PROFINEWS

PROFIBUS & PROFINET news from around the world

PDF generated November 02, 2015 by Kalin's PDF Creation Station WordPress plugin

Table Of Contents

To Improve is to Change...

by Michael Bowne - Monday, November 02, 2015

http://profinews.com/2015/11/to-improve-is-to-change/

... To be perfect is to change often. -Winston Churchill.


Michael Bowne

With each PROFINEWS edition, the news changes and becomes ever more engaging. For example, later this month at the SPS/IPC/Drives tradeshow in Nuremberg, prepare for some exciting announcements from PI. In meantime, I want to point out a few highlights in this issue.

The first is the interest we're seeing for PROFIBUS and PROFINET from multi-national, billion-dollar companies. Just in Brazil alone, a major beer brewer and a large energy company are investing in the technologies. To find out whom though, you'll have to read the article! It is a fascinating shift to witness and be party to.

When end-user companies standardize on a network technology, it goes straight towards their bottom line. Vendors using the standard compete for the end-user's business and innovate accordingly. Everybody wins. Picking the right technology is key.

For a long time now, the talk around IIoT has been about moving data upward and outward from the manufacturing environment. But once that information is analyzed, ***changes*** can only be implemented if the manufacturing environment is ***flexible***. That is why, for the past few months we've been talking a lot about using PROFINET not just as a manufacturing automation network, but also as a network within the manufacturing machines themselves. PROFINET enables ***flexible machine concepts*** through a myriad of features. Again, you'll have to read the article to find out more!

Thank you for taking the time to read this issue of PROFINEWS, there's a lot more than what's been

highlighted here.

–Michael Bowne
Director of Technology Marketing
PI North America

IIoT in Reverse

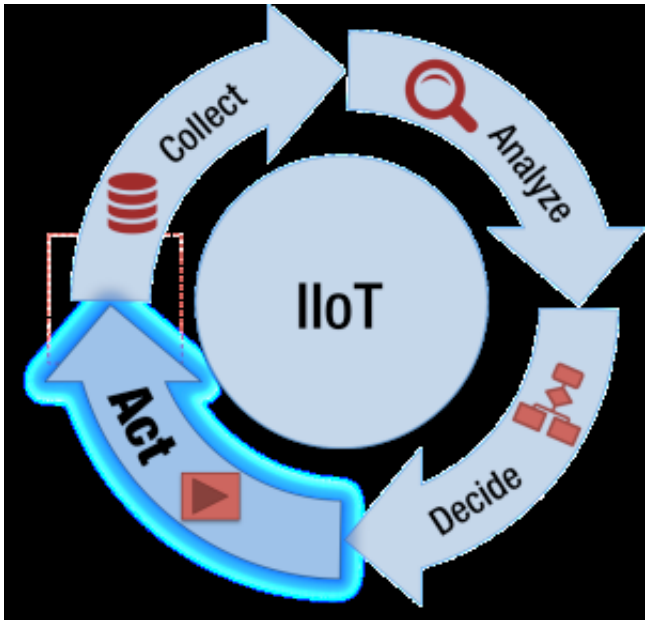
by Michael Bowne - Monday, November 02, 2015

http://profinews.com/2015/11/iiot-in-reverse/

Most of the talk surrounding the Industrial Internet of Things focuses on moving data upward and outward. Equally important is enabling your factory to handle incoming data.

When it comes to your factory's ability to handle data, there are two use-cases: process improvement and process agility.

Looking first at process improvement, after completing data collection, analysis, and decision-making, the final step involves taking action. Doing this entails taking data and feeding it back into the manufacturing environment to improve the process.



Since improvement means change, the question is: What does change require? The answer: flexibility. Manufacturing machines need to be flexible and modular so that tweaks to the production process can be implemented easily.

Take, for example, a beverage maker. After analyzing some data, this company recognizes a previously unknown bottleneck (no pun intended) in its process. The solution involves slightly rearranging the order of the steps in the recipe. If the responsible machine can be quickly reconfigured to handle this tweak, then everyone's happy. However, if the change is arduous, the ROI on such a tweak diminishes rapidly.

Machine flexibility includes the network to which it is connected. Network flexibility comes in many forms. This can mean flexibility in the cabling, as in, the network should support any topology such as line, star, tree, ring, and wireless. It should also support openness and web tools. This means not just creating a machine automation network, but one to which standard Ethernet devices can also be connected. In other words: an open cable. This allows for access to acyclic data via the devices'

integrated web servers.

https://www.youtube.com/watch?v=jUOgAvs3O5s

It should also support simple addressing. Within Profinet, logical device names can be assigned during engineering, with the PLC programming the station addresses. On the flip side, if the PLC is taught the topology of the network, it can automatically assign the station names and addresses. This is a powerful feature supporting machine flexibility. And remember, process improvement can only be achieved efficiently if the machines are modular and the network is adaptable.

The second use case to consider involves process agility. One aspect often glossed over in discussions surrounding IIoT is the good old-fashioned Internet itself. As the e-commerce industry crosses the $1.5 trillion threshold, people are becoming ever more accustomed to doing business online. It is a perfect example of data feeding into a manufacturing environment. While the objectives for this use case are different, the requirement, however, is the same: flexibility.

The oft-quoted goal of Industrie 4.0 is the ability to achieve a lot size of one. In other words, having the ability to manufacture one widget with the same efficiency as 1,000 widgets. To achieve this in modular plants, PLCs need to detect new machines or parts as fast as possible. With Profinet, the Fast Start-Up function enables the identification of stations in less than 500 ms, maximizing agility.

To further understand the importance of feeding data into the manufacturing environment, let’s look at the example of a car manufacturer. Similar to the beverage bottler, let’s say this manufacturer analyzes some Big Data and notices that sections of his line are still consuming energy even when those sections are not producing anything. While only loosely coupled to the process itself, if he were able to feed that data back into the system, he might be able to cut costs (utility bills) during those periods. With PROFIenergy, the network enables his robots to go into a sleep state similar to a laptop. When production resumes, that section of the line starts running again.

These use case scenarios should help make it clear that IIoT is not just about getting data out of plants, but also getting data back into plants. It’s a cycle. Whether the use case is improvement, agility or even energy efficiency, flexibility is a necessity. This means machine modularity coupled with network adaptability.

High Demand for PROFI- technologies in Brazil

by Michael Bowne - Monday, November 02, 2015

http://profinews.com/2015/11/brazil/

Ambev Hosts Event

Ambev is the biggest brewery in Latin America and the fifth biggest in the world. It is the 'Bev' in AB-InBev, the world's largest brewer with 25% market share. The company has 34 breweries and factories, two malting plants, more than a hundred direct distribution centers, five centers of excellence and more than 34,000 employees in Brazil. Ambev University hosted a technology meeting organized by Profibus Association Brazil earlier this year.

Ambev University

The morning consisted of technical presentations addressing PROFIBUS DP/PA including network installation and also an overview of PROFINET. In the afternoon, member companies of the Profibus Association Brazil presented practical demonstrations for small groups.

The meeting was a test to be validated by the automation corporate sector of Ambev and possibly will be held in all the company's units.

Raizen Cooperation


Fabiano André Lourenço of Raizen

Raizen is one of the world's largest sugar and ethanol producer, and the fifth largest company overall in Brazil. The company has established a cooperation with the Profibus Association Brazil. The company standardized on PROFIBUS after analyzing several technology and automation options. "This caused a demand for service, training and maintenance," says Fabiano André Lourenço, Automation and Integration Manager of Raizen.

An agreement was made to exchange knowledge between Raizen and the Profibus Association Brazil for project analysis, facilities, and issuing of technical guidelines and technical reports. The goal is good operation and plant reliability for their PROFIBUS networks. Raízen has 23 units in operation. According to Lourenço, PROFIBUS technology is now used in about 40% of the instrumentation field and Intelligent CCMs in industrial areas. "The technology is applied today throughout the industrial process," he says.

New Committees

The Association also created a set of committees to further information dissemination in specific areas. They are:

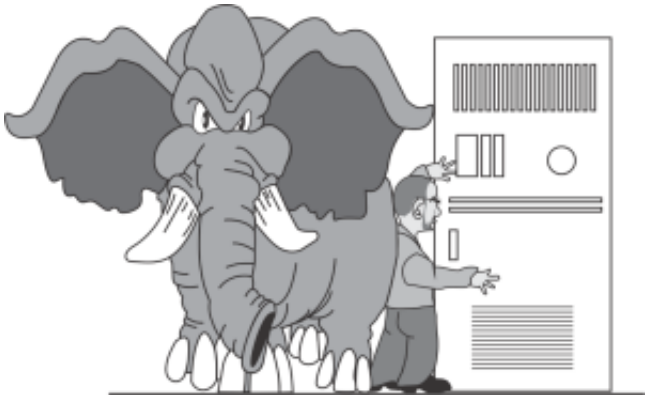
Safety Bus Director - Márcio Venturelli, DLG Automação Industrial
PROFIBUS DP/PA Director - Fabrício Andrade, Endress + Hauser
PROFINET Director - Márcio Roberto dos Santos, Siemens

Is Profibus or 4-20mA More Accurate?

by Carl Henning - Monday, November 02, 2015

http://profinews.com/2015/11/is-profibus-or-4-20ma-more-accurate/

When it comes to transmitting process variables, 4-20 mA is by far the most popular method. Digital fieldbuses such as PROFIBUS, PROFINET, or Foundation Fieldbus,



however, are said to be more accurate and generally better than 4-20 mA. What isn't discussed very often, however, is the extent of how much more accurate they are. This topic is the elephant in the control room.

Although it's generally accepted that the validity of a signal degrades with 4-20 mA, many individuals disregard that fact, or at least fail to recognize the extent of the degradation. That means that the elephant in the room that everyone is ignoring is huge!

Introduction

The 4-20 mA technology dates back to the 1950s. It has a number of beneficial properties:

- Easy to use
- Not subject to line losses like voltage signals
- Low cost
- Resistant to electrical noise

When it was released, it was revolutionary and almost totally replaced pneumatics.

However, it is 1950s technology and it has its limits and pitfalls. Most users work around some of these on a daily basis. And there are other issues that some users simply ignore. Accuracy is one of these.

All field devices today use digital technology. This means that 4-20 mA devices must convert the internal digital value into an analog value to transmit it, and then convert it back to digital at the controller. As is documented below, accuracy can be lost during the conversions as well as during the transmission.

Total possible error = measurement error + transmit error + transmission error + receive error

The transmit error

This error occurs when converting the digital value into 4-20 mA, and depends very much on the design of the instrument. At first, the stated accuracy of ±0.02 mA (Note 1) sounds small enough to be almost insignificant. But when calculated for a level transmitter and a 20 meter range, it translates into a maximum error of ±25 millimeters.

Here is how this calculation is derived: 0.02 mA / (20 mA - 4 mA) = 0.00125. When this value is multiplied by the full range of the instrument (20 meters), the result is 0.00125 X 20 = 0.025 meters, which is 25 millimeters.

The transmission error

The transmission error occurs during the transmission of the signal. It is very hard to determine since it is very dependent on the wire used and the amount of induced noise on the line.

The longer the run and the greater the electrical noise, the more effect the transmission will have on the overall error. Since this is so installation-dependent, we will ignore it for this discussion. However, the end user should not forget about it, because it can cause errors. Also, since it can vary over time, it may be hard to discern.

One situation that makes this worse is the use of variable frequency drives (VFDs). VFDs did not exist back in the 1950s when 4-20 mA was developed and they are well known for generating a lot of electrical noise.

If the devices are on all the time, then the noise is constant and can be 'tuned out' of the 4-20 mA loop. However, if the motors are turned on and off, the noise floor will move up and down and will not be able to be tuned out easily.

The receive error

When the 4-20 mA signal is converted back to digital after transmission, a receive error can occur, depending on the input card used. For example, with a 10-bit 4-20 mA input card, the receive error is ±20 millimeters on a 20-meter range.

Here is how the calculation is derived: 0 bits gives 2^10 values =1024. The range is 20 meters, so each division is
20 / 1024 = 0.0195 meters, which is 20 millimeters. Therefore, missing one division results in the ±20 millimeter measurement error.

Total possible error

As the formula above shows, the total possible error will be: measurement error + transmit error + transmission error + receive error. We know the measurement error is five millimeters. Therefore, the total error here is 5 + 25 + ? + 20 = 50 millimeters. This is ten times the measurement error!

Tuning the loop

Tuning the loop can help this, but there can be drift over time. Thus, the loop must be re-tuned regularly, which becomes a long-term maintenance issue and cost. Also, some of the unknown transmission error could be variable during the day. As mentioned above, the prime example of this is the use of VFDs. This noise cannot be tuned out.

A real-world processing plant

From the example, we see that attaching a five-millimeter accurate field device to a 10-bit 4-20 mA input card increases the error by up to ten times!

What happens if an instrumentation technician either does not put the cover back on the instrument or does not tighten the lid, or if the installation has a seal problem? As anyone who has worked in the industry knows, this is not uncommon. The result is water ingress.

How does water ingress affect 4-20 mA?

Clean water has little effect. Unfortunately, the rain water that gets into the instrument is either not clean or at least will not stay clean.

We performed an interesting experiment by taking some rain water that had been sitting in a wheelbarrow for a few weeks and pouring it into a 4-20 mA device while it was measuring level. (Note 2)

It was measuring 16.23 mA before the water was added. It quickly went up to 18.55 mA after adding the water. That is an 18.55 - 16.23 / 16 * 100 = 14.5 percent increase in value. If that was on the 20 meter example above, it would translate into 2.9 meter error!

How would one ever know? If it was a hot summer, the water would dry up and the value would go back down. At the next rain, the value would change again. The amount of rust and chemicals in the water would also have an effect. The process variable would have wide fluctuations in accuracy, affecting the process – and there would be little chance of ever catching it. (Note 3)

When we tried the same experiment with a PROFIBUS PA device, the water had no visible effect on the process variable or on the network. Considerable time (about one year) must pass before it would have a measurable effect on the network.

This can also be seen with PROFIBUS devices (Note 4) in the field. With a little bit of water over time, the waveform was far from ideal, but the network functioned and there was no loss of accuracy. When there was a lot of water, there quite a negative impact on the network. Although the PVs were, for the most part, transmitted, the error rate was high. However, there was no loss of accuracy. Thus, in summary, water can bring down the network, but it never silently removes accuracy from the process. If any sort of monitoring device is used, it will detect the problem.

What about scaling?

Related to the accuracy issue is the scaling issue. 4-20 mA instruments have to be scaled in at least two places (instrument and PLC) and often in HMI as well. This presents an opportunity for error. In this case, a major error will probably be detected, but a minor one may slip through the human verification process. In addition, the scaling and the verification take time to perform.

In the fieldbus world, this is not required – the instruments only need to be scaled once in the field device and the value is transmitted onward.

And what about space?

Cabinets are expensive. The bigger the cabinet, the more expensive it is. In this case, 4-20 mA is an elephant in terms of space. It requires a lot of wires and cabinet space. Fieldbuses take up much less space and have fewer wires, saving on both capital costs and wiring costs.

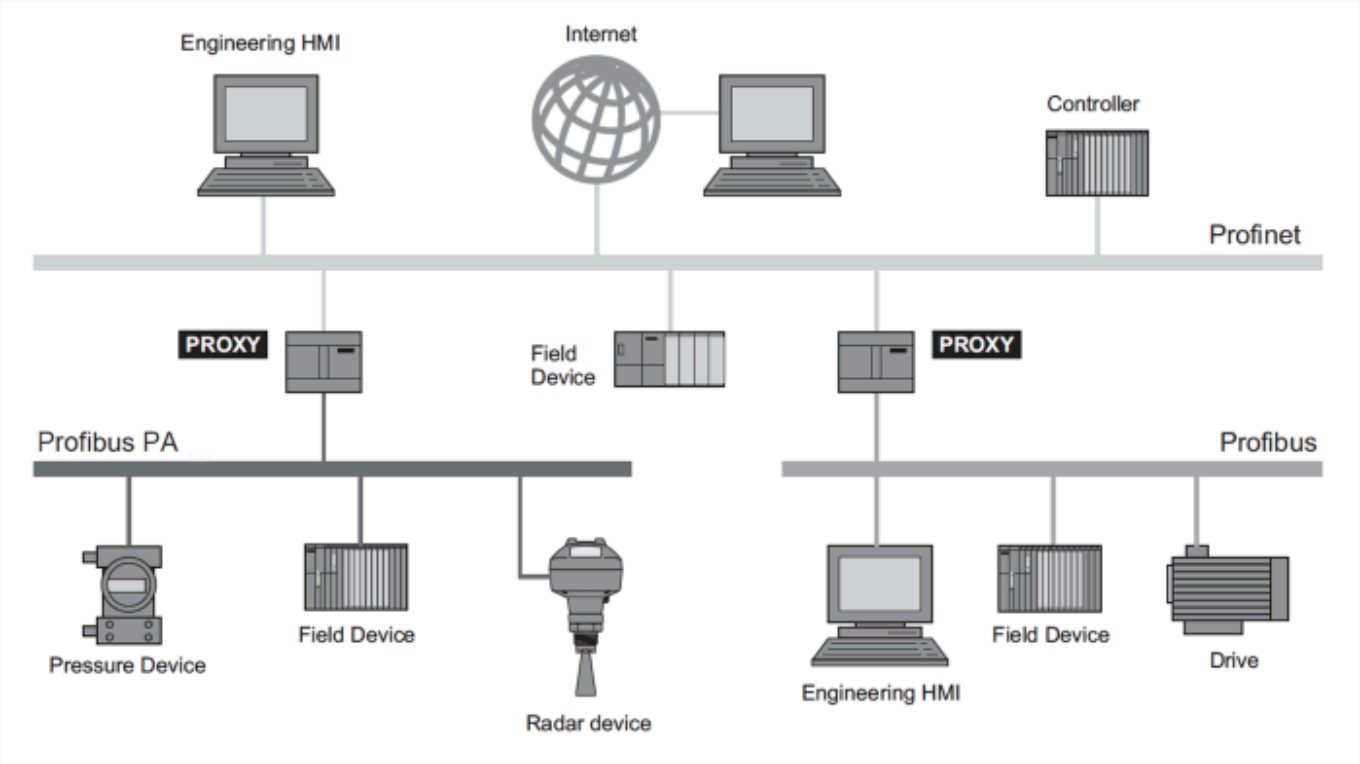
Conclusion

4-20 mA technology is the elephant in the control room for several reasons:

- It can increase measurement error by a factor of up to ten
- It requires loop calibration to help reduce the above error
- It was never designed to live with VFD noise
- Its accuracy is affected by water
- It needs to be scaled up in three places, which can lead to errors
- It requires significantly more cabinet space and wires

The problems and pitfalls of 4-20 mA are rarely discussed. Most people ignore the loss of accuracy, saying, "Oh, it can’t be that much!" But, as we have seen, it is! Some people believe that water ingress does not affect 4-20 mA because, after all, it still works. As we have seen, it does keep on working but with ridiculously high error rates.

To benefit from the accuracy of the instrument, a fieldbus such as PROFIBUS or PROFINET must be used. Good old 4-20 mA is really not so good after all. There is a better way:



James Powell, Senior Product Specialist, Industrial Communications, Siemens

Author of *Catching the Process Fieldbus: An Introduction to Profibus and Profinet.* Available as a free download here.

Notes

1 This value was taken from the SITRANS LR250 manual. However, it is typical for other 4-20 mA instruments.

2 The idea for this experiment was borrowed from Russ Muller, PlantWeb specialist, Emerson Process Control.

3 If should be noted that this problem can be avoided by proper installation techniques and putting the lids on correctly.

4 See "Troubleshooting PROFIBUS PA – A practical example," U.K. PROFIBUS & PROFINET User Conference, June 2008, or Chapter 9 of Catching the Process Fieldbus by James Powell.

Understanding PROFIBUS Diagnostics Part 3: Alarms

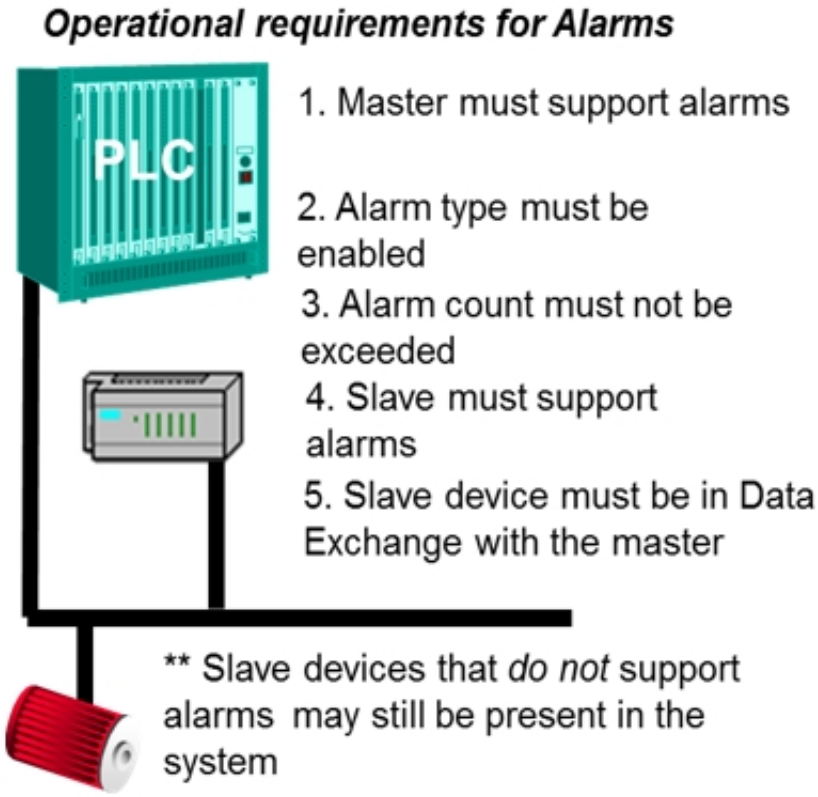
by Carl Henning - Monday, November 02, 2015

http://profinews.com/2015/11/understanding-profibus-diagnostics-part-3-alarms/

Editor's Note: This is the third of a series of tech tips that explain how PROFIBUS diagnostics work and how they can be used to make critical information available to a PLC or DCS. In Part 1 of this series, we showed the basic diagnostic mechanism that PROFIBUS uses. In Part 2, we looked at the coding of the extended Diagnosis. In this tip, we will see the basic alarm mechanism. In the 4th and final tech tip of this series, we will look at the details of alarm setup and coding.

PROFIBUS DPV1 Alarms are a special kind of extended diagnostic. Compared to normal extended diagnostics, Alarms require an additional acknowledgment "handshake" between the master (controller) PLC or DCS and the slave device.

In order for alarms to be operational within a system these conditions must be true:

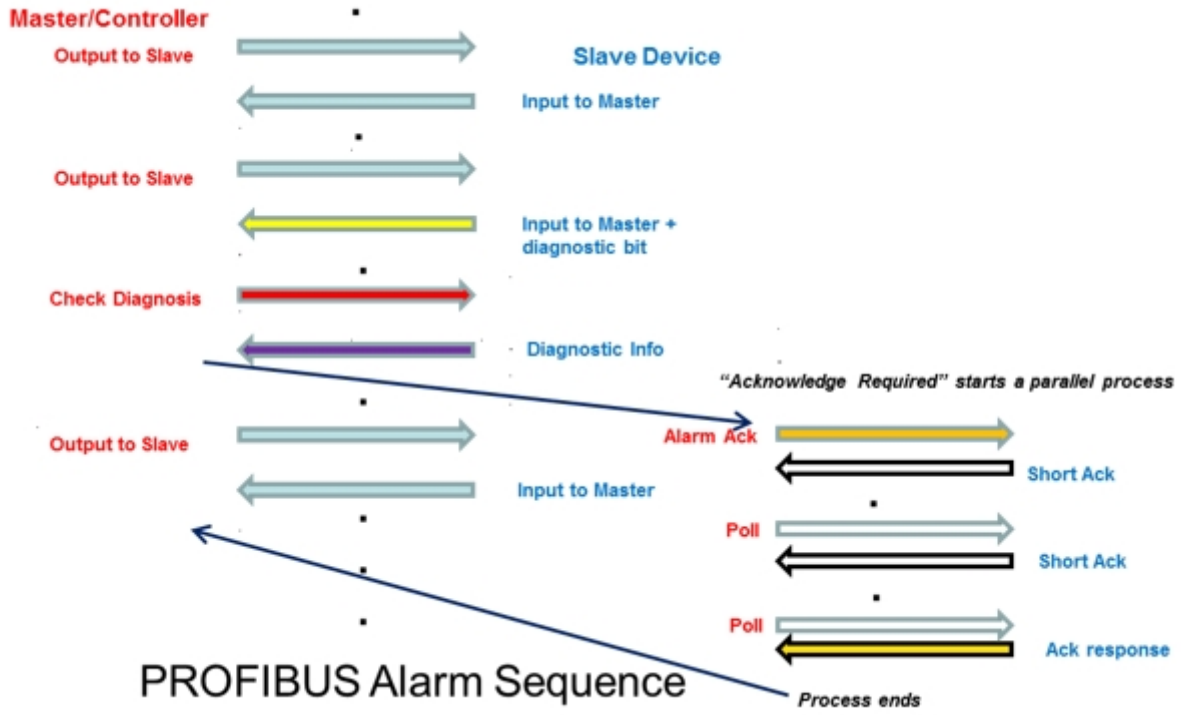


Many DPV1 slaves allow the master to specify whether the slave will return alarms requiring acknowledgment or diagnostic data with no acknowledgment. This is usually selectable as a parameter during setup of the slave. This parameter is defined in the GSD file of the slave and is selectable from the master's configuration tool.

The Alarm types that are specified by PROFIBUS and PROFINET International are Diagnostic, Process, Pull, Plug, Status, and Update alarms. In addition to the standard alarms, there are 94 Alarm codes that

may be used by device vendors to specify their own alarms. The vendor specified alarms are defined in the GSD file and in the device documentation.

Alarms are reported in a standard diagnostic telegram. (See part 2 of this series) Identifier and Channel related diagnostics remain the same for DPV1 as for standard DPV0. The Vendor Specific part of the diagnostic telegram is replaced by Alarm information. Alarm information returned includes: Alarm Type, Slot Number of the module with the alarm, Alarm Specifier, Add_Ack (acknowledge required), and Sequence Number to show which alarm or alarms from this module is/are being reported.



So why would PROFIBUS and PROFINET International go to such lengths to specify how alarms work? Alarms contain a lot of information about what is going on in your process. Vendors put in some very good features that report all sorts of information. Many devices support corrective/reactive maintenance, some support preventative maintenance and some even support predictive maintenance. However, if the application/control program does not take advantage of the information, alarms and diagnostics are worthless. It is the responsibility of the application engineer to use the information, not “hide” it.

PI and the device vendors give you the “possibility” to know what is going on, the application engineer still needs to take that information and report it from the application program.

We will discuss the details of Alarm encoding/decoding in the next installment of Understanding PROFIBUS Diagnostics.

John Swindall, PROFI Interface Center

IO-Link: Did You Know?

by Carl Henning - Monday, November 02, 2015

http://profinews.com/2015/11/io-link-did-you-know-10/

Did you know that over 100 members now belong to the IO-Link community?

IO-Link has established itself in the market faster than almost any other communication technology. At the market launch in 2009, there were 41 member companies to start. Now with the addition of Weiss Robotics in October, the 100th company has joined the member community. The company especially appreciates the ease of installation, parameter assignment, and fieldbus independence. For smaller companies in particular, it is not always easy to develop, maintain, test, and support all interfaces. Often, the effort and costs are out of proportion with the benefits. This is especially true when small quantities are involved. The fieldbus-neutral IO-Link standard is the ideal solution for linking products to different systems and controllers worldwide. The diagnostic possibilities offered by the intelligent link, such as new concepts for status-oriented maintenance, are another important aspect.

The current node counts also reflect the arrival of IO-Link in the market. Notarized statistics yielded that the number of IO-Link nodes in the field nearly doubled from 2013 to 2014 to almost 2.2 million. Incidentally: the member count has risen to 108 by the editorial deadline. The growth thus continues unabated!

IO-Link

Social Media

by Carl Henning - Monday, November 02, 2015

http://profinews.com/2015/11/social-media/

> Social media is not about the exploitation of technology but service to community.
> --Simon Mainwaring

PI provides a number of “Social Media” venues as service to the community of PROFINET and PROFIBUS users and beyond. This list provides an introduction to each type of PI media:

- The PROFIblog for news and opinion about PROFINET, PROFIBUS, Industrial Ethernet, fieldbuses, and automation. An informal media where news often appears first and opinion has an outlet. News from events like trade shows and training classes appears on the blog first. Some blog posts are a bit whimsical like the recent tie-in to “Back to the Future Day” with “Back to the PROFINET Part 2.”
- Twitter: @AllThingsPROFI, @PIChairman Everything you need to know about current PROFINET and PROFIBUS news, events, and applications in 140 characters or less. Tweets often link to details.
- LinkedIn groups: PROFINET, PROFIBUS & PROFINET Interactive forums where discussions can take place.
- Facebook: Profibus Profinet North America, PROFIBUS PROFINET International, PROFIBUS PROFINET South East Asia If you are on Facebook anyway, “liking” our pages will keep you up-to-date.
- YouTube: MinutePROFINET, The PROFIblogger, and PROFI-TV Three different channels with three different goals. The MinutePROFINET channel provides minute-long white board introductions to various aspects of PROFINET. The PROFIblogger channel is an eclectic mix of informal videos that appear on the PROFIblog. PROFI-TV has professionally filmed live-action and animated videos. You can subscribe to each of the three individually.

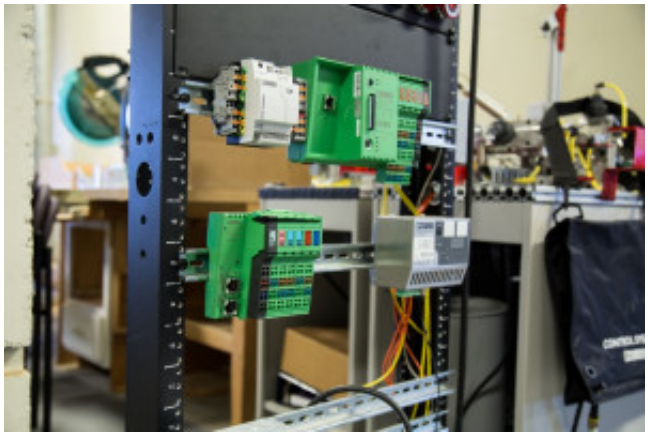
Member News: Phoenix Contact Assists Local College with PROFINET Kits

by Carl Henning - Monday, November 02, 2015

http://profinews.com/2015/11/member-news-phoenix-contact-assists-local-college-with-profinet-kits/

HACC, Central Pennsylvania's Community College, has become the first American school to join Phoenix Contact's EduNet program. EduNet is an international education network that brings together schools and industry in the field of automation technology.

Phoenix Contact and HACC officials announced the partnership on Oct. 5, 2015, during



the dedication of a new automation lab at HACC's Midtown Trade and Technology Center in Harrisburg. Phoenix Contact's contributions through the EduNet program include donating equipment for the lab. This gives students hands-on access to several Phoenix Contact ILC controller and PROFINET starter kits, the same type of equipment they might use once they graduate and work on the manufacturing floor.

Instructors will also receive a curriculum and free training sessions throughout the year. This includes the opportunity to travel internationally to attend a conference where they can network and exchange knowledge with EduNet teachers from other countries. Registration for the conference is free, courtesy of Phoenix Contact GmbH & Co. KG, of Blomberg, Germany, while Phoenix Contact USA will help cover the cost of travel.

Phoenix Contact and HACC previously collaborated on other science, technology, engineering, and math (STEM) education initiatives. Most prominently, they designed and implemented a Mechatronics Apprenticeship program in 2011. Over a four-year period, apprentices simultaneously work at Phoenix Contact while pursuing an associate degree in mechatronics at HACC, at no cost to the apprentice.

In 2013, the Commonwealth of Pennsylvania's Apprenticeship and Training Council and the U.S. Department of Labor Office of Apprenticeship recognized Phoenix Contact as an official apprenticeship and training sponsor and the first in the state to offer a mechatronics apprenticeship program. This means the program is available to any company that wants to start its own mechatronics program using the Phoenix Contact/HACC program as a model.

“As Central Pennsylvania looks to increase manufacturing jobs, STEM education is the keystone to developing a workforce with the skills to fill these jobs,” said Jack Nehlig, president of Phoenix Contact USA. “Our mechatronics partnership with HACC is a great example of STEM in action. To date, six students have graduated, and we have two more currently enrolled. We hope HACC is the first of many American colleges and universities who take advantage of the learning and networking opportunities EduNet can provide.”

Regional News

by Michael Bowne - Monday, November 02, 2015

http://profinews.com/2015/11/regional-news/

Successful PROFIsafe Workshop

At the end of September, PI (PROFIBUS & PROFINET International) and Murrelektronik hosted a PROFIsafe Workshop at the Training Center of Murrelektronik. Both PI and Murrelektronik were impressed by the strong interest in PROFIsafe, with far more than 70 participants and10 exhibitors taking part in the event. See the video for a recap:

https://youtu.be/P8tgpJ7Pcvg

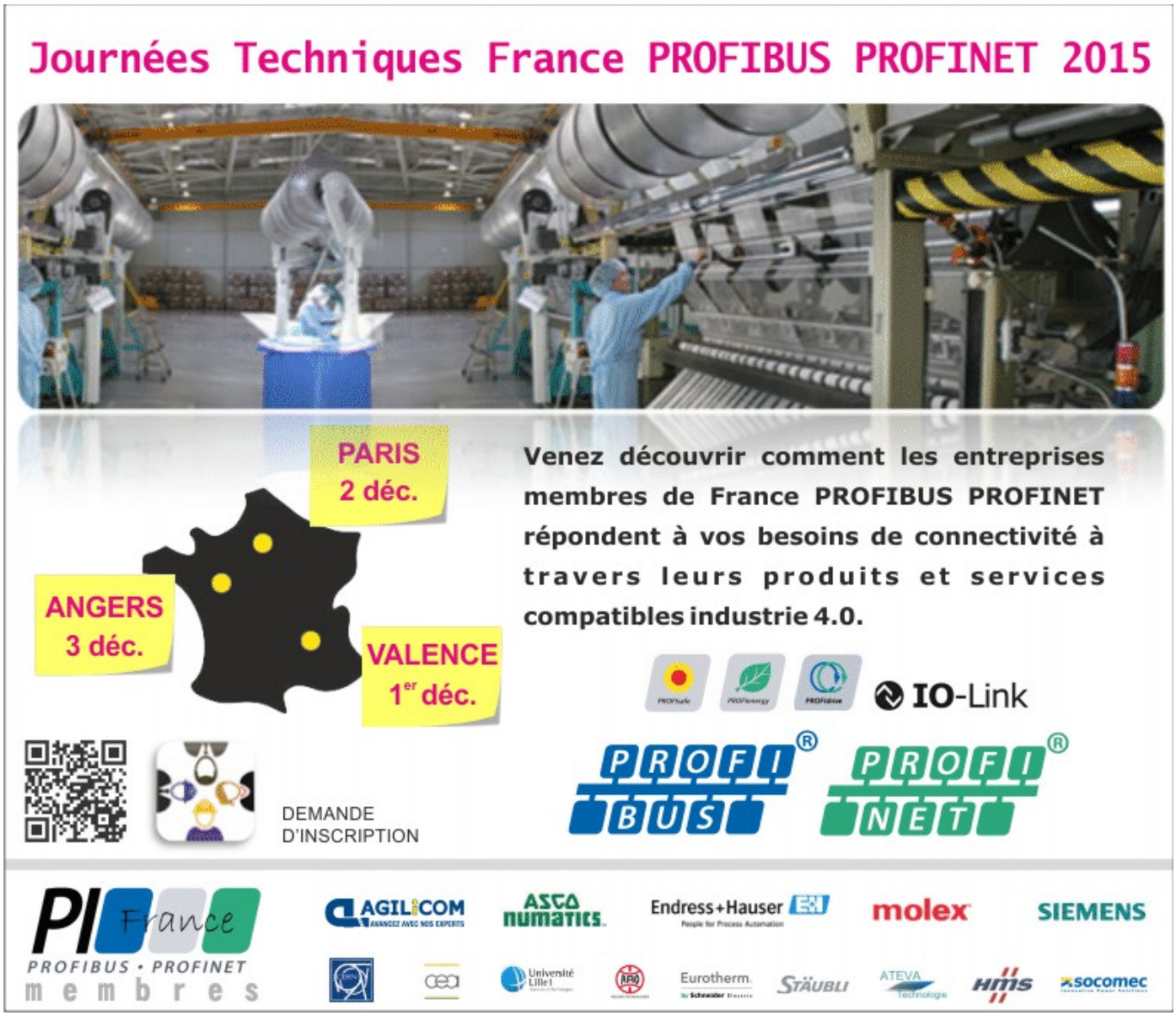
IO-Link Workshop Successes

There was great success for the Italian debut of the IO-Link User Workshop, the group promoted by the IO-Link Consortium in order to spread IO-Link knowledge. The event, which took place on October 20th at the Scientific and Technological Park Kilometro Rosso in Bergamo, near Milan, saw the participation of almost 200 people. Click the gallery:

On September 9th in ?ód? - an important industrial city in the center of Poland - a similar IO-Link workshop was organized by the local PICC/PITC - INTEX from Gliwice. The workshop was attended by over 80 engineering and maintenance professionals from production facilities and system integrators active in a variety of industries.

France

PROFIBUS France is hosting three one-day events across the country in early December. To learn more, go to: profibus.fr



Australia

How can the Australian government and industry work together to ensure our continuing competitiveness in the globalized environment of today? What can companies do to embrace new ideas in Industry Automation from global sources – and make them work in their local operations?

These questions, and more, will be answered on 25 May 2016, at the Profibus & Profinet Global Forum and the Automation Innovation Summit in Sydney.

Click here to learn more.

Product News

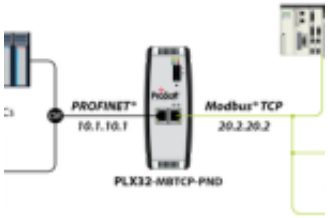
by Michael Bowne - Monday, November 02, 2015

http://profinews.com/2015/11/product-news/

Click the headlines to read more.

New PROFINET Master Simulator

HMS' PROFINET Master Simulator is an easy to use software for data exchange with PROFINET Slaves of many suppliers. The PROFINET Master Simulator can exchange data with many PROFINET Slaves even without a PROFINET Master. Furthermore the PROFINET Master Simulator also processes GSD-files as well as the input of special configurations to start the data exchange with PROFINET Slaves.



Four New Gateways

ProSoft Technology is bringing Modbus and PROFINET together. To connect Modbus devices on several networks, the PROFINET Device to Modbus Serial Gateway with four Serial ports can help. To avoid changing IP addresses to have your OEM machine communicate with your PLC, the Modbus TCP/IP to PROFINET Device Gateway allows users to do just that. To connect to a single serial network, the Modbus Serial to PROFINET Device Gateway is the answer. For devices all on the same subnet, the Modbus TCP/IP to PROFINET Device Gateway is ideal.

Expanded power supply system

Siemens has added further base units, buffer modules and extra functions to its Sitop PSU8600 power supply system. With a 40 ampere load current, the new buffer modules increase availability by achieving bridging times of up to 20 seconds in case of power failures. Comprehensive operating and diagnostics information is available through the integral PROFINET interface.

DCP DC/DC Converter Extended

Siemens has extended the power range of its Sinamics DCP DC/DC power converter from 30 to 120 kilowatts. The high switching frequency allows the use of smaller chokes, making the Sinamics DCP extremely economical on space. The Sinamics DCP can be used in applications such as energy storage systems in photovoltaic installations or wind power farms, alongside press applications, diesel-powered harbor cranes, rack handling systems or quick-charging stations for eCars. A PROFINET interface is also available for integration into industrial networks.

Object Oriented and IoT Ready

Hilscher has enhanced its DIL-32 communication IC with central functions for IoT-communication. The new IoT-ready netIC is based on the netX52 multi-protocol chip. Besides high-performance Real-Time Ethernet communication, the netIC IOT includes both an integrated OPC UA server and a MQTT client. This data will be transferred via the TCP/IP channel of a Real-Time Ethernet protocol, such as PROFINET, on the same physical media without any influence on the real-time performance.

PROFINEWS

PROFIBUS & PROFINET news from around the world

PDF generated November 02, 2015 at 9:01 PM by Kalin's PDF Creation Station WordPress plugin