

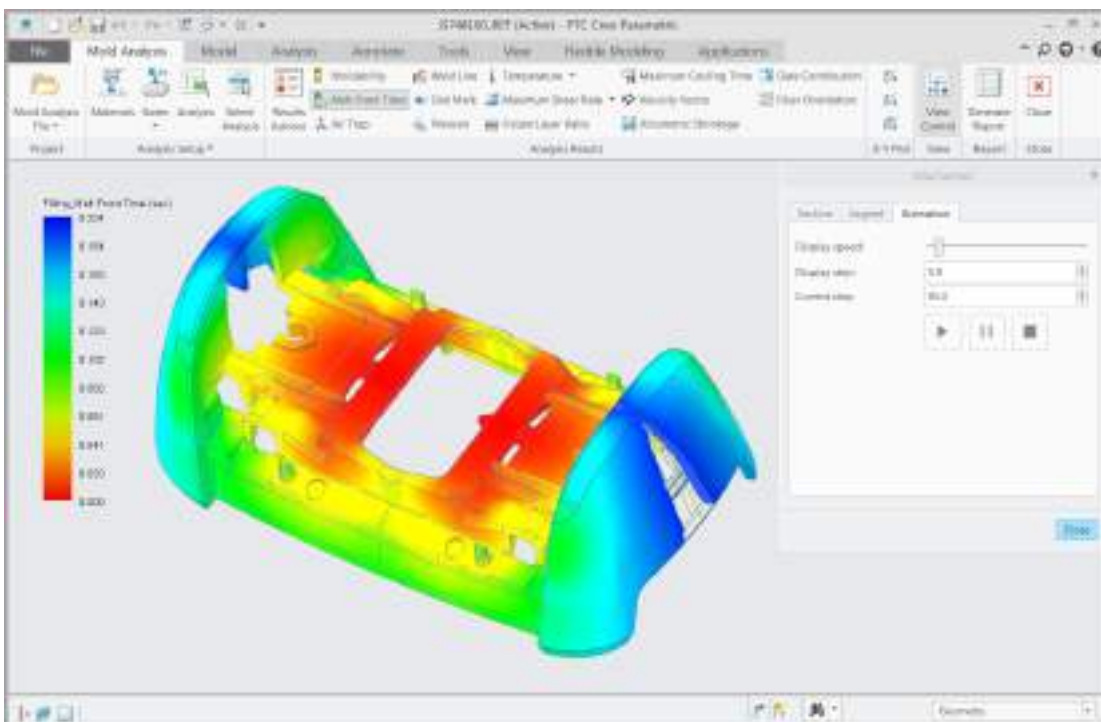
# Creo® Mold Analysis Extension

IMPROVE PLASTIC MOLD DESIGN

The Creo Mold Analysis Extension allows users to quickly and accurately simulate the injection molding of plastic parts within Creo Parametric™. This tool allows designers to identify potential problems, optimize designs, and improve the manufacturability of their products.

Plastic part designers need immediate access to reliable and easy-to-understand analysis data to gain insights into manufacturability and to optimize part design. Failure to do so can result in costly mold reworks, excess material usage, mold debugging trials, and increased time to market for final products. The Creo Mold Analysis Extension allows users to quickly and accurately analyze and optimize designs that are manufactured by injection molding.

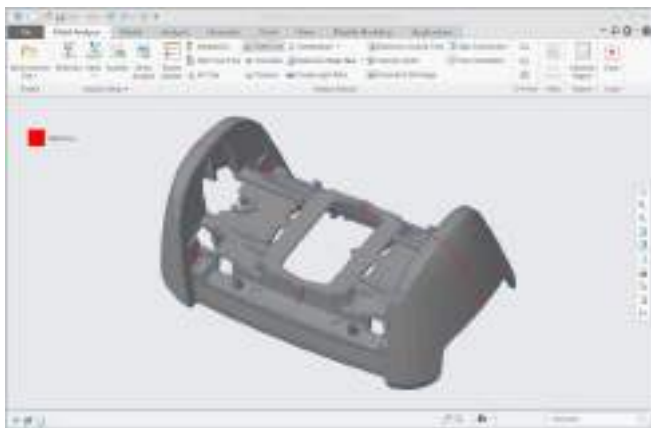
The capabilities within the Creo Mold Analysis Extension give analysts and designers deep insight into plastic flow behaviors. This powerful tool gives users the ability to run injection molding analyses for design verification and optimization within Creo Parametric, resulting in reduced mold re-engineering costs and late-cycle design changes.



Simulate injection molding process with the Creo Mold Analysis Extension.

### Key benefits

- Identify potential mold filling problems such as short shots, air traps, weld lines
- Improve design quality, reduce manufacturing cycle times and rework of molds
- Identify optimal injection locations to reduce cycle time and improve product appearance
- Easily usable by a non-specialist without extensive knowledge of plastic analysis
- Easily optimize molding conditions via design study with multiple analyses. Batch run is supported
- Embedded within Creo Parametric:
  - Easy-to-use interface
  - No data translation between CAD, CAM, and CAE

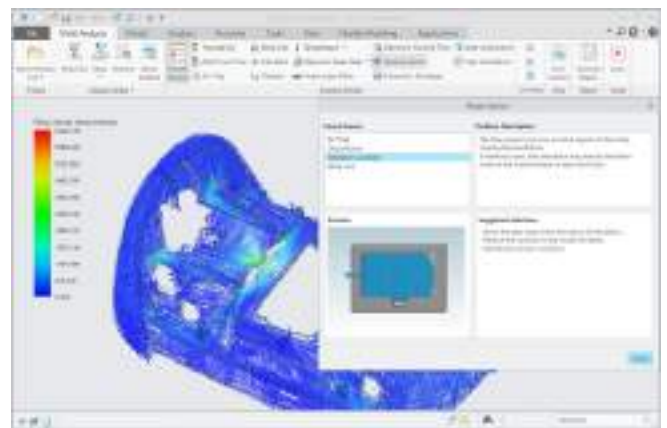


Users can identify potential mold filling problems such as weld lines and air traps.

### Capabilities and specifications

- Intuitive, process-driven user interface embedded within Creo Parametric
- Animation for the plastic injection fill process
- Comprehensive database of common plastic materials
- Automatically apply optimized process conditions according to the selected plastic material
- Identifies optimal injection gate locations

- Appropriate resolution for potential issues including: short shots, air traps, weld lines, hesitations
- True 3D solid solver which provides more accurate results compared to 2.5D technology
- Extensive analysis capabilities:
  - Melt Front Time
  - Air Trap
  - Weld Line
  - Sink Mark
  - Fill Pressure
  - Temperature
  - Center Temperature
  - Bulk Temperature
  - Moldability (Confidence of Fill)
  - Velocity Vector
  - Max. cooling Time
  - Max. Shear Rate
  - Max. Shear Stress
  - Frozen Layer Ratio
  - Volume Shrinkage
  - Material Orientation
  - Gate Contribution
  - Fiber Orientation



The Creo Mold Analysis provides suggested resolutions for commonly found issues.

Capabilities	Creo Parametric	Creo Mold Analysis Extension
Material Library	10	~6500
Gate Number	1	Multiple
Mesh Size Control		✓
Suggested Molding Conditions	✓	✓
Melt Front Time	✓	✓
Air Trap		✓
Weld Line		✓
Material Orientation		✓
Moldability (Confidence of Fill)		✓
Fill Pressure		✓
Temperature		✓
Bulk Temperature		✓
Central Temperature		✓
Velocity Vector		✓
Max. Shear Stress		✓
Max. Shear Rate		✓
Frozen Layer Ratio		✓
Volume Shrinkage		✓
XY Curve (Sprue Pressure, Clamp Force, Flow Rate)		✓
Gate Contribution (Gate Fill Contribution)		✓
Gate Location Adviser		✓
Cooling Time Indicator		✓
L/t Indicator		✓
Sink Mark Index		✓
Cycle Time (Estimated Cooling Time)		✓
Parallel Computation	✓	✓
Result Adviser (Analysis Results)	✓	✓
Summary & Report Generator	✓	✓

## Language support

English, German, French, Italian, Spanish, Chinese (Simplified and Traditional), Japanese, Korean, and Russian

## Platform support and system requirements

Please visit the [PTC support page](#) for the most up-to-date platform support and system requirements.

For more information, visit: [PTC.com/product/creo](https://www.ptc.com/product/creo) or contact your local sales representative.

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