Moldex3D
MOLDING INNOVATION

eDesign

Ensure your design

Validate and optimize part/mold designs with true 3D simulations

Minimize design cycle, cost and time to market

Maximize productivity and return on investment

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Pioneering Automatic 3D Technology

Moldex3D eDesign is the globally leading manufacturing simulation and visualization software that enables designers and mold makers to validate and optimize their designs of plastic parts and molds.

Its most unique features are auto 3D meshing engine and intelligent feeding and cooling wizards, which help users build a meshed model for part verification more easily. Moreover, accurate analysis results will assist users in checking the manufacturability, visualizing flow and thermal properties, optimizing process conditions, and troubleshooting if defects are predicted.

eDesign Basic Package

Compact molding solutions enable a filling analysis for quick part verification

- 3D multi-gate filling simulation
- Analyses for multiple cavities, flow balance, etc.

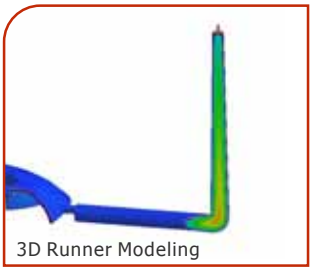
eDesign Package

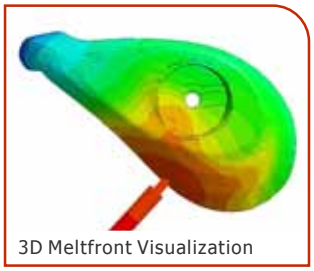
Advanced molding solutions help tackle complex injection molded parts

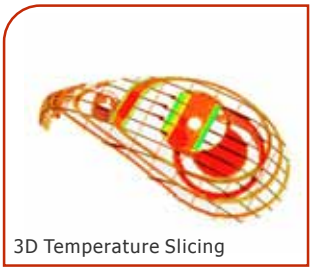
- Complete 3D molding simulations
- Support best-in-industry Solution Add-ons

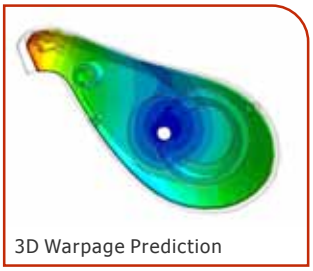
Features

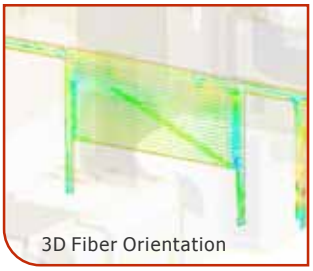
- Automatic 3D meshing engine
- Easy-to-use rapid modeling capabilities
- Support various types of gates and runners
- User-defined PPT, PDF, and HTML report generator
- Support complete Moldex3D material databank


3D Runner Modeling

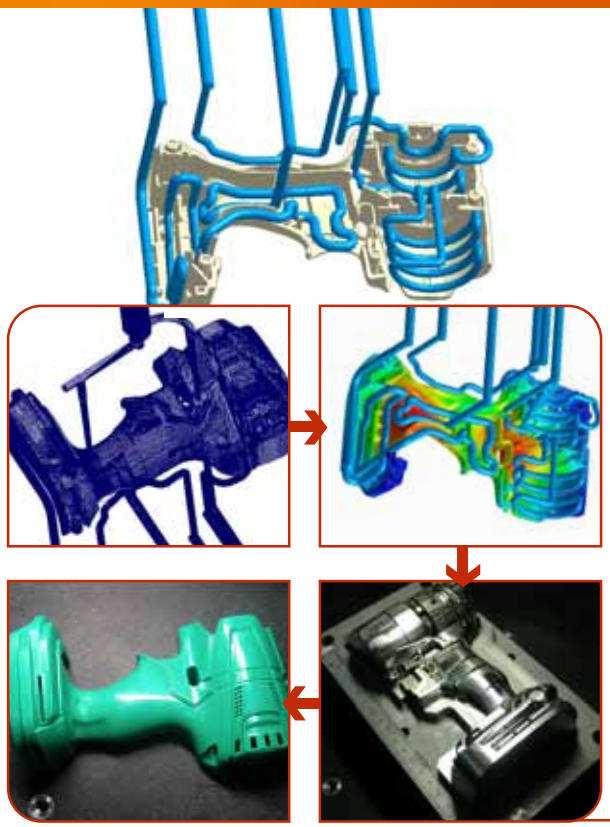

3D Meltfront Visualization


3D Temperature Slicing


3D Warpage Prediction


3D Fiber Orientation


3D Pressure Iso-Surface Display



Stay Agile with Model Creation

The pre-processor, Designer, offers an interactive user-oriented interface, more friendly and more efficient for users to automatically generate 3D meshes. Its auto wizards guide users to create sprues, gates, runners, cooling channels, and moldbase step by step; all geometrical features can be well described without making additional efforts on model shape and layout.

- Auto mesh generating capability
- Easy-to-navigate user interface
- Support gate, runner, and cooling wizards
- Advise appropriate gate locations
- Automatically detect and use the multi-core capability

Simulation Drives Product Innovation

Companies nowadays are facing with similar manufacturing challenges: productivity performance and defective rate, cost reduction, time to market, market demands for various products in fit, form, and function, etc. Moldex3D eDesign helps these companies tackle significant issues and decide solutions more efficiently; 85% of common manufacturing problems can be predicted and solved upfront.

Moldex3D eDesign also supports advanced molding solutions for more complicated or process-oriented issues.

Fiber

- Visualize fiber orientation for short and long fiber-reinforced plastics
- Evaluate the effects on product quality

Advanced Hot Runner

- Visualize temperature distribution of runners and moldbase
- Optimize hot runner system designs

Stress

- Evaluate the structure quality of parts and part inserts
- Predict potential breakage or deformation

Viscoelasticity

- Evaluate the effects on molecular orientation and residual stress
- Predict viscosity and elasticity variations of plastics under different temperature conditions

FEA Interface

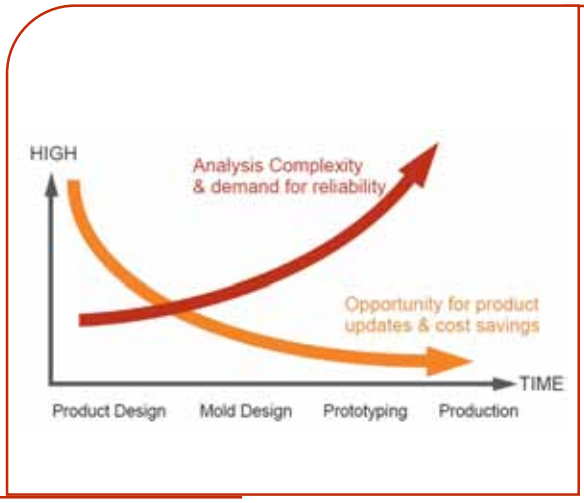
- Integrated with leading structural software, such as ANSYS, ABAQUS, LS-DYNA, etc.
- Calculate process-induced properties and evaluate structural performance

Powder Injection Molding

- Visualize the molding process of metal parts with high precision sizes or complex features
- Predict potential molding defects

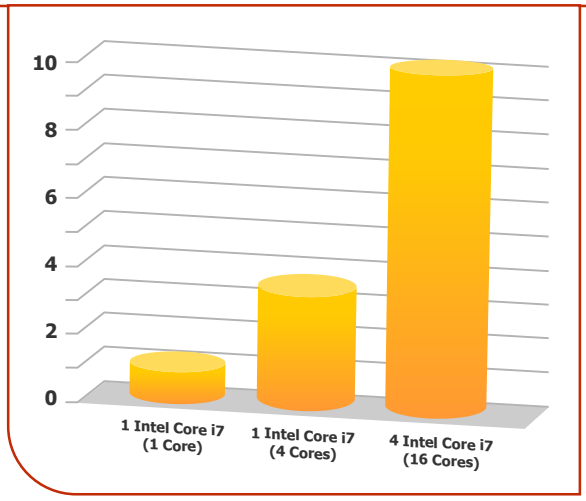
Easy Access to Greater Competitiveness

3D computer-aid-engineering (CAE) simulation is cost effective, energy saving, and reliable. Moldex3D eDesign enables part designers and mold makers to achieve design expectation and overcome manufacturing challenges. With Moldex3D eDesign, quick and accurate design verification becomes feasible and accessible.



Stay Ahead with Enhanced Speed

All Moldex3D solvers support multi-core and multi-CPU parallel processing, which can be applied locally at desktop or remotely on a computing cluster. It highly shortens simulation time and enhances computation accuracy.



Product Features

Module Capabilities	eDesign Basic	eDesign
Standard Injection Molding		
Designer*	YES	YES
Flow*	YES	YES
Pack*		YES
Cool*		YES
Warp*		YES
Multiple Component Molding (MCM)*		YES
Project*	YES	YES
Parallel Processing*	x4	x4
Solution Add-on		
CAD Interoperability		
eDesignSYNC (for Creo, NX, SolidWorks)	Optional	Optional
CADdocotor*	Optional	Optional
Fiber Reinforced Plastics		
Fiber*	Optional	Optional
Stress*		Optional
FEA Interface*		Optional
Digimat Interface		
DOE Optimization		
Expert*		Optional
Special Molding Process		
Advanced Hot Runner		Optional
Viscoelasticity (VE)		Optional
Powder Injection Molding (PIM)	Optional	Optional

A module marked with an arterisk (*) is also available for thermoset analysis.

System Requirements:

Platform	Windows	Microsoft Windows 8, Windows 7, Windows Vista, Server 2012, 2008, 2003
Hardware	Minimum	Intel® Core 2 Quad processor, 4 GB RAM, and at least 100 GB of free space
	Recommended	Intel® Core i7 or Intel® Xeon® processor, 16 GB RAM, and at least 200 GB of free space

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