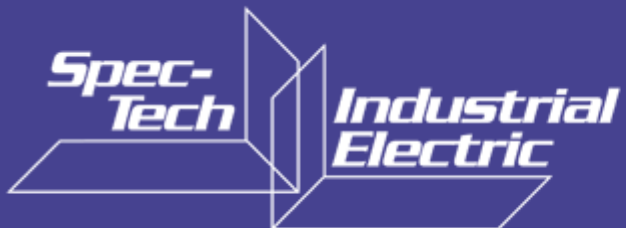


# WindSRV

Software to link PC applications with IDEC PLCs



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**idec**

## Easily link IDEC PLCs to a PC for effortless data acquisition and monitoring



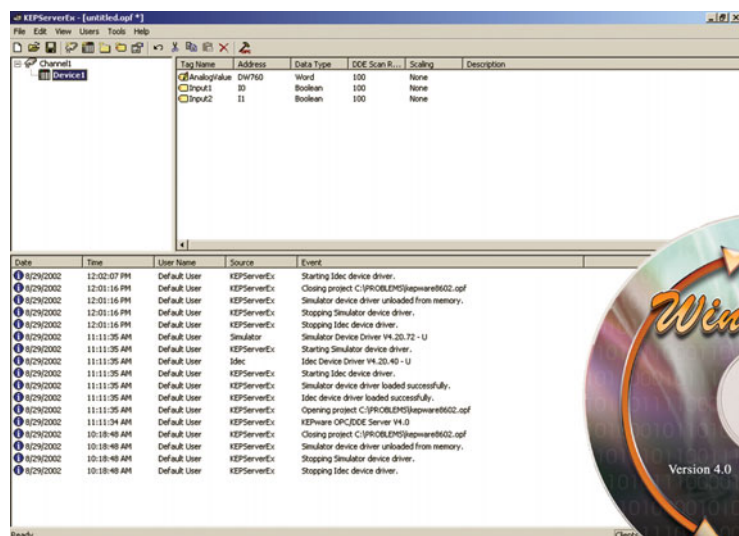
Looking for a fast and flawless control solution, but not willing to buy a whole new setup? Want your control systems centralized, easy to manage and able to take advantage of all the components you already have? As always, IDEC has the solution. **WindSRV brings everything together, to join the forces of all of your most powerful tools and provide more levels of monitoring than ever before.**

This 32-bit software application makes it possible to link your OPC and DDE compliant Windows-based software to any IDEC programmable logic controller, using RS232, RS485, or Ethernet\*. Now you can interface all of those intelligent devices and let them do the work you used to do yourself.

That means any industrial HMI, SCADA, data acquisition, MES or ERP will connect through WindSRV to a MicroSmart, OpenNet Controller, Micro3, Micro3C, or any legacy PLC. All you have to do is install the server software on your PC running Windows, and you have a low-cost data acquisition and monitoring system using your own computer and IDEC's affordable, powerful PLCs.

All data will be automatically uploaded and saved in any OPC or DDE compliant client program. The server provides analog and discrete I/O support for IDEC ONC and MicroSmart PLC families.

Build your own interface in Visual C++ or Visual Basic, or use Microsoft Excel as the interface, then link it to the PLC immediately. No custom drivers necessary, no time-consuming development, and nothing to buy that you don't already have. It's effortless data management, acquisition, monitoring and control, with just one new component – WindSRV from IDEC.



\*Contact IDEC for Ethernet details

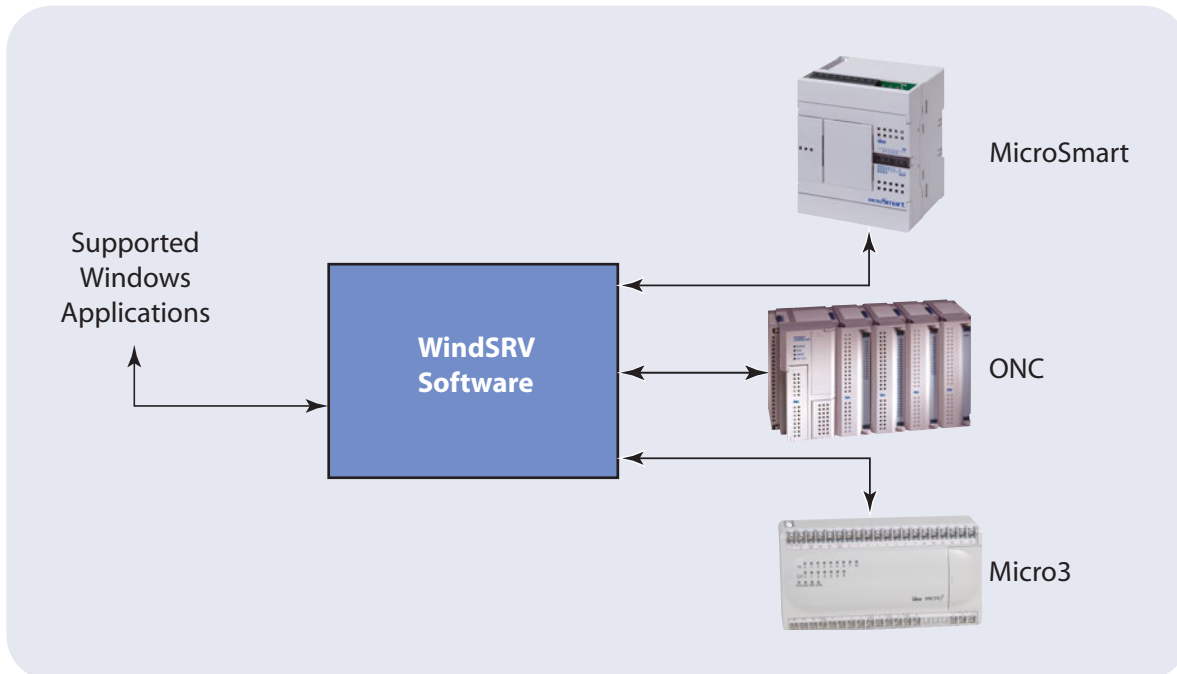
## Key Features

Best in class performance, certified OPC and DDE compliant connectivity thru RS232, RS485 or Ethernet.\*

Analog and discrete I/O support for the whole IDEC programmable logic controller family.

ASCII input and output support through any of our controllers.

Demo application using OPC, Excel and the MicroSmart PLC for easy start-up and troubleshooting.



## True Plug and Play Installation

Simply install the WindSRV server software on the same PC as your Microsoft application. Then enable the OPC driver for direct connection to the PLC or any PLC on a network.

### Software clients supported:

- Cutler Hammer PanelMate® PC Pro
- GE Cimplicity®
- Iconics Genesis32™
- Rockwell RSview32®
- Think and Do's Live
- WonderWare™ Intouch®
- Intellution Fix Dynamics®
- Siemens WinCC®
- Kepware QuickClient
- MicroSoft® Excel® or Access®
- Visual C++ and Visual Basic
- Any OPC/DDE compliant program

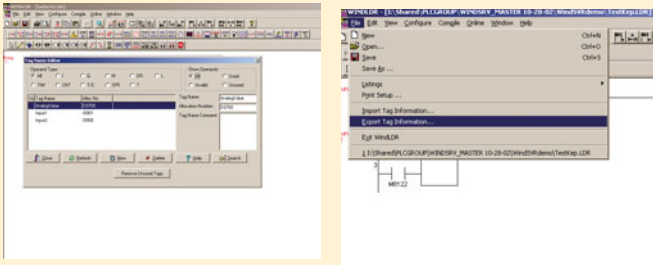
## Step 1: Define channel object

Each protocol or driver used in the WindSRV server and project is referred to as a channel. Channels are specific communications drivers (i.e. - RS232, RS485, Ethernet, Dial-up modem). All WindSRV projects can consist of many channels.

## Step 2: Define device object

Device names are set up to represent the PLCs that you are communicating to. Each device name must be unique inside each channel but may be the same from channel to channel.

Device Properties has an option to enter tags manually, or select an automated tag database generator. If Automatic I/O Configuration is selected, tags must first be exported from WindLDR and saved as a text file.



In Device Properties, enable "automatic tag data base generation of device startup" and attach the text file. It will then automatically generate tag objects.

## Step 3: Tag object

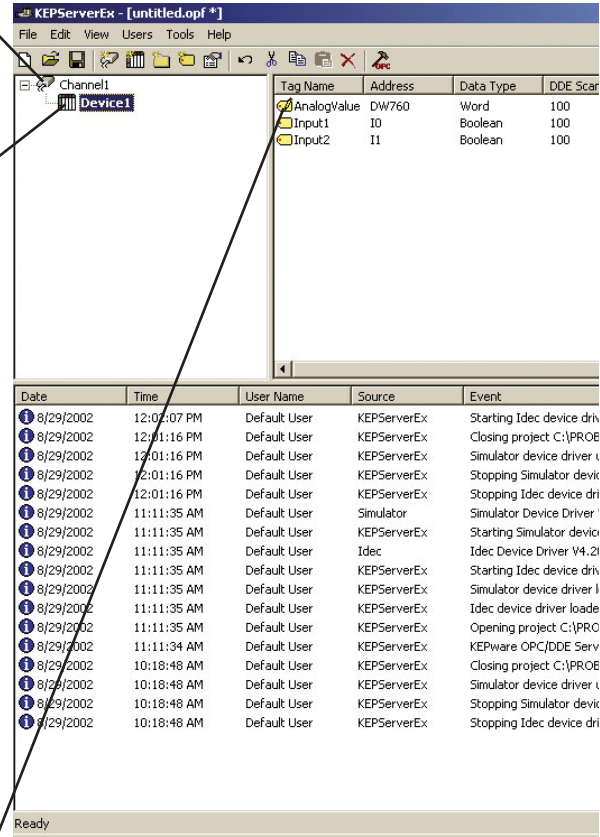
WindSRV allows user defined and dynamic tags.

User defined tags have the benefit of allowing tag browsing and tag scaling.

Tags can also be automatically generated through WindLDR/WindSRV.

Dynamic tags are entered directly at the OPC client that specifies device data.

All tag names must be unique within a given device branch or group branch.

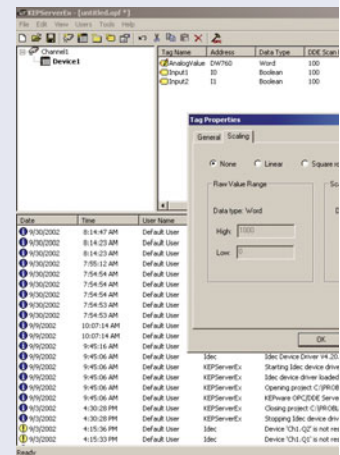


## Group object

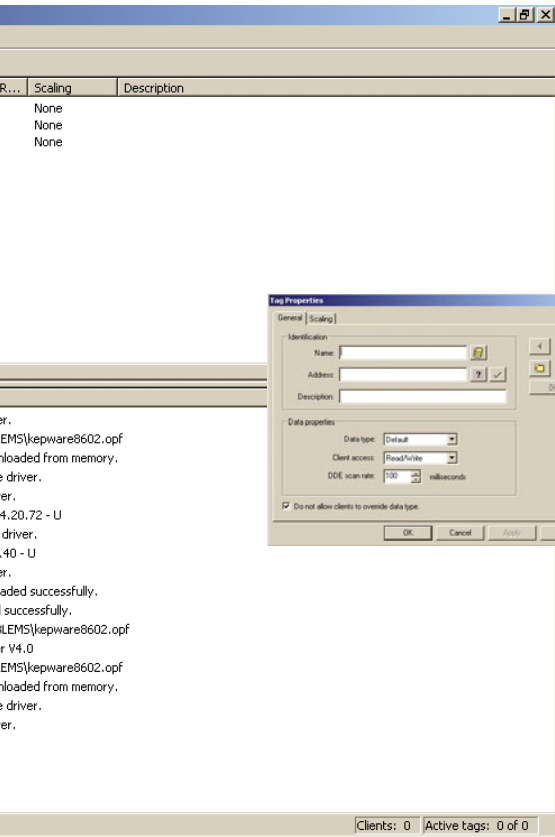
WindSRV works by adding tags in groups or files. Tag groups allow you to construct a layout of the OPC or DDE data to be collected in a logical manner. You can structure the groups to fit the needs of your application.

Using tag groups allows you to use multiple sets of identical tags under one device. This can be very convenient when using PLCs that have very similar addressing and similar machine segments.

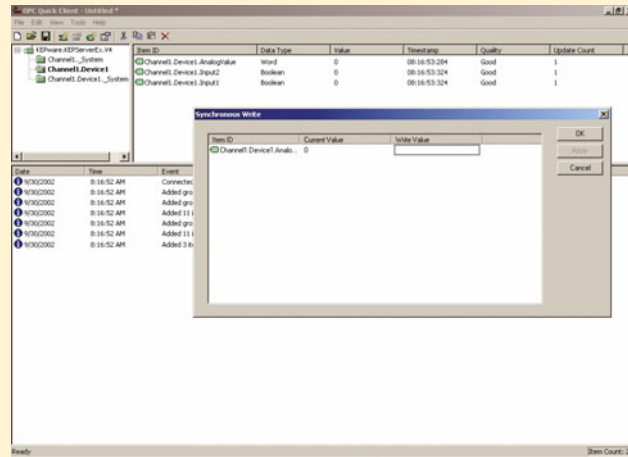
Tag grouping allows segregation of your tags into functional groups that make finding your tags and troubleshooting easier.



# Applications

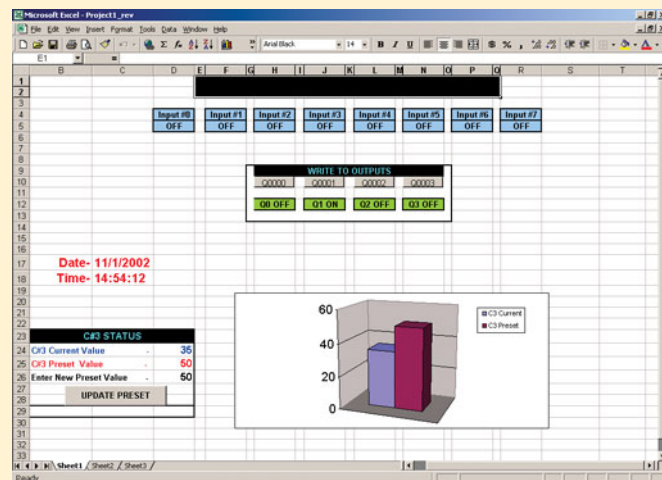


## Step 4: Select Quick Client



You can easily check and control your PLCs with QUICK CLIENT software. It allows you to test your PLC connection, toggle I/O, read/write values and test ASCII strings in real time while sitting comfortably at your PC.

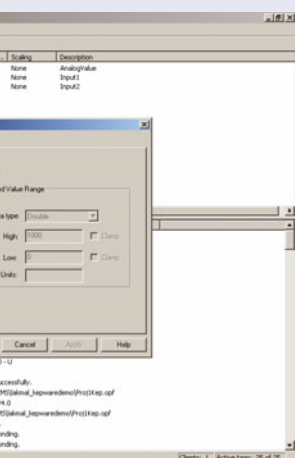
## Step 5: Completed link



Easily interface with compatible Windows software applications such as Excel or Access without having to develop custom drivers. This allows you to develop acquisition or monitoring systems, and interface intelligent devices, such as bar code readers and labelers. You can also create links to your custom VisualBasic or Visual C++ applications and user interfaces.

## Additional tag properties

A pop-up diagnostics window, known as Quick Client, shows detailed realtime information for easy troubleshooting. Powerful built-in data scaling allows you to configure each I/O point for the engineering units it represents or requires, reducing the need for extensive math calculations in your client software. Data types supported are Byte, Word, Dword and floating point math (with user defined decimal point location). Scaling features include high and low limits, clamping and I/O data range.





## What OPC allows you to do

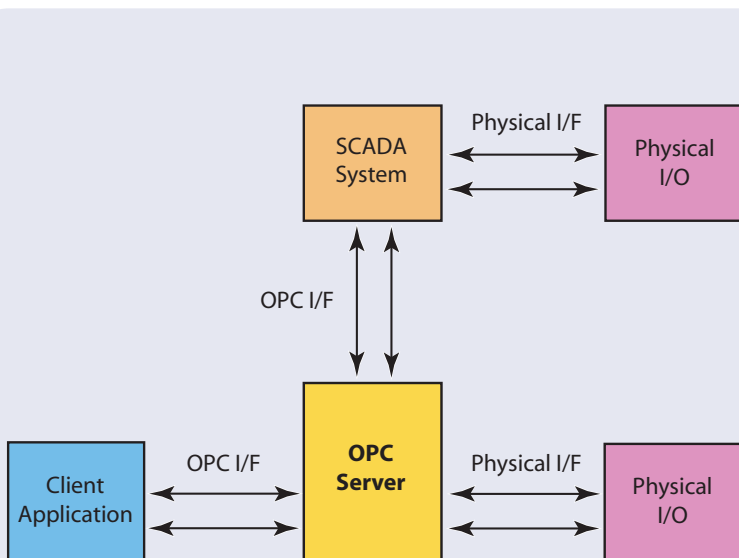
OPC, or OLE (Object Linking and Embedding) for Process Control, is an industry standard created by a number of worldwide leading hardware and software suppliers in cooperation with Microsoft. The OPC Data Access specification, as maintained by the OPC Foundation, is a non-proprietary technical specification that defines a set of standard interfaces based upon Microsoft's OLE/COM technology. An OPC server allows items such as distributed control systems, programmable logic controllers, I/O systems and smart field devices to communicate with a wide range of HMI/SCADA software packages residing on a PC.

## What OPC does

OPC is primarily used for accessing data from a network server, OPC interfaces can be used in many places within an application. The architecture and design makes it possible for an OPC server to allow a client application to access data from many OPC servers. Many different OPC vendors running on different nodes via a single object can provide the data.

## WindSRV provides legacy DDE support

While WindSRV I/O Server is first and foremost an OPC Server, it is recognized that a number of legacy applications still depend upon DDE for their underlying client server technology. Early in the development of Windows, Microsoft provided a generic client server technology called DDE (Dynamic Data Exchange). DDE did provide a basic architecture that would allow many Windows applications from a wide range of vendors to share data, but there was one problem. DDE was not designed for the industrial market, lacking much of the speed and robustness desired in an industrial setting. However, this did not stop DDE from becoming a dominant client/server architecture, largely due to its availability in most Windows applications.



## OPC and DDE support

WindSRV supports the following server technologies

- OPC Data access version 1.0a, the original specification from the OPC foundation
- OPC Data access version 2.0, the latest version with better COM technologies
- FastDDE for WonderWare™
- SuiteLink for WonderWare™
- DDE Format CF\_Text
- DDE Format XL\_Table
- DDE Format AdvancedDDE

## WindSRV system requirements

### Minimum:

Pentium® or Pentium Class CPU 200Mhz  
Windows® 98  
32MB RAM  
10MB free hard disk space

### Recommended:

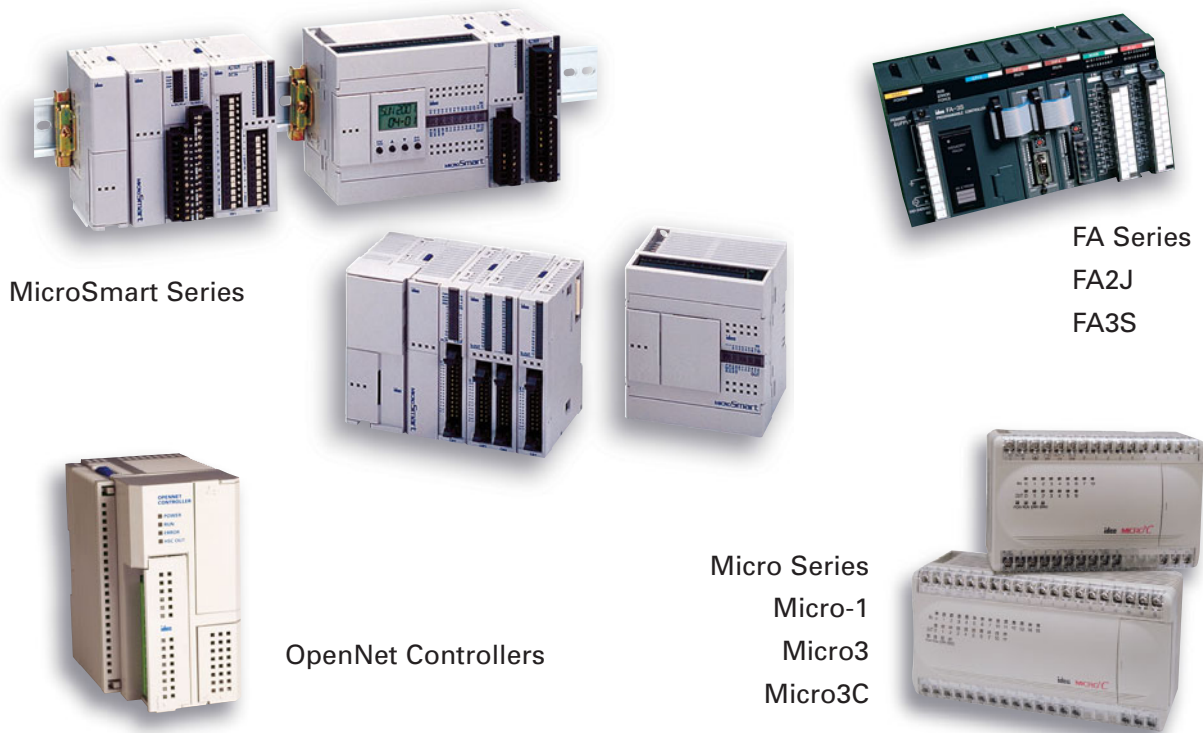
Pentium CPU 400Mhz  
Windows® NT 4.0 or later, Windows® 2000  
64MB RAM  
10MB free hard disk space

## WindSRV Server Models and Requirements

Point to Point (Single Node)	Part No. <b>WindSRV-1</b>	connects a PC and a single PLC
Four Node	Part No. <b>WindSRV-4</b>	connects a PC to as many as four (4) PLCs
Eight Node	Part No. <b>WindSRV-8</b>	connects a PC to as many as eight (8) PLCs
Twelve Node	Part No. <b>WindSRV-12</b>	connects a PC to as many as twelve (12) PLCs
Unlimited Nodes	Part No. <b>WindSRV-U</b>	connects a PC to any number of nodes

For other part numbers or technical information on networking hardware requirements please contact IDEC technical support or reference the IDEC U907 Catalog.

## Compatible Controllers



## Definitions

<b>OLE</b>	Object linking and embedding, used for connecting and transferring data between objects and devices in Microsoft based software.	<b>Node</b>	Individual computerized device on a network. For WindSRV it refers to an IDEC PLC.
<b>OPC</b>	OLE for process control	<b>PLC</b>	Programmable logic controller, such as a MicroSmart or OpenNet controller.
<b>DDE</b>	Dynamic data exchange, which has the same use as OLE but is of an older design.	<b>MES</b>	Manufacturing execution system software, which allows better control and quality of your plant process.
<b>SCADA</b>	Supervisory control and data acquisition.	<b>ERP</b>	Enterprise resource planning software, allows better control over your plant resources.
<b>Server</b>	A software device used to connect two dissimilar program packages for transferring data back and forth. Could also be used as a translator.	<b>SPC</b>	Statistical process control, or quality tracking and reporting.
<b>HMI</b>	Human machine interface.		

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