Microsoft®

Microsoft Project Development Group Uses Its Own Product to Manage Development

Overview

Country or Region: United States
Industry: Software engineering

Customer Profile
One of the world's largest software companies, Microsoft is ranked number 35 in the 2009 Fortune 500. Based in Redmond, Washington, it has about 93,000 employees worldwide. Its Project Development Group develops project management software, including Microsoft Project 2010.

Business Situation
The Project Development Group wanted to manage its complex development effort for Project 2010 with a rich, flexible, and user-friendly project management solution.

Solution
The group implemented prerelease versions of Project 2010, using the software itself to help manage the process of completing its development.

Benefits
- Increased end-user participation
- Smart decisions based on timely data
- A quality product
- Accountability in planning

"Using Project 2010 to build Project 2010 has been a powerful experience for me and my team. It has helped us push the limits of our own product, refine its features, and improve its quality."

Ludovic Hauduc, General Manager, Microsoft Project Development Group

The Microsoft Project Development Group, which develops project management solutions for the global software company, needed to manage the complex development effort for its new product, Microsoft Project 2010. The group decided to use prerelease versions of its own software to plan and track all of its engineering activities. The Project Development Group used Project 2010 to choose and plan a portfolio of potential software features, allocate resources to these feature development efforts, and track progress against changing goals. With Project 2010 features, the group increased end users' participation in planning, time tracking, and status reporting. It also gained timely data and rich analysis tools—resulting in effective portfolio management that elevated product quality—along with a transparent, accountable planning process that improved the experience for workers.

Microsoft® Project Server 2010

Situation

Based in Redmond, Washington, Microsoft has 93,000 employees worldwide and has offered some form of project management software since 1985. The Project Development Group at Microsoft is responsible for developing this software. Following the release of the Microsoft Office Project 2007 family of products, the Project Development Group began working on Microsoft Project 2010.

The development of Project 2010 was an enormous undertaking. "We had about 50 project plans for each development milestone," says Chris Boyd, Program Manager II at the Microsoft Project Development Group. "And each of those plans contained an average of 100 tasks."

The team faced many challenges common to such large projects. For example, says Drew Danielson, Test Lead for the Microsoft Project Development Group, "Trying to see what each of my team members is doing at any given time—and how that plays out against the schedule—has traditionally been very difficult."

Indeed, managers were particularly concerned with how individual efforts related to a big picture. "You get partway through the process and you wonder, 'What are the shortcomings of the product? What do we need to address?'" Danielson says. "In the past, few quantifiable numbers have been available to answer such questions. Status meetings often boiled down to how we felt things were going."

At the same time, adds Alex Sourov, Development Lead for the Microsoft Project Development Group, there was skepticism among team members about the benefits of project management itself. "People simply don't like reporting their time—especially when they don't believe it

will be beneficial," says Sourov. Too many team members believed that no matter how much effort went into project management, deadlines would always lead to mad scrambles. Yet if individuals failed to report their statuses and times, the lack of data would help make these prophecies self-fulfilling.

Another team in the Microsoft Office division, the Natural Language Group, experienced similar issues. Such problems particularly affected the linguists and language specialists of the Natural Language Group. Because their expertise was not in software development, these users represented typical postrelease users of Project 2010—and they were particularly averse to time-reporting systems that did not reflect their daily routines.

Furthermore, many of these users had highly specialized skills. "In the past, some areas of our group had been a bottleneck," says Bernhard Kohlmeier, Principal Group Program Manager for the Natural Language Group at Microsoft. "Certain people would get overallocated, and they came to believe from the start of every project that the same unanticipated problems would cause them great suffering as deadlines neared. They never trusted the believability of a plan, or indeed the very process of planning, because it lacked transparency and accountability."

To address these diverse challenges, both groups needed project management software that made it easy both for users to input information and for managers to manipulate it. Furthermore, the software also needed to keep all that information up to date, which posed additional challenges. For example, a worker might report the status of several tasks to a manager who was away from the office for two weeks for a family emergency. "The status updates

would be caught in the system because they were waiting for approval, and only that manager could approve them," Boyd says.

And in reporting on data, not all managers were the same. For example, Kohlmeier was primarily interested in managing people and tasks. However, Sourov tended to be more concerned with scheduling issues such as meeting milestone deadlines. Meanwhile, as the engineering release manager, Boyd was responsible for rolling up all of the project data into a master project plan. All wanted a software tool that could easily and quickly provide the information needed by both team members and management.

In short, to build a top-notch project management software application, the team needed a top-notch project management software application.

Solution

The Microsoft Project Development Group decided to manage its work with its own product. At the beginning of the release cycle, starting in May 2007, it used Microsoft Office Project Portfolio Server 2007 and Office Project Server 2007. Starting in October 2007, the team used early versions of its own new software to plan and manage all of its engineering activities.

At the beginning of the effort, managers developed a high-level list of features being considered for the product. Then they prioritized those features against a set of business drivers and planned their development against the resources available across time. Because Project 2010 incorporates and enhances the features of Office Project Portfolio Server 2007, the software both suggested the best set of features to develop and helped managers

track and adjust that portfolio through execution.

About 70 percent of Project 2010 users are team members regularly reporting time and status information into Microsoft Project Server 2010 using the Microsoft Project Web App technology. These include the language specialists, who early on communicated several frustrations to Kohlmeier. Danielson recalls, "Bernhard would come to our design meetings as a very passionate customer, helping us figure out the shortcomings of the user experience because he was hearing about them from people in his organization on a day-to-day basis. That input really helped us shape our features and improve our usability." Several new features in Project 2010 ensure that the information that team members input remains up to date. For example, a manager can delegate another user to accept task updates from team members when the manager is away.

About 20 percent of users are project managers, resource managers, and release managers who manipulate the information that is reported. Some of these functions can be performed using Project Web App, although others—such as the master project features that Boyd uses—require the Microsoft Project Professional 2010 client.

The final 10 percent of users are executives who look at reports produced through the Project 2010 database, which uses Microsoft SQL Server 2008 Enterprise data management software and Excel Services in Microsoft SharePoint Server 2010 technology. Top management also sees information in Microsoft Visual Studio Team System 2008 Team Foundation Server, a work management system used by the Microsoft Office division, which encompasses the Project 2010 team.

(During development, the Project Development Group built a bridge between Team Foundation Server and Project Server 2010. Upon release of Project 2010, integration will be available between Project Professional 2010 and Team Foundation Server 2010; after the product launch, Microsoft will give information about the public availability of a Project Server and Team Foundation Server connector.)

At the Project Development Group, the Project 2010 software runs on Dell PowerEdge 2950 quad-core server computers. Now that the planning and execution phases are complete, the Project Development Group is using Project 2010 to track work on a variety of continuous engagements, including supporting this release and planning for the next one.

Benefits

The Microsoft Project Development Group has used Project 2010 to increase end-user participation in project management and improve the timeliness and usability of information. The results have included a quality product and accountability in planning. Ludovic Hauduc, General Manager of the Microsoft Project Development Group, says, "Using Project 2010 to build Project 2010 has been a powerful experience for me and my team. It has helped us push the limits of our own product, refine its features, and improve its quality by living it day in and day out for over a year before it reaches our customers."

Increased End-User Participation
"It used to be that we had to sell other teams in the Office division on the idea of using our project management software," says Boyd. But in addition to its ease of use, Project 2010 boasts features that users in the Office division wanted and can't get

elsewhere. For example, Boyd says, "Users were picking up Project 2010 on their own, without anyone asking them to, because they loved the Timeline View."

Widespread adoption makes project management data more useful, kicking off a virtuous cycle. "I don't see any more skepticism on the part of team members," says Sourov. "Everybody sees that taking just five minutes a week to report time, when combined with the power of the Project 2010 tool, brings us enormous benefits."

Management agrees. "Because our entire team reports their time with our new timesheet features, we've gained unprecedented visibility and control into how time is spent on the team," says Hauduc. "Senior management is always up to date on progress."

Smart Decisions Based on Timely Data
With Project 2010, decisions are based on robust, current information. "With the reporting and dashboards in Project 2010, when I go into a planning meeting, I can understand at a glance what's going on and how it can pivot around my data," says Danielson.

Because participants are armed with better information, meetings lead to better decisions. "Our leadership is 100 percent driven by data from Project 2010 reporting," Boyd says. "When we decided to add or cut a feature, those decisions were always based on Project 2010 data."

Boyd says, "By helping to answer the high-level questions—where we're at, where we're going, and where we have room to do more work—Project 2010 gives us confidence that the work we're doing is not just high-quality and cost-efficient, but the *right* work."

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A Quality Product

The Project Development Group uses the enriched features of Project 2010 to better manage its portfolio of features. "Unlike with prior releases, we've been able to use the Project 2010 Portfolio capabilities to select and optimize our feature investments, all the way through our last rounds of design changes," says Hauduc.

Requests for new features are easier to address. "If a request came in, we could use Project 2010 to easily model what we would need to take it on, and what it would mean to our overall plan," Boyd says.

Equally important, the team used project management data to decide which features to exclude. "Each week we could use Project 2010 to see our progress against development objectives, which helped us to scope down the features that we knew we would not be able to get to," Danielson says. "We could thus better prioritize our work in order to meet deadlines."

Indeed, Danielson found these later portfolio management decisions to be both easy and productive. "With Project 2010, everyone in a meeting can see capacities and end dates, so we don't have to fight tooth and nail about the feasibility of including or excluding certain features," he says. "We thus avoid cramming in too much at the end, which results in a much higher quality product."

Accountability in Planning

By using Project 2010 for resource planning, the Project Development Group not only efficiently allocates resources, but also does so using a process that is transparent and thus accountable. "When we did our overall feature planning, we were able to include very detailed resource planning—not just the leads, but also the individuals on the ground," Kohlmeier says.

"We included as many people as possible in a transparent planning process, which meant that the leads couldn't simply apply wishful thinking. They were held accountable early in the process—before the lack of checks and balances could cause suffering on the part of team members or the product."

In addition to improved early planning, managers use Project 2010 to adjust resource allocations and avoid overallocations on an ongoing basis. "We used reports to answer questions about resource balancing," Boyd says. "Were we putting too much work on a particular resource? Is there a tester who has the available capacity to take on new work?" Danielson adds, "With Project 2010, we can use features that give managers a better view into what their teams are scheduled for, so they can react accordingly based on how much work remains. It takes the guessing out of people management."

The result of the efficient allocation—combined with the improved portfolio planning—is a smoother and more productive process that improves the experience for workers. Although it's difficult to quantify, managers believe they had some success at avoiding deadline scrambles. Equally important, however, is that project planning itself gained legitimacy in users' eyes. Kohlmeier says, "Making plans real and transparent by involving the entire team was the crucial step to increasing confidence in a process that can be very opaque if driven by a project manager in an ivory-tower fashion."

For More Information

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Microsoft Project Server 2010

Microsoft Project Server 2010 brings together the business collaboration platform services of Microsoft SharePoint Server 2010 with structured execution capabilities to provide flexible work management solutions. Project Server 2010 unifies project and portfolio management to help organizations align resources and investments with business priorities, gain control across all types of work, and visualize performance through powerful dashboards.

For more information about Microsoft Project Server 2010, go to:
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- Microsoft Server Product Portfolio
  - Microsoft Project Server 2010
  - Microsoft SharePoint Server 2010
  - Microsoft SQL Server 2008 Enterprise
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Hardware
- Dell PowerEdge 2950 quad-core server computers

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