

SAP Customer Success Story



Baldor Electric Company, a leading manufacturer of industrial electric motors, drives, and generators, needed to make a wide range of information easily available to company employees. Using SAP® Web Application Server, the reliable Web application infrastructure of SAP NetWeaver™, and its Java-compliant J2EE technology, **Baldor** enabled users to access critical business information, track customer orders, and even announce employees' birthdays. Implementation was fast, costs were minimal – and companywide communications have never been better.

BALDOR
MOTORS • DRIVES • GENERATORS



BALDOR ELECTRIC COMPANY

NEW JAVA APPLICATIONS TAKE OFF WITH SAP® WEB APPLICATION SERVER

Baldor Electric Company knows the value of powering businesses. The company, founded in 1920, designs and manufactures industrial electric motors, drives, and generators – selling to distributors and original equipment manufacturers in more than 55 countries. Based in Fort Smith, Arkansas, Baldor produced revenues of nearly \$600 million in 2002. Its products – manufactured at 15 U.S. plants and 1 in Bristol, England – are available from 40 sales offices and warehouses in North America, with 25 offices serving international markets.

Baldor's 3,600 employees may work for a large and successful company, but Baldor's philosophy and work environment create a sense that it is one big family. To that end, it is important for Baldor to keep people informed with up-to-date business information along with more personal news like birthdays and special events. That's why it selected SAP® Web Application Server (SAP Web AS), the Web application infrastructure of SAP NetWeaver™, with its enhanced Java development environment and support for Java 2, Enterprise Edition (J2EE). Using its own staff of developers now armed with the powerful SAP Web Application Server, Baldor was able to create a variety of user-friendly Web applications to make business, company, and employee information more easily available. Development was fast and costs were reduced by using the developers' existing Java skill sets combined with easy-to-use SAP tools and an out-of-the-box solution.

FAST TRACK WITH IN-HOUSE DEVELOPMENT

Baldor has been an SAP customer since 1997. Since then, the company has implemented a variety of business solutions for sales and distribution, financials, materials-resource planning, materials management, plant maintenance, warehouse management, human resources, and more. All sales offices and manufacturing locations are connected to a central SAP ERP system in Arkansas. Since a driving force within Baldor's corporate culture is empowering employees with information, the company opted to develop a corporate intranet.

"Our human resources management wanted to have a Web application to communicate events and news to all employees," says Jeff Hines, manager of application development. "They wanted a central corporate intranet in one location to publish benefits information and job postings. They also wanted to announce birthdays and anniversaries. Baldor has been around a long time, and we have people who have worked here for 20 years and more. Management likes to recognize what these employees have done. It's all toward improving the relationships with our own people."

SAP Web Application Server offered Baldor a scalable and reliable platform for developing Web applications in an open, standards-based environment. Moreover, it could seamlessly integrate into Baldor's existing SAP system to leverage information contained in employee master records, customer sales and distribution, shipping, and production data.

Baldor's choice of SAP Web Application Server was also based on the Java skills of its developers and the comprehensive support of the complete software life cycle for Java/J2EE. Training would be minimal and development could start almost immediately. "Java is a widely used language," says Roger Murphy, systems analyst and

Java developer at Baldor. "The benefit to us is that now we have a single repository for all our Web applications, we're using open standards, and the [SAP] Web AS tools make development fast."

LEVERAGING EXISTING INFORMATION

Many of Baldor's applications put existing data from the SAP system to new use. "We want to make the best use of data that is stored and managed in SAP," explains Hines. "We use the development tools that SAP recommends to leverage SAP training and get the most integration with our back-end system. SAP provides hundreds of Business Application Program Interfaces [BAPI®] in its business-object repository. We've created Web services that serve data to our Java applications by leveraging the BAPIs that SAP provides out of the box, and the BAPIs we've written in-house. By creating Web services, we've separated the business layer and created an open standards-based framework. This can be leveraged now by Java developers creating front-end applications and has the potential for system-to-system integration. As an example, the application that broadcasts birthdays and anniversaries uses the employee master record to get that information."

"The ongoing benefits include productivity on the development side, the ability to turn projects around faster, delivering more user-friendly applications, and virtually eliminating the user's learning curve by writing a Java front end and calling Web Services to interface with SAP."

Jeff Hines, Manager of Application Development, Baldor

Baldor was quick to develop a variety of other applications, since the SAP tools are so easy to use. "Another thing we like everyone to know about is sales information, which we can extract from our back-office system," says Hines. "We're a customer-oriented company, so even in manufacturing and information services, we like people to be thinking about sales. We developed a running ticker across the top of the Web application that looks like headline news. What we have is a Web service that's serving up sales information with Java presenting it to the browser. For example, at this moment, the display is showing today's global customer orders — in the U.K., customer orders were \$76,000; stock shipments out of Atlanta, \$63,000; Baltimore, \$35,000; and

so forth. The Web service is getting data that's summed up from the shipments. When an order is shipped, that's recorded in the SAP system, so when the Web service runs, it sees what's shipped and how much money the order is worth. This is real-time success information. We're also developing a Web service that's going to present news about sales wins. If a salesperson enters a big order, the system will come up and show you the customer and how much the sale was. The Web service takes sales information, customer information, operations and shipping information, and leverages it to inform our people."

Baldor is also using the openness of the SAP Web Application Server to get non-SAP information, such as the company's current stock price and local weather – data that comes from feeds from Internet services.

APPLICATIONS FOR INCREASED PRODUCTIVITY

Baldor has also developed Java applications to help streamline and enhance business processes. "One of the best applications is our 'track ship,'" says Hines. "Sales and customer-service people click on a button of a globe that says 'track ship,' and a box pops up where they can enter a purchase-order number or a carrier's number. The application calls a Web service, reads data out of the SAP system, and retrieves information about whom the order was shipped to, what carrier shipped it, the weight, the product, and when it was shipped. And if there's a link to the carrier's Web site, there will be a hot button there. For example, if the order was shipped through UPS, I can link to UPS to find out where the shipment is. We also have a digital signature inserted into the bill of lading. The bill of lading can be served up as a PDF showing the signature, which helps us identify to our customers the person who picked up the shipment."

CONSOLIDATING VALUABLE INFORMATION

Baldor has recognized the power of developing Web applications for consolidating and organizing valuable information that was previously spread throughout the company. "Over the past five years, different groups have created their own Web applications that live on their own Web sites," notes Hines. "We are consolidating that information so that everything comes into one entry point and works like a portal. We call it 'MyBaldor.'"

Many of the sites were created by engineers for people to call up computer-aided design (CAD) drawings – engineering diagrams of the product that show the dimensions and the component parts.

"These sites would get thousands of hits a day," says Hines. "We're bringing all of these drawings into SAP using SAP content-management servers. Now, I can enter a drawing number or description of a motor; the Web service is called up, and that retrieves the list of drawings from within the document management system component. That is displayed in a Java application. I can select a motor, and the drawing is launched in my browser. With SAP Web Application Server and Java, we can catalog, index, and access them in a logical way. The index and organization is within SAP."

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Jeff Hines, Manager of Application Development, Baldor

MORE OPPORTUNITIES AHEAD

Baldor sees many more possibilities with SAP Web Application Server and developing enterprise-class Java applications. "These applications are going to open people's eyes to what is possible," says Hines. "We really have done a lot in a very short time, and it's been very productive. We're leveraging information that's already in our SAP system, using it in different ways that nobody would ever have thought of before."

“The ongoing benefits include productivity on the development side, the ability to turn projects around faster, delivering more user-friendly applications, and virtually eliminating the user’s learning curve by writing a Java front end and calling Web services to interface with SAP. It’s all about communication and improving employee relations. I expect that what we’re doing is going to take off like a rocket.”

ABOUT SAP NetWeaver

SAP Web Application Server is the scalable and reliable Web application infrastructure of SAP NetWeaver, the open integration and application platform that reduces total cost of ownership across the entire IT landscape. It is the technical foundation of the mySAP™ Business Suite family of business solutions, SAP xApps™ composite applications, and other general-purpose and industry-specific applications from SAP. SAP NetWeaver also is the technical foundation for Enterprise Services Architecture, the SAP blueprint for solutions based on Web services.

SAP NetWeaver integrates and aligns people, information, and business processes across technologies and organizations. It gives companies the power to adapt quickly to change. It ensures that mission-critical business processes are reliable, secure, and scalable and helps companies get more from their current software and systems. SAP NetWeaver unifies integration technologies into a single platform and provides preconfigured business content, reducing the need for custom integration. It is based on open, standard technology and is interoperable with commonly used technologies such as Java 2 Platform, Enterprise Edition (J2EE), Microsoft .NET, and IBM WebSphere.

AT A GLANCE

Company	Baldor Electric Company
Industry	Manufacturer of industrial electric motors, drives, and generators
Challenge	Use in-house Java developers to create wide range of applications to broadcast sales wins, track customer orders, and improve flow of information to employees
Solutions	SAP NetWeaver™ with SAP® Web Application Server
Implementation highlights	<ul style="list-style-type: none">– Quickly developed Java-based applications to run on new corporate intranet– Required minimal training for development
Benefits	<ul style="list-style-type: none">– Leveraged in-house developers and existing Java skills– Reduced TCO with comprehensive support available within Java world– Easily implemented custom-developed Java applications with SAP NetWeaver and the SAP Web Application Server– Improved communications and operational efficiency– Took advantage of information already in SAP systems– Enabled tight integration with existing SAP systems
Hardware	IBM xSeries 235 servers (2 processors running hyper-threaded; Intel Xenon running at a 1.8 gigahertz clock speed)
Operating system	Windows 2000 with Service Pack 3

