Creo Topology Optimization Extension

Automatically optimize your design for shape and material usage

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? Where will you get new ideas?

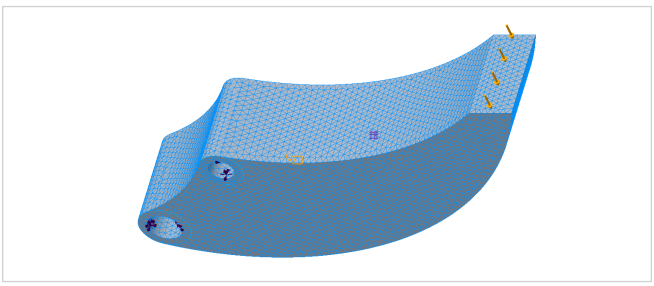
With Creo Topology Optimization, you set design criteria, goals, and objectives, and then let the software take over. The result is parametric CAD geometry that satisfies your conditions. No more spending hours, days or weeks recreating optimized 'dumb' geometry. Moreover, you're no longer constrained by 'carry-over' geometry, established practices, or the risk of over-engineering products.

Creo Topology Optimization automates the design process using advanced shape optimization technology to solve for design criteria, goals, and objectives. The software uses analysis to engineer the optimal design while taking into consideration optional fabrication constraints. You don't have to figure out the best approach. The software does it for you.

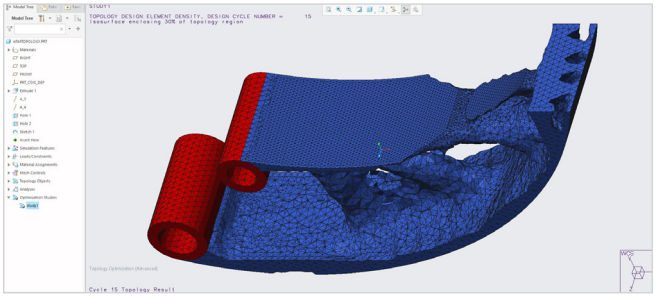
Now you can focus on speeding time-to-market, cutting costs, accelerating new product introductions, and increasing innovation.

Features and Benefits

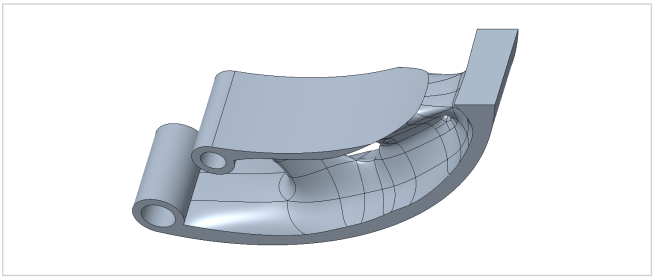
- Ease-of-use, including the familiar Creo UI and workflow
- Fast optimization set-up
- Rapidly convert topology optimization results into rich CAD data
- Define manufacturing constraints for additive as well as traditional manufacturing process
- Structural, modal, and thermal analysis



The Topology Optimization basic workflow includes: define regions, loads and constraints, mesh the part, then run the optimization



The standard faceted output of the Topology Optimization can be displayed at the end of the process or at any time during the run cycle.



The standard output of the Topology Optimization can be converted to a solid model in the form of a Creo freestyle feature. STL format is another option.

Choose between two Topology Optimization extensions:

	Creo Topology Optimization	Creo Topology Optimization Plus
Fabrication Constraints	• Symmetry • Cyclic Symmetry • Extrusion • Filling	• Symmetry • Cyclic Symmetry • Extrusion • Filling • Stamping • Uniform • Filling Symmetrically • Radial Filling • Radial Spokes • Periodic
Number of Analyses	3*	Unlimited
Analysis Type	Structural Modal	Structural Modal Thermal

* Limit of 3 analyses that can be applied to a Design Objective or Design Constraint.

Key benefits

Creo is a 3D CAD solution that helps you build better products faster by accelerating product innovation, reusing the very best of your designs and replacing assumptions with facts. Go from the earliest phases of product design to a smart, connected product with Creo. Add augmented reality to allow everyone to visualize your design. In the fast-changing world of the Industrial IoT, no other company can get you to the substantial value as quickly and effectively as PTC.

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