



Monitor Room Alert 11E With PageR Enterprise

The Room Alert 11E ID Box is one of AVTECH Software's hardware solutions for 'Advanced Computer Room Environment Monitoring, Alerting & Automatic Corrective Action'. It is designed specifically to monitor 1-3 digital temperature / humidity sensors, digital temperature sensors or switch sensor expansion boxes (8 port) and up to 8 connected switch sensors that can be distributed at locations spanning several hundred feet. Room Alert 11E additionally allows alert notifications to be sent via email to devices like computers, phones, pagers and PDAs. Users can set up thresholds for temperatures and humidity that are rising or falling and easily work with Room Alert 11E through their favorite web browser. Status of attached sensors for Power, Smoke, Flood, Air Flow and more is viewed in real-time. Because each Room Alert 11E ID Box is SNMP enabled, it can easily be monitored by software applications like *PageR Enterprise (PageR)*, *Tivoli*, *OpenView*, *Unicenter*, and others.



Room Alert 11E is designed to easily work with AVTECH Software's [PageR](#) software which is included and will significantly enhance the alert notification capabilities to allow notification to individuals, groups, hierarchies, different people at different sensors/locations, and different people for different times of the day. With PageR, alert notification methods can be expanded to include email, Simple Network Paging Protocol (SNPP), dialout paging (TAP or UCP), web page update, logfile update, pop-up broadcast message, MSN Messenger, audio alert, spoken English text and more.

PageR can monitor Room Alert 11E using the SNMP Trap and SNMP Query monitored objects. A SNMP Trap monitored object can be configured to monitor (i.e. listen) for SNMP Trap messages sent from the Room Alert 11E ID Box. A SNMP Query monitored object can be used to check the current status of the Room Alert 11E ID Box at regular scan intervals.

In order for PageR to communicate with the Room Alert 11E ID Box via SNMP, there are a number of MIB files that must be installed into the 'MIBs' folder of the PageR Enterprise directory. These MIB files are available for download on the AVTECH.com website at the following link:

www.AVTECH.com/Downloads/RoomAlertDownloads.htm

Fill in the fields provided, click the 'Download' button and select 'Room Alert 11E'. Click the 'Room Alert 11E MO & SNMP MIBs' link to download the 'Room_Alert_11E_MO_SNMP_MIBs.zip' file. Once the download is complete, extract the .zip file to the desktop.

To install the MIB files, copy the '.mib' and '.mibx' files located in the 'Room_Alert_11E_MIBs' folder to the 'MIBs' folder of the PageR Enterprise directory. Select 'Yes' to overwrite files if prompted to do so. When PageR Enterprise is restarted, the new MIB files will be loaded and available for use. To add a Room Alert 11E SNMP Query monitored object, copy the 'PDMO.txt' file located in the 'Room_Alert_11E_MO' folder to the PageR Enterprise directory. Select 'Yes' to overwrite files if prompted to do so. When PageR Enterprise is restarted, a new Room Alert 11E SNMP Query monitored object will be available for use.

NOTE: Be sure that PageR is not running when installing the files above.

Using SNMP Trap Monitoring

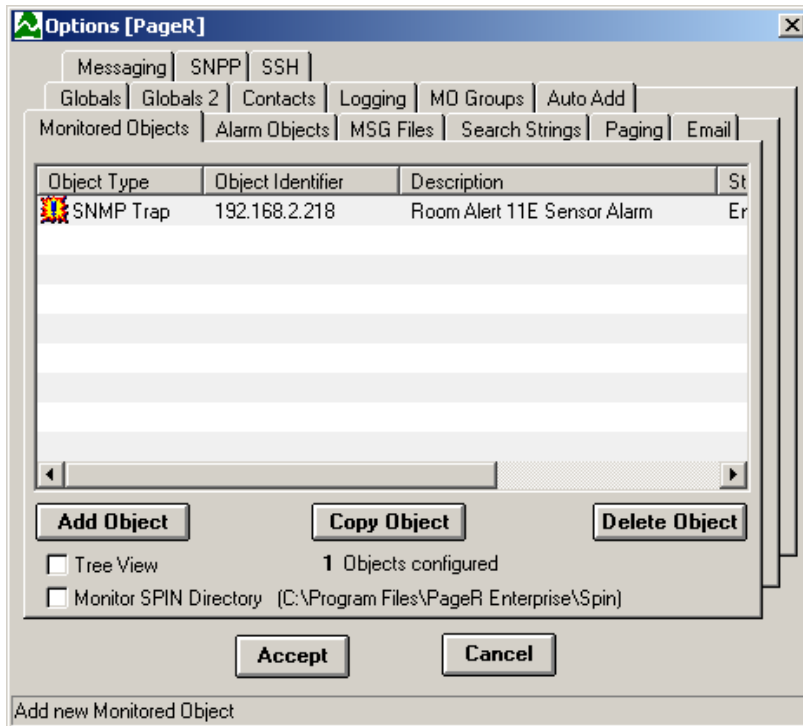
Configure Room Alert 11E To Send SNMP Trap Messages

Open the web server interface for the Room Alert 11E ID Box by entering 'http://<IP address>' into the web browser location bar. Be sure to substitute <IP address> with the IP address assigned to the specific Room Alert 11E ID Box you are working with. Then, click 'Settings' and select the 'SNMP' tab.

Advanced	Channel 1	Channel 2	Channel 3	Channel 4	Network	Email	SNMP	Security
Room Alert can respond to SNMP Query requests from Network Monitoring programs such as PageR Enterprise and send SNMP Traps.								
SNMP Read Community Name						<input type="text" value="public"/>		
SNMP Trap Recipient 1						<input type="text" value="192.168.2.145"/>		
SNMP Trap Recipient 2						<input type="text" value="<Enter SNMP Trap Recipient 2>"/>		
SNMP Trap Recipient 3						<input type="text" value="<Enter SNMP Trap Recipient 3>"/>		
						<input type="button" value="Save Settings"/>		

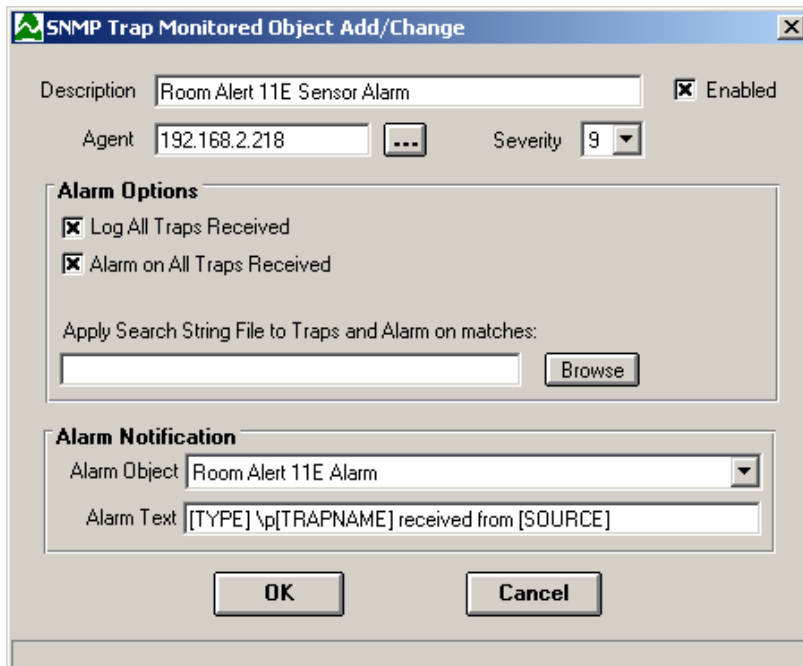
In the 'SNMP Read Community Name' field, you can either leave the default value (public) or enter your own community name. This field is used to control access to Room Alert 11E from SNMP Query monitored objects and does not apply for SNMP Trap monitored objects. The 'SNMP Trap Recipient 1' field must contain the IP address of the PageR Host System that will be receiving the SNMP Trap messages. If you have other systems or applications that you would like to send SNMP Trap messages to, enter the IP addresses in the 'SNMP Trap Recipient 2' and 'SNMP Trap Recipient 3' fields. Once finished, click the 'Save Settings' button.

SNMP Trap Monitored Object



SNMP Trap

Open PageR and click the ‘Options’ button. Click the ‘Add Object’ button on the ‘Monitored Objects’ tab and double-click the ‘SNMP Trap’ icon to create a new SNMP Trap monitored object.



Enter a description for this monitored object in the ‘Description’ field and the IP address of the Room Alert 11E ID Box in the ‘Agent’ field. Select an Alarm

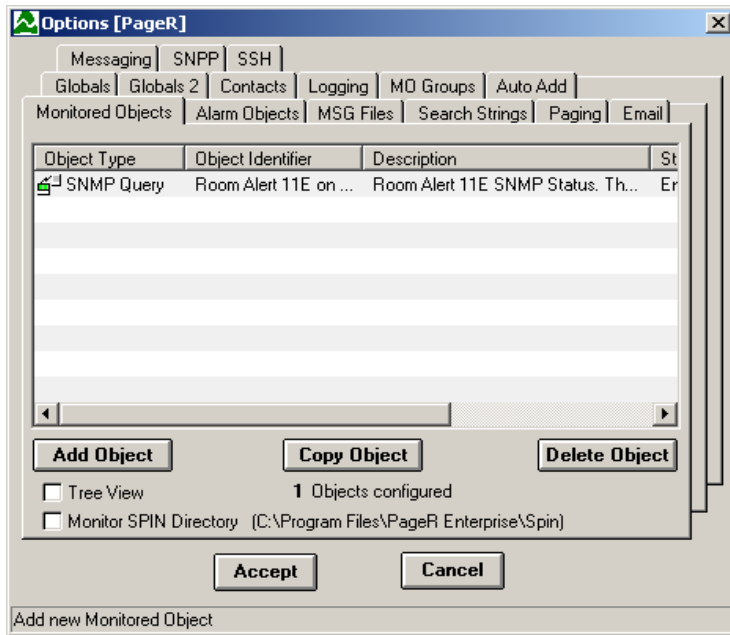
Object from the 'Alarm Object' drop down menu to be called when an SNMP Trap message is received. Click 'Ok' and save your configuration to the Registry.

Note: Leave the 'Agent' field blank if you have multiple Room Alert 11E units and wish to have a single monitored object listen for all SNMP Trap messages being sent to the PageR host system. If you have multiple devices sending SNMP Trap messages to the PageR host system, you can limit the messages that this monitored object will alarm on by specifying a search string file in the 'Apply Search String File to Traps and Alarms on matches' field that searches for a unique text string in the Room Alert 11E SNMP Trap messages. See the 'PageR Enterprise User's Guide & Reference Manual' for more information.

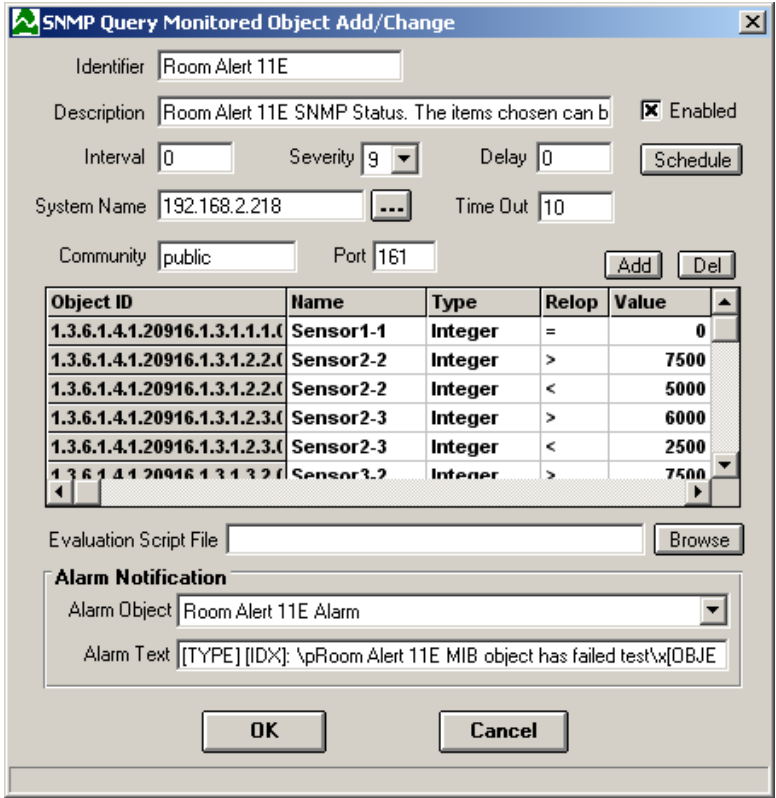
Using SNMP Query Monitoring

A SNMP Query monitored object can be used to connect directly to a Room Alert 11E ID Box and check the status of any specified counters defined in the SNMP Query monitored object.

Room Alert 11E SNMP Query Monitored Object



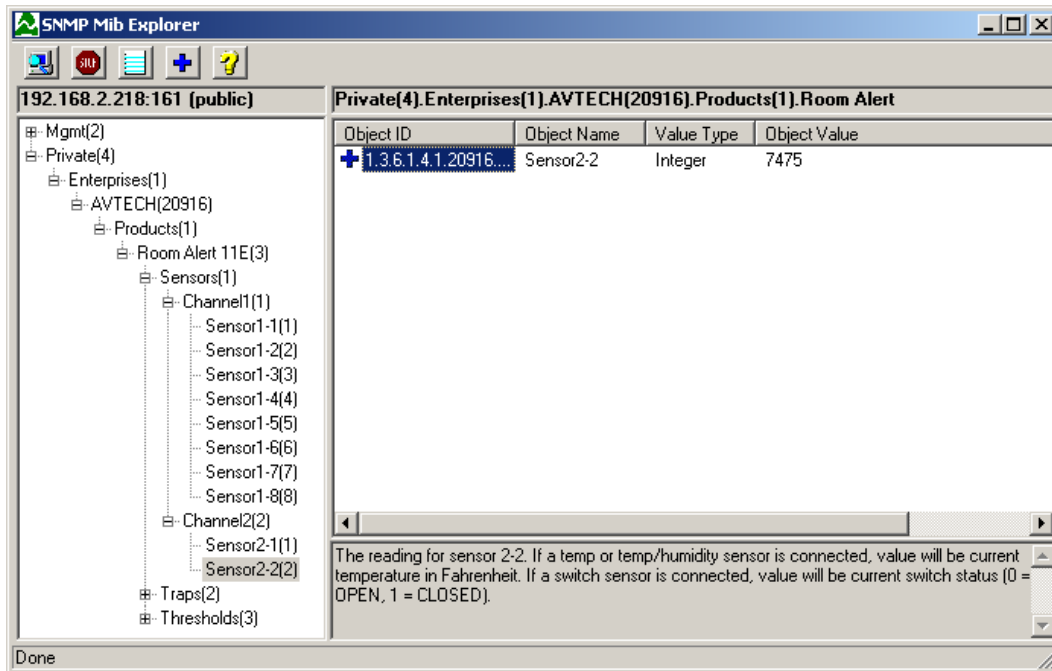
Open PageR and click the 'Options' button. Click the 'Add Object' button on the 'Monitored Objects' tab and double-click the 'Room Alert 11E' icon to create a new Room Alert 11E monitored object.



Enter a name in the 'Identifier' field that will help you identify this Room Alert 11E SNMP Query monitored object. In the 'System Name' field, enter the IP address of the specific Room Alert 11E ID Box you wish to monitor. Also, confirm that the value in the 'Community' field matches the value in the 'SNMP Read Community Name' field on the 'SNMP' tab in the 'Settings' section of the Room Alert 11E web server interface. The Room Alert 11E SNMP Query monitored object comes pre-configured with a number of the SNMP objects available for monitoring from the Room Alert 11E ID Box. The Room Alert 11E monitored object is configured with the assumption that the included digital temperature / humidity sensor is connected to digital sensor channel 2, the included digital temperature sensor is connected to digital sensor channel 3 and the included power sensor is connected to the first set of sensor contacts on the back of the Room Alert 11E ID Box. Sensor1-1 represents the power sensor. Sensor2-2 and Sensor2-3 represent the temperature (Fahrenheit) and humidity (% Relative Humidity) of the digital temperature / humidity sensor. Sensor3-2 represents the temperature (Fahrenheit) of the digital temperature sensor. For more information regarding the setup of this monitored object, please refer to the 'Room_Alert_11E_MO_ReadMe.txt' file located in the 'Room_Alert_11E_MO' folder of the 'Room_Alert_11E_MO_SNMP_MIBs' folder.

Additional SNMP objects can be added to this monitored object by using the SNMP Mib Explorer to 'walk' the Room Alert 11E ID Box. The default values can be easily modified here to better reflect the actual environment conditions that are to be monitored.

Click the 'Add' button to open the SNMP MIB Explorer.



To monitor the sensors from the Room Alert 11E ID Box, expand 'Private(4)', 'Enterprise(1)', 'AVTECH(20916)', 'Products(1)', 'Room Alert 11E(3)' and 'Sensors(1)'. The 'Channel1(1)' MIB item contains the SNMP objects for the built-in switch sensor contacts from the Room Alert 11E ID Box. The 'Channel2(2)', 'Channel3(3)' and 'Channel4(4)' MIB items correspond with the three (3) digital sensor channels on the front of the Room Alert 11E ID Box and contain the SNMP objects for the currently connected sensor. If a digital temperature / humidity or digital temperature sensor is connected, the first SNMP object listed will contain the temperature value in Celsius and the second SNMP object listed will contain the temperature value in Fahrenheit. If a digital temperature / humidity sensor is connected, the third SNMP object will contain the humidity value in percent (%) Relative Humidity. If a Switch Sensor Expansion Box is connected, eight (8) SNMP objects will be available for each of the eight (8) sets of switch sensor contacts on the Switch Sensor Expansion Box. Click once on the sensor listed in the right pane and a blue '+' will appear indicating that this item will be added to the SNMP Query. If you wish to select multiple sensors, navigate to the appropriate sensor number in the left pane and click the item in the right pane once. Once finished, click the blue '+' in the menu bar. For example, if a digital temperature / humidity sensor is connected to digital sensor channel 2 and monitoring of the humidity is desired, choose the 'Sensor2-3' SNMP object located under the 'Channel2' MIB item.

Select a 'Relop' or relational operator for each item selected from the SNMP MIB Explorer and enter the desired threshold value in the 'Value' field. Threshold values for the digital temperature / humidity and digital temperature sensors must be entered as the desired threshold value multiplied by one hundred (100) to account for floating point precision. The 'Relop' is used to compare the value received from

the sensor with the threshold value in the 'Value' field. For example, to monitor for temperatures no greater than 75F, enter a 'Relop' of '>' and enter a 'Value' (threshold) of '7500'. For additional information regarding the SNMP Query monitored object, please refer to the 'SNMP Query Object Add/Change' section of the 'Monitored Objects' chapter in the *PageR Enterprise User's Guide & Reference Manual*. Specific information regarding the Room Alert 11E SNMP Query monitored object can be viewed in the 'Room_Alert_11E_MO_ReadMe.txt' file from the 'Room_Alert_11E_MO' folder of the 'Room_Alert_11E_MO_SNMP_MIBs' folder.

After configuring the desired sensor thresholds, select an Alarm Object from the 'Alarm Object' drop-down list that will be called if any of the defined thresholds are exceeded. Click the 'Ok' button, then the 'Accept' button and save your configuration to the Registry.

Configuring PageR using the methods above will allow you to easily monitor Room Alert 11E devices and use PageR's advanced notification methods to notify staff when environment issues occur. The Alarm Text in both the SNMP Trap and SNMP Query monitored objects can be modified and substitution keywords can be used to further customize alert messages. Room Alert 11E's temperature, humidity and switch sensor monitoring, combined with PageR's advanced alerting and automatic corrective action capabilities is a powerful combination.

