

**Content Technology Works
Case Study**

Innovation³ :

The FICO™ Formula for Agile Global Expansion

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Executive Summary

Positioning content practices as strategic, making business cases that get funding, and selling up within the organization are among the most common challenges presented to Gilbane Group analysts in conversations with users, adopters, and buyers of content technologies. Our advice to clients always includes aligning the target investment with the strategic goals and objectives of the business. By placing content practices and infrastructures directly in the path of promises to customers and shareholders, managers improve their chances of securing financial and sponsorship support. In some cases, they can effect innovative change that not only advances their domain's capabilities but also results in new value creation for the enterprise.

This case study documents the path to the alignment of global content practices with strategic business goals at FICO™ (NYSE:FIC), formerly Fair Isaac Corporation. The journey began with the company's goals for the FICO™ Decision Management Suite:

- Enable customers to consistently leverage predictive analytics and optimization technologies across a range of decision-making processes.
- Empower customers to drive business outcomes by automating decisions with transaction streams and cross-functional operational processes.
- Inform customers by making business data transparent and accessible within one or multiple phases of the financial services lifecycle.

The strategy for achieving these goals spurred two important initiatives. One was the design of a component architecture for the suite; the other was the application of the same component approach to the technical content supporting the suite throughout the world. Efforts across engineering, technical documentation, and localization teams led to a shared philosophy of reuse – reusable software components, reusable product content components, reusable translations of content destined for global audiences.

With reuse as a “first principle” for investments in global architecture and content practices, FICO is today building an enterprise content infrastructure that includes XML and DITA (Darwin Information Typing Architecture), component content management (CCM), automated publishing, translation memory management, and terminology management. This case study discusses FICO's initiatives in detail and explores the innovations brought by each, along with their implications and impact. It also provides an end-to-end view of how the technologies fit together, highlights the results that FICO has achieved to date, and concludes with perspectives on FICO's success.

While FICO's approach may not be universal, its success with generating and delivering innovation with its global content practices is indisputable. There is much here that will be useful to other organizations with similar business goals and challenges. Gilbane Group sincerely appreciates FICO's willingness to share its story and gratefully acknowledges the time and talent contributed to the process and outcome.

In Their Own Words: The FICO Perspective

“The FICO brand means empowerment, innovation and value... qualities that we’ve earned over time that mean a great deal to our clients and partners, and that distinguish us in the marketplace.” *Laurent Pacalin, Chief Marketing Officer*



On Content Globalization Agility

“The convergence of factors that enabled our move to DITA at this opportune time was magnified when SDL showed us the added savings and higher quality enabled by coupling DITA content management with translation and terminology management tools. Now our component content strategy enables us to efficiently and flexibly create documentation for our Decision Management Suite products. Our ability to reuse content reduces time and cost to enter global markets while extending global shelf life.” *Carroll Rotkel, Technical Publications Director*

“By taking advantage of the capabilities DITA and CCM provide, and following basic style guidelines, the writers can focus on developing high-quality English content without worrying about the localization effort. The system handles all of the change tracking, hand-offs, and generation of the localized deliverables.” *Tom Goering, Technical Publications Principal Engineer*

“It's really exciting to see all of these pieces coming together at FICO. By maximizing re-use of previously completed translations, re-using individual topics across multiple customer deliverables, and streamlining our processes, I'm now able to deliver more localized materials, cheaper and faster -- without jeopardizing quality. By taking an end-to-end view of product localization, FICO has reinforced our commitment to expand our global reach.” *Elizabeth Taylor, Localization Manager*

On Customer Success Stories

“We do a lot of different work with Fair Isaac. It's bringing fresh ideas to our organization...as we migrate from thinking about suites of products to thinking about customer behavior.” *Matt Smith, Senior Marketing Director of Customer Insights, Best Buy.*

“[FICO's solution] helped our risk group work with our marketing people, refocusing us away from just expense reduction into thinking, ‘How can we provide customers with the best experience at this time.’” *James Bryant, Vice President, Home Lending Risk Management, JPMorgan Chase.*

Innovation³: Responding to Global Change

In Gilbane’s view, new value creation is the hallmark of true innovation. We define *innovation* as the deployment of new capabilities—people, process, and technology—that deliver new value. In simplest terms, innovation enables an organization to do something that could not be done before. In this way, innovation is not simply a matter of scale. It is not “bigger, faster, better.” Rather, innovation is a matter of fundamental, qualitative differences that result in new value for employees, partners, customers, and shareholders.

Within the context of our worldview, we believe that FICO’s business initiatives are transforming the company and resulting in true innovation along three dimensions. The end-result is business, product and content globalization agility that enables FICO to realize corporate goals with speed and flexibility.

Initiative	Transformation	Innovation	Result
Strategic direction	Leverage core FICO technologies across a range of decision-making processes	Automate, improve, and connect decisions	Customer-centric business agility
Product re-architecture	Componentization of software and product content	Component-level management	Product and market agility
Global expansion	Ad hoc to formal management of localization/translation processes	Simplified, scalable localization	Global content agility

Founded in 1956 as Fair Isaac (a combination of the names of founders Bill Fair and Earl Isaac), the company serves more than 5,000 customers in 80 countries. Clients look to FICO to increase customer loyalty and profitability, reduce fraud losses, manage credit risk, meet regulatory and competitive demands, and rapidly build market share. Generating \$745 million US in 2008, its customer base includes nine of the top 10 companies in the Fortune 500, two-thirds of the top 100 banks in the world, and 90 of the 100 largest financial institutions in the U.S. Protecting 1.8 billion credit card accounts worldwide through FICO fraud systems, customers also include all of the 100 largest U.S. credit card issuers.

FICO is also the household name in credit scoring, an essential measure of credit worthiness for mortgages, loans, and other financial products. FICO® scores are used in three out of four US mortgage originations. Millions of consumers worldwide track and manage credit health through myFICO.com.

By early 2008, FICO had publicly committed to delivering integrated technology that would enable customers to automate, improve, and connect decisions to enhance their business performance. At the company’s InterAct conference in April of that year, FICO executives presented a compelling argument for why decision management systems had to change. They laid out the company’s strategy for enterprise decision management across lifecycle applications such as loan originations, customer management, collections and recovery, and fraud. At the same time that FICO set out to satisfy

changing market requirements, it also took advantage of the opportunity to address two related challenges impacting FICO's business:

- **Products:** a series of mergers and acquisitions had resulted in a heterogeneous mix of products and technologies. Product re-architecture was needed to provide customers with an integrated platform for decision management.
- **Revenues:** net income was flat across fiscal years 2005 to 2007, and established markets had been saturated. Revenues needed to grow through expansion in global markets.

In late 2008, FICO's core markets were at ground zero of the global economic meltdown. By this time, however, FICO's pursuit of innovation was well underway, putting the company in the position of coming out of the crisis as a different, stronger, more agile enterprise.

The Opportunity: Innovating the Customer's Business

Fast and reliable decision-making based on robust analytics has long been a critical requirement for FICO's customers. Financial services organizations must make the right decisions regarding risk mitigation and cost reductions to sustain operations and manage global growth. The industry has also undergone a shift in authority that results in increased demand for transparent business information. Carl Spetzler of Strategic Decisions Group notes, "With the flattening of organizations, more authority has been delegated to the front lines, and rapid decision cycles are required to remain competitive."¹ FICO's ability to enable customers to do just that is the mission behind the Decision Management Suite, focused on supporting credit risk management, fraud control, and insurance claims management strategies.

By the mid-2000's and through a series of acquisitions, FICO's product offerings supported all phases of the customer lifecycle in financial services: marketing, origination/underwriting, customer management, collection and recovery, and fraud. Each FICO application provided business data that enabled departmental efficiencies, but was typically self-contained in customer environments due to classic siloed approaches to information technology implementations. At some point, such monolithic systems reach their limits on the efficiencies they enable and, therefore, the value they generate.

FICO Strategy: Deliver Business Agility for Global Customers

FICO held a tremendous asset in the financial services industry: it owned the customer lifecycle with its individual applications. What new value could be realized by helping customers connect them? The financial services industry is driven by lifetime value of

¹

http://www.businesswire.com/portal/site/google/?ndmViewId=news_view&newsId=20080407005014&ewsLang=en

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customers. How could FICO provide insight across the lifecycle to drive up that value and improve overall financial performance?

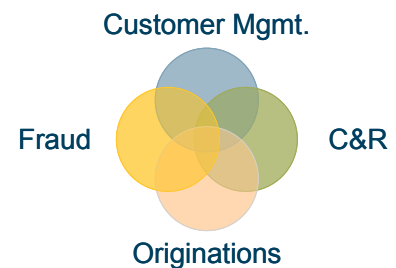
The answer to these and related questions required a strategy that would narrow the gap between insight and action within customer environments. Connecting fraud and collections insights, for example, would offer more powerful decision-making. By efficiently correlating data related to recovery of outstanding debt with investigations into credit card fraud, financial services institutions could leverage predictive analytics across decision-making silos.

The resulting business agility would deliver benefits such as increased customer profitability, stronger customer relationships, reduced fraud and credit risk, and lower cost of decision-making. With connected decisions, FICO would empower financial services companies to do what they could not do before: make well-informed decisions reliably and quickly across customer portfolios, and drive new value into their organizations.

Evolving the product to a unified set of capabilities for global decision management required FICO to think about its product architecture and supporting content in radical new ways. The strategy would also include expansion into new global markets to capitalize on opportunities in emerging economies and to offset flat revenues in established markets. Delivering on the mission would require a new services-oriented architecture, including a common data model, componentized product content, and a content globalization strategy to reach and serve multinational customers.

The Opportunity: Component Software and Content

Re-architecting FICO technology was a first priority within the mission to automate, improve and connect decision-making for customers. The FICO product development team began a strategic initiative focused on designing and adopting a common architecture for all FICO products.



The ultimate goal was to provide a product foundation that enabled connected decisions. At the same time, the foundation would afford FICO the flexibility to deliver core business value to customers faster, while enabling the company to move to global markets and new verticals in parallel. To achieve these goals, FICO engineers identified the need to:

- Enable a unified suite of products with a common look and feel.
- Integrate the products to inform business decisions across the customer lifecycle.
- Remove inhibitors to progress by eliminating redundant code and functionalities throughout the product line.
- Implement cleaner, more streamlined code based on a “build once, use many” mantra.
- Standardize, simplify, and achieve cost control for product localization.

Using IBM's Rational Unified Process® (RUP) ² as a common methodology for designing an overarching software component architecture, the team focused on RUP best practices including:

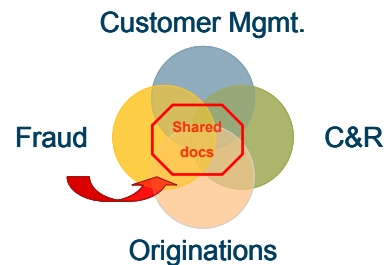
- Develop software iteratively through a process of successive refinement, as opposed to sequentially defining, designing, building, and testing.
- Enable software reuse to reduce risk.

With these guiding principles for agile software development, product development set to its re-architecture work. Development iterations would enable teams to make frequent demonstrable progress and accommodate changes in requirements, features or schedule.

Common capabilities became the first targets for componentization, including functions such as security, reporting, rules management, and system administration. Designing them as reusable components would raise the value and ultimately, customer usability of FICO's core technology-driven competitive advantage in areas such as predictive modeling and analytics and business rules management.

FICO Strategy: Product Agility for Global Markets

While the first phases of the re-architecture were underway, the FICO technical publications team was in the process of seriously evaluating DITA.³ Carroll Rotkel, Technical Publications Director, and Tom Goering, Technical Publications Principal Engineer, had been investigating the potential of producing documentation in DITA for some time. Agile software development fed directly into this effort.



Theoretically, iterative development would enable topic-based documentation for iteration-driven features and possibly allow localization and translation processes to move further upstream to shorten time to global markets. In reality, component reuse in the applications provided the technical documentation team with corresponding opportunities:

²

http://www.ibm.com/developerworks/rational/library/content/03July/1000/1251/1251_bestpractices_TPo26B.pdf

³ [Darwin Information Typing Architecture \(DITA\) is an OASIS standard](#) specifying an XML-based, end-to-end architecture for authoring, producing, and delivering technical information. This architecture consists of a set of design principles for creating "information-typed" modules at a topic level and for using that content in delivery modes such as online help and product support portals on the Web.

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- The repackaging of software components would require flexible documentation packaging, supported by DITA.
- Specific sets of topics could be identified and developed along with use case-driven functionality, enabling the majority of topics to be simultaneously available with an iterative release.
- Final documentation deliverables would be assembled from a topic library synchronized per software iteration.

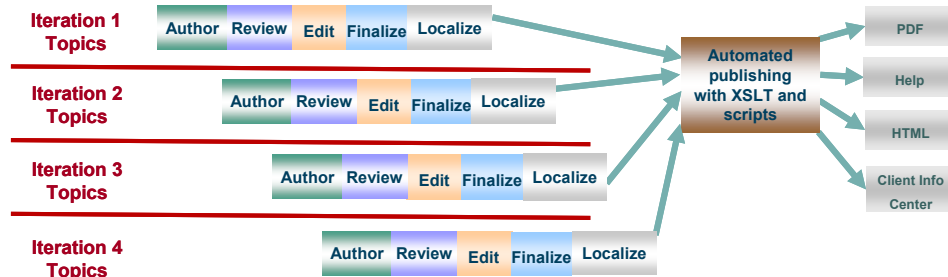
The direct correlations between the component-based product architecture and the basic value propositions of DITA were obvious to Rotkel and Goering. The efficiency factor was high; current documentation could be done in rapid cycles that paralleled agile methodologies. Collaboration potential was high; developers understand XML, and cross-product writing teams could complement product re-engineering.

Consequently, the technical publications team began to develop a DITA strategy that directly aligned with the overarching software component architecture. The preliminary content analysis for the pilot project indicated that approximately 25 % of product content was already common or virtually identical across products. The team identified topic types according to the DITA schema, including concepts, references, and tasks. They mapped out opportunities for reuse and dynamic delivery, such as generating content programmatically from structured sources such as configuration files or database tables.

The DITA strategy promised compelling efficiencies in product content *development* processes for the 20-person technical publications team. However, XML-driven product content *management* was still an issue to resolve. With an initial estimate by Goering of over 70,000 topics for a foundation of reusable source content for manuals and online help, it was clear that traditional tools and processes would not handle the level of reuse complexity that the strategy required.

Development of large content chunks with an unstructured authoring tool had already proven costly, with cumbersome review processes and high costs for localization and translation efforts. Abandoning sequential technical documentation processes (author, review, and publish) with DITA's topic-based approach would speed content development, but also require agile content management.⁴

⁴ Graphic courtesy of FICO.



Evolving to smaller topic-based outputs, managing the relationships between them, and anticipating dynamic topic assembly based on software iteration releases was clearly the domain of a Component Content Management (CCM) solution. That solution would also contribute to innovation of FICO’s content globalization practices.

The Opportunity: Bridging CCM to Simplified, Scalable Translation

The first principle of reuse provided the payback tipping point for Rotkel and Goering. They knew they had the foundations of a fundable business case that aligned the DITA and CCM strategies with the overarching software component architecture. The potential crystallized when the team incorporated hard metrics for cost savings across the entire product content lifecycle. Combining the exponential value of the DITA and the CCM strategy with potential for decreasing time to global markets through streamlined localization and translation processes provided the 360° opportunity that executive management required.

By 2007, the impact of unstructured content authoring on translation and subsequent desktop publishing costs was undeniable. A translation project for China running simultaneously with the first DITA pilot highlighted the challenges and costs of traditional processes. The China experience also brought to light the need for a localization manager to extend the benefits realized through agile software and documentation development processes and reuse-driven componentization.

When Elizabeth Taylor came on board as Localization Manager in January 2008, she found a lack of collaboration and coordination of effort, no shared language assets, and insufficient funding to meet the company’s goals. Taylor estimated that a localization/translation technology infrastructure would have saved FICO over \$100,000 on the 2007 China project alone, based on a DITA implementation that would eliminate desktop publishing costs.

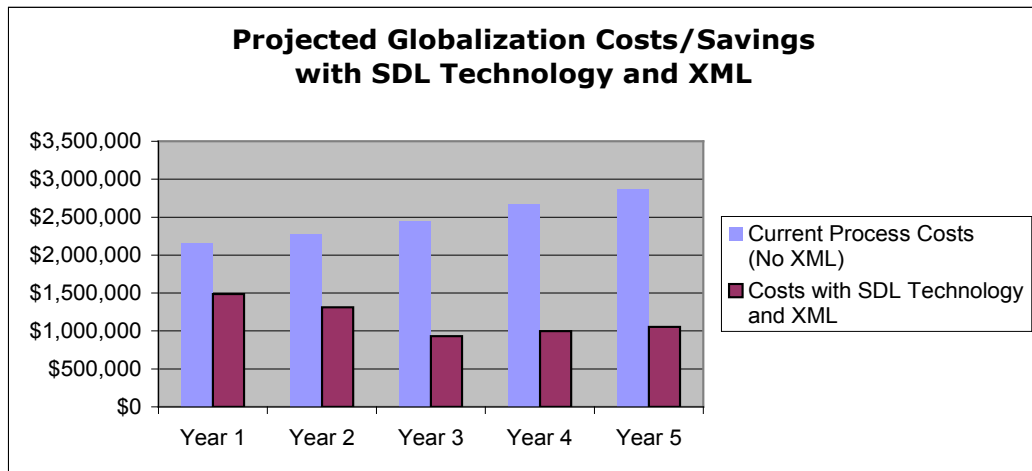
Working with the team to extend the first principle of reuse to the area of translation and localization, she immediately realized the value of leveraging the DITA and CCM strategies for content globalization cost containment, improved performance, and higher content quality. The mission was to further support FICO’s global expansion goals by:

- Eliminating business risks, including spiraling translation costs, inability to release to global markets in a timely fashion, and a potentially poor global customer experience.

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- Addressing the shortcomings in localization/translation processes, which were complex, vendor-dependent, and highly manual.
- Enabling centralized reuse of translation components based on a foundation of terminology management and translation memory.

By spring 2008, FICO had engaged with SDL's enterprise technology group for assistance with executing its DITA and CCM strategies. Combining translation memory and terminology management with the initiative produced compelling cost control projections:⁵



A new localization/translation strategy could leverage the principles behind product and content componentization and deliver its own innovation in parallel. Just as Rotkel and Goering knew that CCM would be key to handling the level of reuse complexity within the planned DITA library, Taylor knew it could also help alleviate the pain of the “multilingual multiplier” – the phenomenon of financial impact due solely to the cost of delivering content in another language. Some source topics would need to be translated to all languages, some to just a portion; in all, each topic could be translated into two to 20 languages. Without an integrated approach to translation management within the proposed CCM, the environment would simply not scale for global growth.

FICO Strategy: Content Globalization Agility for Competitive Advantage

FICO's technical publications and localization teams collaborated on the presentation of the business case for DITA, CCM and integrated localization and translation management. Factors included content reuse and topic management, efficiencies from automation and process improvements, reduced localization costs, and improved global customer experience and brand consistency. The case also included risk avoidance related to the ceiling on scalability of the current processes, and the negative impact of

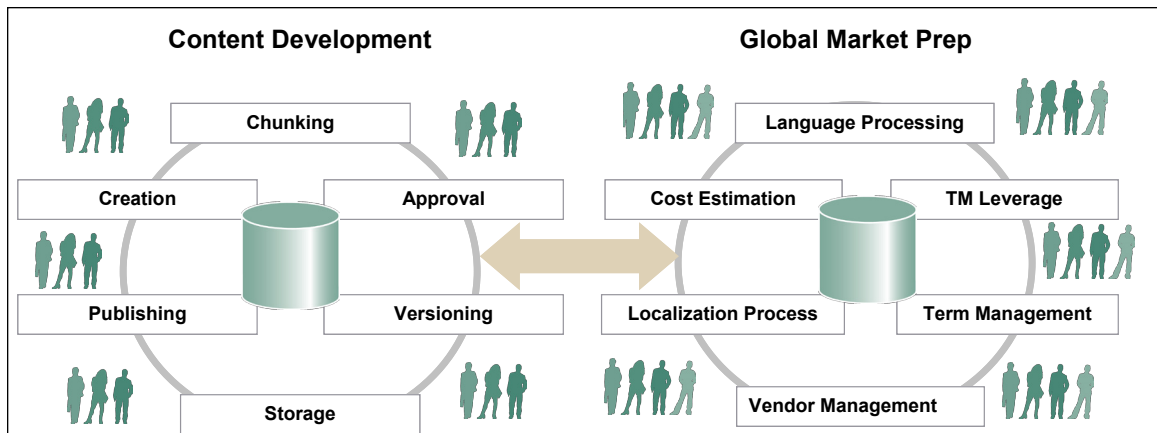
⁵ Graphic is an outcome of the SDL Discovery Day process that helped crystallize the FICO vision and refine the business case. Courtesy of FICO and SDL.

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inefficiencies commensurate with increased volume necessary to support global expansion.

FICO's Senior Management Operating Committee responded to the teams' presentation with, "So you're saying that it will save us money, give us more flexibility, and improve quality? Sounds like a no-brainer."

The outcome of the now-funded infrastructure would be content globalization agility, realized through innovative application of people, process and technology for competitive advantage.⁶



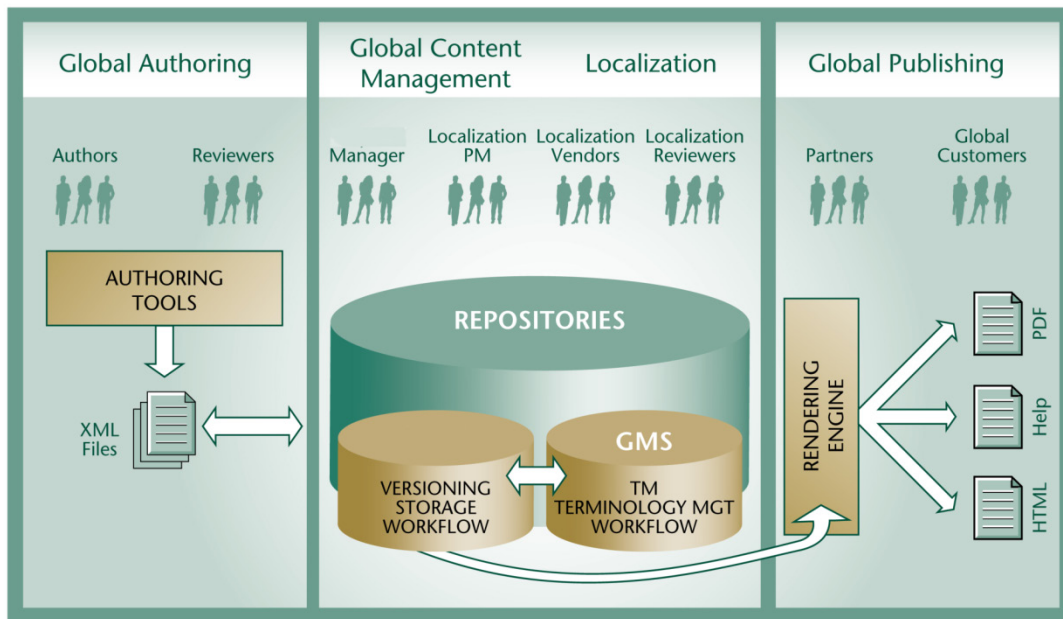
Under Taylor's management, FICO set out to establish and centralize localization best practices, including defined governance and standards for both content and user interface localization. As its mission, the localization team "works with development, product documentation, product management and education to coordinate and advise on localization planning, budgeting, best practices, and tools while overseeing the execution of individual localization projects."

Working closely with Product Management and the various regional and other business unit leaders, Taylor helped define the core and secondary language sets, along with a standard localization policy intended to clarify which products and languages would automatically be provided to the regions without the need to prove a specific business case.

⁶ Graphic is an outcome of the SDL Discovery Day process at FICO. Courtesy of FICO and SDL.

Solution Components

Topic-based content management and translation management come together in FICO's end-to-end DITA information management solution. FICO is working closely with SDL, chosen as its partner for an integrated suite of capabilities for structured multilingual content.



The solution delivers an XML/DITA framework for scalable technical publications and translation practices, through process automation, integration of solution components, and standards-based content.⁷ Foundational technologies include structured authoring, authoring management (including terminology), component content management, translation management, and automated multi-output publishing.

At the front end of the documentation workflow, FICO has implemented components of the SDL Global Authoring Management System, including terminology management. Writers will use JustSystems' XMetaL with the SDL AuthorAssistant client to create DITA topics. AuthorAssistant interfaces with FICO's translation memory, terminology manager, and style rules, providing access to language assets within the authoring environment. This integration biases content *at the source* for quality and cost-effective translation downstream. It also ensures consistency of brand for native and global markets. Capabilities within global authoring include:

- A centralized repository for branding and terminology control.
- Link to the translation memory to flag and reduce unnecessary changes that impact translation costs.

⁷ Graphic courtesy of FICO and SDL.

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- A linguistics engine to provide quality-controlled authoring.

The FICO documentation team manages its DITA content within the SDL Trisoft Component Content Management (CCM) system. Core functionality includes content storage as discrete topics, version control, and automated publishing. The solution provides the team with:

- A repository for linking and versioning topics, images and publications.
- A workflow process for moving topics through the content lifecycle from authoring through code review, editing and approval.
- A publication manager that presents an aggregated view of which of the many versions and revisions suitable for each release.
- Variables and a condition manager application that empower the team to write universal topics that could be written once and reused across publications and versions.
- An API for integrating to source control systems for software build processes and for importing data.

The topics stored in the CCM are efficiently pulled from the system for translation, and pushed back into the repository for publication after translation is complete. Translation is managed end-to-end with SDL's TMS to streamline the localization and translation of thousands of DITA topics with capabilities that include:

- A centralized translation memory database for storing linguistic assets.
- Job quoting capability for tracking costs of projects.
- Localization oriented workflow for moving files between the translators and internal FICO reviewers.
- Defined filters that protect non-translatable elements from translators.
- Business rules for associating certain content types with particular business processes.

Terminology Management: A Critical Factor

Gilbane Group believes that terminology management is an emerging practice that will exert significant influence on the success (or failure) of global content initiatives now and in the future. Gilbane's 2008⁸ and 2009 research indicates that lack of consistent terminology is perceived as a primary obstacle to implementing effective contemporary global content infrastructures (along with lack of collaboration).

Even with the best technologies and streamlined processes, inconsistent terminology will compromise any efficiencies or cost savings because companies still spend time and money to create, translate, and manage multiple and often redundant terms. At a high level, inconsistent terminology is a flavor of the "garbage in, garbage out" syndrome.

⁸ *Multilingual Communications as a Business Imperative: Why Companies Need to Optimize Their Global Content Value Chains*, Gilbane Group, Inc., 2008. Available at <http://gilbane.com>.

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FICO's recognition of the value of terminology management and its inclusion in the DITA information management solution are worthy of calling out in this case study.

FICO's transition to a shared product architecture brought to light a problem common within most global organizations: terminology inconsistencies. FICO did not speak the same *English* language internally. Without consistency, user experience, brand, and content quality were at risk, not to mention cost impact on translations.

To address the issue, Taylor's team first undertook the consolidation of multiple divergent *monolingual* glossaries with the goal of establishing a "single source of truth" for FICO terminology. The effort encompassed internal as well as external sources—product, product family, and various industry glossaries. Working with a cross-product and cross-department review committee, the team established governance that includes:

- Product Management has final say on the technical content.
- Product Documentation has final say on the phrasing of the definition.
- Terms are only published after they have been approved by the committee leads.
- Formal, ongoing publishing of definitive terminology source and usage guidelines on FICO's intranet.

After laying the groundwork with monolingual content, the team then consolidated multiple *multilingual* glossaries by product and language, to ensure that the translations also shared "one voice."

To simplify the company's terminology management, FICO implemented SDL's Author Assistant for quality-controlled and translation-guided, integrated with the TMS. In this way, authors are flagged when any legacy term is inserted that is no longer approved for FICO documentation. This approach results in consistent content with better author and translator efficiencies, without changing familiar toolsets.

Results

Today FICO is executing on the initiatives described in this case study. FICO released FICO™ Falcon® Fraud Manager 6.0 in April 2009. It is the first product based on the new architecture, and the second element of the FICO Decision Management Suite (Debt Manager 7 was released in December 2008). Three additional Decision Management Suite products are scheduled for release throughout 2009 and 2010.

The DITA-driven documentation approach is well on its way to supporting iteration-driven features and allowing localization and translation processes to move further upstream to shorten time to global markets. With an estimated 25% content reuse goal to support the Decision Management Suite, the team has a solid base of topic types and the mapping mechanism to combine them for iterative-based releases. A strategy for using Trisoft APIs to expand integration between product build processes and automating publishing is underway and will be facilitated by the CCM implementation.

This foundation provides the base that FICO's localization team needed to localize once and use the results in multiple deliverables, enabling the efficient and timely delivery of multilingual product content. With the DITA and CCM groundwork established, new and existing translation language assets are now shared company-wide, further reducing translation costs. By taking an iterative approach to development and topic authoring, localization and translation processes benefit; stable areas of user interfaces and product documentation will be sent out for translation before a U.S. product is released, significantly compacting schedules and supporting the FICO corporate goal to increase regional market share.

The terminology management strategy has been particularly successful, resulting in a corporate glossary of Decision Management Suite terms that are cross-functionally vetted, published, and available for automated topic outputs. These terms are already translated into key languages, which will speed time to global markets, improve branding, and ensure high-quality, consistent translations across product lines.

The technical publications team successfully delivered English-based PDF manuals and Eclipse online help documentation built from DITA topics for Falcon® Fraud Manager 6.0 and is working on iterative-driven updates. The plan for localization/translation deliverables is on target, with SDL's TMS fully implemented and integrated into the environment and tied into the localized termbases.

Best Practices and Organization Changes

People and process factors have advanced along with the technology strategy, based on the team's strong focus on alignment with FICO branding, content and terminology governance, usability goals, and training. Technical publications' organized approach to change management is truly impressive. Based on the mantra that "change management is all about engagement," the team has:

- Held weekly "all hands" meetings to monitor and communicate progress and issues related to the DITA implementation.

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- Formed process committees to facilitate the implementation of DITA standards and processes given a new technology infrastructure.
- Formed workgroups for common functional areas to identify and develop reusable content and define common terminology.
- Defined, documented and implemented Trisoft and XMetaL usage standards and trained all department members.
- Consistently collaborated with product development teams, who are enthusiastic about the approach given their knowledge of the structure and benefits of DITA and XML.

Conclusions: The Gilbane Perspective

Gilbane believes that true innovation delivers new value to organizations that are willing to take the risks associated with fundamental, qualitative change. The innovations resulting from FICO’s alignment of product and content development practices with business strategies are object lessons for any organization that needs to compete effectively in global markets. By recognizing the three opportunities described in this case study and executing strategies to capitalize on them, FICO is realizing new agility that translates to competitive advantage for itself and its customers.

Initiative	Transformation	Innovation	Result
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Product re-architecture	Componentization of software and product content	Component-level management	Product and market agility
Global expansion	Ad hoc to formal management of localization/translation processes	Simplified, scalable localization	Global content agility

With its strategic focus on decision management:

- FICO pushed innovation out to its customer by remaking its internal product and content development processes. Even though FICO’s standalone products supported the entire financial services lifecycle, decision-making across lifecycle phases was not possible without significant manual effort—if it was possible at all. The “connected decisions” capabilities delivered via enterprise decision management would enable customers to do what they could not do before.
- Closing the gap with connected decisions means business agility for FICO customers, enabling them to respond quickly to increasingly complex markets, sustain regulatory compliance programs and reduce operating costs through decision optimization.

With componentization and reuse as a first principle:

- Componentized software enables FICO to easily and consistently package and deliver core decision management features such as analytic models and business rules, which was impossible with monolithic products. FICO believes that its component architecture will someday let customers to buy modules in any combination.
- Componentized content enables FICO to develop common content for reuse across product documentation sets, produce integrated suites of documentation that looked seamless to the customer, and expand the delivery of context-sensitive help. None of this would have been possible prior to the introduction of DITA and SDL Trisoft CCM. The DITA/CCM combination will deliver the benefits of innovation that become possible with structured content, including the power to automate processes.

With its formal localization/translation practices and processes:

- Implementing better change management for localized content was a goal just out of reach at FICO. Prior to DITA and the CCM/TMS integration, FICO had no way to identify only the content that had changed from the previous translation. FICO can now do what was not possible prior to the introduction of new capabilities. Formal management of translation costs, resources, and processes delivers content agility is essential to global expansion.

A key factor in bringing the initiatives and strategies together is the executive vision that drove innovation throughout the company. Readers seeking to garner executive support will learn much from the cooperation of the technical publications and localization teams on making the business case for the end-to-end information management solution. Readers should also take note of the teams' decision to bring their technology partner into the discussion early in the process. Starting with a pre-sales Discover Day engagement, SDL's collaborative approach helped FICO make the case for the innovative impact of standards, technologies and processes; and articulate the ROI in a compelling, "no brainer" way to management.

The speed with which FICO moved once direction was set is notable. From a business case in April 2008 to first product shipment in April 2009, the company's time-to-results is exceptional. It illustrates what is possible when top-level management understands the value of innovative global content practices. An underlying success factor is certainly the rapid pace of FICO's DITA implementation, moving from adoption to real production within a year. The delivery of results in a short period of time is testament to the alignment of DITA, CCM, and TMS with FICO's business objectives; to the teams' understanding of the pervasive value of the standards and technologies; and to the ready availability of DITA-aware commercial products.

In addition to innovation and agility, two other themes run throughout the FICO story:

- **Synergy.** The business value of collaboration shines in this case study. While the decision management focus, product re-architecture, and global growth successes to date are compelling in and of themselves, the heart of the FICO story is the big bang that resulted when business initiatives and reuse philosophies came together. FICO's experience illustrates how fulfillment of the requirements for individual programs can exponentially impact the value of the others.
- **Serendipity.** The initiatives were launched amid standards-readiness in the form of DITA and market maturity of component content management and translation management systems. With these enablers of innovation in global product content practices well-supported in the market, FICO had the standards and technologies it needed for building a new content infrastructure. This would not have been the case just a few short years ago.

Precise, data-driven strategic and operational decision-making has never been more critical than in the current global economic climate. Industries such as financial services, healthcare and pharmaceuticals, insurance, and retail need to decide where to focus every resource, action and minute for higher returns. FICO executives' vision for

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the Decision Management Suite, their support of software and content strategies to deliver new business capabilities worldwide, and committed team leaders who execute those strategies show what can happen with a willingness to innovate at every turn.

Supplier's Voice: SDL

The Gilbane Group appreciates the contribution of content for this section from SDL.

FICO differs from other global organizations, not in the set of challenges faced *per se*, but in the strategic and proactive way that the company set out to address those challenges. Specifically, the FICO case study is exceptional in demonstrating how a large software company came to understand how critically important the creation and translation of technical information was to the global business. Moreover, FICO is unique in that there was significant “top-down” direction on the necessity of leveraging a new technology infrastructure to realize two key strategic initiatives:

- Expanding global presence
- Streamlining product development and content creation lifecycles

With the company seeking its growth from emerging markets, particularly China, the organization's ability to mobilize for new markets was becoming critical. Furthermore, new demands for translation were increasing the budget estimates well beyond what executives wanted to spend to enter and sustain a presence in new markets. This strategic initiative was already placing pressure on the documentation team to seek ways to speed time to global markets while containing costs.

Moreover, FICO's management also made the strategic decision to move its many software products to “shared components,” meaning that technical product information should be written once and used in multiple product contexts. This requirement for shared content, that would also have to be localized to more languages, set the documentation team off in search of a scalable process that could meet management's strategic goals without throwing new bodies at the problem.

In partnership with SDL, FICO implemented a Global Information Management and DITA solution that addresses its business requirements for authoring and translating technical documentation for their products. More importantly, FICO's strategic objectives are being met as the company enjoys lower internal and external costs, improved content consistency and quality, and accelerated time to market – in more markets – than ever before.

The Global Information Management Vision

FICO is just one of over 500 global brands that leverage SDL's Global Information Management (GIM) solutions to enhance their customers' experience by providing access to information in the customer's language of choice. Effective GIM enhances brand across all communications, shortens time-to-market, reduces localization costs and improves company performance in key strategic areas such as global revenues, operational costs and customer satisfaction.

SDL has helped many organizations by providing an integrated suite of products and services that support the entire content lifecycle and localization supply chain – from

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authoring through translation out to publishing. The breadth and depth of SDL's innovative GIM solution offerings combined with an SDL DITA solution were important factors in FICO's selection of SDL. We were able to provide FICO with an end-to-end global architecture leveraging the SDL technologies identified in the section on Solution Components.

About SDL

SDL is the leader in Global Information Management solutions, which provide increased business agility to enterprises by accelerating the delivery of high-quality multilingual content to global markets. The company's integrated Web Content Management, eCommerce, Structured Content and Language Technologies, combined with its Language Services drive down the cost of content creation, management, translation and publishing. SDL solutions increase conversion ratios and customer satisfaction through targeted information that reaches multiple audiences around the world through different channels.

Global industry leaders who rely on SDL include ABN-Amro, Bosch, Canon, FIAT, FICO, Google, Hewlett-Packard, KLM, Microsoft, NetApp, Philips, SAP, Sony and Virgin Atlantic. SDL has over 1000 enterprise customers, and provides access to on-demand portals for 10 million customers per month. It has a global infrastructure of more than 50 offices in 32 countries. For more information, visit www.sdl.com.

About SDL Structured Content Technologies

SDL's Structured Content Technologies division is the worldwide leader in Component Content Management and Dynamic Publishing software. Leveraging XML standards such as DITA and S1000D, the division's suite of products empower global companies to efficiently create, share, manage and publish technical information that is up to date and tailored to the interests of their global customers.