



PRESS RELEASE

For Immediate Release



APL Project Successfully Completed: Ethernet-APL is here!

Specifications Internationally Standardized, Conformance Test Plans Implemented, First Products Released

Frankfurt, Germany – August 23, 2022: After almost 4 years of close and fruitful collaboration between the four leading standards development organizations, FieldComm Group, ODVA, OPC Foundation, and PROFIBUS & PROFINET International (PI), combined with significant support from 12 major industry project partners, the participants are pleased to announce a successful completion of the APL Project. The result is a completely available 10Mbit technology for a new two-wire, Intrinsically Safe Physical Layer called Ethernet-APL.

For the technical experts involved in the APL Project, it was important that the specifications of IEEE 802.3cg (10BASE-T1L) were suitable for use in process automation. Additionally, it was essential for the experts that the technology be based on an IEEE standard to form an ideal foundation for the Ethernet-APL technology. Therefore, the APL Project experts have intensively supported the IEEE standardization activities. To achieve an intrinsic safety solution that meets all of the requirements of the process industry, the experts worked closely with TÜV, the certification body for intrinsic safety, to validate the developed explosion protection concepts and prepare for standardization of Ethernet-APL in the IEC.

The main results of the APL Project are port profile specifications to create the Ethernet-APL solution for multiple power levels with and without explosion hazardous area protection, engineering guidelines and best practices for planning and installation, and conformance test specifications and test tools. As a single physical layer, Ethernet-APL supports EtherNet/IP, HART-IP, OPC UA, PROFINET, or any other higher-level network protocol.

To support rapid and efficient implementation of Ethernet-APL technology in products, the APL Project has also worked with semiconductor manufacturers to bring 10BASE-T1L Phy chipsets for Ethernet-APL to market. This made it possible for the Industry Partners to launch their products before the end of the APL Project. With the successful completion of the project, all interested companies can now integrate Ethernet-APL into their products.



End users have shown great interest in using Ethernet-APL in their plants. As a result, some companies have already completed successful field trials. BASF and Procter & Gamble, for example, have demonstrated that Ethernet-APL has very good suitability for use in process applications through their internal testing.

In order to support Ethernet-APL in the long term, the participating standards development organizations have agreed to jointly maintain the technical and marketing assets and to continue international standardization efforts. In addition, the marketing team of the APL Project has created a set of materials to support interested parties in adopting Ethernet-APL. Available resources include a website, demonstration model, whitepaper, interactive PowerPoint, and training materials. Visit www.ethernet-apl.org to download resources and learn more about this available technology.

About FieldComm Group

FieldComm Group is a global standards-based organization consisting of leading process end users, manufacturers, universities and research organizations that work together to direct the development, incorporation and implementation of new and overlapping technologies and serves as the source for FDI™ technology. FieldComm Group's mission is to develop, manage and promote global standards for integrating digital devices into automation system architectures while protecting process-automation investments in HART® and FOUNDATION™ Fieldbus communication technologies. Membership is open to anyone interested in the use of the technologies. For more information, visit their web site at www.FieldCommgroup.org.

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About ODVA

ODVA is an international standards development and trade organization with members from the world's leading automation suppliers. ODVA's mission is to advance open, interoperable information and communication technologies for industrial automation. Its standards include the Common Industrial Protocol or "CIP™," ODVA's media independent network protocol – and industrial communication technologies including EtherNet/IP, DeviceNet and others. For interoperability of production systems and their integration with other systems, ODVA embraces the adoption of commercial-off-the-shelf, standard Internet and Ethernet technologies as a guiding principle. This principle is exemplified by EtherNet/IP – today's leading industrial Ethernet network. Visit ODVA online at www.odva.org.

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About the OPC Foundation:

Since 1996, the OPC Foundation has facilitated the development and adoption of the OPC information exchange standards. As both advocate and custodian of these specifications, the Foundation's mission is to help industry vendors, end-users, and software developers maintain interoperability in their manufacturing and automation assets. The OPC Foundation is dedicated to providing the best specifications, technology, process, and certification to achieve multivendor, multiplatform, secure, reliable, interoperability for moving data and information from the embedded world to the enterprise cloud. The Foundation serves over 880 members worldwide in the Industrial Automation, IT, IoT, IIoT, M2M, Industrie 4.0, Building Automation, machine tools, pharmaceutical, petrochemical, and Smart Energy sectors. For more information about the OPC Foundation, please visit www.opcfoundation.org

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About PROFIBUS & PROFINET International (PI)

PI is a wide spread automation community in the world represented by 25 different Regional PI Associations and is responsible PROFIBUS and PROFINET, the two leading industrial communications protocols covering all industries. The common interest of PI's global network of vendors, developers, system integrators and end users lies in promoting, supporting and using PROFIBUS and PROFINET. Regionally and globally over 1,500 member companies are working closely together around the world to the best automation possible. The organization's global influence and reach is unmatched in the world of automation. For more information, please visit the website at www.profibus.com.

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