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PTC Strikes Back

By Evan Yares

Recent times have not been kind for PTC. Early last year, rumors started swirling that the company was on the block to be sold. Was it true? As far as rumors go, it was a persistent one—yet PTC is still as independent as ever. More recently, PTC failed to file its 10K on time, as it had found an accounting error relating to how maintenance revenue was recognized. As a result of the delay, it faced possible de-listing from the NASDAQ. The company has since filed the 10K, restating revenues for the last three years and stirring up a flock (or is it a pack) of lawyers in the process. If these little annoyances haven't been enough, PTC's revenues in 2002 were anything but pretty.

I've had some interesting conversations with a variety of PTC's competitors, and have heard more than once that PTC, at least in the CAD business, is "done." Recently, representatives from one of PTC's competitors stopped by to demonstrate the next version of their CAD software, and in the process, showed me a PowerPoint slide that showed PTC being inexorably squeezed between mid-range CAD products and high-end CAD products—and not knowing what market to play in. I'd guess

that a lot of people would characterize PTC as being in that position.

I think it's incredibly valuable to hear the opinions of PTC's competitors. These are smart people, and they usually have some well-formed thoughts. But, in this case, I disagree with them. PTC has certainly had some troubles, but the company is headed in the right direction with Pro/E Wildfire.

High-End vs. Mid-Range

For the last seven or eight years, the mechanical CAD market has been bifurcated, with mid-range windows-based products being sold to companies that want a shrink-wrapped product, and high-end products being sold to those who want a "PLM solution," or who have specific (and demanding) requirements. The differences in the CAD products themselves have been pretty straightforward over this time. Mid-range products have been easier to use, and have sold for around \$4,000 to \$5,000 a seat. High-end products have been fully capable, scalable to handle even the most obscure (and difficult) tasks, and have sold for \$10,000 and up.

This distinction between mid-range and high-end products is not something that most CAD vendors want to go away, but it may not be as sustainable over the long term as it has been in the past. Consider that mid-range products have become increasingly capable and scal-

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able. And that high-end products have become increasingly easier to use. While product differences will always exist, over time the differences in how the products are sold and what services are wrapped around them as part of the sale may become substantially more significant.

PTC has long sold Pro/E as a component in an overall solution. Customers have been able to purchase the exact configurations they needed, and have further been able to take advantage of a wide variety of services, delivered either directly by PTC, by PTC’s consulting partners (Accenture, Bearing Point, Cap Gemini Ernst & Young, Computer Sciences Corp, Deloitte Consulting, HP Consulting, and Lockheed Martin Commercial Systems, among others), or by PTC resellers.



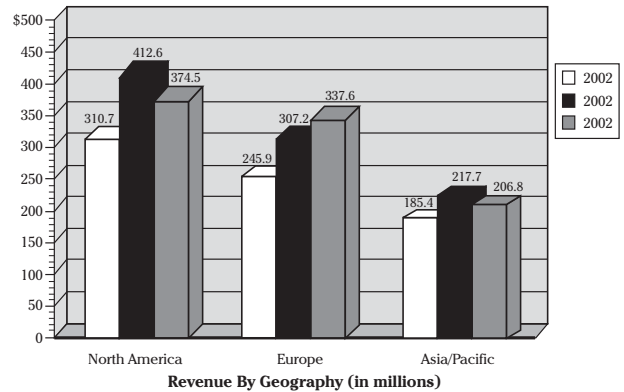
Although it has evolved greatly over its lifetime, Pro/E has always been perceived as a high-end product. Yet, in the last few years, most of its competition has come from mid-range products—particularly SolidWorks, Solid Edge, and Inventor. The reason for this has more to do with customer mix than with technology. During the 1990s, PTC was incredibly successful at selling Pro/E into a broad range of industries. But the company focused more on product sales than on services, and won many accounts in part because there were no less-expensive alternatives that could do the job. When the

mid-range products started becoming more capable, Pro/E became a natural first target.

For PTC’s management, the reality of their high-end CAD product getting pounded on by competing mid-range products has been a painful experience—and one that they’ve been keen to stop. While it has taken two years of work, PTC has finally released the product that it hopes will turn the tide: Pro/E Wildfire.

Significant Changes

The most significant change that Wildfire brings is a completely redesigned user interface. The new Wildfire interface is much more than just cosmetics. It is based upon an object/action paradigm, where a user may select an object and the system will allow a choice of actions that are relevant to that object. Wildfire has been carefully tuned to be more consistent in its operation, and easier for casual users to learn and use. Whether it beats its rivals in this area is a subjective issue, but it can now certainly hold its own in ease-of-use



among the best-in-class products.

One problem with making such a large change to Pro/E has been pleasing potential new users without alienating existing users. Many power users have no particular desire to suffer through interface changes. In our reading of user feedback (through the PTCuser list servers), PTC has been sensitive to the needs of these users, gathering feedback during a long pre-production phase, and making changes based on user requests early in the process. One example of this is in the algorithm the pre-production version used to rotate the on-screen view when editing. It was different from the algorithm used by the previous version of Pro/E, and didn’t work as well. PTC changed back to the old algorithm, and made a lot of existing users very happy.

Redesigned user interfaces are not all that uncommon in CAD. CATIA V5 has a substantially improved interface over CATIA V4. And EDS has spent considerable time and money to make the user interface on Unigraphics NX substantially better. Yet, despite interfaces that might look somewhat familiar to users of mid-range CAD software, neither CATIA V5 nor Unigraphics NX could possibly be mistaken for a mid-range product when it comes time to write the check.

New Pricing Model

PTC has, with Wildfire, moved to an aggressive pricing model, offering the “Foundation Advantage” package with the same general level of capabilities as its mid-range competitors, at \$4,995, plus \$1,500/year for maintenance. PTC indicates that this is comparable to the SolidWorks Collaboration edition, which sells for \$5,495, plus \$2,495/year for the subscription service.

Beyond the Foundation Advantage package, PTC offers six design extension packages, each

priced at \$4,995. These packages include Advanced Assemblies, Interactive Surface Design, Behavioral Modeling, Mechanism Dynamics, Cabling Design, and Piping Design.

Wildfire also provides a Design Collaboration package, which supports collaboration among multiple users working on a common product model. This package includes ProjectLink, based on Windchill, and technology based on Groove Network's Workspace product. Wildfire is, to our knowledge, the first CAD product to include in-context collaboration, where an engineer doesn't need to leave their CAD program to collaborate with other members of their team. The Design Collaboration package sells for \$1,495.

One of the problems in the past with Pro/E was the large number of modules available. It could be confusing to know which particular configuration of modules a customer should get. PTC has created a high-end configuration, called the Flex3C package, which includes all six design extensions, Design Collaboration, and a choice of PDMLink or Pro/Intralink. This package is priced at \$19,995, plus \$3,995/year for maintenance—a substantial savings over the cost of the individual packages.

Beyond the Foundation Advantage and Flex3C packages, PTC still offers a large number of programs for specialty design tasks, analysis, and CAM. Plus, PTC has at least 184 software partner companies, which offer products that work with Wildfire.

A Fundamental Shift

PTC's strategy with Wildfire is a fundamental shift from the past. To start with, Wildfire, and specifically the Foundation Advantage package, has every characteristic of a mid-range CAD program. It has excellent ease of learning and use. It is functionally complete—a match in capability to its competitors (with the typical differences you'd expect of products from different companies). It is priced right. And it is sold through both direct and indirect channels.

At the same time, Wildfire retains all the characteristics of a high-end package. It is fully capable, highly scalable, includes some exceptionally advanced capabilities (particularly Design Collaboration), fits well as a part of even the most complex PLM initiatives, and benefits from the consulting services provided by PTC, its consulting partners, and its channel partners. (As a practical matter, PTC's consulting and channel partners are going to love the improved ease-of-use of Wildfire,

as it will let them focus more on solving customer problems than on getting users past a difficult learning curve.)

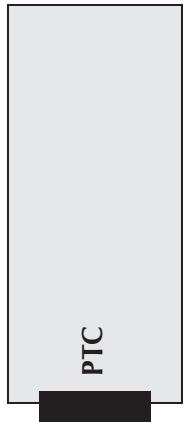
One thing that PTC has done is to remove the premium for scalability that other vendors charge. Rather than charging, for example, \$7,000 for Foundation Advantage and justifying the incremental cost over competitive mid-range products by its scalability, PTC has kept the price down, and is offering the scalability as a differentiator. It's a pretty daring move, which could depress Wildfire's average selling price (ASP)—which would hit PTC's bottom line. But, at the same time, PTC will be able to walk into any customer account and go head to head with its toughest competitors without having to hem and haw about the price. My guess is that we may start seeing a resurrection of some of the swagger that used to characterize PTC salespeople in days of old (although I'm thinking that the old days of unmitigated arrogance are thankfully gone.)

One CAD Program

The concept of having one CAD program that actually works for nearly any level of customer seems somewhat foreign to PTC's larger competitors. Dassault, for example, offers CATIA V5 as its "3DPLM" solution, and SolidWorks as its shrink-wrapped solution. Now, I happen to think Dassault was brilliant to have acquired SolidWorks when it did, but it nonetheless had to be very careful to balance the positioning between its two product lines. While the company line is that the products serve different markets, it's fairly clear when talking to line salespeople and sales managers that they see serious competition.

EDS PLM Solutions similarly tries to balance Unigraphics NX and Solid Edge, and hasn't quite got the message right. The company has recently added a number of very good channel partners for Unigraphics NX, and it's not clear what this will do to Solid Edge. At the same time, it just announced Solid Edge Version 14—bringing the product's surfacing capabilities up to an impressive level, and further clouding the product differentiation picture (see related articles in this issue).

The one major mechanical CAD company besides PTC that has a one-product strategy for the mid-range and high-end market is Autodesk. Still, even though Inventor has made great strides in the last couple of years, it is still a long way from being



as capable or scalable as Wildfire. (To be fair, I recognize that Inventor has some unique capabilities that differentiate it, and it has won against Pro/E in a number of accounts in the past year. Yet, in the grand scheme of things, I don't believe it's up to a head-to-head no-holds-barred benchmark against Wildfire. If Autodesk thinks I'm wrong, I'd be happy to hear why.)

I think that PTC's salespeople and channel partner salespeople are going to like being able to walk into almost any account, and present a cohesive sales pitch that doesn't include a bunch of positioning and qualifying words about whether their product is a match for the particular needs of that customer. If I were a user, I'd be pleased to find a CAD company that had a simple message, without equivocating.

I've painted a fairly positive picture of Wildfire, but that doesn't necessarily mean that I think PTC as a company is in for clear sailing. This is a critical time for PTC. The company finally has products—Wildfire and Windchill—that show promise, and customers

are starting to notice. But it has lost a lot of money, has lost sales, has lost existing customers, and has lost stock value. Beyond PTC's unique problems, the CAD market in general is soft and may remain so for the foreseeable future.

My sense is that although PTC may never regain its former glory (or stock multiples), by careful management, and fastidious attention to the needs of its customers it may be able to regain good profitability. I do think the predictions by competitors of PTC's imminent demise are wishful thinking. There are a lot of customers out there who make a lot of really great products using Pro/E (and Windchill). And while some may be disgruntled, a growing number actually like PTC. Who would have thought it? ■

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