creo®

CREO GENERATIVE TOPOLOGY OPTIMIZATION EXTENSION (GTO)

You need to design and develop new, innovative products that appeal to customers and meet performance objectives. How much time and money will that take you? How will you get the best ideas? How will you optimize them for your chosen manufacturing methods?

Deliver your best designs in less time with AI-driven Creo Generative Topology Optimization (GTO).

Generative design autonomously creates optimal designs from a set of system design requirements you specify. The result? A manufacture-ready design that you can use as the final design or choose to adapt.

GTO works within the Creo design environment to turn your ideas into reality easily, define your geometry, functional objectives, physics, materials and manufacturing processes. Your optimized designs are quickly generated to meet your requirements and converted into rich B-rep geometry so you can enjoy an uninterrupted parametric workflow.

FEATURES

- Ease-to-use and fully integrated into Creo Parametric's familiar design environment, familiar UI ribbon with context-sensitive menus and streamlined workflow.
- Seamless set-up. Simply select design spaces, add your loads and constraints, define your objectives, materials, and manufacturing processes.
- Quick generation of your designs using a powerful AI-driven optimization engine.
- Support for common manufacturing requirements, from traditional to additive manufacturing.
- Ability to preview and interrogate optimized design along with simulation results
- Interactive process where results dynamically update with edits to geometry and setup.
- Automatic reconstruction of optimized results to rich B-rep geometry or tessellated model.
- Structural, Modal, and Thermal analysis.*

BENEFITS

- Create innovative, differentiated products
- Explore more options in less time
- Reduce time to market and product costs
- Optimize product designs for efficiency and manufacturability

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Simple Set-up

Easily set up the optimization by defining the design space, physics, loads and constraints, goals, manufacturing process and materials

Optimization preview

A converged solution that leverages a parting line constraint to support a casting manufacturing process

Manufacturable Results

Final component in the full assembly for a motorcycle

Creo is a 3D CAD solution that helps you build better products faster by accelerating product innovation, reusing the best of your design and replacing assumptions with facts. Go from the earliest phases of product design to a smart, connected product with Creo. And with cloud-based augmented reality in each seat of Creo, you can collaborate with anyone, instantly at any step in the product development process. In the fast-changing world of the Industrial IoT, no other company can get you to substantial value as quickly and effectively as PTC.

*Modal and Thermal available in Creo 7.0.2.0

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