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REGIONAL INDUSTRY NETWORKING CONFERENCE
RINC 2007

EDDL success at RINC 2007

Electronic Device Description Language (EDDL) also known as the IEC 61804-3 standard was demonstrated at the 6th Regional Industry Networking Conference (RINC) 2007 1 - 2 November 2007 at the Singapore Polytechnic.
http://www.sp.edu.sg/rinc/

EDDL is the only international standard for device integration and in its original form has existed for 15 years, incorporated as an integral part of HART, FOUNDATION fieldbus and PROFIBUS protocols. EDDL technology was recently enhanced with graphics and better menus to also support advanced setup and diagnostics of more sophisticated devices. Thus EDDL now supports all phases of the plant life-cycle using a single device integration technology. EDDL has remained largely unknown until now. Only after international standardization has the technology been brought into the spotlight in its own right.

The effort at this conference was to correct some misconceptions and make users aware how they can improve results with the new graphical enhancements to EDDL.

Booth

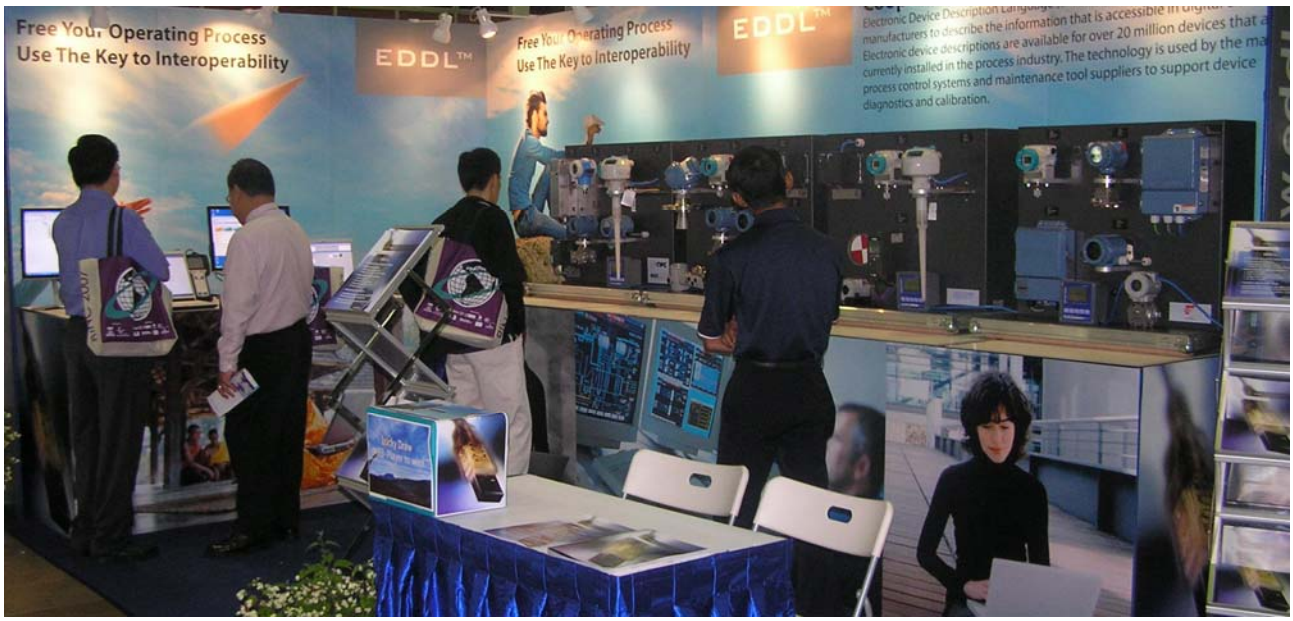
The EDDL interoperability display demonstrated the capability of EDDL to support process control devices such as simple pressure and temperature transmitters and sophisticated devices such as radar level transmitters and machinery health transmitter was well as electrical equipment in the form of an advanced variable speed drive. Protocols included a mix of HART, FOUNDATION fieldbus, and PROFIBUS just like in many real plants. Two different Windows-based device management software applications were displayed side-by-side illustrating how the content and structure of the information the device manufacturer want to display for their device is preserved regardless of which control system the device is used in. That is, full access to all device features is given in any control system. A configuration and diagnostics software was also shown and a handheld field communicator was used to demonstrate that EDDL with enhancements can also be used on portable tools. The handheld field communicator being particularly suitable for field work where a laptop cannot go.

A particular emphasis was put on maintenance and operation phase of the plant life cycle. Visitors to the booth were shown new graphical device displays including waveform graphs such as the echo curve and strapping tables when setting up a radar level transmitter. Diagnostics from simple thermocouple burnout to pump vibration spectrum graph was shown. A highlight of the demo was how help text from the device vendor's experts assist in both setup and interpretation of diagnostics. The ability of device management software to access documentation

such as manuals and drawings was also shown along with printing and export to Excel.

Some older devices were included in the demo to illustrate backwards compatibility, that is, how new device management software supporting the new EDDL with enhancements at the same time also support the original EDDL without enhancements. That is, demonstrating how devices and their EDDL file from more than 15 years ago remain functional today thereby protecting plant investments today and in the future. This ability to stave off obsolescence is one of the most valued characteristics of EDDL.

Other highlights of the demo included display of how functions like context sensitive help, pan/zoom of graphs and charts, changed value indication, and read-only value indication work the exact same way for all devices regardless of protocol, manufacturer, and device type. No other device integration provides this level of consistency of use.



Many visitors to the booth had not heard of EDDL before, but in the discussion it became clear to them that they had been using EDDL for many years without even being aware of its existence. Truly a testimony to how trouble free the technology is. A classic example of "load and forget". However, they were pleased to see how much more user-friendly device management software has become.

USB

One of the visitors to the booth asked about the USB connector on the cover of the EDDL brochure. The reason USB is on the cover is because the USB plug-and-play interoperability of devices such as flash disk thumb drives etc. works just like EDDL. A USB device has a "Device Descriptor" stored in the device itself. It declares power consumption, self/bus powered, manufacturer, product number, serial number and number of interfaces (sub-functions). Each interface (sub-function) has endpoints for which it declares the type of data transfer, direction, polling interval and maximum packet size etc. That is, when the gadget is plugged in, the computer can read this device descriptor to know all it needs to know about the device in order to interoperate with it. There is no need to install drivers to make

many USB devices interoperate. The premise of EDDL is pretty much the same, although the data in the EDDL file is far more comprehensive since instruments are far more sophisticated than thumb drives.

SNMP

When we explained how EDDL works, another visitor highlighted to us that network management based on SNMP (Simple Network Management Protocol) software, that is software for IP/Ethernet network management also use a description technology to achieve interoperability. For SNMP, SMI (Structure of Management Information) declares the content of the MIB (Management Information Base) in networking gear such as routers and switches etc. The file is written in SMI and loaded into SNMP software so it can decode the data.

Conference

The conference included a short paper entitled "*Unleashing Power in Your Devices - Using IEC 61804-3 EDDL*". The first part of the paper set the record straight on the myths surrounding EDDL by showing how EDDL is capable of graphics and wizards, and provides help and document access. This makes EDDL the ideal technology also for advanced setup and diagnostics of sophisticated devices, thus expanding the scope of EDDL in the maintenance and operations phase. The later part of the presentation focused on the results that can only be obtained using EDDL thanks to the unique features of EDDL such as OPC server configuration, robustness, security, Fieldbus configuration, handheld field communicator support, consistent display of devices, no device version conflicts, no Windows version conflicts, easy upgrade and integration, and no license key etc.

For more information go to www.eddl.org