Borland® technology builds advanced parliamentary work-flow system

"Borland software has helped speed up application development ten-fold, dramatically reduced administrative workload, and ultimately improved the robustness and stability of the parliament’s document management system."

—Ulf Christoffersson, Deputy Secretary General, Swedish Parliament

Swedish Parliament

Sweden's parliamentary committees play a central role in the formation of policy. All government bills and related private members' motions must be referred to one or more of the 16 committees before a final decision is made in the chamber, called the Riksdag.

The budget, submitted in the autumn, is the most important bill and affects all the committees. Thus, from September onwards, a huge amount of documentation is created and circulated back and forth between committees and the Riksdag. It is compulsory for all private motions (submitted by members of parliament) to be registered centrally and with the relevant committee. In a normal year, private members submit around 4,000 documents, each containing an average of three motions.

In the past, motions were handed in as printed documents and then typed into a central electronic archive. Each committee then had to manually retype relevant motions for its own use because there was no facility to search for, access, and transfer content electronically. This slowed down the decision-making process because it required numerous hours not only to distribute documentation manually but also to retype it several times over for use by different committees. The retyping also made errors prevalent.

The paper trail created by the legislative process was running out of control and was hugely frustrating for members of parliament (MPs). They knew that in theory the technology existed to address this challenge; it just needed some senior-level commitment to make the solution a reality.

Business challenge

In order to speed up the passage of bills through parliament, disparate archiving systems needed to be linked together to create a central digital archive. The ultimate aim was to make all information instantly available to MPs whenever they needed it and wherever they were located.

The parliament decided to implement a new document management and work-flow system that would speed up and automate the distribution of paperwork during the busy autumn period. The system had to be based on a centrally managed database that would integrate seamlessly with other systems to allow for the automatic searching, retrieval, and distribution of content both internally by staff and eventually by others via the Web.

The new work-flow system also had to minimize the potential for error by automating the passage of documentation through the parliament to reflect the complex decision-making process. Furthermore, it had to remove the need for retying documents for use on different committee systems.

This was a groundbreaking initiative, given the volume and complexity of the content and disparate systems within the parliament.
The Borland® solution

The solution needed to be a customized, user-friendly system that could be easily and cost-effectively adapted over time to meet users’ complex needs. Ultimately, all information stored on legacy systems needed to be available for staff to view on the Web.

The team was determined to avoid some of the pitfalls usually associated with creating a customized system: project and cost overrun, lack of flexibility, and poor integration.

After a thorough evaluation of products on the market, reviewers selected components that now reside within Borland® Enterprise Studio for Windows® to develop the system. The Studio is a comprehensive suite, which integrates Borland Delphi™ 6 with Rational Rose® via BoldSoft™ Bold® for Delphi to speed time-to-market, reduce costs, and maintain design integrity. The Studio provides a complete design-to-deploy solution for the Windows platform using a Model Driven Architecture™ (MDA™) framework.

The development environment of the Studio—Delphi 6—integrates tightly with Rational products via Bold for Delphi. This integration enabled the parliament’s in-house development team to build the system quickly. The MDA framework ensured the business requirements and design integrity was maintained throughout the development process. This saved both time and money and enabled the development team to build an application to fit the users’ requirements more accurately. The Rational Rose® Professional Data Modeler Edition provides a cooperative development environment to Unified Modeling Language™ standards. A key advantage is the ability to adapt the system to reflect changing requirements on an ongoing basis, without the need for extensive reprogramming.

The application the parliament had developed converts all Microsoft® Word documents into XML (Extensible Markup Language). XML is a flexible way to create common information formats for the sharing of data and text across the Web, intranets, and between businesses. XML lets individuals and groups of individuals share information via a common, extensible format.

In the case of the Swedish Parliament, XML has enabled the unification of all parliamentary documentation. Documentation is inserted into a single XML-based database, enabling employees to search for and access the specific pieces of content they need and receive them almost instantaneously.

XML also has allowed for the creation of a work-flow system that automates the complex passage of documentation through the many stages of the legislative process between the committees and the chamber.

Results

Since the new system went live, the parliament has seen a dramatic reduction in work load and error because there is no longer any need to retype documentation for use on different systems. The system has sped up the parliamentary decision-making process by enabling the committees to access and act upon motions much more quickly.

The new system has also made things possible that weren’t before. For example, it has given members of parliament an instant view on a given bill’s progress throughout the year. In the past, it used to take days to get an answer to a specific question because different parts of a bill were sent to different committee databases. Now, the MP can get immediate answers to even complex inquiries because the new system makes it is possible to do an electronic search from one computer.

From the programmer’s point of view, Borland software was crucial in the development of the new system.

In the past, it was almost impossible to adapt the system to accommodate users’ demands without cancelling out previous work. Since implementing a Bold for Delphi solution, programming for the Swedish Parliament has become much more design driven. This has meant that far more time can be spent listening to what users need, building software to meet their requirements, and taking advantage of a maintainable system—essentially transforming the development cycle.

“Borland and Boldsoft have helped us develop what we believe is one of the world’s most advanced document management systems to manage work flow for all functions within the Swedish Parliament,” says Lars Hellstrom, senior project manager at the Swedish Parliament.

Technology

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