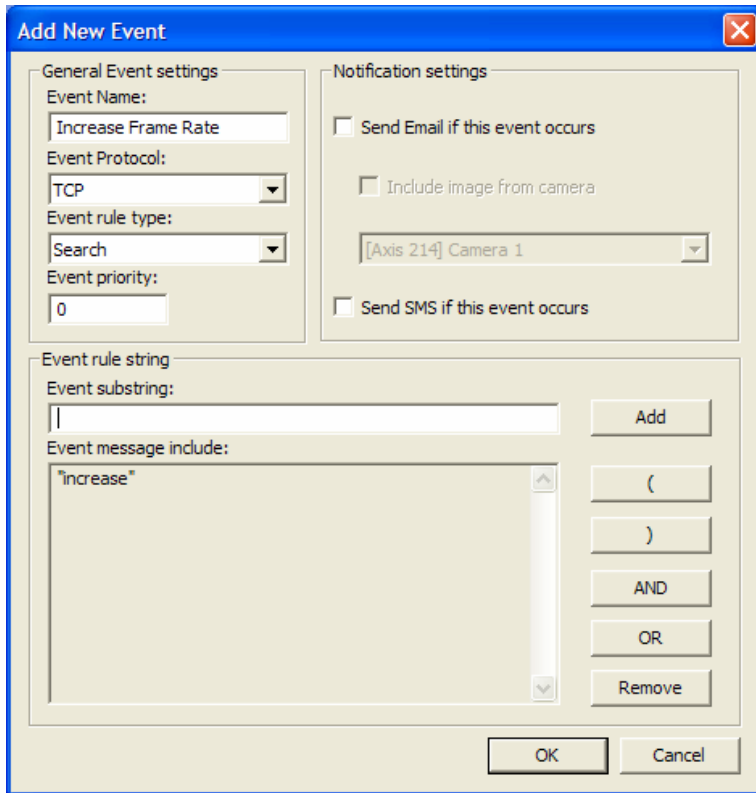


Fig. #2: the Add New Event window. Under the Event Substring, the command “**increase**” has been defined. This command will be called upon by the script in order to initiate the event. (Likewise, the “**decrease**” command will be used to terminate the event.)

- The Event Protocol: field can be set to include either TCP or UDP strings depending on your network configuration.
- For the Event rule type: field, the settings can be set to either Search or Match.
 - If the Event Rule Type is set to Search, then the software will know to filter out any other characters or commands, except for the one it is looking for. (e.g. with Search set as the Event rule type parameter, if the TCP/UDP string contains “increase” (for example “housecar**increase**toyboat”) it would trigger the “**increase**” command, and ignore any other commands that are not defined in the **Increase Frame Rate** event.
 - If the Event Rule Type is set to **Match** then only the specific command will trigger the event. Any other commands that are sent with the event command included will be treated as one large invalid command. This setting, thus, requires an exact match between the command and the event substring.

2nd step: Setting the frame rate to speed up on motion:

- Launch the *Administrator* and click on *Monitor Manager*
- Click on the camera you would like to enable the event for, and then click on the *settings* button the right hand side.
- Set the desired (normal) frame rate (the frame rate used except for when the generic event is triggered).
- Check *Enable speedup*, then check *On event*

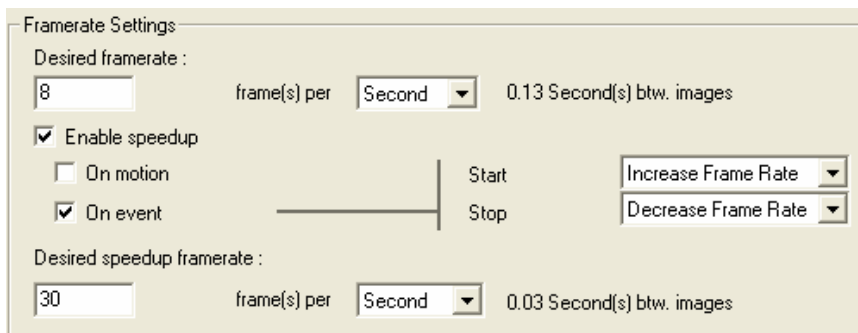


Fig. #3: Setting the desired normal and speedup frame rates

- Select the start and stop event from the drop-down menus on the right. You will need two unique events to start and stop the *speedup*. (e.g. "Increase Frame Rate", and "Decrease Frame Rate")

You are now done configuring the NVR software.

3rd Step: Create Script to Trigger 'Generic Event'.

A *Generic Event* is typically triggered by an external device, e.g. access control system. However in this case the generic event will be triggered from the local machine. As an example you can trigger the Generic Event by using *telnet*. This can all be automated by using a simple script, and Windows Task Scheduler will be used to trigger the event on a scheduled basis.

The script will perform the following tasks:

1. Create a session to the NetDVMS via telnet.
2. Send the appropriate command string to trigger the defined event.
3. Close the session and submit the command.

Script used to trigger the Generic Event	Explanation
<pre>'Create the shell object Set oShell = CreateObject("WScript.Shell") 'Start up command prompt oShell.run"cmd.exe" WScript.Sleep 500 'Initiate Telnet session; change the ' ip address as needed. oShell.SendKeys"telnet 192.168.1.1 1234" → oShell.SendKeys("{Enter}") WScript.Sleep 1000 oShell.SendKeys"event" → oShell.SendKeys("{Enter}") WScript.Sleep 5 'Exit the program 'oShell.SendKeys"% " oShell.SendKeys(" ^{])") oShell.SendKeys"quit" oShell.SendKeys("{Enter}") oShell.SendKeys("exit") oShell.SendKeys("{Enter}")</pre>	<p>To the left is a sample script, in Visual Basic. The script will have to be reconfigured with the appropriate information for your network.</p> <p>The IP address can be changed to the server IP via the command:</p> <pre>oShell.SendKeys"telnet 192.168.1.1 1234" (note the space before 1234).</pre> <p>Note that only the IP address should be changed. The port "1234" is the default <u>Alert Port</u> for NetDVMS. If there is a conflict with that port, it can be changed through the Administrator.</p> <p>The next line that needs to be changed is the <u>event</u>, the search string specified under <i>Generic Event</i>, (e.g. "Increase Frame Rate").</p> <p>This script can be copied, and pasted into Notepad, and then saved as a .vbs file.</p>

4th Step: Configuring the Windows Task Scheduler

The final step is to configure the Windows Task Scheduler to run the script(s) at the desired intervals. The Scheduled Tasks interface can be found in the *Windows Control Panel*. (Click on Start | Control Panel, and then double-click on the Scheduled Tasks icon.)

Double-click the icon “Add Scheduled Task.” This will launch the Windows Task Scheduler Wizard. When asked to specify a new task, click on “Browse”, and then specify the script that was created earlier. Then, configure the time and date for when you would like the script to take place. You will need to specify both events created earlier; one to start the event and one to stop the event.

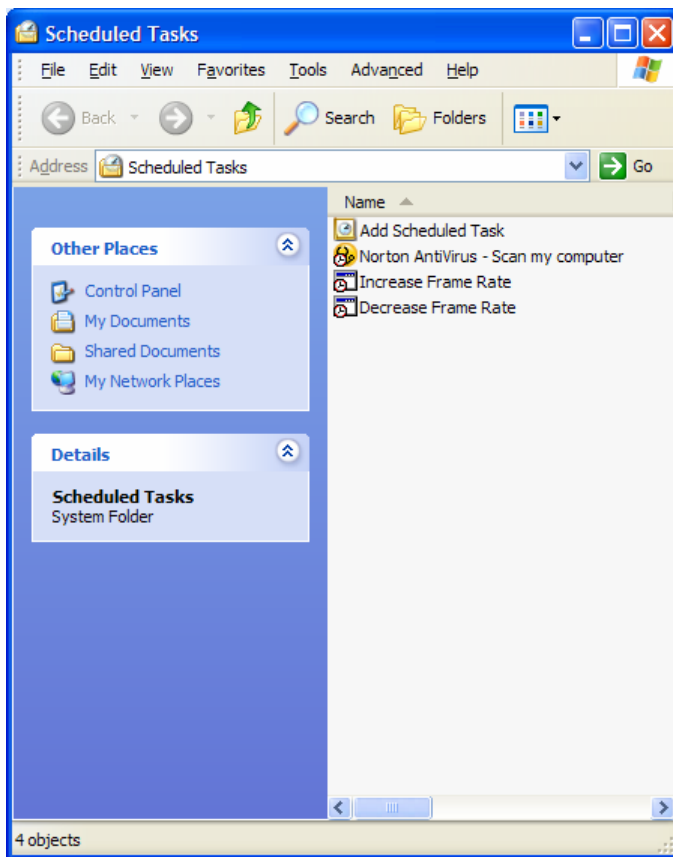


Fig. #4: Configuring the Windows Scheduler

Please email support@onssi.com for a copy of this script.