

IPA News letter-05 (INDIA)

Date: 23rd August 2011

Message from the IPA Team

Dear all

IPA has been working on the commitment to excellence and innovation to bring the world's leading manufacturers tie up with Indian companies to represent their products and services in India. We are happy to bring out the fifth News Letter of Indian PROFIBUS, PROFINET Association (IPA).

This news letter is a face of IPA in India & will showcase the details of the events that are worked out by IPA. We are glad to inform you all, that we have currently 20 active members from various industry manufacturing sectors & our uniqueness lies in the participation of Educational Institutes in our organization. IPA will publish this news letter every quarter & request all the members to contribute with Technical articles so that these can be included in the news letter.

Happy reading

From

IPA Team

Office Bearers:

Mr. Kishore Karandikar : Chairman
Mr. Lalit Sahani : Deputy Chairman
Mr. Dileep Miskin : Secretary

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Update from Profibus International World:

Profibus International Meeting in Switzerland attracts 115+ delegates

Delegates from 27 Regional PI Associations (RPAs) met at the recent PI Chairman's Meeting in Lucerne, Switzerland, for 2 & 1/2 days of technology and marketing discussions about PROFIBUS and PROFINET. Together with the Training Centers, Competence Centers and Test Labs meeting at the same time, this meant that over 115 people with special interests in PROFIBUS and PROFINET technologies attended in all, the largest gathering in PI's history.

A significant part of the meeting was devoted to long term PROFINET strategy, from which came a series of tactical goals. Among them was to emphasize more strongly the 'solutions-oriented' benefits of PROFINET, which can easily meet all needs in automation with a technology that is modular and therefore simple to deploy even in small networks. PROFINET's ease of implementation and the strength of the PI community were identified as key points for further promotion.

Swiss RPA Chairman Max Felser welcomed delegates to the meeting and said as that Switzerland had been the first RPA to be established outside of Germany about 19 years back, so he was especially pleased to host this event.

Other topics included a report about field data collected from real PROFIenergy installations, report on the recent PROFINET Market Survey .

This official group photo of the meeting was taken on the shores of Lake Lucerne.



FREITAG RE-ELECTED CHAIRMAN MICHAEL BRYANT – VICE CHAIRMAN

The 23rd PI meeting was the largest gathering in PI's history, with Training Center, Competence Center and Test Lab. personnel attending. During the meeting Jörg Freitag was re-elected PI Chairman; Michael Bryant continues as Deputy Chairman.

The PI Chairman quotes as below.

Having just returned from the 23rd PI Chairman's Meeting in Lucerne, Switzerland, I must say how invigorating it was to be among such a highly motivated group of people. You'll read below that this was the largest gathering of its type in PI's history and I think it underlines why, technology aside, it's the strength of our global PI community that is a principle driver of our success. I happen to believe that, having passed the 3,000,000 node mark, PROFINET has reached critical mass and is 'breaking through' right at this moment. Thus, we are now well on our way to achieving the same status for PROFINET that we did with PROFIBUS. Over the course of the meeting a great many valuable decisions were taken that will drive us further towards that goal. I was delighted and honored to be re-elected as PI Chairman and of course I will continue to guide and support the organization to the best of my abilities in coming years. If you are not yet part of our PI community, I hope the articles below will illustrate the potential we and our technologies offer. Perhaps they will be enough for you to contact one of the offices listed below left, or one of our 1,400 member companies around the world. In which case maybe I will be fortunate enough to meet you sometime soon, perhaps in Dubai where we gather again next year. In the meantime, I wish you 'all the best' in automation, from the best in automation - PROFIBUS and PROFINET! - Jörg Freitag, PI Chairman

New PI Certified Logo



Introducing our new logo for Certified Engineers and Installers. If you are an existing Certified PROFIBUS or PROFINET Engineer or Installer then you are entitled to use the new logo on your business cards or personal business stationery. The logo is "personal", i.e. it appertains to the person that passed the test and not the company that they work for. You can obtain a printable version of the logo from the training organization where you took your test (e.g. in the UK, MMU or VTC) by emailing them a readable scan of your certificate and indicating clearly the date of the test. If you took your test at MMU then please email the scanned certificate to Ann at admin@uk.profibus.com.

Indian Profibus, Profinet Association Updates:

Participation in ARC Forum

The ARC Advisory Group, held an event on the 2nd and 3rd of August 2011 with a view of achieving operational excellence through IT and Automation Solutions. The event was inaugurated by Dr. V. Sumantran, Executive Vice Chairman, Hinduja Automotive & Chairman, Defiance technologies. This two-day India Forum focused on bringing together key decision makers and thought leaders from automotive, auto components and machinery industries along with suppliers of automation systems, enterprise solutions, and manufacturing IT solutions, to discuss the latest trends, case studies, and best practices relating to success in a global marketplace. Mr. Milind Kulkarni of Siemens / IPA spoke on the Factory automation solutions with TIA portal.



IPA Committee members, From left: Mr. Milind Kulkarni, Mr. Kishor Karandikar and Mr. Dileep Miskin

IPA participated as the Lunch sponsor. A 45min session was conducted by the members of IPA. Mr. Dileep Miskin, Secretary of IPA introduced the formation of IPA & the journey so far also highlighting the plans of IPA for the current year. He in the session of the usage of Profinet Standards in Factory Automation covered the aspects of the advantages of the Profinet Technology for the Automotive Industry. From the end user we had Mr. Arun Prasad who shared a user perspective on Profinet, Profibus Technology. HE concluded by presenting Profinet as ProfitNet. Apart from the session, IPA also exhibited the systems to show the seamless integration of the Profibus, Profinet products from different manufacturers and briefed the visitors on the Activities of the association. IPA achieved its prime objective of promoting the Profibus, Profinet technology through peer to peer networking.



Mr. Dileep Misikin and Mr. Arun Prasad making their presentation at the ARC forum event

Field buses & Networks - Technology

Optimizing enterprise management effectively

PROFINET is an ideal way to evolve plants into an Ethernet-based future, without making existing equipment and skills redundant.

PROFINET, a more powerful and broader offering than PROFIBUS is based on an enhanced version of the Ethernet used in offices, and is therefore a future-oriented network solution that embraces PROFIBUS - and other field buses - easily as well as integrating tightly with IT systems and making enterprise management more efficient.

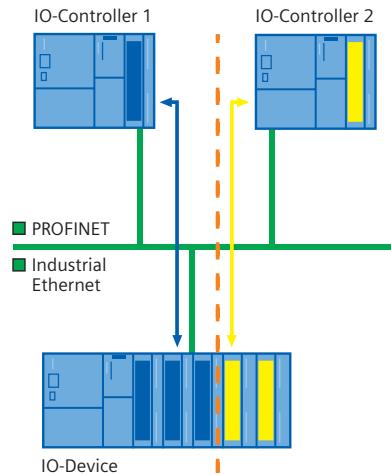
PROFINET is a rapidly growing Ethernet based industrial network platform that is usable from field level to office level. More and more automation vendors are realizing the strengths of PROFINET joining hands with PI (Profibus- Profinet International) and have started offering seamless PROFINET connectivity on their products. PROFINET & PROFIBUS play well together, with many 'added values'. PROFINET can integrate PROFIBUS networks as well as other Field bus systems. PROFINET is thus a perfect model to develop plants into an Ethernet-based future, without letting go of existing equipment and skills. PROFINET is fully-Ethernet compatible so it delivers 'convergence' for enterprise systems and the end devices that underpin modern automation. Both PROFIBUS & PROFINET support 'Real Time' performance. Further, PROFINET offers unprecedented performance capabilities in motion control domain. In this article we shall be learning about latest innovations offered by PROFINET

Following are the latest innovations in PROFINET-

- Shared device
- I-Device
- MRP
- PROFIenergy

Let us understand each one of them in detail:

Shared device



Shared device offer innovative features with added value based on PROFINET. Whenever you need to add new functions in the existing automation solution, many a times it is difficult due to the unavailability of adequate resources inside the CPU (controller) in terms of program memory, communication resources etc. However adding IOs is feasible. PROFINET shared device is a key to this common problem. This feature enables the user to add a new CPU in existing automation solution and allows to expand IOs even with special functionalities like 'fail safe' with minimal cost escalations due to the fact that even spare IOs and IO slots by adding required IO modules in the existing solution can be used by the new controllers. If the user wants failsafe functionality then accordingly, failsafe IOs can be added and the new controller can be selected as a failsafe CPU.

With this approach, one can save on racks, additional P/S, IOs themselves and expand the existing solution with additional functionalities.

The clear benefits are-

- use of the same field bus network
- two different controllers(existing and new) can access the same devices (IO stations, drives, other field devices)
- flexible assignment of modules to different CPUs is possible
- in turn you get reduction in costs, optimized solution, simplified architecture
- resulting in less cabinets and installation, less cabling and lower hardware overhead, simpler engineering

Various scenarios where shared device can be effectively used:

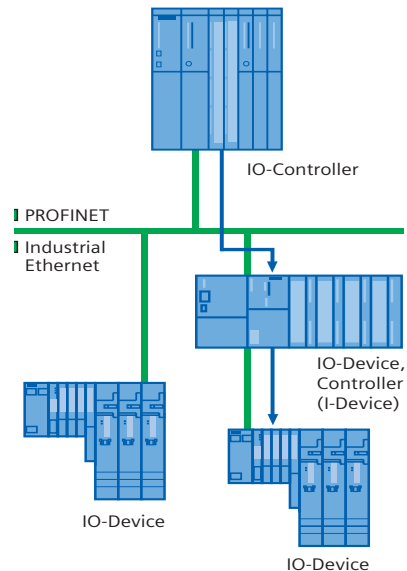
- modular projects
- integration of safety into standard projects
- production expansion
- change requests on projects in advanced phases (like at/after FAT, commissioning or start-up)
- plant retrofitting
- machine revamping and modernizing
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Intelligent Device (I Device)

In I Device, the idea is to use a new controller that may be required for additional/ new control tasks for the purpose of capacity expansion, adding new interlocks, as a transparent IO device for the

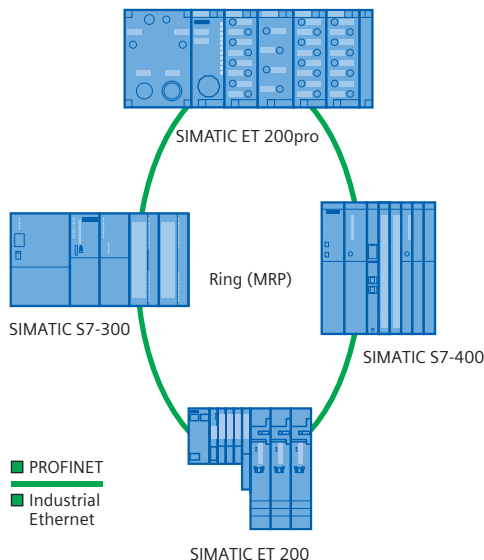
controller, etc. The flexibility that one gets here is CPUs from different projects (existing as well as new) can be interfaced with utmost ease. This allows for easy integration of controllers from different vendors. Following are the key benefits offered by I Device:

- Simpler and faster communication method, higher performance
- Simple reading and writing of I/Os in a distributed station existing
- Simultaneous operation on the same network is possible with PN
- Allows modular architecture with local controller stations and central CPU
- Easy transition from PROFIBUS to PROFINET is possible
- Communications between different manufacturers is possible due to the use of GSDML
- Flexible integration of safety functions
- One subnet, several IO systems
- Simultaneous ES or web access and easy diagnostics through WEB and/or ES for the whole set up interconnected through I Device feature.



Typical application areas for I Device are modular plants, sectional machines, assembly lines, bottling, presses, manufacturing lines and conveyor systems.

Media redundancy protocol (MRP)



This new feature offered by PROFINET allows basic ring configuration (using industrial switches) that offers 'ring redundancy' as most desired and important functionality. Reliability is a crucial factor in automation systems; the failure of a network component must be quickly compensated and isolated without affecting the communication of the other nodes. Thus, this feature offers increased availability through cost effective ring architecture based on PROFINET. Maximum 50 nodes can participate on such a ring that may consist of PN IO controller, PN IO devices as well as network infrastructure components (switches). The maximum reconfiguration time is 200ms. This makes it suitable for many applications where redundancy is required (exception time-critical tasks or IRT)

PROFenergy

PROFenergy enables the active and effective energy management of automation equipment on PROFINET networks. By intelligently switching off unneeded consumers over the network, energy demand and, thus, energy costs can be drastically reduced. PROFenergy uses existing PROFINET mechanisms, which ensures fast and simple implementation. PROFenergy commands can be transferred throughout the PROFINET network enabling individual field devices or whole production cells to participate in smart energy management strategies. Field devices both with and without PROFenergy functionality can be operated on a common PROFINET cable. So integration into existing systems is easy and trouble free. PROFenergy sets the standard. Vendors can increase their competitive advantage through the integration of PROFenergy into their products. Users can satisfy their requirements for energy management in a targeted manner, with multi-vendor choice leading to lower costs.

Author Box

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Profibus Professional Courses

Indian PI Competence Center (PICC), hosted by the UL Group of Companies conducts Courses for training in Profibus. The Training Calendar for 2011 is published.

For registration please contact profibus@ulepl.com, contact no.: +919970006819

**Any suggestions & feedback to improve this quarterly news letter from IPA are welcome. Members are requested to share their success stories for future articles of IPA News letter
With warm regards from Indian PROFIBUS, PROFINET Association (IPA)**

<http://www.profibus.com/community/regional-pi-associations/india/>

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