.NETxAutomation
Software GmbH

NETxKNX®
OPC SERVER 3.5

Mitglied der KNX Associaton
Mitglied der OPC Foundation

KNX®

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The basis of the **NETxKNX® OPC Server** is the NETxKNX® technology, which proved it's value so well in large projects, as to implement it also in small projects.

Usability and configuration of the system has been simplified so much that it can be used by any project integrator without any large effort.

The system allows the control and - in connection with an applicable OPC client - the visualization of small to large KNX plants. It builds a connection between the world of KNX and other systems.

Experience and the know how out of the large projects were used during development of the large number of small systems. So the system has been realized in a very reliable, open and user friendly way.

The OPC Server is provided with a variant of the NETxKNX® MultiProject kernel, which takes place also in large systems. Therefore it is possible, to realize **up to 100 ETS Projects in one plant** (for more ETS-Projects please contact us). KNX Group addresses in the NETxKNX® OPC System are extended with the IP address of the gateway, therefore you can use the same ETS Structures (logical address areas) behind each Gateway. The logical address room of a KNX plant is extended, address collisions are not possible any more.

The new KNX Telegram Overflow Manager of the server ensures that the KNX Bus is not overloaded. Telegrams will be sending to the KNX Bus in defined timestamps to ensure the maximum data transfer rate in the bus. If there are more gateways connected to the system, you can multiply the maximum of data transfer with the amount of gateways: with 10 gateways the system reaches e.g. 100 telegrams per second, with 100 – 1.000 telegrams per second.

You can also benefit from the stability, the large amount of features of the NETxKNX® OPC Server and the numerous possibilities of application.

The system consists of two parts: the OPC Server and the OPC Studio.

The OPC Server is an autonomic program, which execute and controls all operations in the KNX plant.

The OPC Studio is the interface between server and administrator, it is used only to analyse the actual state.

The extended OPC Studio allows telegram control with plain text description, extended filter functionalities and data point value control. With the import functionality it is possible to directly import the ETS© Projects and allow quick steps in the projects.

This environment includes more valuable tools, which supports the administrator to manage, analyze and troubleshoot in the whole KNX project.

functionality:
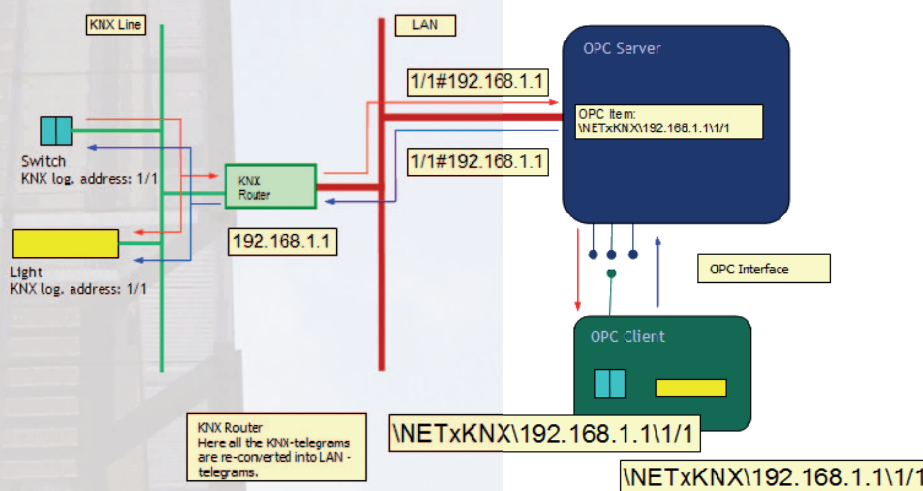
KNX telegrams are converted by the gateways into LAN telegrams, which will be forwarded via the LAN to the NET**x**KNX® Server.

The server receives, analyses, checks for errors in, protocols and sends the data via the OPC interface to all connected OPC Clients. All events are logged in the LOG data and can be used for system analyses and troubleshooting. Every malfunction of a gateway will be detected, displayed and additionally logged.

A virtual model of the whole KNX-plant is administrated by the server. Each telegram definition is shown as a cell. In this cell not only the current value of the data point is stored, but also a list of further information (e.g. time of the last change). The current value of a cell can be checked on the cell monitor in the studio.

The Event Processor is an extension of the NET**x**KNX® Server kernel and makes complex, event based commands possible.

basic features

▸ UnifiedDriver for IP Routers, all IP gateway types can be used parallel

▸ Device Monitor - physical addresses of the devices are listed in the OPC Server

▸ New Data types – UI4 and UI8 allows data transfer with various values to the OPC Client

▸ New N-Mesh Routing – routing of data and telegrams between OPC Servers

▸ Redundancy – allows coupling of two OPC Server for more Redundancy

▸ Extended NETIP Tunnelling Engine

▸ Up to 1000 Gateways can be managed

▸ All official EIS data types are supported

▸ Up to 100.000 telegram definitions

▸ Very high data transfer – up to 1.000 telegrams per second

▸ MultiProject Core – multiple ETS Projects in one KNX plant

▸ Workspace Management – multiple workspaces can be managed

▸ Event Processor – cyclical, time referenced and event referenced actions can be defined in the OPC Server

▸ Link Manager – management of linked group addresses are realised directly with the OPC Server

▸ KNX Telegram Overflow Manager – extended protection against KNX bus overload

▸ Real Database Refresh - the update of the OPC Server database is done automatically

▸ Gateway Manager – extended gateway management

▸ Direct value scan from KNX devices for initialising the virtual model of the plant

▸ Extended NETxKNX® OPC Studio with new features and functionalities

▸ Extended address room – the real address of the data point consists of the logical KNX- and the physical IP address

▸ Data storage in ring memory – up to 10 Mio. last sent/received telegrams are stored in a LOG-file

▸ Process view of the whole system is stored and automatically reloaded during the start of the server

▸ An Online-check the status of all connected gateways

▸ Real time display of the telegram traffic with plain text description and additional information

▸ Reliability – designed and developed for continuous operation

▸ And much more features...

In addition the OPC Server includes an integrated Project simulation, which allows without any connection to the gateways, to check and simulate offline the created project.

When the system is switched online, the OPC Server allows the check for non reachable KNX devices. The server creates a list of these not reachable devices and this list can be monitored from each client (over a data point).

OPC Foundation specification OPC Data Access Server 2.05b Conformity is obligatory,

also the permanent tests with the

OPC Foundation Compliance Tool (test results are available)

security

The NETxKNX® OPC Server solution provides several variants for ensuring middle and high system stability.

You might want to increase the security in the network with a MAIN / BACKUP server solution, or if you want, you could have a CLUSTER server solution with more NETxKNX® OPC servers, the possibilities of configuration leave nothing to be desired.
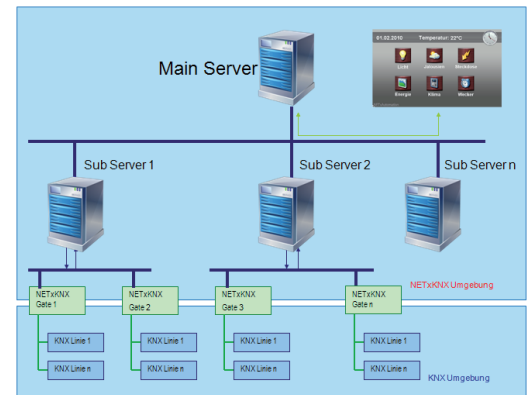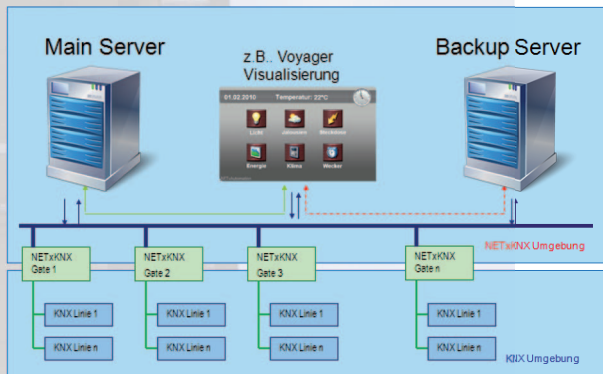
application areas

The NETxKNX® OPC Server 3.5 can be used in almost all areas of building automation and has expanded to a worldwide standard in the KNX world.

If you want to control the KNX devices for jalousie control, to include wind and weather data in the system, control the lighting based on usage, manage the heating / cooling system or secure your building with web cams, the NETxKNX® OPC Server 3.5 supports you optimally in the management of these duties and responsibilities.

awards

The NETxKNX® OPC Server solutions enjoy a high international reputation, shown through the awards we received together with our partners at the

▸ Light & Building fair 2004 winner of the

   EIBA Award 2004

▸ Light & Building fair 2006 winner of the

   Architecture + Technology Award 2006

▸ Light & Building fair 2010 winner of the

   KNX Award 2010 - International Europe

supported gateways

▸ NETxKNX® OPC Server 3.5 Direct(KNX)

for all KNX interfaces:

USB, RS232, EIBLib, NETIP Tunneling, NETIP Routing

Falcon driver integrated

maximum one gateway is supported

▸ NETxKNX® OPC Server 3.5 UnifiedDriver

for all KNX IP router and KNX IP interfaces:

e.g.: ABB, b.a.b-tec (eibNode), Berker, Gira, Merten, Siemens, ...

up to 1.000 IP gateways are supported

active monitoring of physical devices

OPC Server extensions

NETxLAB® Fidelio/Opera Hotel System Interface (optional)

NETxLAB® Protel Hotel System Interface (optional)

NETxLAB® VingCard Door Access Interface (optional)

NETxLAB® Avaya IP Phone Server Interface (optional)

NETxLAB® WHD DAM 6000 MulitRoom Interface (optional)

NETxLAB® SQL Data Base interface (optional)

Every other OPC DA 2.0 Server for LON©, SPS©, BACKNET©, PROFIBUS© and other systems can be integrated into the KNX system with the NETxLAB® OPC Bridge.

presented by:

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