

C A S E S T U D Y



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CHALLENGE

- To create a more efficient method for authoring product training and support materials for print and online delivery, and for easy customization and maintenance.

SOLUTION

- Developing a single source XML based content authoring process using XMetal which reduces the redundancy of producing training materials separately in two modalities or for multiple audiences.

RESULT

- initial development time reductions
- revision and maintenance life cycle improvements
- XML based translation eliminates the need for desktop publishing and reduces outsourced costs

Shifting to XML authoring is helping the Citrix Education team write a new chapter in efficiency

Profile

Delivering best in class business solutions for secure, enterprise computing, Citrix is at the forefront of desktop, application and server virtualization, application networking and cloud computing. Their customers include the world's largest Internet companies, 99% of Fortune Global 500 enterprises and hundreds of thousands of small businesses in more than 100 countries.

Today the company has 5,000 employees on staff designing, developing and marketing high performance technology solutions that allow applications and desktops to be securely delivered, supported and shared on-demand. They market and license their products through several channels, including distributors, system integrators, Value-Added Resellers and Original Equipment Manufacturers.

Virtualization 101

Virtualization and centralization are increasingly important benefits to companies who need efficient, secure ways to manage as many as 100,000 desktops worldwide. Traditionally a System Administrator would be responsible for every server and individual PC user in the system—a daunting task. When an application is virtualized, it runs on a central server and only screen pixels, keystrokes and mouse movements—not actual data—are sent via an encrypted channel to the user. Keeping applications under the centralized control of an IT administrator enhances security and reduces the costs of managing separate clients and applications on every desktop.

Essentially, Citrix technologies enable administrators to experience flexibility and agility as they control and manage their environment. Citrix technology supports many IT initiatives, such as BYOC (bring your own computer) which is a growing trend in enterprise environments. Citrix believes computing, simplicity, and performance are inherently linked. To leverage this philosophy at the technical level, it is paramount to build realistic and current training on the product solutions. Flexibility and ease of content reuse was essential to this approach and is the very reason Citrix Education built a relationship with JustSystems.

Education and Product Support Are a Vital Component

As Citrix product lines grew in number and functionality, so did the need for more customer training and support materials. Citrix has a dedicated Education team responsible for training and certification testing, covering more than a dozen products in its portfolio. Citrix Education writes, builds and manages the release and distribution of Self Paced Online (SPO) and Instructor Led Training (ILT) materials used by Citrix Certified Instructors (CCIs) in over 250 Citrix Authorized Learning Centers (CALCs) worldwide. Classes and materials are translated into many languages including French, German, Japanese, Chinese, Spanish, Portuguese and Italian. In 2008, nearly 103,000 students received training and/or took certification exams from Citrix, either online or in classrooms. Instruction is geared to three levels of customers: Administrators, Engineers and Architects, and is also used extensively by Citrix Partners for readiness and technical instruction. Classes range from two to five days and from six to thirty hours online. The company also offers hosted lab environments, which leverage Citrix products to provide on-demand, hands-on experience.

A Virtual Nightmare for Producing Training Materials

With over a dozen products, multiple languages and 250 distribution locations, massive amounts of printed materials need to be created, manufactured and updated. Add to that the online component and the task is even more complex. Prior to deciding on single sourcing, materials were created using two distinct systems; Adobe FrameMaker® for documents and Lectora® for online applications. Each modality

“XMetaL is a solid tool and JustSystems is easy to collaborate with. They work in partnership with us at the right level of engagement, allowing us the flexibility and independence we need but providing their expertise in those areas where we have limited experience. They support our team and have enabled us to move farther, faster. We’ve been satisfied, every time, with what they’ve provided.”

Leah Thompson, Content Development, Citrix Education

was treated as a separate project and completed successively. So a team might take nearly 4 months to complete a course manual, lab guide and related support materials, then migrate into the second modality, where an additional 3 to 4 months would be required to draft and build the online version. Translation was also a time-consuming process.

The Conversion to DITA and XMetaL

A dedicated, core team of staff on the Education Development team began to think about doing things differently. They investigated the idea of re-using and leveraging one source of content into multiple modalities and quickly gravitated to the open source DITA standard, but needed to find an editing tool that would allow them to easily create new content and convert existing content. Leah Thompson, a manager on the Content Development team, and Patrick Quinlan, a senior developer, drove the effort with their team.

“We tested different editors from several vendors,” Thompson explains. “We were impressed with XMetaL and began piloting it right away on smaller projects. It’s the best editor we’ve found. Because we’re fairly self-sufficient, we figured out how to customize the DITA code for what we needed to do, but for those customizations that we couldn’t create on our own, JustSystems was able to step right in and help. They created solid coding that achieved two important milestones; including module numbers and titles in footers, and implementing watermark functionality. Their code was top notch. When we went back to review, even though they were smaller customizations, they were done extremely well.”

“With single sourcing,” Leah continues, “we’ve now shortened our production time for dual modality content. We still need the same amount of time to write and create, but distributing into an online format takes significantly shorter time to execute. It is a significant time and cost saving to us, estimates right now are at least 25%. We’ve used XMetaL for about a year, and as we continue to refine our process and collect metrics, we expect our actual savings could be even higher. We’re still on a learning curve to determine the best way to write for online and offline in one voice and style. We’re going to continue to see efficiencies grow as our team becomes more adept at authoring in this environment.”

Patrick agrees, saying, “Single sourcing has enabled us to meet an immediate business objective—to develop content once and use it for online and classroom training—as well as moving us toward a more agile and efficient development process that saves us time, money and resources, and allows us to develop robust, customizable training.”

“There were additional benefits to instituting this new process,” Thompson adds. “We didn’t just replicate our old training. We took the opportunity to introduce a brand new look and feel and ended up with a much improved and updated online and classroom-based product suite.”

Thompson also reports a significant cost savings during the translation process. “Although we don’t translate every deliverable, desktop publishing is no longer a requirement for some projects. By removing desktop publishing and reusing content across modalities, we’re beginning to see significant cost savings.”

“Our team of developers and instructional designers now functions differently. Prior to a single source approach, which is enabled through XMetaL, designers and developers weren’t building product expertise at a topic level. They were generalists and developed a wide breadth of knowledge across all products which enabled them to be a member of any product team.” Thompson explains. “Now that we’ve switched to single sourcing and topic-based authoring, the team is developing higher level skills and deeper understanding around the topics they develop which results in more product depth. We have discovered that this is the greatest catalyst for experiencing higher efficiency and higher quality instructional materials. This paradigm shift allows us to invest in increasing skills instead of developing better process coordinators with a wide spectrum of knowledge. Single sourcing enables our team of knowledge workers to be more focused. It’s quite a significant change from that perspective.”

Patrick summarizes, “Single sourcing, as part of a comprehensive content management strategy, will enable Citrix Education to continue to develop high-quality, hi-fidelity, and instructionally sound training content in multiple languages, but faster and more efficiently than we could ever achieve using a traditional desktop publishing model. We’ve made great strides in our relatively short time using DITA; I’m looking forward to overcoming the remaining technical and stylistic challenges of component content development, and to achieving our vision of an agile content development environment.”

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About JustSystems

JustSystems is a leading global software provider with three decades of successful innovation in office productivity, information management, and consumer and enterprise software. With over 2,500 customers worldwide, the company is continuing a global expansion strategy based on its xfy enterprise software, XMetaL content lifecycle solutions, and its pioneering work in enabling XBRL financial reporting technologies. JustSystems is one of the 2008 KMWorld 100 Companies that Matter in Knowledge Management, a 2008 EContent 100 member, and was recognized on the 2008 KMWorld Trend-Setting Product list for XMetaL. Major strategic partnerships include IBM, Oracle and EMC.

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