Baker Hughes, One of the World's Largest Oilfield Service Companies, Delivers Modern HTML5-Based Online Help Using MadCap Flare

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COMPANY WEBSITE

www.bakerhughes.com

LOCATION

Houston, Texas

INDUSTRY

Oil and Gas

GOALS

» Design a modern, intuitive HTML5-based online Help system that would complement Baker-Hughes' state-of-the-art Cadence 3D drilling software.

» Enhance users' experience by making it easier to navigate the online Help and find the information they need.

» Streamline the process of developing and delivering online Help through content re-use.

» Strengthen collaboration across the across five teams of technical writers that contribute to the online Help system.

SOLUTIONS

» MadCap Flare native XML single-source content authoring software

» MadCap Analyzer for analyzing Flare content and recommending improvements

BENEFITS

» **EFFICIENCY**
Flare's topic-based authoring and single-source publishing simplify the creation and delivery of a comprehensive online Help system plus supporting PDFs.

» **COLLABORATION**
Integration of MadCap Flare with Microsoft TFS fosters collaboration and provides version control of content created by five teams of Baker Hughes technical writers.

» **INTUITIVE INTERFACE**
HTML5 web pages featuring drop-down text and thumbnail images that can expand provide a clean, modern web experience and let users view only what they want to see.

» **SIMPLIFIED SEARCH**
Search functionality, indexes, and glossaries built using Flare make it easier for field service engineers to find the information they need in the Help system.

Baker Hughes Incorporated (NYSE: BHI) is a leading supplier of oilfield services and products for the oil and gas industry. With 46,000-plus employees in more than 80 countries, the company helps operators around the world make the most of their reservoirs. Central to Baker Hughes' success are local geo-market teams, who work closely with customers to develop high-performance, application-specific solutions that manage operating expenses, maximize reserve recovery, and boost overall return on investment throughout the life of an oil or gas asset.

Collaboration has been key to the company's success in solving the drilling challenges of customers. Baker Hughes field service engineers (FSEs) serve as the jobsite leaders, who are responsible for designing, executing, and evaluating well-site operations—and ensuring that these sites stay up and running. To support these engineers, the company places a high priority on providing timely documentation on how to effectively use its drilling application software. Today, this information is delivered as modern HTML5-based online Help using the single-source, multi-channel publishing capabilities of MadCap Flare.

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Mission: Reinvent Baker Hughes' Help System

For years, Baker Hughes used Adobe® RoboHelp® to publish online Help for the company's Advantage dimensional drilling software, designed to enhance the drilling performance of FSEs and directional drillers. However, the evolution of three-dimensional (3D) drilling led the company to develop its new state-of-the-art Cadence drilling application.

With the rollout of Cadence, Baker Hughes' technical writers saw an opportunity to produce a new equally modern, user-friendly online Help system. Additionally, they wanted to speed up and simplify the process of delivering information to FSEs.

"Before, we had a compiled HTML file that contained content composed by many of the field engineers over time, but we didn't have a disciplined approach to developing, formatting and delivering all that content," recalled Kevin Southwick, senior technical writer at Baker Hughes. "Our old online Help system wasn't as effective as it could be in helping the FSEs understand our new drilling application."

An evaluation of authoring tools quickly led the team to MadCap Flare, which provided the advanced features needed to create an extensive, easy-to-use Help website.

"Having used all kinds of writing tools, I was blown away by how user-friendly Flare's interface was and how it allows writers to easily create content, add links, and include indexes," Southwick noted. "When we built a prototype for the implementation, it was quite obvious that Flare was designed by documentation professionals, and the sleek look and feel was specifically tailored to the needs of writers."

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Streamlined Content Development and Delivery

Today Baker Hughes' technical writers provide FSEs with a comprehensive HTML5-based Help system that offers nearly 300 topics on how to take advantage of the Cadence software. While most of the information is provided through the Help system, the writers also deliver entry-level documentation in the form of PDF files. By taking advantage of MadCap Flare's topic-based authoring, snippets, and tables of content (TOCs), the technical writing team has been able to stream the process of delivering this information.

"By creating topics in Flare, we are able to maximize content reuse, which lets us create and deliver content significantly faster," explained Southwick. "Another advanced, time-saving feature is the ability to look at the code behind the XML editor, which allows us to easily change the name, link, and even the HTML code for a particular topic. This is great because as good as the XML editor is, you'll always find something you might have missed."

At the same time, the Flare snippets functionality helps Baker Hughes technical writers to eliminate redundant efforts.

"Flare snippets are another feature that we highly value since they remove the need to retype content in certain fields of our documentation that have a ton of repetition," Southwick says. "This substantially lowers our time investment in maintaining the content in those fields."

Baker Hughes also extensively uses the TOC functionality in Flare to organize its topics for a cleaner look and feel to the menus.

"We love that the TOC feature in Flare gives us the flexibility to arrange content quickly and experiment with the way information looks on menus," explains Southwick. "It requires very minimal effort on our part."

To enhance the quality of its online Help, Baker Hughes also uses MadCap Analyzer, which is fully integrated with Flare. MadCap Analyzer goes through Baker Hughes' Flare-based documentation to help find issues, such as missing content and broken hyperlinks, and makes recommendations for correcting them.

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Fostering Collaboration

Within Baker Hughes, five teams write the online Help system for the Cadence software. To enable version control and collaboration across these teams, Baker Hughes takes advantage of MadCap Flare's support for integration with Microsoft Team Foundation Server (TFS).

"The integration of Flare with TFS is terrific," notes Southwick. "Now any writer on the team can track and manage changes to our Flare files in one central location. It's given us so much more freedom to focus on the content."

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Also contributing to the Hughes technical writers' success with the Help system is the product support provided by MadCap Software.

"After working with the MadCap support team for quite awhile, I've found them to be a cut above any other company I've worked with," Southwick says. "They really seem to be a genuine brotherhood of technical writers who are very knowledgeable and excited about what they're doing. I've always loved that about MadCap."
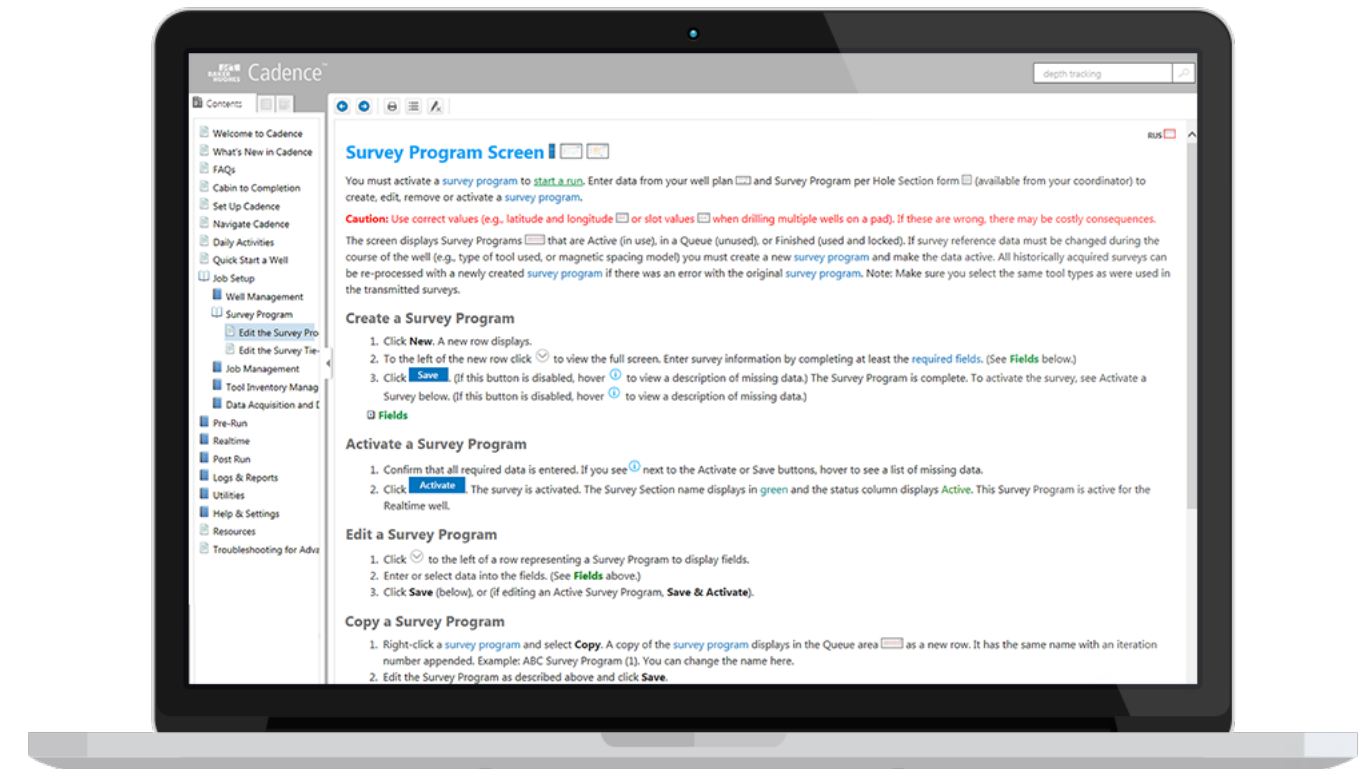
Baker Hughes - Survey Editor Screen

Visually Enhancing Online Help

In addition to improving the technical writers' experiences, Baker Hughes has been able to create more visually attractive Help system web pages for FSEs via features in MadCap Flare, such as drop-down text and thumbnail images.

The use of drop-down text for the company's field definitions helps to make a topic less intimidating and easier to read. Drop-down text created in MadCap Flare, text collapses sections of text under a single link in the topic, called a "drop-down hotspot." When FSEs click the hotspot in the Help topic, the text expands, and they can see the hidden content.

"The drop-down text feature in Flare lets us minimize the content that appears on a page, so users are able to scan for information more quickly," Southwick explains.

Similarly, the ability to display images as thumbnails, and let users hover over them to view the full-size version also helps the Baker Hughes writers to keep content short and condensed.

"Flare makes it so easy for us to change the image sizes and borders," Southwick observes. "We don't have to go into the HTML code like we used to in the old days."

Improving Access to Information

The technical writers also make it easier for field service engineers to get the information they need using the indexing, search, and glossary functionality in MadCap Flare. Notably index keywords enable FSEs to find information easily because search terms are linked to relevant topics.

"Being able to tag Flare-based content with index keywords has really improved search results for the FSEs that use our online Help," Southwick observes. "Flare's search functionality also has been valuable in cutting the time it takes our engineers to find what they're looking for."

Southwick adds, "It's great that we barely have to do anything in Flare to make it function. The whole interface is just so easy to use."

Meanwhile a glossary created with MadCap Flare has definitions linked to topics, so that an engineer can click on a term in a topic in order to see the definition.

"The fact that the glossary can automatically pick the words up from our content so I don't have to write those definitions has freed up so much time," Southwick says. "I put a lot of weight on that because we're a very term-rich industry. Thanks to Flare, I no longer have to dig through all that language, and I'm able to maintain a low word count for the FSEs when they look up terms."

Looking Ahead

As Baker Hughes moves forward, the technical writing team is looking at how additional features in MadCap Flare can enrich the user experience.

"We're looking at incorporating the responsive design functionality available in Flare, so users can access our Help system via tablets," Southwick notes. "This would be highly valuable since our FSEs are usually out in the field, and they would be able to quickly pull up the online Help if they have any questions."

The writers also plan on taking advantage of conditional text, as they begin to create additional PDFs—beyond the short list of entry-level PDFs provided today—that replace archival documentation. The use of conditional text will help to tag content for the creation of these PDFs.

"We love that we have the option to incorporate all these advanced features in Flare," Southwick says. "Overall, MadCap Flare has really allowed us to put our writers in the front seat and just focus on creating content, while Flare's robust capabilities help us do the rest. This has translated into a more inviting, modern online Help system that is much easier for our FSEs to navigate."

Southwick adds, "Our engineers have had wonderful things to say about our new online Help system. As Help authors, we usually never receive any feedback, so this validates how much more effective the Flare-enabled Help has been."