

Top 10 Reasons to Take Another Look at 3D

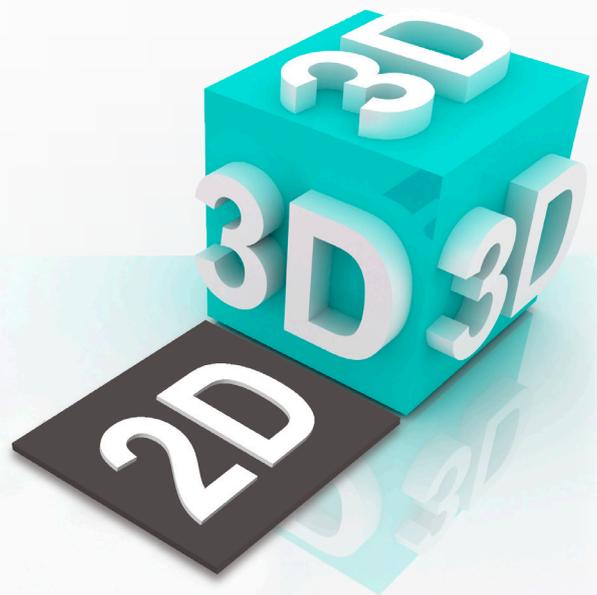
If you're designing products today in 2D, you may have already looked at the benefits of switching to a 3D environment. But implementing new software can disrupt processes, derail talented and productive designers, and lead to unanticipated expenses – especially when you're already sitting on years of legacy drawings.

Fortunately, adding 3D isn't what it used to be, and neither are the trade-offs you might have come to expect. Here are 10 excellent reasons to reconsider investing in 3D modeling for your product development.

Adding 3D does not mean the end of 2D

1 Work with 2D and 3D side by side. In a recent survey, PTC found that a good percentage of users who have moved to 3D CAD continue to use 2D as well. This allows them to easily reuse legacy data and work with downstream vendors who prefer 2D. At the same time, these combination users enjoy the benefits of using advanced technology to analyze, render, and simulate designs in 3D.

2 Change at your own pace. A lot of companies fear that adding 3D means retraining the entire design team at once. That can be an expensive disruption if you're a busy manufacturer. But many companies adopt 3D in phases, slowly transitioning design team members when it's convenient. With both 2D and 3D, they ensure that processes and workflows proceed smoothly during the transition.



Adding 3D to your 2D design process has never been easier.

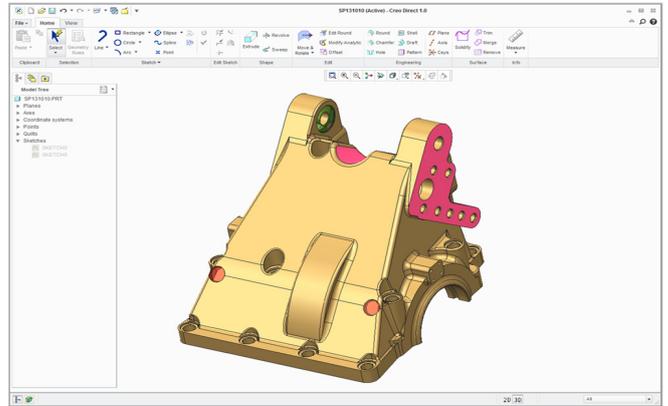
Convincing design technology

3 Add the power of 3D. While your existing processes remain undisturbed, you can start to add 3D technology to your product development cycle. For example, a 3D specialist can examine new products in 3D, run simulations, and avoid expensive physical errors. Depending on your business, just avoiding a couple prototypes can help pay for the cost of 3D design software and training.

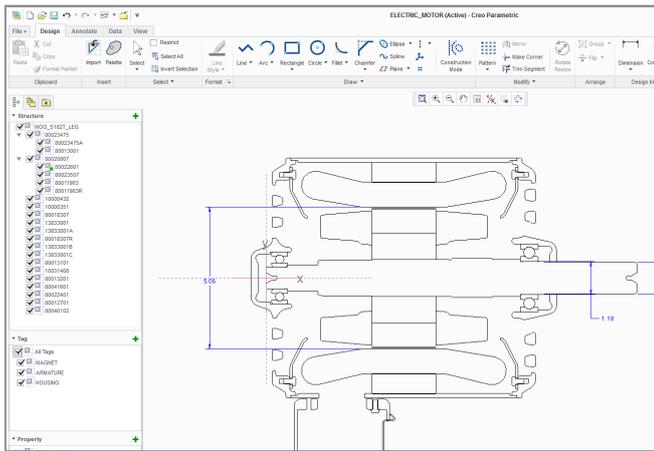
4 See measurable results. Responding to a PTC survey, users said that when they added or switched to 3D, they:

- Built 40% fewer physical prototypes.
- Needed 36% fewer design reviews.
- Reported 32% fewer engineering change orders.

5 Impress your customers and other stakeholders. A concept presented in 3D is often much easier to understand than a 2D drawing. In 3D, customers and stakeholders can quickly see the value of your design—especially when it rotates, explodes to show details, and provides cross-sectional views. 3D models are an impressive way to clearly communicate concepts, plans, and progress with anybody on your team.



Creo Direct gives you the tools to create 3D concepts with ease.



Creo Layout provides an easy-to-use, feature-rich 2D drafting environment for 2D conceptual layout creations.

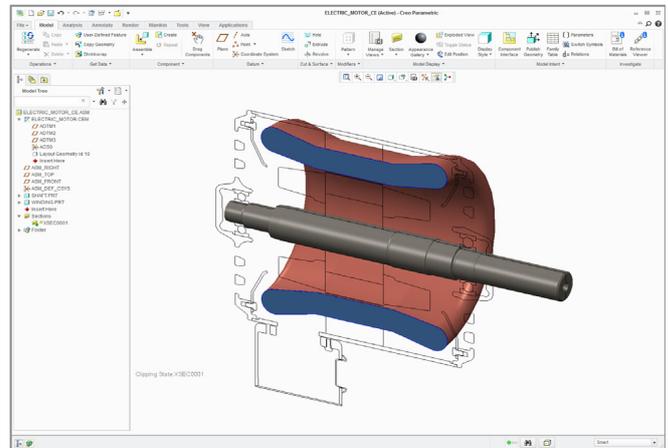
No more than what you need

6 Simply your solution with an app-based approach. A range of apps allows you to use the right functionality as needed. There’s a simple app for sketching out concepts in 2D. A direct modeling approach allows users to create and modify 3D designs intuitively by pushing and pulling on surfaces. There’s a full-blown parametric modeler, too. With Creo’s “AnyRoleApps” technology, you can use exactly the right tool for the right person at the right time.

7 Switch from app to app painlessly. A surprising number of companies use multiple design tools, each addressing different needs. Unfortunately, this often means that designers start over every time a model goes from one tool to another. But with a suite of 3D design apps, that’s changed. Now data that you create or modify in one app can be opened and used seamlessly in any other app, without recreating data.

Easier to use

8 Turn novices into 3D designers. A direct modeling app makes working in 3D significantly easier to learn. With a direct modeling approach to product design, your team can easily create and modify existing designs. Many people say direct modeling is especially intuitive for 2D users because it uses many of the same concepts and principles.



Easily create 3D solid models in Creo Parametric from 2D conceptual designs in Creo Layout files.

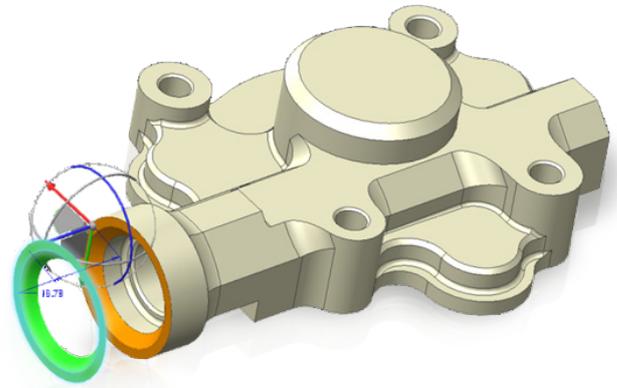
9 Work with a modern and consistent user interface. With a consistent application suite, you'll see the same intuitive, easy-to-use user interface (UI), much like the one you work with in Microsoft Office. The menu bar, ribbon, and icons remain the same no matter the app. This makes each app much easier for users to learn quickly.

Add technology when you need it

10 Adopt a small or a large 3D solution. One of the best parts of an app-based approach is that you can start small and expand whenever you like. Install just a seat of direct modeling now; add more seats later (believe us, your other designers won't want to feel left out). Add parametric modeling when you need analysis or simulations. Grow at the pace that is right for you.

Find out more

For more information on PTC's 3D CAD solution, please visit PTC.com/go/2d-3d or contact a PTC sales representative.



Quickly move geometry using the intuitive 3D Dragger.

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