

PRESS RELEASE

Technologies for Process Automation: PI's Top Topic in 2021

Karlsruhe, June, 2021: Since the beginning, PROFIBUS & PROFINET International (PI) has provided communication technologies for the automation of processing plants. With the NE 168 Ethernet for the field level published by NAMUR and the developed NAMUR Open Architecture (NOA), requirements that form a comprehensive basis for a targeted implementation of Industry 4.0 in processing plants have been defined. For their implementation, a communication technology suitable for the field level and the existence of standardized information models are indispensable.

PI has set itself the task of further developing its technologies in line with requirements. With the adoption of the communication-independent PA profile V4.0 in 2019, PI took an important first step in this direction. During the same period, a number of functions that meet the specific demands of the process industry were also made available for PROFINET. This includes the device integration technology FDI, which was provided in cooperation with other organizations. With the availability of Companion Specification OPC UA for PROFINET, PI has laid a foundation for the area of information models. In the process, an information model for devices, PA-DIM, is an important aspect of this specification. This information model is developed and refined in cooperation with other organizations. In addition, experts from PI are working in cooperation with ECLASS e.V. on the implementation of semantic identifiers for PI's application profiles. The recently adopted white paper "Semantics for PI Application Profiles" provides a recipe for converting profile information into standardized identifiers. An implementation for the PA profile has already been started.

The use of an Ethernet-based communication system up to the sensor in intrinsically safe areas requires a new development, as this area has no suitable standardized solution yet. For this purpose,

the APL project was founded in cooperation with other organizations, in which PI and its members play a leading role. The goal of the project is to specify Ethernet-APL technology and provide the tools, infrastructure, and processes to ensure compliance of Ethernet-APL interfaces in products.

Against this background, PI has chosen process automation as the focus of its presentations at the PI Conference. In addition, both the joint results of Ethernet-APL and the results of the further development of the outlined PI technologies were presented to a wide audience atACHEMA Pulse. The technologies are also the subject of workshops, which have been attracting an increasing number of participants. The market launch of member companies' products is in full swing. Due its technologies for implementation in process automation plants, PI is there ideally equipped for these challenges.

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