

# DataWorx PLC/WinPLC Data Collection

## AutomationDirect joins BizWareDirect to offer exceptional data collection software

AUTOMATIONDIRECT has teamed up with BizwareDirect to offer its customers data-collection and monitoring software for AUTOMATIONDIRECT compatible **Direct**LOGIC PLCs and Think & Do Studio or Think & Do Live! WinPLCs. Before DataWorx, it was necessary to purchase an OPC/DDE server, write code or buy an HMI package to program, in order to collect data from AUTOMATIONDIRECT PLCs/WinPLCs. Now DataWorx makes it simple and cost effective to collect valuable data to enable you to make better business decisions. BizWareDirect offers software products, and a variety of engineering services to assist manufacturers and utilities to automate, monitor, and collect data from their processes through the most productive and cost-effective means possible.

 +  = \$ **The Best Bang for the Buck in Automation Software**

[www.bizwaredirect.com](http://www.bizwaredirect.com)      [www.automationdirect.com](http://www.automationdirect.com)

## System requirements

### DataWorx PLC requirements:

The PC hardware requirements for DataWorx PLC include a Pentium II with 128 megabytes of RAM and at least 10 megabytes of hard disk space free. The Server application can run on Windows NT, 2000 or XP. The Monitor application can run on Windows 98, NT, 2000 or XP.

AUTOMATIONDIRECT PLCs: H0-ECOM/ECOM100, H2-ECOM(-F)/ECOM100, or H4ECOM(-F)/ECOM100

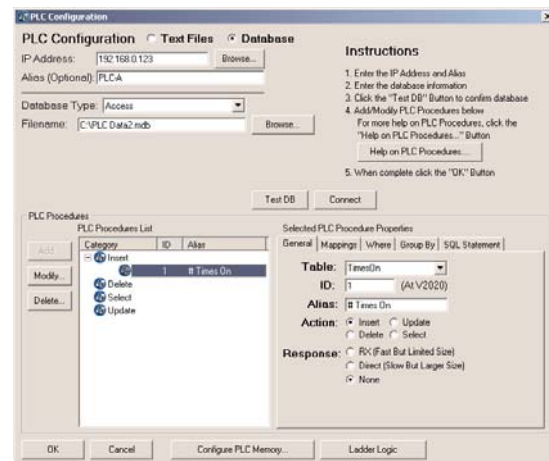
### DataWorx WinPLC requirements:

The PC hardware requirements for DataWorx WinPLC include a Pentium II with 128 megabytes of RAM and at least 10 megabytes of hard disk space free. The Server application can run on Windows NT, 2000 or XP. The Monitor application can run on Windows 98, NT, 2000 or XP.

AUTOMATIONDIRECT Think & Do Studio and Think & Do Live! WinPLCs: H2-WPLC2-EN or H2-WPLC3-EN

## BizWareDirect DataWorx PLC Professional software provides database access to collected data

DataWorx PLC *Professional* is an additional product offered by BizWareDirect that collects data for AUTOMATIONDIRECT **Direct**LOGIC PLCs, or Think & Do Studio or Think & Do Live! WinPLCs with the added feature of being able to store information into a database using SQL statements. The user can perform database operations such as storing PLC/WinPLC data and returning queries to the PLC/WinPLC. The user may configure database connectivity and operations in an easy to use GUI (as shown). Currently DataWorx PLC *Professional* supports Access and Microsoft SQL Server. DataWorx PLC *Professional* is available through BizWareDirect. For more information, visit [www.bizwaredirect.com](http://www.bizwaredirect.com) or call 770-886-5878.



# Ethernet PLC/WinPLC Data Collection

**DataWorx software:  
Connect Ethernet-enabled PLCs for easy data collection at an affordable price**

## What is it?

The DataWorx Software package easily connects your Ethernet enabled **Direct**LOGIC PLCs, or Think & Do Studio or Think & Do Live! WinPLCs, to stand-alone PCs or network servers for simple data logging. This means that any PC or server on the network can receive valuable PLC/WinPLC data without the need for special PC programming or any 3rd party HMI, SCADA, or DAQ software application. DataWorx is easy to set up and use, and is priced right. Without a doubt, DataWorx will save you both time and money.

## How do I use it?

Simply install the DataWorx software on a PC or file server on the same targeted Ethernet PLC network. Next, enable the PLC logic to write data to your choice of delimited text files or CSV files onto the networked PCs or a file server.

## Benefits of DataWorx

- Easy setup
- No SCADA software required
- Stores unlimited amounts of data
- Can receive data from an unlimited number of **Direct**LOGIC PLCs, or Think & Do Studio or Think & Do Live! WinPLCs
- **Direct**LOGIC PLCs, or Think & Do Studio or Think & Do Live! WinPLCs have complete control of storing the data

## Applications

- Log valuable production data to networked PCs or file servers for Statistical Process Control decision making.
- Archive test data in a secure server file location with built-in date/time stamping features to satisfy quality assurance or audit trailing procedures.
- Use in data acquisition applications as source content for historical trending to be used by higher level business system applications.

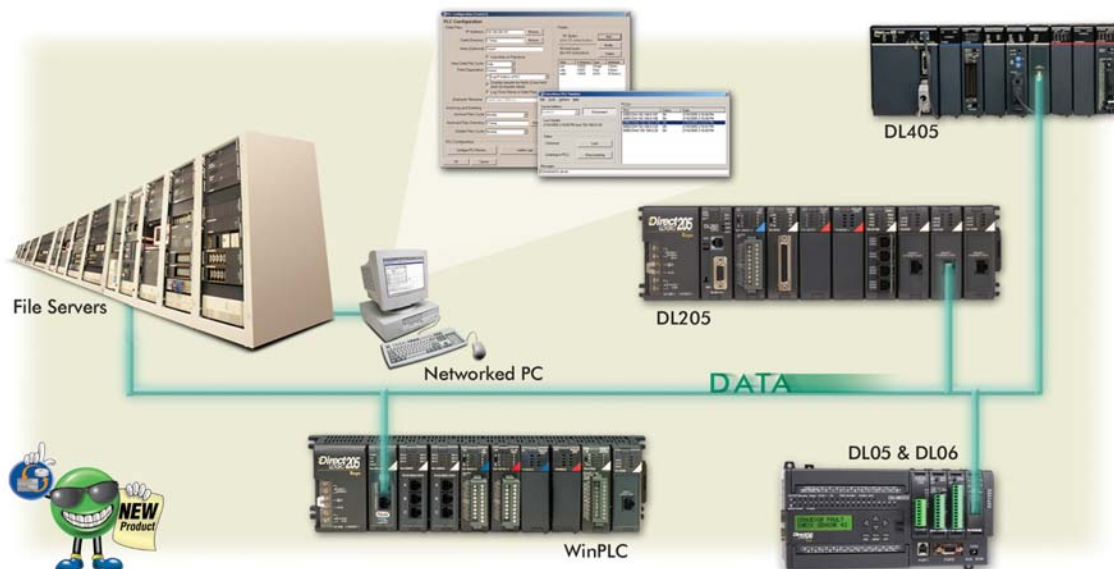
## Product line-up:

### DataWorx PLC Software

- |   |       |
|---|-------|
| PC-DATPLC-1   | <---> |
| Support for one <b>Direct</b> LOGIC PLC (with HX-ECOM (100) module installed)       |       |
| PC-DATPLC-3   | <---> |
| Support up to three <b>Direct</b> LOGIC PLCs (with HX-ECOM (100) modules installed) |       |
| PC-DATPLC-7   | <---> |
| Support up to seven <b>Direct</b> LOGIC PLCs (with HX-ECOM (100) modules installed) |       |
| PC-DATPLC-UN  | <---> |
| Support unlimited <b>Direct</b> LOGIC PLCs (with HX-ECOM (100) modules installed)   |       |

### DataWorx WinPLC Software

- |   |       |
|---|-------|
| PC-DATWINPLC-1  | <---> |
| Support for one Think & Do Studio or Think & Do Live! WinPLC      |       |
| PC-DATWINPLC-3  | <---> |
| Support up to three Think & Do Studio or Think & Do Live! WinPLCs |       |
| PC-DATWINPLC-7  | <---> |
| Support up to seven Think & Do Studio or Think & Do Live! WinPLCs |       |
| PC-DATWINPLC-UN   | <---> |
| Support unlimited Think & Do Studio or Think & Do Live! WinPLCs   |       |



PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Steppers/Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Pushbuttons/Lights

Process

Relays/Timers

Comm.

TB's & Wiring

Power

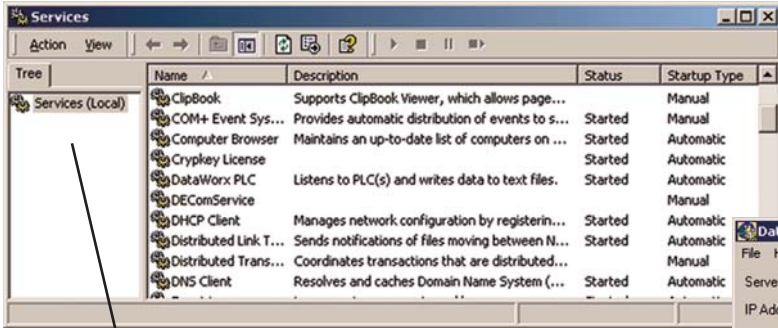
Enclosures

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# DataWorx PLC/WinPLC Server

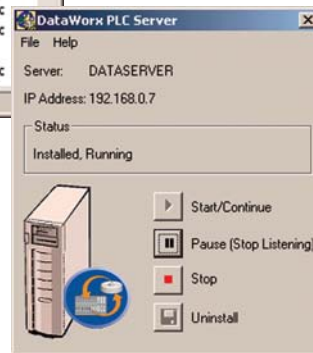
The DataWorx software packages include a server application that runs as a Microsoft Windows “service”. Running as a service means the DataWorx program runs whether or not anyone is presently logged in on the PC. Another advantage of the server running as a service is that the user does not need to manually start the logging every time the computer restarts. The application “listens” for information from the PLC/WinPLC and logs the data into a file configured from the Monitoring application. The server is capable of collecting an unlimited amount of data from an unlimited number of PLCs/WinPLCs.



Identifies the various services that are part of the PC

## Running as an NT service

DataWorx is equipped with an easy-to-use graphical interface to start, stop, or pause services. It also provides a very simple way to install or uninstall the service.

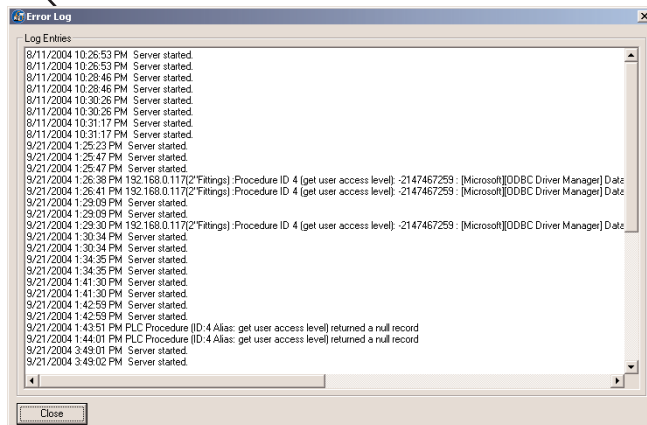


Graphical Interface to control the services

Diagnostic Error Logging

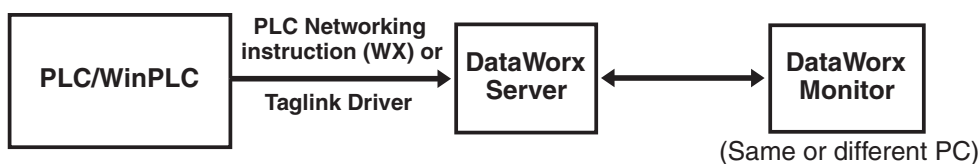
## Error log

The Server has a useful Diagnostic Error Log window to help with troubleshooting the Server if a problem arises. The Error Log shows the status of the Server. The Error Log indicates whether the Server is started, stopped, or paused, and if the data received from the PLC/WinPLC matches the data configured in the Server.



## RBE (Report by Exception) technology

RBE technology is what makes DataWorx software unique. Rather than the usual data collection through polling PLCs/WinPLCs, RBE technology makes the Server “listen” for data that has changed before it stores the information. The PLC/WinPLC sends data ONLY when needed. The common method of collecting data by continuous polling adds a lot of network traffic, causes the CPU utilization to dramatically increase, and in most applications, requires a dedicated PC. In contrast, the RBE method gives the PLC/WinPLC complete control to store data to a networked PC or file server hard drive and store the data locally if the network is down.



# DataWorx PLC/WinPLC Monitor

The Monitor application included in the DataWorx package configures the server's file creation cycle, and PLC/WinPLC listings. The Monitor also allows the user to view or save the data files stored on the server. Files can be opened and viewed in Notepad, Excel, or another chosen program. The user may select to create files on a daily, monthly, or yearly basis. The Monitor application is able to conveniently run from any PC that is networked with the server.

**DataWorx Monitor allows viewing of saved files on the server**

**Data viewed in Notepad**

**Data viewed in Excel**

**PLC Configuration screen**

**View the various reports that are stored on the server for each PLC/WinPLC**

The screenshots show the DataWorx PLC Monitor interface with a list of PLCs, a 'Report' dialog box for selecting files, and data being viewed in Notepad and Microsoft Excel. The Excel spreadsheet shows a table with columns for Date Time, Port Num, Length, and Pressure.

Date Time	Port Num	Length	Pressure
9/1/2003 8:23:56	1	123.23	23.34
9/1/2003 8:33:56	1	100.11	23.23
9/1/2003 8:41:56	1	102.12	22.45
9/1/2003 8:56:56	1	123.23	12.34
9/1/2003 9:01:33	1	123.23	12.45
9/1/2003 9:23:56	1	123.23	34.22
9/1/2003 9:32:16	1	153.76	45.76
9/1/2003 9:34:56	1	123.23	23.34
9/1/2003 9:37:56	1	111.65	23.96
9/1/2003 9:45:56	1	123.23	23.34
9/1/2003 9:55:56	1	167.34	23.45
9/1/2003 9:58:56	1	123.23	23.34
9/1/2003 10:03:56	1	123.23	23.34
9/1/2003 10:14:56	1	123.23	23.23
9/1/2003 10:18:56	1	123.23	23.34
9/1/2003 11:23:56	1	231.34	23.34
9/1/2003 11:43:56	1	123.23	10.34
9/1/2003 12:53:56	1	123.23	23.34
9/1/2003 12:57:56	1	342.12	23.34
9/1/2003 12:58:56	1	123.23	23.34

## Configuration

Using the Monitor application, users can configure the server to log data to the server's hard drive in a comma or tab delimited text file. Users can also include a date and time stamp in the file, and an alias for each data item sent. The alias can be used as the file's header.

## Archiving

The server can be configured to archive the log files into a zip file that can be copied to an archive directory for easy management. In the directory, files can be deleted automatically according to the parameters set by the user. Archiving can occur daily, monthly, or yearly as needed.

The screenshot shows the 'PLC Configuration (PLC-A)' dialog box with the following settings:

- Data Files:** IP Address: 192.168.0.96, Data Directory: C:\my data, Alias (Optional): PLCA
- New Data File Cycle:** Never (one file)
- Field Separation:** Comma
- Options:**  Log IP Address of PLC,  Display header for fields (Uses field alias for header label),  Log Time Stamp in Data Files
- Example Filename:** 192.168.0.96.csv
- Archiving and Deleting:** Archive Files Cycle: Never, Archived Files Directory: (empty), Delete Files Cycle: Never
- PLC Configuration:** Configure PLC Memory..., Ladder Logic

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- Other HMI
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- Motors
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