





# WHAT'S NEW IN SOLIDWORKS SIMULATION 2018: TOP TEN ENHANCEMENTS



### TOPOLOGY STUDY (SIMULATION PROFESSIONAL)

- Optimize the shape of your design based upon a target mass goals.
- Incorporate manufacturing and stiffness constraints to deliver manufacturable components.

### Benefits

Find new and innovative minimum mass solutions to your design and simulation challenges.



### FREE SURFACE FLOW (FLOW SIMULATION)

 Solve flow problems where the liquid and gas touch for example, channel, sea and river flow, tank filling, and emptying.

### Benefits

Easily solve complex flow problems to ensure product performance.

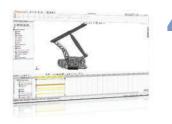


### EASY ASSEMBLY SIMULATION SETUP (SIMULATION ALL)

- Simulation setup from parts can be imported into an assembly analysis.
- Re-use complex mesh and material quickly and easily.

### **Benefits**

Accelerate assembly analysis.



• Create and analyze multi-surface pin connections easily

CONNECT THREE OR MORE SURFACES WITH THE ENHANCED PIN CONNECTOR (SIMULATION)

and with greater accuracy.

Benefits

Simplify the analysis of a common critical assembly process.

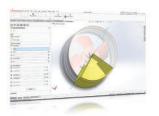


## SIMPLIFIED AND AUTOMATED MESHING WORKFLOW (PLASTICS)

 Re-designed meshing process: it is more intuitive for you to create a mesh with automatic tools with mesh controls.

### Benefits

Easy meshing tools for fast accurate results.,



### SIMPLIFY ANALYSIS DOMAIN WITH SECTOR **PERIODICY (FLOW SIMULATION)**

• Simplify the analysis and accelerate problem solutions for geometries that have rotational periodicy without sacrificing accuracy.

### **Benefits**

Accelerate and simplify flow analysis without compromising accuracy.



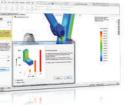


• The updated motion solver adds speed, reliability, and enhanced quality.

### **Benefits**

Enhanced quality for motion simulation.





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### TRESS SINGULARITY DETECTION

vestigate stress singularities (or hot acts areas and non re-entrant corners.

### **Benefits**

Detecting and investigating stress singularities accelerates the analysis process and speeds the design process.

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### **NEW RESULTS PLOT (PLASTICS)**

- Use the Density at End of Pack simulation result as a guideline to evaluate the effectiveness of your packing stage.
  - The Warp measure tool is enhanced to display the shrinkage amount (the distance between two reference nodes) both in terms of the absolute value (dR) and percentage value (dR[%]).

### **Benefits**

Easily understandable results predict the components 'as molded' shape.

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### **NOISE PREDICTION (FLOW)**

Flow simulation can now analyze time-dependent pressure data to predict noise values.

## **Benefits**

Calculate and mitigate operational noise.

See the full range of SOLIDWORKS software for design, simulation, technical communication, and data management at www.solidworks.com/products2018.

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