



# WHAT'S NEW IN SOLIDWORKS® 2022— SIMULATION

## **SOLIDWORKS Simulation**



### New Linkage Rod Connector

- Easily create this new Linkage Rod connector by selecting cylindrical faces, circular edges, and vertices without the need for geometry alterations.
- Use a variety of joints, cross-sections, and materials.

#### **Benefits**

Use powerful connectors for easier setup and faster simulation.

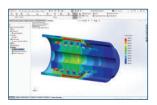


### Blended Curvature-Based Mesh Is Now the Default

- Successfully mesh bodies which didn't mesh before with the enhanced Blended Curvature-Based Mesh.
- Specify mesh controls on bodies outside the global range to reduce mesh size and expedite solution time.

#### Benefits

Save time with a more robust and efficient mesh.



## Enhanced Bonding and Contact

- Reduce the number of constraints to boost performance and accuracy for bonding and contact.
- Validate models significantly faster with the iterative solver.

#### **Benefits**

Solve models with bonding and contact considerably faster.



# Parallel Processing Extended to Most Features

- Expedite solution time with function-based stiffness data communication replacing file-based processing.
- Take advantage of extending parallel processing speedup with the iterative solver to all connectors and most features.

#### Benefits

Solve models much faster with parallel processing improvements.



#### Faster Save

- Reduce the time required to save SOLIDWORKS models when they have simulation studies.
- Observe considerably faster saving time if at least one simulation study has not been modified.

#### Benefits

Save simulation studies significantly faster.





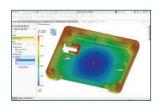
# Automatic Equation Solver Selection Extended to Nonlinear, Frequency, and Buckling Analysis

- Improve solution speed and memory usage considerably with the more accurate auto-selection of equation solver.
- Select the best solver automatically, based on the number of equations, mesh type, geometric features, contact, connectors, available memory, and more.

#### **Benefits**

Reduce solution time with built-in intelligence for solver selection.

## **SOLIDWORKS Plastics**

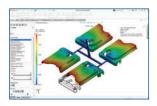


## Injection Location Adviser

• Obtain recommendations for up to four suitable injection locations as well as a preview of how the part will fill.

#### **Benefits**

Get optimal simulation results with the first simulation.



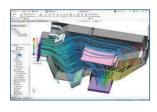
## Cyclic and Symmetric Cavity and Runner Layouts

- Create dedicated boundary conditions for cyclic and symmetric cavity and runner layouts.
- Preview the cavity and runner layouts during the modeling stage to confirm their design specifications.
- Simulate complex mold layouts by using reduced model size.

#### **Benefits**

Save time when computing complex mold layouts.

## SOLIDWORKS Flow Simulation

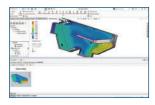


Scene Plot

- Store all your displayed plots, model orientation, zoom, and part visibility within the scene plot.
- Switch between scenes to display the plots saved in the scene and set the corresponding model display, zoom, and orientation.

#### **Benefits**

Save time when reloading results with improved postresults workflow.



## 10 Compare Merged Plots

- Merge compared plots from different projects into a single image to see critical results at a glance.
- Merge contour plots made for different design cases or power modes.
- Clearly see the difference between cases graphically displayed in the plot for improved post-results comparison.

#### Benefits

Locate critical results faster and more easily.

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