

Goodrich Corporation

CodeCharge success story



The Goodrich Corporation Fuel & Utilities Divisions (FUS) designs and manufactures advanced aircraft systems and subsystems solutions for the commercial, military, regional, space and missile markets. One of the key issues for The Goodrich Corporation's FUS Division - and their customers - is how well Goodrich parts are performing on their installed base of more than 50,000 aircraft. They found that by using CodeCharge Studio they could rapidly develop applications that interface with the databases and legacy systems that store this information and provide valuable statistical information internally and to the customer, thereby improving customer satisfaction and The Goodrich Corporation bottom line.

Company:	Fuel & Utilities Division (FUS) of Goodrich Corporation
Web site:	http://www.fus.goodrich.com
The Problem:	Needed a solution to help bridge the gap between an antiquated ERP system and the Web, thereby eliminating the burden of developing multiple applications for internal customers to access different disparate information sources.
The Solution:	CodeCharge Studio

CHALLENGE:

The FUS Division employs over 850 people in engineering, manufacturing and administration based in numerous locations around the globe. The engineering team needed to build applications with one front-end that tied together different databases, such as SQL Server and Oracle, as well as an antiquated ERP system, where much of the data is stored on Word documents, Excel files, and in Access databases.

FUS had been using Interdev to create the front-end for applications. They would go into Interdev and patch together various hooks to display the information; spending endless hours coding the Web front-end connections to the database. With a small engineering crew and lacking some sort of tool to speed application development of the front-end, they were losing valuable time that was needed to focus on the customers needs database design and requirements for configuration management writing code.

In addition to reducing application development time the solution had to be scalable, secure, reliable, and increase the speed of technical support with the ability to make a change to an application and automatically generate all the code again.

CODECHARGE SOLUTION:

FUS chose CodeCharge Studio to help develop internal applications that organize disparate information, circumvent the shortcomings of an antiquated ERP system, and organize and prepare data for a new ERP system. FUS used the power of CodeCharge Studio to create full-blown solutions such as a Knowledge Management System and Help Desk application. Systems that, according to Daniel B. Hall, MCP and E-Commerce Web Developer for the Goodrich Corporation Fuel & Utilities Divisions "perform as well as expensive COTS software, but at a fraction of the cost."

The CodeCharge Studio code generation engine allows the FUS engineering team to add custom code to code that is automatically generated. The end result is the generated code and custom code seamlessly combined together to build the application. "This was a key feature that allowed us to easily integrate our business rules with CodeCharge Studio's sound framework and makes maintenance a breeze," says Hall.

My goal is to provide developers and managers with "best practice" processes and techniques they'll need to successfully plan, build, and deploy distributed applications. CodeCharge and CodeCharge Studio have already generated over 1.1 million lines of code for our ASP and .NET applications.

Daniel B. Hall, MCP and E-Commerce Web Developer for the Goodrich Corporation Fuel & Utilities Divisions



The solutions built using CodeCharge Studio are scalable and the code can be modified and regenerated at any time to grow with an increasing number of customers.



The ability to learn C# and VB.NET for me is priceless. It took me one week to learn the tool and the next week I was able to write a full-blown help desk application with multiple levels of security. We saved approximately \$150,000 in initial cost building a help-desk solution to support about 800 users. I'm happy to say that CodeCharge Studio is now part of our best practice strategies and standards for future development.

It blows me away to think that I can purchase a development tool that will generate HTML, VB.NET, ASP.NET (C#), PHP, Java Serverlets, JSP, Cold Fusion, and Perl. This combined with HTML code editors, application and form builders, a visual query designer, and a security builder that allows you to build your applications with multiple levels of security, and excellent support should be enough to put even the largest of corporations on the information super highway map.

The FUS team particularly values CodeCharge Studio's ability to work with ODBC and all major database platforms. CodeCharge Studio's designer interface automatically provides forms and grids for each database table with the capability to assign those forms and grids to views, queries, and even stored procedures. "This was extremely important for Goodrich because many of our business rules are housed inside of different databases," says Hall.

I can now spend a lot more time focusing on database design and configuration management without having to worry about the code that I have to generate," says Hall, "there were a few generation tools out there but nothing that put it all together in one solution like CodeCharge Studio."

BENEFITS:

By using CodeCharge Studio, FUS has dramatically reduced its time-to-solution for applications that circumvent the shortcomings of an antiquated ERP system and bridge-the-gap between Legacy data and the Web. No longer does Hall and his team have to worry about how they will integrate disparate information stored in multiple files and on different databases, such as Word documents, Excel files, or Oracle, SQL Server, and Access databases. CodeCharge Studio has enabled them to be more customer-centric and focus on the database design and customer requirement.

In addition, Hall has found CodeCharge Studio to be an excellent learning tool. "The ability to learn C# and VB.NET for me is priceless. It took me one week to learn the tool and the next week I was able to write a full-blown help desk application with multiple levels of security. We saved approximately \$150,000 in initial cost building a help-desk solution to support about 800 users."

The solutions built using CodeCharge Studio are scalable and the code can be modified and regenerated at any time to grow with an increasing number of customers. For FUS, it was very important that they preserve their legacy system and build onto their existing infrastructure. According to Hall, "CodeCharge Studio allows FUS to generate new applications extremely fast, which has helped us greatly improve our customer satisfaction and efficiency."

LOOKING AHEAD:

The FUS regards the transition to the Web as a critical step in the Goodrich Corporation retaining their leadership position as a worldwide supplier of aerospace components, systems and services. "We are currently working with Boeing to create an online application that will allow us to exchange our repair data with Boeing," says Hall, "and in exchange from Boeing we're getting access to information about their fleet of aircraft, like when a pilot has a problem with a video display. CodeCharge Studio is going to be the front-end and will be a driving factor for the success of the application for FUS. FUS estimates that CodeCharge Studio will be responsible for generating over 600,000 lines of code for the Boeing applications. Hall added, "we're going to have the ability to check the reliability performance of any of our parts and be more proactive in taking corrective action."

Hall hopes the Web interface FUS is creating with Boeing using CodeCharge Studio will become standard down the road across all Goodrich Corporations' agencies and its major account customers to further improve the efficiency of business.

