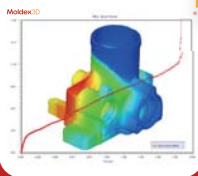


# Moldex3D



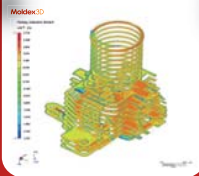
## FLOW

- Visualize 3D filling patterns
- Predict weld lines and air traps
- Predict the injection pressure
- Evaluate pressure distribution
- Evaluate temperature distribution
- Evaluate shear rate, velocity and stress
- Optimize gate location, gate size and process conditions



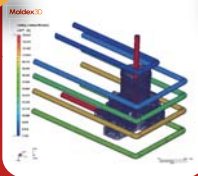
## PACK

- Visualize volumetric shrinkage areas
- Evaluate the clamping force
- Evaluate pressure distribution
- Evaluate temperature distribution
- Evaluate density and part weight
- Optimize gate freeze time
- Optimize packing time, packing pressure, VP switch, etc.



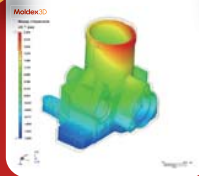
## COOL

- Visualize 3D temperature distribution
- Predict areas of hot spots
- Evaluate cooling efficiency
- Determine required cycle time
- Minimize cooling imbalance
- Generate moldbase with complex cooling channels automatically



## WARP

- Predict part shape for cavities
- Evaluate volumetric shrinkage effect
- Evaluate thermally induced residual stress
- Determine the linear shrinkage ratio
- Define an arbitrary reference plane
- Show deformation in x, y and z direction
- Export warpage shape in STL format or Moldex3D Mesh



## MCM

- Simulate insert molding, overmolding and multi-shot sequential molding processes
- Predict prolonged cooling time
- Predict part warpage
- Evaluate thermal and unsymmetrical shrinkage behaviors with different materials



## Fiber

- Visualize 3D fiber orientation for short and long fiber-reinforced plastics
- Calculate process-induced anisotropic thermo-mechanical properties

## Advanced Hot Runner

- Visualize temperature distribution of runners and moldbase
- Investigate heating coils, manifolds and hot nozzles
- Optimize the efficiency of hot runner system designs

## Viscoelasticity

- Predict the flow-induced residual stress and the variation of each stress variable
- Predict the maximum normal stress and shear stress in each point of the space
- Support various differential and integral type models

## Expert

- Use the DOE (Design of Experiment) method
- Optimize process conditions, such as packing time, mold temperature, etc.

## Stress

- Deliver stress simulations for parts and part inserts
- Evaluate the effects of boundary conditions, such as stress or displacement
- Strengthen the quality of products

## FEA Interface

- Provide interface modules that integrate with leading structural software
- Evaluate important process-induced properties, such as residual stress
- Evaluate structural performance more effectively

## System Requirements :

1. Microsoft Windows 7, Windows Vista, Windows Server 2008, Windows HPC Server 2008.
2. Intel Core i7, Intel Core2Duo, Intel Pentium, Intel Xeon, Intel EM64T, AMD Athlon or AMD Opteron Based Processor.
3. 8GB RAM or greater.

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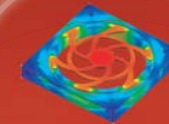
For more information, please visit [www.moldex3d.com](http://www.moldex3d.com)

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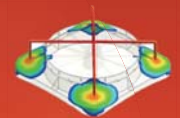
# eDesign

## 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



HIGH-SPEED  
COMPUTATION



ROBUST  
ANALYSIS ENGINE



ACCURATE &  
UNDERSTANDABLE  
RESULTS



QUICK & DIRECT  
CAD / CAE  
INTEGRATION



## Pioneering 3D Technology

Moldex3D eDesign offers designers two kinds of easy-to-use packages to validate and optimize their designs of plastic parts and molds. Its accurate simulations help users gain product insights, visualize flow and thermal properties, and optimize process conditions ahead of physical production. Moreover, its unique capabilities, such as the auto meshing engine and the interactive user interface, make users work better. Moldex3D eDesign leads companies to manufacture high-quality products, reduce development costs, shorten time-to-market, and win global competitiveness.



- **eDesign Basic Package**

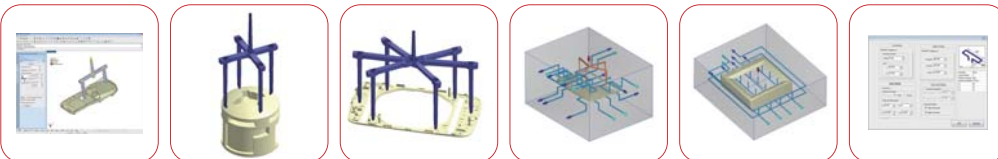
Moldex3D eDesign Basic Package is a compact solution that provides users a filling analysis for quick part verification. Designers can use the same pre-processing features as eDesign Package and check potential molding problems, such as incomplete fill, undesirable locations of weld lines, or improper wall thickness.

- **eDesign Package**

Moldex3D eDesign Package provides users complete molding solutions from filling to warpage with additional Solution Add-ons, including Fiber, Advanced Hot Runner, Viscoelasticity, Expert, Stress, and FEA Interface. These powerful solutions tackle complex injection molded parts with confidence. Designers can obtain in-depth knowledge and predict potential product defects from comprehensive analyses.

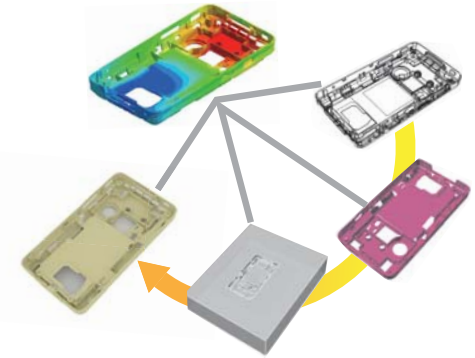
## Intelligence

The pre-processor, Designer, provides an interactive and iconic user interface for users to build their 3D models more easily. Its auto wizards guide users step by step to create necessary feeding and cooling systems, including sprues, gates, runners, cooling channels, and moldbase. Moreover, the auto meshing engine greatly simplifies the complicated mesh generating process, which allows designers to validate their designs more efficiently.



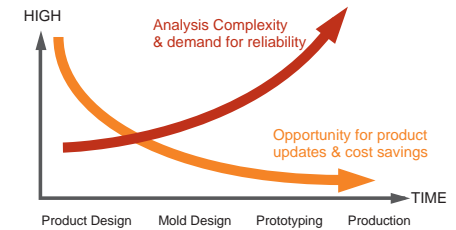
## Teamwork

Post-processing tools enable users to demonstrate molding processes and product properties with real-time contours, graphs, and animations. With its automatic report generator, Moldex3D eDesign helps users develop cross-departmental collaboration, share analysis results, and collect intelligence to do successful decision making.



## Flexibility

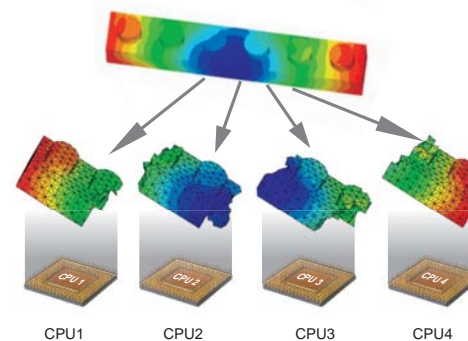
3D CAE simulations are cost effective and reliable. Moldex3D eDesign enables part and mold designers to achieve design expectation and overcome manufacturing challenges. Now, to have quick and accurate design verification becomes feasible and accessible.



## Parallel Processing

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.

### MULTI-CORE / CPU PC



### SPEED-UP RATIO

