



Spatial Corporation provides high-performance 3D software components and services for design-centric markets. By integrating Spatial's 3D software components with new or existing software applications, Spatial partners get the 3D functionality they desire while better managing development costs, optimizing resources, and decreasing time-to-market, allowing them to more closely focus on their core competencies.

Overview

With a customer base of over 350, spanning a wide range of 3D software engineering applications, including CAD, CAM, CAE, Shipbuilding, and EDA, Spatial products are used in more than a dozen industries. Spatial's components contribute to the operation of more than 1.75 million end-user software seats.

Supporting a vast array of software solutions requires Spatial products to not only operate effectively upon installation, but also quickly respond to market needs. Due to the highly technical nature of its solutions, Spatial needed to engage early and often with their customers before final product release.

Company Challenges

Spatial's development team used an ad-hoc "mini waterfall" approach with limited success for a number of years. With release cycles ranging from six months to a year, there was no release predictability, making it hard to manage customer expectations. Additionally, releases tended to be point or bug-fix releases and lacked features requested by Spatial's customers. Finally, there was no uniform development methodology across teams that were geographically dispersed across Colorado, Germany, UK, Japan, and India.

Following a number of releases that were out-of-synch with the market, Spatial realized that their development process was fundamentally flawed because it lacked customer interaction early in the development process. In addition, conflicts between different departments became common as various groups tried to prioritize getting either bug fixes or new features into the development process.

The development team began looking at Agile practices in 2006 as a way to overhaul development processes and build customer feedback into their products early. However, as the team began to transition from waterfall to Agile, the hundreds of spreadsheets that Spatial was using to manage its Agile practices became unmanageable. And, with no formal Agile training, the team struggled to put Agile into practice.

Spatial knew they needed a solution that would reinforce Agile and provide a respite from the time-intensive spreadsheet process.

Implementing Agile and Rally

During their search for an Agile tool, Spatial tested a number of open source tools. However, they found that many tools forced them to comply with particular processes and did not support Agile development. They concluded that only Rally was specifically designed to reinforce Agile practices.

The initial adoption of Agile was rocky because the team had little in-house Agile expertise. Things began to turn around once Spatial brought in Rally's services organization to coach the team on best practices of both Agile and Rally. Following the onsite training, Agile gained momentum across the organization and the adoption of Rally's solutions spread in parallel. In addition, after experiencing a true facilitated meeting during the Rally training, Spatial was inspired to create an overall ScrumMaster because everyone in the organization found facilitated meetings to be much more effective.



Company and Industry

- Industry: Technology
- A leader in high-performance 3D software components and services for design-centric markets

Development Environment

- A mix of two week and three week iterations
- Service pack releases every nine weeks and major releases every eight months

Challenges

- Waterfall methodology did not allow for customer interaction early in the development process
- Open source tools did not reinforce Agile practices
- No predictable software release cycles
- Organizational disconnect during the development prioritization process

Solution

- Implemented Rally's Agile lifecycle management solutions, allowing for timely customer feedback
- Engaged Rally coaches to educate teams on the Rally solution and Agile best practices
- End-to-end product lifecycle management enables clear view of release forecast and company-wide understanding of development efforts

Results

- Improved time-to-market, with the last 4 software releases on-time or ahead of schedule
- Complete end-to-end product lifecycle visibility for the entire organization
- Dramatically improved prioritization process throughout the company

Scaling Software Agility[®]



Predictable Releases and Prioritization Across the Company

Today, everyone in development, documentation, QA, and the project and product management teams uses Rally as the central repository for information on upcoming releases. Development teams at Spatial run on two- and three-week iterations. With service pack releases every nine weeks and major releases every eight months, releases are predictable and focused on Spatial's organizational objectives. In fact, Spatial's last four releases were released either ahead of schedule or on the exact planned day, due to the visibility the development organization gets from Rally.

"The biggest success we've found from using Rally is that the team sticks to what it says it will do and when they say it is done, it always is. Adopting Rally continues to provide us with the flexibility we need to better respond to our customers," says John Alpine, Vice President of Research and Development at Spatial.

Another big benefit of implementing Rally is that the process for prioritizing new features and defects has greatly improved. The whole development process is transparent to the entire organization, and the executive team actively participates in the prioritization meeting and process, using information derived directly from Rally.

"In essence, Rally has required the entire organization to be an active participant in the development process," explains John. "The development organization does the most important work first and links to the organization's priorities. Rally has forced better prioritization through the entire company."

Practicing Agile Throughout the Organization

Development teams hold daily scrums facilitated by Spatial's Certified ScrumMaster. During iteration re-prioritization meetings, teams walk through user stories and related tasks, with the ScrumMaster keeping everyone focused on the status of the current iteration.

"With Rally and Agile, meetings are much more focused and productive than ever before," notes Stacey Hunvald, ScrumMaster at Spatial. "When issues do arise, I can sit with the teams and advise on Agile best practices to help resolve any conflicts quickly."

In addition to the changes in the development process, Spatial is making their documentation process Agile-focused. "Using Agile principles, we have modeled our documentation process on Wikipedia," says Gregg Oetting, Spatial's Director of ACIS. He explains, "Documentation now happens real-time with the story implementation. This makes it easier to complete the entire documentation process and get it done faster."

About Rally

Rally is the leader in Agile application lifecycle management (ALM) dedicated to making leaner development organizations that respond faster to changing customer needs. According to a study by QSM Associates, teams that rely on Rally's Agile lifecycle management products and services are 50% faster to market and 25% more productive than industry averages. Rally's products were honored with four consecutive Jolt Awards (the software industry's equivalent of the Oscar® award) in 2006, 2007, 2008 and 2009. The company's end-to-end solutions for Agile development also include Agile University, the largest source for Agile training, and Agile Commons, the largest collaborative Web 2.0 community dedicated to advancing software agility.

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