Online Portals Connect Asset Management and Purchasing

Personalized online instrumentation portals ease information exchange, reduce specification and ordering errors, and ensure access to updated documentation.

By Sean Beeker, Endress+Hauser

"It doesn't fit" or "It isn't working" are familiar phrases to personnel working in many industrial plants and facilities. While wide assortments of instrumentation and control hardware enable production of just about any goods, procuring and maintaining the right device can be difficult.

Even after procurement and installation of the correct hardware, challenges may still arise with asset management. An electronic computerized maintenance management system (CMMS) helps manufacturers keep tabs on their process instrumentation lifecycles and maintenance, but these systems are often not integrated with purchasing systems and product orders.

Throughout instrument maintenance, repair and operation (MRO) lifecycles, a CMMS can help ensure calibration and required testing occurs as scheduled. When software updates or repairs are required, however, a scramble to track down lengthy part numbers, associated software drivers, and documentation often ensues. Engineers must connect many dots between CMMS, instrument supplier documentation, and purchasing systems — or worse, manually create orders outside an enterprise purchasing system.

Let's look at how these and other issues can be solved, first detailing the problems and then describing a solution.

Problematic Paper and Siloed Processes
Left to outdated systems and procedures, manufacturers can struggle to keep up with competitors. An organization's CMMS, or a pen and ink-based system, used for plant MRO impose natural limits on collaboration among operations, engineering, maintenance, purchasing, and supervisory staff when it comes to procuring and maintaining instrumentation. While manual order entry

may work in niche instances, it relies too much on siloed and tribal knowledge, is error-prone, and is not conducive to organizational learning.

Even with advanced electronic asset management, computerized maintenance management, and project management systems, manufacturers can have a hard time streamlining their order processes and ensuring accuracy. For one thing, it is rare to find automatically integrated systems where technical device and purchasing part numbers are linked. Furthermore, finding the documentation to accurately connect technical specs to product numbers can be difficult.

This lack of automation makes it challenging to specify and order the right instrument for each application. Engineers can use an offline or online catalog to string together the required part number, but this pales in comparison to the ease of use and reduction in errors when an online, menu-driven tool is used for instrument selection.

Once an order is placed, the salesperson who took the order must typically enter it into the supplier's internal system, potentially with delay, creating lag time in executing the buyer's order. Order status must typically be checked by contacting the salesperson or someone else at the supplier.

Fortunately, a better alternative exists, in the form of online purchasing and asset management systems.

Seamless Specification, Order Creation and Purchase Review
In response to these and other issues manufacturers face when managing instruments throughout the lifecycle, some suppliers are establishing personalized online

instrumentation portals. These portals act as single hubs for specifying and ordering instrumentation, and for obtaining technical information.

Endress+Hauser's online ecommerce platform, Endress.com, eliminates most manual data entry during purchasing by using a menu-driven system, making it simple to match the instrument's technical specs to the part number. This helps reduce part number errors, and it ensures consistency between manufacturers and suppliers because they are using the same system.

With an online system, all information related to each instrument is always at hand and up to date, including electronic downloads containing technical documentation, certificates, device drivers, and CAD drawings. An online system also serves as a central repository because all departments across a manufacturing organization can quickly access purchase history, identify relevant documentation, review quotes, and order replacements.

Additionally, online systems empower buyers to compare pricing for base unit modifications (Figure 1). In traditional instrumentation marketplaces, such comparisons require

requests to an inside salesperson for multiple manually-generated quotes. By providing near instantaneous response to iterations, buyer-driven comparisons in an online marketplace save time for manufacturers and suppliers.

Furthermore, online orders trigger product fulfilment procedures immediately upon receipt, eliminating potential delays with manual systems. After order, buyers can easily track shipment and delivery status via a PC or smartphone, review purchase history, and duplicate orders through their online portal.

Compatibility and Integration

Migration to an online ordering system does not necessitate a return to square one for manufacturers' instrument life cycle management programs because leading online systems enable coordination with an existing CMMS or enterprise resource planning (ERP) system. For example, manufacturers can track procurement and delivery details from Endress.com within their ERP system using software integration, and they can access Endress+Hauser's recommended MRO lifecycles via their CMMS, it in either case using this information as they choose.

Figure 1: At Endress.com, the menu-driven instrument selection tool gives manufacturers the ability to quickly determine part numbers and cost for each instrument, including all options.

Process manufacturers with internal systems can also benefit by integrating with a supplier's catalog to create purchase orders in their ERP system, with each order automatically transferring to the supplier's system for fulfillment. Additionally, shipping and invoicing documentation can be easily exchanged electronically through integrated systems.

Because sensitive information is involved, security is a major focus for online instrumentation portals. In addition to leveraging the latest encryption and cybersecurity standards, leading online systems enable manufacturers to set up profiles for their personnel with varying access levels. This ensures each staff member across an organization can review relevant information—like order history and shipment tracking—but no more.

Use Cases

By creating and maintaining a personalized online instrumentation portal, Endress+Hauser has witnessed notable customer successes, a few of which are outlined below.

One frequent and longtime customer required the same instrumentation repeatedly. Yet, they still made mistakes in their orders by selecting the wrong pressure transmitter specs, resulting in frustration for all parties involved. To remedy this, Endress+Hauser created a personalized profile for the manufacturer on Endress.com preloaded with the product numbers associated with the manufacturer's product list. It has been almost a year since this was done, and there is yet to be a single order error.

For a systems integrator (SI) customer, Endress.com simplified their sales process because they were able to leverage the online information to create quotes and design projects for their end user customers. The easy access to information and CAD drawings (Figure 2) enabled them to perform engineering work and generate submittal documents well ahead of the previous pace, as prior methods required extensive back-and-forth communications with Endress+Hauser.

With the new system, the only calls the SI needs to make to Endress+Hauser are for technical questions — otherwise, the SI's engineers go straight to their purchasing team to create orders online. By using the "Favorites" section component of Endress.com, the SI can separate orders among their customers utilizing different folders in the instrumentation supplier's system, simplifying project budget tracking and billing.

A water filtration process skid builder also benefited from using their Endress.com account. Formerly requesting quotes and waiting varying lengths of time for a response, they are now able to quickly obtain pricing and modify quotes on demand using Endress.com, allowing them to access accurate and detailed pricing instantaneously.

Figure 2: Endress.com provides access from multiple types of devices.

Finally, another skid builder was able to make their procurement process for instrumentation more efficient by using the online system. When ready to place an order, they were able to eliminate the time of back-and-forth communication with the supplier by placing orders directly on Endress.com.

Improvement Across the Board

As high-level software systems trend toward integration across industries, forward-looking instrumentation suppliers are making it easier for manufacturers to connect their technical and purchasing data, improving both asset management and purchasing capabilities. These same suppliers are continuing to improve the online experience with live chat support, on-demand tutorials, and the ability to customize and download personalized document profiles for each instrument.

By setting up an account in a personalized online instrumentation portal, manufacturers can ease integration and information-sharing between purchasing and MRO data systems, reduce order errors, quickly access relevant software drivers and documentation, and stay on top of deliveries. With more adopters, it may not be long until "It works, as usual," becomes the more commonly heard phrase at industrial plants and facilities.

All images courtesy of Endress+Hauser

About the Author

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