

GE Fanuc's New Push into Process

New Proficy Process Systems offering includes global namespace and available redundancy along with integrated analysis, execution and ERP connectivity.

Combine a long heritage in visualization, machine control and production management with a generous measure of process control expertise drawn from within one the world's marquee manufacturing conglomerates, and it seems only natural that GE Fanuc would eventually identify the hybrid and continuous process industries as a key growth market—and realize that it already owned many of the technology pieces needed to present a viable solution to the global process marketplace.

“We had a lot of the building blocks, but we hadn't done it as a system,” explained Bill Estep, vice president of the company's control systems business, during an exclusive sneak peek for editors of *Control* and other Putman Media publications at the company's Charlottesville, Va., headquarters.

“Our announcement is the culmination of a process begun in 2002 with the launch of our PACSystems controller platform,” Estep continued, referring to the company's increasingly multi-domain controller family.

The announcement at hand was GE Fanuc's formal entry into the integrated process automation systems market, with a full suite of process control and optimization capabilities

dubbed Proficy Process Systems. Integrated motion also is on the docket for this summer, rounding out the full range of control-level disciplines—all in a single configuration and global namespace environment—a feature process manufacturers have come to expect.

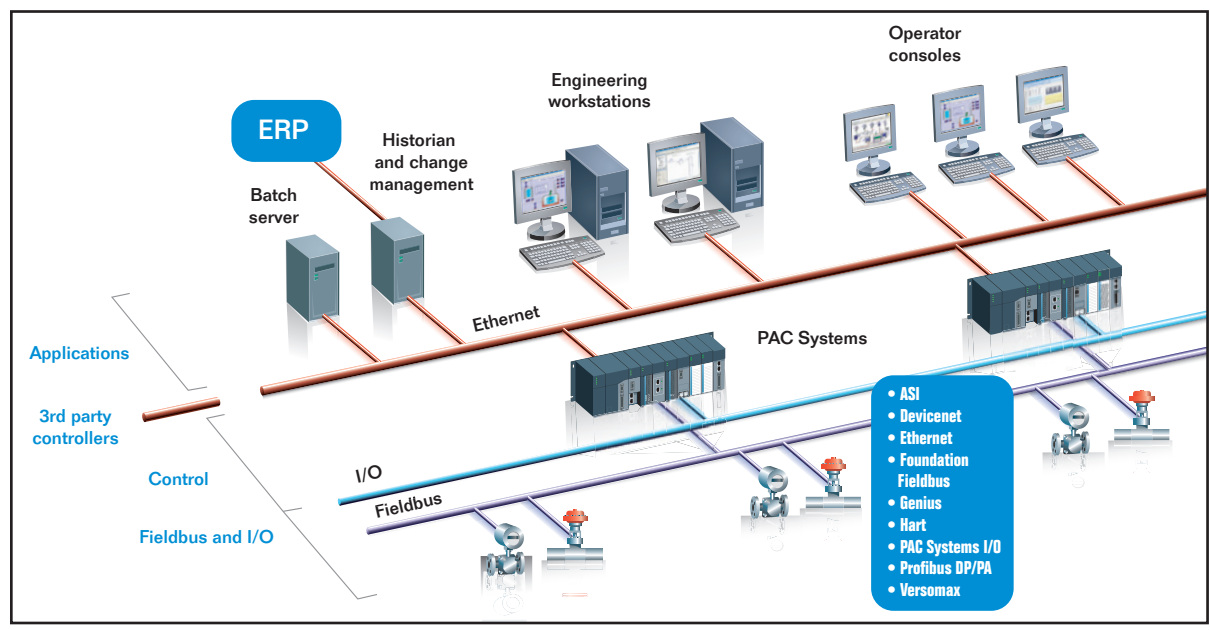
“Our competitive advantage is that we're leveraging one platform across multiple disciplines,” explained Kam Yuen, process solutions product manager.

From a process control software and firmware standpoint, Proficy Process Systems consists of an extensive function-block library for implementing advanced PID control strategies and a multi-variable predictive control engine, pioneered within GE by the former Bently Nevada division. The system's global namespace technology, borrowed from sister company GE Energy's turbine control expertise, is another example of the company's using proven technologies from across the GE family in this newly integrated offering.

“We're leveraging 20 years of heritage,” added Craig Thorsland, process solutions marketing manager. “This isn't a 1.0 product, but proven technology engineered as a system.”

Another GE technology central to Proficy's new process functionality is high-speed reflective memory acquired through its

FIGURE 1.
SYSTEM ARCHITECTURE



GE Fanuc's new Proficy Process Systems offering extends the functionality of the company's PACSystems controllers and Proficy software family to include a robust suite of process control, execution and analysis tools.

purchase of embedded systems supplier VMIC five years ago. “This technology allows us to reflect critical memory, supporting redundancy at the controller, network and I/O levels—at speeds in excess of 2 Gbps,” added Yuen.

In the first system iteration, full redundancy will be supported in the PACSystems RX7i controllers (VME-based form factor), but will be added to the PACSystems RX3i (CompactPCI-based form factor) by year’s end. The system supports the expected alphabet soup of device and fieldbus protocols (see Figure 1), as well as OPC-based integration of third-party controllers.

When it comes to visualization, GE Fanuc engineers have committed to bringing forward both the iFix and Cimplicity toolsets, each of which has a long-standing following in a variety of industries.

There’s also considerable new process functionality under the hood at the application level, starting with a historian and change management server that includes audit trail functions for control logic and visualization. While technically part of the company’s larger Proficy Process Solutions offering, integrated Batch Execution and Batch Analysis modules complement the company’s production management and ERP connectivity solutions.

On the implementation side, users have the freedom to choose GE Fanuc’s



“We had a lot of the building blocks, but we hadn’t done it as a system,” said Bill Estep, GE Fanuc vice president of control systems, talking about the company’s delivery of proven component technology engineered as an integrated process automation system.

professional services arm, or they can turn to authorized third-party “ProcessPartners”—distributors, rep firms and systems integrators qualified to GE Fanuc standards. “Freedom is another of our key deliverables,” explained Steve Ryan, director of global process solutions marketing. “Users are fed up with having to do things a certain way.”

Stating that GE Fanuc’s established expertise in execution, analytics and business systems connectivity is a clear differentiator of the GE Fanuc Proficy Process Solutions offering, Ryan added, “The definition of value has changed. If I have a plant, I’m not just looking to control a few loops—I need to plug into a global supply chain. Basic control is just the tax, the cost of entry. But can

you take quality information and help me reduce variability?”

Indeed, the global process industries are under a unique convergence of pressures, and Estep believes that GE Fanuc is well-positioned to address their needs. “Emerging markets want lower-cost solutions compared to a traditional distributed control system—they want current technology, but at an unbelievably low price point; mature markets are concerned with an aging and potentially stranded installed base; and PLC technology has proven itself a capable substitute in some traditional DCS applications,” he said.

The company has taken a measured approach to identifying its initial target markets, focusing on those continuous and hybrid industries and applications where it has expertise and/or market access through its pre-existing user base. In the batch/hybrid industries, these include solution prep and biotech applications in life sciences; mixing, brewing, fermenting and syrup room applications in the food and beverage arena; mixing and blending apps for personal care products; and a range of fermentation and separation functions in the rapidly expanding ethanol industry. On the continuous side, target applications and industries include balance-of-plant applications for power generators; LNG regasification and pipeline operations in the oil and gas arena; and in-plant processing of water and wastewater.

Proficy Process Systems represents the full range of capabilities—and more than a few differentiators—needed to play in the process automation sandbox. Given GE Fanuc’s flexible go-to-market strategy and the clear support and resources of its \$150 billion parent, it’ll be no surprise to see the company on the short list for a growing number of projects in the not-too-distant future. **C**

FIGURE 2.

EXTENDED FAMILY



The PACSystems controller family is being extended to address discrete logic, motion control and process control tasks in a single, integrated environment.

For more information, visit gefanuc.com/process.