

FOUR HUNDRED *Stuff*

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Companies Put PHP to Work With BCD's WebSmart

By Robert Gast

The benefits of Web-based applications for purposes such as online shopping and order entry can reduce personnel costs and other bottlenecks when working with suppliers and customers. In IBM i shops, the interest in PHP has been surprisingly vigorous. Two companies that recently went live with IBM i PHP applications are Midwest Fuel Injection (MWFI) and American Foods Groups (AFG), both of which chose WebSmart PHP from Business Computer Design.

Interestingly, the technicians responsible for PHP development at each company have very different programming backgrounds. MWFI's Tony Kudrys has lots of Web experience but only basic IBM i knowledge, while AFG's Warren Schultz is a skilled RPG programmer with incidental exposure to Web-based technologies.

Ultimately, both men created professional PHP applications. What they have in common is that they both used WebSmart PHP.

PHP on IBM i?

The use of PHP is definitely on the rise. According to Nexen.net, an organization that tracks PHP's proliferation across the web, 33 percent of all domains on the Internet are running PHP apps, and growth is expected to continue. Multi-platform support, ease of use, a three- to four-times performance advantages over JSP, and a huge support community for this open source Web programming language are a few reasons that PHP has grown so quickly.

PHP is also gaining ground because it's being supported on a wider range of platforms. PHP applications running on Zend Core for IBM i gives programmers more opportunities to create innovative Web-based systems that satisfy evolving business requirements while leveraging existing investments in technology and talent. With the right tools, PHP programs can be easily integrated with existing RPG and COBOL applications and data residing in IBM DB2 for i.

Many IBM i shops are considering PHP or have firm project plans that include it. One person on the front line of IBM i PHP development, Marcel Sarrasin, technical sales manager from BCD, believes PHP has passed the tipping point across the IBM i landscape and notes a dramatic increase in the number of registrations for BCD's webinars on the PHP edition of WebSmart. "Over 500 people signed up for our PHP webinars in the past few months," says Sarrasin. "About 70 percent of those people have no prior PHP experience but they see the potential in PHP and they immediately see the value in WebSmart PHP because it generates the base PHP and HTML code for them and handles the connection to their database and to their IBM i." BCD launched WebSmart PHP in September 2007.

The Diesel Store

While many have plans for PHP, others such as Midwest Fuel Injection have already deployed new applications based on PHP. MWFI specializes in maintaining diesel engines and houses an extensive inventory of parts. In addition to using these parts in its repair business, MWFI also sells them through what is currently the top Web store for such items: www.thedieselstore.com.

Roughly one year ago MWFI's president Ben Seidel authorized the construction of a dynamic Website that would offer shoppers Web access to detailed product descriptions, inventory availability and pricing information. Their plans also included broad search and shopping cart capabilities, credit card transaction clearing and UPS shipment tracking. "We had a static Web site and spent a lot of time keying in telephone orders. We were quickly adding hundreds of new parts to our catalog and needed to offer customers an easy-to-use online parts store that would allow them to find what they needed very quickly," says MWFI's Tony Kudrys, senior system engineer and Web developer.

MWFI manages its entire repair and parts operation with a niche application from Computer Central in Arlington, Texas. This package runs on a IBM i OS server housed at MWFI's main facility in Bolingbrook, Illinois. Kudrys and one Web designer handle all system administrator duties, help desk tickets, and Web application development. Paradoxically, neither Kudrys nor his Web designer, Steve Heinrich have a significant amount of experience with IBM i.

Kudrys says they considered building their e-commerce site with Microsoft .NET ASP pages and transferring the data over to the IBM i server for processing and invoicing. This approach seemed too convoluted so they evaluated an e-commerce system proposed by Sirius Computer Solutions that required the acquisition of \$250,000 in new hardware. Then, acting on a tip from their application software vendor, Computer Central, Kudrys called BCD and asked about WebSmart PHP.

"The license fees and professional services costs were well within the budget limits we set for this project and we were able to use our existing hardware," according to Kudrys. "We also liked the simplicity of PHP and how easily it integrated with existing RPG applications and the database." Kudrys estimates his total investment in WebSmart PHP and a couple weeks of consulting time at \$18,000.

After three days of training, he and MWFI's Web designer started customizing the templates included with WebSmart PHP to match their organization's look and feel for the front end, and then started developing the catalog and shopping cart on the backend. At the same time, BCD's professional services team built the check out process. Says Kudrys, "While WebSmart PHP gives you templates that help you create applications, we wanted to build the user interface from scratch and it allowed us to do that. We wanted it to look a certain way. BCD built the sign-in, shipping, billing and credit card submission applications. Their part does a silent order post to the credit card company using web services and once the approval response comes back they send the information to the IBM i to be processed and invoiced."

While information on pricing and availability is being pulled from the IBM i server, MWFI's PHP applications acquire the full product description and product image from a MySQL database that resides on a separate PC. "The product descriptions on the main server are only about 20 characters long and we needed to display longer narratives for each SKU," says Kudrys. This is a classic case of leveraging legacy information on two platforms transparently, one of the significant benefits of using web services and PHP strategically.

Most of the vendors in the on-line diesel engine parts business sell the same 600 SKUs. MWFI's intention is to offer 700,000 different SKUs and to be a single source for everything related to diesel engine repair, maintenance and modification. Adds Kudrys, "We will definitely be able to do this with the way this site is built."

"BCD's PHP development solution provided many of the tools that we needed and allowed us to use our existing computing resources and talent. And there's a big difference between the \$18,000 price tag for this solution and the other option for \$250,000," says Kudrys.

American Foods Group

American Foods Group ranks among the top three privately held meat processors in the U.S. and distributes its products through retail outlets, foodservice vendors, and convenience stores. Headquartered in Green Bay, Wisconsin, AFG employees over 4,000 people. AFG uses PRISM ERP running on the IBM i operating system.

In AFG's case, systems analyst Warren Schultz used WebSmart PHP to develop several Web applications to simplify file maintenance. Rather than creating custom templates like MWFI's Kudrys, Schultz used the standard program templates included with WebSmart. A key objective of Schultz's is to pass current pricing information to a government server, thus fulfilling a statutory requirement. Because pricing values change weekly, the accounting staff can adjust these values in a browser and have their reports up-to-date in real time as they are automatically transmitted to the government.

Overcoming the differences between RPG and PHP

With more than 20 years of experience on computers running IBM i OS and its predecessors, Schultz says that, like most developers with his background, his Web skills were somewhat limited. After attending a WebSmart PHP training seminar and reading other materials relating to PHP development he says, "I was able to get off and running in PHP development fairly quickly. The templates and the training were both very helpful."

Schultz also used BCD's browser-based report generator, Clover, and its portal, Nexus, to build a secure system where end users can do quick queries and view reports in a browser in a number of file formats, including Excel spreadsheets. He also developed Inquiry and Lookup screens with both Clover and WebSmart PHP that allow users to filter searches by specific values such as order number or dates.

"In terms of how these applications are accessed, I've set them up as folders or drop down menus within our Nexus Portal," says Schultz. "As long as users have a valid System i user ID they can log in to the portal and access these options based on their profile. In a few instances where users do not have a valid user profile I can grant them access within Nexus."

The Nexus portal also serves a number of other purposes. Besides providing shortcuts for these applications, it's also a convenient repository for documents. Users can just click on a link and download a document rather than relying on a co-worker to find it for them in a network file folder and mail it.

"What I like about Nexus," Schultz says, "among other things, is that while it was initially set up with the help of BCD's technical support staff, it's not that difficult to maintain, especially when it comes to adding new users or adding menu options, setting up groups, adding people to those groups, and using those groups to limit who has authority to what options. It's actually very easy to use."

Both Kudrys, a technician with extensive Web development knowledge but only basic IBM i skills, and Schultz, a seasoned IBM i veteran with limited web development experience, were able to solve strategic and tactical business problems with the same tool, WebSmart PHP.

Kudrys and Schultz both see the benefits of these new Web-based applications. Kudrys says MWFI's online shopping and order entry application was an instant success with his company's customers, and cut down considerably on personnel costs, while Schultz sees a dramatic reduction in the number of calls made to his office for current reports and compliance documents.