Fieldbus Foundation Announces Demonstration Plans For Safety Instrumented Functions (SIF)

Demos will promote adoption of FOUNDATION SIF technology in the process industries

ANTWERP, Belgium, Feb. 27, 2008 — The Fieldbus Foundation, conducting its 2008 General Assembly in Antwerp, Belgium, today announced plans for FOUNDATION™ for Safety Instrumented Functions (SIF) demonstrations at multiple end user sites around the world. Demonstrations of SIF technology will be conducted at Shell Global Solutions, Amsterdam, The Netherlands; Saudi Aramco, Dhahran, Saudi Arabia; BP, Gelsenkirchen, Germany; and Chevron, Houston, Texas, USA.

The upcoming field demonstrations will promote adoption of FOUNDATION SIF technology in the process industries. The project also includes development of SIF best practices and guidelines, as well as training and interoperability test tools for automation equipment manufacturers and end users.

At the Shell demonstration in Amsterdam, planned for May 2008, engineers will construct a DCS-controlled demo rig with graphic panels showing safety devices and SIF functions, including an operator interface for Partial Stroke Testing (PST) and asset management diagnostic information. The purpose of this demonstration is to test safety valves with partial stroking capability, as well as various pressure and temperature devices. The FOUNDATION SIF installation will include three fieldbus segments with hardware from three different suppliers. Engineers will evaluate system integration capabilities with asset management and Basic Process Control System (BPCS) platforms.

The process industries requested the FOUNDATION SIF solution in order to realise the CAPEX and OPEX benefits of open and interoperable fieldbus technology in plant safety systems. In response to this request, the Fieldbus Foundation developed a SIF protocol enabling end users to adopt powerful fieldbus diagnostics while maintaining the protection of a SIL3 environment. This clearly indicates the value of the comprehensive, forward-thinking design of FOUNDATION technology.

No changes were required to the existing FOUNDATION fieldbus protocol to add the SIF protocol extensions. With its industry-proven distributed function blocks and open communications design, FOUNDATION technology is an ideal infrastructure for advancing standards-based safety instrumented functions. The Fieldbus Foundation developed its SIF specifications in cooperation with the world’s leading automation end users, controls manufacturers, and safety experts.

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Fieldbus Foundation Announces Demonstration Plans For Safety Instrumented Functions (SIF)/…2

The Fieldbus Foundation’s SIF protocol meets the rigorous requirements of the IEC 61508 standard for functional safety of electrical, electronic and programmable electronic safety-related systems, up to, and including, Safety Integrity Level (SIL) 3. In addition, end users can build systems per the IEC 61511 standard covering SIF functional safety in the process industries (IEC 61511 is available as the ANSI/ISA-84.00.01-2004 standard).

The Fieldbus Foundation worked closely with TÜV Rheinland Industrie Service GmbH, Automation, Software and Information Technology, a global, independent and accredited testing agency, to achieve Protocol Type Approval for its SIF specifications. With TÜV Protocol Type Approval, FOUNDATION technology has been extended to provide a comprehensive solution for SIFs.

Companies participating in the SIF demonstration working group include: ABB, BIFFI, BP, Chevron, Dresser-Masonelian, Emerson Process Management, Endress+Hauser, Fieldbus Diagnostics, HIMA, Honeywell, Invensys, Magnetrol, Metso Automation, Moore Industries, MTL, Pepperl+Fuchs, Risknowlogy B.V., Saudi Aramco, Siemens, Shell Global Solutions, Smar, Softing, TopWorx, TÜV Rheinland, TÜV SÜD, Westlock Controls, Yamatake, and Yokogawa.

About the Fieldbus Foundation

The Fieldbus Foundation is a global not-for-profit corporation consisting of leading process end users and automation companies. Within the Fieldbus Foundation, end users, manufacturers, universities and research organisations work together to develop an automation infrastructure that provides process integrity, business intelligence and open scalable integration in a managed environment. For more information, visit their web site at www.fieldbus.org.

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