

Wiri Oil Services Protects Hardware Investment and Makes Better, Faster Decisions with Experion PKS



“Wiri needed a low-risk, high-reward solution that would leverage our current infrastructure in place. We turned to Honeywell for their proven implementation, local support and LIOM migration methodology to bring us to the next-generation Experion. Without the need to replace wiring or disrupt our I/O, we were able to take advantage of Experion’s benefits including faster data access, reduced installation and maintenance costs.”

Bob Heaton, Engineering Manager, Wiri Oil Services

Benefits

In an effort to improve process efficiency and replace aging control hardware, Wiri Oil Services developed a project plan to upgrade its process system technology. Turning to Honeywell, the company upgraded to Honeywell’s Experion® Process Knowledge System (PKS). The cut-over was implemented successfully, restoring critical fuel supplies to Auckland city within the planned timeframe.

By upgrading to Experion, operators were armed with the right data that could then be turned into valuable information to make better, faster decisions while also improving performance. Wiri used Honeywell’s Legacy Input/Output Module (LIOM) to connect to its existing Honeywell LCS I/O and upgrade their Human Machine Interface (HMI) to Experion R300 using ASM displays, seamlessly bridging the technology gap for its migration to Experion.

Honeywell’s solution allowed Wiri to keep their current hardware in place, and minimize operational impact, while upgrading to a more modern HMI. Other benefits included:

- Improved decision making thanks to more visible and centralized processes
- Improved safety and overall performance driven by the new Experion user interface, including the use of displays based on ASM philosophies for faster operator detection and quick resolution of any issues that may arise
- Reduced risk through low-risk migration path and implementation which still supported existing LCS I/Os

- Return on investment of existing hardware by keeping all field wiring and I/O intact with controller replacement via LIOM
- Minimized controller migration to gain benefits of Experion
- Increased production and efficiency due to improved understanding of data and ability to turn that into actionable information
- Enhanced opportunities to drive business and process efficiencies by development of MES applications layered on top of Experion, which were not possible on the ‘closed’ Scada system.



Background

Based in Auckland, New Zealand, Wiri Oil Services, LTD is the city's only petroleum depot and distribution centre for petroleum fuel. It is connected by pipeline to Marsden Point Oil Refinery in New Zealand. The company receives four products from a refinery through a pipeline and then jet is sent to Auckland airport via a second pipeline. There is also a truck loading terminal for other users.

Challenges

Wiri Oil Services wanted to reduce implementation time of a next-generation process control system and gain fast operator acceptance. The company also had to find a way to justify its capital based on reduced risk of downtime and quick implementation.

The main challenge was to minimize the fuel supply outage both for the airport, and for forecourt supplies for Auckland city. The changeover was critical especially considering its timing just before the high demand summer vacation period.

"Although it was time to replace our aging control system, we had to find a partner that could provide the right technology, support and most importantly lower our risk of implementation as much as possible but still retrieve the information we needed when we needed it and how we needed it," said Bob Heaton, Engineering Manager, Wiri Oil Services.

Solution

Wiri upgraded to Honeywell's Experion R300 HMI with the help of the company's LIOM solution, an integrated solution for taking advantage of Experion while ensuring the best utilization of existing LCS I/Os.

Wiri was able to use and leverage its current hardware investment already in place. Wiri used its existing LCS 620 I/O, keeping the hardware in place, but utilizing Experion's innovative HMI. LIOM connects to the LCS I/O and brings it into the Experion controller and then up to Experion HMI.

"There was no need to rip out our old controllers and put in a new Series C controller or any other hardware," continued Heaton. "Experion's HMI protected our investment in our existing infrastructure but still gave us a doorway to Experion."

Honeywell's Experion addresses the entire terminal process and identifies ways to safely enhance terminal results through facility-wide automation. Honeywell helps identify hidden opportunities in

a terminal and takes advantage of them to achieve optimal process automation and performance. As a result of actively managing terminal performance through Experion, Wiri was able to improve efficiencies, increase product send-out, reduce losses and optimize its return on investment. Typically a transition to paperless and automated terminal management can help achieve greater than 20 percent increase in send out capacity—an advantage that can make a huge difference in today's competitive market.

"With Honeywell we not only found the solution we needed, but also the best pathway to get there," continued Heaton. "No new wiring was needed, we upgraded to the latest technology available to date, we secured ongoing support of our hardware and we are now able to make better informed decisions."

The key advantage of using the LIOM is to reap the benefits of Experion while retaining one's investment in their field wiring and I/O. Experion provides value added features such as alarm management and trending. Thus the LIOM lets customer leverage the investment in their I/O and unlocks the value inherent in Experion.

Many process manufactures face the constant challenges of maintaining consistency and maximizing uptime. Continually uprooting infrastructure can introduce unwanted variables into the process, risking consistency. Likewise uprooting infrastructure can threaten the uptime of a process by introducing new risk elements. Therefore retaining as much of one's infrastructure as possible can help maintain consistency, maximize uptime, while reducing migration costs. The LIOM serves this very purpose.

By allowing a customers of the 620 LCS, S9000 and Logic Manager to retain their existing I/O infrastructure, upgrading the controller becomes quicker and easier than replacing their entire control network. Thus the LIOM helps one avoid the risk associated with uprooting one's entire control network to employ a new system. The LIOM lets customer retain the current I/O infrastructure and gain access to the new functionality found in Experion PKS.

The benefits of the LIOM include reduction of operating costs by minimizing the invasiveness of upgrading the controller ensuring process consistency and uptime. Overall, LIOM customers will benefit from maximum life cycle value – getting the most out of their installed assets while minimizing costs and maximizing the value of the product.

Concluded Heaton, "Wiri needed a low-risk, high-reward solution that would not only leverage, but take advantage of our current infrastructure in place. We turned to Honeywell for their proven implementation, local support and LIOM migration methodology to bring us to the next-generation Experion HMI."

Without the need to replace wiring or disrupt our I/O, Wiri was able to take advantage of Experion's benefits including faster data access, reduced installation and maintenance costs. Honeywell provided the entire package that captured and shared deep process knowledge for better decision-making and improved business performance, a seamless platform that provided the foundation for integrating all process control and safety systems and automation software under a single, unified architecture with centralized control.

More Information

For more information on Experion, LIOM, or any of Honeywell's automation Products, Services, or Solutions, visit our website www.honeywell.com/psH, or contact your Honeywell account manager.

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Process Solutions

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