# PTC is "In It to Win It" with Creo and Windchill

CIMdata Commentary

June 12, 2011, PTC opened their US end user event, PlanetPTC Live 2011, at Caesars Palace in Las Vegas in front of over two thousand attendees and announced that a "new era of product design" had begun with the release of their Creo 1.0 applications. Marketing bravado aside, PTC has aggressively re-emerged into the product design and development arena. Brian Shepherd, Executive Vice-President of Product Development, detailed Creo 1.0, the major release of Windchill 10.0, and the acquisition of MKS, a leading supplier of solutions for managing embedded software development. All combine to draw renewed attention to PTC's position in the broad PLM industry. Real immediate impact is felt, however, with the delivery of Creo. Over the past twenty-five years, PTC fundamentally changed the MCAD industry when they introduced parametric solid modeling in their flagship product, Pro/ENGINEER. Now, PTC hopes to re-energize their fortunes with a combination of both parametric and direct modeling technology in the form of Creo applications that interplay on a new "common data format" that PTC calls "AnyMode Modeling."

The 3D geometric modeling market has seen an emerging interest in direct modeling techniques over the recent past. Direct modeling allows users to interact with the product model through contact with model edges and faces, rather than through parametric dimensions. Many competitors with predominately parametric CAD modeling applications have added direct modeling functions to supplement their capabilities as well. New products and solution suppliers have emerged with direct modeling solutions. PTC acquired CoCreate in 2007 and gained their direct modeling technology.

Creo 1.0 offers the industry a suite of nine applications (of which six are shipping today) that are built on a unified foundation that allows data to flow seamlessly between them. PTC's strategy targets individual applications at roles and tasks within a company's overall product development process. Creo Sketch provides freehand conceptual design. Creo Simulate delivers the capabilities a CAE analyst needs for structural and thermal simulation. Creo Illustrate aims at those responsible for 3D technical illustrations, training, and work instructions. Many take advantage of application code from pre-existing PTC products but with a new user interface based on Microsoft's ribbon interface found in Microsoft Office 2007 and 2010.

The core applications for geometric design are Creo Parametric and Creo Direct. These two applications represent the future of PTC's geometric modeling strategy. Creo Direct is a newly developed application separate from the CoCreate direct modeling software which has been rebranded as Creo Elements/Direct. Creo Parametric is the rebirth of Pro/ENGINEER that targets users who require and appreciate the parametric, history-based modeling approach. PTC executives indicated that in subsequent releases Creo Parametric application may be subdivided into separate role-based applications based on functionality. Creo Direct is a fully new application that targets users who wish to approach design is a more direct, touch the solid model, manner. It contains limited functional capability in release 1.0, but is expected to evolve and ultimately replace the CoCreate application, Creo Elements/Direct.

PTC risks user confusion, however, not only with the difference between Creo Direct and Creo Elements/Direct, but with yet a third capability of direct modeling as an extension within Creo Parametric. Called Creo Flexible Modeling Extension, these direct modeling and editing

capabilities are intended for users who use Creo Parametric because they prefer parametric modeling but need a few limited direct editing functions to optimize their design interaction. The marketing challenge PTC faces is to clearly present all these options to their users that allows them to be comfortable in the modeling approach they select.

The initial Creo release was not the only story of PlanetPTC Live. PTC touted Windchill 10.0 as a major release for the company that includes a new user interface promising "an improved user experience and productivity." The most notable enhancements in the release are in product configuration and variation management and the addition of Windchill Product Analytics for product performance and costing to the portfolio of Windchill applications.

The event also highlighted the recent acquisition of MKS for its embedded software capabilities. The audience was very receptive to this major drive by PTC to deliver a comprehensive solution in the mechatronics area to help companies deal with the ever increasing addition of electronics and embedded software in their products. With the industry leading capabilities from MKS, PTC can potentially position themselves far ahead of their competition.

Windchill 10.0 and Creo represent the future of PTC. Whether Creo represents the future of design modeling remains to be seen. The PlanetPTC Live 2011 event brought together PTC users and partners in an atmosphere of excitement over the new directions that Creo, Windchill 10.0 and MKS offer the industry. With PTC's strong legacy and expertise, they demonstrated that they will play a central role in shaping how the industry views geometric modeling and PLM for years to come.

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