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YOUR SOURCE FOR CAPACITY ASSURANCE SOLUTIONS

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Harnessing Innovation
In Continuous Improvement

Today's process manufacturing managers need continuous improvement for sustainable business success. They consistently identify safety of employees, protection of the environment and operations excellence as top priorities. Delivering on these priorities is challenging as facilities face supply-chain pressure, labor shortages and rising costs. Fortunately, innovation and collaboration provide technology and services to deliver continuous improvement. Both have made great strides in 2008—*we'll see more of the same in 2009.*

Innovation will continue to integrate the enterprise. Integration makes business and process applications easier to use and more robust, giving workers more power and increasing their oversight of operations and the environment. Plant automation architectures will continue to unify, seamlessly joining wired and wireless applications to increase improvement potential. Valuable information will stream from field networks based on the open interoperable *Wireless*HART standard and from plant networks using industrial Wi-Fi standards.

Enterprise software architecture will improve as new Web-based service-oriented architecture (SOA) development makes enterprise-to-factory floor communications easier. For example, performance monitoring in plant field networks feeds plant and corporate optimization software; level monitoring in tank farms feeds inventory applications to enable communications with customers; or diagnostics from critical field devices is delivered to computerized maintenance systems.

Integration is an important boost to productivity in view of today's shortage of skilled workers. Application of new integration technology and wireless tools will dramatically improve productivity by providing instant access to better information.

Wireless sensing in field networks will increase exponentially. Since 2006, wireless technology has been expanding the reach of wired digital systems. Early adaptors of wireless solutions have been impressed by plug-and-play ease of use, cost and time savings and reliable, secure operations—*even amid canyons of steel in plants.* Some early applications were sparked as cost-effective solutions to new regulatory requirements, and others by engineers creating applications that could not be justified with a wired approach, but now can be. Benefits include improved safety, via centralizing monitoring to eliminate the need for operator rounds, and improved environment, via monitoring that was previously physically impossible or cost prohibitive.

Adding to availability of wireless products, the new *Wireless*HART standard was approved in September 2007, enabling all global suppliers to offer open, interoperable sensors so users can select from a broad range of monitoring and control applications.

Many factors are aligning to drive the growth of wireless sensor usage in 2009: increasing regulatory requirements; approved *Wireless*HART standard; expanded range of wireless functions; tighter integration with plant applications; and increased end-user confidence. The compelling benefits of wireless have us predicting that 20% of new points will be wireless in five years.

Collaboration across enterprises and with suppliers will shape the wireless age. The emergence from a wired world to a wired-and-wireless world will continue to capture the attention of management which sees the enormous potential for transitioning to an infrastructure dramatically more unified for continuous improvement. There is increasing collaboration in the new era. Corporate technology groups, as well as IT and process automation personnel, are forming into cross-functional teams to investigate and speed new technology for operations, always working to improve safety, the environment and production. Experienced, knowledgeable suppliers are key partners, bringing new technology and services. These user and supplier teams are important to help shape the technology and optimize business practices of the future. **MT**