windchill® navigate™

ENTERPRISE DATA ACCESS:

Faster, Rigorous Decision Making and Collaboration

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Introduction

Take a moment to consider the daily number of decisions and actions in your company that are directly guided or informed by product data. This little exercise isn't just an accounting of your company's design engineers. Bear in mind all the people who consume the product data, not just the people who put the data in a PLM system. Whether by product development, procurement, quality, manufacturing, or other departments, a staggering number of decisions get made across your company that rely on product data or on derivatives of that data.

Now consider how those stakeholders get the latest product information they need. How does your engineering department hand off those drawings, designs, bills of material, specifications, and so on? And how do those stakeholders provide feedback to engineering? Are those processes quick, reliable, secure, or efficient? If you can't confidently answer yes to all four of those characteristics, then you likely have an enterprise data access problem on your hands, but you probably already knew that. The ultimate question becomes, how do I improve the way product data is communicated and leveraged across my enterprise despite the IT challenges (budget, bandwidth, complexity) of such an initiative.
In this eBook, learn how Windchill Navigate – a suite of out-of-the-box applications that connect to your PLM system – can alleviate the IT challenge of supporting enterprise demand for product data, and how easy access to up-to-date product data drives tremendous value for stakeholders across your company.

Drive business value by:
- Extending easily accessible product data to stakeholders across the enterprise
- Accelerating user adoption with role- and task-based applications
- Facilitating collaborative PLM processes – like change management – by engaging stakeholders with intuitive interfaces
- Tailoring simple applications for your unique use-cases, integrating with multiple information sources as needed, with a rapid app development environment and modular components.

Communicating Product Data Today

Let's start by walking through a common communication challenge. If, for example, an engineer makes an update in their PLM system today, what is the likelihood that others are going to see that update right after the change is accepted? Would you say it's more realistic that this change is acknowledged two or more weeks later? And at that point, are stakeholders working off the correct version of the data or the original version that doesn't reflect the latest changes? No single system has all the information needed to complete many of the daily tasks of users across the company and working with siloed systems, people, and processes make getting that information even more difficult. Either the design engineers become full time administrators of new product information, or the rest of the company looks for workarounds to get the data they need.

When a stakeholder isn't enabled with easy access to systems of record, they will resort to workarounds that might solve their primary concern in the short term but are sure to cause issues in the longer term. Workarounds replicate data so that it is no longer governed, traceable, or subject to change control. Workarounds can take many forms including spreadsheets, PDFs, printed copies, and e-mails. Ultimately, these workarounds can lead to mistakes such as manually entering the wrong information, referring to wrong versions, and relying on

disconnected files that are out-of-date.

Unfortunately, gaps and delays in the communication of product data are systemic and often result in a serious decrease of productivity, defective decision-making, and security risks. The problems of working in siloes are made worse when the company grows by acquisition which causes double, triple, or quadruple the work to align team and their inherited tools.

Further complicating the matter, IT also realizes that users need to work from different source systems, but how do they integrate and make available the relevant product related data? They would need to train people in all these different systems and create additional scripts, macros, and so on. This all requires a significant amount of work –when IT rarely has enough resources as it is. Requirements for security can also be a roadblock. The highly interactive nature of cross-functional, geographically distributed project teams often causes breakdowns when it comes to sharing data and project plans outside the firewall. Setting up and maintaining extranets is expensive and risky.

Bottom line, it is very hard to manage and find information and make decisions with confidence without a proper collaboration platform. Design engineers are bogged down with requests for product data. Non-expert users may need quick and easy access to PLM data such as drawings, documents, process plans so they can make better, faster

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> *Before ThingWorx Navigate, 20% or more of an engineer's time was spent locating information (trying to find files, support the plant through different certificates, getting 3D models regenerated, etc.)."*
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> **Erica Goosen**
> *Senior Product Engineer, Steelcase*

decisions and don't have to engage with unfamiliar systems or wait for co-workers to deliver the data they need. Each situation that requires engineers to pull and share data with these non-frequent users is time spent away from designing and innovating.

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Navigate is simple, the best user experience that we can give our enterprise users along with the fastest enterprise integration – so much value to our users.

Preeti Gupta
*Lead ThingWorx Architect,
Johnson & Johnson*

Collaboration Between all Stakeholders

Windchill Navigate applications empower business users to make better decisions and save time with a state-of-the-art user experience aligned with today's expectation for apps: intuitive, responsive, and task-based. When everyone in the organization can see, access, and contribute to PLM processes using a single authoritative source of product data all decisions, actions, and collaborative efforts are faster, rigorous, and add more value.

Operators, service technicians, quality inspectors, and more are provided secure access to PLM content through simplified role and task-based apps, helping them meet schedule, cost, and quality goals. The highly tailorable apps also enable real-time data sharing with customers, suppliers, regulators, and joint venture partners. Whether searching for approved and released drawings or reviewing and approving a change, the experience is seamless, fast, and secure. While these apps are focused on PLM content and processes, they can also be easily connected with third-party enterprise systems, for example ERP & MES, to display cost or inventory information within the part structure of a product. This is all made possible by leveraging Windchill PLM's access model (technology governance, architecture, and cybersecurity) to provide an open environment while still ensuring information and IP security.

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Not only has ThingWorx Navigate made the transition from legacy systems to Windchill smoother, it has also demonstrated the value extending product information to more stakeholders than we have previously.

Martin Mundinus
*PLM Program Manager,
MAN Truck & Bus*

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Democratization of Data and Speed of Adoption

Windchill Navigate is designed to enable collaboration across the enterprise, delivering only what is needed for that particular task or role. The portfolio of out-of-the-box Navigate applications are organized into two collections: View Apps and Collaborate Apps. In addition, Windchill Navigate comes with a rapid application development environment and configurable modules to support mashups and workflows for unique or more complex use-cases.
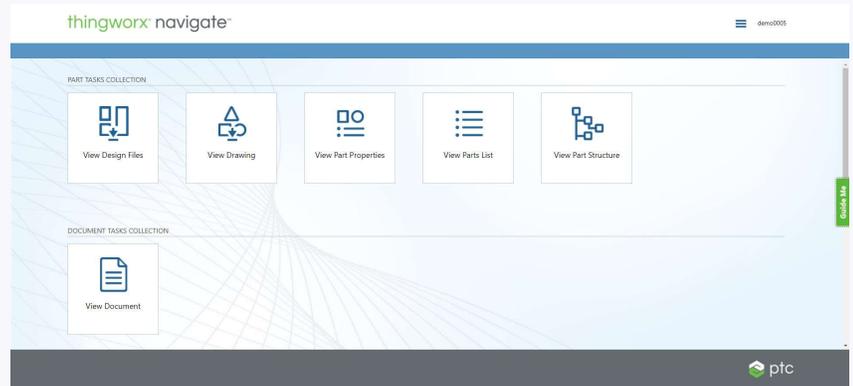
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Downstream departments access product data using Navigate. They find it very easy to use. They can easily see recent product changes, and they can optimize the aftermarket service operation."

Pascal Martinez
Global Director of Strategy and Solutions Portfolio, Volvo Construction Equipment
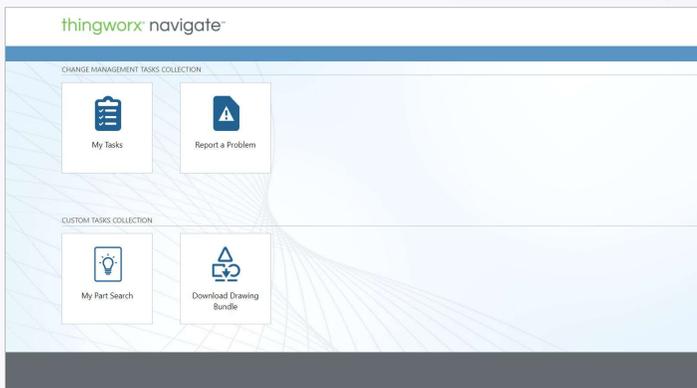
Apps for viewing PLM information

The View apps make it easy to find, view, access, and download PLM content by leveraging a 3D viewer that facilitates interacting with 3D Models. Drawings, design files, part information, and documents are made available for faster decision making and reduced errors. The view apps can be accessed through a desktop, tablet, or via a shop-floor terminal.
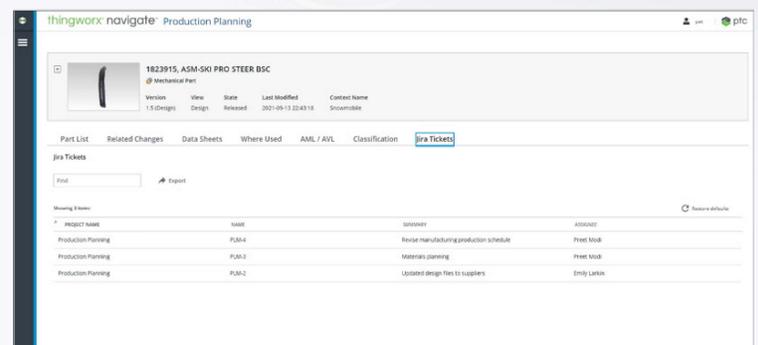
Apps for active PLM process participation

The Collaborate apps turn every user into an active PLM contributor. Easy-to-use apps, designed for everyone, drive more change process participation, for example, and fewer in-person meetings. With problem reporting any user can report an issue regardless of its origin (remote customer site, supplier, or the shop floor). Having more users able to identify problems and report them drives product and process quality improvements.

Apps to connect to third party systems

While Windchill Navigate comes with a rich set of role and task optimized apps, business users need the ability to leverage the experience of these apps (model the architecture behind them) to build new ones. For rapid development of custom apps that have the same look & feel as the standard apps, a low code environment with re-usable UI components is provided. Navigate also supports out of the box connectors to third party systems (ERP for example) as well as a framework for accessing legacy systems. Digital twin apps can become a reality because of the built-in ability to combine design and engineering data with real-time data coming from the physical world via the Internet of Things (IoT). With security enforced by Windchill, users can search multiple systems from the cloud or on-premises, gather all associated docs, and integrate 2D and 3D.

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> **"** *We don't need to hunt for something. And you are always sure that this is the correct data. If somebody is doing something now in the system, a millisecond later, I can see it in my app.*

Wolfgang Ruedell
Engineering Manager
Electronics Business

Go SaaS

Windchill Navigate can be deployed on-premises or in the cloud. SaaS (Software as a Service), however, provides the best value, lowest risk, and fastest time to market. With SaaS you can share consistent data and insights across disciplines, divisions, and external partners with pre-configured secure instances ready to jump start collaboration needs. PTC's economies of scale that support a world-wide customer base reduce total cost of ownership, program risk (Windchill experts are managing/optimizing your system and protecting your data), and support risk (software, hosting, managed services are wrapped together).

Learn more about PTC's Windchill Navigate today.

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