Q: What are the innovative elements of PlantStruxure PES that distinguishes it from other process automation systems?

A: PlantStruxure PES is a distributed control system (DCS). It provides integrated services to engineer, operate, diagnose, and maintain a control system application. With PES, the engineering is done through object-oriented configuration using libraries of object templates. PlantStruxure™ PES uses smart objects to make development and engineering intuitive and easier.

PlantStruxure PES captures and presents data coherently based on system-wide cross-references, giving operators a complete picture of the production process — speeding up diagnostics, cutting downtime, and bringing productivity to a whole new level. It supports today’s very lean teams with process and automation knowledge and clear process information that are crucial to driving production efficiency, including trend data, advanced alarm and events capabilities, and knowledge of historical performance.

Q: Can you make changes in PlantStruxure PES while the process is running? Can you show power flow?

A: PES supports “changing configuration on the fly” (CCOTF), in programming and in adding/removing module. This can be done within PES without shutting down any particular process or a particular PAC. PES does show power flow using the low-voltage power control library.

Q: Does PlantStruxure PES support redundant processors?

A: PES does support redundant processors using the Quantum hot standby system that provides a switchover time of 1.5 logic scans from the primary to the secondary processor. The processors are in live communication. If something happened to the primary, the standby would take over and not alter the state of the process.

Q: How do you customize PES? Object libraries were described. Is it possible to configure for different projects?

A: PES includes a series of base objects that are open and can be edited. Users can take any of the rudimentary objects and change them, to make their own templates or dramatically change them to whatever is needed.

Q: What about reporting? Is there a single reporting package available?

A: PES provides a basic level of reporting on the control level and at the supervisory level. For broader requirements, PES integrates seamlessly with industry standard Vijeo™ Historian products.
Q: Can you accommodate other vendors’ products? PLCs from other vendors?

A: PES has the ability to use third party PLCs and other controllers whether it is a third-party sensor or PLC — all can be incorporated into PES. Other vendor controllers appear as an individual object in the system and can be communicated.

Q: Is PlantStruxure PES a brand new product coming to market?

A: In the U.S., PlantStruxure PES was launched in early 2013 in the ARC forum in Orlando, Florida. However, it had been launched earlier in other countries: Brazil, China, Spain, and Italy.

Q: How does PlantStruxure PES lower capital cost?

A: PlantStruxure PES gives users the ability to design, engineer, and commission with less effort. In addition, due to its troubleshooting capability, it minimizes downtime. In some cases, projects and operations realized a 30 – 40% reduction in capital cost due to running PlantStruxure PES.

Q: How do you manage energy through PlantStruxure PES?

A: PlantStruxure PES is an energy-aware DCS with the purpose of not only assisting customers in achieving process goals, but also to help achieve the goal of energy efficiency. These libraries are pre-designed to support energy and production data collection and to facilitate benchmarking and comparison. PES has the ability to provide techniques including load shedding, branch-circuit monitoring, and idle state management. PES energy management libraries enable customers to manage idle equipment more effectively realizing tremendous savings in electricity costs and profit savings in all of their WAGES, which is: water, air, gas, electricity, and steam.

Q: Typically, what benefit would customers with existent applications realize by implementing PES?

A: PES standard approach provides consistency — not only across one facility but multiple facilities. That is a true benefit for a customer that does not have established standards, and those standards can be on the supervisory or control side. Other benefits include automated change propagation and version management.
Q: What kind of network load does the automatic interlock add and how much control do you have over the read and write time?

A: There are two different types of communication within the PES environment. One is the Ethernet remote I/O which can be based on either a single or redundant ring configuration that is guaranteed to react within 50 ms of a disturbance. Another is distributed I/O communications where devices can be set up on a polling basis so reaction can be in the 1 ms to 1 sec. range. It depends on the number of I/O in the overall system, the number of racks distributed in the system, and the number of distributed devices. PlantStruxure PES can optimize individual transaction messages once communication has been established. PES embeds interlocking and control condition within the object itself for easier management and true object-oriented implementation.

Q: How does the PlantStruxure PES communicate with the DCS system?

A: Similar to any of our other approaches where our PLCs or PACs can communicate to DCS, we have numerous open protocols that can communicate database to database, transfer between PES to DCS, or transfer XML files in between PES to DCS. This can happen with historical information or in real-time.

Q: Are there provisions for supporting OPC?

A: PlantStruxure PES fully supports the use of an OPC server to provide consistent sequence of events, time stamped at source, with scalable resolution from 1 ms to 10 ms.

Q: Will alarming work with text messaging?

A: This is in our roadmap of future functionality.

Q: Is there an asset-management system available for PES?

A: PES is accessible to most asset-management systems.

Q: How does licensing of the software work?

A: The individual package is priced as a solution. In order to license, we must know the following: What is the size of the architecture? How many objects you are using? Number of potential servers? With that information, we work together to create the best architecture. We license the main servers based on the number of objects that need to be running within the system and we license it based on the number of clients that need to see it.

Q: How do you get support for the system?

A: Schneider Electric provides a wide range of support options: 24-hour support, Monday – Friday phone support, and custom arrangements including on-site support. We also work with system integrators who are local in some locations where we are not.
For more information, visit www.schneider-electric.com/us and enter key code d820u.