

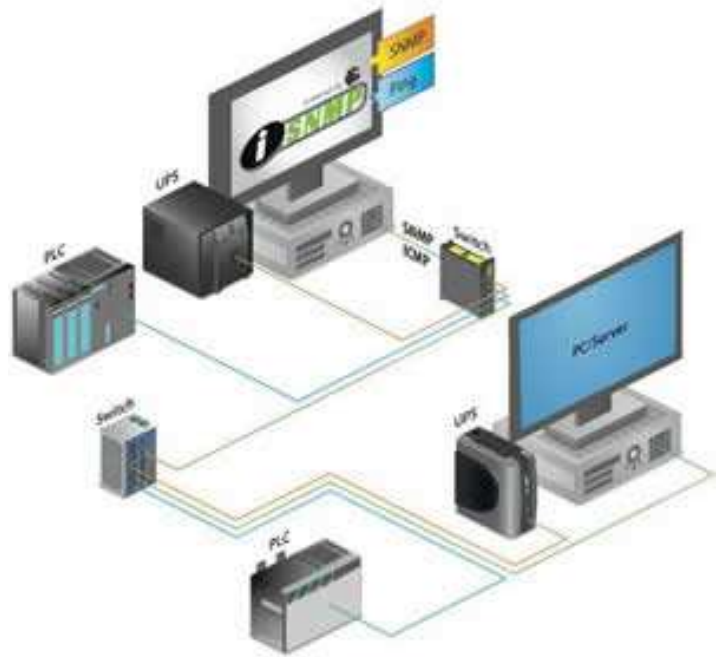


"THE WORLD LEADER IN COMMUNICATIONS FOR AUTOMATION!"

1-207-775-1660

SNMP OPC Server

The Industrial SNMP driver for KEPServerEX provides valuable insight into the performance of a variety of industrial control system networks. The controllers, software, and underlying control network make up a modern control system. The entire system can become unreliable without stable performance from all three components. With the SNMP driver suite you can monitor and analyze your plant Ethernet-based network from within your existing HMI package and never have to rely on blind faith that the network is performing to specifications. The SNMP driver is also included in the IT and Infrastructure Suite.



Kepware purchased all SNMP-related assets of COI Software including its patent on "System and Method for Integrating Process Control and Network Management" (U.S. Patent No. 6,728,262) in September 2007.

SNMP OPC Server Suite includes:

- SNMP OPC Server
- Ping OPC Server

The **SNMP OPC Server Suite** seamlessly integrates monitoring and analyzing of Managed and Unmanaged **SNMP** supported Ethernet network devices into the leading HMI, SCADA, Historian, or MES software packages. Automation professionals can now reliably incorporate the status of Hubs, Routers, Switches, PCs/Servers, UPS devices, and other Managed or Unmanaged devices directly into their automation systems. Read our article on the laymans Guide to Leveraging SNMP - The Solution to the Problem You are About to Consider Very Important!

Instructions on upgrading legacy (COI) projects to the new iSNMP suite based in Kepware OPC technology. Download the new Project Conversion Utility for iSNMP.

Plug-in Driver Features:

The **SNMP** OPC Server provides convenient "Specialty tags" to help users know more than the current value of a single polled OID. The tags include: History tags, Events tags, Table Offsets, and ScanFloor tags.

Auto Discovery - Save time by using the Auto-Discovery tool to search your Ethernet network for managed network devices.

MIB Import - Import MIB files from manageable devices and easily map network device MIB addresses to SNMP tag names.

Network Analyst - Network Analyst gathers raw SNMP data from network devices and continually performs calculations to generate data that can be used, such as bandwidth utilization and network error rate statistics

SNMP Traps Support - Many SNMP manageable devices can be configured to send unsolicited data to network management software systems such as our SNMP OPC Server. By configuring an SNMP device to send data without being "polled" such as when a critical system tag goes into an unfavorable state, you can reduce the need for "polling" the network device. SNMP driver supports receiving SNMP Trap data via Events tags as well as through defined Trap OIDs.

Historical Data Attributes - Previous Value, Delta Time, Moving Average

Historical values are generated by the SNMP OPC Server (not the remote Agent/device) when an OID has valid historical modifiers appended to it.

Events Tags - Events_001, Events_001_001, Events_001_FieldCnt, Events_Count

A FIFO-based queue to receive Traps / Notifications from previously configured Agents.

Table Offsets - OID[1] Table access is accomplished by enumerating columns of a table. The SNMP OPC Server uses an array-like notation for Table access.

ScanFloor property - _ScanRateFloor, _ScanRateFloorLock

SNMP devices are typically scanned at much slower rates than other controls equipment. Scanning an SNMP device too quickly may result in degraded device performance. The Scan Rate Floor has been added to prevent users from inadvertently overloading Agent/devices with read requests in the order of milliseconds.

The Scan Rate Floor is the minimum rate to scan SNMP devices. The default is 1000 milliseconds. When set (to a non-zero value) the SNMP driver will never scan the remote device more often than the specified scan rate.

Note: OPC clients can still poll the SNMP server and obtain the last read value at a much faster OPC Group Update Rate. The 'Lock' option will lock the Scan Rate for this device to the given value. When Locked, the driver will always poll at the Scan Rate setting regardless of OPC client update rates that are below or above this rate.

Unmanaged Device Monitoring

Not all Ethernet network devices are SNMP managed. To help monitor any system from within your HMI, the new SNMP OPC Server suite contains a Ping driver which automatically generates OPC tags for each Unmanaged device defined. These "heartbeat" and "response time" tags provide a standardized and reliable way to monitor all devices in the Ethernet network.

Runtime Management of Device Polling

The SNMP OPC Server supports Device Auto-Demotion for Managed or Unmanaged devices. Users can adjust Auto-Demotion parameters to allow drivers to temporarily place a device off-scan in the event that it is not responding. This allows the driver to continue to optimize its communications with other available devices on the same channel as well as notify the client application of the event. A new ScanFloor device property provides robust polling control when the control application can not tolerate a one size fits all approach to network device polls. An additional benefit of the ScanFloor setting is its ability to handle devices independently especially when Agent loading is a concern. _System tags expose Auto-Demotion and ScanFloor tags to any HMI or control application of your choosing.

Protocol

- SNMP protocol, versions 1 and 2c

Simple Network Management Protocol (SNMP) is an application layer protocol that facilitates the exchange of management information between network devices. It is part of the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite and is a standard maintained by the IETF.

SNMP enables Network Administrators to manage network performance, find and solve network problems, and plan for network growth. It is an open protocol and for years it has been the de facto standard protocol used between network management systems and network devices.

Supported Devices

SNMP Managed Devices. The driver works with a broad range of SNMP Managed devices such as:

- Alarm Management RTUs
- Device Servers
- Environment Monitoring Equipment for Server Rooms
- Managed Industrial Ethernet Switches
- Printers
- Routers
- Uninterruptible Power Supplies (UPS)
- Unix-based Servers
- Windows-based PCs and Servers

Application Support

- OPC Data Access (OPC DA) Versions 1.0a, 2.0, 2.05a, 3.0
- OPC Alarms and Events (OPC AE) Version 1.10
- OPC Unified Architecture (OPC UA) Version 1.01
- SuiteLink and FastDDE for Wonderware
- NIO Interface for iFIX
- DDE Format CF_Text and AdvancedDDE

Additional Information and Resources:

- IT and Infrastructure OPC Server Suite
- SNMP Driver Revision History
- KEPServerEX Revision History
- Connecting Visual Basic to SNMP OPC Server
- System Requirements
- KEPServerEX v5 Licensing
- Upgrade Pricing

Related Products:

- LinkMaster OPC Bridging Software
- DataLogger Option for KEPServerEX
- Advanced Tag Option for KEPServerEX
- RedundancyMaster OPC Redundancy Software
- Technical Support Program
- Support and Maintenance Pricing
- Legacy Pricing Policy

Drivers "Plug-in" to KEPServerEX

The SNMP OPC Server is a plug-in device driver for KEPServerEX. A "Plug-in" is a software program (.dll) that extends the capabilities of KEPServerEX to fit the communication requirements of a specific device or system. The plug-in driver handles all of the proprietary communications between the device/system and the OPC layer, KEPServerEX. The KEPServerEX core then handles all OPC and Proprietary Client communications between the plug-in driver and the Client application. For a complete list of features and capabilities please visit the KEPServerEX overview page.

- OPC Foundation Certified - The Best of OPC on the Market
- High Performance - Multi Threaded - Runtime Configurable
- Detailed Protocol Diagnostics - Communications Trace
- Detailed OPC Diagnostics - Communications Trace
- Native Interfaces - Client Connectivity Beyond the OPC Standards
- Stratus High Availability Computing - Certified
- Marathon High Availability Computing - Certified
- Kepware 2 Hour Demonstration Mode on all Products

