

# HONEYWELL DEPLOYS UNIVERSAL MARSHALLING SOLUTION FOR CONTROLS MIGRATION AT CANADIAN CHEMICAL PLANT

## Case Study

### OVERVIEW

ParaChem, a leading Canadian chemical producer, employed Honeywell's Universal Marshalling solution to standardize marshalling design, thereby enabling late changes in field wiring while ensuring a low cost of ownership.

### BACKGROUND

ParaChem is a chemical company using modern technologies in its facility in Montreal, Quebec, Canada, to produce paraxylene, an aromatic hydrocarbon that enters the polyester production line for the manufacture of clothing and plastic bottles.

The ParaChem facility employs Honeywell control solutions ranging from TDC systems with HPM controllers to Experion® PKS systems with C300 controllers. The company decided to replace HIWAY HLPIU points utilizing aging marshalling cabinets with the new Honeywell Series C I/O system.

### CHALLENGES

The Brownfield project at ParaChem involved replacing the third-party marshalling and I/O system for 200 I/O in the paraxylene and hydrogen plants with new Series C I/O and state-of-the-art marshalling solutions.

The complicated field wiring in the existing cabinet was to be safely upgraded to new Series C I/O and, at the same time, provide flexible field wiring and allow field device changes without affecting the system I/O modules or cabinet wiring.

ParaChem was trying to work on three major fronts on the same time: regular plant operations, turnaround activities with field devices, and migration to Series C I/O with new marshalling. Facing complicated maintenance work in the existing marshalling cabinets, it was searching for a marshalling solution that was easy to install and maintain, while providing flexibility to connect different types of field devices to different Series C I/O modules, without major wiring or cabinet customization.

However, there was no space in the facility to add a new marshalling cabinet and the upgraded marshalling



Figure 1. ParaChem Chemicals, Montreal East, Quebec, Canada

### ALEX LANTAGNE PARACHEM:

“By far, this has been our best marshalling installation at ParaChem despite being done in old, existing cabinets in a Brownfield expansion project.”

solution had to fit into the limited footprint available. The prevailing COVID pandemic lock down during the execution time made it imperative to work within the limited resources and schedule.

### SOLUTION

ParaChem had decided to use Series C I/O modules for the system upgrade. After reviewing various marshalling solutions on the market, they decided to use Honeywell's Universal Marshalling Solution, which provides flexibility in field wiring to connect different field devices without any complexity while including disconnect and fuse functions by default in a compact form factor.

Universal marshalling also isolates the system I/O from field wiring, thereby avoiding inadvertent system disturbances while working on the marshalling and field wiring side. The



Figure 2: Cabinet before upgrade

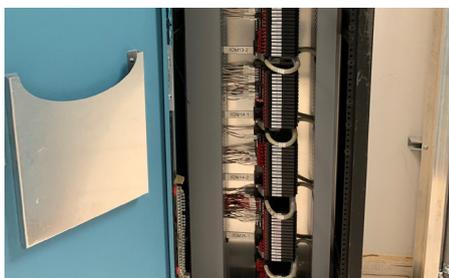


Figure 3: Cabinet after upgrade

universal marshalling solution provides the flexibility to connect to two-wire devices, three-wire devices, relays, thermocouples, RTDs, etc. without any custom wiring or cabinet redesign.

As shown in Figure 3, field wiring is handled in a clean way in the cabinet with ample space for maintenance. The solution also provides the flexibility to easily change as per field device type within the limited space available in the cabinet. The project team was able to install the marshalling solution and commission the 200 I/O within the planned five days under the conditions of a challenging COVID work environment.

#### For More Information

To learn more about how Honeywell's Universal Marshalling Solution can improve performance, visit [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell Account Manager.

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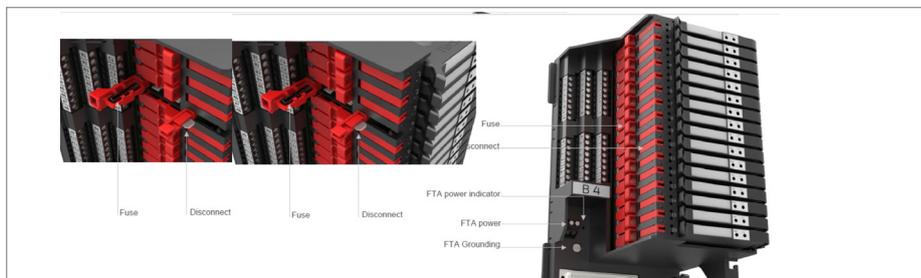


Figure 4: Universal Marshalling solution

Honeywell's Universal Marshalling Solution delivers standardized marshalling for central and distributed installations using signal conditioning assemblies. These assemblies handle 16 I/O, including disconnect, fusing as default, and, when needed, signal conditioning adapters (SCA), including isolation, intrinsic safety, relay, and other functions that can be plugged in optionally. The SCA solution supports flexible wiring configurations without the need for custom wiring.

In addition, the Universal Marshalling Solution delivers the next phase of LEAP™, Honeywell's lean project execution methodology, through standardization of marshalling design — enabling late changes in field wiring while ensuring low cost of ownership.

#### RESULTS

Honeywell has been a pioneer in the petrochemical and oil & gas industry for many years. Its extensive offerings range from Integrated Control and Safety Systems (ICSS)

to Supervisory Control and Data Acquisition (SCADA) and Remote Terminal Unit (RTU) platforms, field instrumentation, and more.

In this case, Honeywell technology enhanced the ability of a leading petrochemical company to safely migrate control systems to the latest technology to continuously improve its operations. The solution was easy to install and fit seamlessly in existing cabinetry.

#### ABOUT HONEYWELL'S UNIVERSAL MARSHALLING SOLUTION

Honeywell's Universal Marshalling Solution provides a one-stop solution to efficiently connect instrumentation signals to Series C modules with standardized cabinets, standard documentation, and fewer spare parts without needing additional third-party equipment.

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