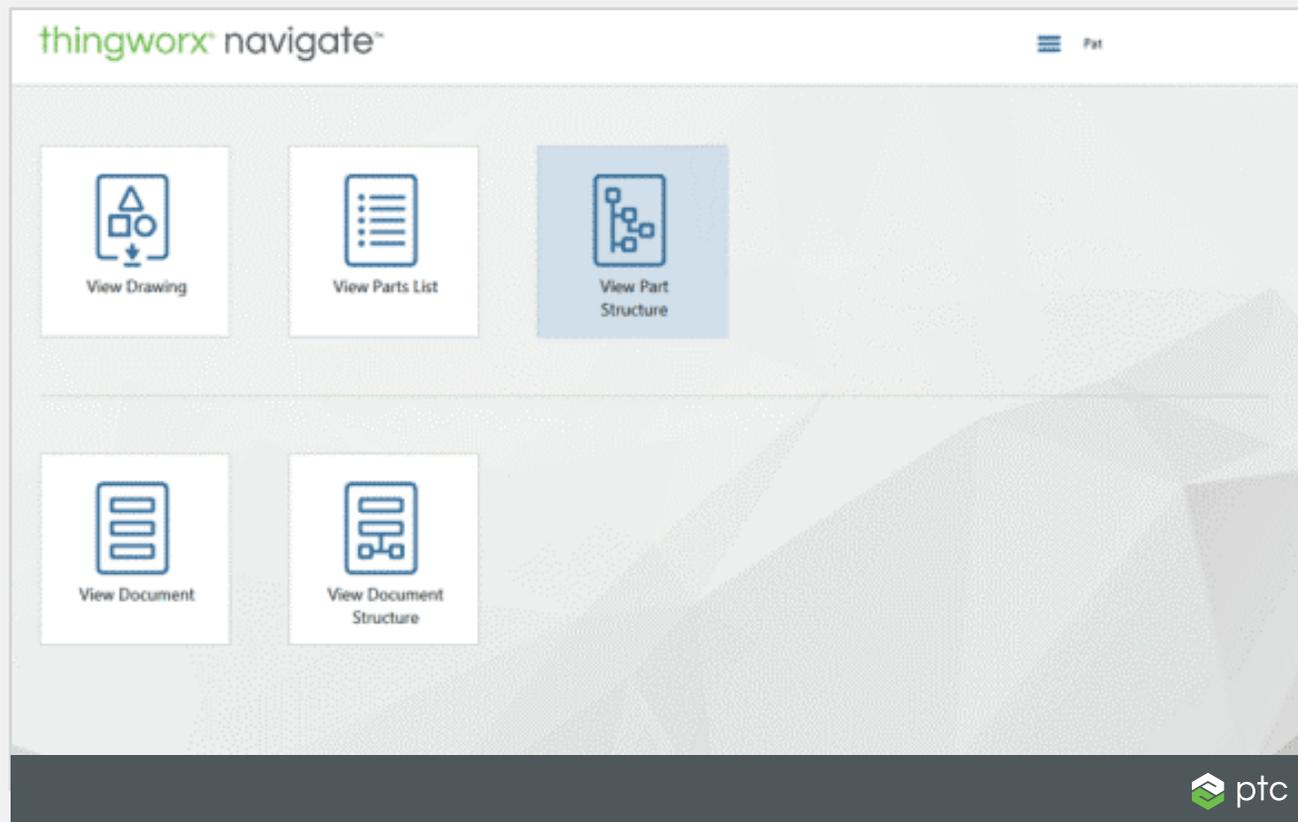


# Democratizing Change Review with ThingWorx Navigate Contribute

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Digital Change Management is the first of the ThingWorx Navigate Contribute apps.

Collaboration is one of the most important elements of success in product development. Whether designing consumer-grade gadgets or heavy-duty industrial machines, you won't get very far if your cross-disciplinary design team can't coordinate its efforts. Poorly planned processes can cause disparate data sets and duplicated efforts, which ultimately can lead to lost productivity, unnecessary costs, and late product launches.

Product lifecycle management, or PLM, can help design processes by weaving a digital thread throughout a product's development. PLM can help ensure that all members of the development team are on the same page. The electrical engineers designing a circuit board have access to the same data as the mechanical engineers designing an enclosure, and changes on one side of the design process are clearly transferred to the other in real time. Likewise, the manufacturing team has the right data at the right time, ensuring that the current design is always the one that makes it to the shop floor. The digital thread helps tie it all together.

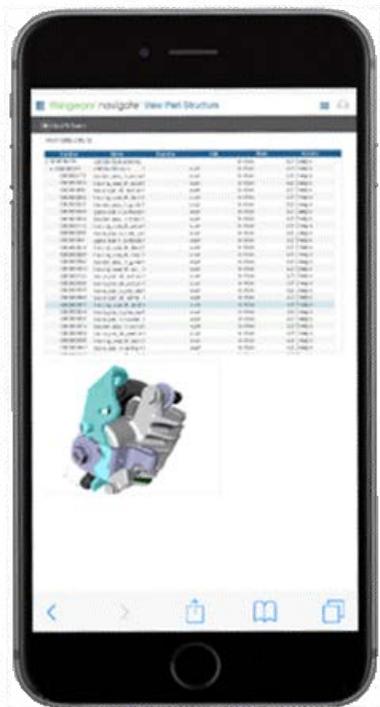
We recently wrote about PTC ThingWorx Navigate, an app-based approach to PLM. Built on top of PTC's ThingWorx Internet of Things (IoT) platform and tapping into data from PTC's Windchill PLM platform, ThingWorx Navigate is an online tool for intertwining more players in the digital thread. It's less specialized than traditional PLM systems, allowing more users to make use of PLM data. ThingWorx Navigate is also role based, so users are restricted to just the data that's relevant to them. Suppliers, sales staff, quality inspectors, shop floor workers, and nontechnical personnel can all make use of up-to-the-minute product data without a PhD in PLM.

There are two types of ThingWorx Navigate apps: View and Contribute. While the View apps allow access to product development data, the Contribute apps are meant to allow those users to be directly involved in the design process. The ThingWorx Navigate Contribute apps enable all users to voice their opinions. The first of the Contribute apps, Digital Change Management, stitches all these voices together with the digital thread.

## The Changing Nature of Product Development

Product development today is a lot different than it was even a decade ago, as Mark Taber, vice president of Marketing for PTC, explains

There's lots of people that need access to product development data. If you go back a decade ago, it was primarily a product development and R&D function. Now, so many people throughout the organization are involved in product development that you have to find a way, without asking them to log into an expert system, to bring them into the conversation. So, to make drawings available to somebody in the factory, or have parts lists available to the procurement people," Taber said.



Example of ThingWorx Navigate on a smartphone.

The changing nature of product development was one of the motivating factors in the development of ThingWorx Navigate. Giving all relevant players access to product data isn't simply informational altruism; the quick and dynamic pace of development necessitates it.

"Things are changing so fast," Taber continued. "If you don't give them [suppliers, shop workers, etc.] access to this kind of data, in real time, they may not have accurate information, or it will be out of date. That's a really high probability."

Taber estimates that for every member of the engineering team who needs access to product development data, there are five to 10 others outside of engineering who need that data. ThingWorx Navigate View gives them that data, but ThingWorx Navigate Contribute goes one step further: it gives them a voice.

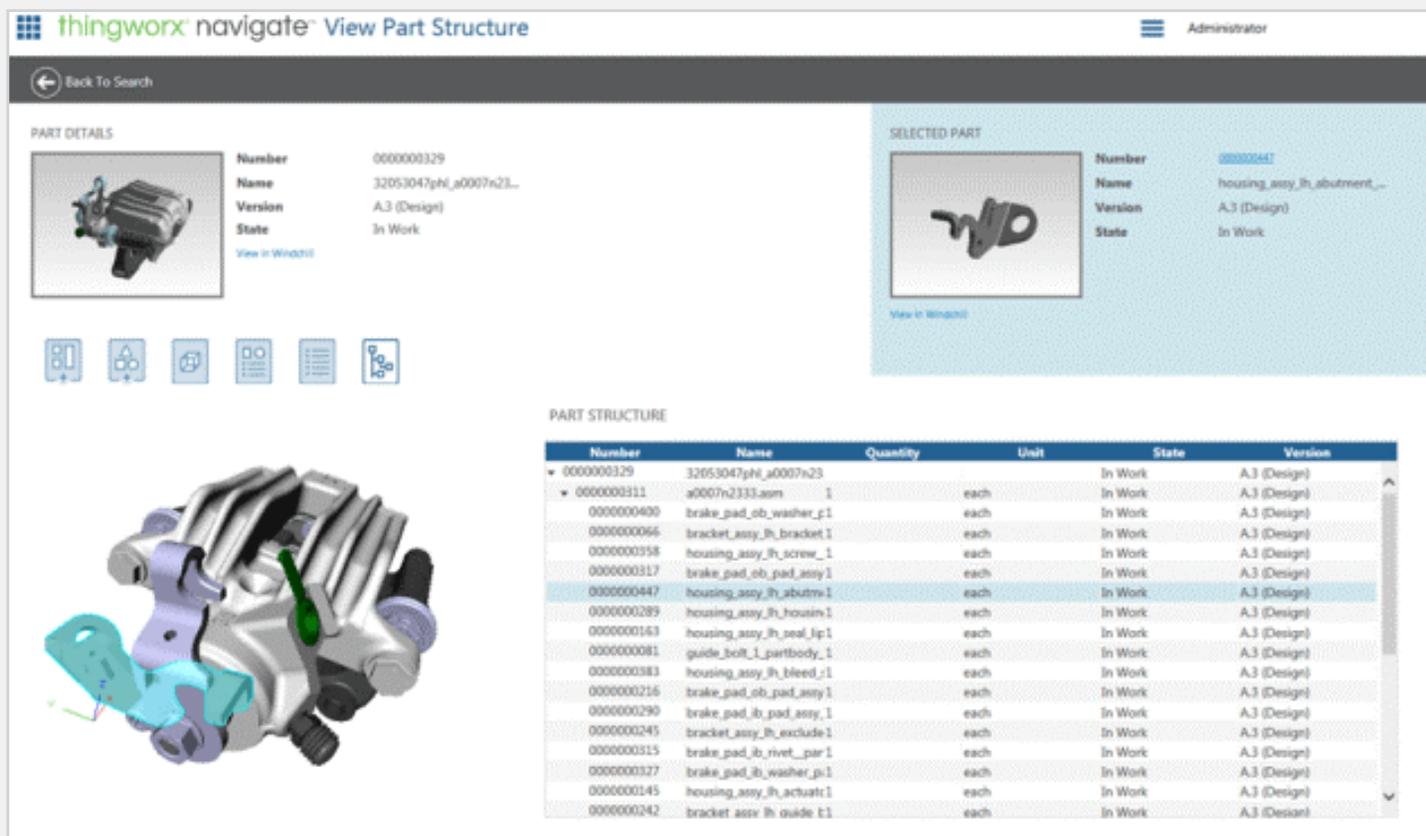
## Democratizing Change Review

With so many cross-disciplinary players involved in product development, it can't help but be an advantage to include them all in the design process. "Customers have strategic processes that cross domains," Taber said. "You want to have more participation in those processes."

Gone are the days when products can be designed in a silo. There are so many considerations to take into account that a wider spread of input is needed to realize the best possible design. That's what the Digital Change Management app aims to enable.

"The new Navigate Digital Change Management app is the first in the series of Contribute apps," Taber explained. "Think of not just providing view access to product data, but now bringing more people into PLM processes. Not every process. But there's certain processes where you want to get input, not just view and not just awareness."





The screenshot displays the 'View Part Structure' interface in ThingWorx Navigate. It features a 'PART DETAILS' section on the left with a 3D model and metadata for part number 000000329. A 'SELECTED PART' section on the right highlights a sub-part with number 000000447. Below these is a 'PART STRUCTURE' table listing various components and their quantities.

Number	Name	Quantity	Unit	State	Version
000000329	32053047pH_a0007n23			In Work	A.3 (Design)
000000311	a0007n2333.assm	1	each	In Work	A.3 (Design)
000000400	brake_pad_ob_washer_p1		each	In Work	A.3 (Design)
000000066	bracket Assy_Rh_bracket1		each	In Work	A.3 (Design)
000000358	housing Assy_Rh_screw_1		each	In Work	A.3 (Design)
000000317	brake_pad_ob_pad Assy1		each	In Work	A.3 (Design)
000000447	housing Assy_Rh_abutrm1		each	In Work	A.3 (Design)
000000289	housing Assy_Rh_housin1		each	In Work	A.3 (Design)
000000163	housing Assy_Rh_seal_lp1		each	In Work	A.3 (Design)
000000081	guide_belt_L_partbody_1		each	In Work	A.3 (Design)
000000383	housing Assy_Rh_bleed_r1		each	In Work	A.3 (Design)
000000216	brake_pad_ob_pad Assy1		each	In Work	A.3 (Design)
000000290	brake_pad_lb_pad Assy1		each	In Work	A.3 (Design)
000000245	bracket Assy_Rh_exclude1		each	In Work	A.3 (Design)
000000315	brake_pad_lb_rivet_par1		each	In Work	A.3 (Design)
000000327	brake_pad_lb_washer_pi1		each	In Work	A.3 (Design)
000000145	housing Assy_Rh_actuat1		each	In Work	A.3 (Design)
000000242	bracket Assy_Rh_guide t1		each	In Work	A.3 (Design)

Sample screenshot of ThingWorx Navigate.

With the same out-of-the-box ease of the ThingWorx Navigate View apps, Digital Change Management allows role-based access to design decisions. Users from across the product development domains can view and vote on change requests, see feedback from other users, and leave their own comments.

"It's almost like online digital voting on a change," Taber said. "You don't have to wait for face-to-face change management review boards. You don't need a change administrator. You can do this all with this application out of the box. It's tremendously powerful. People in procurements, supply chain, sales and marketing can all get involved. You can get sales and marketing's opinion of a change before it goes into effect early on."

## Recognizing Different Roles

Administrators of ThingWorx Navigate can customize the look of apps based on a user's role. The platform can be tailored to show different search options, different types of data, different tasks, and different apps depending on the defined role. Contribute apps are no different; the role of the user determines what data they have access to and what change requests they're involved in. In this way, everybody is involved—but only to the extent that it makes sense for their role.

Digital Change Management, for example, can display as many or as few fields as appropriate. A user's dashboard can show a list of pending change requests, the items affected by that change request, any attachments provided with the request, and the activity of other users on the request. Administrators can tailor the dashboard to show or hide these categories, as well as other attributes such as descriptions, creation dates, due dates, status, and even the number or rows to include in the task list table.

It's important to share data throughout the product development process, but it's equally important not to overshare. With its role-based approach to change management, ThingWorx Navigate Contribute allows the right data to be shared with the right people—all to help get the right feedback.

**To learn more about ThingWorx Navigate, or to download a free trial, visit the PTC website and [view the trial link](#).**

*PTC has sponsored this post. All opinions are mine.  
-Michael Alba.*