Open, Reliable and Efficient, applicom® OPC server is the best choice for connecting industrial devices to your favorite industrial applications.

With a collection of 30 major protocols, Woodhead is a key player in OPC technology for automation solutions.

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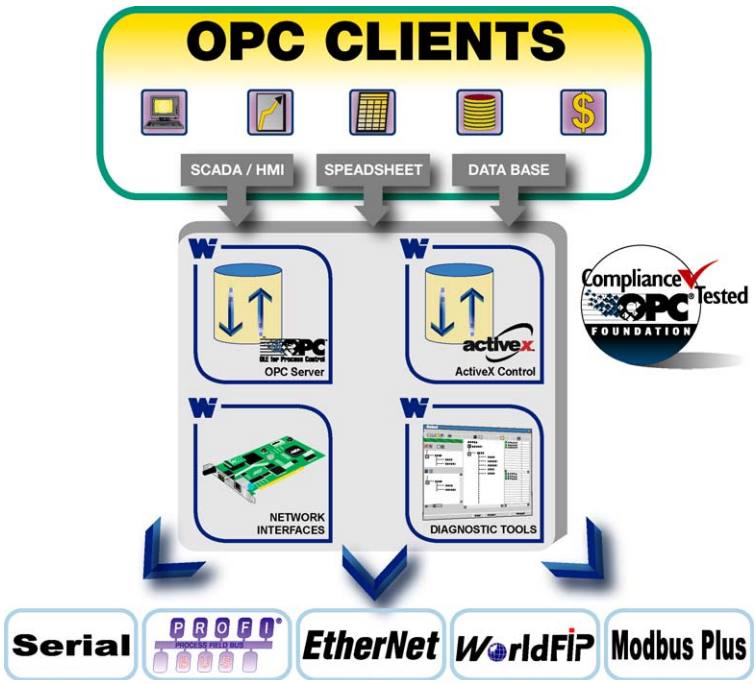
DW200598

applicom® OPC Server

Multi-protocol OPC server for industrial networking



Features

- **Included free-of-charge in all applicom® packages**
- **Tested and Full compliant with OPC DA specifications v1.0a, 2.05 and 3.0**
- **Multi-protocol Server: manages simultaneously various protocols through an unique OPC connection**
- **Powerful! Real-time data access with Automatic data exchange optimization**
- **Integrates redundancy features**
- **Smart OPC Item browsing**
- **Simultaneous access in COM and DCOM modes**
- **InProc / OutProc connection**

Supported OS

- **Windows 32-bit: XP SP1 / 2003 Server / 2000 SP3 / NT4)**

OPC Technology

OPC (OLE for Process Control) is the standard communication interface that enables the data exchange between client applications (HMI/SCADA, RDBM, control/command) and industrial devices (PLC, I/O blocks, drives, etc). OPC is built using the Microsoft's technologies: **OLE**, **COM** and **DCOM** (Distributed COM) that are well-tested and proven foundation.

OPC specifications are designed by the open foundation – OPC Foundation – to meet the general needs of industry, finding then an issue of specific and proprietary interfaces problem.

applicom® OPC Server

The applicom® OPC Server is an OPC Data Access (DA) compliant server that enables data exchange between OPC clients and a broad range of device manufacturers through networks such as: Ethernet TCP/IP, Profibus, Serial, Modbus Plus, WorldFIP, etc.

applicom® OPC Server supports multi-protocol feature: it can manage up to 30 different protocols simultaneously. So with just one OPC connection, your client applications can access simply and transparently to all major control systems on the market.

applicom® OPC Server provides **Real-Time Data Access**. It takes benefits from our powerful interface cards concept: embedded multitask kernel, on-board protocols management, multi-process and multithread access drivers. This multithread structure ensures to OPC server an optimized parallel access to each applicom card and to benefit fully from all protocol communication performance. applicom® OPC server also includes an automatic mechanism to reduce network traffic and to optimize data collection.

The integrated test and diagnosis tools allow fast and efficient troubleshooting. You can monitor OPC transactions, Group properties and Tag values.

Also included is an example of an OPC-client application, in order to test the actual server configuration with regards to functionality.

With applicom® OPC server, you have easy and convenient access to process data: in visualization, measurement, data recording and control systems▲

Connectivity

The OPC server is included in each applicom® cards and depending of the network interface card, you can run one or more of these protocols simultaneously through a single OPC connection.

Manufacturer	Protocol	Access(1)	
Allen-Bradley	Eth. TCP/IP – **PCCC**	C/S	▪ EtherNet/IP for ControlLogix series ▪ CSP for PLC-5 and SLC 500 series ▪ PLC-5 or Logix5000 through ControlLogix gateway with DH+ and ControlNet interfaces
	Eth. TCP/IP – Ethernet/IP	C/S	▪ EtherNet/IP for ControlLogix series **Included OPC Online and Offline browsing of A-B ControlLogix Controller Tag data base.**
	Serial - **DF1 & DF1 to DH / DH+ / DH485**	M, C/S	▪ For PLC-5 and SLC 500 series (programming port) ▪ DH / DH+ / DH485 industrial networks access (through 1170-KF2 or 1170-KF3 from A-B)
Altus	Eth. TCP/IP - **Alnet II**	C/S	▪ For Altus AL200x and Webgate series
Cegelec / Alstom	Eth. TCP/IP - **STRP**	C/S	▪ For Alspa CE80-35 and CE80-75 series
GE Fanuc	Eth. TCP/IP - **STRP**	C/S	▪ For Alspa 90-30 and 90-70 series
	Serial - **SNP-X**	M	▪ For Alspa 90-20, 90-30 and 90-70 series
Mitsubishi	Eth.TCP/IP - **Melsec**	C/S	▪ For A and Q series
Omron	Eth. TCP/IP - **FINS**	C/S	▪ For Sysmac C, CV and CS series
	Serial - **Sysmac Way**	M	▪ For Omron PLCs
Profibus EN50170	**S7/MPI**	M	▪ For Simatic S7-300 and S7-400 series
	FDL S5	M	▪ For Simatic S5 series
	DP (V0 Class1 & Class 2)	M/S	▪ All DP compatible devices
Schneider Electric	Eth. TCP/IP - **Modbus**	C/S	▪ For TSX Premium (57), TSX Quantum series ▪ For all Open Modbus TCP and UDP compatible devices
	Serial - **Modbus ASCII**	M/S	▪ For all Modbus ASCII compatible devices
	Serial - **Modbus/Jbus RTU**	M/S	▪ For all Modbus/Jbus RTU compatible devices
	Modbus Plus	C/S	▪ For TSX Premium (57), TSX Quantum, Modicon 984 and all MBP devices ▪ Serial Modbus to Modbus Plus routing (PLC programming)
Schneider Electric	Eth. TCP/IP - **Uni-TE v2**	C/S	▪ For Premium / Micro (TSX 57 / 37), TSX/PMX PL7-3 (47, 67, 87, 107) via TSX 57
	Ethernet - **Ethway**	C/S	▪ For Premium / Micro (TSX 57 / 37), TSX 17, TSX/PMX (47, 67, 87, 107), April
	WorldFIP - **Fipway**	C/S	▪ For Premium / Micro (TSX 57 / 37), TSX 17, TSX/PMX (47, 67, 87, 107), April
	Serial - **Uni-Telway**	C/S, M/S	▪ For Premium / Micro (TSX 57 / 37), TSX 17, TSX/PMX (47, 67, 87, 107), April
Siemens	**Industrial Ethernet TCP**	C/S	▪ Siemens S7 messaging for S7-200 / 300 / 400 series ▪ Siemens Read/Write S5 messaging for Simatic S5 series ▪ Siemens CAMP and R/W messaging for Simatic TI-505 series
	Industrial Ethernet ISO	C/S	▪ Siemens S7 messaging for S7-300 / 400 series ▪ Siemens Read/Write S5 messaging for Simatic S5 series ▪ Siemens CAMP and Read/Write messaging for Simatic TI-505 series
	Serial - **PPI / PPI+**	M	▪ For Simatic S7-200 series through console port
	Serial - **3964 / 3964R**	M	▪ Point-to-point protocol with Siemens RK512 (Simatic S7 or S5 series)
	Serial - **AS511**	M	▪ For Simatic S5 PLCs (programming port)
	Serial - **TI-Dir**	M	▪ For Simatic TI-505 PLCs (programming port)
Saïa Burgess	Serial - **SBus**	M	▪ For Saïa PCD series
Moeller Group	Serial - **Sucoma**	M	▪ For PS32 and PS316 series (programming port)
Elsag Bailey	Serial - **DataLink**	M	▪ For DCI regulator from Fisher&Porter, series 2000, 5000 and Supervisor

(1) – **M**: Master - **S**: Slave - **M/S**: Master/Slave - **C/S**: Client/Server

applicom® OPC Server

Characteristics

✓ **Full OPC compliant**
Woodhead warrantees OPC compatibility by participating regularly in the interoperability of the OPC foundation. Today the applicom® OPC server is compliant with Data Access v1.0a, 2.05 and 3.0 specifications.

✓ **Open to networks and protocols**
By using the applicom® OPC server, you can easily open your applications to main fieldbuses and industrial networks: **Ethernet TCP/IP, Profibus, Serial, Modbus Plus, WorldFIP.**

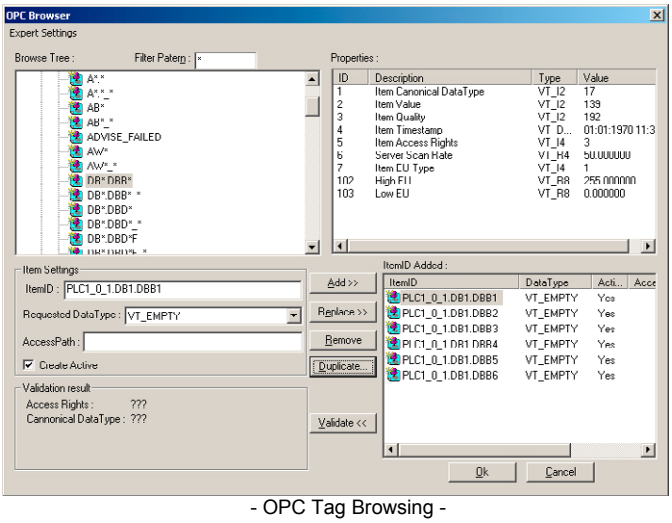
✓ **Access modes**
- Synchronous in Read / Write
- Asynchronous in Read / Write
- Monitoring: OPC client feeds back information to the server if the data monitored have been modified.

✓ **Data types**
applicom® OPC server supports standard data types (Bit, Byte, String, Word, Dword and Float) using Signed or Unsigned data format. It also manages Array. Depending of the protocol used, the server also supports data access to special area of memory controller such: Timer, Counters, etc.

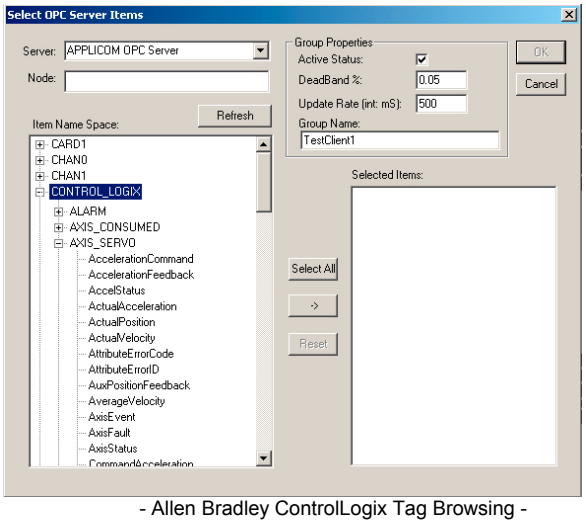
✓ **Optimization mechanism of data transfer**
It reduces the number of network requests on medium. It automatically sorts and groups items in frames to provide you the best data acquisition throughput.

✓ **Tag Name**
applicom® OPC server supports manufacturers syntax descriptor associated to each protocol. With these descriptors, you can use mnemonics similar to manufacturer syntaxes to name the variables in your client applications. For instance, on Siemens Simatic® S7 equipment, Word 10 of the DB1 will be identified by **DB1.DBW10**.

✓ **Item browsing**
New-browsing interface to optimize data transfer between the OPC Client/Server. Client chooses number of branches and leaves returned by Server during the browsing process avoiding receiving a big amount of data.



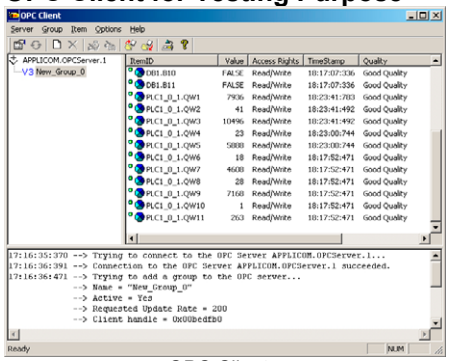
- OPC Tag Browsing -



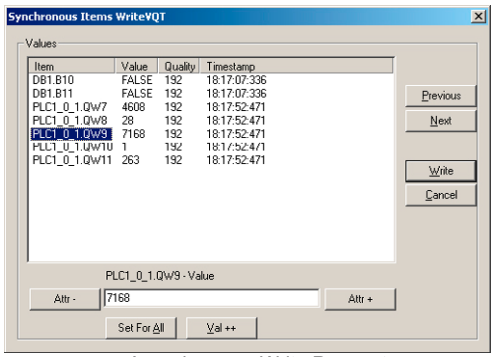
- Allen Bradley ControlLogix Tag Browsing -

Characteristics

✓ OPC Client for Testing Purpose



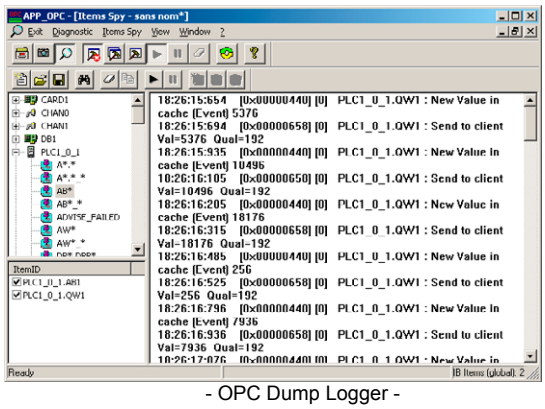
- OPC Client -



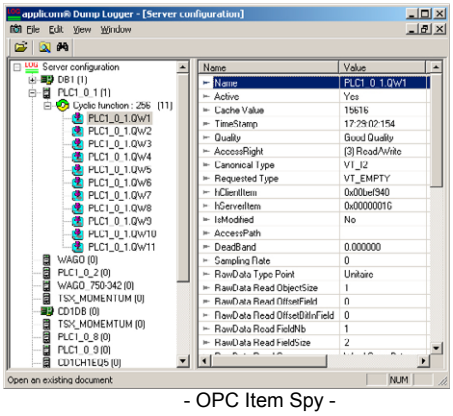
- Asynchronous Write Request -

✓ Diagnostic tools

OPC applicom products are easy to use – without extensive knowledge of DCOM or OPC. Utilities, samples printed documentations and online help indifferent language will allow you to understand and implement quickly the OPC technology.



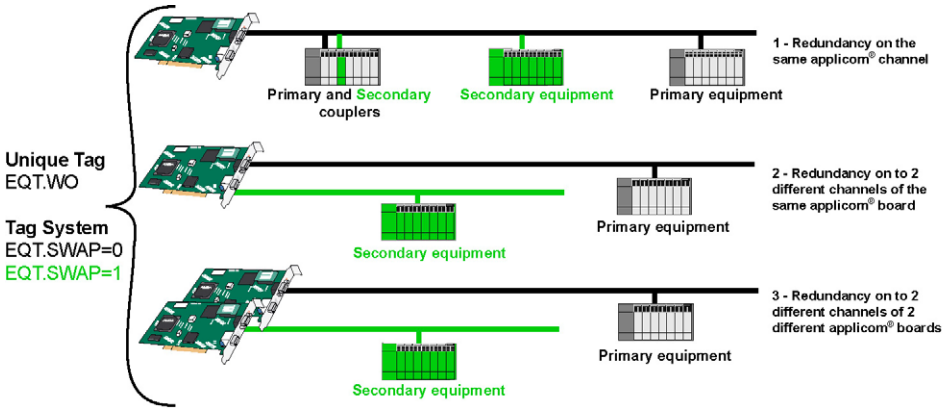
- OPC Dump Logger -



- OPC Item Spy -

✓ Equipment redundancy

Allows any OPC client application to manage equipment redundancy feature.
In this context, through the same variable image topic, the client application can switch all the communication requests from a physical device to another one (same one device) as the following architectures:



Software

Woodhead

Empowering the Industrial Infrastructure

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