

# 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



# **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 modeling wizards, which help users build a meshed model for part verification more easily. Moreover, accurate analysis results 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



Stress





**Advanced Hot Runner** 

FEA / Micromechanics Interface



Expert

and the

Viscoelasticity (VE)





Powder Injection Molding (PIM)

MuCell®

### **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 (PP)*	x4	x4		
Solution Add-on				
CAD Interoperability				
eDesignSYNC (for Creo, NX, SOLIDWORKS®)	Optional	Optional		
CADdocotor*	Optional	Optional		
Cooling Channel Designer (CCD)		Optional		
Fiber Reinforced Plastics				
Fiber*	er* Optional Optional			
Stress*		Optional		
FEA Interface*		Optional		
Micromechanics Interface		Optional		
DOE Optimization				
Expert*		Optional		
Special Molding Process				
Advanced Hot Runner		Optional		
3D Coolant CFD		Optional		
Viscoelasticity (VE)		Optional		
Powder Injection Molding (PIM)	owder Injection Molding (PIM) Optional Optiona			
MuCell®	MuCell® Optiona			

A module marked with an asterisk (\*) is also available for thermoset analysis. MuCell  ${\rm I\!R}$  is a registered trademark of Trexel, Inc.

### **System Requirements:**

Platform	Windows	Microsoft Windows 8.1, 8, 7, Server 2012, 2008	
Hardware Recommer	Minimum	Intel® Core i7 processor, 8 GB RAM, and at least 100 GB of free space	
	Recommended	Intel $\ensuremath{\mathbb{R}}$ Xeon $\ensuremath{\mathbb{R}}$ E5 processor, 32 GB RAM, and at least 500 GB of free space	

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