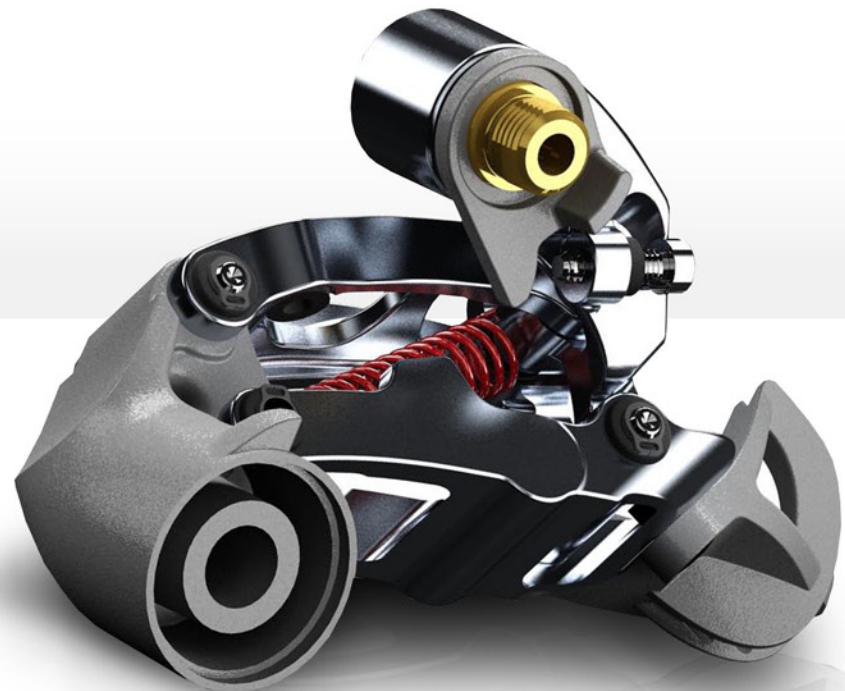# PTC®

the product development company®

Exploring
the evolution
of Creo

PTC®

When PTC announced the Creo vision at the live and virtual event on October 28, 2010, we took a bold step in charting a new direction for CAD software. We not only announced four new, breakthrough technologies to be delivered in Creo, but we also announced the rebranding of PTC's current CAD and Visualization products as Creo Elements.

The announcement introduced a good deal of change. We've been paying attention and have closely followed the reactions of long-time users and customers, as well as industry analysts and bloggers.

In order to speak to some of the potential confusion over Creo branding and the Creo direction, we've written this brief eBook to discuss the changes under way.

You will continue to see more information about Creo 1.0 introduced as we near the release date. But, for now, we hope this quick read will answer a few questions you've been asking. If you're new to the Creo story, and would like to watch a replay of the 10/28 event, we encourage you to visit us here.

What is Creo?

Watch the Creo launch event in Boston, MA on October 28, 2010.

Creo, PTC's new family of design software, is built to solve the chronic problems that have long plagued companies using CAD software. Creo will deliver four breakthrough technologies that address the lingering challenges of usability, interoperability, technology lock-in, and assembly management. By addressing the big unsolved problems in design software, Creo enables companies to unlock potential within their organizations by unleashing creativity, facilitating teamwork, increasing efficiency, and ultimately realizing value.

Creo will provide four breakthrough technologies that will enable companies to unlock potential in their organizations.

AnyRole Apps™

Offers customers the right tool for the right user at the right time, enabling everyone in the organization to participate in the product development process.

AnyMode Modeling™

Provides the industry's only true multi-paradigm design platform, enabling users to design in 2D, 3D direct, or 3D parametric. Data created in any mode is fully accessible and reusable in any other mode, allowing each user to work with their own or another user's data in their paradigm of choice.

AnyData Adoption™

Enables users to incorporate data from any CAD system, unlocking multi-CAD design efficiency and value. Creo will allow users to access the valuable information that is created throughout a multi-CAD product development process (by contractors, suppliers, departments using other CAD systems).

AnyBOM Assembly™

Gives teams the power and scalability needed to create, validate and reuse information for highly configurable products. Creo supports either a bottom-up or top-down design process.

PTC®

Where'd my products go?

You've been an avid user of Pro/ENGINEER®, ProductView®, and/or CoCreate® for many years — perhaps a decade or even two. These solutions have helped you innovate and build great products that your customers use every day. So, what was PTC thinking when those product names disappeared on October 28, 2010? And what's with the "Elements" product names?

Creo Elements…power of the past, building blocks for the future

Quite simply, the existing Pro/ENGINEER, ProductView, and CoCreate brands were renamed to Creo Elements products to reflect their elemental role and the importance they play in our vision for design software.

Creo Elements/Pro™ is the new name for Pro/ENGINEER.

Creo Elements/View™ is the new name for ProductView.

Creo Elements/Direct™ is the new name for CoCreate.

Watch Rob Gremley, EVP Marketing, PTC, discuss the launch of Creo and the renaming of Pro/ENGINEER, CoCreate, and ProductView

PTC®

What is the future roadmap for Creo Elements?

Creo Elements/Pro

PTC will follow the previously planned maintenance release schedule for Creo Elements/Pro 5.0 (formerly Pro/ENGINEER Wildfire® 5.0). In fact, Creo Elements/Pro 5.0 M070 was released to customers in December, 2010. Creo Elements/Pro 5.0 M080 is expected to be available in March, 2011. The next major revision to our parametric modeling technology will be shipped with Creo 1.0. (There will not be a release 6.0 of Creo Elements/Pro).

All of the capabilities in the current Creo Elements/Pro modules and packages will be available in Creo 1.0. Creo Elements/Pro will continue to be supported in the future per PTC's normal maintenance and support practices. All data is fully upward-compatible with Creo 1.0, so there is no concern of lost work moving forward.

Creo releases for Parametric Modeling

Pro/ENGINEER Wildfire 5.0

Creo Elements/Pro 5.0 M070

Creo Elements/Pro 5.0 M080

Creo 1.0 Parametric App
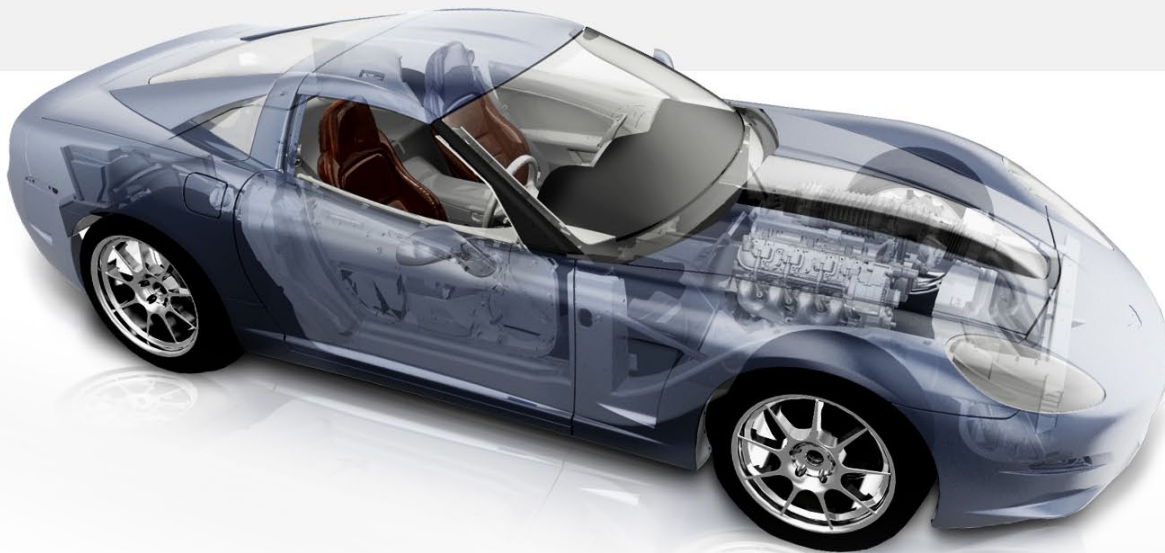
Creo 2.0 Parametric App

Creo Elements/View

PTC will deliver the next major release, Creo Elements/View 10.0, as planned in March, 2011. This technology will be leveraged in the Creo 1.0 common data model and will enable customers to easily upgrade to the Creo 1.0 visualization app.

The release of Creo Elements/View 10.0 will allow customers, who are already planning to incorporate these new visualization capabilities into their CAD and PLM systems, to maintain that schedule. All data is fully upward-compatible with Creo 1.0, so there is no concern of lost work moving forward. Future enhancements and revisions to our visualization technologies will be packaged and shipped with Creo 2.0 and later releases.

Creo releases for Visualization

ProductView 9.1

Creo Elements/View 9.1

Creo Elements/View 10.0

Creo 1.0 Visualization App

Creo 2.0 Visualization App

Creo Elements/Direct

PTC will continue to develop and plans to offer several major releases of Creo Elements/Direct over the next few years, as a stand-alone direct modeling solution. This approach provides new capabilities for existing customers, while simultaneously enhancing the new Creo app for direct modeling. These new releases of Creo Elements/Direct will include the new, top-level Ribbon UI, consistent with the new Creo apps, as well as improvements to the integration with Windchill®.

Creo 1.0 will initially support seamless data migration for geometry and geometric meta-data from Creo Elements/Direct 17.0 and Creo Elements/Direct 18.0, as well as previous CoCreate releases. Creo Elements/Direct 18.1 will enable additional migration of more application-specific data to Creo. And, in the following releases, more and more data will be able to be migrated to Creo. This phased approach will, over time, allow customers of Creo Elements/Direct to achieve upward compatibility with the new Creo direct modeling app built on the common data model.

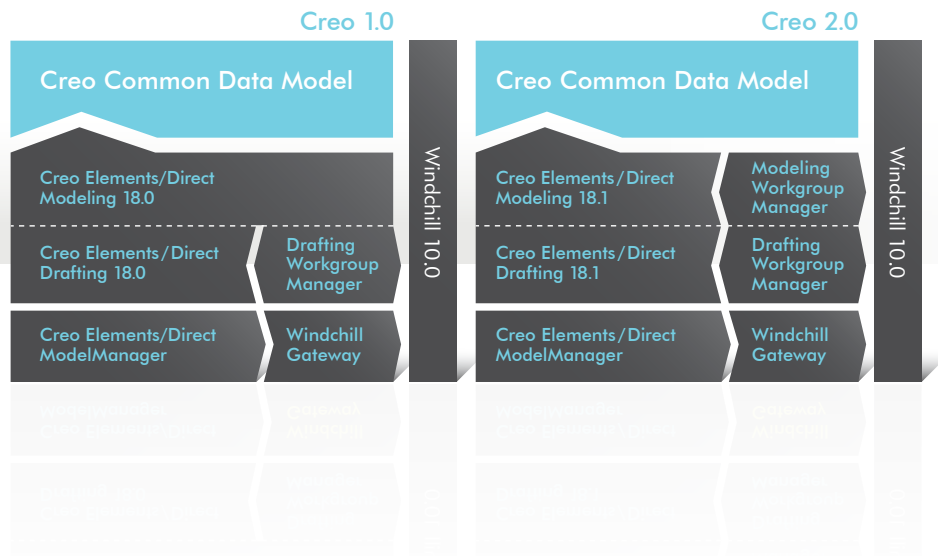## Creo releases for Direct Modeling

CoCreate 17.0

Creo Elements/Direct 17.0 M025

Creo Elements/Direct 17.0 M030

Creo Elements/Direct 18.0

Creo 1.0 Direct App

Creo Elements/Direct 18.1

Creo 2.0 Direct App

Watch Mike Campbell, discuss the future of Creo Elements/Direct Model Manager and Windchill Workgroup Managers for Creo Elements/Direct

PTC®

Additionally, interoperability with Windchill will continue to be enhanced. Today, the Windchill Gateway for Creo Elements/Direct Model Manager supports the data integration requirements between the two systems for unidirectional publishing of product design information. With the release of Creo Elements/Direct 18.1 and a maintenance release of Windchill, PTC will release a Windchill Workgroup Manager for Creo Elements/Direct Modeling, complementing the currently available Windchill Workgroup Manager for Creo Elements/Direct Drafting.

PTC currently has no plans to retire Creo Elements/Direct, and we expect to deliver additional releases, such as a Creo Elements/Direct 19.0 and a Creo Elements/Direct 20.0, in the future.

However, we expect most customers will migrate to Creo in the near to intermediate term in order to take advantage of the additional capabilities available in Creo.

Data migration from Creo Elements/Direct to the Creo Common Data Model will begin with 18.0, steadily increasing with each subsequent release.

Support for Creo Elements/Direct integration with Windchill will continue to be supported with both the Model Manager Gateway and the Workgroup Managers for Modeling and Drafting.

Creo 1.0

Creo Common Data Model		Windchill 10.0
Creo Elements/Direct Modeling 18.0		
Creo Elements/Direct Drafting 18.0	Drafting Workgroup Manager	
Creo Elements/Direct ModelManager	Windchill Gateway	

Creo 2.0

Creo Common Data Model		Windchill 10.0
Creo Elements/Direct Modeling 18.1	Modeling Workgroup Manager	
Creo Elements/Direct Drafting 18.1	Drafting Workgroup Manager	
Creo Elements/Direct ModelManager	Windchill Gateway	

PTC®

What are the Creo apps?

Creo apps leverage key technology elements of the products you have used for many years, while addressing the big unsolved problems you are grappling with today: usability, interoperability, technology lock-in, and assembly management.

The Creo 1.0 apps

Consistent with our announcement of the AnyRole Apps technology, PTC will deliver Creo capabilities in functional, role-based apps. The first release will include apps with the following capabilities:

1. **Parametric modeling,** containing all the capabilities currently available in what people know as Pro/ENGINEER (or Creo Elements/Pro, if they are paying attention!).

2. **Direct modeling,** providing the basic capabilities required for direct interaction with geometry, whether from an existing design, or in creating a new design.

3. **Structural simulation,** providing all the capabilities an analyst needs for structural and thermal simulation.

4. **Conceptual engineering,** providing a fresh approach to address the challenges of early concept layout work being performed in 2D, but ultimately driving a 3D design.

5. **Schematics,** for creating 2D routed systems diagrams for piping and cabling designs.

6. **3D illustrations,** providing capabilities to communicate complex service information concepts graphically in 3D.

7. **Visualization,** for viewing, interrogating, and marking up geometry.

8. **2D Sketching,** for fast, simple, "freehand" drawing of ideas and design concepts in 2D.

The Creo 2.0 apps

Creo 2.0 will contain all of the apps previously mentioned, as well as a new configuration modeling apps. The Creo configuration modeling apps will deliver the capabilities that we've described as AnyBOM Assembly. With this breakthrough technology – which also leverages Windchill – companies can quickly and easily create and validate, in Creo, a product configuration based on logic defined in the PLM system.

Creo 1.0		Creo 2.0	
Creo Common Data Model		**Creo Common Data Model**	
Parametric Modeling	Direct Modeling	Parametric Modeling	Direct Modeling
Structural Simulation	Conceptual Engineering	Structural Simulation	Conceptual Engineering
Schematics	3D Illustrations	Schematics	3D Illustrations
Visualization		Visualization	Configuration Engineering
2D Sketching		2D Sketching	Product Configurator

Creo apps, beyond 2011…

Over the next few years, in subsequent Creo releases, PTC will continue to provide more and more capability in these Creo apps, ultimately resulting in very broad coverage of the product development spectrum. The details of what apps will be available in each release are yet to be publicized.

Creo: The path forward

On October 28th, 2010, PTC changed the product development landscape with the launch of the Creo vision. We not only provided our vision, but we also demonstrated what this vision will consist of with the four major technology breakthroughs: AnyRole Apps, AnyMode Modeling, AnyData Adoption, and AnyBOM Assembly. Later this year, we will begin releasing the Creo apps. In fact, you can see some of our early thinking here, right now.

If you are a current customer, your investment is protected and you are on the path to Creo through your use of Creo Elements/Pro, Creo Elements/View, and/or Creo Elements/Direct. To keep an eye on product release dates, check out the PTC product calendar (for active maintenance customers) on our website.

If you are not a customer, but you're looking to get on the path, you can do that today with any of the Creo Elements products.

To keep up to date on new information about Creo, check out creo.ptc.com Engage with the PTC Creo team. Leave comments. Learn more.

See customers, first impressions of Creo