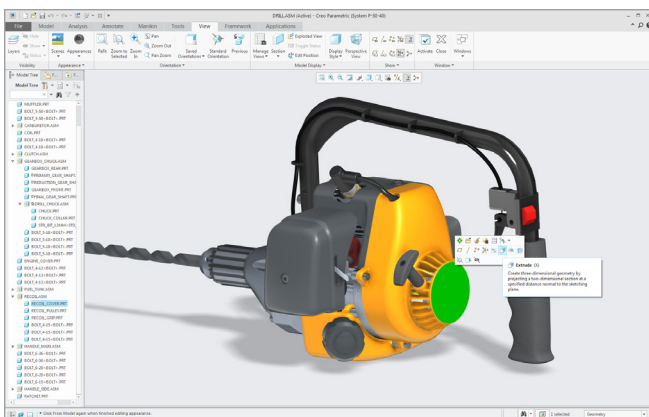


# Top Enhancements Creo Parametric 4.0

Be more productive today and tomorrow with Creo Parametric 4.0. We've added hundreds of core enhancements, not to mention breakthrough capabilities in additive manufacturing, model based definition (MBD) and smart connected design. Now you're ready to focus on creating great products.

## New interaction workflow means increased productivity

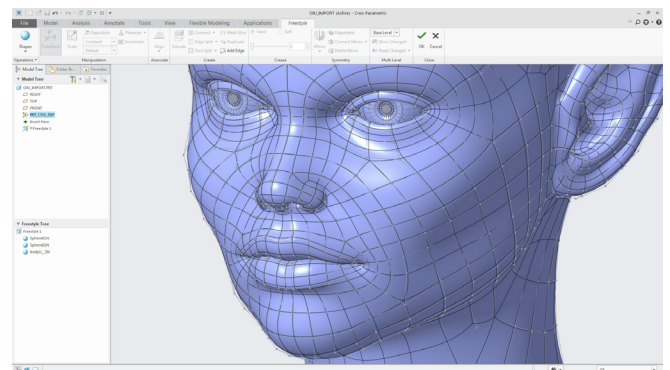
You want to work faster, so we've placed your most-used commands when and where you need them. The new intelligent mini-toolbar puts context-sensitive commands at your fingertips – no need to go to the model tree or ribbon. You also can customize the toolbar and work in the full-screen graphics area. And we've introduced box selection to allow you to select the exact geometry or components you want.



New intelligent mini-toolbar.

## Concept design

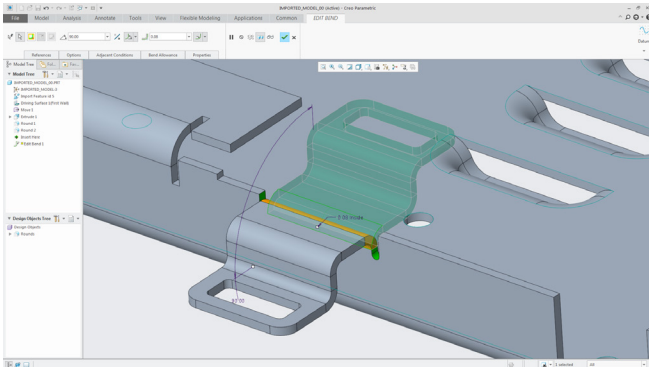
Creo's Unite technology permits you to open non-native geometry easily, but what happens when you have complex surfaces? With the new Freestyle capabilities in Creo Parametric, it's easy to import designs created in other subdivisional modelers. Freestyle will then reconstruct the subdivisional mesh, rebuilding manufacturable geometry and leaving you with a fully editable control mesh. Additionally, you have more control to add fine detail where you want it.



Easily repurpose surfaces created in other subdivisional modelers.

## Flexible modeling enhancements

Flexible modeling now extends to sheetmetal. Edit sheetmetal bends, bend reliefs, corner reliefs, corner seams and forms, and quickly change design intent characteristics individually or globally. Working with sheetmetal has never been easier.



Use flexible modeling functionality to make direct edits to sheetmetal parts.

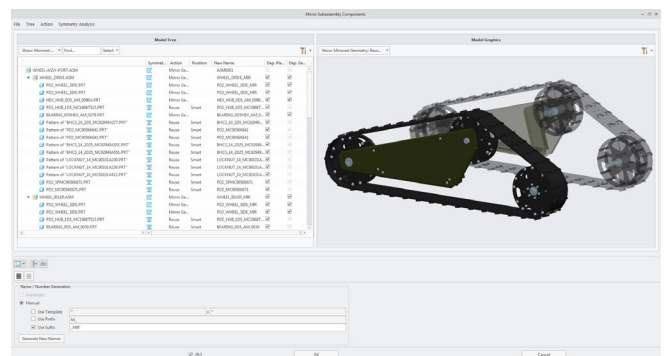


One of Creo's most powerful capabilities, flexible modeling, enables direct modeling in a parametric environment. The result? Late-stage design changes are easier and faster, editing imported data is effortless, and simplifying designs for downstream analysis takes only minutes."

## Modeling enhancements

Core modeling capabilities are better than ever.

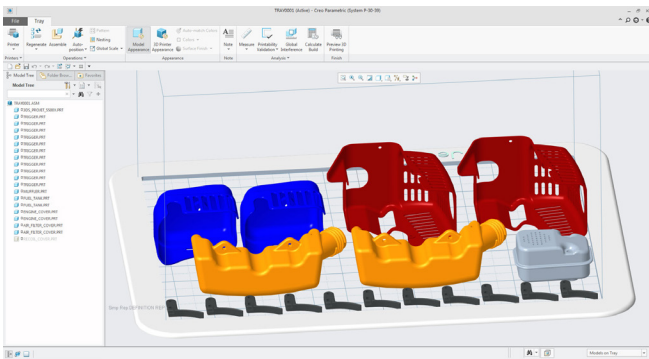
- **Intelligent mirror for assemblies.** You no longer have to create a huge number of duplicate parts when mirroring assemblies. Creo now 'intelligently' mirrors only those parts that should be mirrored, and repositions any symmetrical parts automatically.
- **Solid welds.** Create welds as solid geometry with mass property information. Creo Simulate understands these material characteristics and automatically creates the necessary connections of the welds.
- **Materials library.** There are more than 100 new materials available out-of-the-box, and the improved workflows make it easier than ever to assign those materials.
- **Sketcher.** We've made significant productivity and usability improvements to this core capability with improved visibility of sketch and sketch entities, direct snapping to existing geometry, and the ability to clip the model by the sketch plane.
- **Enhanced core modeling features.** Hole placement improvements; the ability to construct a mid-plane; more intuitive and flexible interactions with groups; improved draft feature capabilities; and much more.



Intelligent assembly mirroring cuts out needless part duplication.

## Design for additive manufacturing (3D printing)

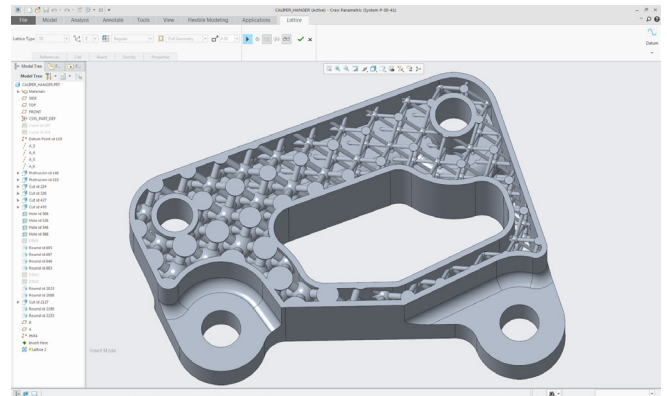
Say goodbye to a disconnected, error-prone process that relies on multiple software packages: what you design in Creo is actually what you print. You can design, optimize, validate, and print all in one environment, reducing overall process time and risk of error.



Optimize and save your print tray to save time and money.

### New capabilities include:

- Lattice creation.** You can now create parametrically controlled uniform and variable lattice structures. When combined with simulation, this capability allows you to optimize the lattice structure to solve multiple design requirements. Design products that earlier were simply not possible, too costly, or too time consuming.
- Connected printer support.** Directly connect to Stratasys and 3D Systems printers to understand build time and material usage.
- Create and manage the print tray.** Why redo work? Build, track, validate, and manage print jobs, and then store and reuse them. Autopositioning and nesting of multiple components lets you optimize your print tray to save time and money, and reduce material.

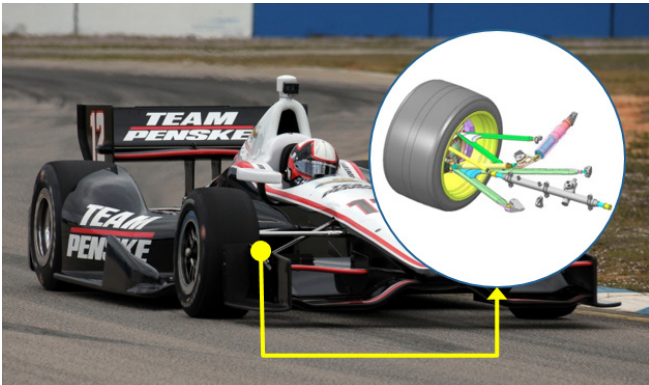


Create complex variable lattice structures for additive manufacturing with ease.

Realizing the potential of the IoT is not just about getting more product usage data, but about getting value from that data efficiently. You then use, refine, and analyze that information so you can design better and smarter using facts – not assumptions.”

### Smart connected product design

Now you can design for connectivity – connecting real world sensors to digital sensors in your 3D CAD model, enabling you to understand product usage in the field. Tight integration with the world's leading IoT platform (ThingWorx) means you can design products to provide the data streams you need.

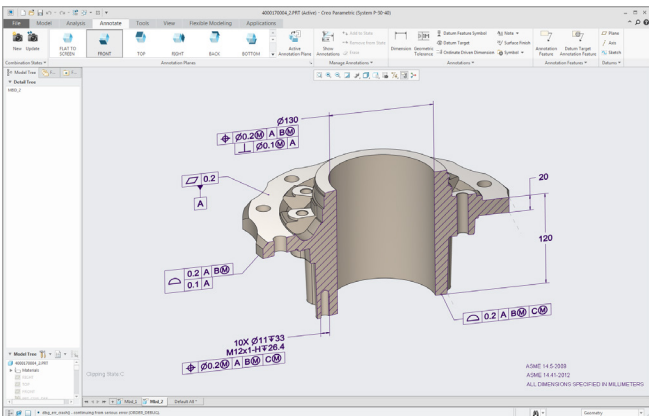


Connect the digital to the physical with Creo Product Insight.

### Creo 4.0 removes the barriers for successful MBD (Model Based Definition) implementation

With MBD, all the information about your product lives in a fully-detailed, documented 3D model accessible to everyone from engineering to package design. The improved workflows make it easier than ever to author and publish the full model-based definition.

The new Creo GD&T Advisor extension is the final step of an MBD strategy. Developed with our partners at Sigmatrix, this extension will not only guide and educate you on the correct application of the relevant, updated standard, but ensure that you hand off a fully documented and constrained model. Sharing your designs with colleagues outside engineering is straightforward: export to STEP AP242 and JT file formats or publish full WYSIWYG to Creo View. To support those parts of the enterprise using 2D-centric processes, you can print each 3D view.

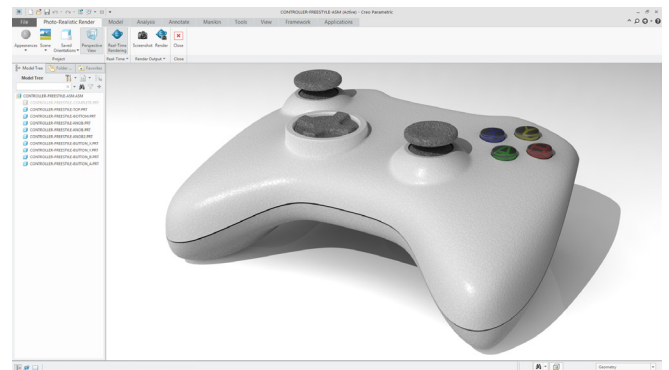


Create a fully annotated, complete digital definition of your product

### Create more engaging and informative visual experiences of your design

Maybe you're preparing for a design review and want to present multiple color studies, or scenes. Perhaps you need top-notch photorealistic images for packaging or marketing collateral. The new Creo Render Studio Extension, powered by KeyShot®, can do all that easily.

Extend your CAD model's reach with augmented and virtual reality through a native integration with Vuforia, the number one AR/VR platform in the world. You can now publish a Vuforia experience directly from Creo.



Creo Render Studio Extension, powered by KeyShot®, makes photorealistic images possible.

© 2016, PTC Inc. (PTC). All rights reserved. Information described herein is furnished for informational use only, is subject to change without notice, and should not be taken as a guarantee, commitment, or offer by PTC. PTC, the PTC logo, and all PTC product names and logos are trademarks or registered trademarks of PTC and/or its subsidiaries in the United States and other countries. All other product or company names are property of their respective owners. The timing of any product release, including any features or functionality, is subject to change at PTC's discretion.

J7934-CreoParametric4.0-EN-1016