

From Obsolescence To Excellence: A DCS Migration

Application Note

Honeywell put in place an integrated system for plant-wide control to help a Middle Eastern business pursue its ambition to become a leading methanol producer.

Background

This petrochemical facility in the Middle-East aims to be among the leading producers of methanol and high value methanol derivatives in the region. With high operating standards, it continually looks for growth opportunities and works closely with partners to achieve its goals.

Challenge

Senior management at the plant recognized that achieving its vision would require operations supported by leading, proven technologies.

There was a pressing need to replace the plant's Foxboro I/A DCS system. At the same time, managers also sought to maximize the benefits of replacing the existing DCS by modernizing the plant-wide controls and drawing from a wide portfolio of leading technologies.

In addition to installing Experion PKS® for plant-wide control, the project scope was therefore much wider. It included replacing the ESD with Honeywell Safety Manager, upgrading the fire and gas system, a complete revamp of the control room and specifying Experion PKS® for the new carbon dioxide recovery (CDR) expansion plant. The standalone UOP PSA control panel was to be upgraded to Experion Series C300 controllers and then fully integrated, and a high-fidelity operator training simulator was required for the units. The plant also wanted an alarms and operations management

application, advanced process control for its main product unit, a process historian and Honeywell Trace. Finally, it required seamless communication with all third-party systems to improve automation across the plant and enhance operator effectiveness, as well as ensure robust cyber security.

The plant management sought a high-end technology partner who could deliver all this, along with excellent service and ongoing support, within the required budget. It found Honeywell, a one-stop-shop for complete plant-wide control.

Solutions

Along with replacing the obsolete DCS with its state-of-the-art [Experion® PKS](#) control system, Honeywell helped the plant achieve high levels of integration with a number of other solutions from its portfolio:

- Its advanced historian, the [Uniformance Process History Database](#) (PHD), for engineering and business analytics
- Honeywell's [Safety Manager](#) safety solution, which replaced the existing emergency shutdown system
- [Experion C300](#) control panels

This was also the first major site in the Middle East to install [Honeywell Universal I/O](#) throughout. Reducing marshaling and enabling simple configuration without additional hardware.

Honeywell has a long track record of executing successful migrations. We have delivered the process industry automation solutions for over 40 years and technology licensing for over 100 years. Our engineers draw on extensive knowledge of competitive systems and key tools for audits and migration.

[Third Party System Migration](#)

Honeywell provides third party system migration ranging from full migration of existing systems to varying options for incremental migration that enable customers to upgrade without any loss of production and efficiency.

Benefits

Honeywell's solution enabled the plant to fully meet its requirements for a single, integrated platform for plant-wide control. With Experion, it benefited from sophisticated functionality, intuitive control and robust cyber security.

Furthermore, use of Universal I/O throughout the plant reduced the footprint to allow for redundancy to boost reliability. It also cut inventory costs and significantly simplified support.

Finally, working with Honeywell gave the plant management reassurance that it could rely on ongoing support. Honeywell's record of supporting its systems over three decades meant managers were confident of its commitment to a long-term partnership.

The system changeover was easily achieved within the 20-day target, and start-up was smooth and on schedule.

For More Information

Visit www.honeywellprocess.com or contact your Honeywell Account Manager.

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