Industry:
Real Estate, Business Information

Organization:
First American Corporation

URL:
www.firstam.com

Description:
First American Corporation, through its largest business unit, First American Title Insurance Co., is one of the nation's leading title insurance and escrow companies. The company has recently diversified into a leading business information provider through the mining of its extensive real and personal property information databases.

Business Problem:
Needed to develop a web based company-wide IT infrastructure that would serve a network of 20,000 independent agents and support the IT and data mining needs of a growing, widely diversified business information provider.

Rational Solution:
Rational Unified Process, Rational ClearCase, Rational Rose

Key Benefits:

- Empowered First American with a unified methodology based on Best Practices for designing and implementing software development from inception to roll-out, on-time and on-budget.
- Enabled ITC's team of 60 contractors to start developing code in a short time frame.
- Allowed ITC to effectively track and complete all development tasks through implementation of use case modeling.
- Dramatically saved First American time and labor costs in second phase development by facilitating component-based architecture design and use case modeling.
- Provided ITC developers with a context-sensitive guide to other tools in the Rational Suite, enabling developers to effectively use the full power of these tools in a cohesive and efficient manner.
- Solved the "e-software" paradox by unifying the software team through a common process and methodology for developing high quality software at "Internet speeds."

speed quality

Rational®
the e-development company™

First American Corporation "e-Diversifies" via the Rational Unified Process.

The First American Corporation, a main-stay of the title insurance industry, is transforming itself into one of the nation's largest providers of business information. The corporation's largest business unit, First American Title Insurance Company, is among the nation's leading title insurance companies with a commanding 23% share of the market. In a typical year, First American Title Insurance writes more than two million title policies, reports, and guarantees and participates in the closing and escrow of over one million properties.

To insulate itself from the ups and downs of a real-estate centric business and to diversify its offerings, First American has been adding a number of complementary business units that leverage off its core strengths. In the last four years, these businesses have included real and personal property information databases and the mining of raw data into business information products such as credit reports and Uniform Commercial Code (UCC) filings.

The Need for a New IT Infrastructure

First American has 28 regions, each of which supports its title and escrow business with any number of order handling systems and processes. However there are no standardized processes or systems used among the regions, creating a disparate infrastructure marked by poor communications and slow order processing. Both of these conditions can be fatal to companies trying to compete in today's Internet-paced economy.

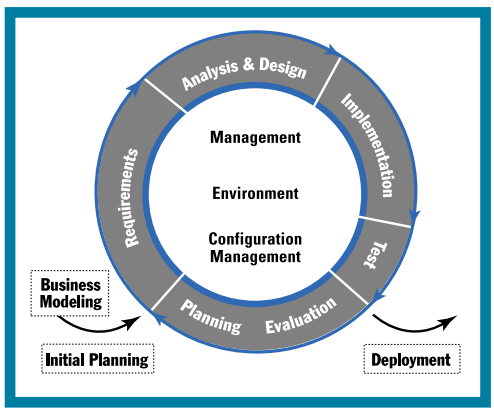
In the case of First American, orders are usually taken over the phone or faxed in. The information is manually entered and reentered into a number of departments and processing systems before reaching the Title Officer where it's analyzed and evaluated. Eventually a title document is generated. Upon review and further approval, this document is forwarded to the document-processing department where the title policy is created. Inherent to this process are a number of manual data entry points with the potential for cascading errors. Efficiency is also hampered by the lack of standardized databases and information networking infrastructure.

First American realized from the start that its successful transformation into a diversified e-business company would require a new, unified IT infrastructure that could readily support the expanded scope of the company's new businesses.

Defining the IT Infrastructure

The new IT infrastructure project began with meetings to identify strategic elements of the envisioned system and its technology components. The system would immediately have to support the branch offices entering orders and working with customers while simultaneously allowing "back office" production centers to fulfill orders. The system would also eventually have to support over 20,000 independent agents working across the nation. This geographic diversity accentuated the need to place the application over company-installed intranets and the Web to fully empower a network of far-flung agents.

The project plan also emphasized speed in development and the importance of creating a well-defined, layered architecture that allowed migration to other technologies without a major re-write of the entire application. By utilizing such a component-based design instead of designing for the specific processes at hand, planners estimated an initial 50% savings in project development time and labor costs with added savings on subsequent revisions.



Each project iteration cycle begins with a plan for what will be accomplished and concludes with an evaluation of whether objectives have been met.

RUP Guides IT Design

The project management and leadership was outsourced to the Irvine Technology Corporation (ITC) of Santa Ana, CA. ITC relied on the Rational Unified Process™ (RUP), the industry-leading software development process from Rational Software, to design and implement the new IT architecture and technology.

RUP is a Web-enabled software engineering process that enhances team productivity by providing prescriptive guidelines, templates, and examples. Guided by RUP's industry-standard best practices, ITC could apply a disciplined, unified methodology to the tracking and completing of required tasks throughout the project's development and implementation stages. Easy to use and adapt, RUP is tightly integrated with the Rational tool set; characteristics which allowed RUP to function as a valuable tool for mapping and designing the project's development and for unifying a hastily assembled team of software developers.

According to Michael Rose, ITC Senior Partner and Director of Analysis and Planning, the IT software development group rapidly grew from zero to 65 developers working under a tight deadline. "It's one thing to assemble a bunch of people and call it a development team," said Rose, "but to be productive you have to answer the questions: 'How are we going to actually do this project? How are all of these people going to work together?' — that's where the overall development process fits in."

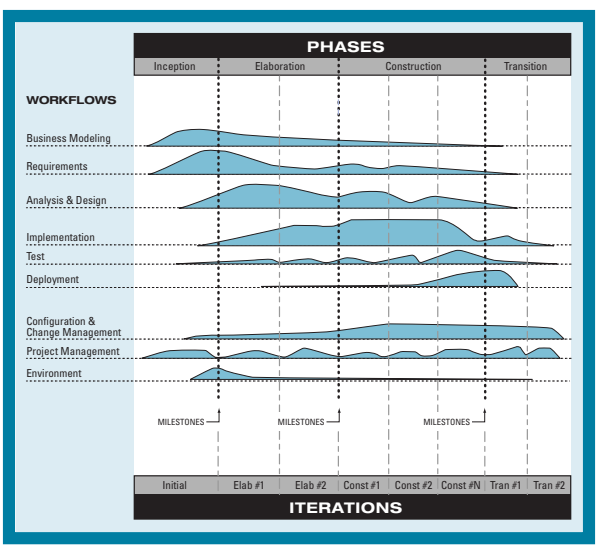
Rose noted that his development group started on the analytical side to acquire an understanding of the needs of the First American Corporation. They then focused on working with end-users to produce use cases. Implementing use cases was a crucial component of the project's success because it provided a disciplined approach to tracking and completing the tasks required throughout the development and implementation stages. Use case modeling also helped developers gain a better understanding of end-user interaction with the software. This understanding serves to both increase end-user efficiency and optimize the way the system is built.

"Our entire development process was strengthened by employing RUP," Rose said. "We instituted a change management process, documented all the requirements, and basically implemented the best practices contained in RUP. These practices enabled us to get a group of 65 people developing effectively in the first couple of months. You can't scale up that quickly without a solid guiding process there to help you, and RUP provided us with that process," he added.

The speed and improved efficiency that RUP brought to Rose's team was dramatic and measurable. The first phase of the project, which addressed the needs of the title side of First American's business, took a team of 60 developers approximately eight months to complete. But the second phase, which addressed and integrated First American's escrow business with the title, was completed in only five months by a team of 15. Rose figured that his group saved about 50% of the second phase development costs by re-using 40% of the existing components from phase one. This substantial time-cost saving could be attributed to component based design and use case modeling implemented through RUP.

"Our entire development process was strengthened by employing RUP."

Mike Rose
Sr. Partner, Director of Analysis and Planning, ITC



The Rational Unified Process organizes projects in terms of workflows and phases, each consisting of one or more iterations. With the iterative approach, the emphasis of each workflow will vary throughout the lifecycle. Milestones enable management to assess progress.

"We determined that by leveraging off the existing processes implemented through RUP and the existing use cases, we realized a 77% improvement on our labor force costs. Just compare hiring 60 contractors over eight months with 15 contractors over five months. RUP gave us a familiar process that allowed us to re-use a lot of the existing code in the second phase instead of having to start from scratch," Rose noted.

Assisted by other Rational Tools

In addition to the Rational Unified Process, First American and ITC used Rational ClearCase® to track and manage change throughout the development cycle. Rational Rose®, the industry's leading tool for object-oriented analysis, modeling, design, and construction, also played an important role in the software development lifecycle for First American. Rational tools eased the stress and complexity of the development project for ITC by presenting clear guidelines for implementing the technology.

"In the past we tried different sets of products and gone with a best-of-breed approach for tools to support a development process," Rose said. "We ended up spending more time trying to get those pieces to talk to each other or manually creating ways to integrate these disparate tools. Today you just can't spend time doing that sort of thing.This was a big factor in our choosing the Rational Suite® of products. We could pick and choose and integrate them knowing that they were all going to work with each other and talk with each other, now and in the future. We wouldn't have spend valuable time trying to make that happen on our own."

A Solution Called FAST

The end-product of this development effort is called FAST: First American System Technologies Transaction System. FAST Transaction is the cornerstone of a system of browser-based e-business applications that will revolutionize the way First American serves its customers. FAST Transaction will ultimately replace over 60 different title and closing systems and provide features and functions for order management file processing, document processing and access to ancillary systems.

The application creates a single repository for orders and a series of electronic in-boxes that enable orders to travel seamlessly from desk to desk. In initial beta sites, the original average cycle time for an order process saw a 29% duration improvement when processed via FAST Transaction.

The FAST Transaction system is built on three physical tiers, featuring HTML, Java Script, XML, C++, MTS 2.0 and SQL Server 7.0. The system uses MSMQ to integrate with FASTWeb and FASTSearch.

Development on the FAST Transaction System began in October of 1998, and entered beta test in August of 1999. The project was delivered on time and $250,000 under budget.

Benefits Immediately Apparent

FAST Transaction is the browser-based standard application viewed as a key enabler of much of First American's IT strategic plans. The application constitutes the infrastructure that will, over time, enable the consolidation of legacy application servers and the resources used to support them. It will also lead to the elimination of over 75 regional IT centers and it will allow First American's outside agents to enter orders and complete all "back office" production phases via the Internet.

The business value derived from FAST Transaction implementation has already positioned First American approximately two years ahead of its competition in the crucial e-business arenas of financial services and customer data mining.

RUP Brings the Team Together

One of the most important benefits that First American and ITC derived from employing RUP for the FAST project was the Process's unique power for transforming a diverse group of developers into a tight team, rapidly and effectively. Given the e-software paradox (Rational's term for describing the necessity of developing high quality software at Internet speed), such unifying capability is critical to marketplace success.

"We used to be functionally oriented," Rose noted, "but with the e-software paradox, we can't anymore afford to work in separate functional teams with the delays in communication and miscommunications that it creates. We need everybody in the project to work as one unified team. The Rational Unified Process helped ensure that everybody was on the same page throughout the FAST software development lifecycle. Using a heavily iterative process helps you to work as a cohesive team."

"We determined that by leveraging off the existing processes implemented through RUP *and the existing use cases, we realized a 77% improvement on our labor force costs."*

Mike Rose
Sr. Partner, Director of Analysis and Planning, ITC

About Rational Software Corporation:

Rational Software Corporation® (Nasdaq: RATL), the e-development company, helps organizations develop and deploy software for e-business, infrastructure, and devices and embedded systems through a combination of tools, services and software engineering best practices. Rational's e-development solution helps organizations overcome the software development paradox by accelerating time to market while improving quality. Rational's integrated solution simplifies the process of acquiring, deploying and supporting a comprehensive software development platform, reducing total cost of ownership. IDC has recognized Rational as the revenue leader in multiple application development and deployment markets for four years in a row. Founded in 1981, Rational, one of the world's largest software companies, had revenues of $754 million in its twelve months ended December, 2000 and employs more than 4,000 people around the world. Rational is a component of the Nasdaq-100 Index®. Additional information is available on the Internet at www.rational.com

Rational®
the e-development company™

Dual Headquarters:
Rational Software
18880 Homestead Road
Cupertino, CA 95014
Tel: (408) 863-9900

Rational Software
20 Maguire Road
Lexington, MA 02421
Tel: (781) 676-2400

Toll-free: (800) 728-1212
E-mail: info@rational.com
Web: www.rational.com

International Locations:
www.rational.com/worldwide

CS-177 Rev. 3/01 *Subject to change without notice.*