

# Case Study: United Launch Alliance



## Source Code Management IS Rocket Science

Space may be the final frontier, but Doug Grandey's work as a software engineer for United Launch Alliance (ULA) is challenging enough to keep him busy right here on Earth. And while managing code can be tricky, it just got a lot easier for Grandey thanks to Armedia's C3 application development and management tool for EMC Documentum.

Grandey provides the code; C3 provides the ability to better control it. But managing code at ULA wasn't always so simple.

### Out With The Old

ULA is a Boeing-Lockheed Martin joint venture created to provide reliable, cost-efficient spacecraft launch services for the U.S. government. Grandey worked for Boeing until it became part of ULA in 2006. But back when he joined Boeing, SourceSafe was the organization's configuration management (CM) tool.

"I'd never used SourceSafe. So I got in there, and the first question I asked is 'How does it do builds?'" Grandey said. "They kind of looked at me funny, and the answer was that it doesn't."

That answer was problematic. "When I code, I code in several files. I might have a change in four or five or six files to do an upgrade or add a feature, and I want to join all those together as one build. SourceSafe just couldn't do it."

"So," said Grandey, "I basically went CM-less. And whenever I did a build, I would zip up all my files and I'd put it on a back-up server, which isn't the best way of doing things. When you are manually zipping up files and putting it all together, it's not the smartest way to do it. Everything is manual [leaving room for human error]. Also if you do it that way, you might do it less often. It's just too much effort."

### In With C3

Then Grandey heard about C3. "A co-worker walked into Armedia's booth at a conference," he said. "She realized what she'd found and told me about C3 when she got back. I was immediately very interested, especially since we use Documentum to check in and check out launch documents. We got a demo, and soon after we got approval to purchase [C3]."

"Why did we buy Armedia? Basically, we had Documentum, and it made sense for us to buy C3 because we already had Documentum. We already had the licenses for Documentum. We were used to Documentum. It just made sense."

"But our biggest thing is being able to do the builds," he says. And with C3 that is not just possible, it's powerful. "The other great thing is the power of the build. With C3, you can create a build script, and it

allows you to basically have the freedom of the world. You can say 'Okay, when I execute this build, I want you to bring these files down, and then I want you to compile them, and then I want you to install them on these servers.'"

Another plus for Grandey is C3's Eclipse plug-in. "That was great and really easy to use," he said. "Having the ability to just right click on a file and say check in, check out and not have to log into the C3 web interface is nice."

## The Result

"We've been really happy with C3 and with Armedia." Grandey said. "Technical support has been great. We had some issues with installs as far as how our servers are configured. But they were real helpful and got things going. Other than that, I've never really had a problem. I've never had any sort of data loss. I've never had an issue, whenever I do build, that C3 didn't do what it is supposed to do."

That C3 does its job makes Grandey's demanding job much easier. "We have a trouble ticket system that people use to let us know when something doesn't work. Eight-five percent of the time it is user error, but if it's not, then I've got to fix something. So, I go in, check out the error, and I make changes. When I push the code back in, I attach that ticket and reference number to it, and then I put an incremental build together. I know that if for some reason I release that build and something else breaks, I can go back to the last one that worked."

"With C3, doing all that is so much easier. With the configurability that they give you, you are able to just go back and press 'install release 4.0', because release 4.0a broke something. Doing that manually is a totally different and maybe even a dangerous thing. Odds are that if you were just fixing a problem, you wouldn't even do that incremental build. With C3, you have that security of having a history and having the ability to know what you've changed. It's the smarter way to code."

## About C3

C3 is an application development and management product running exclusively on EMC Documentum. Integrating the content and source code development processes, C3 stands alone as the only product available with automated deployment and rollback of application releases. More powerful than other source code management applications, C3 offers the power and security of EMC Documentum while streamlining and simplifying the application management process. C3 received Documentum's Best Platform Utilization award. Judges evaluated applications for how the Documentum platform is incorporated and how the application's code follows the standards set by the Designed for EMC program.



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