

June, 2010

## Can Windchill SocialLink and Social Product Development Transform Engineering Collaboration?

On June 7th, 2010 at the PTC/User 2010 event in Orlando, Florida, PTC announced Windchill SocialLink, a new product extending the social computing collaboration capabilities of Microsoft's SharePoint 2010 to the product development applications within PTC's Product Development System (PDS). PTC has articulated the value of Windchill SocialLink within a Social Product Development framework strategy that promises to deliver new levels of collaboration and visibility in product development processes. While the product has not yet received a final launch date, Windchill SocialLink has the potential to transform the way product development organizations share information and solve design problems with an ultimate impact on time to market, development costs, and product revenue. This Market Alert provides an overview of the changes offered by Windchill SocialLink and the value that organizations have realized leveraging similar social computing applications within product development.

### Introducing Windchill SocialLink

PTC has been building a Social Product Development strategy since the launch of Windchill ProductPoint in June 2008, which first introduced the social computing functionality of Microsoft SharePoint into Pro/ENGINEER as a standalone product. The June 7th announcement marks the first time that PTC has articulated a comprehensive vision for the value that social computing provides to product development. At the crux of this vision is PTC's Windchill SocialLink, a solution that incorporates the social computing capabilities of SharePoint 2010 across all of PTC's product development applications. These capabilities include:

- User profiles detailing areas of professional expertise and interest
- Live chat in the context of specific deliverables
- Creation of communities of practice
- Activity feeds highlighting current tasks and problems

Through the combination of these capabilities, Windchill SocialLink offers new levels of visibility in product development by helping organizations identify experts, facilitate and document ad-hoc collaboration, and disseminate knowledge across the engineering organization. According to PTC, this will drive improved problem solving and enhanced productivity across the development process, particularly as organizations become able to leverage insight and expertise that is already present within an organization, but obscured due to any number of functional silos.

### Market Alert

Aberdeen's Market Alerts provide timely analysis of current market events drawing upon independent fact-based research to lend insight into the topics that impact organizations

### Windchill and SharePoint 2010

Windchill SocialLink is only one of four solutions that PTC has built on Microsoft's SharePoint 2010 platform. These solutions differ in key ways and expand on Windchill to offer new capabilities within PTC's PLM suite:

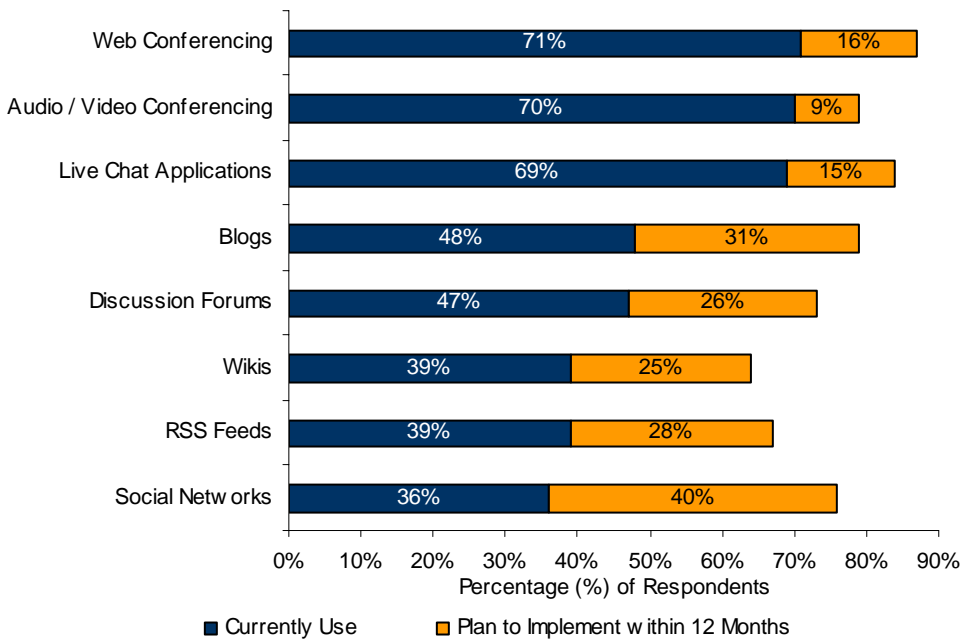
- ✓ **Windchill ProductPoint** combines the product data management (PDM) capabilities of Windchill with the enterprise collaboration capabilities of SharePoint. The solution offers a lightweight variation of PDM
- ✓ **Windchill PPMLink** is intended to sit on top of existing project management solutions rather than as a replacement, PPMLink applies portfolio management capabilities and aggregates product metrics across the development process.
- ✓ **Windchill Web Parts for SharePoint** delivers executive visibility outside engineering by extending PLM data to business users of SharePoint

## Social Computing in Product Development

Applications such as Microsoft's SharePoint have demonstrated the value that social computing applications can provide as a collaboration platform within an enterprise. Within the engineering organization, facilitating collaboration has taken on additional urgency as product development organizations have become distributed across geographic locations and divided among engineering domains and areas of specialization.

While the technology has not yet taken firm hold, research from Aberdeen Group's January 2010 [Enabling Community Collaboration in Product Development](#) study indicates growing adoption of social computing applications within engineering organizations (Figure 1). While more traditional technologies such as web-based and audio / video conferencing are more widespread, many manufacturers are now turning to social computing. In particular, Aberdeen's research indicates a great deal of planned adoption for social networks, with 40% of study participants indicating that they plan to implement these applications within the next 12 months.

**Figure 1: Collaboration Technologies Used Within Engineering**



Source: Aberdeen Group, January 2010

## PTC's Vision of Social Product Development

While social computing offers new means of collaboration, few of these applications have been developed with the engineering organization in mind. This means that manufacturers planning to deploy these solutions within engineering must develop strategies that apply these tools to specific

### Pressures Driving the New Wave of Design Collaboration

Research from Aberdeen Group's December 2009 [Enabling Community Collaboration in Product Development](#) study identified the top factors driving organizations to adopt new collaboration technologies are:

- √ Need to include stakeholder inputs in product development (45% of study participants)
- √ Shortening time to market (36%)
- √ Need to respond to customer demand (31%)
- √ Need to increase product quality (22%)

product development use cases. Early adopters have fit the solutions to their processes largely through trial and error. As the technology spreads across engineering departments, organizations will often struggle without specific guidance on how and where to apply social computing capabilities within product development.

PTC's Windchill SocialLink presents an answer to these questions by providing a collaboration layer incorporated directly within existing engineering applications - such as PTC's PLM solution Windchill, and 3D CAD application Pro/ENGINEER. Within this framework, social computing has ceased to be a standalone solution that must be incorporated within product development. Instead, its collaboration capabilities have become available as a component of the existing engineering workspace. During the announcement at PTC/User 2010, PTC walked through a variety of use cases of how Windchill SocialLink will make SharePoint capabilities available to PTC customers. In many of these cases, PTC has transposed many of the activities that take place around product development on an ad-hoc and informal basis, and incorporated them within the product record.

"Specialized social networking can do a lot. The top two roles are: helping people find the experts and engage in discovery; and problem-solving outside of their personal network and beyond the inbox."

~ Product Development  
Director, Consumer  
Electronics Manufacturer

### **Profiles of Engineering Expertise**

Like personal social networking applications, SharePoint creates user profiles that capture information about each individual's role in the enterprise as well as his or her core competences. In engineering these profiles offer the capability to capture not just areas of expertise but also experience with different tasks and past projects. SocialLink updates these profiles automatically from user information captured by Windchill. As a result, users will become better able to identify the experts that are available within the organization. In particular, this capability enables users more rapidly to address design challenges as well as better allocate engineering resources to new projects.

### **Live Chat in Design Context**

Live chat applications see widespread adoption for both personal and business uses and these solutions represent a social computing tool with one of the highest adoption rates (69% of respondents) in engineering. Windchill SocialLink will deploy SharePoint's presence detection capability across PTC applications to support live chat in the context of specific engineering deliverables. From any given part or document, a user will be able to identify the other stakeholders associated with the document who are available for live chat. In addition to enabling users to connect more easily with stakeholders around any specific deliverable, this capability will serve to document these discussions in connection to the deliverable. As a result, SocialLink will provide added insight when users encounter problems with specific deliverables and record key decisions (and their underlying rationale) for future access.

### **Communities of Practice: Blogs, Wikis, and Forums**

Development projects, like any other ongoing and evolving efforts, require a great deal of communication to keep widely distributed stakeholders coordinated. Social computing technologies can play a significant role in these efforts. For example, blogs can be used by project leads to post status. Wikis can provide evolving records of projects and be used to build consensus and capture knowledge. Similarly, discussion forums can be used to work through design and engineering issues, and expose development problems to an interested audience that can provide insight that speeds the resolution of issues. Additionally, blogs, wikis, and discussion forums enable individuals to come together in communities of common interest or practice (such as green products or regulatory compliance) that ultimately serve to disseminate and capture critical information. In all of these cases, Windchill SocialLink creates a central repository of information that is often exchanged via e-mail or 'off-line' conversations that are associated with the development project in the PLM solution.

"Using social collaboration tools has allowed us to shorten the decision-making time cycle."

~ Staff, Educational Products

### **Project and Product Visibility through Activity Feeds**

Windchill SocialLink offers users micropublishing capabilities that transmit status and project updates to members of the product development team. Ultimately, this enables all stakeholders on a project to be kept up to date on its progression and to identify potential bottlenecks. These feeds may be customized so that each user only receives the information he or she requires. For example, some stakeholders may only need project status and local design team issues, while others may want visibility into project risk factors and sourcing activities. Feeds can be filtered so that each user can track the tasks and stakeholders that specifically apply to them, offering greater visibility across the project or product while preventing information overload.

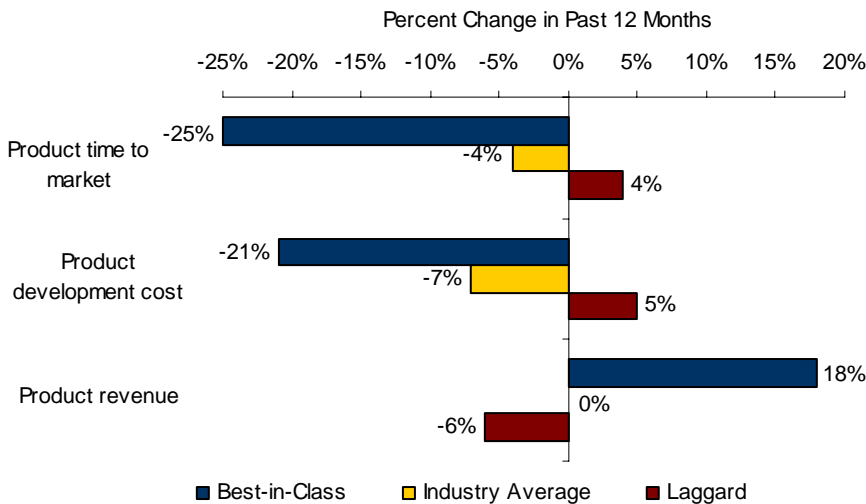
### **Identifying the Value of Social Product Development**

The myriad of capabilities available within PTC's Windchill SocialLink ultimately roll up into a central value proposition: enhancing visibility into engineering expertise and project status as well as more effectively documenting and disseminating the collaboration that takes place during product development stands to improve engineering decision-making. By making better decisions about a product over the course of development, organizations are better equipped to overcome bottlenecks and speed development processes. Identifying ways to reduce development costs and deliver products that customers want ultimately drives revenue and profitability gains.

As a new technology for engineering, it can be difficult for organizations to identify and understand the value that Social Product Development offers. Thirty-one percent (31%) of participants in Aberdeen's [\*Enabling Community Collaboration in Product Development\*](#) study indicated they had implemented a social networking initiative in product development. However, Aberdeen's analysis found that these initiatives were more likely to be deployed by

organizations that realized the most significant performance improvements over the past 12 months. Specifically, Aberdeen found that Best-in-Class performers (those benchmarked as the top 20% of performers) were 113% more likely than their competitors to use social computing to support product development (64% of Best-in-Class performers compared to 30% of all others). Figure 2 indicates the comparative performance benefits achieved by Best-in-Class performers and by their competitors.

**Figure 2: Performance Improvements Achieved by Best-in-Class**



Source: Aberdeen Group, January 2010

As Figure 2 demonstrates, the average performance improvements achieved by Best-in-Class range from three to over 18 times greater than those achieved by the Industry Average. With Best-in-Class performers 113% more likely than their competitors to use social computing within the product development environment. This indicates the contribution that social computing can make for a business when effectively leveraged.

### Concerns to Address: Cultural Resistance and Information Overload

The major obstacle that organizations investigating PTC's Social Product Development strategy are likely to face is that of cultural resistance. Aberdeen's [Enabling Community Collaboration in Product Development](#) study identified 'getting stakeholders to use social computing tools for product development' as the top challenge organizations face deploying social computing to product development (reported 41% of respondents).

Incorporating social computing tools into development processes presents a fundamental shift in how engineers communicate and go about their tasks. While this is a standard challenge that organizations face in any implementation of new technology, the value of social computing hinges on frequent use and distribution of information. To some extent, Windchill

#### Aberdeen Methodology

Aberdeen Group's survey-based research investigates the business impact of technology by benchmarking the performance of study participants. Respondents are measured using key performance criteria and classified into one of three tiers of performance:

- ✓ Best-in-Class, top 20% of performers
- ✓ Industry Average, middle 50% of performers
- ✓ Laggards, bottom 30% of performers

Key performance indicators used to assess Best-in-Class performance in Aberdeen's [Enabling Community Collaboration in Product Development](#) study include:

- ✓ Change in time to product market over the past 12 months
- ✓ Change in product development costs over the past 12 months
- ✓ Change in product revenue over the past 12 months

SocialLink overcomes this challenge by automating the dissemination of information within Pro/ENGINEER and Windchill, rather than relying on users to manually update profiles or status alerts. At the same time, social computing risks opening the door to a torrent of information, bombarding stakeholders with irrelevant data and updates. Information overload can erode productivity gains offered by social computing and may further discourage resistive engineers from using such solutions. Organizations that effectively balance frequent use with targeted information exposure stand to benefit the most from these solutions.

## Key Takeaways

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Aberdeen's research indicates that effective use of social computing to support product development drives significant improvements in time to market, development costs, and product revenue. However, within product development, social computing still represents a new technology that has yet to be incorporated into engineering processes. For many organizations, leveraging social computing capabilities in product development has required trial and error to determine how to apply the technology and encourage engineers to use the solution effectively. By incorporating these tools directly within the engineering environment, PTC's Windchill SocialLink offers a more mature approach to how these solutions can be used. As such, this vision has the potential to revolutionize how engineers collaborate and solve the problems that arise on a product's critical path to development.

Whether organizations choose to follow PTC's vision or take another path to spread community collaboration in engineering, the following recommendations from Aberdeen's [Enabling Community Collaboration in Product Development](#) study will enable them to overcome cultural resistance and create the stable foundation needed to be successful:

- **Involve the IT team in assessing and integrating the best solutions to meet the engineering team's needs** - The IT team's expertise will help organizations identify which collaboration tools best fit their development processes. By leveraging this insight, organizations can better select the tools that will provide the most value. Best-in-Class performers are 2.4 times more likely than Laggard performers to possess this capability (57% of Best-in-Class compared to 17% of Laggards)
- **Define standards for information sharing.** As companies expand the volume of information they make available through social computing, great care must be taken to govern how that information is shared. The Best-in-Class are 52% more likely than the Industry Average to adopt this capability. Adoption of this practice will help organizations expose data in a way that drives effective decision-making while minimizing information overload.
- **Centralize product data and information** - Best-in-Class performers are 66% more likely than the Industry Average to adopt

this capability. Centralized access to data streamlines information retrieval and exchange as well as ensures that stakeholders collaborate on the correct versions of deliverables, rather than on out-of-date material. Adopters of Windchill SocialLink will receive a head start on this count, as the solution will be directly tied to Windchill and other product development applications.

For more information on this or other research topics, please visit [www.aberdeen.com](http://www.aberdeen.com).

Related Research	
<a href="#"><u>Enabling Community Collaboration in Product Development</u></a> ; December 2010	<a href="#"><u>Design Anywhere: Maximizing the Global Opportunity, Minimizing the IP Risk</u></a> ; October 2009
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