

## Case Study

### DuPont's SCADA Integration with Experion<sup>®</sup> PKS



“SCADA is Experion’s best kept secret. SCADA is in Experion’s DNA!”

- Gabriel Rivera, DuPont

#### Background

For more than 200 years, DuPont has brought world-class science and engineering to the global marketplace through innovative products, materials and services. DuPont’s market-driven innovation introduces thousands of new products and patent applications every year, serving markets as diverse as agriculture, nutrition, electronics and communications, safety and protection, home and construction, transportation and apparel.



DuPont partners with Stanford University to support innovative research on sustainable energy technologies with lower greenhouse gas emissions.

Today, DuPont builds on its heritage by partnering with others to tackle the unprecedented challenges in food, energy and protection now facing the world.

#### Benefits

DuPont has implemented Honeywell’s Experion<sup>®</sup> PKS SCADA solution, which provides the following benefits:

- Reduction on capital costs
  - Reduced design cost, wiring, amount of I/O, no more PLC gateway, etc.
- Design simplicity

- One single SCADA database server inside the Experion server
- Simple connection of package equipment to the process control network
- Ease of configuration for SCADA points on Quick Builder
- Increased uptime and operator efficiency to monitor and control all package equipment from the same HMI.

More than 30 types of package equipment were integrated to the Experion system on the last DuPont project. The use of Matrikon OPC Server allowed native ControlLogix addressing without configuring SCADA points, replacing the Allen-Bradley interface.

#### Challenge

SCADA refers to supervisory control and data acquisition. It is a type of industrial control system that monitors and controls industrial processes that exist in the physical world

SCADA systems typically consist of the following subsystems:

- Human-Machine Interface (HMI) that presents process data to a human operator, and through this interface, the human operator monitors and controls the process.
- Supervisory (computer) system that gathers (acquires) data on the process and sends commands (control) to the process.
- Remote Terminal Units (RTUs) that connect to sensors in the process, convert sensor signals to digital data and send digital data to the supervisory system.
- Programmable Logic Controllers (PLCs) that may be used as field devices because they are more economical, versatile, flexible, and configurable than special-purpose RTUs.
- Communication infrastructure connecting the supervisory system to the RTUs.
- Various process and analytical instrumentation

To meet its SCADA requirements, DuPont needed to address the integration of multiple vendors’ packages, including vibration monitoring systems, palletizers/packaging equipment, filter

presses, burner management systems, refrigeration machine, and more.

The backbone of Experion's SCADA offering provides:

- History (continuous and discrete)
- SCADA Engineering Repository with online changes
- Subsystem connectivity: RTUs, PLC, single loop controller, and more
- Infrastructure for open interfaces (ODBC, OPC, APIs, etc.)
- Alarm Management subsystem
- Operational redundant server
- Suite of SCADA drivers, including standards such as Modbus, IEC 61850

### Solution

DuPont selected Honeywell's Experion SCADA system since it would be a simple fit for monitoring and control, including:

- Easy integration with Experion graphics
- Alarms, trending and history available on the Experion server
- HMI as single point of view for control room operators.

The Experion SCADA point structure offers standard parameters, SCADA OPC client points, and non-scanned parameters for any other related data.

Experion SCADA Release 410 supports ControlLogix Interface in a single server with Experion Server and OPC Server. This technology is tested and supported and will be the new strategy for future projects at DuPont.

The enhanced ControlLogix SCADA integration provides a simplified topology; allows direct reference of PLC tags; improves

ease of use and access to related point data on demand; and improves system alarming and Matrikon OPC Server integration on same Experion server.

### About Honeywell Experion SCADA

Experion SCADA is a powerful software platform that incorporates innovative applications for human machine interface (HMI) and supervisory control and data acquisition (SCADA). It provides a highly scalable, integrated, multi-server SCADA system with the highest level of reliability, safety and security.

The new Experion SCADA radically simplifies configuration over thousands of assets and provides operational efficiency with a superior HMI. It provides a highly scalable, integrated, multi-server system with the highest level of reliability, safety and security. This new release can be used as a standalone system, and also adds cutting edge enhancements to Experion PKS and Experion LX.

Experion® is a registered trademark of Honeywell International, Inc.

### For More Information

Learn more about Honeywell's products and services, visit our website [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell account manager.

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