Monitor TemPageR 4E With PageR Enterprise

TemPageR 4E is AVTECH Software's *'Real-Time Temperature Monitor with Data Logging, SNMP & Unlimited Alerting'*. It is designed specifically to monitor 1-4 digital temperature sensors in distributed locations spanning several hundred feet while logging temperature data for historical review and graphing. TemPageR allows unlimited alert notifications via email to devices like computers, phones, pagers and PDAs. Users can set up thresholds for temperatures that are rising or falling and easily work with TemPageR through their favorite web browser.

TemPageR is designed to easily work with AVTECH Software's PageR Enterprise (PageR) software which 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, web page update, logfile update, pop-up broadcast message, MSN Messenger, audio alert, spoken English text and more. PageR can even run scripts and commands or launch applications when alerts occur for automatic corrective action.

PageR Enterprise can monitor TemPageR using the SNMP Trap and SNMP Query monitored objects. A SNMP Trap monitored object can be configured to monitor for SNMP Trap messages sent from the TemPageR ID Box. A SNMP Query monitored object can be used to check the current status of the TemPageR ID Box at regular scan intervals.

In order for PageR to communicate with the TemPageR ID Box via SNMP, there are a number of MIB files that must be installed into the 'MIBs' folder of the PageR Enterprise directory. If you have installed the AVTECH Device Discovery Utility v1.6.0 or higher, the MIB files are located in the 'MIBs' folder of the AVTECH Device Discovery Utility directory. These MIB files are also available for download on the AVTECH.com website at the following link:

www.AVTECH.com/Downloads/TempagerDownloads.htm

Fill in the fields provided, click the 'Download' button and select 'TemPageR Ethernet'. Click the 'TemPageR 4E MO & SNMP MIBs' link to download the 'TemPageR_4E_MO_SNMP_MIBs.zip' file. Once the download is complete, extract the .zip file to the desktop.

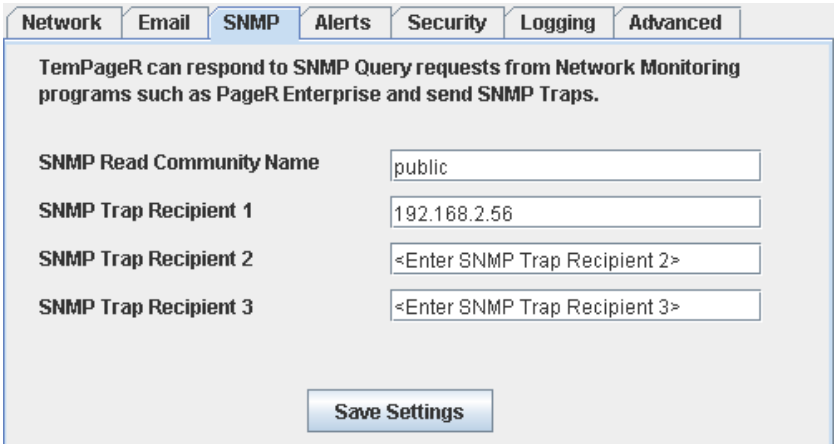
To install the MIB files, copy the '.mib' and '.mibx' files located in the 'TemPageR_4E_MIBs' folder to the 'MIBs' folder of the PageR Enterprise directory. Select 'Yes' to overwrite files if prompted to do so. When PageR Enterprise is restarted, the new MIB files will be loaded and available for use. To add a TemPageR SNMP Query monitored object, copy the 'PDMO.txt' file located in the 'TemPageR_4E_MO' folder to the PageR Enterprise directory. Select 'Yes' to overwrite files if prompted to do so. When PageR Enterprise is restarted, a new TemPageR 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

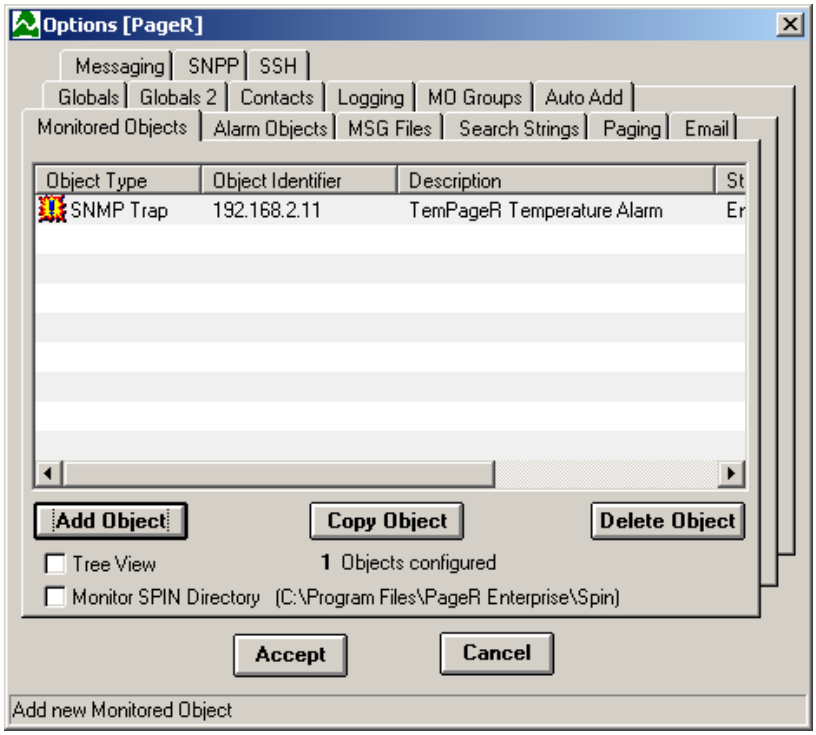
Configure TemPageR To Send SNMP Trap Messages

Open the web server interface for the TemPageR 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 TemPageR ID Box you are working with. Then, click 'Settings' and select the 'SNMP' tab.

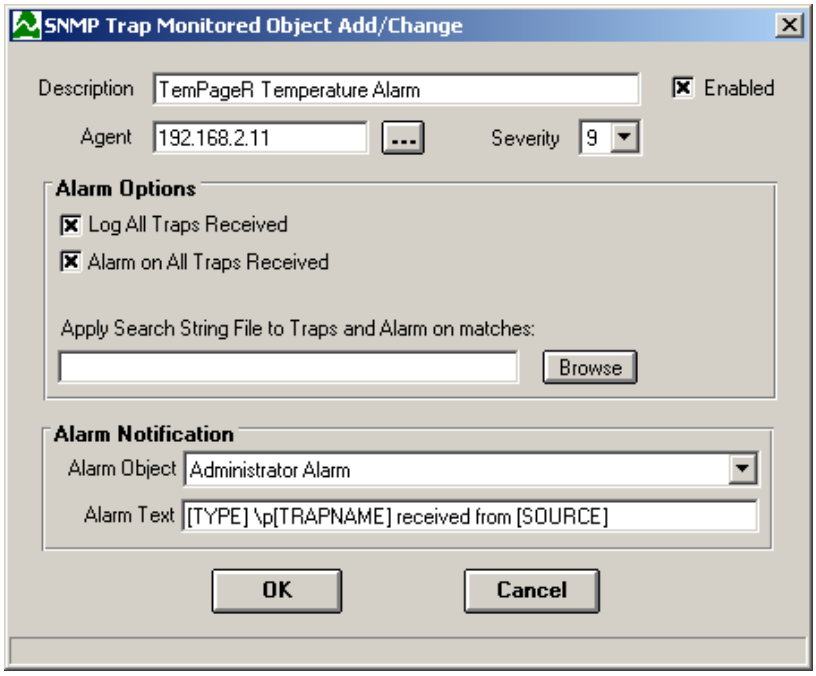


In the 'SNMP Read Community Name' field, you can either leave the default value (public) or enter your own community name. This field is used to control access to TemPageR from SNMP Query monitored objects and does not apply for SNMP Trap monitored objects. The 'SNMP Trap Recipient 1' field must contain 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



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 TemPageR ID Box in the 'Agent' field. Select an Alarm Object from the

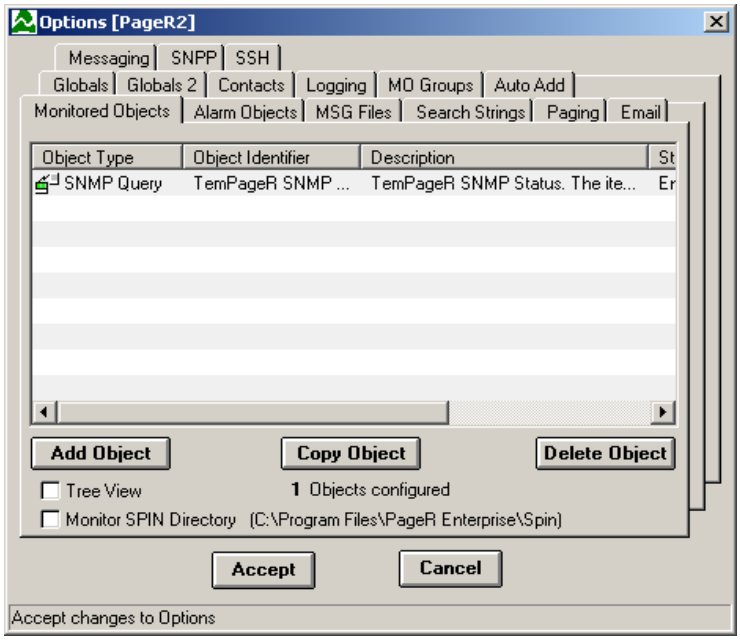
'Alarm Object' drop down menu to be called when an SNMP Trap message is received. Click 'Ok' and save your configuration to the Registry.

Note: Leave the 'Agent' field blank if you have multiple TemPageR 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 TemPageR SNMP Trap messages. See the *'PageR Enterprise User's Guide & Reference Manual'* for more information.

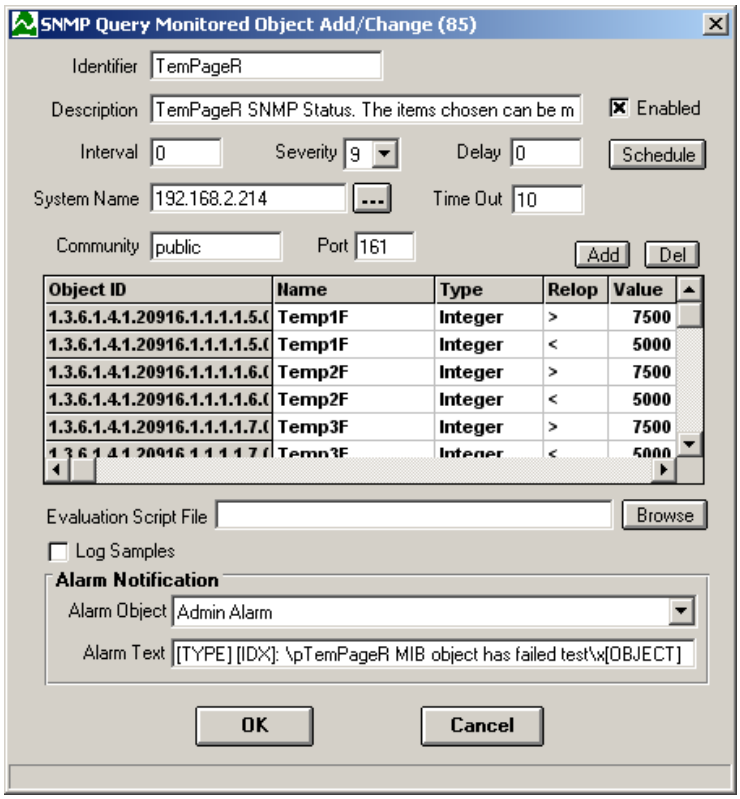
Using SNMP Query Monitoring

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

TemPageR 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 'TemPageR' icon to create a new TemPageR SNMP Query monitored object.

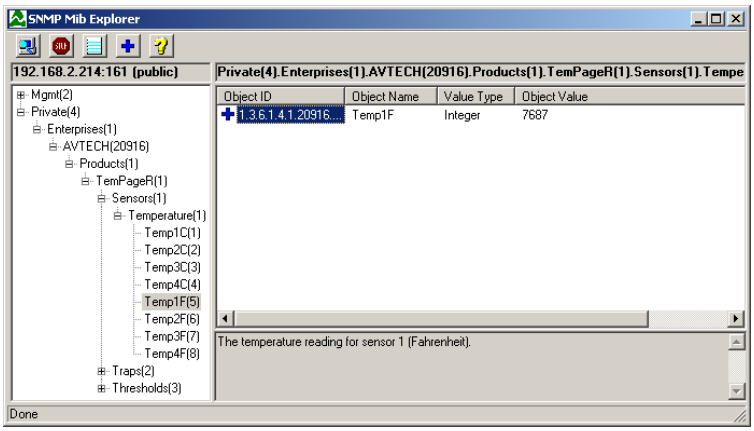


Enter a name in the ‘Identifier’ field that will help you identify this SNMP Query monitored object. In the ‘System Name’ field, enter the IP address of the TemPageR ID Box. Also, confirm that the value in the ‘Community’ field matches the value in the ‘SNMP Read Community Name’ field on the ‘SNMP’ tab in the ‘Settings’ section of the TemPageR web server interface. The TemPageR SNMP Query monitored object comes pre-configured with a number of the SNMP objects available for monitoring from the TemPageR ID Box. ‘Temp<temperature sensor number>F’ represents the built-in and external digital temperature sensors from the TemPageR ID Box. For more information regarding the setup of this monitored object, please refer to the ‘TemPageR_4E_MO_ReadMe.txt’ file located in the ‘TemPageR_4E_MO’ folder of the ‘TemPageR_4E_MO_SNMP_MIBs’ folder.

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

To log the values received from the SNMP objects added to this monitored object, check the ‘Log Samples’ checkbox. When monitoring is started, a log file will be created in the ‘PageR Enterprise’ directory with the name ‘SnmpQuery-<Object ID>-(<System Name>).log’. ‘<Object ID>’ will be replaced with the Monitored Object ID and ‘<System Name>’ will be replaced with the IP address entered in the ‘System Name’ field of the SNMP Query monitored object.

Click the ‘Add’ button to open the SNMP MIB Explorer.



To monitor the temperature sensors from the TemPageR ID Box, expand ‘Private(4)’, ‘Enterprise(1)’, ‘AVTECH(20916)’, ‘Products(1)’, ‘TemPageR(1)’, ‘Sensors(1)’ and ‘Temperature(1)’. The ‘Temperature(1)’ MIB item contains the built-in and attached digital sensors from the TemPageR ID Box. Eight (8) sensors will be listed even though there are only four (4) sensors that can be read from the TemPageR ID Box. The first of these sensors will have a ‘C’ for ‘Celsius’. If you wish to set the SNMP Query to check in Celsius, select the corresponding sensor number followed by a ‘C’. The second set of 4 will have an ‘F’ for ‘Fahrenheit’. If you wish to set the SNMP Query to check in Fahrenheit, choose the corresponding sensor number followed by an ‘F’. 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 and temperature value in the left pane and click the item in the right pane once. Once you are finished, click the blue ‘+’ under the title bar.

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. For example, to check if the value from the TemPageR Temp Sensor 1 is greater than 75F, choose the ‘Temp1F(5)’ sensor from the SNMP MIB Explorer, 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 TemPageR SNMP Query monitored object can be viewed in the ‘TemPageR_4E_MO_ReadMe.txt’ file located in the ‘TemPageR_4E_MO’ folder of the ‘TemPageR_4E_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 monitor TemPageR and use PageR's advanced notification methods to notify staff when temperature issues occur. The Alarm Text in either monitored object can be modified and substitution keywords can be used to further customize the message. TemPageR’s temperature monitoring combined with PageR’s advanced alerting and automatic corrective action capabilities is a powerful combination.