

Track and Trace

Four in One

Consolidated information helps companies keep track of data and better serialize their products.

Emerging regulations for serializing and uniquely identifying drugs and packaging, with confirmation by e-pedigree, mean corporations must comply by retrofitting or completely overhauling their infrastructure.

A simple, vertical solution that integrates existing enterprise resource planning (ERP), supervisory control and data acquisition (SCADA), and manufacturing automation systems for serialization aims to get this done without major equipment investments.

Xyntek Inc.'s (Yardley, PA) ITX-TraSer streamlines drug and packaging serialization for e-pedigree compliance.

The Web-services communication-based application uses custom control and interface modules and the ERP's application programming interface (API) to stream and buffer serialization data between the ERP and the packaging line systems. The serialization system's control module interface manages communications with adjacent systems, while using its own database to verify and maintain compliance with regulatory requirements.

"The Single Site Server software and DB module [see figure], encompassing the four submodules, is the meat of the serialization software," says Elliot Abreu, director of operations.

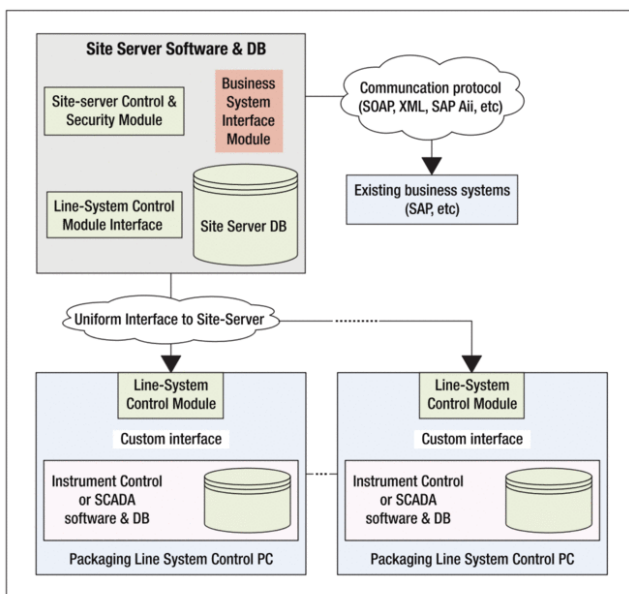
"The site server DB can be placed anywhere on the network; it stores all of the buffered serialization data during the communication between the ERP and the line systems through the Site Server Software and DB module," Abreu continues, saying that this data management is where risk can occur. "The database also has a second component [conceptually] which contains the compliance data [audit trail, security, etc.]"

The other three modules comprise application software and logic. The control and security module is the brains of the software, and controls the action and events of the two interface modules. These modules manage their respective counterparts (line system control modules and the ERP system) and the software, and communicate directly with the site server reading and writing data based on that information stream.

Supported automation components include SCADA, labeling devices, machine-vision, and 2-D bar code and RFID tagging, allowing the system to communicate with components throughout every stage of production.

The hardware requirements of the solution are minimal; the system infrastructure is built using only a database and Web-based application. The light-touch system necessitates only a basic administration console to provide a visual interface for conveying system status and reporting to authorized users.

Scalable solutions like Xyntek Inc.'s allow site-specific adoption and global integration coupled with regulatory validation and compliance experience. With minimally-invasive additions, systems such as this will ease companies into approaching serialization demands. ■



The Single Site Server Software in the upper left is the crux of Xyntek's software system. The other three modules illustrate information receptors.