



Although operators in plants have generally very good knowledge of processes running on their automated control systems, only few of them are acquainted with the communication infrastructure that ensures transmission of data between the systems and the technological process. The right choice for them is often the integration of their network infrastructure management and monitoring into standard SCADA (Supervisory Control and Data Acquisition) system. Early diagnostics of problems on communication channels is the best prevention of serious consequences for the entire technological process.

The common way for managing industrial and network devices is to run SNMP manager on a workstation while SNMP agents run on devices themselves. In order to be able to integrate the network management into various HMI and SCADA systems with implemented OPC clients, it is very useful to incorporate SNMP manager into OPC server application.

SAE-Automation therefore provides elegant solution for managing computer networks - **SAEUT SNMP OPC Server**, which is equipped with devices with implemented SNMP agent functionality.

SAEUT SNMP OPC Server features:

- Implemented protocols **SNMPv1** and **SNMPv2c**
- Implemented specifications **OPC DA 1.0, 2.05** and **3.0**, **OPC AE 1.0**, **OPC XML DA**
- Ability to define tags by using the object identification from **MIB file**
- Module **MIB Browser** for mass adding of tags directly from the connected MIB equipment
- Ability to manipulate the acquired data by using **JScripts** which can be configured directly in the SNMP OPC server
- Module **IP Scanner** for scanning of whole computer network in a given IP range, in order to find connected SNMP devices
- **Logging** of server events
- Allows **management** of devices with running SNMP Agent by using one of the above mentioned SNMP protocols
- Allows the server to **receive notification** from SNMP Agents by using the traps as special types of messages
- Allows to obtain information about **manageable** and **unmanageable** network devices

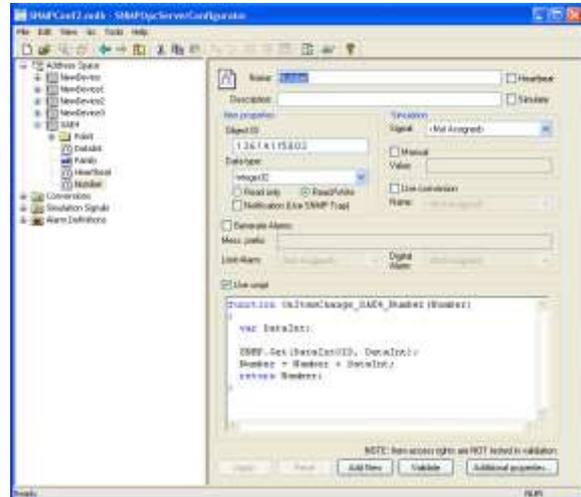


Figure 1: SAEUT SNMP OPC Server configurator

Usage of SAEUT SNMP OPC Server

SAEUT SNMP OPC server allows operators to obtain the status information from network devices. Such information can be effectively used for system monitoring and network diagnostic.

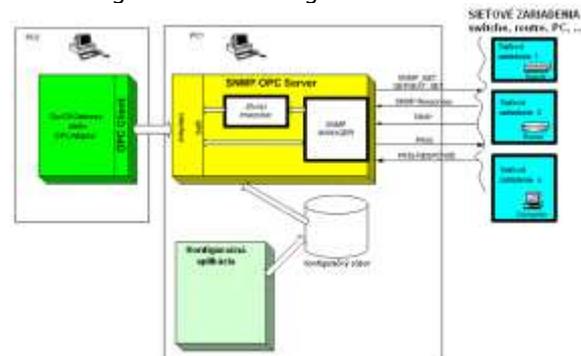


Figure 2: Application platform with SAEUT SNMP OPC server

SAEUT SNMP OPC server includes implemented newest OPC DA 3.0 and OPC XML DA specifications which allow users to communicate with the server using web services.

However, not all networks are manageable through SNMP. For such cases, SAEUT provides the possibility to configure OPC tags, implemented as a sort of "heartbeat". This allows us to get the basic information from devices that are unmanageable.

The manageable devices are able to provide managing application with the trap messages. These are sent without a request (e.g. in case of some significant value is changed), reducing the traffic between SNMP agent and SNMP manager. Traps are fully supported in SAEUT SNMP OPC server.

