IBM

Rational® software

IBM Business Partner Ivar Jacobson Consulting helps a multinational financial services company manage its Agile development.

Overview

■ *Challenge*
 To deliver enterprise systems for commodity traders around the world, the IT group of a large financial services company needed to effectively manage, plan and monitor software development activities.

■ *Solution*
 The company worked with IBM Business Partner Ivar Jacobson Consulting to implement Agile development methods using Unified Process techniques, and using IBM Rational ClearCase and IBM Rational ClearQuest software.

■ *Key Benefits*
 Improved resource allocation and automated reporting have reduced costs and improved productivity. Senior management can now see the return on investment for each project; they can see where the IT budget is spent and why. Managers have the visibility and information they need to effectively plan and make business decisions.

Commodity trading is a particularly time-sensitive business. For the software development organizations of businesses active in commodities marketplaces, the ability to develop and deploy software on time has a direct impact on the company's bottom line.

During periods of robust growth, when adding development resources is relatively easy, organizations can make up for inefficient practices with additional spending. When budgets tighten, however, pressure builds to understand IT expenditures and ensure IT initiatives are aligned with real business needs. This was the situation faced by a large multinational financial services institution.

Seeking to better understand, manage and plan the development activities of its IT organization, the company engaged Ivar Jacobson Consulting (IJC). An IBM Business Partner, IJC provides training and mentoring services to help organizations improve their software development processes.

"Our client was building front-office and back-office systems for traders in locations around the world. It was becoming almost impossible for them to do that effectively without systematically planning, organizing and controlling how they built software," explains David West, managing director of the Americas for IJC. "They had no real processes or controls in place. Development resources were often allocated to the group that shouted the loudest, and not always to the projects that would best support the enterprise. In addition, poor planning led to duplicate efforts; they had multiple servers and applications that were doing almost the same thing."

***IBM Business Partner Ivar Jacobson Consulting
helps a multinational financial services company
manage its Agile development.***

*"We implemented
Rational ClearQuest
to manage the backlog
and Rational ClearCase
for automated and
continuous builds. We
also followed a Unified
Process structure to
help provide a frame-
work for Scrum based
on the inception, elabo-
ration, construction and
transition phases of
the lifecycle.*

—David West, managing director of the
  Americas, IJC

Agile methods in a Unified Process framework

When the company initially contacted IJC, discussions focused on the implemen-
tation of Agile techniques. It was clear that a level of control was needed to build
software on time that supported the organization's business, and the company saw
the adoption of Agile methods as a step toward gaining that control. "It quickly
became apparent that just introducing Scrum—the Agile method they were
interested in—wouldn't actually have solved the problem. It would have helped,
but without tools to automate the process and a framework to put the Agile
methods in context, it would not have been successful," recalls West.

Following guidance and training from IJC consultants, the company began using
IBM Rational® ClearCase® software for software configuration management and IBM
Rational ClearQuest® software for software change management. "We implemented
Rational ClearQuest to manage the backlog and Rational ClearCase for automated
and continuous builds. We also followed a Unified Process structure to help provide
a framework for Scrum based on the inception, elaboration, construction and
transition phases of the lifecycle. Our client's teams had not been making good
decisions about what they were going to do in each particular iteration or sprint, and
the framework helped them do that," notes West.

Managing Scrum with IBM Rational ClearQuest and IBM Rational ClearCase software

Many of the managers at IJC's client had not considered using Rational ClearQuest
and Rational ClearCase with Agile methods. IJC quickly demonstrated how the
Rational tools could be used to support the Scrum model on Agile projects. In
this model, the list of defects, enhancement requests and other issues comprise
a product backlog. The development team works on this backlog in sprints, which
are similar to iterations in the IBM Rational Unified Process®, or IBM RUP®, methodol-
ogy, and uses Rational ClearQuest to manage the sprints and automate much of
their workflow.

"In the sprint meetings, the Scrum master uses Rational ClearQuest to assign tasks from the backlog to different team members," West explains. "The developers then return to their workstations, review what they have to do, and begin checking out the necessary files using Rational ClearCase in the context of that task." Because they are using unified change management (UCM) processes, any changes made to the code are automatically linked to the Rational ClearQuest item the developer is working on. When a developer finishes work on an item in this backlog, it is automatically promoted to the integration stream and later moved to the test environment.

The integration of Rational ClearCase and Rational ClearQuest helped simplify reporting and facilitated compliance with corporate governance and other regulations. "We implemented a project dashboard and custom reporting, so management could see the up-to-date status of the project at any time. The process introduced a level of discipline, but did it in a way that was invisible to the team," West adds. "The workflow and the tool integration also helped to ensure compliance with internal governance rules and Sarbanes-Oxley regulations, because there was a consistent record of why the code was changed and who changed it throughout development."

The development team, working at four locations in North America and Europe, used the Rational ClearCase Remote Client and Rational ClearQuest Web capabilities to support geographically distributed development and facilitate communication between teams. "Everyone has access to the same code base, the same backlog and the same project dashboard, which is a big help," says West.

Better planning, better management

Since adopting Agile methods supported by Rational ClearCase and Rational ClearQuest, IJC's client is regularly delivering projects on time and has reduced software development costs. "There was one project that spanned multiple lines of business and locations, with multiple sets of requirements. The company had spent millions of dollars and had very little to show for it after almost two years. We put our solution—based on best practices and Rational solutions—in place, and we immediately saw the team gain traction. They made the first delivery of a working solution soon after that," notes West.

"We implemented a project dashboard and custom reporting, so management could see the up-to-date status of the project at any time. The process introduced a level of discipline, but did it in a way that was invisible to the team."
—David West, managing director of the Americas, IJC

"With Rational solutions, our client has saved millions of dollars because they are making better decisions about where to allocate development resources. The reporting has improved planning and control significantly."
—David West, managing director of the Americas, IJC

Time previously spent tracking project status is now spent on productive development activities. "In the past, our client's development process was chaotic. To get a weekly report, one person would spend an entire day asking everybody what the status was and putting together a spreadsheet," says West. "Today, the team always has access to the up-to-date, accurate status of the project, and that person spends the extra day every week on meaningful work."

West concludes, "With Rational solutions, our client has saved millions of dollars because they are making better decisions about where to allocate development resources. The reporting has improved planning and control significantly. Going forward, all new projects will use this process because everyone knows what to expect, and the development team is continuously working to deliver it."

For more information

To learn more about how you can use Rational solutions to help improve your development environment and processes, contact your IBM Business Partner or IBM representative, or visit:

ibm.com/software/rational