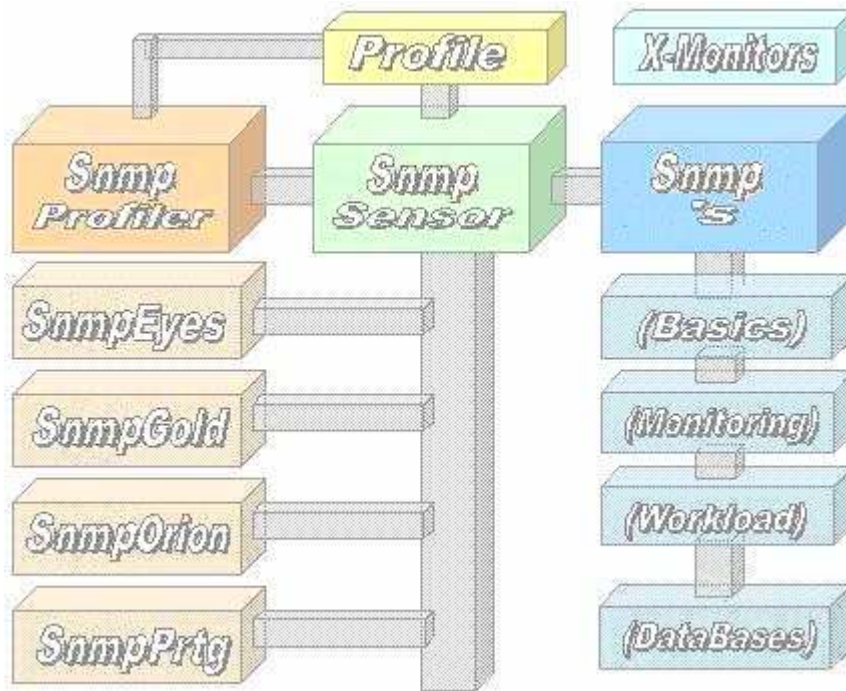


Snmp-Sensors for X-Monitors

(SnmpEyes - SnmpGold - SnmpOrion - SnmpPrtg)



White Paper

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1. Overview

With the help of the Snmp-Sensors you are able to get a lot of Snmp-Devices and direct them to the Network Monitor PRTG from PAESSLER. Therefore no intervention to the Snmp-System is required. The access to the Snmp-Systems is done via the TCP/IP and requires no intervention within the Snmp. For the access to the Snmp-Device only the IP-Address Community-Name is required.

Prerequisites

For the usage of Snmp-Sensors you need:

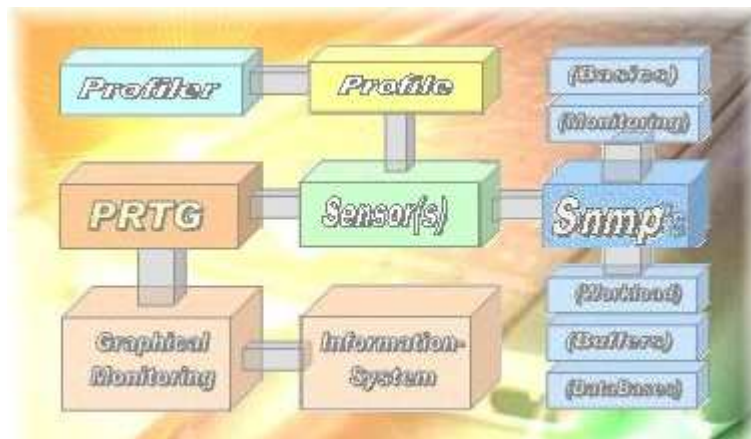
- The sensors are to put into the „...**ExeXml**”-directory for PRTG
- For working the sensors you have to create a profile for accessing Snmp. You can create it with the tool “Snmp Profiler.Exe” which is part of the installation.

Supported Systems

All of then Snmp-Devices are supported.

The Working

For accessing a Snmp-System a profile with the informations about the accessing-data like IP-Address and the Community-Name is needed. This profile is generated via the tool „**Snmp Profiler.Exe**“ which is part of the installation. The profile is stored into the Xml-Directory of PRTG. With the Profiler you can directly contact the Snmp and view the informations.



First, the sensor reads out the profile and opens a connection to Snmp via TCP/IP. With the knowledge of IP-Adresss and the Community-Name then Snmp-Devices could be accessed. Then the required function is processed within Snmp and the resulting is transferred back to the sensor. The sensor formats it and divides it to an information-line and channels. This data are transferred then to PRTG.

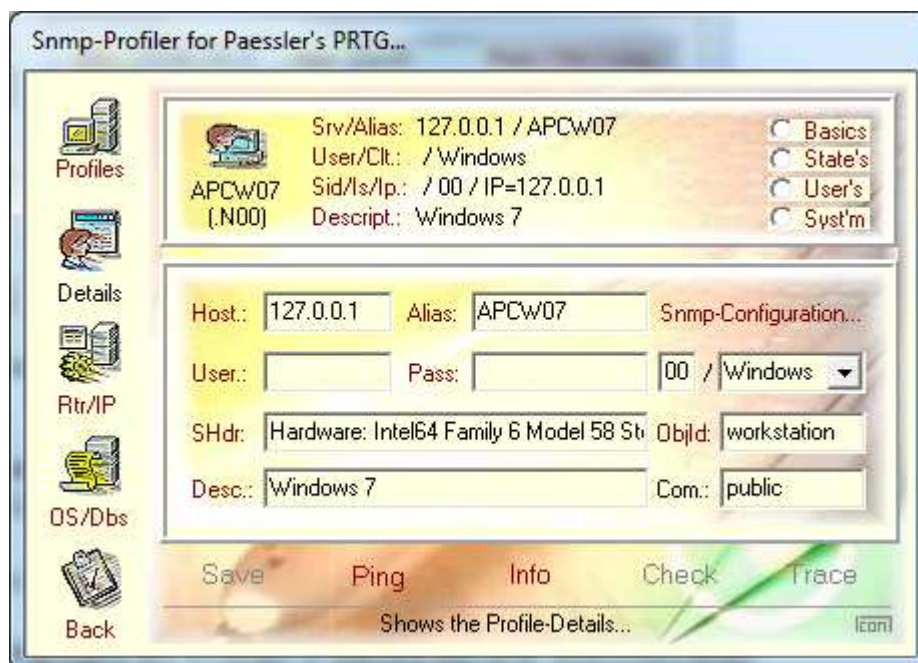
Within the PRTG-System the delivered informations are collected and prepared for analysis. They could be shown graphically and used for generating a mail or SMS to notify an administrator.

2. The Snmp-Profiler

For the usage of sensors there is the definition of a profile required. You could create a profile via the “**Snmp Profiler.Exe**” and put in the necessary informations for connecting to Snmp. Additionally you are able to view the resulting before you define it within PRTG.

Definition Access for Snmp

For accessing a Snmp-Device you need a profile. The necessary informations are entered via the Profiler. The profile itself will be stored in the PRTG-Directory „...\\ExeXml“.



The name of the profile is to be used by definition a new sensor within PRTG. The Profile-Name has to be the first parameter at the PRTG-Sensor.

For verify tha access the following functions are supported:

- „**Ping**“: Ping the Snmp (Function of the operating system is used)
- „**Info**“: Reading the general informations about the Snmp System
- „**Check**“: Verify the hardware (Snmp-Model, and so on)

With the following steps you are able to define a new profile.

Step 1: The access to the Snmp is checked by the method "Ping":



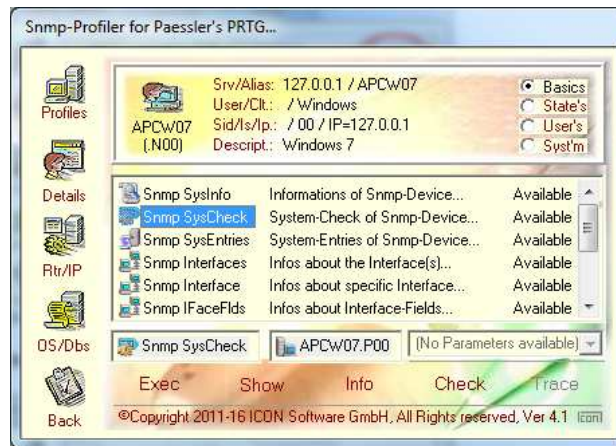
Step 2: With the "Info" connection informations a read from the Snmp-System:



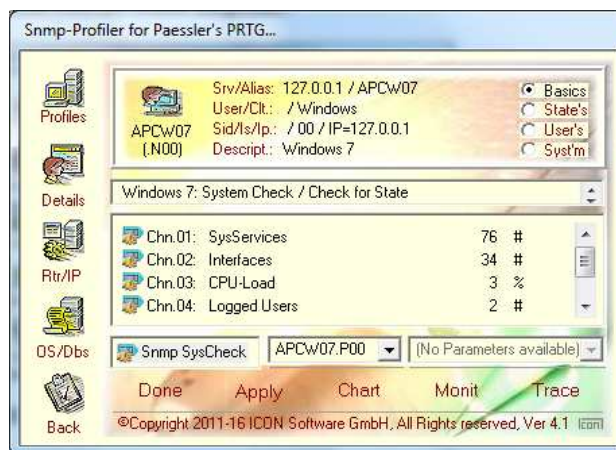
Step 3: With the "Check"-Function general information about the Snmp are read:



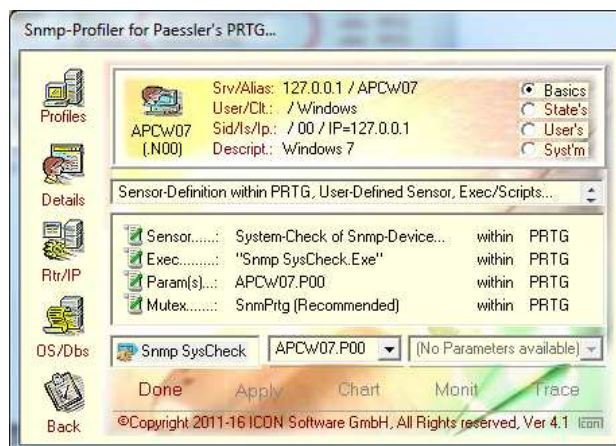
After the creation of the profile you can use the sensors, for example the basis-functions:



With the "Exec"-Button you release the access:



With the "Apply"-Button you get the needed information here for PRTG:

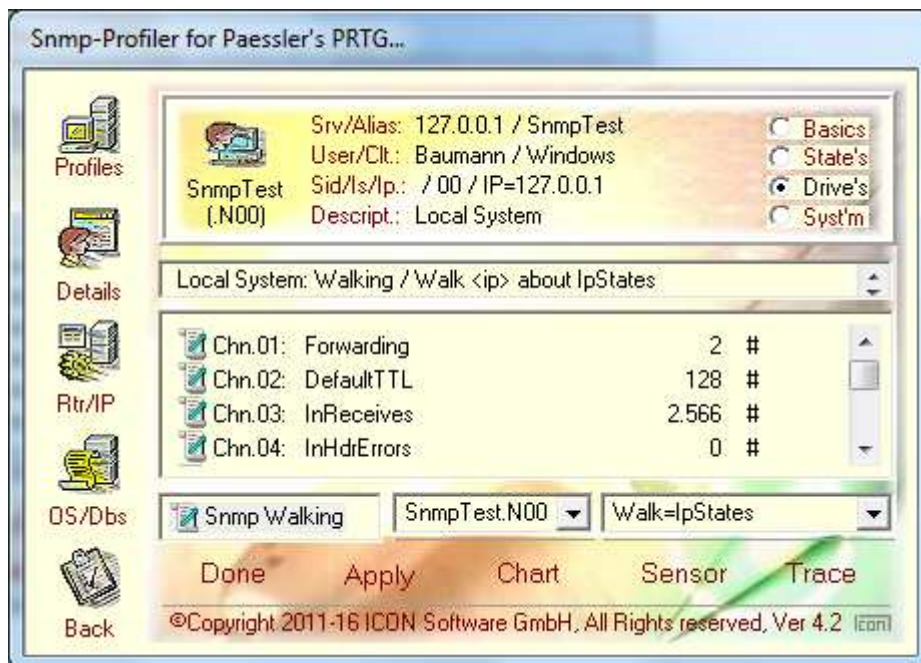


Interactive Testing

By using the „Snmp Profiler“ you have the possibility to test the sensors interactively before implementing them to PRTG. There are following ranges:

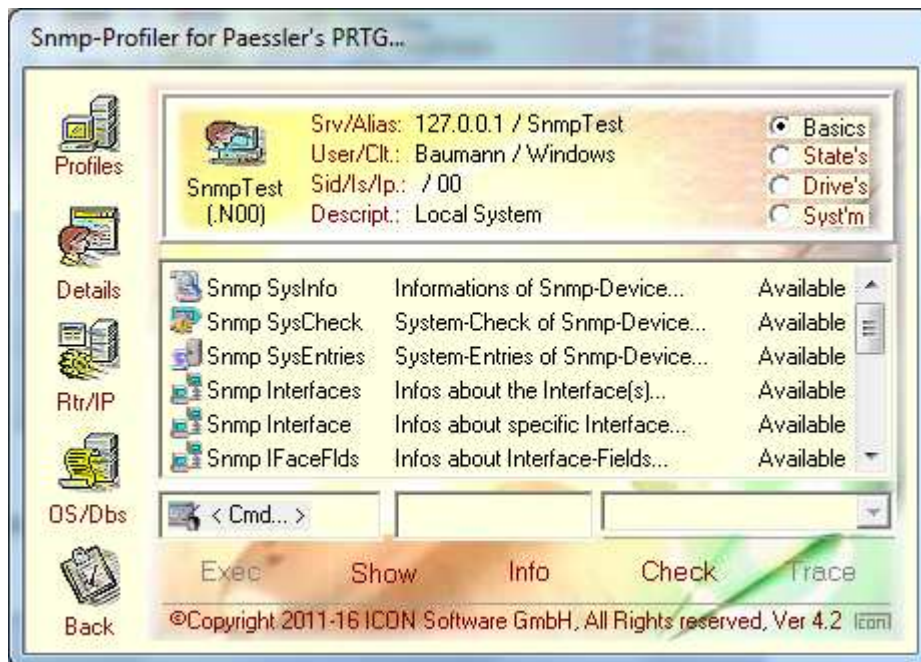
- **Basics** Functions from the BASICS
- **States** Functions for the range STATE
- **Drive's** Functions about the drives
- **System** Reading System-Informations
- **User's** User-Defined functions
- **Walking** Reading System-Informations

You are able to find a lot of informations from the Snmp-Device. For example the selektion of Entries of type "IPStates" with the Walking-Function:

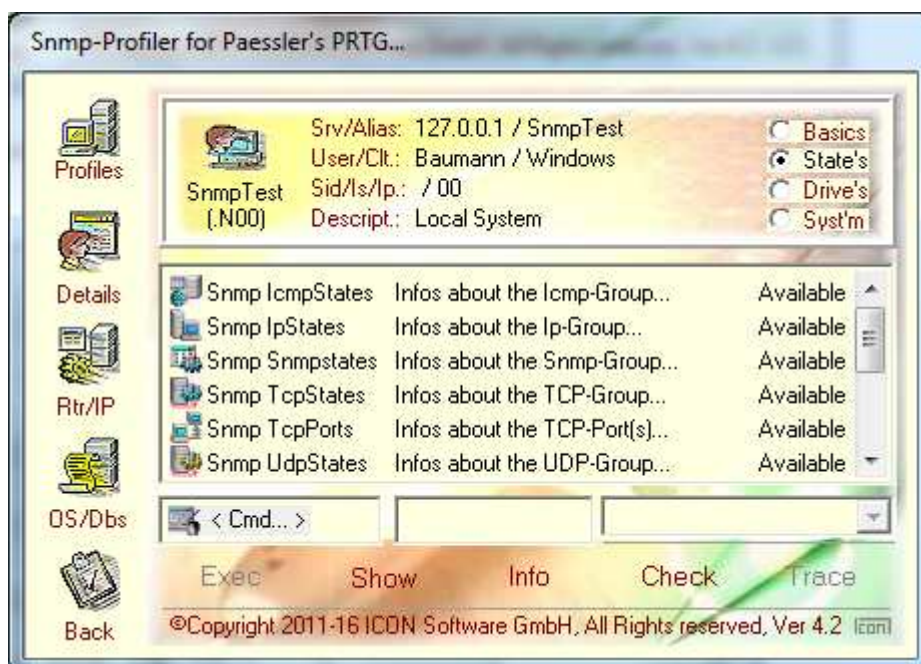


3. The Snmp-Ranges

The range "**Basics**" shows the general functions:



The range "**States**" lists the overviews:



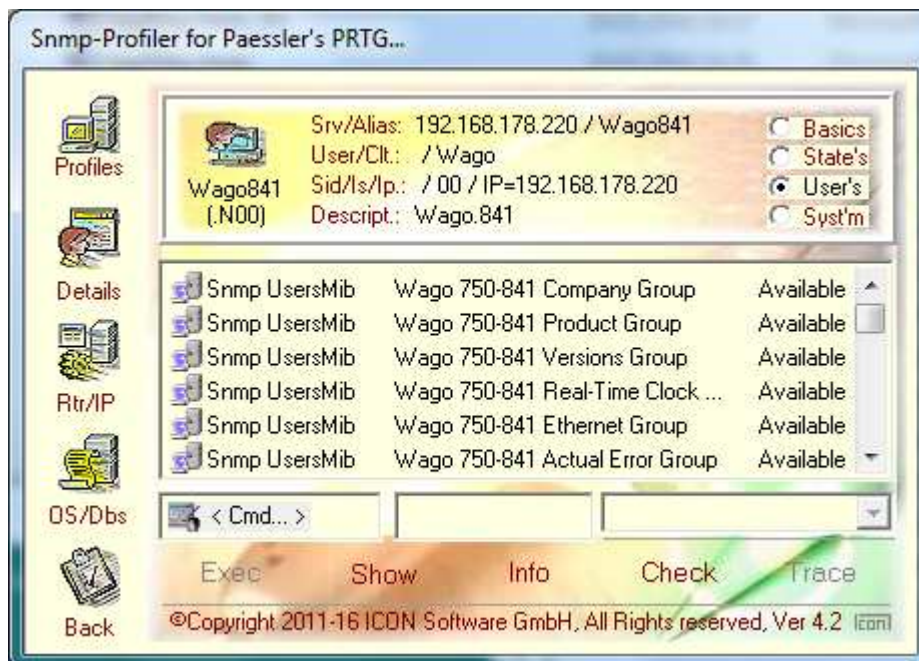
The range "**Drive's**" shows infos about the drives:



The range "**Syst'm**" is for viewing system informations:



Additionally by the range "User's" some user defined MIB's are shown :



By the range "Walking" you are able to select special informations from the device:

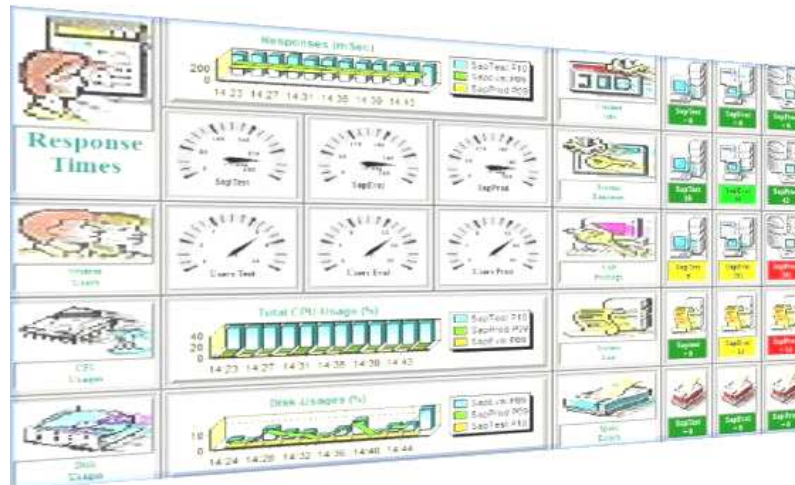


The result of every of the sensors could be show by pressing the "Exec"-Button. This is done before the sensor is planned within the PRTG.

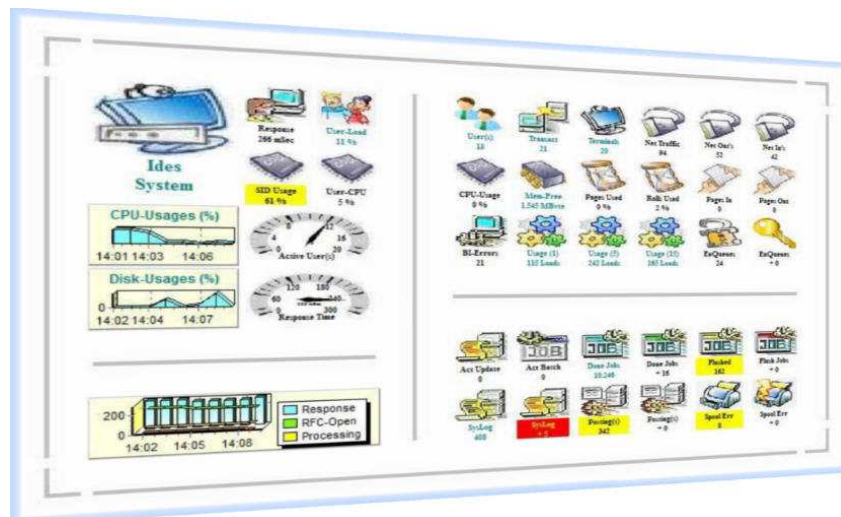
4. Monitoring with SnmpEyes

Beside the Monitoring-Systems like PRTG, Orion und WhatsUp Gold the Snmp-Sensoren could be used with SnmpEyes too. SnmpEyes is a separate software to monitor by usage the sensors directly.

Example: Layout for monitoring a single Snmp-Device:

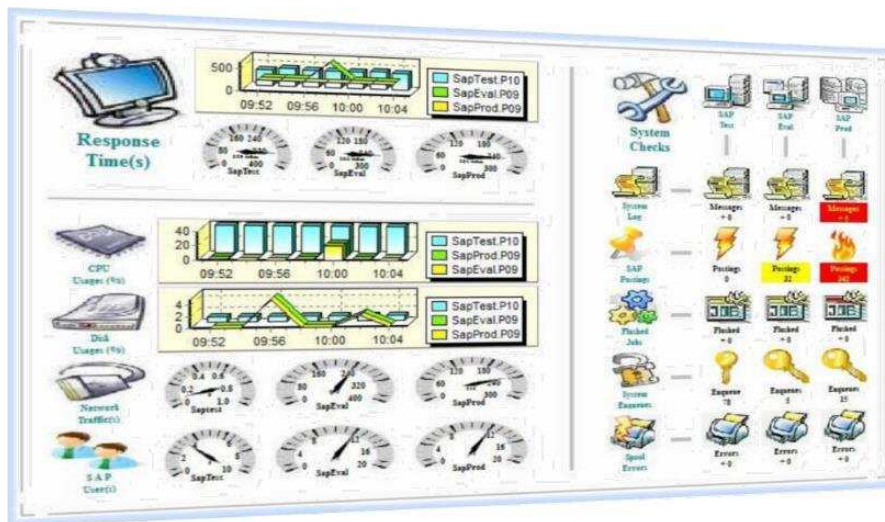


Example: Alternate layout for monitoring a single Snmp-Device:



Every of this objects works autonomous, every object is realized by an own process. Every process works independent from other processes and communicates via RFC with the attached Snmp-System.

Example: Layout for monitoring with more Snmp-Systems:



On the left hand general information's like CPU-, Disk-Activities or the number of Users are presented via Graphics or Gauges.

On the right side a matrix organized by Snmp-Systems and functions is shown. There are three Snmp-Systems and functions like Cpu-Times, Data sent and so on.

Remarks:

- By Graphics, a single value is requested from each Snmp-System. The values will be prepared and analysed
- By Gauges, a single value is requested and shown
- By Images the values of the sensors are analysed and presented by colours

All the sensors could be modified by size, layout and position during runtime. New sensors could be added at any time. You are able to design your own Dashboard.