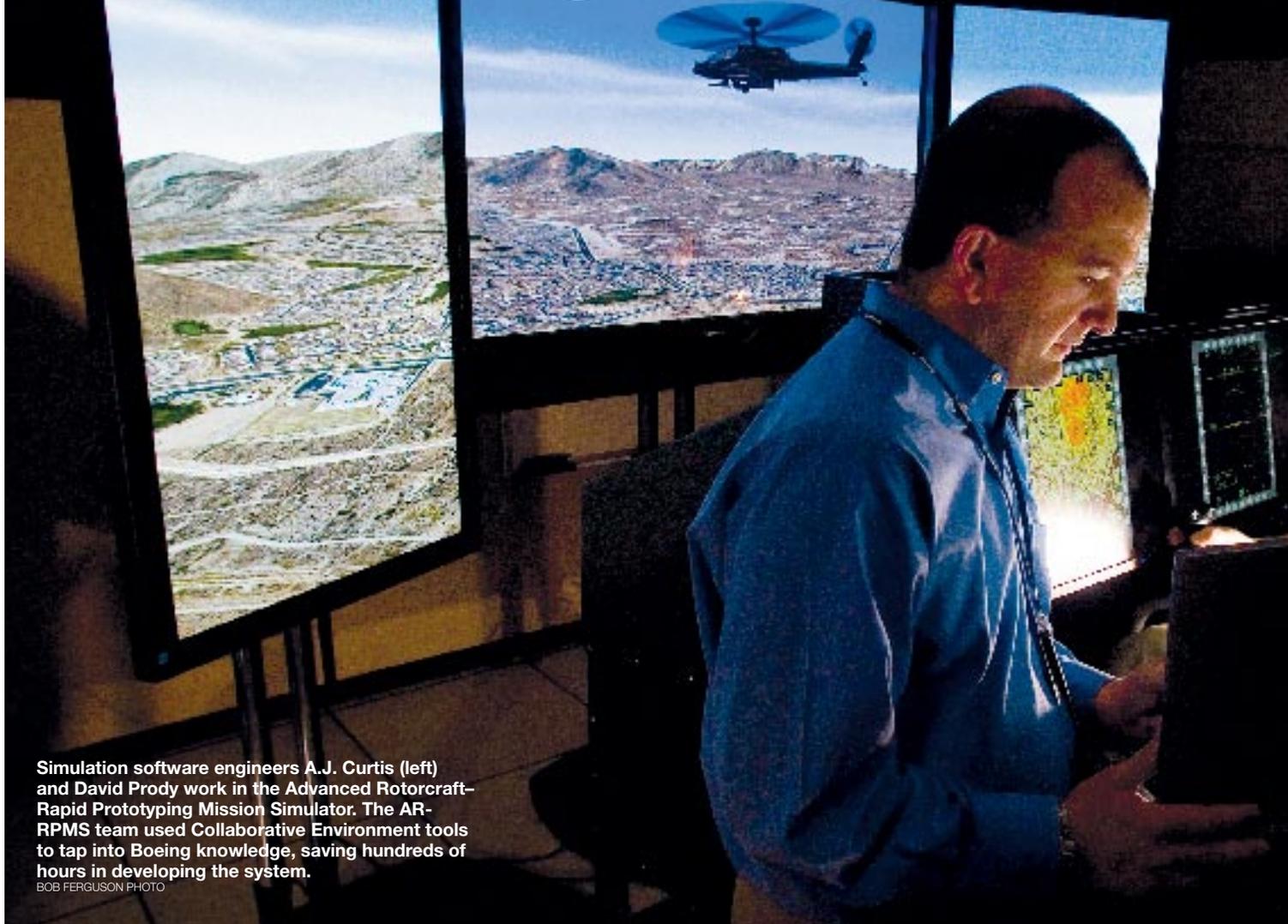


Knowing what we



Simulation software engineers A.J. Curtis (left) and David Prody work in the Advanced Rotorcraft–Rapid Prototyping Mission Simulator. The AR-RPMS team used Collaborative Environment tools to tap into Boeing knowledge, saving hundreds of hours in developing the system.

BOB FERGUSON PHOTO

Portal helps boost knowledge sharing all across Boeing

By MARC SKLAR

Last year, Jeff Hackett and his team were tasked to develop a new engineering tool for prototyping and demonstrating advanced helicopter crew-station concepts and technologies.

To more efficiently develop the Advanced Rotorcraft–Rapid Prototyping Mis-

sion Simulator, the team took advantage of tools on the Modeling, Simulation, Analysis and Experimentation Collaborative Environment, a portal on the Boeing intranet. The tools on the CE provided the team with plenty of assistance, including connections to experts around Boeing.

“What we learned from them made a huge difference in how quickly AR-RPMS came together,” said Hackett, manager of a Mesa, Ariz.–based Simulation and Prototype Software Team for Integrated Defense Systems. “Through collaboration, we saved hundreds of man hours and were able to provide our customers with a prod-

uct that exceeded expectations.” Hackett so values knowledge sharing that he made increasing usage of CE tools a metric for his team in their Vision Support Plan.

This team’s experience is one of many cases of employees using the CE’s collaborative tools to boost productivity through the sharing of knowledge among Boeing employees. “A single tool does not satisfy all the needs of various stakeholders, just like a hammer is not enough to build a house. Our portal contains a suite of tools, each with its niche capability,” said Krishna Badhrinath, who oversees the portal. He’s a manager of Modeling and

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Simulation Collaboration and Metrics for Analysis, Modeling, Simulation and Experimentation (AMSE), a segment of IDS' Advanced Systems organization.

helping employees save literally thousands and thousands of hours and spreading best practices supporting both Lean+ and Development Process Excellence (two

“We provided our customers with a product that exceeded expectations.”

—Jeff Hackett, an Integrated Defense Systems manager, on the end result of the benefits provided by the Collaborative Environment portal

The portal can be accessed by any Boeing employee who is a U.S. Person, and online training sessions are provided frequently (see the CE's "Announcements" section). Its tools promote knowledge sharing, drawing from other Boeing elements and outside resources. The tools include

- The Boeing Resource Access System (BRASS). This secure, web-based information-sharing system provides software-configuration management and other capabilities. Under the technical leadership of Mary Wang, software engineer, Phantom Works, Strategic Development & Analysis, and Global Trade Controls expert Ricardo Barreiro, BRASS has incorporated key export compliance features for management of collaborative international projects.
- The Teamcenter MSA&E (Modeling, Simulation, Analysis and Experimentation) Repository. Teamcenter is a Boeing standard Product Lifecycle Management system. The CE uses it as a repository for tools, models, data, large reports and video and audio recordings of demonstrations.
- The file-server MSA&E Repository. A location to store large files such as the entire proceedings of conferences.

- The AskMe Knowledge Management Tool. In addition to requesting specific information, employees can use this commercial off-the-shelf program to post personal profiles, join communities of interest, and be alerted when questions or any content in their field are posted. Those seeking help receive lists of registered subject matter experts, discussion topics, communities, files and more, all related to their search or question.

The portal also has a portlet borrowed from Shared Services Group that lists all SharePoint groups the user belongs to; a user-selected-links section that contains useful MSA&E resources; and links to SSG collaboration tools.

Savings from using the tools included in the CE add up. Recent calculations estimated that AskMe and BRASS are probably saving Boeing more than \$4 million each per year. Said Badhrinath: "The CE is

companywide growth and productivity initiatives)."

While AMSE built the portal for the MSA&E community, other organizations have used it or are incorporating elements into their own portals. "The CE team has added so much value by bringing all these tools together in a way that maximizes the sharing of information and speeds access to answers when they're needed," said Guy Higgins, vice president, AMSE.

Dale Spaulding can attest to that. Spaulding, a software quality engineer, faced the challenge of supporting a new systems engineering project that was larger than his prior projects. He had used a locally developed tool to manage software quality on his previous projects but felt it was not right for the new job. Yet he was sure someone else had the right system.

"I posed a question in AskMe on Boeing-approved tools for Software Quality Engineering that would support a large-scale engineering activity," Spaulding said. "I received back a detailed study on two SQE tools used widely in IDS. That let us make a quick, informed decision and saved us hundreds of hours of research."

Another key to the portal's success is there are no content administrators for each tool. It's an open-sharing environment with appropriate access control and information security mechanisms in place. "Community feedback has also given us more than 200 suggestions for additional features and improvements," said Lee Aguiar, CE technical lead.

"The CE truly reflects the spirit of 'of the people, by the people, for the people,'" Badhrinath said. "The users provide content, share knowledge and expertise, shape the future capabilities of this environment, and utilize the wealth of knowledge collected. The CE's value will grow exponentially as more people add content that is then used across the enterprise."

To access the CE, visit <https://msa.web.boeing.com> on the Boeing intranet. This page will direct you to the portal. ■

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By the numbers

In just two years, and with mostly word-of-mouth promotion, use of the Collaborative Environment's AskMe tool is impressive. Here are some statistics.

- 1,578** Number of documents published
- 1,428** Number of unique users
- 547** Number of answers users provided, to 396 questions
- 313** Number of frequently-asked-questions documents created