



The Professional Plastic Injection Simulation Tool for SolidWorks



PRODUCT DETAILS:

→ Input/Output formats:

CAD: Same as SolidWorks
FEM: ABAQUS

→ Integrated Material Data Base
Built-in and User-defined

→ Result Parameters:

- Temperature distribution
- Pressure distribution
- Volume Shrinkage
- Shear Stress
- Shear Rate
- Fill Animation
- Warpage & Shrinkage Deflection
- Fiber Orientation
- Cooling Time
- Weld Lines
- Air Traps
- Sink Marks

→ Automatic Report Generation
with HTML, PPT and Word Formats.

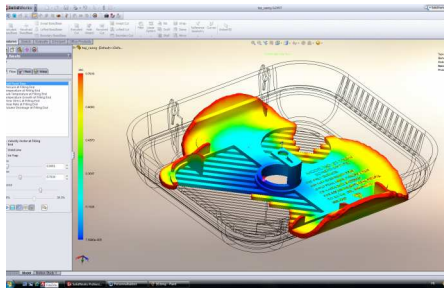
→ Integrated Surface and Volume
Meshers

→ Editor for Runner and Cooling
Channels

→ Unit System: S.I-metric and BTU

→ System Requirements:

- MS Windows XP / Vista / 7
- SolidWorks active license
- 2 GB RAM or more
- Intel Core2Duo or more
- 32 or 64 bit
- 1 GB Hard Disk
- Mouse & Keyboard
- DVD Drive

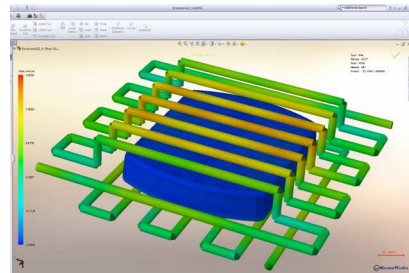
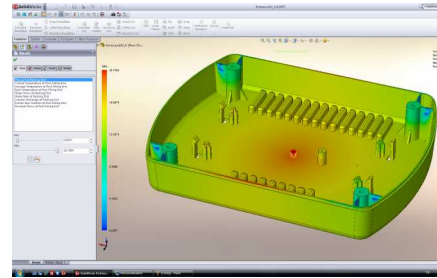


SimpoeWorks FILL

SimpoeWorks® FILL is the base plug-in package for conducting an analysis in the SolidWorks environment. You can study the flow patterns, weld lines, air traps, effect of gate positioning, runner design and distributions of pressure, temperature, etc. It contains the powerful Pre and Post-processing modules as well as shell and full 3D meshing technologies.

SimpoeWorks PACK

SimpoeWorks® PACK plug-in module conducts the analysis during the post-filling phase. The module calculates the residual stress, volumetric and linear shrinkage, and allows you to determine the optimum pressure holding time and clamping forces. Simpoeworks® PACK also indicates the locations of sink marks.

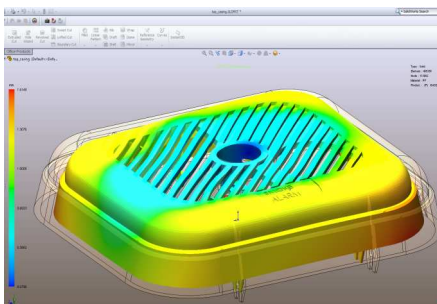


SimpoeWorks COOL

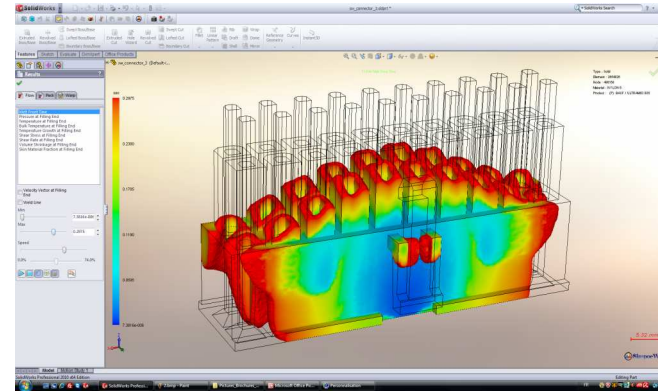
SimpoeWorks® COOL plug-in module conducts the thermal analysis. The module calculates the optimum cooling time, thermal stress, and temperature distribution. You can create your own cooling channel design and test it to determine the optimum configuration.

SimpoeWorks WARP

SimpoeWorks® WARP plug-in module is used to calculate the warpage deflection of the part. The animation of the deflection shows the deformation in all directions and also the total deflection. The visualization of deflection can depend on the residual and the thermal stress. Linear shrinkage can also be added. Simpoeworks® WARP also includes links to structural analysis, as well as export of the counter-deformed geometry for mold design optimization.



- Easy to Use & Intuitive Handling
 - Powerful & Complete Analysis Capabilities
 - Affordable Simulation for Everyone
 - Fully embedded into SolidWorks



SimpoeWorks® is a fully-featured general purpose plastic injection simulation software for:

- Fill analysis
- Pack analysis
- Cool analysis
- Warp analysis

Plastic Injection For Everyone

SimpoeWorks® is the missing link for a truly Collaborative Product Development strategy. Plastic injection simulation is, thanks to SIMPOE, now available to everyone. So if you don't have 20 years of practical experience and

don't want to rely on countless expensive prototypes then Simpoeworks is the tool for you!

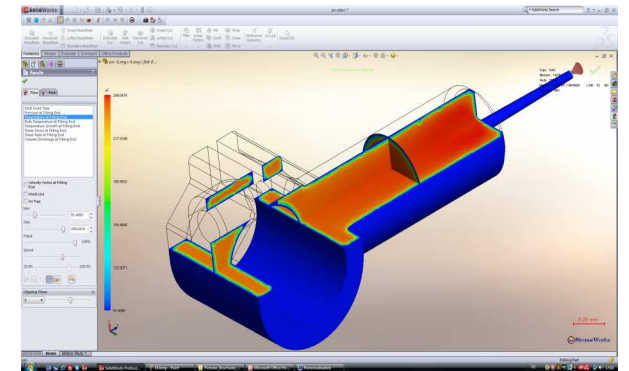
You don't have to be an expert to use Simpoeworks®. It is used in the Product Development Process by:

- Design Engineers
- Mold Makers
- Plastics Injection Manufacturers

All-in-One Package

From reading of your CAD data, to meshing, solving, and results processing, Simpoeworks® does it all. So whether you are creating an automatic mesh, setting the process conditions, or viewing the results, you never leave the SolidWorks environment.

You can also create a surface mesh for a quick and efficient thin-part analysis or a full 3-D volume mesh for the most complex parts including thick and chunky parts.

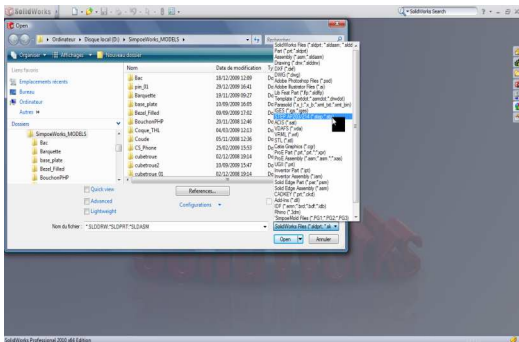


SIMPOE makes it simple

SIMPOE's Key Technologies are the warranty for unparalleled ease-of-use, accuracy, efficiency, and affordability for plastic injection simulations. Simpoeworks® is a real Add On Value to the SolidWorks Family.

The First Complete and Fully-Embedded Plastic Injection Tool for SolidWorks



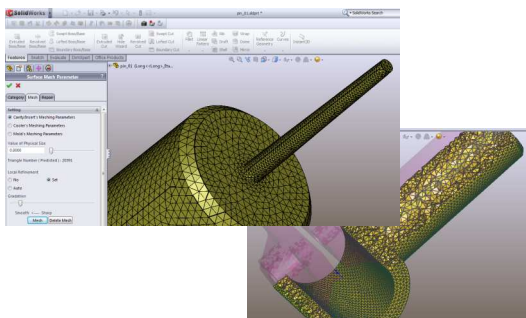


SIMPOE's Pre-Processing

SIMPOE's Pre & Post-processors form the powerful base for the whole package. Total and seamless integration to SolidWorks means that SIMPOE's geometry handling capabilities are the best in class. We can also read in all of the popular CAD-formats as well as neutral file formats such as IGES, STEP, PARASOLID, ACIS, and STL data.

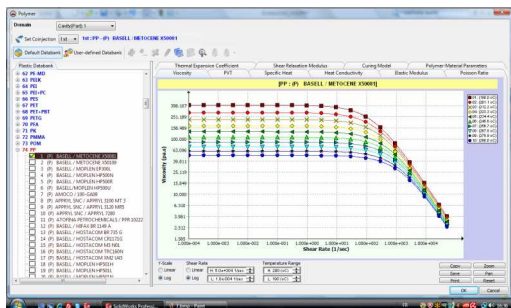
..easy but powerful..

Once your geometry is ready, SIMPOE's fast and powerful mesher will prepare it for analysis in just a few clicks of the mouse. Whether you want to use a surface mesh or 3D volume mesh, SIMPOE will do it automatically. The mesh is based on the SolidWorks geometry and refinements are made with respect to the exact surfaces and curves so the representation is very accurate. Unlike lesser softwares that lose important details in translation, we maintain the fidelity of the original model.



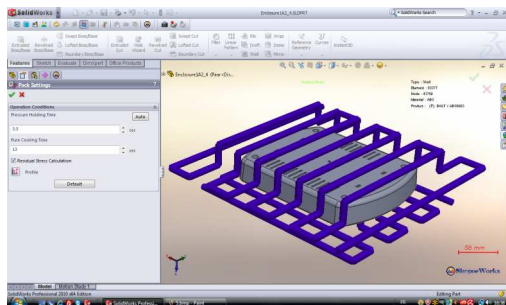
..complete and customizable..

SIMPOE's extensive built-in databank contains more than 5000 material data sets which are most commonly used in the plastic injection industry. The majority of these material sets include important PVT-data which are necessary for accurate calculations of warpage. If you would like to add your own material it's a piece of cake because our databank is fully customizable. And best of all, it's a standard feature so no need to pay for an extra module.



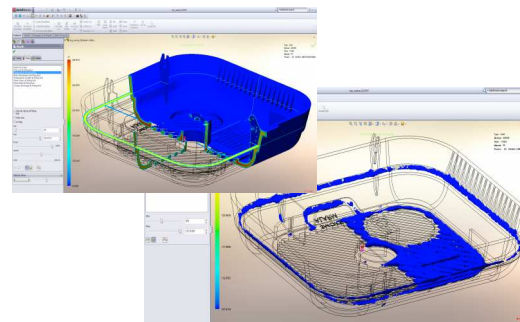
What's the next step ?

SIMPOE's intuitive Preprocessor uses a structured top-down approach. Whenever you complete a setting in a dialogue box a check mark will appear so it reminds you what has been completed and what still needs to be set. And for new users and novices there is no need to fear... SIMPOE provides a Wizard to guide you step-by-step through the entire process so you won't steer off course. It's like having your own consultant at the tip of your fingers.



..various possibilities..

The results can be viewed and analyzed in many different ways including contour plots, isolines, flow vectors and visualization of air traps and weld lines. The results can either be presented for the state of the plastic at the end of the process or coupled to the melt front. Each of the results can be animated giving you powerful insight into the flow behavior and unlocking your ideas to improve and optimize the design.

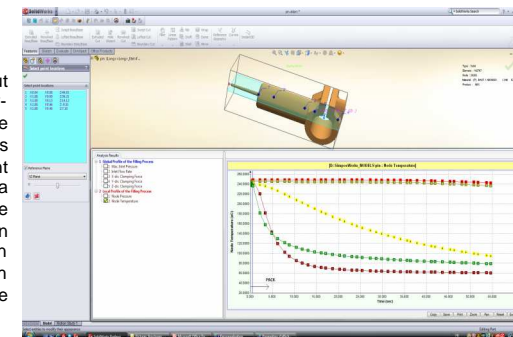


..insights to intelligence..

With our full 3D technology you can take a look inside your model using clipping planes or iso-surfaces. You can define these to suit your needs and as usual they can be animated to give you true insight into the flow dynamics. You can even make your part transparent or glasslike and watch the plastic melt flow and swell through the cavity. This feeling for the flow dynamics gives you real ability not only to identify problems but also to make intelligent decisions of how to avoid and fix them. This is simply not possible with physical testing.

SIMPOE's Flexibility

Colored pictures are nice to have but sometimes it's better to have detailed xy-data to get a more complete picture. Since SIMPOE is a Windows based software it's possible to exchange data between different products. You can define a sketch with a curve, make a projection to the native surfaces and then use the „XY-Plot“ function to plot the results in MS Excel. You can even generate a report automatically with MS Word or PowerPoint to easily collaborate with your colleagues and partners.



SIMPOE's Post-processing

With SIMPOE's Post-processor you can access all of the results without ever leaving the SolidWorks environment. Our process wizard will even show some results automatically in a „Pre evaluation“ of your simulation. Most importantly you can easily access and shuffle between a comprehensive set of results for the entire simulation process including fill, pack, cool, and warp.

