

Carlisle Engineered Products

Carlisle Engineered Products Brings 3-D Clarity to Bidding Process with Microsoft Technology



Solution Overview

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Carlisle Engineered Products manufactures parts for the OEM and tier 1 automobile industry, including the Big Three: General Motors, Ford, and DaimlerChrysler. With 17 different facilities, Carlisle Engineered Products was spending time and money duplicating and overnight expressing the drawings it receives from companies requesting a bid to manufacture parts. Carlisle Engineered Products found its solution with Actify® SpinFire™, which enables users to view and share 3-dimensional product designs across Carlisle Engineered Product's extended enterprise via a Web browser. Actify SpinFire Enterprise was developed entirely with the Microsoft® .NET Framework and XML Web services, and deployed using Microsoft Internet Information Services and Microsoft SQL Server™ 2000.

Company Overview

Carlisle Engineered Products, Inc. (www.cepcarlisle.com), a subsidiary of Carlisle Companies, Inc. (NYSE:CSL) is a custom molder and extruder of rubber and plastic products, primarily for the automotive market. Through internal product development and acquisitions Carlisle Engineered Products has grown to become an important supplier of highly engineered components to automobile manufacturers around the world.

Business Challenge

Carlisle Engineered Products has 13 plants, 2 offices including facilities in England, North America, and Mexico. The company operates in a competitive global business environment, where profitability depends in part upon how accurately jobs can be bid, and the speed and precision with which requests for bids can be answered. A request for quote (RFQ) enters Carlisle Engineered Products at its Sales, Engineering, and Design Center at Livonia, Michigan. Depending upon the type of plastic part being requested, the RFQ information, including drawings, are forwarded to Carlisle Engineered Products plants for consideration. The RFQ information and drawings must also be sent to Carlisle Engineered Products subcontractors and partners. Distribution of this information is complicated by the fact that each of the Big three U.S. automakers uses a different type of CAD system, making it impractical to supply each facility with

Profile

Manufacturer of highly engineered plastic and rubber components for tier I suppliers and other manufacturers in the automotive industry.

Business Need

The ability to easily and securely share 3-D designs over the Web.

Solution

Actify SpinFire Enterprise, created using the Microsoft® .NET Framework and XML Web services, and deployed using Microsoft Internet Information Services and Microsoft SQL Server™ 2000.

Benefits:

Enhanced communications, seamless integration with SQL Server 2000, extensibility of XML Web services, rapid ROI.

Microsoft Technologies/Products Used:

Microsoft Windows® 2000 Server
Microsoft Windows XP
Microsoft SQL Server 2000
Microsoft Internet Information Services 5.0
Microsoft .NET Framework
XML Web services
C#

Hardware

Dell Servers

its own set of expensive CAD viewing systems. Distribution of paper drawings was based on use of overnight delivery systems. This is expensive and time consuming, especially when dealing with engineering changes requiring distribution of updated drawings. Additionally, the two-dimensional paper drawings aren't as revealing as the 3-D CAD models, where objects can be spun around for complete viewing. When multiplying this process by the more than three thousand bids Carlisle Engineered Products handles each year, a more efficient solution was needed.

Solution

Carlisle Engineered Products turned to Actify SpinFire Enterprise (www.actify.com), a solution that enables both technical and non-technical users to view and share 3-dimensional product designs across an extended enterprise. It converts native CAD files into Actify's neutral file format, which can be viewed using the SpinFire Viewer, available as a free download from Actify. It's no longer necessary to ship paper drawings to plants and suppliers. The people creating the quotes have CAD-quality images to view for more precise quoting, and the flow of information has been accelerated. "What used to take us days, now takes us hours," said Mark Burrows, Carlisle Engineered Products Systems Administrator.

The solution, which was installed in less than a day, also represents an example of the power of the Microsoft .NET framework. "We built SpinFire Enterprise entirely using Microsoft technology," said Mike Walsh, Actify President and CEO. "SpinFire Enterprise is an extension of Microsoft Internet Information Services. We use the Microsoft .NET Framework and the C# programming language to connect the database, and to implement the XML Web services that provide so much of the functionality."

Benefits

Enhanced Communications

Burrows said that the new solution has greatly enhanced communications during the bid development process.

"Our engineers are happier, because everyone can communicate so much easier," said Burrows. "SpinFire gives the engineers in our various manufacturing plants the ability to see exactly what we have on our cad systems from the customers. They can see the three-dimensional part where as before, they could only see two-dimensional drawings. Drawings just don't show you the true part. When it's shaded and you can rotate it while talking on the phone with the designer or the customer, you see exactly what they see. It used to be the plants had blinders on. Everything came to them in two dimensions, so they couldn't see clearly what was going on with all these complex plastic parts. Some of these plastic parts we manufacture are incredibly complex, and you just can't see that complexity on paper."

Customer Satisfaction

The SpinFire Enterprise viewing solution has been a significant contributor to the compression of turnaround time from customer inquiry to finished quotation, resulting in a higher level of customer satisfaction.

"As our customers grow and their needs evolve, we will be able to deliver new functionality to serve their needs by adding new XML Web services. . . . XML Web services can be used to drive extensibility. And that, in the end, is what gives a company the agility to succeed."

Mike Walsh
President and CEO
Actify

Microsoft®

Seamless Integration with SQL Server 2000

Burrows' initial interest in SpinFire was enhanced when he learned it was built for the Windows® Platform. "We are very happy with our Windows foundation," said Burrows. "The integration between SpinFire and our SQL Server 2000 database was flawless. We had the database up and running within 10 minutes and it has been running ever since. Our quoting system on the SQL Server database is extremely complex and SQL Server has never failed. It hasn't lost any information, SQL Server is easily searchable, easy to backup, easy to add users to, and overall just easy to manage."

Benefiting from XML Web Services

Walsh is excited about the future of Actify SpinFire Enterprise because it was designed so that it could be easily extended. Application extensibility is one of the key benefits of using XML Web Services, which exposes system functionality through standard Web protocols. "As our customers grow and their needs evolve, we will be able to deliver new functionality to serve their needs by adding new XML Web services. For instance, we are designing a new module to support collaborative design reviews, which we are implementing as an XML Web service. When we roll this out, it won't require the traditional upgrades the industry is used to. The customer will simply add the new XML Web service to their existing installation. This not only shows the power of the XML Web services to Actify, but also to Actify's customers. XML Web services can be used to drive extensibility. And that, in the end, is what gives a company the agility to succeed."

ROI

Carlisle Engineered Products has also enjoyed a rapid ROI .

"SpinFire Enterprise has drastically improved our ability to share design information with our numerous manufacturing facilities," said Burrows. "By improving communication between groups, the Actify-Microsoft solution is enabling us to speed the manufacturing process and get products to our customers much quicker. We sold the project to our accounting department saying we would recover our investment within the first year. And we're on track for an ROI of just six months."

The .NET Enterprise Servers are Microsoft's comprehensive server family for quickly building and managing an integrated, web-enabled enterprise. Designed with scaleable, mission critical performance in mind, .NET Enterprise Servers deliver reliability and manageability for the global, web enabled enterprise while delivering on the best performance in its class. .NET Enterprise Servers are built from the ground up for interoperability using today's web standards. With XML built in, .NET Enterprise Servers attain the highest levels of integration and interoperability available today. With production ready out of the box applications, and the world's largest partner base of developers and software vendors, .NET Enterprise Servers deliver the fastest time to market for the web-ready enterprise.

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