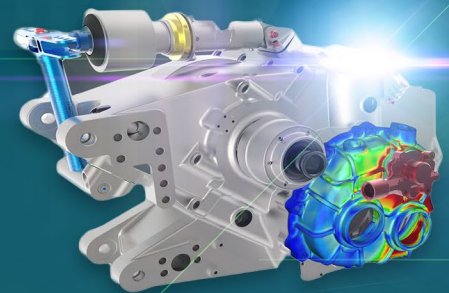# creo®

Accelerating Engineering Productivity with
EFFECTIVE TRAINING

ptc

Creo LEARN Online provides users with best-in-class training, including both self-paced and instructor-led offerings.

ARE YOU A DESIGN ENGINEER OR A CAD FIREFIGHTER?

SOME DAYS IT CAN BE HARD TO TELL.

CAD CHAOS...

Who reads Help files anymore? Your team relies on tech support or the Internet for guidance or in-the-minute advice about a CAD operation. Now other teams complain to you that they can't edit your team's models and their engineering resources are having to do model cleanup. Another supplier is asking for a meeting to resolve a few questions. So much for the data reuse that is the essential promise of CAD.

CHANGE IS HARD...

Your organization buys and puts a new CAD tool into use. It's not even lunchtime before the users and managers start listing complaints and pointing out 'what I can't do now'. They believed the tool would be plug and play and work exactly as the previous tool had. When the new tool turns out to have different workflows, surprised users say 'it doesn't work' and start to dismiss both the tool and the capabilities you worked so hard to bring in.

GETTING GOOD AT DOING IT WRONG...

A project is proceeding along smoothly – so it seems – when you finally get to the bottom of why that small bracket is taking 15 minutes to load. The engineer had an incomplete understanding of parent-child references and thus had defined the location of a hole at 15 levels of the assembly. That 'small' bracket had external references to 150 components.
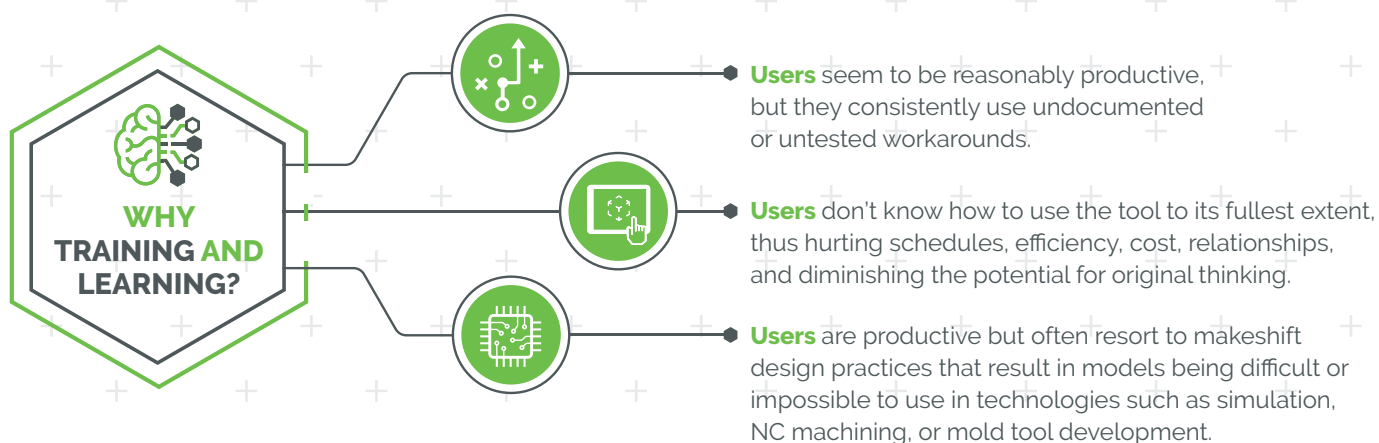
HOW DO I LEARN THAT?

Your team of design engineers will soon be working on a large sheetmetal project. A third of your engineers know sheetmetal well in a non-Creo application, two-thirds of the team needs a heavy refresh of sheetmetal in Creo, and the project starts in a week. Your team needs to develop strong sheetmetal capabilities. **HOW?**

CALM THE CHAOS WITH TRAINING AND LEARNING

Manufacturers focused on innovation – and we have yet to meet one who is not – are in the business of doing everything they can to encourage new, valuable insights. We argue that a good place to begin is to ensure that all CAD users are well trained. A productive user has the knowledge and skills needed to create geometry in the most efficient and robust manner. The insights that characterize innovation are more likely to appear when engineers are focusing on engineering, not grappling with the modeling software or discovering too late that their model isn't built well enough to make full use of advanced technologies.

WHY TRAINING AND LEARNING?

Users seem to be reasonably productive, but they consistently use undocumented or untested workarounds.

Users don't know how to use the tool to its fullest extent, thus hurting schedules, efficiency, cost, relationships, and diminishing the potential for original thinking.

Users are productive but often resort to makeshift design practices that result in models being difficult or impossible to use in technologies such as simulation, NC machining, or mold tool development.

CASE STUDY

David Thornton of Neptune first learned of the Creo LEARN Online program at a user conference. With the advent of COVID, his team purchased subscriptions to Creo LEARN Online and accessed on-demand and instructor-led classes. Those who needed to gain skills for projects, keep skills current, or learn the tool found distinct benefits.

> I would guess it's been about 25% faster to get that group skilled up on Creo solely because of our LEARN Subscription. And it's not limited to those who have a certain technical background. We have folks with both manufacturing and engineering concentrations, LEARN Online has been invaluable to both groups.

>>>>>>>>>>
Study published in January 2021.

WHAT DESIGNERS WANT FOR TRAINING

DESIGN USERS WANT:

- Practical advice and tips that they will use every day

- **Ability to get jobs done faster; spend less time modeling and more time engineering**

- Convenience: help with a mouse click instead of time spent searching through HELP files

- **Training that works with their schedule and preferences (half day vs. multi-day options)**

- Access to peer knowledge: a continual involvement with communities and peer learning

- **Training led by industry-leading experts**

- Certification to advance careers and demonstrate skills

- **Sneak peeks at upcoming capabilities delivered hassle-free**

WHAT ENGINEERING MANAGEMENT WANTS FOR TRAINING

ENGINEERING MANAGEMENT WANTS TO:

- Onboard new hires to the CAD tool and help users transition to the tool efficiently

- Ensure learning is available as part of workflow

- Meet both the needs of early-career and more experienced engineers

- Upskill users for specialized projects

- Ensure maximum data reuse – and minimize confusion and rework

- Ensure maximum convenience for users with the lowest administrative costs

- Offer users unlimited access to instructor-led classes alongside industry peers, as well as self-paced, on-demand training

- Provide certification as tangible evidence of skills learned

- Give users a sneak peek at upcoming product capabilities and enable them to experiment without needing a license

WHAT LEADERSHIP WANTS FOR TRAINING

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SENIOR LEADERS WANT TO SEE:

- ROI. Users get up to speed or upskill in a proven, structured, repeatable way

- Strategic good sense. Training on core capabilities, where users spend 60% of their time, and on advanced capabilities needed for specialized projects.

- Promulgation of good design practices to ensure efficiency and data reuse, ultimately reducing cost within and outside of the company

- Proof of learning

- New and valuable insights (innovation) that result in better products delivered to the market faster thus increasing revenue

THREE STEPS TO TAKE TOWARDS A SOLUTION

Companies who successfully meet the expectations above take three important steps – two short-term and one long-term.
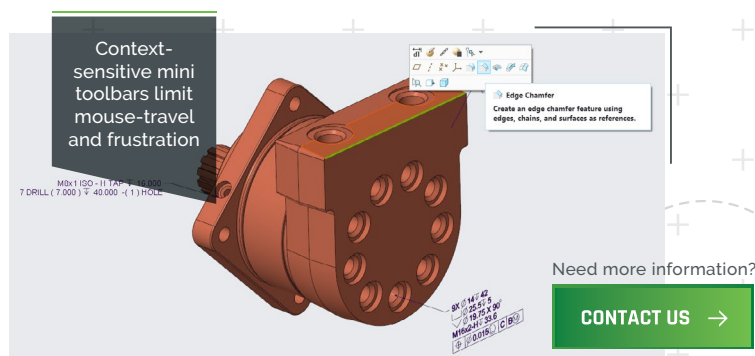
IN-TOOL PRODUCTIVITY TIPS

1

Use what you have.

The user's job is to get the work done, not take detours through HELP files or chase colleagues who may know a workaround. A well-designed CAD tool recognizes this by providing in-context productivity tips. A user should be able to access relevant operations with a click of a mouse button. This is especially helpful for designers who are transitioning from one tool to another and need just-in-time support.

Below, a small window with "edge chamfer" in it pops up when the users hovers over the chamfer tool in the mini toolbar. In this case, the user selected the edge of the part. The system concludes that the user might want to apply a chamfer to that edge, so it's offered as a possible action in the mini toolbar, along with other actions relevant for that selection.

Context-sensitive mini toolbars limit mouse-travel and frustration

Edge Chamfer
Create an edge chamfer feature using edges, chains, and surfaces as references.

Need more information?

CONTACT US →

DO YOU KNOW WHAT YOU HAVE?

2

Know what you're entitled to.

More than once we've spoken with users who were surprised to discover a capability in a product they've owned for years. CAD administrators, or respected power users, should be sure fellow users have an easy way to find out what's in their license as well as what the ongoing enhancements are. This is especially important in subscription software.

Content such as those below, easily available for Creo, can go a long way. Click below to view.

CAPABILITY COMPARISON →

WHAT'S NEW PAGE →

VIDEO: TOP ENHANCEMENTS →

GET AN EASY WIN BY ENSURING USERS DON'T MISS THE OBVIOUS.

For example, the following capabilities are in every seat of Creo. Do your users know about and use them?

MODEL ANIMATION

BASIC FREEFORM SURFACING (SUBDIVISIONAL MODELING)

DIRECT GEOMETRY EDITING TOOLS

MECHANISM DESIGN

STRUCTURED VIRTUAL LEARNING STRATEGY

3

Adopt a structured virtual learning strategy.

Gone are the days when companies anted up funds for training in far-off hotel conference rooms. Today's users want access to structured virtual learning. This is a longer-term solution that delivers the flexible, collaborative experience users want with the verifiable results at an attractive cost that engineering management and upper leadership need. Creo LEARN Online provides them with best-in-class training, including both self-paced and instructor-led offerings.

CREO LEARN ONLINE

Creo LEARN Online originates in PTC University, the professional product training division of PTC. PTC University has decades of best-in-class training experience and employs a staff of full-time technical trainers, instructional designers, and system support specialists. These professionals are industry leaders and are true PTC product experts.

A Creo LEARN Online Subscription offers two-year access to:

39 Half-day instructor-led, interactive classes scheduled multiple days and times a week*

9+ E-learning (self-paced) classes

2 Certification exams

✶ Unlimited access to take and to repeat classes   ✶ Virtual lab environment for each student

INSTRUCTOR-LED

PTC University schedules sessions frequently in all time zones and intentionally keeps class size small to allow each student to engage with the instructor and collaborate with peers. Each student has his or her own virtual lab environment. Three-hour classes cover such areas as Fundamentals of Analysis or Creating Harnesses and Routing Cables. Students are free to repeat classes as many times as they wish.

eLEARNING

Self-paced eLearning means just that, a learning option for students who value autonomy and need a basic orientation to the Creo interface and major groups of functionalities. Representative topics include: Basics of modeling; Basics of surface modeling; and Basics of assemblies.

CERTIFICATION

A certification answers the common, if cynical, question: why should I believe that you have the skills you say you do? A PTC University certification is PTC's professional assurance that users have proven their expertise.

There are two levels of certification provided by PTC University: The Fundamentals path covers content from the foundational courses outlined in the Creo Training Catalog whereas the Professional certification is more in-depth and covers content from the entire catalog.

Earning certification gives users the satisfaction of:

» Improving both their professional skills and the speed at which they can execute
» Having their resume stand out in a crowded field
» Gaining respect from their peers at their job and in the industry

CONCLUSION

Your product designers should be focusing their attention on product design and engineering. Would you prefer they spent that time trying to figure out for themselves the best CAD workflows and modeling approaches? Of course not! You can't guarantee innovation, but you can set up circumstances where innovation is more likely to occur. Stack the odds in your favor by prioritizing the development of a solid training and learning strategy.
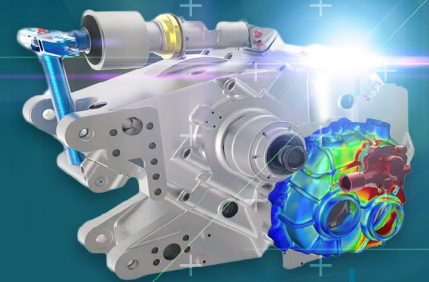
creo® | learn

Accelerating Engineering Productivity with
EFFECTIVE TRAINING

creo®

Creo is the 3D CAD solution that helps you accelerate product innovation so you can build better products faster. Easy-to-learn Creo seamlessly takes you from the earliest phases of product design to manufacturing and beyond. You can combine powerful, proven functionality with new technologies such as generative design, augmented reality, real-time simulation, additive manufacturing and the IoT, to iterate faster, reduce costs and improve product quality. The world of product development moves quickly, and only Creo delivers the transformative tools you need to build competitive advantage and gain market share.

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