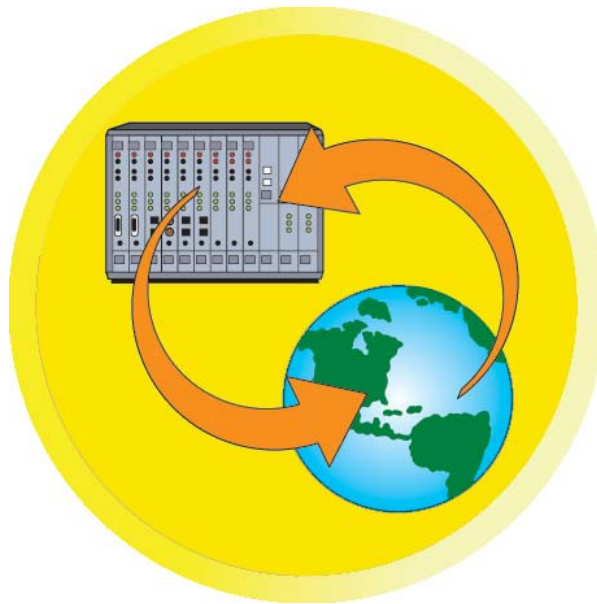


DataNet OPC

Version 2.1

User Manual



A product of:



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DataNet OPC User Manual

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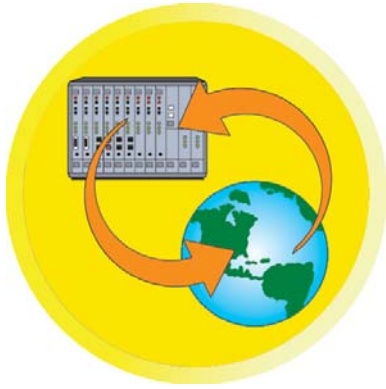
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Document History



DataNet OPC

User Manual

PC-DNETOPC-M

Please include the manual number and the manual issue, both which are shown below, when communicating with Technical Support regarding this publication.

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Issue Number: Second Edition
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Publication History		
<i>Issue</i>	<i>Date</i>	<i>Description of Changes</i>
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DataNet OPC User Manual

1.0 System Requirements

DataNet OPC provides an easy and inexpensive way to display industrial data on a Web page, with no HTML programming required. With DataNet OPC, the status of plant operations can be quickly determined at any moment, with no time or distance restraints. DataNet OPC also can log data to a text file for historical purposes.

The DataNet OPC Server will need to be installed on a computer that uses one of the following Windows operating systems:

- Windows NT4.0 with Service Pack 6A or higher
- Windows 2000
- Windows XP
- Windows 2003 or higher

The DataNet OPC Server PC also must run Internet Explorer 6.0 or higher and an OPC 1.0 or 2.0 compliant server.

The client PC, where the DataNet OPC Web pages will be viewed, requires Internet Explorer 6.0 or higher.

Hardware Required	Software Required
• Pentium II with 128 megabytes of RAM	• Windows NT 4.0 (SP6 or higher), 2000, 2003, XP or higher
• 10 megabytes of free hard-disk space	• Internet Explorer 6.0
• I/O network interface card	• OPC 1.0 or OPC 2.0 compliant server
	• Compatible with included Web server or Microsoft IIS Web Server

2.0 DataNet OPC Overview

DataNet OPC makes industrial data more accessible and more useful by conveniently displaying it on a Web page. No HTML programming is required in order to create, configure or maintain the DataNet OPC Web page. Data is always up-to-date and available for viewing and printing reports from any computer, anywhere the Web is accessible. Data can be downloaded using a browser, so third-party software is not needed. With DataNet OPC, real-time data is displayed in a table format, allowing for a very simple and effective way to determine the status of plant operations.

DataNet OPC supplies the user with a range of viewing options. The viewing options can be configured from the DataNet OPC Web page, so changes can be made from anywhere the Web is accessible.

A descriptive name can be assigned to the DataNet OPC Web page, as well as to each individual row of data, in order to aid in analysis and monitoring. A useful calculating tool allows the user to define mathematical operations, which DataNet OPC will perform on the specified data before displaying and logging it. With DataNet OPC, the user is able to request that certain cells automatically change colors based upon their data values. This is a very functional control feature that can be used as a warning system, alerting plant managers and personnel of abnormalities in plant operations. For example, suppose you were using DataNet OPC to monitor a tank level in your facility. The normal level for this tank is between 50 and 55 feet; anything over 55 feet means the tank is overloaded. Using

DataNet OPC, you are able to configure the Web-based display page, so that when the tank level is between 50 and 55, it is displayed in black and when the level is over 55, it is displayed in red. The status of plant operations can be determined by quickly glancing at the colors on the DataNet OPC Web page. This viewing option is especially useful for pages that contain very large sets of data, such as those which display 100 rows or more.

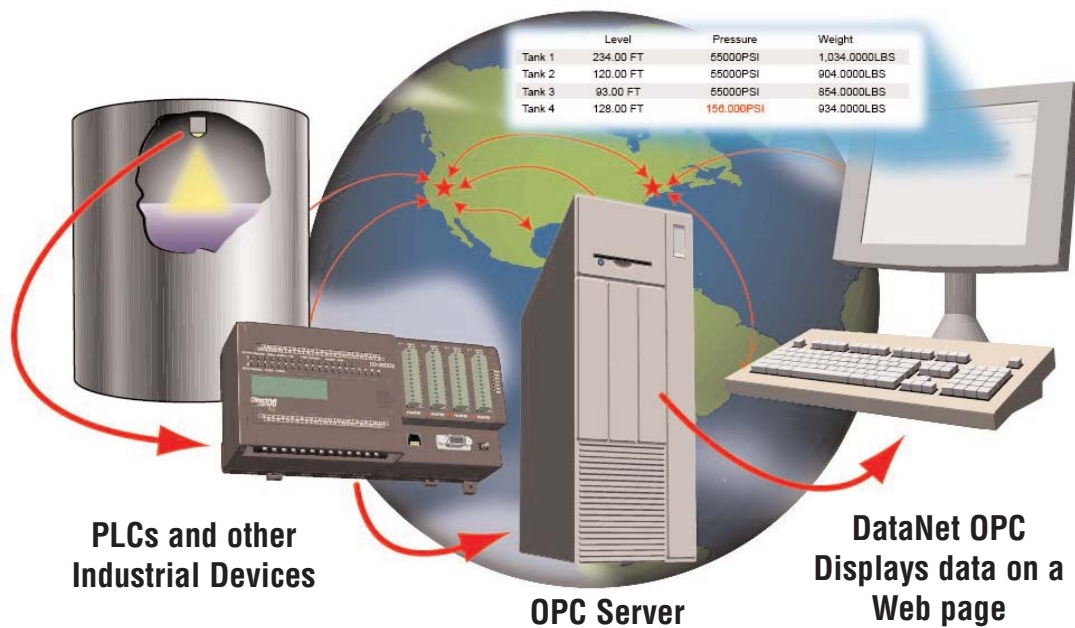
To allow flexibility and to fit within the existing infrastructure, DataNet OPC can be installed as a standalone Web server or as an Internet Information Services (IIS) add-on. DataNet OPC can work within any existing infrastructure, to increase the connectivity between management and plant floor operations.

In addition to displaying data conveniently on a Web page, DataNet OPC also will log data into a text file for archival purposes. Using DataNet OPC, the user is able to specify which sets of data will be logged, and at what time interval. The software also has a useful trigger command option, which allows the user to specify that data be logged only at certain times or under certain conditions.

DataNet OPC uses OLE for Process Control (OPC) technology to bring live data from the shop floor to a Web page. The use of OPC technology provides a standard interface between industrial devices and Windows computers. DataNet OPC is able to work with any server as long as it adheres to OPC 1.0 or 2.0 standards. For more information on OPC, please visit the OPC Foundation's Web site at: **<http://www.OPCFoundation.org>**.

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DataNet OPC runs as an OPC client. It is able to access any OPC server such as KepWare or Think & Do OPC Server. The diagram below illustrates how DataNet OPC uses OPC technology to communicate live data from the shop floor to a Web page:



2.1 DataNet OPC Software Products

PC-DNETOPC-10

- Support for up to 10 Web Values; no data logging.

PC-DNETOPC-30

- Support for up to 30 Web Values; no data logging.

PC-DNETOPC-60

- Support for up to 60 Web Values; data logging is included.

PC-DNETOPC-UN

- Support for an unlimited number of Web Values; data logging is included.

Upgrade Program

PC-DNETUPG-20

- Upgrade from PC-DNETOPC-10 to PC-DNETOPC-30. Add 20 Web Values. No data logging is included.

PC-DNETUPG-30

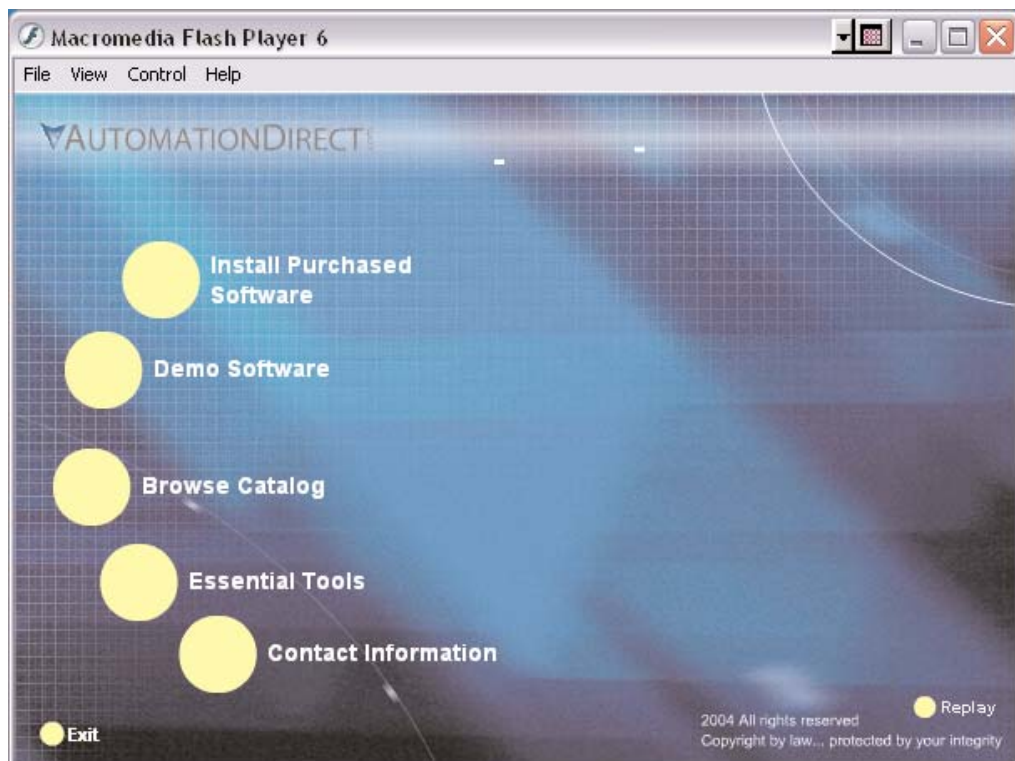
- Upgrade from PC-DNETOPC-30 to PC-DNETOPC-60. Add 30 Web Values and data logging.

PC-DNETUPG-UN

- Upgrade from PC-DNETOPC-60 to PC-DNETOPC-UN. Add unlimited Web Values. Data logging is included.

3.0 Installation

DataNet OPC software is available on the AutomationDirect Product Showcase CD. To install DataNet OPC, begin by inserting the AutomationDirect CD into your PC's CD drive. The CD should start automatically and open the installation window shown below:



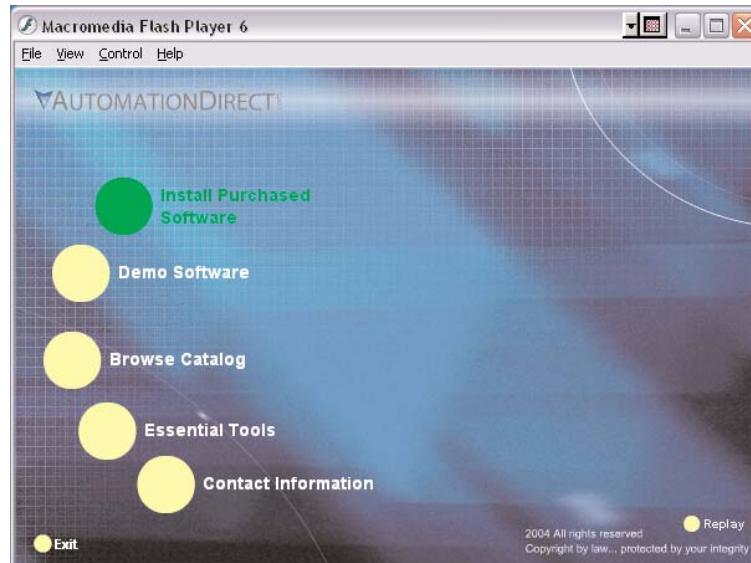
Note: If the AutomationDirect CD does not start automatically, go to the Windows Start button, select Run, and type:

E:\setup.exe

Change the letter "E" to correspond to the letter for your CD drive. Then, click OK and the program will start.

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Click *Install Purchased Software*.



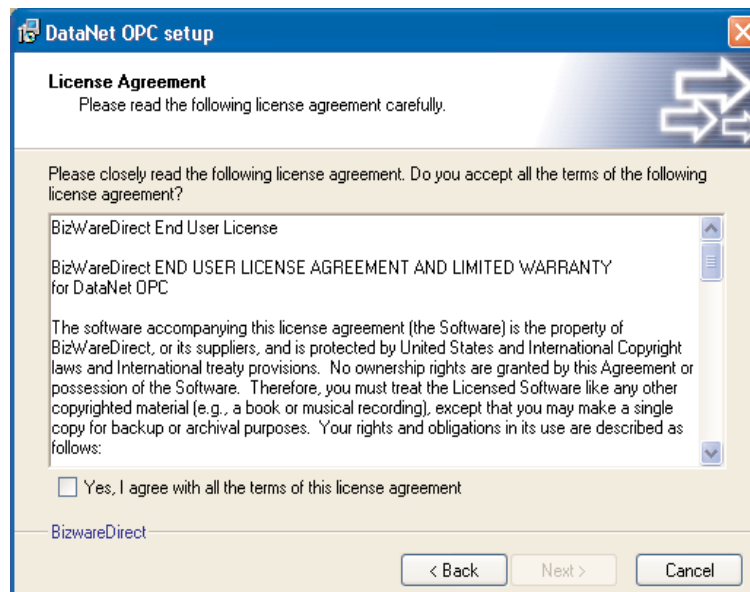
Click on *DataNet OPC* and the following installation screen will appear. Enter the Product Keycode which is printed on the label attached to the DVD case. Click *OK*.



The following installation screen appears. Read the information on the screen.

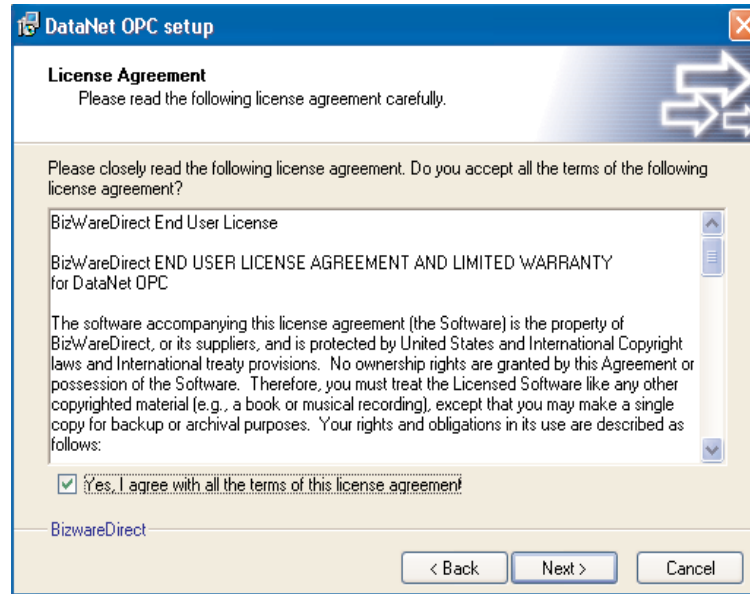


Click *Next*. Carefully read the license agreement that appears onscreen. Make sure you understand and agree with the written agreement before moving on:

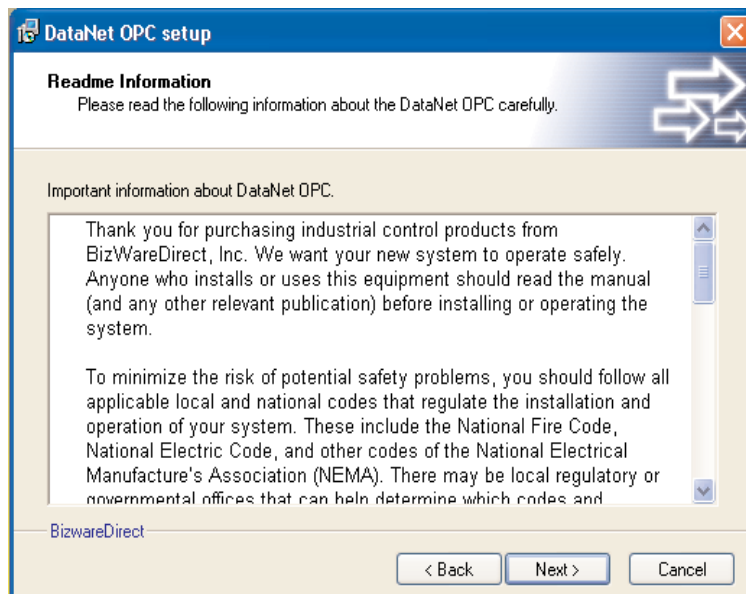


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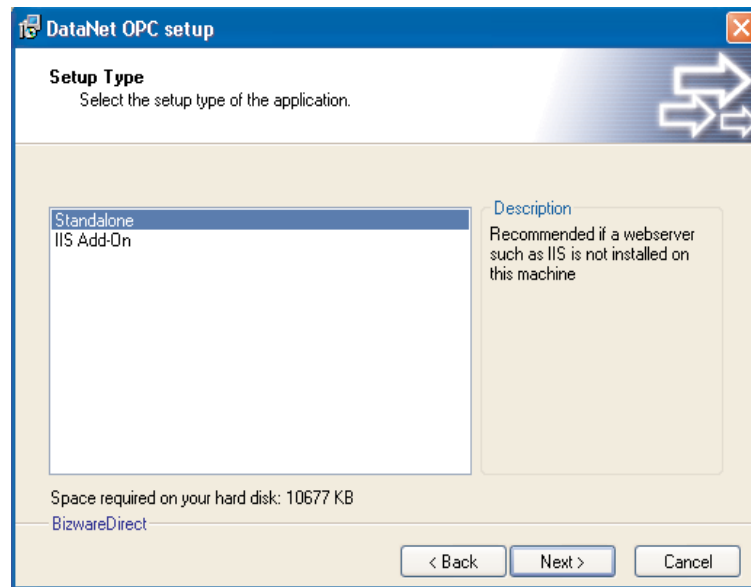
After reading and understanding the license agreement, check the box next to “Yes, I agree with the terms of this license agreement.” Click *Next*:



A “Readme Information” screen will appear. This screen includes important information regarding DataNet OPC that may be pertinent to you. After reading this information, click the *Next* button to continue:



You will now be prompted for the Setup Type:



By default DataNet OPC is installed as a standalone Web server, but to allow flexibility with the existing infrastructure, DataNet OPC is also provided as an Internet Information Services (IIS) add-on.

Standalone: When chosen to function as a standalone Web server, DataNet OPC will automatically install a Web server and the DataNet OPC application files. A Web page will be created at:

<http://server/DataNetOPC/DataNetOPC.asp>

This installation type is ideal if the Server PC does not already have a Web server installed on it.

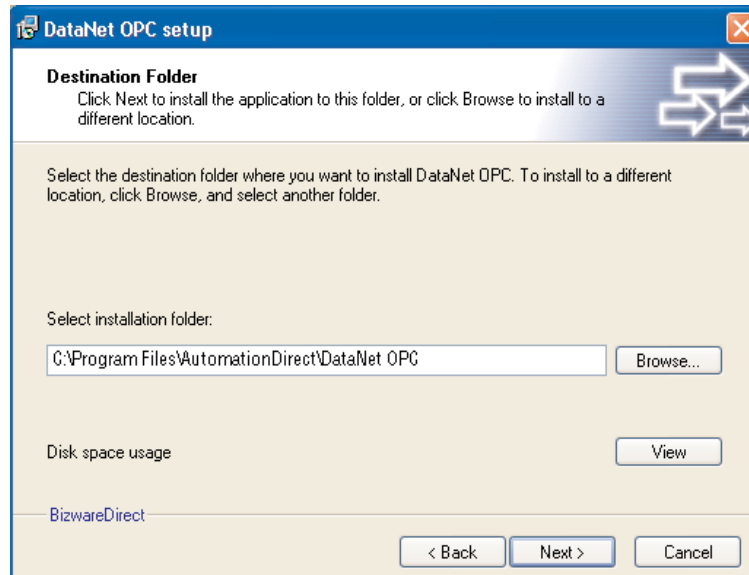
IIS Add-On: When installed as an IIS add-on, DataNet OPC will create a virtual directory that contains the DataNet OPC application files. This installation type is suggested if an IIS is already installed and configured for corporate presence. Click *Next*.

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A prompt to save the DataNet OPC files will appear. By default the files will go to:

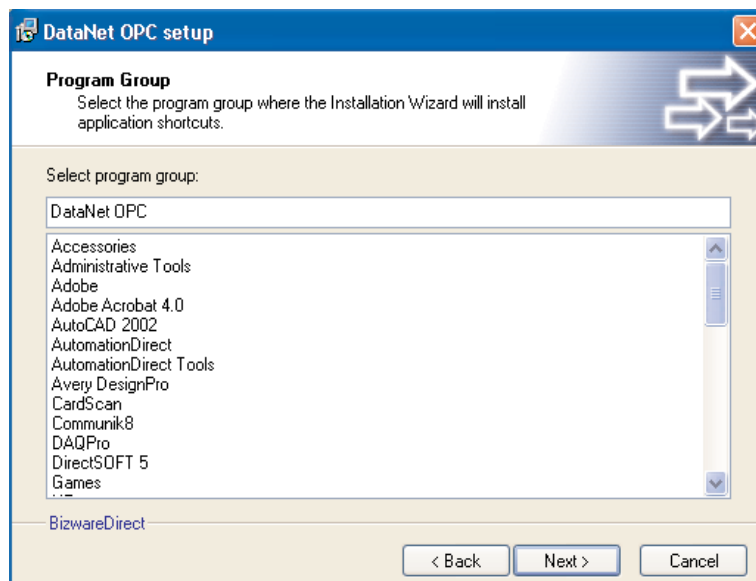
C:\Program Files\AutomationDirect\DataNet OPC

This location can be changed by clicking *Browse*.



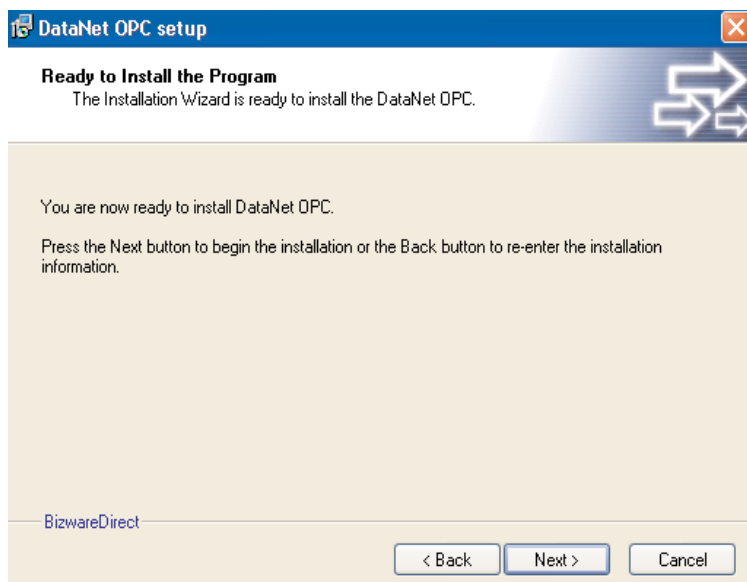
After selecting the Destination Folder, click *Next*.

A prompt for the Program Group will appear.



After selecting the Program Group, click *Next*.

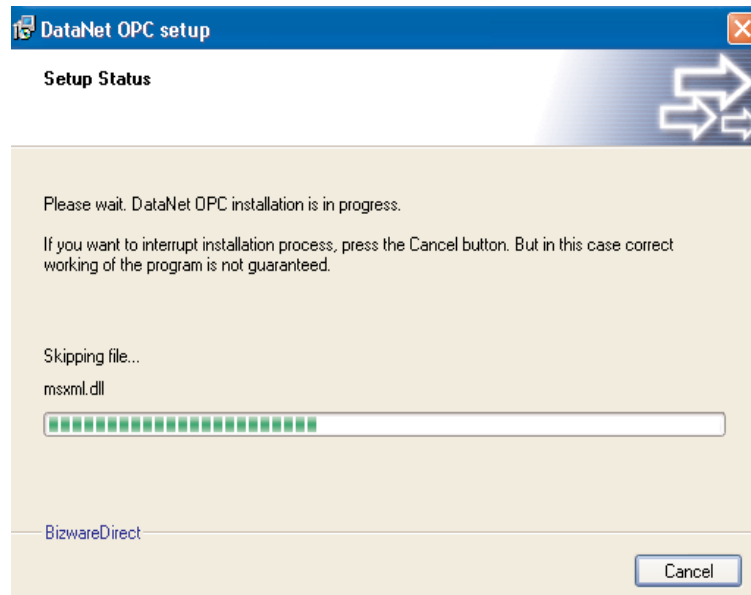
A confirmation window will appear, asking if you would like to install the product:



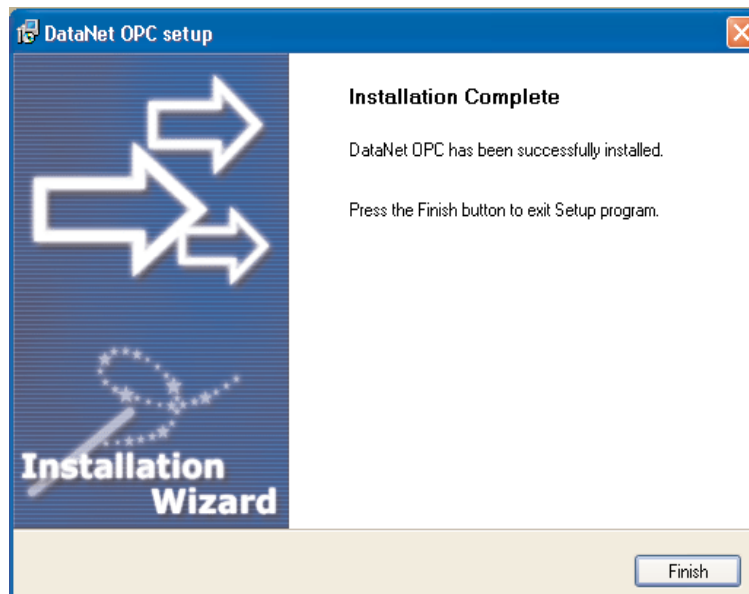
Click *Next*, and the installation process will begin.

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A meter will appear, indicating the installation progress:



The installation process may be stopped at any time by clicking *Cancel*. Once the installation is complete, a notification that DataNet OPC has been successfully installed will appear:

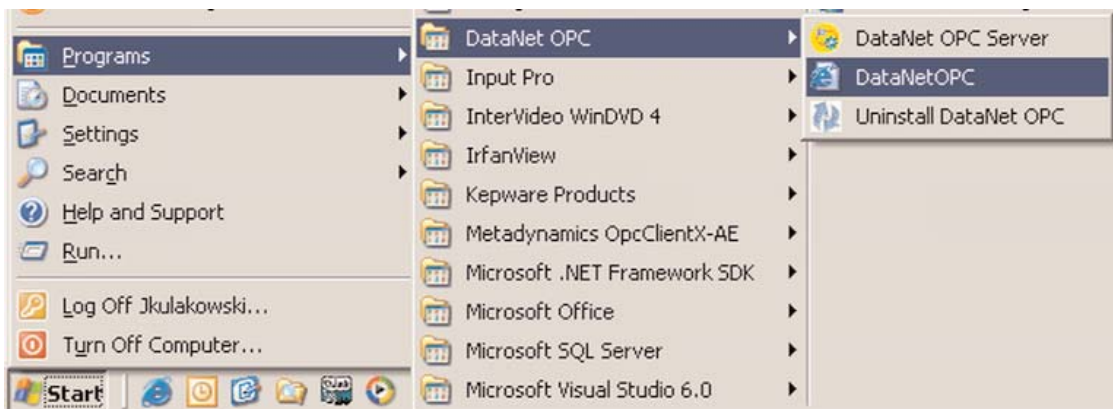


Click *Finish* to exit the DataNet OPC installer.

DataNet OPC is now installed and ready for registration and configuration.

Regardless of whether it is installed as a standalone Web server or as an IIS add-on, the DataNet OPC Web page can be accessed from the server PC by going to:

Start button -> *Programs* -> *DataNet OPC* -> *DataNet OPC*



The DataNet OPC Web page can also be accessed, using Internet Explorer 6.0 or higher, from any other computer (client) by going to:

<http://server/DataNetOPC/DataNetOPC.asp>



Note: Substitute the IP address of the server PC for the word “server” in the address above.



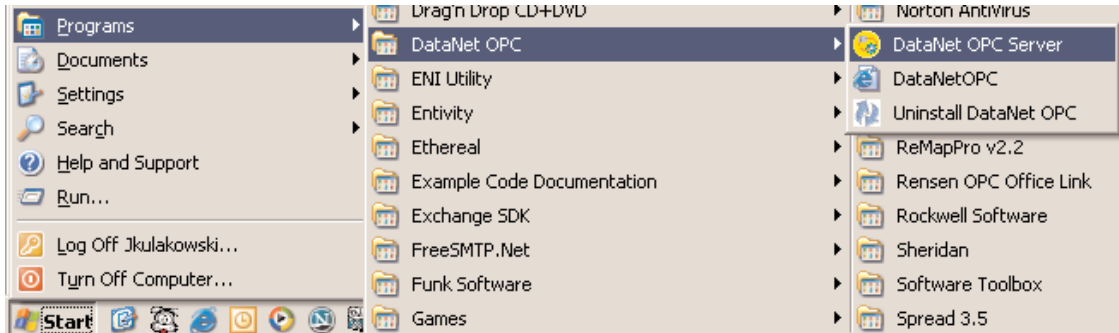
4.0 Registration

DataNet OPC is installed in trial mode by default. When running in trial mode, the DataNet OPC product will only run for three days following the date of installation. To remove the trial mode limitations, the DataNet OPC product must be registered.

To register the software product, follow these instructions:

After installing DataNet OPC, open the DataNet OPC Server by going to:

Start button -> Programs -> DataNet OPC -> DataNet OPC Server



The DataNet OPC Server window will appear. In the Server window, go to:

Help -> Registration




A registration window will appear. In the registration window, copy the registration key by highlighting the Key, pressing the right mouse button and selecting *Copy*:



With your Internet browser, go to:

www.BizWareDirect.com/DatanetOPCregistration.aspx

The following product registration Web form will appear:


DataNet OPC Registration Form 

Serial Number (From DVD Case)

Key (From DataNet OPC Install)

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Paste the registration key into the Key field on the Web form. The Serial Number, which is on the back of the software CD case, must also be entered. Click *Create Registration*:

DataNet OPC Registration Form 

Serial Number (From DVD Case)

Key (From DataNet OPC Install)

For us to provide better service and support, additional information may be entered in the remaining fields. Once all desired fields are completed, click *Register*:

Optionally, you can enter your information below so we can provide better technical support.

Name:

Company Name:

Address:

Address (Line 2):

City:

State:


Telephone:

Fax:

Email Address:

Purchased From:

Once the registration information has been submitted correctly, a newly Assigned Key will appear in the field just below the *Create Registration* button:

DataNet OPC Registration Form 

Serial Number (From DVD Case)

Key (From DataNet OPC Install)

Your assigned key

Found registration for 1 device(s).

Copy this Assigned Key. Return to the DataNet OPC Server Registration window. Paste the Assigned Key into the Key field:



Click *Register*. A success message in the Registration window will show the registration status:



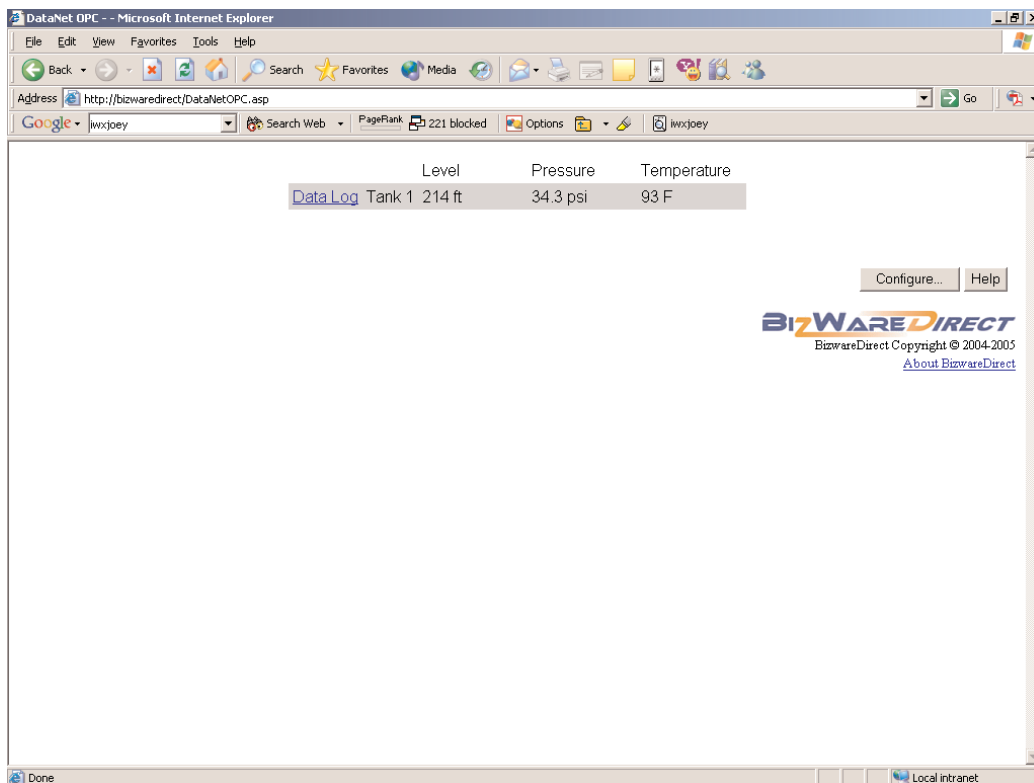
5.0 Configuration

OVERVIEW

To enable convenient and easy remote configuration, a configuration facility has been provided within the DataNet OPC Web page. This enables the user to configure the page's display and data-logging options from anywhere the Web is accessible.

5.1 Main Configuration

To access the DataNet OPC main configuration page, click *Configure*, in the lower right-hand corner of the DataNet OPC page:



A main DataNet OPC Configuration page similar to the one shown below will appear:

DataNet OPC Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://localhost/DataNetOPC/DataNetOPCConfig.asp?page=0&Cmd=Configure

Google

DataNet OPC - Configuration

Main Title: Daily Operations System

Locked Password: []

Autorefresh Seconds: 1 Lock Value Edits Password: []

Title: Tank Levels Page Customization...

Name Edit Columns Delete Logging Options

Add Row Delete

Save Cancel

Help

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Below is a description of each field and button on the DataNet OPC main Configuration page:

Main Title: Allows user to provide a meaningful main title for the DataNet OPC Web page.

Locked: Enabling this feature will prevent unauthorized changes to the configuration by forcing the user to supply a password in order to make changes to the DataNet OPC Web page's configuration settings.



Note: This password is **unrecoverable** in the event of loss. The only way to regain access to DataNet OPC in the event of a lost password is to completely uninstall and reinstall the program. This will clear the previous configuration settings.

Autorefresh: This value will define how often, in seconds, the DataNet OPC data-presentation page will automatically refresh its data. If real-time data is desired, this value should be set at one second. If performance issues, such as slow communications between the PC and the industrial devices become a problem, this value should be increased until the rate of communication is acceptable.

Lock Value Edits: When set, prevents unauthorized changes to editable values forcing the user to supply a password in order to edit a cell and write the value to the associated device tag. The contents of the Password field should be filled in with a password that will only be shared with users who have authorization to edit live device values.



Note: For more information on making a value editable, please refer to “Row Configuration,” in section 5.3.

Title: A descriptive name can be assigned to the DataNet OPC data-presentation page. For example, this could be the name of the plant, or the area of the plant that is represented by the presented data.

Page Customization: The user may opt to include custom images on the DataNet OPC Web page. Image files must be placed in the following directory on the DataNet OPC Server machine:

*C:\Program Files\AutomationDirect\DataNet
OPC\DataNetOPC\images\custom*

Image files must also have one of the following extensions: GIF, JPG or PNG.

Click *Page Customization*. The DataNet OPC - Customization page, as shown below, will open.

DataNet OPC - Customization

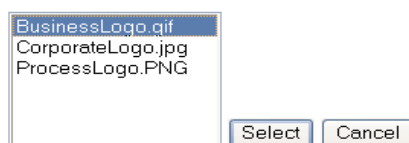
Logo Top Left:	<input type="text"/>	<input type="button" value="Browse.."/>
Logo Top Center:	<input type="text"/>	<input type="button" value="Browse.."/>
Logo Top Right:	<input type="text"/>	<input type="button" value="Browse.."/>
Logo Bottom Left:	<input type="text"/>	<input type="button" value="Browse.."/>
Logo Bottom Center:	<input type="text"/>	<input type="button" value="Browse.."/>
Background Image:	<input type="text"/>	<input type="button" value="Browse.."/> <input type="checkbox"/> Centered

Users may position an image file on the DataNet OPC page in one of five places: Top Left, Top Center, Top Right, Bottom Left or Bottom Center. The Background Image option allows the user to tile the image as the background, or use the Centered check box to center it.

Click *Browse* to view a list of available Image files, as shown below:

DataNet OPC - Customization

Please choose an Image file and click "Select"



Select the desired Image file, and click *Select*. Click *Save* to save the custom image display settings, or click *Cancel* to discard changes to the custom image display settings.

Name: A descriptive name may be assigned to each individual row of data. For example, if the first row of data represented information logged from a tank within the plant, it could be labeled with that tank's designation, "Tank 1."

DataNet OPC User Manual

Edit Columns: Allows the user to configure the properties of each column, such as name and width.

Add Row: A new row of data can be added to the DataNet OPC data-presentation page by clicking here.

Delete: Selected rows can be deleted from the DataNet OPC data-presentation page by placing a check mark in the appropriate rows and clicking *Delete*.

Edit Logging: Once a row has been added, this field displays the row's current configuration settings.

Edit Row: Once a row has been added, this option allows the user to configure the properties of each individual row, such as OPC Server and OPC Tag.

Save: The user clicks *Save* to save the configuration. DataNet OPC will automatically restart and redirect the browser to the DataNet OPC data-presentation page.

Cancel: Choosing the *Cancel* option will discard the edits. The DataNet OPC data-presentation page will revert back to its original configuration settings.



Note: *DataNet OPC requires that each cell be filled with OPC data. The cells cannot be left blank.*

5.2 Column Configuration

DataNet OPC displays data in an easy-to-read table format. Each cell displays a different piece of data from the OPC Server. By editing the column configurations, the DataNet OPC user can change the table's appearance by creating a label, or specifying the width, number of decimals and alignment of the chosen column. To access the column configuration page, first open the main Configuration page, by clicking *Configure* in the lower right-hand corner of the DataNet OPC page:

Configure...

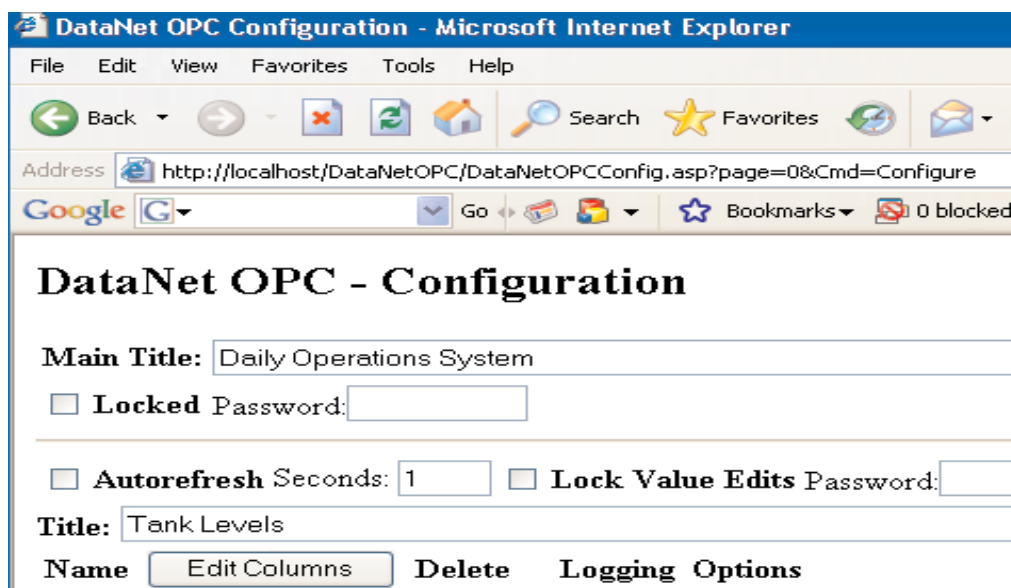
Help



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From main Configuration page, click *Edit Columns*:



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The DataNet OPC Configuration - Edit Columns page will appear. Below is a sample page along with a description of each field.

DataNet OPC Configuration - Edit Columns

Column Header 1:
Width (Pixels):
 Use Formatting: # Decimals:
Alignment:

Column Header 2:
Width (Pixels):
 Use Formatting:

Column Header 3:
Width (Pixels):
 Use Formatting:

Column Header #: This field displays the column's title.

Width: Displays the specified column width, in pixels.

Formatting: When set, applies specific formatting to the column, related to decimal places and alignment.

Decimals: Allows the user to specify how many decimal places the data in this column will have. This is a very useful function, especially when dealing with precise real numbers.

Alignment: Allows the user to specify how the data is to be lined up within the column. Alignment options are *Center*, *Left* and *Right*.

5.3 Row Configuration

By editing the row configurations, the DataNet OPC user may change the source of the data that is to be displayed. The user will specify the OPC Server and OPC Tag. To access the DataNet OPC row configuration page, first open the main Configuration page, by clicking *Configure* in the lower right-hand corner of the DataNet OPC page:



From the DataNet OPC main Configuration page, click *Add Row* (to create a new row), or click *Edit Row* (to edit an existing row):

The screenshot shows a web browser window titled "DataNet OPC Configuration - Microsoft Internet Explorer". The address bar shows "http://localhost/DataNetOPC/DataNetOPCConfig.asp?page=0". The page content includes:

- Menu: File, Edit, View, Favorites, Tools, Help
- Navigation icons: Back, Forward, Stop, Home, Search, Favorites, Refresh, Print, Stop, Home
- Address bar: http://localhost/DataNetOPC/DataNetOPCConfig.asp?page=0
- Search bar: kari out
- Bookmarks: 0 blocked
- Check: ABC Check
- Autol: Autol
- Section: **DataNet OPC - Configuration**
- Form fields:
 - Main Title: Daily Operations System
 - Locked Password: [text box]
 - Autorefresh Seconds: 1 Lock Value Edits Password: [text box]
 - Title: Tank Levels
- Table:

Name	Edit Columns	Delete	Log
Tank1	[Level] [Pressure] [Temperature]	Edit Row...	<input type="checkbox"/> Non
- Buttons: Add Row, Delete, Save, Cancel

DataNet OPC User Manual

The DataNet OPC Configuration - Edit Row page will appear. Below is a sample page along with a description of each field.

DataNet OPC Configuration - Edit Row

Row Name:

Level

OPC Server: Refresh

OPC Tag: Browse...

Unit:

Editable Value:

Use Dynamic Colors:

Use Math:

Pressure

OPC Server: Refresh

OPC Tag: Browse...

Unit:

Below is a description of the fields in the DataNet OPC row configuration page.

Row Name: The user-specified row label is displayed.

OPC Server: Using the drop-down menu, the user will specify which OPC Server to use as the source for displaying data in this cell.

OPC Tag: Here, the user will input the OPC Tag item to display from the specified OPC Server.

Browse: This function allows the user to browse through all available OPC Tags for the specified OPC Server.

Editable Value: When set, this cell may be edited by users who have access to the main DataNet OPC page. **As a result, the associated device tag will be modified.** If the Lock Value Edits check box in the main Configuration page is set, then a password will be necessary to edit the cell. Two additional fields will be available, as shown below:

Editable Value: Min Value: Max Value:

Min Value: Assigns a minimum value for the data entered into this cell while being edited.

Max Value: Assigns a maximum value for the data entered into this cell while being edited.

Use Dynamic Colors: When set, the user may specify that a cell automatically change the font color based upon its data values. This control feature may be used as a warning system. DataNet OPC allows the user to define up to four conditions for displaying data in different colors. The dynamic color function has three sections: *Equality*, *Value* and *Color*, as shown below:

Use Dynamic Colors: < Black | = Yellow
|
> Red |

Equality: Select “is equal to (=),” “is greater than (>),” or “is less than (<)” for the equality.

Value: For the value, input the value for which the dynamic color function will take effect.

Color: Select the desired color for the conditions specified.

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Based on the example above, the dynamic color configuration can be described as follows:

Equality	Value	Color	Function
=	100	Yellow	Displays data in a yellow font whenever the value equals 100
>	100	Red	Displays data in a red font whenever the value is greater than 100
<	100	Black	Displays data in a black font whenever the value is less than 100

Use Math: When set, the user may take advantage of DataNet OPC's useful calculation tool, which allows the user to define mathematical operations. DataNet OPC will perform the operations on the specified data before displaying and/or logging it. Below, is a sample page that shows the Use Math function, followed by instructions.

Configure **DataNet OPC Configuration - Edit Row**

Row Name:

Level

OPC Server: Refresh

OPC Tag: Browse..

Unit:

Editable Value:

Use Dynamic Colors:

Use Math:

1 2 3 4 5 6 7 8 9 0 .

+ - x / () OPC Clear



Note: *The Use Math tool cannot be utilized if the Editable Value check box is set.*

Instructions: To use the DataNet OPC calculating tool, first select the desired OPC Tag by searching through the Server's tags using *Browse*. Next, input the desired formula using the buttons provided on the Web form. To enter the OPC Tag (data set) into the equation, click the *OPC* button in the lower right-hand section of the onscreen keypad. To enter a numerical value, use the numbers provided in the top row of the keypad. Choose from the mathematical functions available in the bottom row. When finished, click *Save*.

Example: Suppose you had a device that reads data in meters, and for data display and logging, you wanted to convert this to feet. To configure DataNet OPC to carry out the conversion automatically, first click the *OPC* button. Then, click the * button to multiply. Next, click 3.28 on the keypad. Refer to prior page for image showing this looks like in the Use Math function field, in the Edit Row configuration page . Finish by clicking the *Save* button.

5.4 Row-Logging Configuration

In addition to displaying data conveniently on a Web page, DataNet OPC also enables the user to log data into a text file for archival purposes. The user is able to specify which sets of data will be logged, and at what time interval. The software also comes complete with a useful trigger command option, which allows the user to specify that data be logged only at certain times or under certain conditions.



Note: Logging options are configured for each individual row; not for the entire table.

To configure the row-logging function, first open the main Configuration page, by clicking *Configure* in the lower right-hand corner of the DataNet OPC page:

Configure...

Help

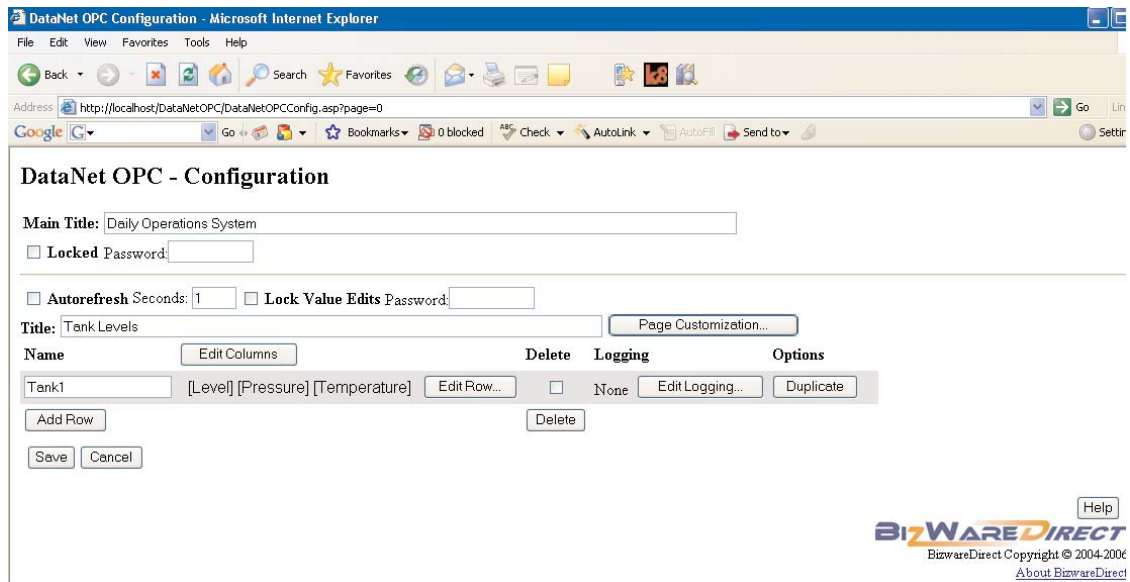
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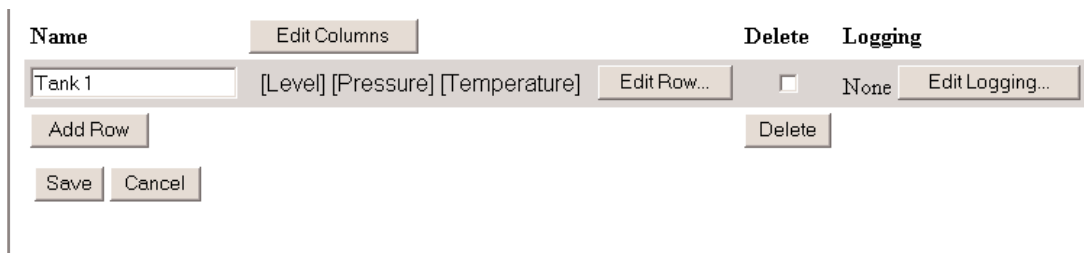
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Assuming the page has been configured for at least one row of data, a main DataNet OPC Configuration page similar to the one below will open:



Choose the row you would like to keep a data-log file on and click *Edit Logging*:



DataNet OPC User Manual

The DataNet OPC Configuration - Edit Row Logging page, similar to the one below, will open.

DataNet OPC Configuration - Edit Row Logging

Row Name: Tank1

None

Timed Interval: DDDD: 0 HH: 0 MM: 5 SS: 0

Trigger: OPC Server: KEPware.KEPServerEx.V4 Refresh

OPC Tag: Browse...

Data Logging Options: New Data File Cycle: Never (one file)

Field Separator: Tab

Archive: None

Delete: None

Log Date/Time: No

Log Headers: No

Save Cancel

Below is a description of each field on the DataNet OPC Edit Row Logging configuration page.

Row Name: Displays the row's user-given label.

None: If set, data from this row will **not** be logged.

Timed Interval: If set, the user may specify how often data is to be logged, for that particular row, by days, hours, minutes and/or seconds. For example, if the data is to be logged every hour and a half, the user would enter "1" in the *HH* field, and "30" in the *MM* field, while leaving a 0 in the *DDDD* and *SS* fields.

Trigger: If set, the user may control the DataNet OPC's trigger command option, by specifying that data be logged only at certain times or under certain conditions. Using the *OPC Server* and *Trigger* fields, the user will locate the correct OPC server and related tag, and specify the trigger which will command data logging to take place. The trigger must consist of a data change from 0 to 1 in order to activate data logging. Once data has been logged, the trigger will reset to 0 to notify the device that logging has successfully occurred. This feature is especially useful if the user needs data to be logged only under certain conditions, such as whenever a shift has ended, or when a conveyor belt is empty.

Data Logging Options: This section allows the DataNet OPC user to configure how the actual text files will be handled during the data-logging process.

New Data File Cycle: Specifies how often the DataNet OPC Server will create a new file for the PLC data. Information may be logged into one large file or several smaller files. The following options are available: Daily, 2 Shifts, 3 Shifts, Monthly, Yearly and Never (one file). The user may specify that all logged data be kept in a single file by selecting "Never (one file)."

Start Time or Shift 2 Start Time:

- When the New Data File Cycle is set to "Daily," then a field labeled "Start Time" will be available. The time entered into the Start Time field indicates at what time on a daily basis a new data log file will be created.

- When the New Data File Cycle is set to “2 Shifts” or “3 Shifts,” then a field labeled “Shift 2 Start Time” is available. The user will specify the start time of the 2nd shift and is used to calculate the start times of any other shifts, with each shift lasting 12 hours for the “2 Shifts” option and 8 hours for the “3 Shifts” option. For more details on this field, refer to the Shift Information chart on Page 37.

Field Separator: In this field, the user will choose to use either commas or tabs to separate individual fields.

Archive: The user may choose to create and store an archived ZIP file on a daily, monthly or yearly basis. When archiving on a daily, monthly or yearly basis, the user may also specify the location in which to create the ZIP file.

Archive:

Local Folder:

FTP Folder User Name Password

Ftp Folder:

If the *Local Folder* option is set, then the user will enter a local path on the DataNet OPC Server.

If the *FTP Folder* option is set, then the user will fill in the *FTP Folder*, *User Name* and *Password* fields.

The user also may opt to never archive the log files by choosing “None.”

Delete: The user may specify how often, if ever, to delete the log files. Log files may be deleted on a daily, monthly or yearly basis. The user may also opt to never delete the log files by choosing “None.”

Log Date/Time: When set, DataNet OPC will log the date and time for the PLC data in the data file.

Log Headers: When set, DataNet OPC will log the Web page column headers in the data file.

Shift Information

The Shift Information table below provides five examples to illustrate how each combination of the “New Data File Cycle” field and the “Start Time” or “Shift 2 Start Time” field determines each shift’s start and end time.

Example Number	New Data File Cycle	Start Time (Today)	Shift 2 Start Time (Today)	Shift # and Duration (hours)	Shift Start Time and Day	Shift End Time and Day
(1)	Daily	Midnight	n/a	1 (24 hours)	Midnight Today	11:59 PM Today
(2)	Daily	Noon	n/a	1 (24 hours)	Noon Today	11:59 AM Tomorrow
(3)	2 Shifts	n/a	8:00 AM	1 (12 hours)	8:00 PM Yesterday	7:59 AM Today
				2 (12 hours)	8:00 AM Today	7:59 PM Today
(4)	3 Shifts	n/a	8:00 AM	1 (8 hours)	Midnight Today	7:59 AM Today
				2 (8 hours)	8:00 AM Today	3:59 PM Today
				3 (8 hours)	4:00 PM Today	11:59 PM Today
(5)	3 Shifts	n/a	6:00 AM	1 (8 hours)	10:00 PM Yesterday	5:59 AM Today
				2 (8 hours)	6:00 AM Today	1:59 PM Today
				3 (8 hours)	2:00 PM Today	9:59 PM Today

6.0 Historical Text Files



Note: Only PC-DNETOPC-60, PC-DNETOPC-UN, PC-DNETUPG-30, PC-DNETUPG-60, and PC-DNETUPG-UN support data logging.

In addition to displaying live data on a Web page, DataNet OPC also logs historical data into text files. These data files can be accessed directly from the DataNet OPC data-presentation Web page. The logged files can be viewed, printed and saved from any computer that has Internet access (requires Internet Explorer 6.0 or higher). No third-party software is needed.



Note: Each row must be individually configured for historical data logging, in order for a data log to be created for it. For more information on configuring and activating data logging, please see section 5.4: Row-Logging Configuration.

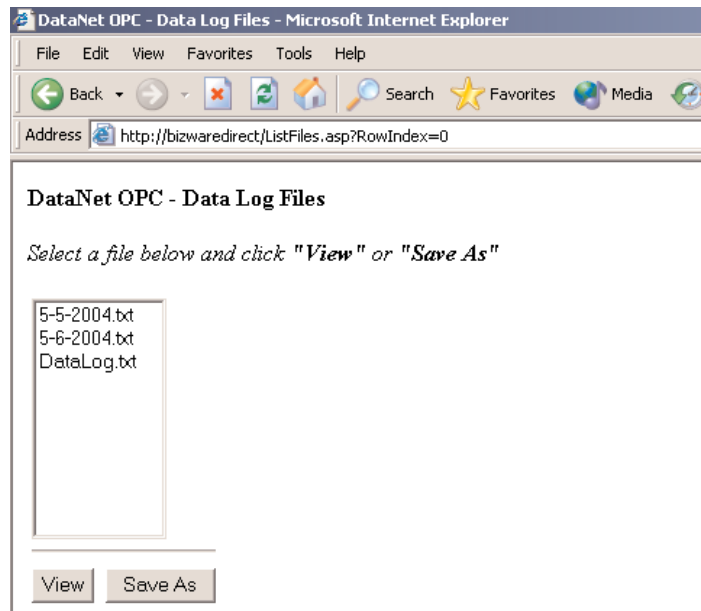
Data logging is configured and stored for each individual row. To view a row's historical data file, click the *Data Log* link to the left of the row, from the DataNet OPC Web page:

	Level	Pressure	Temperature	
Data Log	Tank 1	214 ft	34.3 psi	93 F

Configure... Help

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The DataNet OPC - Data Log Files page, similar to the one below, will open:



Select the desired file by clicking on the filename.



Note: *New files are created as often as specified by the user during the data-logging configuration. For more information on how to setup historical data logging, please refer to "Row-Logging Configuration," in section 5.4.*

Click *View* to open and/or print the file. Click *Save As* to save the file to a disk, CD or hard drive. You will be prompted to specify a location in which to save the chosen file.

Click the *Return to DataNet OPC* link to return to the main data-presentation Web page.

7.0 DataNet OPC Server

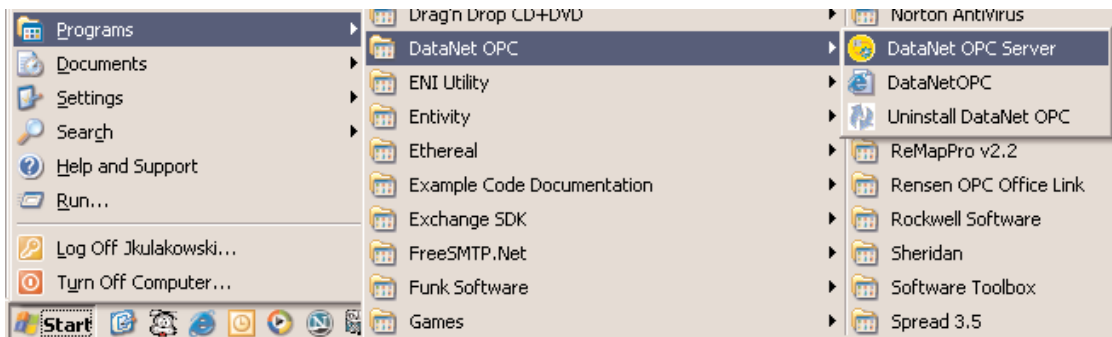
OVERVIEW

The DataNet OPC Server's primary function involves communicating with an OPC server to collect raw industrial data. DataNet OPC then translates the data into useable information, which can be displayed on a live Web page and recorded into text files for historical purposes.

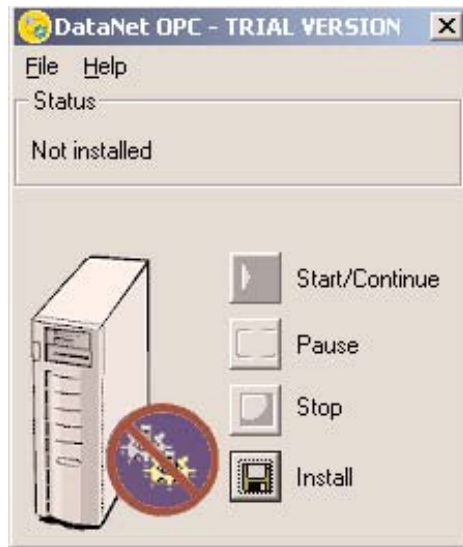
7.1 Installing Service

The DataNet OPC Server must first be installed and running in order for it to operate without user intervention. Installing the Server is a simple process:. First, locate the DataNet OPC Server by going to:

Start -> Programs -> DataNet OPC -> DataNet OPC Server



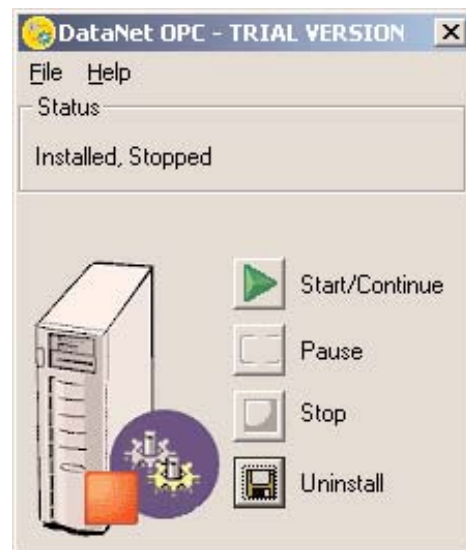
The DataNet OPC Server window will open.



Click *Install*, and the installation of the DataNet OPC Server will begin. When the installation is finished, the DataNet OPC Server window will update, showing a Server Status of *“Installed, Stopped.”*



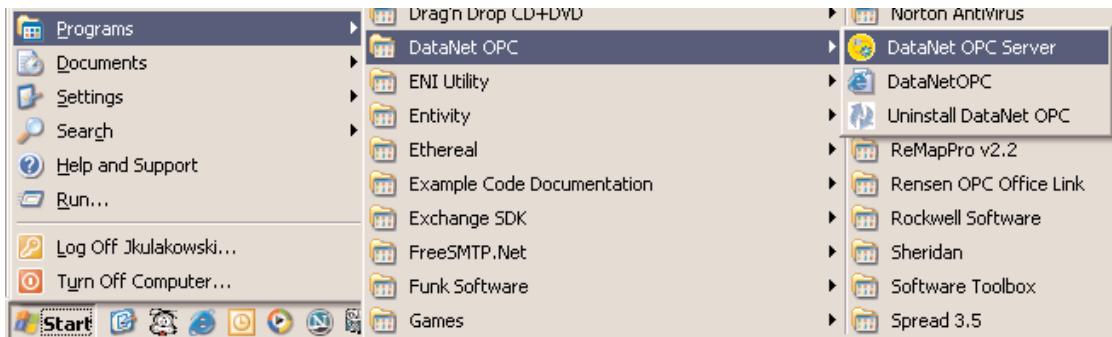
Note: *Installation does not start the DataNet OPC Server. For instructions on starting the Server, please refer to “Running Service,” in section 7.2.*



7.2 Running Service

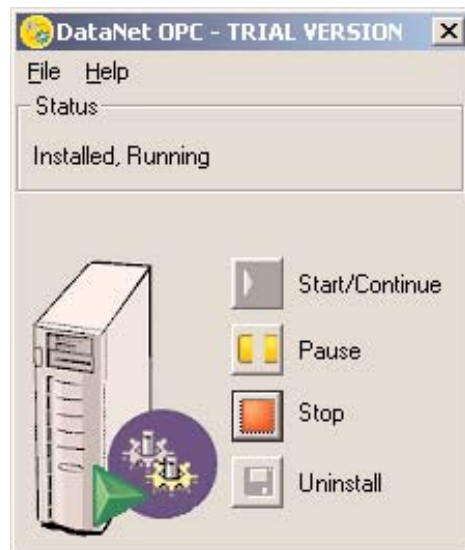
Once the DataNet OPC Server has been installed, it must be activated in order to display live data on the DataNet OPC Web page. If the DataNet OPC Server window is not open, go to:

Start -> Programs -> DataNet OPC -> DataNet OPC Server



The DataNet OPC Server window will open, showing the Server Status as “Installed, Stopped” (assuming DataNet OPC has been installed but is not already running).

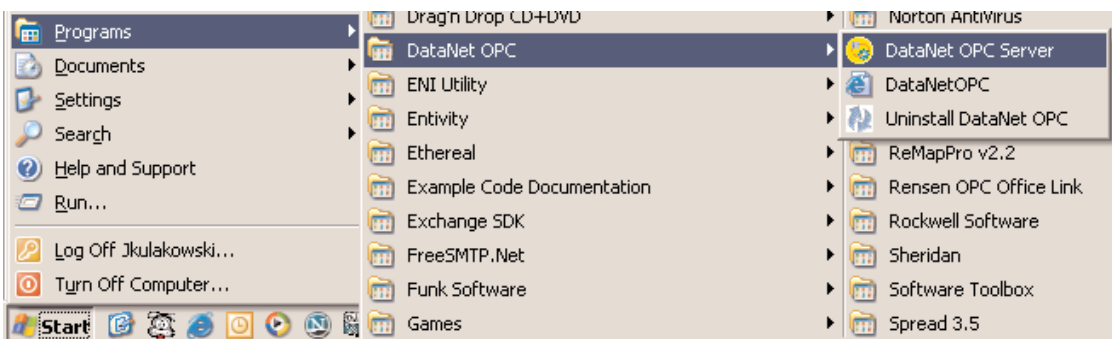
Click *Start/Continue*. The DataNet OPC Server window will update, showing a Server Status of “Installed, Running.”



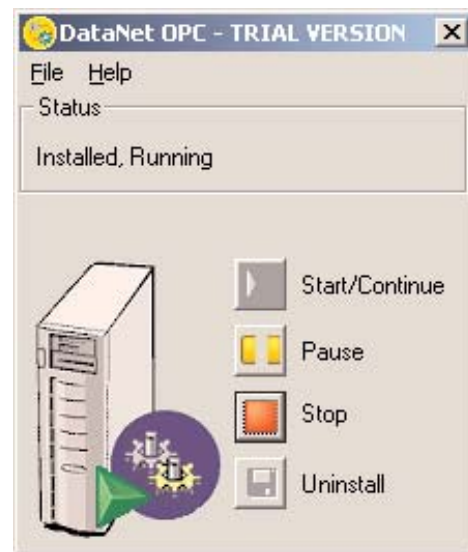
7.3 Pausing

Pausing causes the DataNet OPC Server to stop sending live data to the Web-presentation page. If DataNet OPC has been configured to log historical data into a text file, the data logging will not continue. The pausing feature can be used for security purposes, when making configuration changes and updates, or anytime Web presentation is not desired. To pause the Server, first open the DataNet OPC Server window. Go to:

Start -> Programs -> DataNet OPC -> DataNet OPC Server



Assuming the DataNet OPC Server is currently running, the DataNet OPC Server window will display a Server Status of “Installed, Running.”



DataNet OPC User Manual

Click *Pause*. The DataNet OPC Server window will update, showing a Server Status of “Installed, Paused.”



The Server is now paused. Live data will not be displayed on the DataNet OPC Web page until the Server is restarted.

To restart the DataNet OPC Server, click *Start/Continue*.



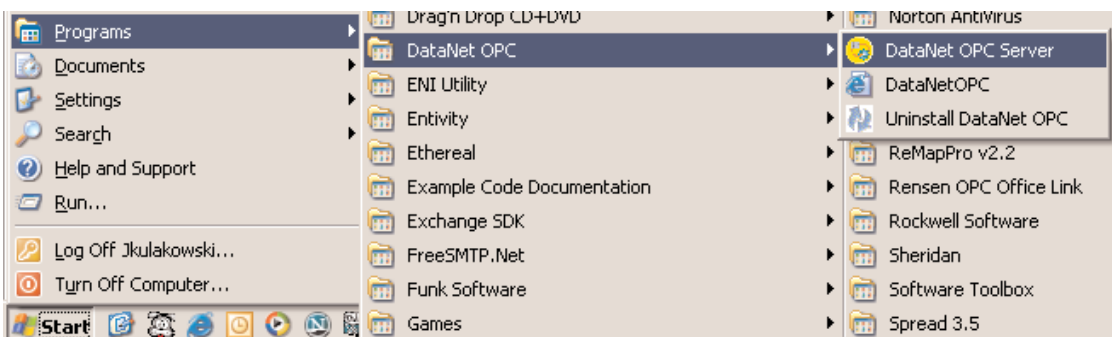
Note: Pausing halts Web presentation of live data and stops the Server from logging data to a text file. To completely stop the Server from running, please refer to “Stopping,” in section 7.4.

7.4 Stopping

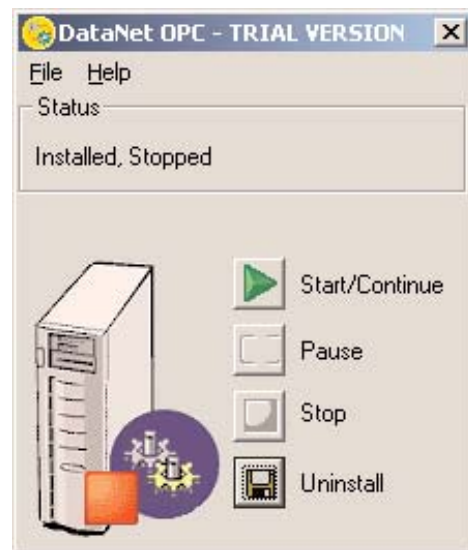
Stopping the DataNet OPC Server will shut it down completely. All Web presentation and data logging will end. The Server must be stopped before it can be uninstalled.

To stop the Server, the DataNet OPC Server window must be open. To open the Server window, go to:

Start -> Programs -> DataNet OPC -> DataNet OPC Server



In the DataNet OPC Server window, click *Stop* and the DataNet OPC Server window will update, showing a Server Status of “Installed, Stopped.” The Server is now stopped and no data will be displayed or stored until the Server is restarted.

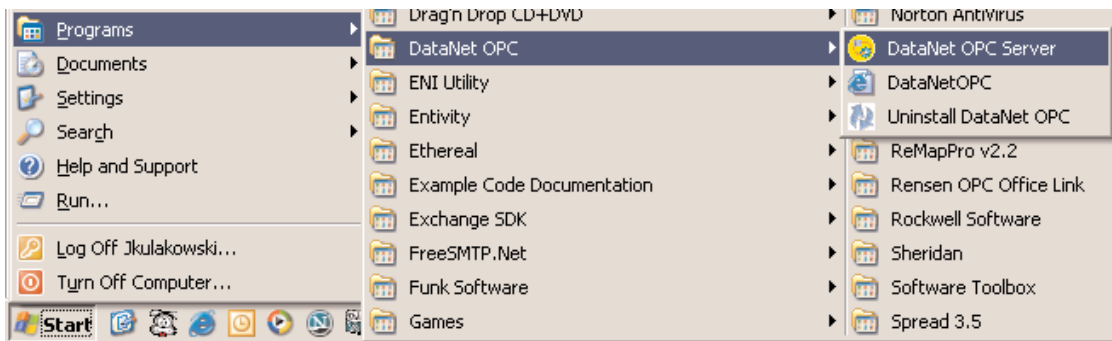


7.5 Uninstalling

Occasionally, or for troubleshooting reasons, it may be necessary to uninstall the DataNet OPC Server entirely.

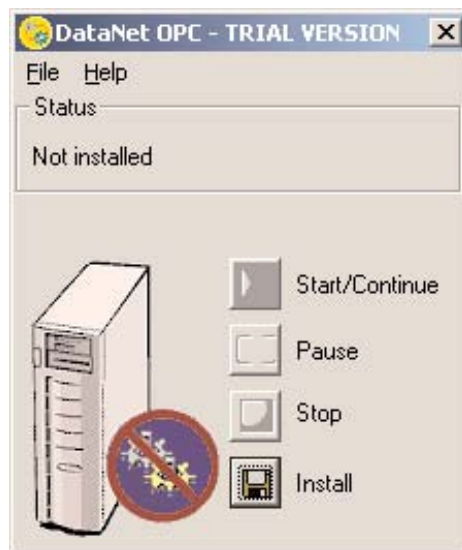
To uninstall the Server, the DataNet OPC Server window must be open. If the DataNet OPC Server window is not open, go to:

Start -> Programs -> DataNet OPC -> DataNet OPC Server



In the DataNet OPC Server window, click *Uninstall*.

This DataNet OPC Server window will update, showing a Server Status of “Not Installed.”



8.0 Troubleshooting

Problem	Recommended Solutions
Think & Do: Think & Do 5.4 OPC Server fails when viewing page	<ul style="list-style-type: none">● Obtain the latest patch from Entivity
Server: Trigger changed from 0 to 1 but it did not log data	<ul style="list-style-type: none">● Try allowing time in between trigger changes
Server: Using IIS and DataNet OPC pages do not appear	<ul style="list-style-type: none">● Restart IIS and configure security so that browsers have the permissions to view the page
Web Page: Cannot view page in Internet Explorer 4.0	<ul style="list-style-type: none">● DataNet OPC requires Internet Explorer 6.0 or higher

Please visit us at: www.bizwaredirect.com, for the latest updates in troubleshooting tips.