Product Data Sheet

OPC Server for Honeywell C-BUS

Introduction

The OPC Server for Honeywell C-BUS is an ideal solution for system integrators looking to provide OPC connectivity in their projects with the Honeywell Excel 5000 family of controllers.

Architecture drawing

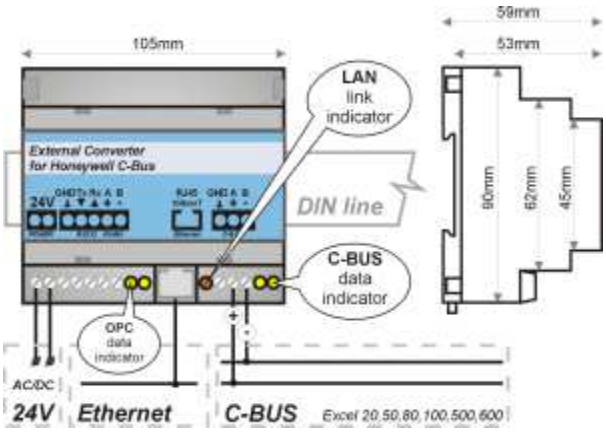
System Specification

IBM-compatible or compatible computer

Operating Systems: Windows XP, Windows Vista, Windows 7/8/10 or Windows Server

Free Serial port or Ethernet card

Special hardware: Intelligent External Converter (IEC) is a microprocessor-based chip device for direct connection to C-BUS.



Drawing of Intelligent External Converter

IEC converter supports C-Bus speed up to 76 800 bps
IEC converter has a Web interface for setting parameters

Key Benefits

- **Guaranteed compliance** – the server is fully compliant with versions 1.0, 2.04 and 3.0 of the OPC Data Access Standard. The server is able to handle with Excel's alarms by OPC Alarms and Events Specification 1.10.
- **Compatibility** – the server is fully compatible with the Excel 5000 family DDC controllers (Excel 20, Excel 50, Excel 80, Excel 100, Excel 500, Excel 600, Excel 800, Excel Smart and Zone Manager). It is also available separate OPC Server for Excel EMC and separate OPC Server for IRC Multicontrollers.
- **Connectivity** – it is possible to connect the server to C-BUS in conjunction with Excel Building Supervisor (XBS), Excel Building Supervisor-Integrated (XBS-i), Enterprise Buildings Integrator (EBI) and SymmetrE.
- **Flexible sizing** – the server is available in versions for 255, 1.000, 2.000, 5.000, 10.000 and 20.000 points.
- **Scalability** – the server can manage more than one IEC in this way you can expand maximum number of 3000 points per one IEC up to unlimited number of points.

Key Features

- Built-in simulation mode for testing
- Ability to synchronize date and time of Excel controllers
- Response time up to two second by *Exception reporting!*
- The server supports Auto/Manual mode of data point, the server supports data point aliases
- The client's configuration is performed using names (supported by IOPCBrowseServerAddressSpace)
- The server performs value change notification and cycle reading of defined points (User Address) in config file
- Reading and Writing from DDC points of type: Analog Input/Output, Digital Input/Output, Totalizer, Multistate, Pulse, Pseudo (Virtual) Digital/Analog/Totalizer including extended attributes e.g. InAlarm, LowLimit1, LowLimit2, HighLimit1, HighLimit2, AlarmDelay, SensorOffset, etc.

Interoperability tested with following OPC Clients

- Reliance - GEOVAP s.r.o.
- Desigo - Siemens AG
- FactoryLink - USDATA, Inc.
- InTouch OPC Link - Wondeware, Inc.
- Wizcon OPC Client - Axeda, Inc.
- Niagara OPC Client - Tridium, Inc.
- METASYS - Johnson Controls, Inc.
- GENESIS32 - ICONICS, Inc.
- iFIX Dynamics - Intellution, Inc.
- Citect OPC Client - Schneider Electric, Inc.
- CIMLICITY HMI - GE Fanuc, Inc.
- EBI / SymmetrE - Honeywell, Inc.

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Revision 2022

C-Bus to LAN interface

Our Ethernet solution is based on a communication sub-module from Lantronix Ltd. By encapsulating serial data and transporting it over Ethernet, the CoBox sub-module allows for direct links to be established over Ethernet.

The COM Port Redirector™ driver can create a virtual direct link connection between the OPC Server and the Intelligent External Converter over Ethernet via TCP/IP.

The C-Bus OPC Server version 2.2.5 and higher includes a built-in TCP/IP redirector so C-Bus OPC Server 2.2.5 and higher works without COM Port Redirector™.

The COM Port Redirector™ driver also enables the creation of virtual serial ports (such as COM4), which can be mapped to the remote RS-232 and RS-485 interfaces of IEC that are usually used for connections between IEC and PC, without using the Ethernet sub-module. This way it is possible to connect other devices via IEC's RS-232 or RS-485 interface over Ethernet. Device driver must only support the connection via a virtual COM port or via built-in TCP/IP redirector and IEC can also work as RS-232/RS-485 to Ethernet converter.

The COM Port Redirector™ driver works with all versions of Windows XP/Vista/7/8/10 or Windows Server.

Front View

Top View

Side View

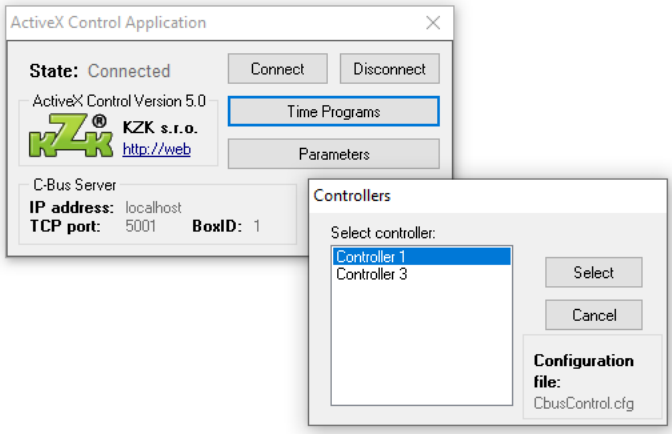
Bottom View

Photos of Intelligent External Converter

Time Programs

An integral part of the OPC Server is formed by the ActiveX component for editing Time Programs and Parameters. The Time Programs implement a control strategy for changing the values of data points depending on time sequences.

All you have to do is just to simply insert the ActiveX Control into your SCADA/HMI system. However, your SCADA/HMI system must be supported for ActiveX technology, i.e. your SCADA/HMI system should contain the ActiveX container for ActiveX Controls. In addition, you have to set the correct IP address and TCP port of the OPC Server for the TCP/IP communication between the ActiveX Control and OPC Server. You can access Time Programs that is stored in Excel 5000 controllers from multiple hosts PC, even at the same time.



ActiveX Control for editing Time Programs via TCP/IP

ActiveX Control Features

- **Easy integration** – featuring by ActiveX technology
- **Connectivity** – it is possible to connect ActiveX Control to the OPC Server over Ethernet via TCP/IP because the ActiveX components use the TCP/IP communication to translate calls between ActiveX Control and the OPC Server
- **Facilities** – for changing Daily, Weekly and Yearly Schedules (Daily Maintenance)
- **ActiveX Control Application** – solution for SCADA/HMI systems without support of ActiveX technology

Order and Product Information:

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