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**Industrial Data**  
The Latest News in Industrial Automation

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**BizWareDirect** offers affordable, easy-to-use data-management software solutions that increase efficiency in automated facilities. BizWareDirect's software applications make data more useful and more accessible throughout all organizational systems, from the plant floor to the front office.

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## News from BizWareDirect

### Join the BizWareDirect Tech Team for Free Online Training Seminars

Join us from the comfort of your own desk on July 27, from 2 to 3 p.m. (EST), for a free online training seminar which will cover the basics of DataLynx data-logging software. During this training session, BizWareDirect and technology partner AutomationDirect will show you how to easily configure DataLynx to poll PLCs where no Ethernet connection is available, allowing you to collect, view and store data from any Modbus serial-enabled device using a modem.

The DataLynx seminar is part of a series of training sessions, sponsored by AutomationDirect, which highlight the BizWareDirect product showcase. As one of our most valued industry partners, AutomationDirect often collaborates with members of our team in product development and support. A leader in the industry, AutomationDirect is a direct seller of automation and industrial control products such as PLCs, sensors, pushbuttons, AC drives/motors, enclosures, operator interfaces, and much more.

To register for the DataLynx seminar, or to learn about other hardware and software training opportunities, visit AutomationDirect's Web Seminar homepage at <http://automationdirect.raindance.com/iccdocs/index.shtml>. To find out about other training sessions developed exclusively for BizWareDirect's software applications, make sure you visit our technical training page often at [www.bizwaredirect.com/training.htm](http://www.bizwaredirect.com/training.htm).



## In the Headlines

### Predictive Maintenance Replaces Preventative Maintenance

Despite advances in automation technology, most plant maintenance is still done the old fashioned way – wait for something to break, then fix it. This could be due to the expense associated with the alternative, preventative maintenance, which often means throwing away good equipment because a manual says that after so many hours it “should be” replaced. Unfortunately, the cost of doing things the old way can be detrimental, if the piece of equipment that breaks causes a shutdown or an injury to personnel.

Luckily, there is a better way to manage your assets. *Predictive* maintenance, as opposed to *preventative*, allows you to monitor your equipment and determine how well it is performing, based on trends in logged data. It reveals the ways in which equipment is degrading or wearing. This allows you to use industrial equipment longer, while still replacing it before a major breakdown causes downtime or injury.

Predictive maintenance sounds very complex, but the process is really quite simple. First, place sensors on pumps, valves, motors and other industrial equipment. Next, start collecting as much operational data as you can. Log things like temperature, speed, moisture, turbidity, quality, color, etc. Finally, monitor the data and look for trends, constantly measuring and analyzing as many things around the process as possible. The more you watch, the more you will learn, and eventually you will observe trends that will allow you to predict and control your process. Looking at temperature, for example, it can become obvious when a motor needs to be replaced. As long as the housing of the motor’s bearing remains within an acceptable temperature range, the motor is deemed healthy and running appropriately. When that temperature rises outside a certain range, however, it can signal too much friction. This indicates that something is wrong with that bearing and the motor should be replaced before real damage occurs.

The more data points or measurements you can plot, the more you will begin to observe about your processes. Over time, you will be able to make better decisions, knowing when it is time to replace equipment, and figuring out ways to make the process even more efficient. Predictive maintenance will save you time and money, and recent advances in data-collection and wireless technology have made this type of asset management even more affordable than ever. This makes increased efficiency a very practical reality, even for small plants with low budgets, and niche industries which rely on mobile, remote or multi-point operations.

*From "Driving Data Node to Node," By Ellen Fussell Policastro, ISA's In-Tech magazine, June 2005. For full-text article, please see:*

<http://www.isa.org/InTechTemplate.cfm?Section=InTech&template=/ContentManagement/ContentDisplay.cfm&ContentID=44477>

### Survey Forecasts Rapid Growth in OPC Usage

OPC usage in the manufacturing sector is expected to multiply over the next five years, according to a recent survey conducted by ARC Advisory Group. The installed base of OPC is expected to increase at every plant level, with some of the greatest changes taking place at the sensor, subsystem and enterprise levels. OPC usage is also expected to multiply in the area of production management. At each of these levels, OPC is expected to effectively increase by more than 100 percent.

Currently, close to 10 percent of respondents report using OPC technology at the sensor, enterprise and subsystems levels; while close to 25 percent report using it in production management. In five years, those numbers are expected to near 20 percent at the

sensor level and 30 percent at the enterprise and subsystems levels. Usage is expected to hit almost 50 percent in production management.

From "OPC Connects the Manufacturing Enterprise," By Craig Resnick and Dick Slansky, ARC Advisory Group, ARC Insights, October 6, 2004. To download this whitepaper from Plant Services, go to: <http://www.plantservices.com/whitepapers/2005/27.html>. For information on obtaining ARC Insights, please see: <http://www.arcweb.com/advisory/cas/insights.htm>



## Joey's Tech Tips

### Bring Yourself up to Speed on PLC Programming

I recently worked on a project, using PLC-programming software, where the code was running so fast that I couldn't see changes in the data. To get around this problem, I used a histogram. This particular PLC-programming software package came with one built right into the software. This instant utility allowed me to look for quick changes in the variables. I tweaked the histogram so that it polled data every 0.1 seconds. This allowed me to see immediate changes in the data. If you ever find yourself in this situation, bogged down with code that is running too fast, try using histograms or charts to see immediate changes in the variables.

*Have a tech-related question? Send it to Joey at [enewsletter@bizwaredirect.com](mailto:enewsletter@bizwaredirect.com).*

## On the Lighter Side ...

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**"We rarely back up our data. We prefer not to keep a permanent record of everything that goes wrong around here."**