

ITC Construction Group

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Pall Musaev, IT Systems Manager, ITC Construction Group

Unique function-based graphical user interface drives content management system and creates efficient project management knowledge base

Benefits

- Streamlines processes and increases employee productivity
- Provides useable knowledge base and accelerates time to productivity for new or shifted employees
- Improves corporate image and client confidence
- Gives senior management greater visibility over project status

Business profile

ITC Construction Group

A leading Canadian general contractor specializing in the construction of concrete residential high-rise buildings

Industry

Construction

Geographies

Headquarters in Vancouver, British Columbia, with a regional office in Calgary, Alberta

Business solution

Project management, document management

EMC products

EMC Documentum platform, EMC Documentum Webtop, EMC Documentum Client for Outlook, EMC Documentum Content Transformation Services, EMC Captiva InputAccel

Deployment summary

The web-based, project workflow-based content management system is used by 125 employees to manage two terabytes of enterprise content ranging from contracts to site photos. In the near future, another 75 external consultants and clients will use the system as well.

EMC partners

Reva Solutions

Business overview

The ITC Construction Group specializes in the construction of concrete residential high rise buildings in metropolitan areas throughout Western Canada. Headquartered in Vancouver, British Columbia, ITC is British Columbia's largest general contractor. ITC also has projects in Calgary and Seattle. In 2006, the company was ranked as one of Canada's 50 Best Managed Companies (a nationally recognized annual award program sponsored by The National Post and others).

Challenges

ITC project managers, designers, engineers, administrators, and others were managing critical business documents—contracts, construction forms, correspondence, drawing transmittals, purchase orders, RFIs, schedules, site photos, and so on—primarily by storing them on shared network drives and personal hard drives. To share this information internally as well as with suppliers and subcontractors, employees e-mailed or faxed documents back and forth.

Need to standardize documents and processes

“We knew we couldn't continue managing documents the way we were,” says Pall Musaev project manager at ITC. “With the rapid growth the company has been experiencing, it was becoming increasingly difficult to keep track of all the information coming in from suppliers and subcontractors. For instance, use of different or out-of-date versions of forms was an issue. We knew we needed a more efficient, standardized way to manage content.”

EMC Documentum solution

ITC began looking for an enterprise content management (ECM) solution that could efficiently manage every type of content the business encounters, throughout the entire construction process, from marketing through project completion and billing. With guidance from local technology solutions provider Reva Solutions, the company evaluated a number of different options. ITC chose an EMC® Documentum® solution because of its built-in functionality and customizability. “The EMC Documentum platform had all the functionality we were looking

for, plus the ability to tweak it to suit our needs,” explains Musaev.

“We have had many successes with the EMC Documentum solution over the past five years, with both large and small companies,” adds Harold Davidson of Reva Solutions. “Often consumer software provides a user-friendly interface but is not scalable enough for an enterprise. Enterprise software, on the other hand, is scalable but doesn’t offer as rewarding an interface. With the Documentum platform and its very strong support for APIs, however, we can create a custom graphical user interface that both satisfies users and makes back-end processes more effective and efficient.”

Based on the EMC Documentum enterprise content management platform, the EMC Documentum Webtop web-based user interface, and EMC Documentum Client for Outlook, ITC’s new system is currently used by 125 employees in their Vancouver and Calgary offices as well as at job sites or on the road. In the near future, as external consultants and clients begin using the system, the number of users will rise to 200, and continue to increase as the company grows. The system manages all documents and systems related to the management of construction projects.

Unique function-based GUI makes finding and filing information easier

To establish a common framework for managing all enterprise content, Reva Solutions worked with ITC to create a unique graphical user interface (GUI). To make the interface easy-to-use and appealing to ITC’s non-technical users, Reva Solutions integrated Flash animation technology with EMC Documentum Webtop. The resulting user-friendly, wheel-shaped graphic is based on the time sequence of all of the company’s major content-related business processes from project start to finish.

“We call it a function-based filing system,” says Musaev. “The wheel graphic is the hub or starting point for all content. When a user needs to create, find, or import a document into the system, the first step is to ask ‘What business process does this document belong to’ and click on that process on the wheel.”

The outer ring of the wheel represents the four major high-level phases of a project’s lifecycle. The next concentric ring represents the four basic functional flows within each phase, and, beneath each flow, another ring represents a business process. The user clicks twice to drill down to the required content or drop-down menus for the most recent versions of relevant templates. For example, to find the most recent version of the contract that is being negotiated with a potential client, the user clicks on “Negotiation” under the “Emergence” phase. To find a contract with a supplier, the user clicks on “Procurement” under the “Order” phase.

A document enters the system in one of three ways:

- **E-mail.** When a user receives an e-mail message, using EMC Documentum Client for Outlook (DCO), he simply drags and drops it (and any attachments) into the appropriate category in the Webtop wheel interface. DCO automatically extracts and imports metadata such as sender’s name, recipient’s name, date, and subject.
- **Import from desktop.** For a paper document, the user currently scans it onto his desktop where EMC Documentum Content Transformation Services (CTS) automatically converts the electronic file to PDF format. Then he clicks on the wheel GUI to the appropriate category, and clicks again to execute a file import function. In the near future, ITC will implement EMC Captiva® InputAccel, which will automatically capture metadata and import the file to the correct location in the Documentum repository.
- **Creation of a new document.** The user clicks on the appropriate GUI phase and process to drill down to a drop-down menu of templates, then chooses the template he needs and saves it with an appropriate filename. The new document is automatically saved in the correct location in the underlying Documentum repository.

A usable, central, corporate knowledge base

The wheel concept, standard templates and processes, and strong content management functionality are helping ITC create a usable corporate knowledge base. “Our goal is to create a ubiquitous understanding of how ITC does business so people can traverse their way through the organization and find whatever content they need,” says Musaev. “The wheel will eventually be the central hub for every kind of information an employee could need, whether it’s a scheduling form, instructions on how to complete the form, or, via embedded hyperlinks, data in an ERP or CRM system.”

Faster time to productivity

Now when employees move to another project or job within ITC, their ramp-up time is significantly decreased because they already know how business processes are related to one another and where to find and file information. “At the onset, they know where to look to find the templates and documents they need to work on and they can look up how-to guides and document samples,” says Musaev. “They can get a sense of ownership for their new position almost immediately.”

Brand new employees also come up to speed and gain a broader understanding of how the company works much faster than before. “Not long after deploying the new system at headquarters, we opened our Calgary office,” explains Musaev. “Using the EMC Documentum-based system from the start accelerated time to productivity for the whole office.”

Greater visibility for senior management and external parties

With the new system and a standardized way of creating and storing information, project directors, heads of pre-construction and construction, the COO, and others in management all have much better visibility as to the overall direction and status of the company's projects. "ITC management knows exactly where to look to identify the critical path items on any given project," says Musaev. "Thanks to the new system, they can manage the high-level items of a project much more easily."

Increased client confidence and communication

ITC clients are seeing a difference with the new system as well. Thanks to standardized templates and version control, the forms the clients see have a consistent look and feel and are always the most current version. "Our new way of managing content provides clients with a more organized, well-presented product that more clearly communicates schedules and other deliverables," says Musaev. "As a result, it improves our corporate image, builds client confidence, and results in better communication between us and our clients."

In the near future, ITC plans to facilitate communication and collaboration with clients and external consultants even more by giving them direct access to the Documentum-based system. "Just as our employees access the system with unique IDs, passwords, and project numbers, external parties will be able to access, empowering them to view project documents without having to go through an ITC employee," explains Musaev. "Built-in security and access control lists in the EMC Documentum system will let us dictate which content they can or cannot view."

Summary

"The EMC Documentum platform was the perfect vehicle for ITC's vision of a function-based content management system," says Davidson of Reva Solutions. "With it, we could leverage out-of-the-box functionality as well as customize the web interface with Flash technology—and do so in a way that allows for future Documentum upgrades with minimal impact to the system."

"By combining customization with a lot of built-in EMC Documentum functionality, we created a project-focused content management system that makes our entire company run smarter and more efficiently," says Musaev. Easier access to documents makes employees more productive and enables the company to maintain and grow a useable knowledge base that will only continue to increase efficiency and visibility. Clients also benefit from better documentation and improved communication.

About Reva Solutions

Reva Solutions is a technology consulting firm with headquarters in Vancouver, British Columbia, Canada and offices in Seattle, Washington; Calgary, Alberta, Canada; and New Delhi, India. Reva specializes in the design, implementation, and integration of content-centric business solutions. Reva generates value for its customers by designing, developing, and deploying customized portals, Enterprise Content Management (ECM) systems, and ECM system integration solutions that increase employee productivity. For more information, visit www.revasolutions.com.

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