KISTLER-MORSE
Measure of Success

Application Note

Providing universal access to manufacturing plant systems over corporate internet

A leading manufacturer of concrete roof tile products, the company offers the industry's broadest combination of concrete roof tile colors, profiles and finishes for both new construction and re-roof, plus a broad spectrum of accessories designed to work together as a completely integrated roofing system. Their customers benefit from the company's advanced-technology manufacturing techniques as well as its expertise in materials science, product design and extensive testing.

Problem:

The company's corporate goal is to provide universal access to all of their manufacturing plant systems over their corporate intranet. This enables personnel from any plant to gain access to another plants automation system to share knowledge and assist with the troubleshooting and diagnosis of a system problem. With a wide variety of control systems and instrumentation from a variety of vendors, this presents an incredible integration challenge. Much of their machinery is very specialized and their rapid expansion did not allow time to standardize.

Application:

Inventory monitoring of gray and white cement and mortar storage silos is accomplished using KM Bolt-on strain guage technology. A mix hopper on KM Load Disc load cells provides the proper ingredient mix to feed the mortar mix holding hopper. The mortar mix holding hopper is on KM Load Disc load cells and provides constant feed to the molding machine. Monitoring of a color mix hopper blender uses a specialized horizontally supported load cell. All of the systems report back to an MVS (multi-vessel system), which currently feeds weight information to an older PLC through dedicated 4-20 mA outputs.

Solution:

The ORB 2.0 Transformer connected directly to the serial port on their KM MVS system. The Transformer provides the data and information to their plant intranet for monitoring these systems.

Benefits:

The built-in web server of the 2.0 Transformer eliminated customized programming to acquire data from systems already installed. The alternative was a massive upgrade program in an attempt to standardize interfaces and systems. Reviewing data trends provides feedback to establish system maintenance requirements such as calibration. By having system-wide access, a variety of experts within the company can review.

The same data is now shared with Operations who use the raw material data for improving scheduling with vendors to prevent material runouts.

No need to scrap or re-engineer existing systems for the sake of improved data collection.

Data access system wide improves troubleshooting through sharing of information via existing company intranet. Cost reduced by eliminating travel time between plants and reducing downtime.

Other benefits are being derived such as sharing raw material inventory information to reduce material runouts during production. Purchasing has ready access to level information at all times and is not dependent on other departments to obtain inventory information.