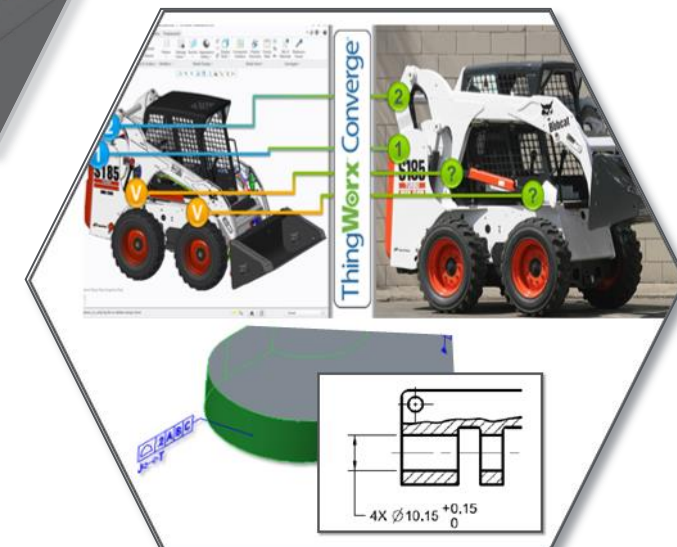
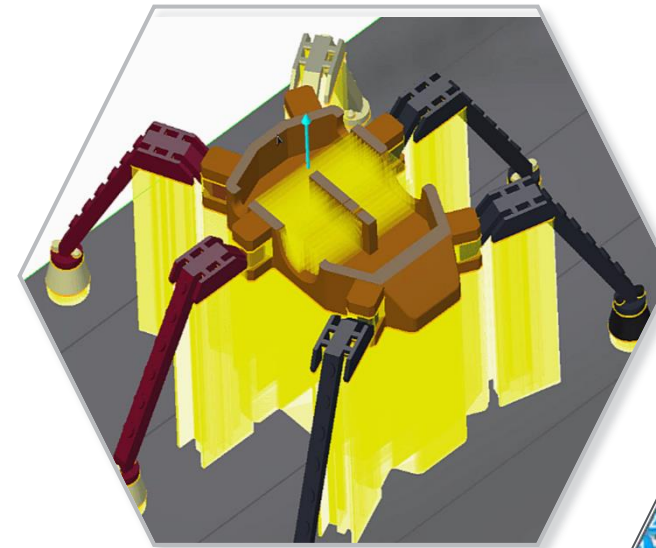


Review of PTC Creo 3.0

New Since June 2014

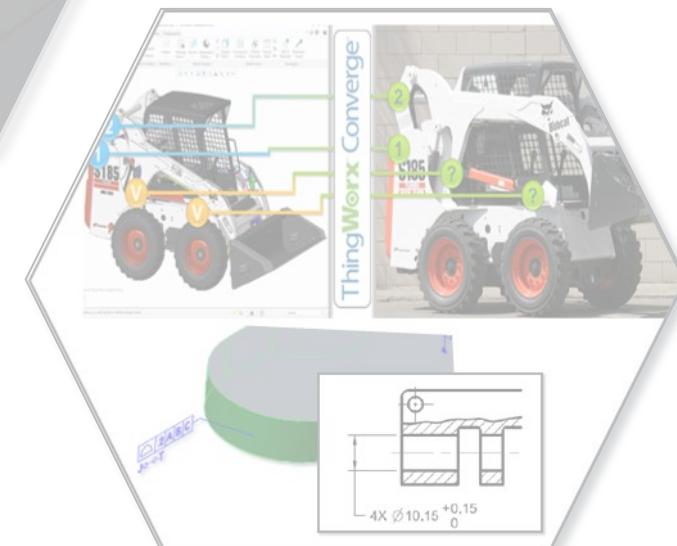
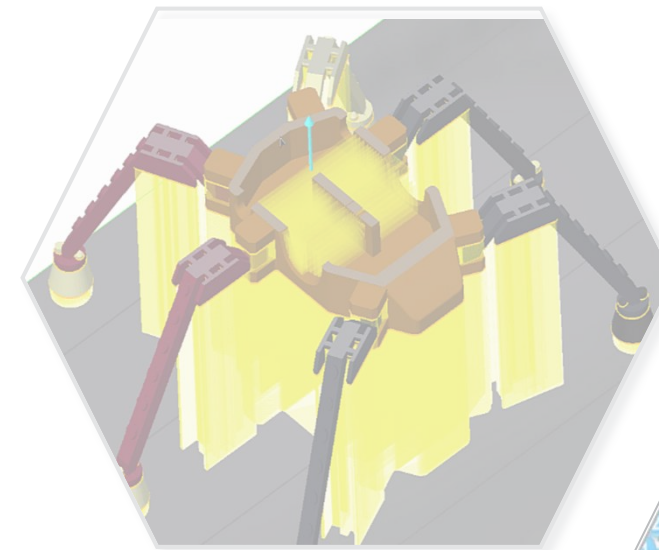
PTC Creo 4.0 and Beyond



Review of PTC Creo 3.0

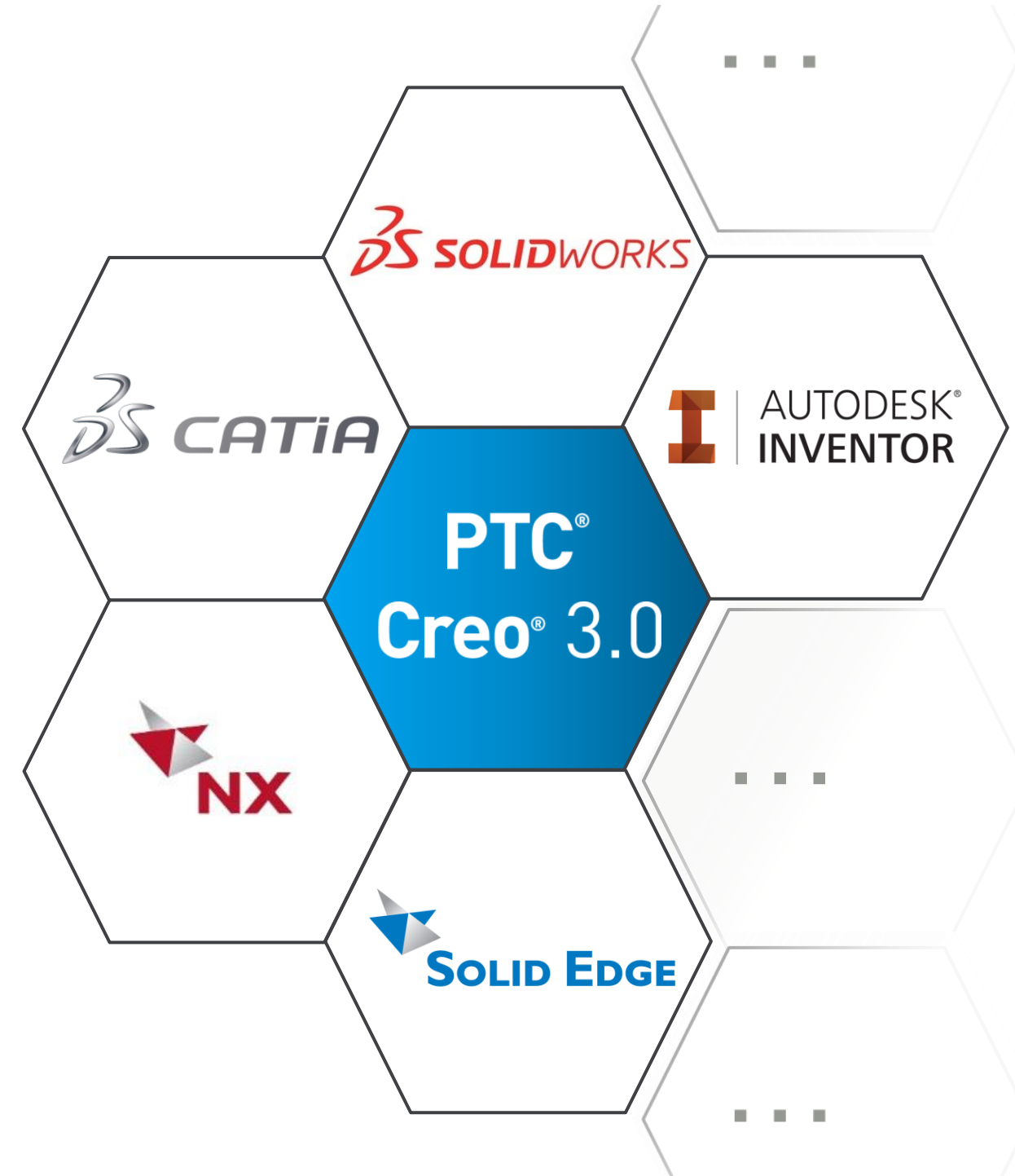
New Since June 2014

PTC Creo 4.0 and Beyond



Enabling Optimal Multi-CAD Collaboration and Consolidation

- **Import** common 3D CAD formats
 - SolidWorks, CATIA, NX, Inventor, Solid Edge
- **Open** key 3D CAD formats
 - SolidWorks, NX, and CATIA
- **Automatically update** new versions of non-PTC Creo data within your designs
- **Save As** key 3D CAD formats
 - SolidWorks, NX, and CATIA



Consolidate CAD systems to improve quality, speed time to market and lower costs for both Engineering and IT

CONSOLIDATION

BEST IN CLASS COMPANIES ARE 35% MORE LIKELY TO STANDARDIZE ON ONE CAD SYSTEM¹



59% OF PEOPLE HAVE DIFFICULTY MANIPULATING IMPORTED MODELS²

COLLABORATION

Support more effective product development and drive on-time delivery by working more efficiently with other departments, suppliers or development partners.

¹ Working with Mult-CAD? Overcoming the Engineering Collaboration Bottleneck – Aberdeen Group

² PTC survey of 7,000 manufacturing organizations, October, 2011

- **Import** common 3D CAD formats
 - SolidWorks, CATIA, NX, Inventor, Solid Edge
- **Open** key 3D CAD formats
 - SolidWorks, NX, and CATIA
- **Automatically update** new versions of non-PTC Creo data within your designs
- **Save As** key 3D CAD formats
 - SolidWorks, NX, and CATIA

Consolidate CAD systems to improve quality, speed time to market and lower costs for both Engineering and IT

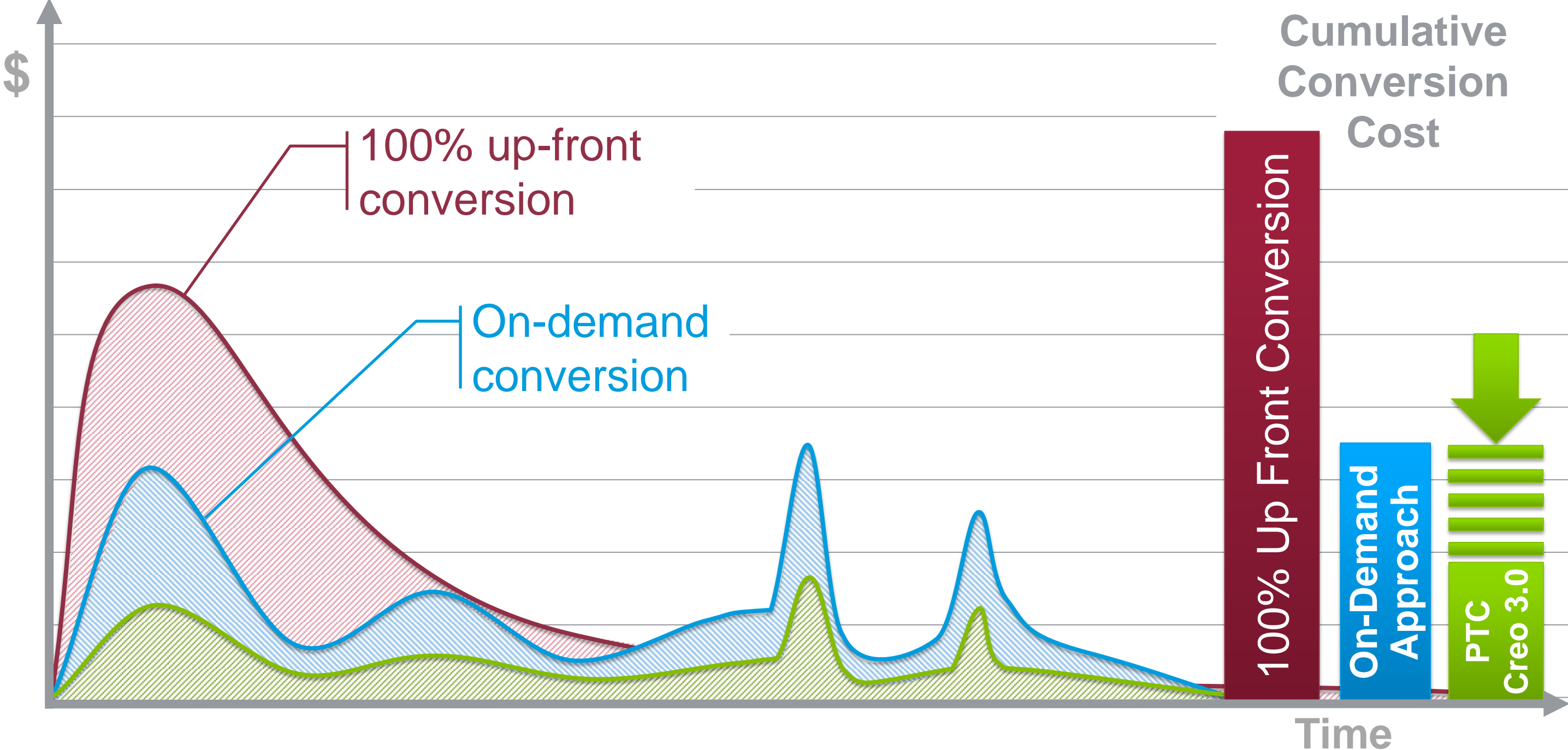
CONSOLIDATION

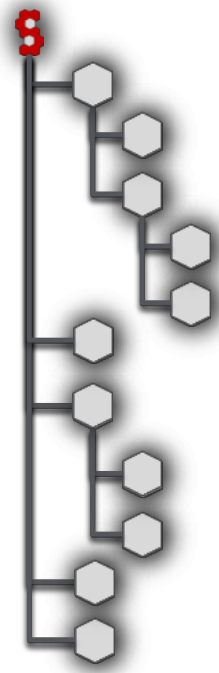
BEST IN CLASS COMPANIES ARE 35% MORE LIKELY TO STANDARDIZE ON ONE CAD SYSTEM¹



Unite Technology Addresses the Challenges of Data Migration

Save time and money with an effective convert as needed workflow

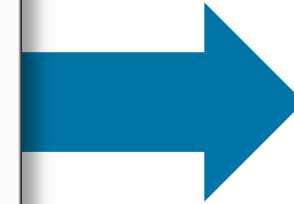




Open

SOLIDWORKS
CATIA
NX

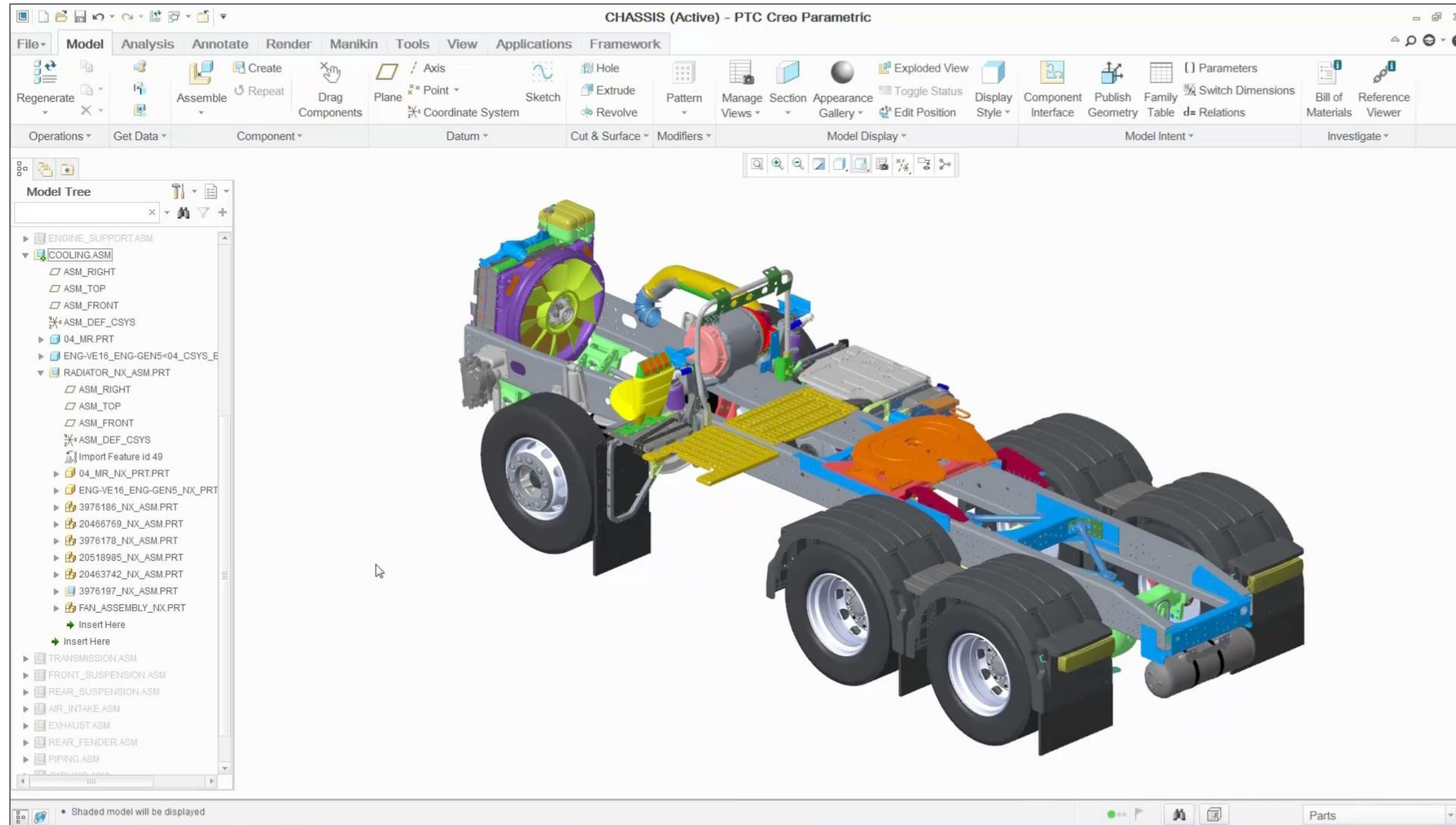
Minimal Conversion Upon Demand



Import

SOLIDWORKS
CATIA
NX
SOLID EDGE
AUTODESK INVENTOR

Entire Design Context is Converted to Edit One Part



Benefits

- Reduce # of CAD platforms and the associated costs of Software Licenses, Support and Training
- Increase Engineering Productivity and IT Efficiency
- Convert Data as needed, when needed
- Easily re-use legacy 2D and 3D data with minimal PDM effort
- Enable a “Design Anywhere, Build Anywhere” strategy



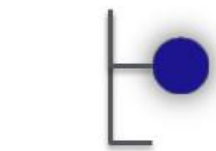
- **Import** common 3D CAD formats
 - SolidWorks, CATIA, NX, Inventor, Solid Edge
- **Open** key 3D CAD formats
 - SolidWorks, NX, and CATIA
- **Automatically update** new versions of non-PTC Creo data within your designs
- **Save As** key 3D CAD formats
 - SolidWorks, NX, and CATIA

**59% OF PEOPLE HAVE
DIFFICULTY MANIPULATING
IMPORTED MODELS²**

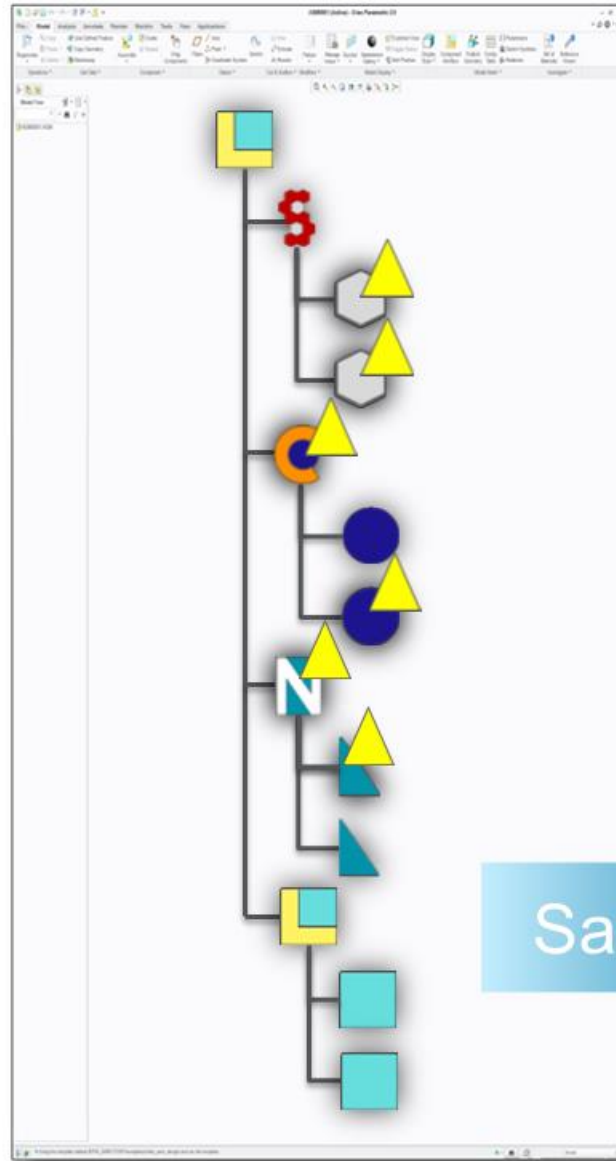
COLLABORATION

**Support more effective
product development and
drive on-time delivery** by
working more efficiently with other
departments, suppliers or
development partners.

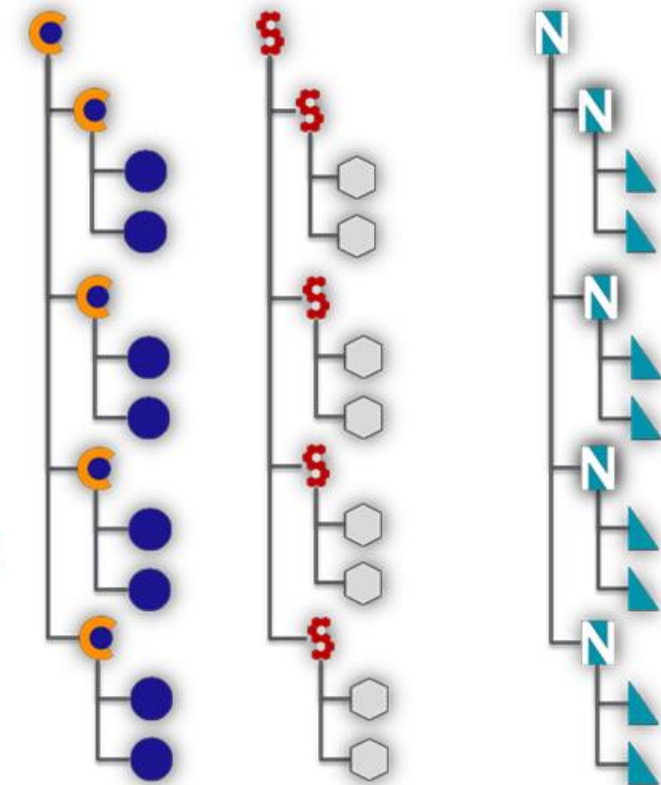


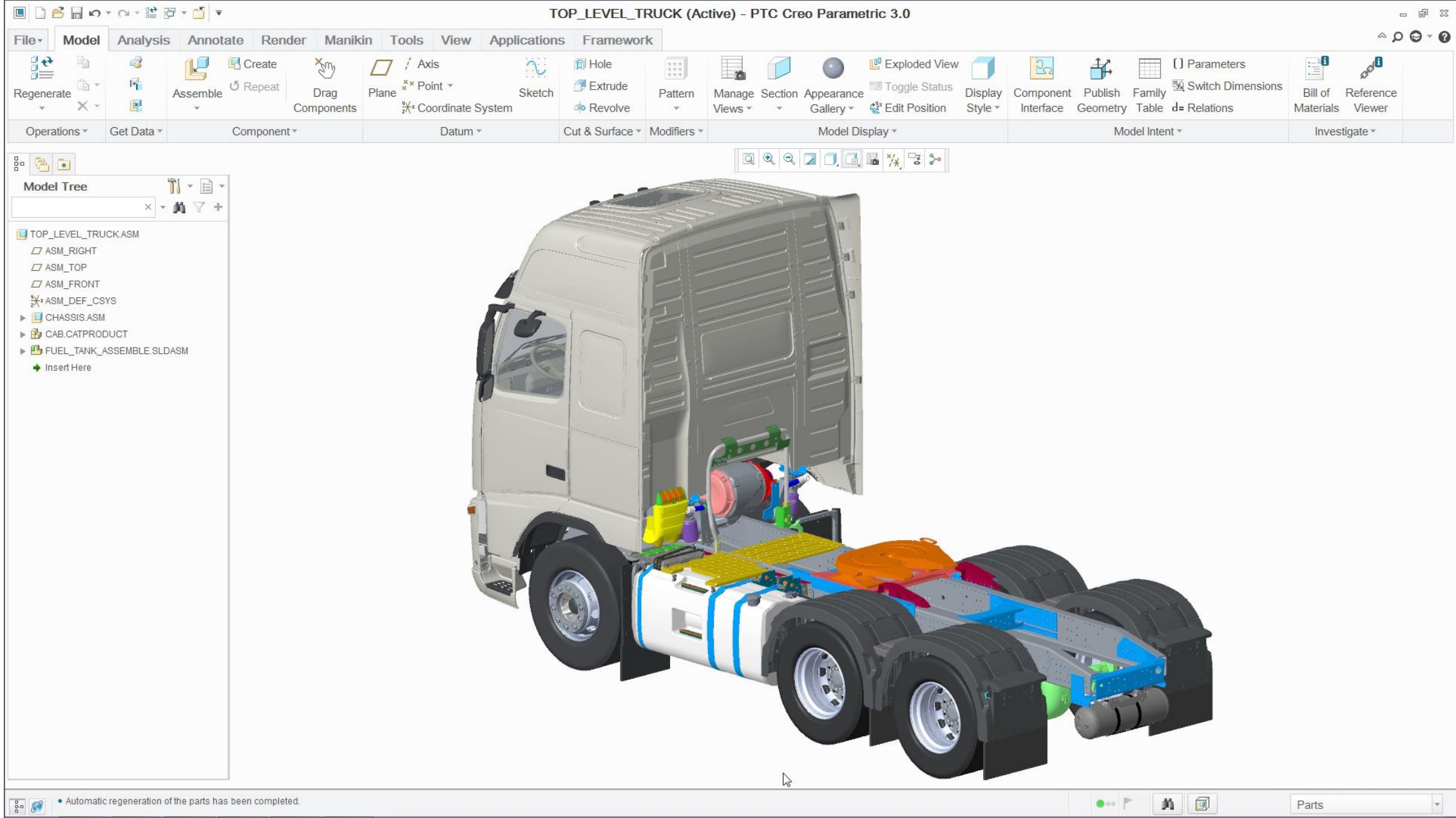


PTC Creo® 3.0

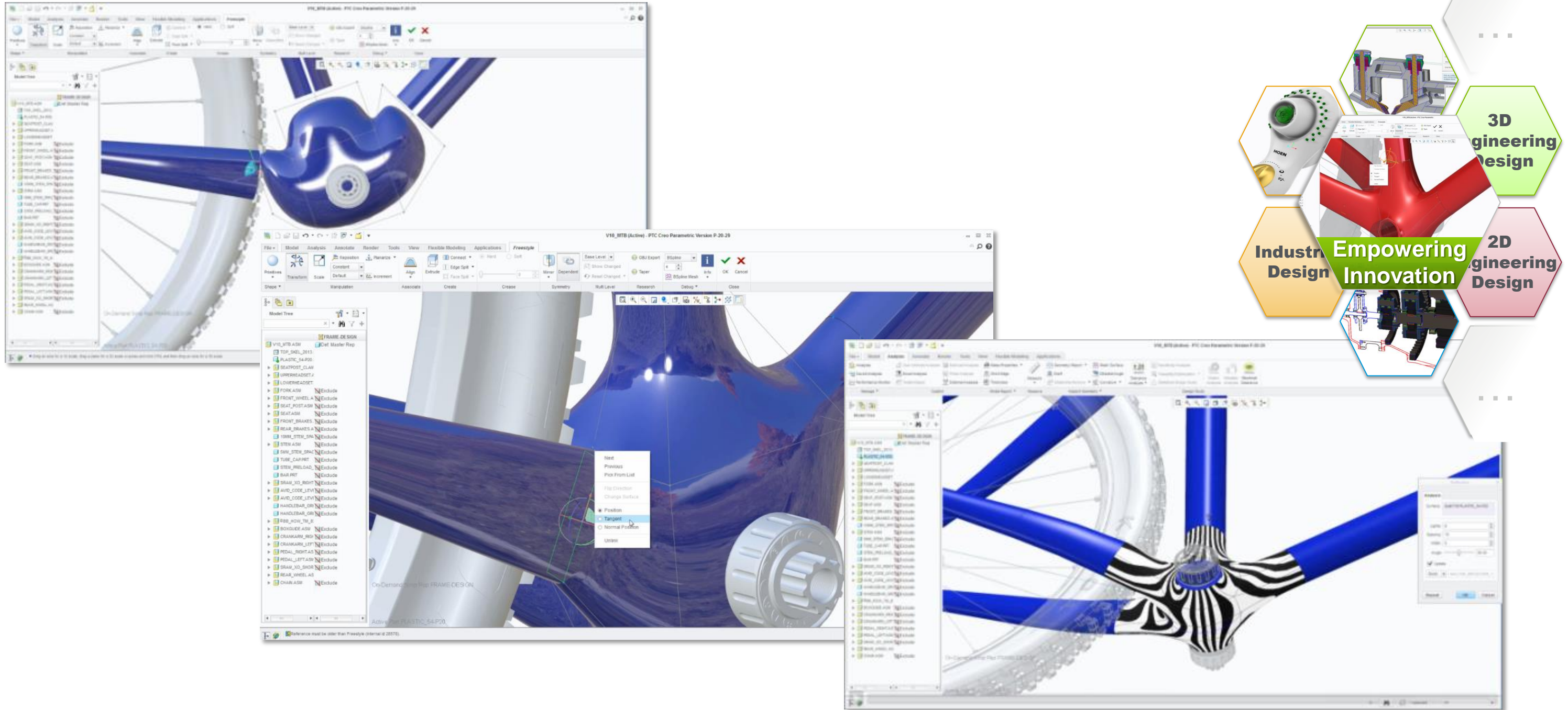


- Non PTC Creo Data:
 - Updated natively
 - Managed natively





Freestyle Blends Industrial Design with Parametric Control



Improved Scalability, Collaboration and 3D Integration with PTC Creo Layout

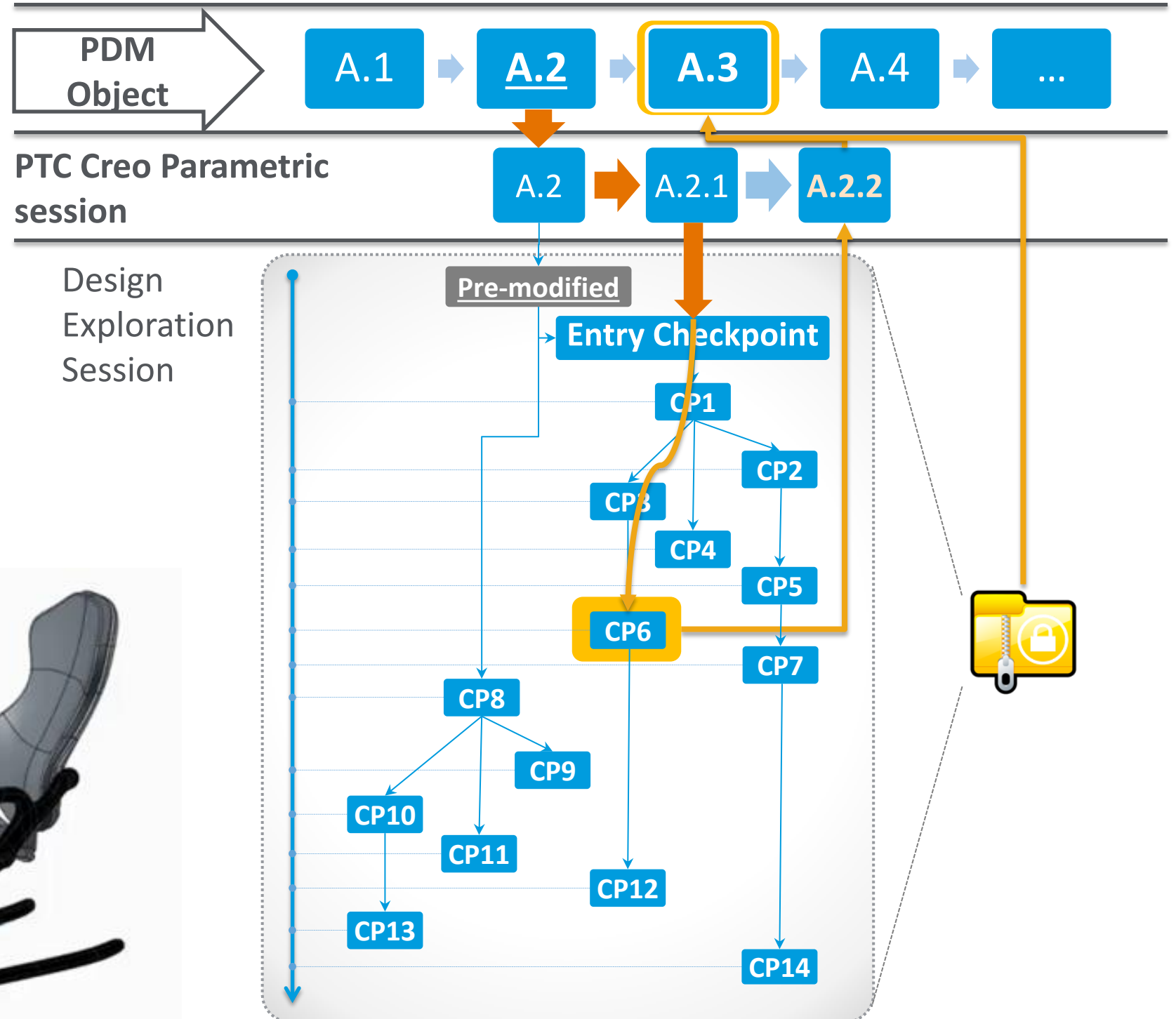
The image displays two screenshots of the PTC Creo Parametric software interface. The top-left screenshot shows a 3D model of a gear box assembly with a sublayout menu overlaid. The menu includes options for 'Annotate', 'Organize', 'Tools', and 'View', with sub-options like 'New Sublayout', 'Insert Layout', 'Convert Node', 'Embed', 'Extract', and 'Delete'. The top-right screenshot shows a 3D model of a gear box assembly with a sublayout menu overlaid. The menu includes options for 'Annotate', 'Organize', 'Tools', and 'View', with sub-options like 'New Sublayout', 'Insert Layout', 'Convert Node', 'Embed', 'Extract', and 'Delete'. The bottom-left screenshot shows a 3D model of a gear box assembly with a sublayout menu overlaid. The menu includes options for 'Annotate', 'Organize', 'Tools', and 'View', with sub-options like 'New Sublayout', 'Insert Layout', 'Convert Node', 'Embed', 'Extract', and 'Delete'. The bottom-right screenshot shows a 3D model of a gear box assembly with a sublayout menu overlaid. The menu includes options for 'Annotate', 'Organize', 'Tools', and 'View', with sub-options like 'New Sublayout', 'Insert Layout', 'Convert Node', 'Embed', 'Extract', and 'Delete'. The central graphic features a red gear box assembly with a green arrow pointing to a green hexagon labeled '3D Engineering Design' and a red arrow pointing to a red hexagon labeled '2D Engineering Design'. A green banner across the center reads 'Empowering Innovation'. To the left of the banner is an orange hexagon labeled 'Industrial Design' and to the right is a pink hexagon labeled '2D Engineering Design'. The background consists of a grid of hexagons.

Improved Assembly Context Workflows with Greater Direct Modeling Power in PTC Creo Direct

The image displays several screenshots of the PTC Creo 3.0 software interface. The top-left screenshot shows the 'Offset' tool palette with a 3D model of a mechanical part and a blue offset surface. The top-right screenshot shows the 'Plane' tool palette with a 3D model of a mechanical part and a red Y-shaped arrow. The bottom-left screenshot shows the 'Offset' tool palette with a 3D model of a mechanical part and a blue offset surface. The bottom-right screenshot shows the 'Plane' tool palette with a 3D model of a mechanical part and a red Y-shaped arrow. The central graphic features a red Y-shaped arrow pointing to four hexagonal icons labeled '3D Engineering Design', '2D Engineering Design', 'Empowering Innovation', and 'Industrial Design'.

PTC Creo Design Exploration Extension

- Efficient design branching
- Seamlessly integrated into PTC Creo Parametric
 - Does not require PTC Windchill
- Freely experiment with a variety of **design alternatives, modeling approaches, or change consequences**



- **New Getting Started Experience**
 - Revamped Help, using custom Google search functionality
 - Startup Tutorials shipped with the product
 - Additional tutorials downloaded through Learning Exchange
 - 100+ What's New Videos available on Learning Exchange

PTC® Creo® Parametric® HELP CENTER

English

FIND ANSWERS

PTC® PRODUCT & SERVICE ADVANTAGE

Search the Help Center


Search

PTC Creo Parametric Tutorials > Beginners Tutorials > Introduction to PTC Creo Parametric


Introduction to PTC Creo Parametric

Get up to speed quickly on PTC Creo Parametric with five real-world tutorials. This series of exercises will take you through parts and assembly modeling, motion analysis and creating drawings. Start today and see how easy it is to get started designing with PTC Creo Parametric.

- [Exercise 1 — Modeling a Piston](#)—Describes how to model a piston part.



- [Exercise 2 — Creating Complex Parts with Patterns](#)—Describes how to take advantage of the Pattern feature when creating complex parts.

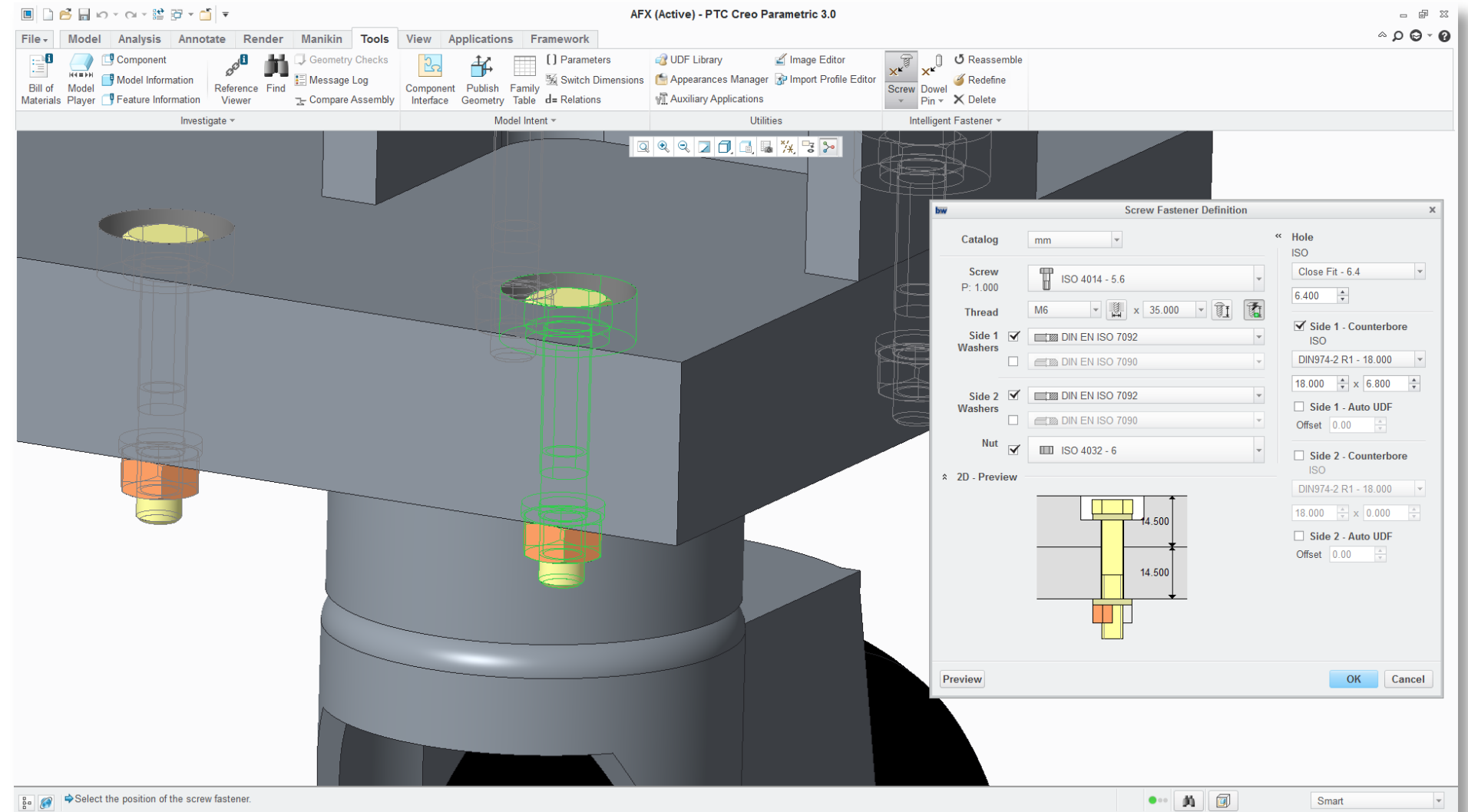


- [Exercise 3 — Working with Assemblies](#)—Describe how to create assemblies using a combination of PTC Creo and Solidworks parts.

Help Resources

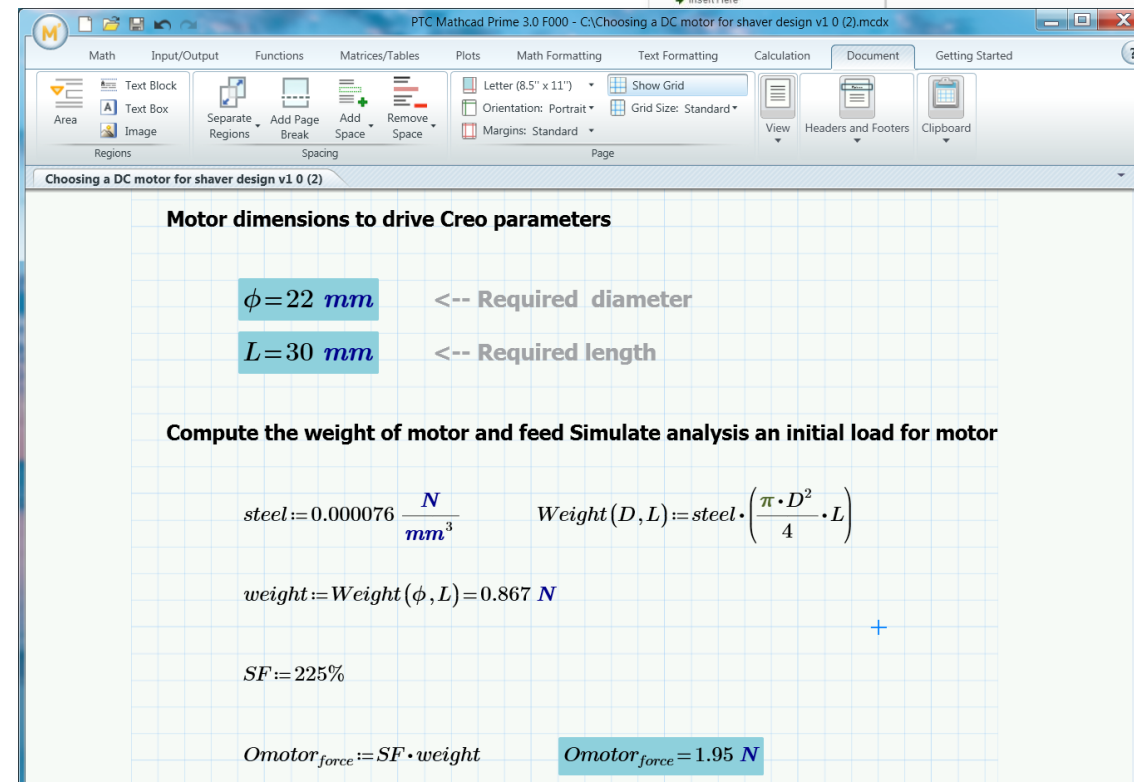
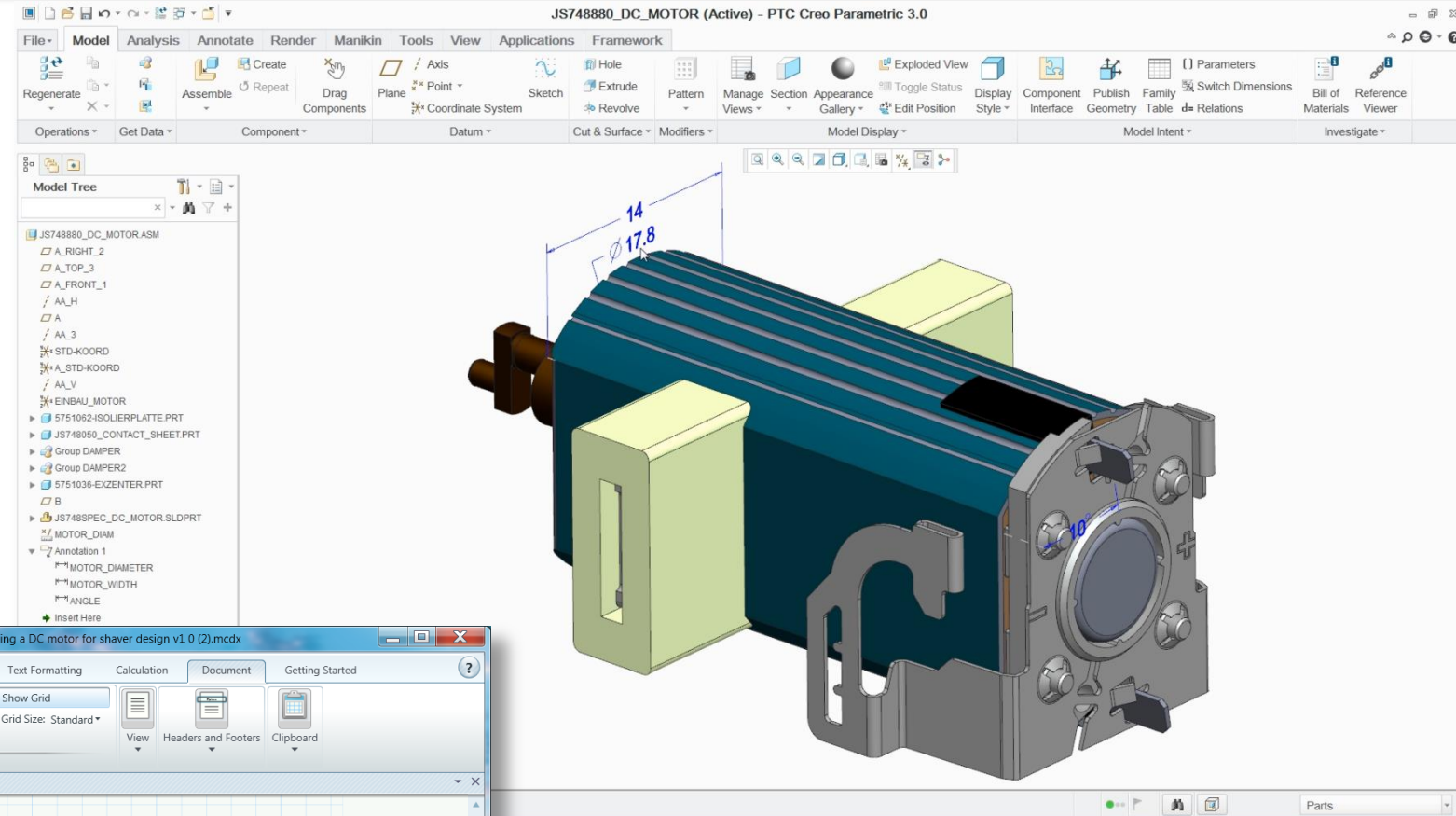
Free Tutorials

- **Integrated Hardware Libraries**
 - Nuts, Bolts, Washers, Screws
 - Auto hardware selection
 - Auto counterbore
 - Pattern placement



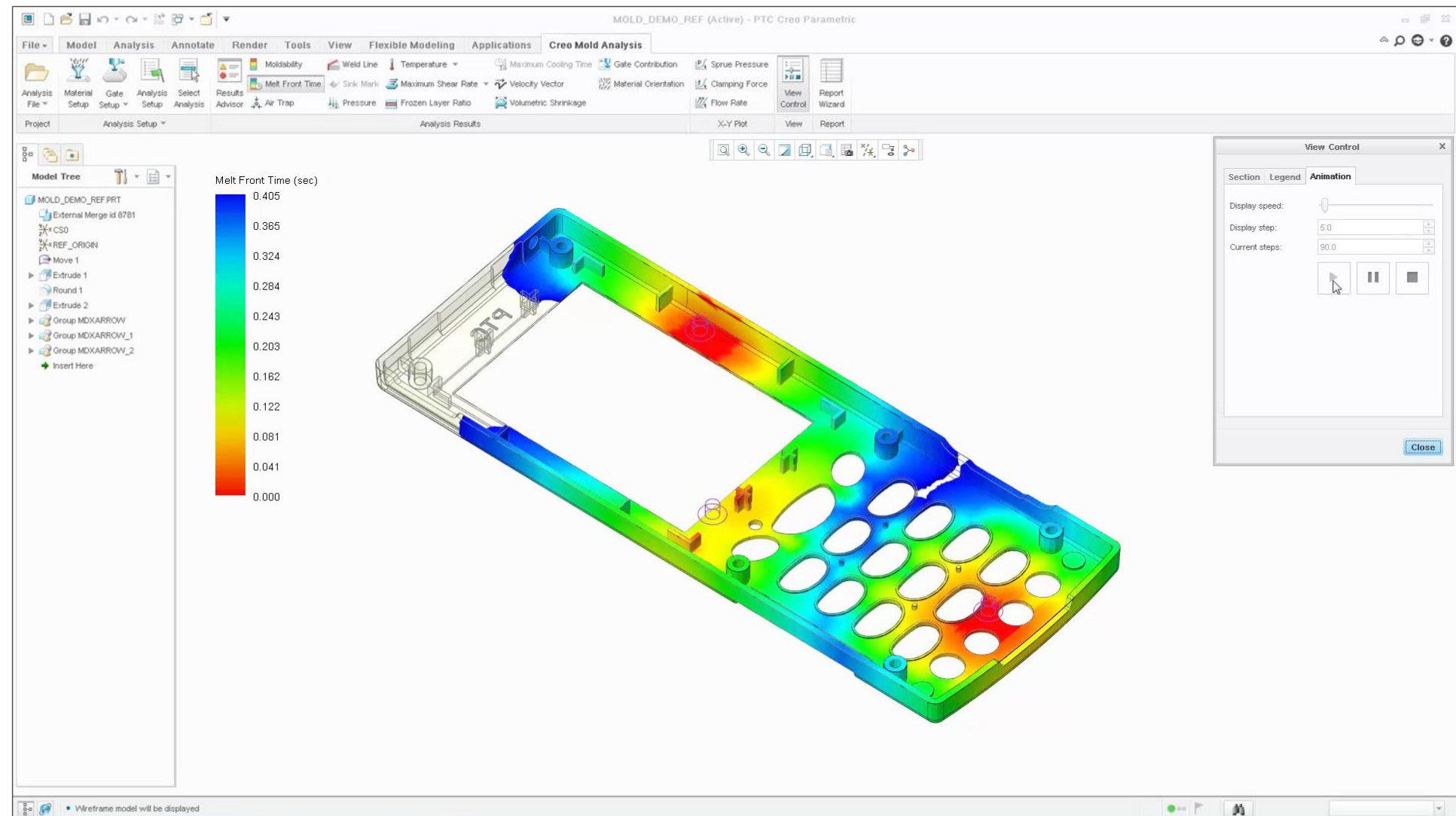
- **New PTC Mathcad Integration**

- Mathcad Express is shipped with every seat of PTC Creo Parametric.
- Embed Mathcad worksheet in any PTC Creo part or assembly
- Connect input/outputs from Mathcad to parameters in PTC Creo Parametric

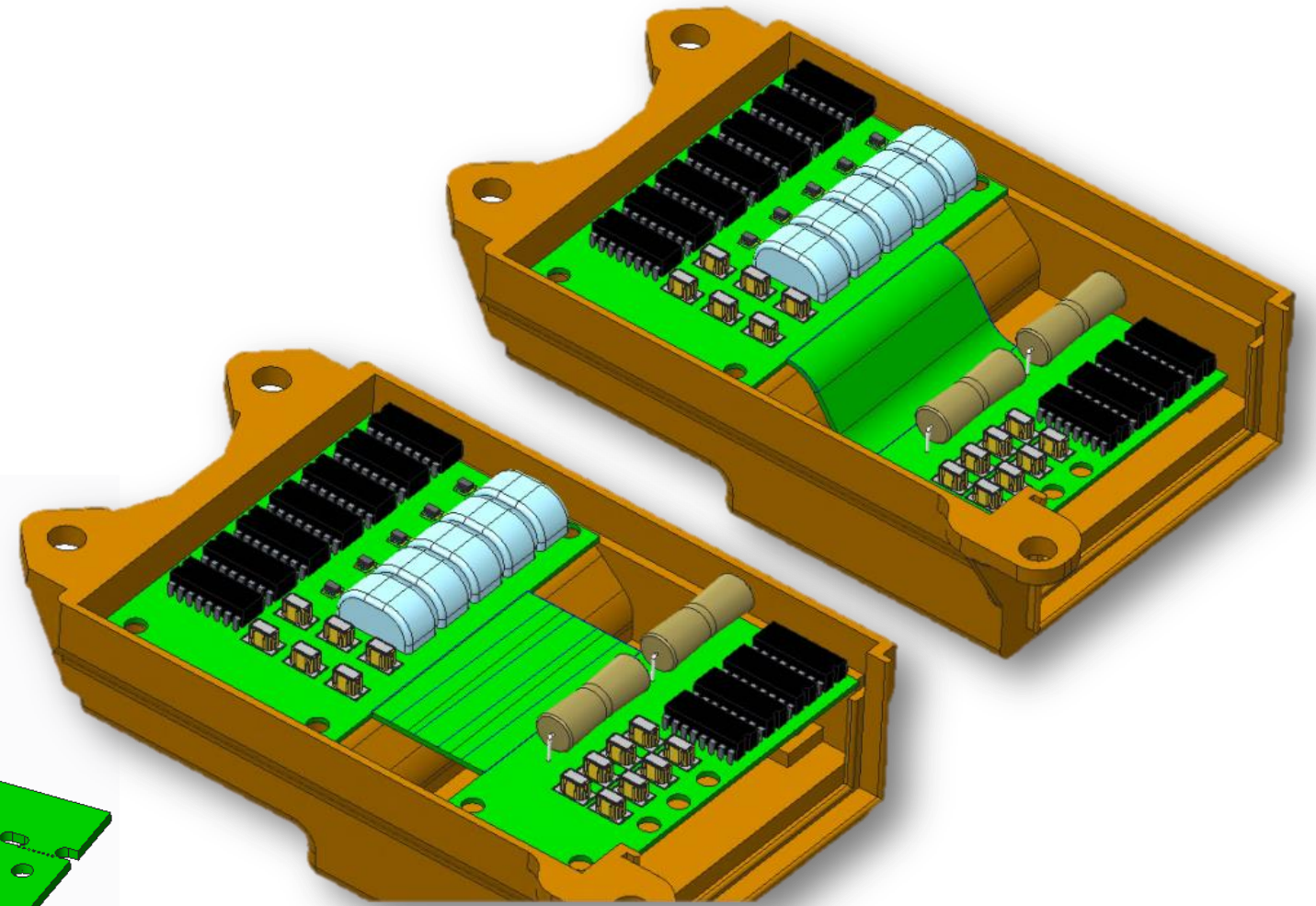
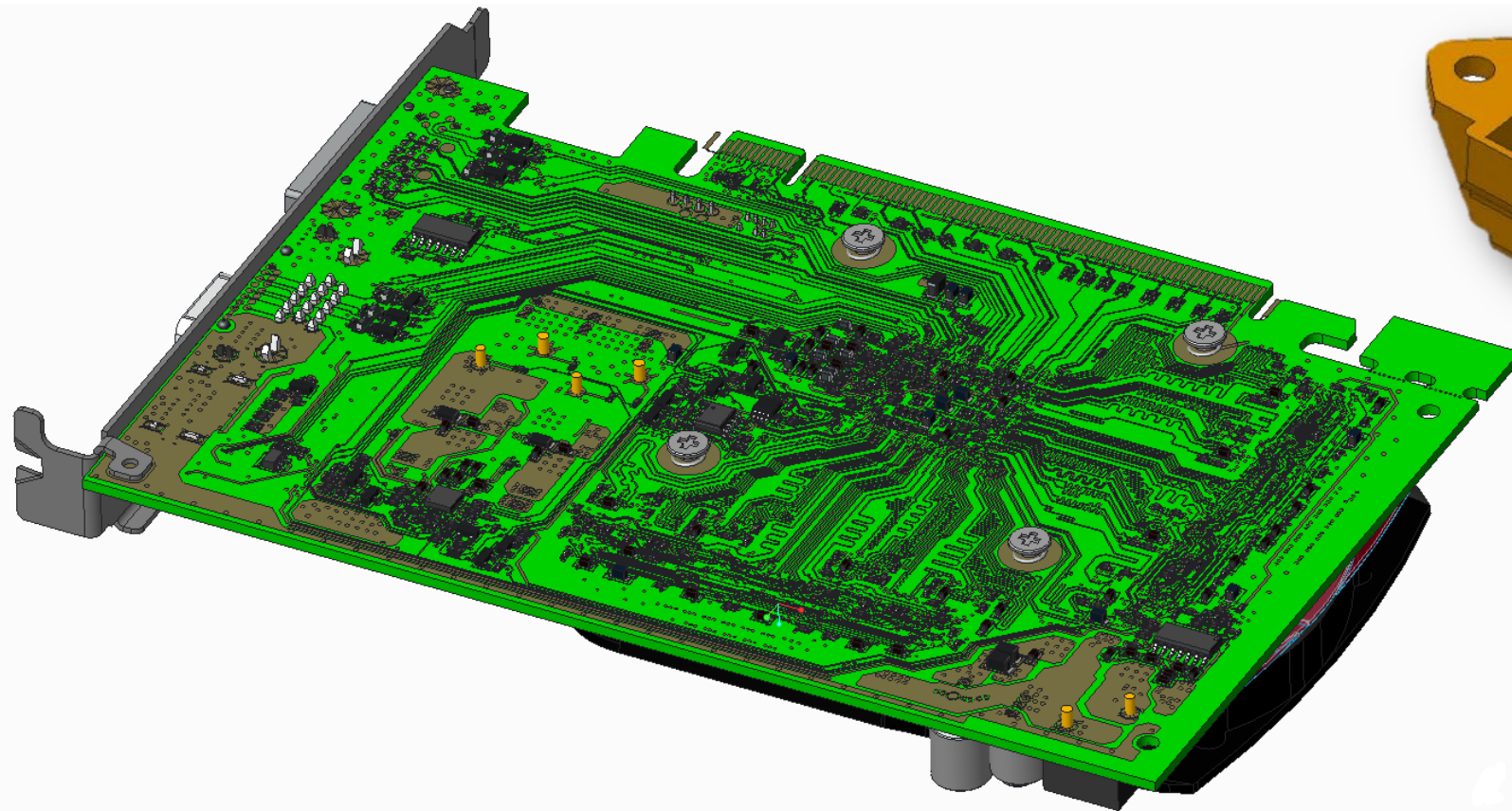


- **Mold Filling Analysis**
 - Powered by Moldex3D
 - New basic capabilities embedded in every seat of PTC Creo Parametric
 - New, more advanced PTC Creo Mold Analysis Extension

Powered by **Moldex3D**
MOLDING INNOVATION

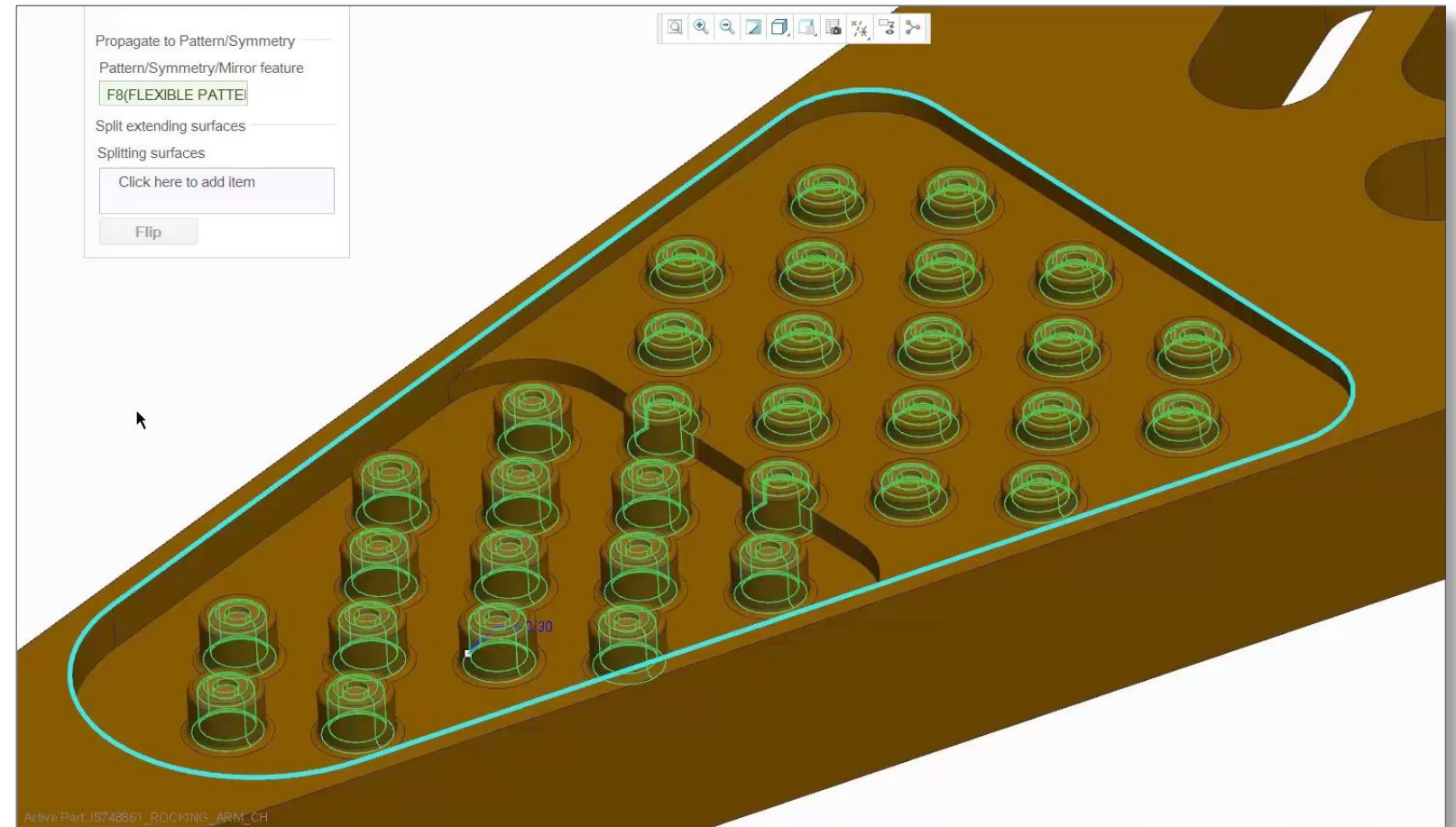
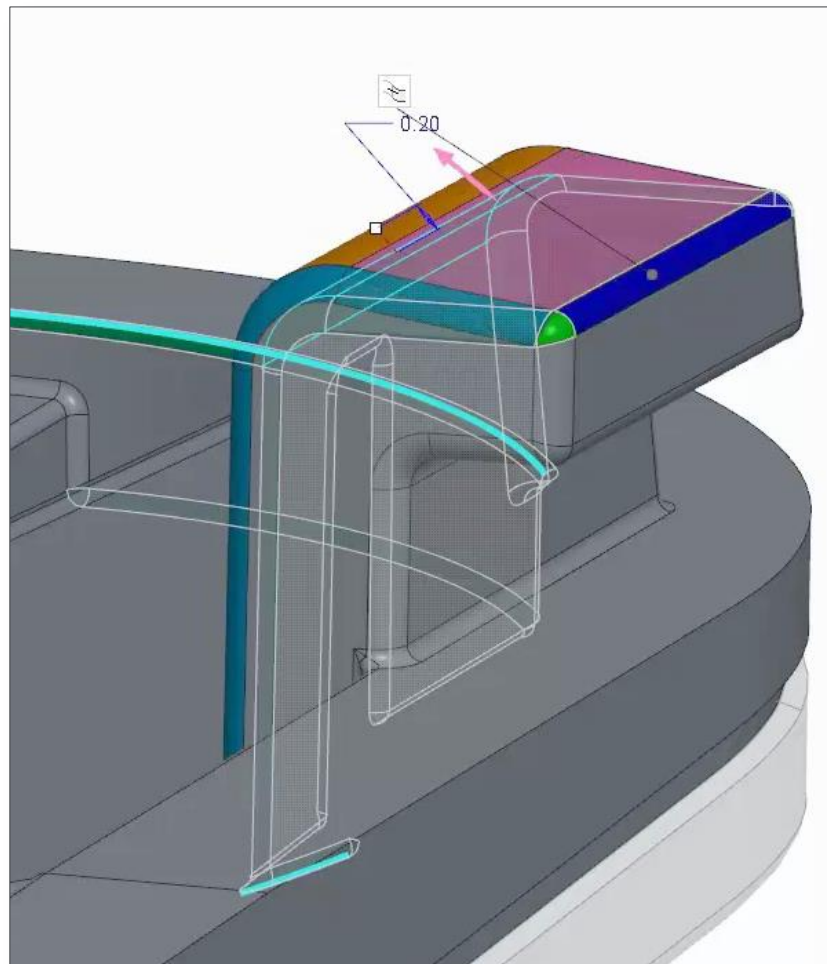


- PTC Creo ECAD Collaboration Extension
 - ECAD assembly type – PTC Windchill aware
 - Flex Board support
 - **New with M040** - Copper Areas, User-Defined Areas.



- **PTC Creo Flexible Modeling Extension**

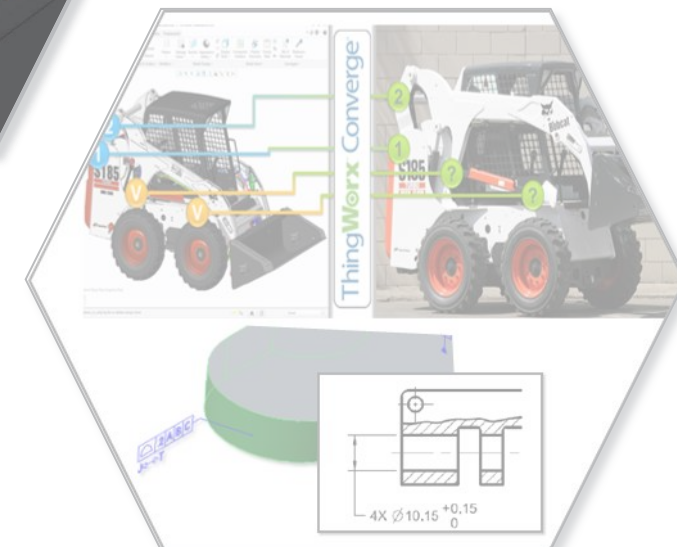
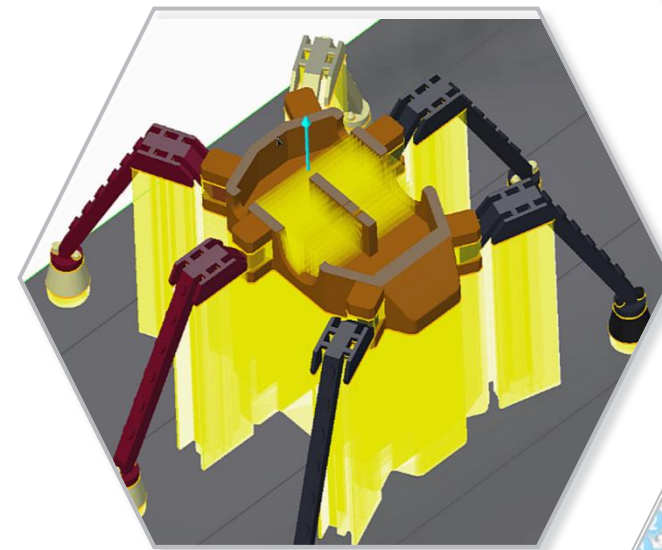
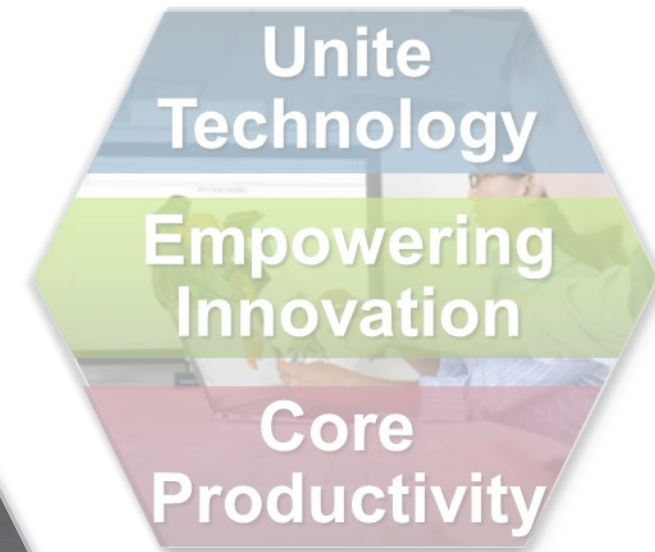
- Tangency propagation control
- Intelligent round and chamfer handling
- New Flex Pattern



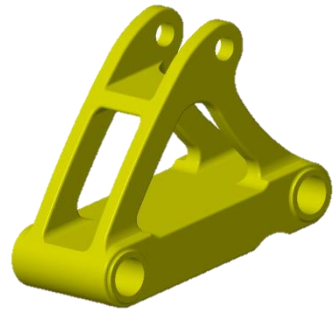
Review of PTC Creo 3.0

New Since June 2014

PTC Creo 4.0 and Beyond



A.2



Optimize & 3DP Check

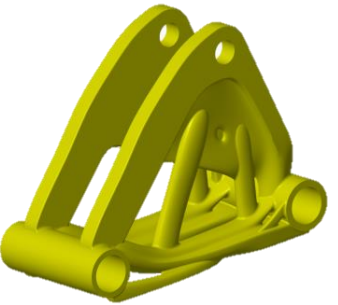
Release?

Models

Software



Rebuild, Validate & 3DP Check



A.2.1



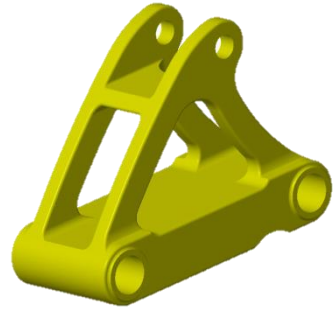
Design for Additive Manufacturing, A Vision Shared by:

PTC®



Stratasys
FOR A 3D WORLD™

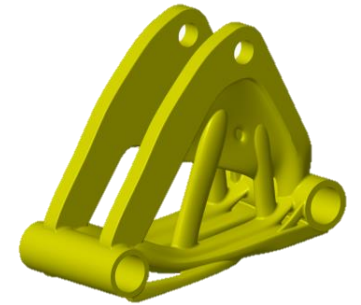
A.2



Optimize & 3DP Check

PTC® Creo®

A.2.1



PTC will Enable our Customers to Design, Simulate, Optimize,
Check for and Correct 3D Printing Issues...all in PTC Creo

In PTC Creo 3.0 M040 (NOW!):

- Preview 3D Printing issues
- Understand build times & material usage, assign colors, visualize support materials
- Print directly to Stratasys Connex Printers

Vision for PTC Creo 4.0 and Beyond:

- **Improved Innovation** – Fewer design iterations
- **Design Freedom** – New 3d design tools to leverage free complexity of 3D Printing
- **Optimised Designs** – Reduce weight & material usage without compromising function

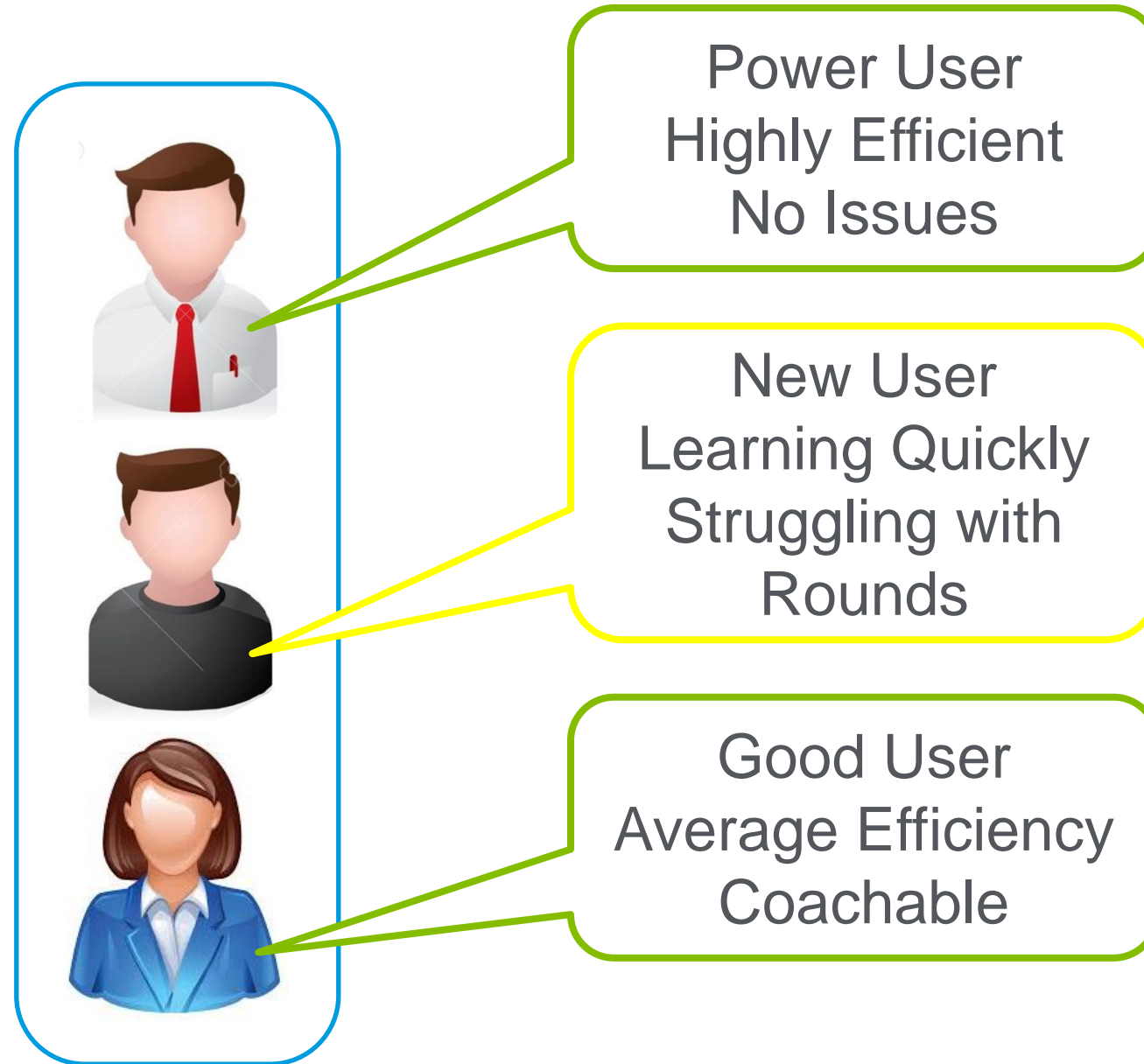
Streamlined
Workflow

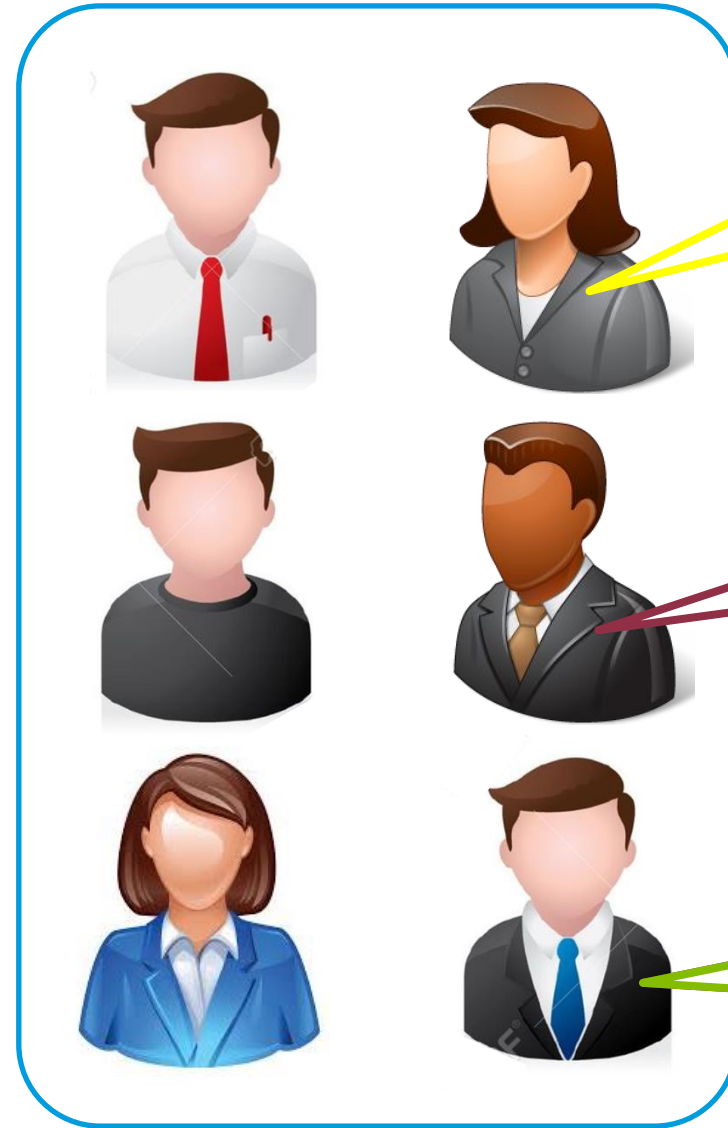
Accessibility



End-to-End
Connectivity

CAD to Printer
Integration





New Graduate
Quick Learner
Inefficient but
doesn't realize it.

New User from NX
Inefficient
Struggling

Experienced User
Efficient
Over-states
Software Issues



**PTC Creo
Administrator**



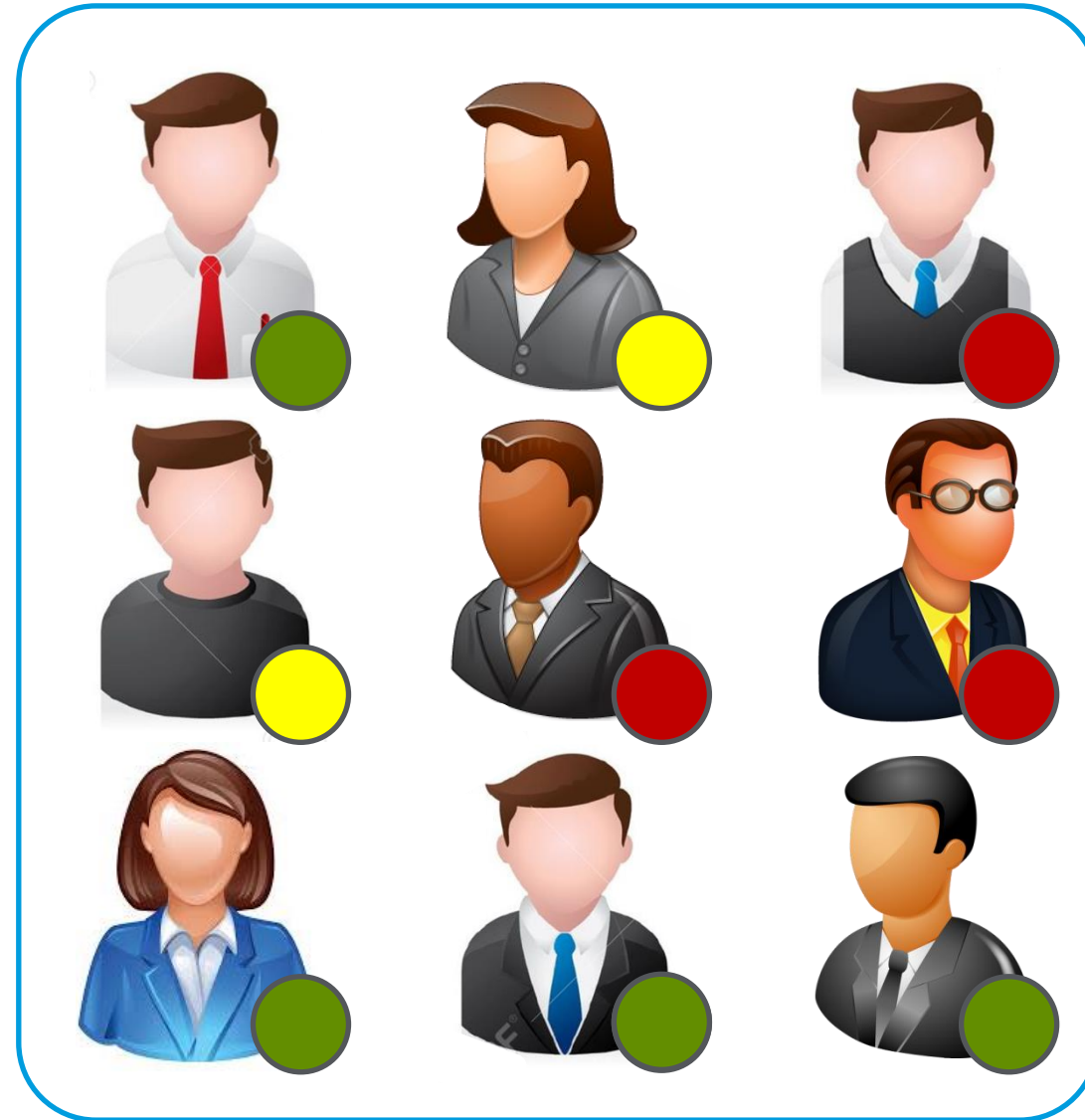
New Employee
Having Stability
Problems but Doesn't
Report Them

New User from
SolidWorks
Struggling with
Assembly Mode

New Employee
Unexpected
Power User

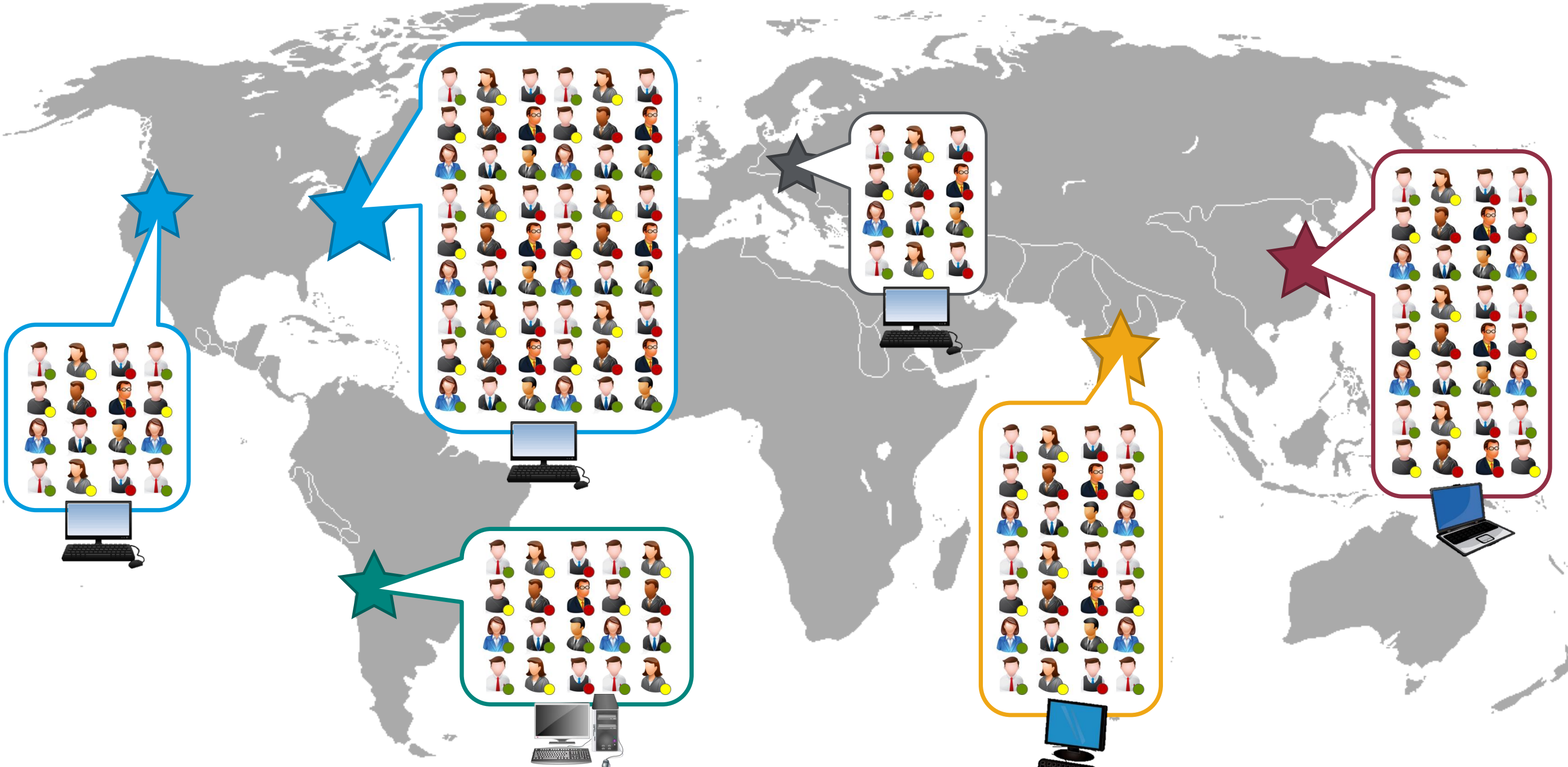


**PTC Creo
Administrator**



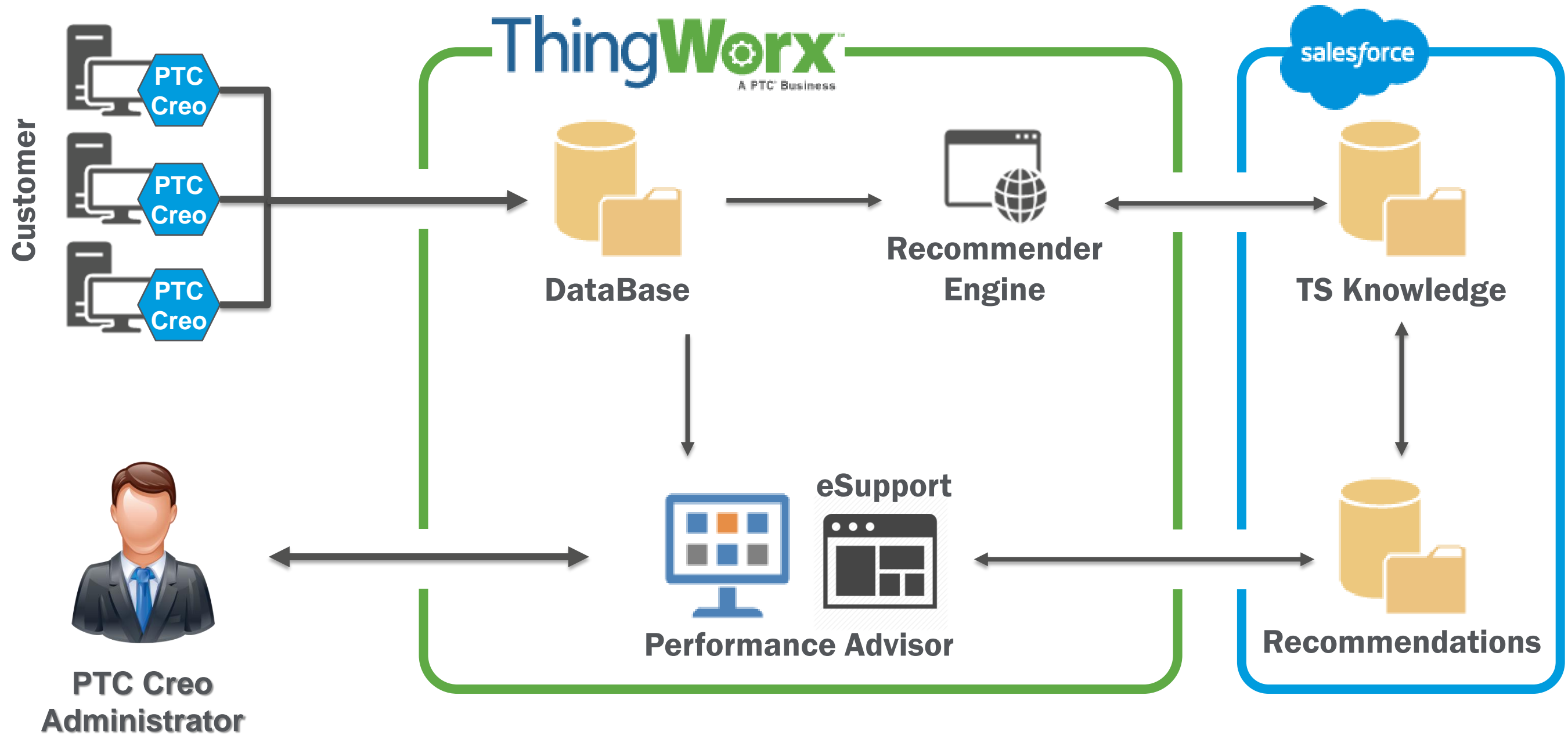
- **Great!**
- **Need a Little Help**
- **Need a Lot of Help**
- **Don't Know**

Managing PTC Creo in a Growing Organization



Forward Looking Information Subject to Change at PTC's Discretion

What if...PTC Creo Apps Were Smart and Connected...?



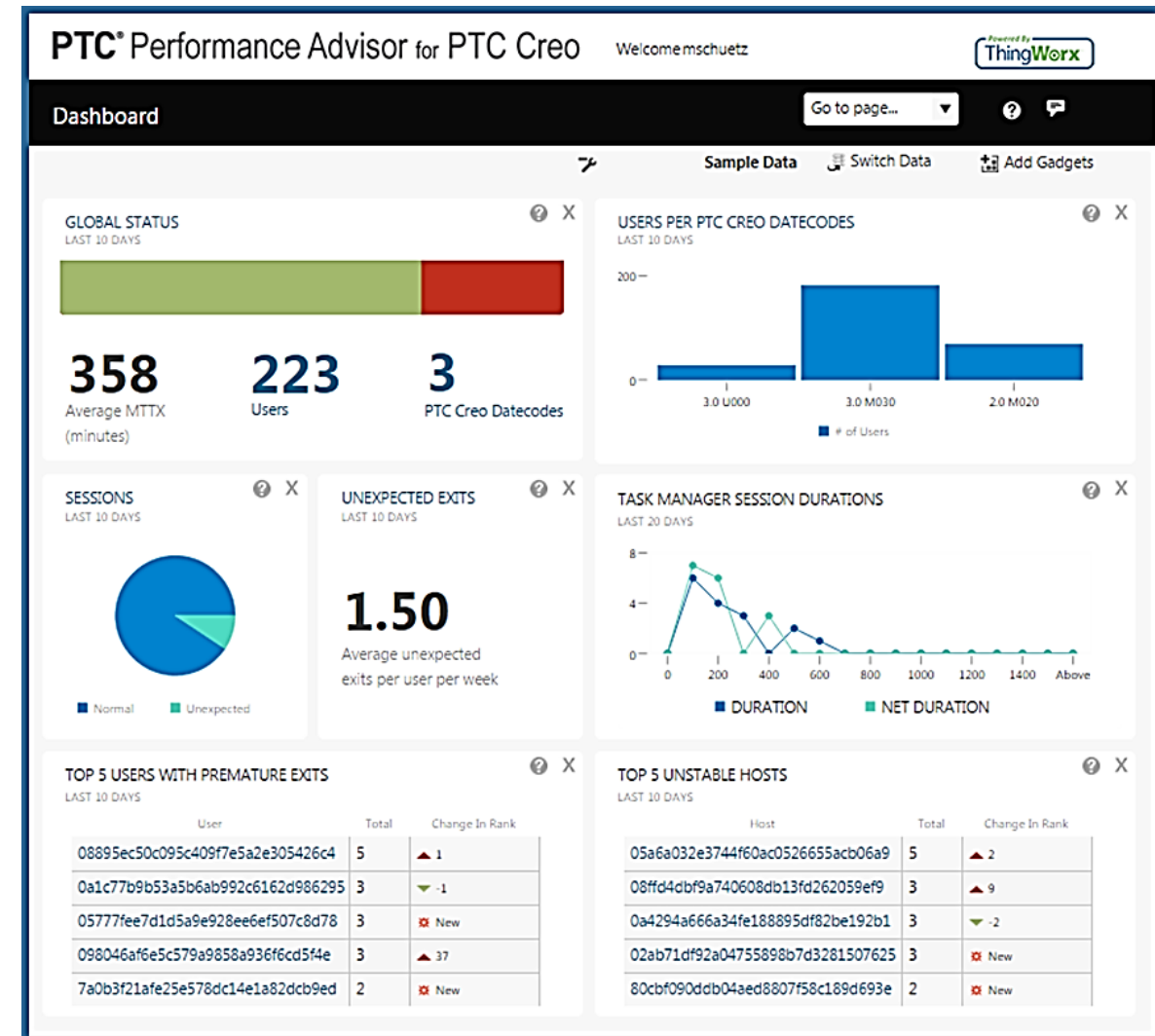
PTC Creo Real-Time Monitoring to Maximize Uptime and Provide Proactive Technical Support

• Capabilities

- Detects and reports system data & performance issues
 - Quality Agent data
 - Session Logger data
- Delivers proven recommendations from the PTC Tech Support Knowledge Base
- Future tools/sensors:
 - Hardware and Driver support information
 - Client Inspector
 - Feature Usage and Adoption
 - License Management

• Benefits

- Increase product development operational productivity
- Lower product development costs
- Lower the cost of IT through reduced issue volume and reduced time doing non-value-add activities
- Optimized asset management

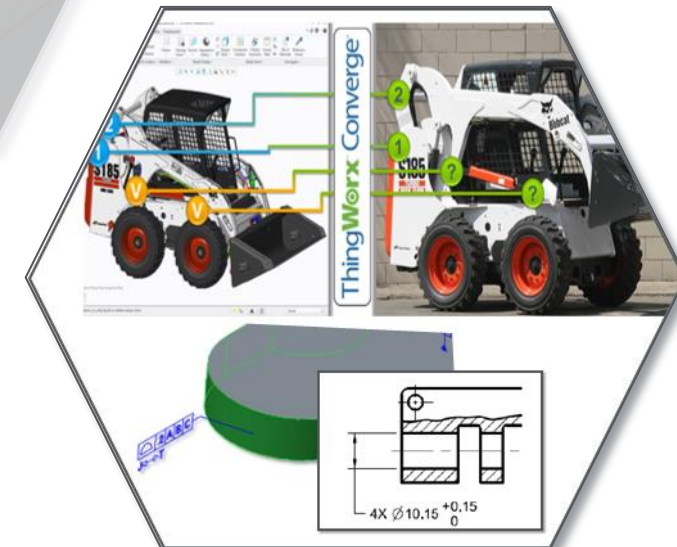
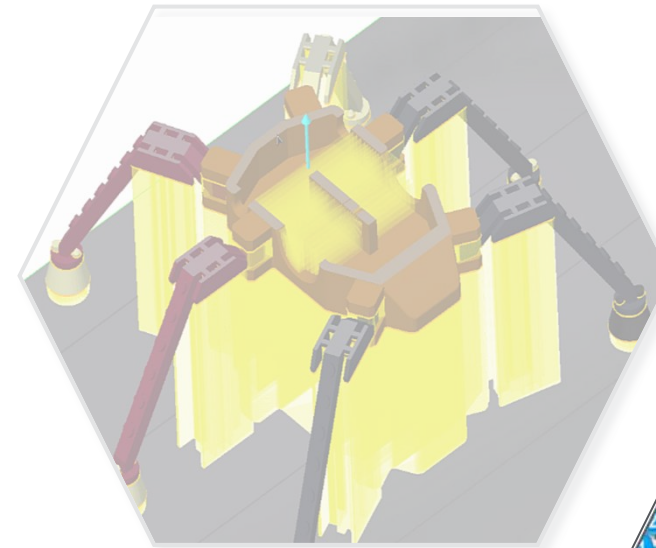


PTC Creo 2.0 M150+
PTC Creo 3.0 M030+

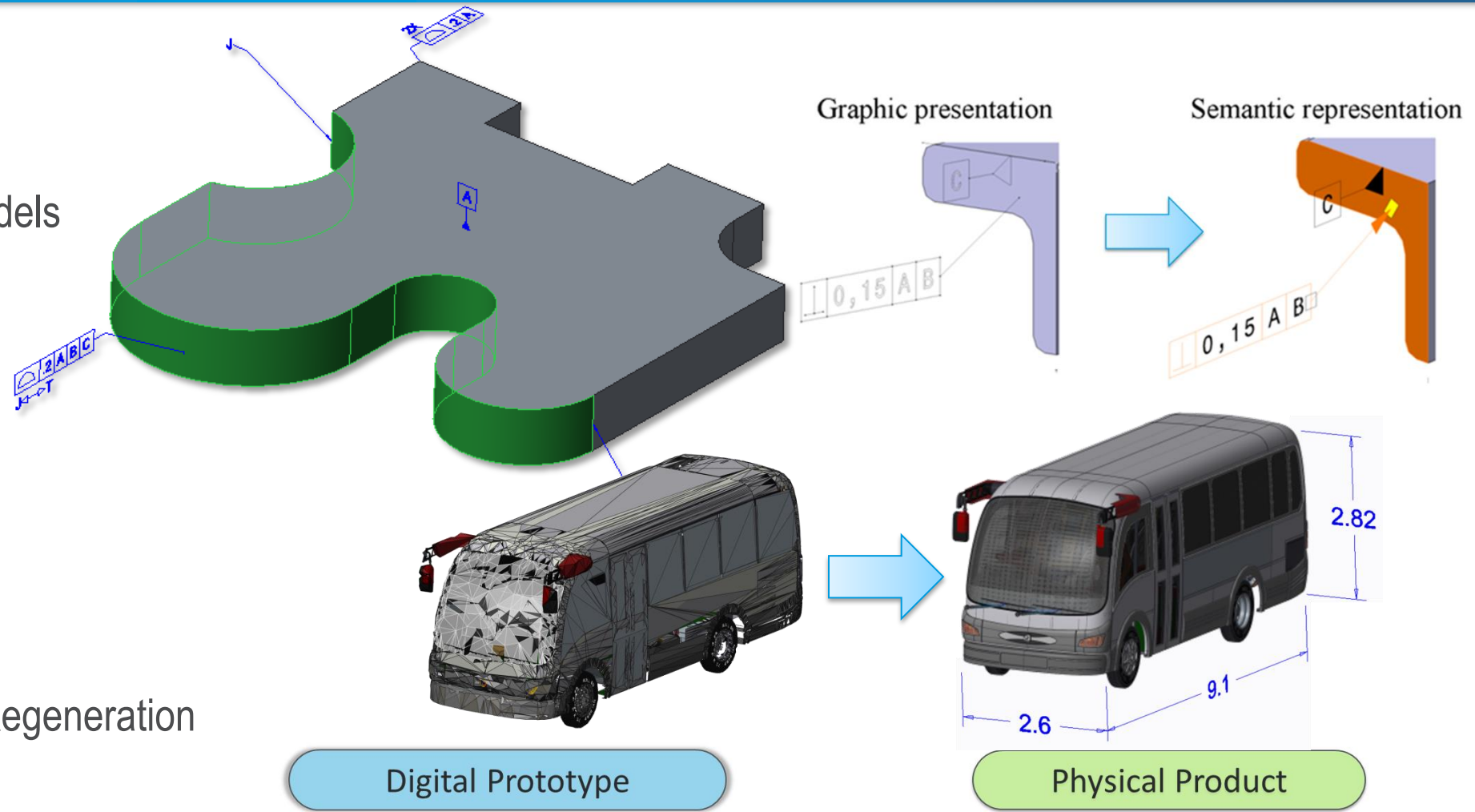
Review of PTC Creo 3.0

New Since June 2014

PTC Creo 4.0 and Beyond



- **Model Based Enterprise Investments**
 - Build Standards-Compliant 3D Annotated Models
 - Share Semantically Validated Models
 - Seamlessly Create Derivative 2D Artifacts
- **Assembly Performance**
 - Better, Faster Whole-Product Design Context
 - More Useful, Consolidated Graphics Rep
 - Automatic Kinematic Assembly Detection & Regeneration
- **Digital Twin**
 - Validate assumptions with real-world data
 - Optimize placement and choice of sensors in your smart, connected product development strategy



PTC[®] Live Global