

CASE STUDY

H-P Products: Increasing Productivity Through Solution Augmentation



“By augmenting our existing ERP solution with Zend Server and PHP, our web-centric solutions have enabled the quote process to grow from 65 quotes a week to upwards of 240 quotes a week!”

Robert Arnold, MIS Manager, H-P Products

Industry

- Industrial manufacturing

Challenges

- Data currency – the shop floor was often working with outdated information
- Data view – throughout the manufacturing process, multiple screens had to be traversed

Solution

- Zend Server (including Z-Ray)
- IBM i Operating System

Results

- Efficiency gains
- Increased sales
- Expanded data usage

Extending the Life of an ERP Solution on IBM i

H-P Products is a manufacturer of tubular related products and residential central vacuums located in Louisville, Ohio. A user of IBM mid-range systems since 1984, H-P Products runs their back-office solutions on the IBM i platform because it can rely on the platform's security and performance to safeguard and make use of one its most precious assets — their business data.

For years, H-P Products has leveraged a commercial solution running on their IBM i to meet their Enterprise Resource Planning (ERP) requirements. However, H-P Products came to realize that the existing 80x25 green screen displays were restricting data insights and efficiency — especially compared to modern web-based interfaces that provide richer data summaries in easy-to-read graphs and charts. As stated by Robert Arnold, MIS Manager at H-P Products, “The green screen is great for data entry, but it lacks somewhat in data consumption.”

Making Data Easier to Consume

The company decided to consolidate the information from multiple 5250 screens and present it in a single, easy-to-navigate web interface based on a PHP-certified stack developed with Zend Server.

By doing so, H-P Products would provide staff with faster insights into ERP data, and gain the ability to easily modify the interface as needed to meet changing business requirements. In addition, H-P Products could maintain their ERP system's existing data structures, and improve the return on investment of their IBM i system.

Retaining the Reliability, Security, and Performance of IBM i

To create the most useful interface, H-P Products developed PHP scripts that enable staff to quickly display the allocation of resources, including usage information for up to 12 months. PHP scripts also make it possible for staff to update information in the ERP system, plus see forecasting and order history that is linked to architectural drawings. And they can view and update inventory information, such as the locations of parts and where materials are used throughout the entire manufacturing/production life-cycle. As a result, H-P Products can continue taking advantage of the reliability, security, and performance of the existing IBM i system, and help a wider business audience make faster and more informed decisions based on up-to-date information.

The PHP scripts can deliver these insights and support ERP data entry because Zend Server includes DB2 language extensions that support interoperability with the IBM i system. Additionally, Zend Server includes an XML Toolkit that allows PHP scripts to interact with RPG applications' business logic.

Moving Beyond Paper to Improve Scheduling, Decision Making, and Savings

With its new solution, H-P Products has improved scheduling processes. Previously, orders for new bender

systems — that stretch and bend the metal tubing — generated 22 pieces of paper detailing workflows for a single 14-hour scheduling period. Today, the ordering and scheduling processes are digitized. From the web-based interface, staff can see the list of materials needed for the order, the allocated time of the job, and details about the manufacturing order including the flow of work across the production floor. Staff can also control the planning and execution of production processes.

To keep employees informed about the status of current jobs, shop floors now include 55" screens that display production process schedules, which are currently configured to update every 5 minutes. Workers can also use iPads to interact with the production systems, so they can immediately access the data they need and enter new information to keep the ERP system up-to-date. This digitized approach to scheduling has improved management efficiency and saved money by dramatically reducing the amount of paper work centers require to operate.

Increased Efficiency and Sales

H-P Products is also increasing sales and boosting efficiency in other ways with PHP and Zend Server. For example, purchasing workflows are faster today because PHP scripts automatically enter data received via email regarding new parts and vendors into the ERP system, so that staff don't have to manually input the information. In addition, IT staff are using built-in PHP tools in Zend Server to simplify development, and they are taking advantage of capabilities such as Z-Ray to help isolate code issues and environment concerns.

What's Next

Never one to stand still, H-P Products is currently expanding their PHP solution to include a Manufacturer Order (MO) capability. The organization also plans to evolve the application to display active-order routing information as well as a vendor portal that gives customers greater insights into order status. H-P Products also plans to implement frameworks for functions, including authentication, as another way to streamline their development efforts.