



I&M Functions

Introducing

Press Release

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Publisher:
PROFIBUS Nutzerorganisation e.V.
Haid-und-Neu-Str. 7
D-76131 Karlsruhe

Phone: ++49 721 / 96 58 590
Fax: ++49 721 / 96 58 589
pi@profibus.com
www.profibus.com

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I&M Functions – New Technology Brings Advantages for the User

The first step towards a more powerful asset management

The PROFIBUS Nutzerorganisation (PNO) introduces a new technology for all PROFIBUS devices which are using a acyclical communicationchannel under the term “Identification & Maintenance Functions” which will be of great benefit particularly to users and operators of large systems.

After only a few device profiles arranged for individual information functions in the past, such as information about the manufacturer, order designation, release numbers, etc., a uniform and powerful functionality has now been specified which will be binding for all PROFIBUS devices starting in July 2005. The technology links the device-based information with central, daily updated information of a manufacturer for each individual device via the Internet. This creates essential prerequisites for a powerful asset management for PROFIBUS.

The I&M functions offer room for profile-specific as well as manufacturer-specific expansions. The decoding information for Interpreting the records read from devices can be loaded centrally from the PROFIBUS web server from XML tables by any engineering tool or other software package. All the information is also available for offline operation (without Internet access). The same mechanisms also ensure that the parameter designations are uniformly displayed at the user interface in the common languages. Ambiguous terminology that was possible until now can now be omitted.

Device-specific base information

A component of the device-specific basic information is a unique (asset) identification using a manufacturer ID, the order designation of the device and its individual serial number. The I&M functions provide for using the unique asset identification to reference information to the corresponding homepages or search engines of manufacturers via XML tables that are positioned on the PROFIBUS web server (www.profibus.com). Even more complex link information to current notes about each individual device are possible.

Important information available about the manufacturing time complete the asset identification. This includes, for example, hardware and software release numbers as well as the membership to a specific profile. This allows for perfect support of the user, for example, to perform software updates.

Profile-specific information

Using the profile ID and the corresponding XML tables defined by the profile working group allows for interpreting and displaying additional complementary information from the device.

Instance-specific information

As soon as a device is used for a certain task, this operating purpose is naturally of interest to the operator. This includes location feature and function feature. Even a backup code can be integrated in the I&M functions using the currently defined parameter set and, thereby, supports non-proprietary audit trailing, i.e., the control and tracking of process parameters as required in pharmaceutical-relevant or safety-relevant systems.

Manufacturer-specific information

The I&M functions leave room for (sensitive) manufacturer-specific information which can be made available individually via FDT/DTM technology (e.g., only to the service personnel of the manufacturer).

The technology



All reference data concerning manufacturer ID and the corresponding firm name, homepages, customer support, etc., the profile ID and the corresponding profile information in plain text are provided by the PNO in form of XML files on the PROFIBUS web server (www.profibus.com).

The XML tables conform to the new "XML@PROFIBUS" guideline that describes the use of the XML description language in the PROFIBUS world which allows for open data exchange between independent non-proprietary software tools for automation technology.

Manufacturer-specific information can be updated online at any time on the part of the companies by using a web interface. After every change in content, the XML files are automatically regenerated so that they are always up to date. For example, if the contact address of a manufacturer changes, the new information is immediately and centrally available to all users.

Since the actual (link) information is read from the XML files located on the web server, it ensures that all devices in any possible system on a worldwide level always display the most current information to the user. A natural prerequisite is that the manufacturers keep their information up-to-date in the interest of the end user and the computer with the display software features an Internet connection. A demo software illustrating the principle can be downloaded from the PROFIBUS web server (www.profibus.com).

The manufacturer information

Interested companies can register free of charge with the PNO office to obtain a manufacturer ID and gain access to the I&M configuration area on the PROFIBUS web server (www.profibus.com). For companies with an HART number, the existing HART number is used as manufacturer ID. Members of PNO who already own a manufacturer ID can immediately enter their manufacturer information online and edit it at any time.

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Haid-und-Neu-Str. 7

D-76131 Karlsruhe

Germany

Phone: ++49 (0) 721 / 96 58 590

Fax: ++49 (0) 721 / 96 58 589

e-mail: pi@profibus.com

<http://www.profibus.com>