

SMART CAPABILITIES & INSIGHTS FED INTO BULK HANDLING SYSTEM

The purpose of this project was to future proof Promtek's StoraWeigh and Condor bulk handling systems with smart capabilities and insights for energy efficiency, enhanced flexibility and improved reliability, and overcome Wynnstay's bulk material handling bottleneck at their Carmarthen site, Dyfed, South Wales.

Our Role

The relationship between Schneider Electric, Promtek and BPX as technical advisors stretches back more than 15 years. As Schneider Electric Alliance Master IADs, BPX understand how the latest technology solutions will support our customers and in turn, support theirs.

BPX first introduced Promtek to Schneider Electric's TeSys island at an event in 2022, where we'd invited Schneider Electric Offer Marketing Manager for Contactors and Motor Management, Sean Chiu, to present. Sean explained how TeSys island can reduce the time to market for developing systems to switch, protect and manage motors while providing data-driven insights.

BPX supported Promtek with the seamless integration of a TeSys Starter Kit with their software platform to show them what was possible, before later supporting them with the on-site set-up and installation at Wynnstay's Carmarthen premises.

Bulk Handling System Challenge

Promtek's client, Wynnstay, are a major supplier of agricultural feed products for sustainable dairy, beef, sheep, pig, and poultry farming, that identified a bottleneck at the weighing and loading stage of their production process. Wynnstay recognised that overcoming this bottleneck was critical to meeting growing demand for produce and ensuring product could be dispatched quickly, so turned to process control and automation system integrator Promtek, for an end-to-end solution.

The existing component controlling Wynnstay's material handling process, was a Direct Online (DOL) contactor - a simple way to energise and drive a motor, but that's where its functionality stops. The DOL component is simple by design to ensure reliability and easy maintenance. While this serves its purpose in many projects, this basic functionality means there is minimal control beyond simple on/off switching. Integrating more advanced features in a system such as this requires time-consuming manual configuration and customisation. Most importantly a DOL contactor lacks the ability to communicate across devices, to feed data into Promtek's end-to-end solution.

The project for Wynnstay required a combination of contactors and overload relays in a single package, but one that could also deliver the smart capabilities to feed insight into the Condor platform.



Collaborating Partners

- Promtek (Process Control & Automation System Designer & Integrator)
- BPX Electro Mechanical Co. Ltd (Technical Distributor of Industrial Control & Automation Solutions)
- Schneider Electric (Automation Technology Provider)

Case Study Background

Promtek is a family-run process control and automation business, based in Staffordshire, that specialises in the design and integration of systems for bulk material handling industries. They have a long history of working closely with technical distributors and technology providers, to enable the best results for their customers through complete end-to-end solutions.

StoraWeigh is a feature-rich process control system, designed and configured by Promtek for any bulk material handling process. Their Condor platform is a low-cost manufacturing execution system, with built-in open interfaces to a wide variety of SCADA, PLC, and ERP systems. StoraWeigh and Condor together solve persistent challenges for bulk handling systems, however they are often challenging for end users to integrate. Connecting incompatible machines to control the flow of product can sometimes become very difficult and expensive.

About BPX

In a rapidly evolving industrial control and automation landscape, BPX was recognised as Schneider Electric's Global Alliance Partner of the Year for 2024. For 2025, we proudly remain the world's first and the UK's only Schneider Electric Alliance Master Industrial Automation Distributor (IAD), specialising in Robotics & Motion, Drives, Sustainability, Software, and Services.

About Schneider Electric

Celebrating 100 years of TeSys, industrial automation technology providers, Schneider Electric are widely recognised as the world's #1 sustainable company. They have built on their position as the market leader in conventional contactors, to develop the very latest digitalised offerings.

Testimonials

"I have seen the collaborative approach that Promtek takes with developing solutions, and our customers benefit from that too. As shown by the recent Wynnstay project, when we brought together multiple experts from BPX and Schneider Electric to deliver the best solution, each providing domain expertise and best-in-class offerings."

Liam Barks, Head of Projects, **Promtek**

"Promtek deploying TeSys island is a perfect representation of how collaboration leads to innovation, taking a small enquiry from a customer, then focusing on the value that can be offered. As our IAD Master Partner, BPX brought a strong technical understanding of Wynnstay's needs, alongside our expertise as technology provider."

Sean Chiu, Offer Marketing Manager, **Schneider Electric**



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Our Solution

Following an initial presentation, a TeSys island starter kit was able to seamlessly integrate with Promtek's software, creating a test environment to show their customers what was possible. Several hands-on discovery sessions followed, where Promtek used the TeSys island starter kit to test the hardware in various scenarios and benchmark performance levels based on Wynnstay's needs.

As a result, Promtek added Schneider Electric's intelligent motor control system TeSys island, to deliver actionable real-time motor energy usage and maintenance intelligence, to their end-to-end solution for the Wynnstay project.

Finally, Promtek used its unrivalled industry knowledge to bring together each element into the end-to-end solution. Promtek deployed its StoraWeigh and Condor platforms for control and weighing of the final materials to ready them for dispatch.

"In some instances, Wynnstay had not even considered the new capabilities of TeSys island as a possibility. Together with Schneider Electric and BPX, we used the starter kit to create a presentation model that convinced Wynnstay as end-users to adopt the technology. There were no obstacles, it was a win-win as it didn't require a third-party solution with additional cost and integration challenges," added Liam Barks, Head of Projects, **Promtek**.

Results so far

The measure of success of any project is always determined by the end user, and there is no better measure than Wynnstay already looking to replicate the success of the process control and automation solution enabled by TeSys island, initially throughout the facility, then throughout their entire enterprise.

This success would not have been possible without the combined expertise of process control and automation system integrator Promtek, BPX as technical distributor and advisor, and technology provider Schneider Electric - all parties making use of the next-generation capabilities of TeSys island to solve challenges in the bulk material handling industry.

To Conclude

The end-to-end solution delivered by Promtek to Wynnstay perfectly represents the feed producer's 'intelligence for ingredients' approach. Leveraging a combination of software and hardware completes a vital part of the production process that prepares the final product for distribution.

TeSys island incorporated multiple capabilities, providing much needed visibility and bringing integration and preventative or predictive maintenance options in-house to Promtek. TeSys island delivers the control and protection that will future proof and support Wynnstay's bulk handling process throughout the entire lifecycle, while providing data for Promtek to provide ongoing services efficiently.

Promtek's experience with its customer highlighted another key driver for TeSys island: Sustainability. In fact, there is not a single industrial company that isn't assessing its carbon footprint and actively seeking options to improve energy efficiency. TeSys island's energy metrics will ultimately form part of Wynnstay's overall picture of energy consumption on each individual load, contributing to environmental monitoring and reporting that are growing in importance. Animal feed production facilities rely on heavy usage of energy-intensive machinery, so improved visibility of energy efficiency will have far-reaching benefits for them.

"TeSys island presented no limitations to what was possible. As mentioned previously, a DOL solution didn't provide adaptability. With TeSys island, we were able to deploy changes in Promtek's software for improvements in energy efficiency and maintenance. Unlocking proactive maintenance is critical for a lot of processes that can't afford unplanned downtime. This is especially true for operations like Wynnstay as this would halt their ability to deliver to customers. TeSys island provides the metrics and information to deep dive into individual contactors and associated devices. An operator looking into a motor for example will have a full understanding of efficiency as well as identifying preventative or predictive maintenance opportunities to future proof Wynnstay's ability to meet growing demand,"

Liam Barks, Head of Projects, **Promtek**

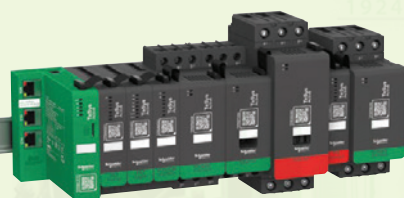
The Final Word

"It is always beneficial to work collaboratively with partners like Promtek and BPX. As Liam says, Promtek is able to deploy changes from within and use TeSys island to provide the right information for its end customer. But this is part of a continuous conversation, creating an opportunity for Promtek to feed back to us, for example to ask for different metrics or new capabilities. This directly feeds into our research and development to make TeSys island even better."

Sean Chiu, Offer Marketing Manager, **Schneider Electric**



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Featured Product TeSys island

Life Is On

Schneider
Electric

TeSys island is a digital load management solution that makes machines smarter and more reliable. The Industry 4.0-compliant data provider reduces time-to-market for any asset, enabling rapid advancement of digitalisation.

- Easy and remote access to energy data for each individual load
- Predictive and preventive application data
- Automated engineering tasks
- Open connectivity with embedded cybersecurity

