

NEWS**Integrated Fieldbus Architecture Demonstrated***May 26th, 2005**Written by Gary Mintchell, Editor*

A process control system using Foundation Fieldbus networks H1 and High Speed Ethernet plus Flexible Function Blocks helps chemicals plant maintain quality production.

John Rezebek, lead controls engineer for the International Specialty Products (ISP) plant in Lima, Ohio, recently demonstrated a newly commissioned system on the 1,4-butanediol (BDO or B1D) plant. The system used Foundation Fieldbus H1, high-speed Ethernet (HSE) and Flexible Function Block technology. Called “truly hybrid” by Rezebek, the system was installed on a filter purge system incorporating analog control, discrete input/output and control distributed to the lowest level where practical.

Charlie Gasparetti, BDO manager, reported the Lima plant realized savings not only in construction costs, but also in the types of facilities and equipment needed for the project. Rezebek said the project came in well under budget, but since a reliable baseline was not determined before the project, total actual dollars saved attributable to the Fieldbus part alone could not be determined. Management is convinced that sufficient savings were obtained to look for future installations of the technology, according to Gasparetti.

Milestone

John Berra, chairman of the Fieldbus Foundation and president of Emerson Process Management, of Austin, Texas, called the demonstration a milestone of progress, from the beginnings of the vision 11 years ago through the installation of about 500,000 Foundation Fieldbus-enabled devices. Success of Foundation Fieldbus, according to Berra, is a tribute to the commitment of many supplier companies, both large and small, as well as to the commitment of many end user companies, such as ISP.

The Foundation touts “Freedom to Choose” and “Power to Integrate” as its themes. Speaking as an engineer who must keep a plant running profitably, Rezebek left no doubt that he believes in both the power to choose—from among various suppliers—and the power of integrating products from those suppliers without going through tremendous programming pain.

Member companies involved in the demonstration included: ABB, Emerson Process Management, Fieldbus Center at Lee College, Hawke, Hirschmann, Honeywell, Invensys, MTL/Relcom, Pepperl+Fuchs, Phoenix Contact, Rockwell Automation, Smar, Softing, StoneL, TopWorx, Turck, Yamatake, Yokogawa and Westlock.

The project was initiated when the BDO plant was owned by BP Amoco Chemical Company. Subsequently, BP Amoco spun off its chemical business in a new company, Innovene, and sold its BDO operations to ISP. ISP management continued the project. 1,4-butanediol is a chemical building block for other specialty chemical products used in pharmaceuticals, personal care, food, beverage, coatings and other applications.