AUTODESK

What’s new in Moldflow 2026
Moldflow Summit 2025

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Behind the Scenes Updates

4 Centers of Excellence for Moldflow

2025 Moldflow Survey

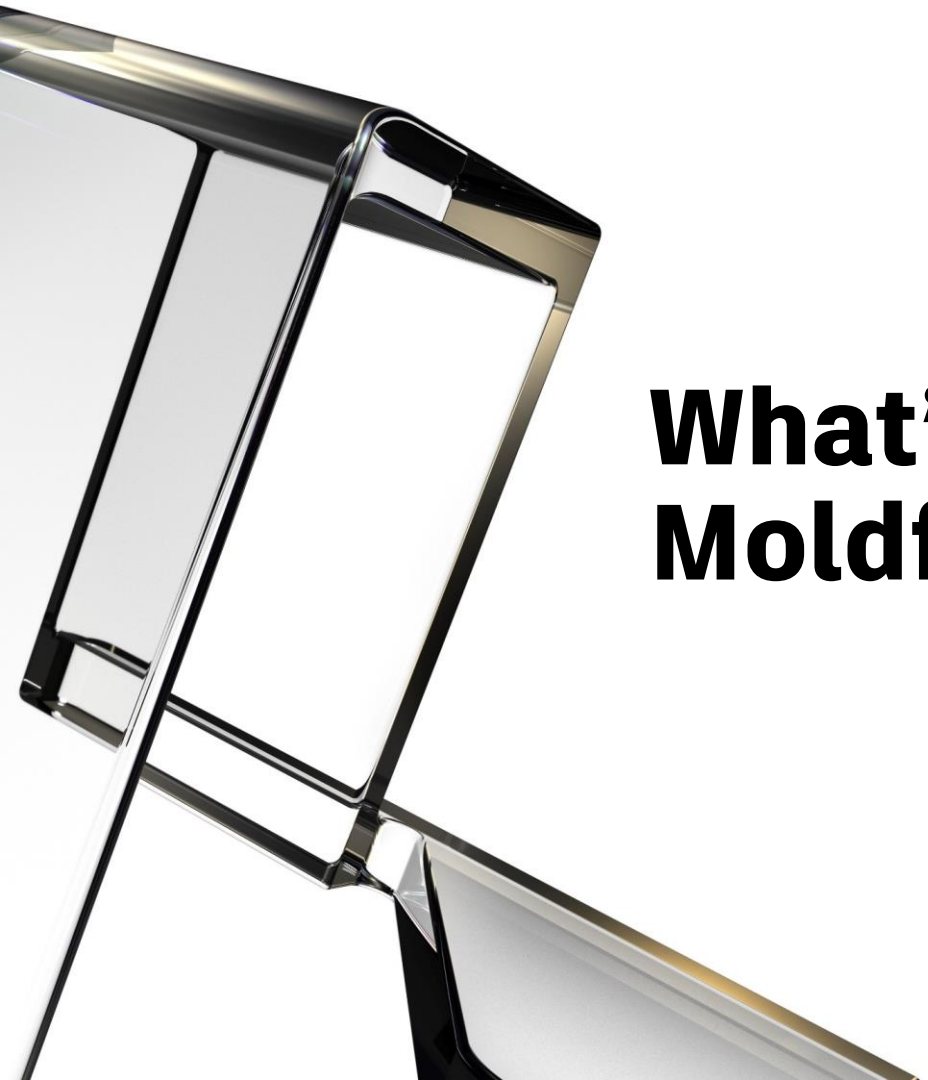
If you provided feedback in our second customer survey, we conducted at the beginning of this year: Thank you!

Valuable input on what works well & what should improve?

Areas of focus:

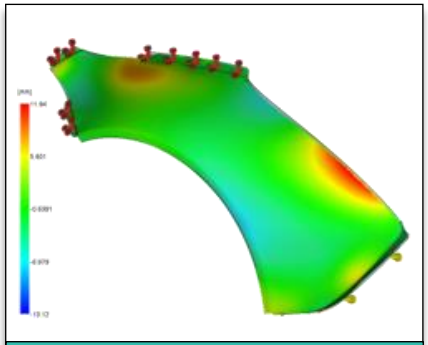
- Meshing and solve time for large models
- Synergy behavior for large models
- Increased importance of Automation

Thoughts on AI and Automation primarily aimed at making difficult and error prone work easier.



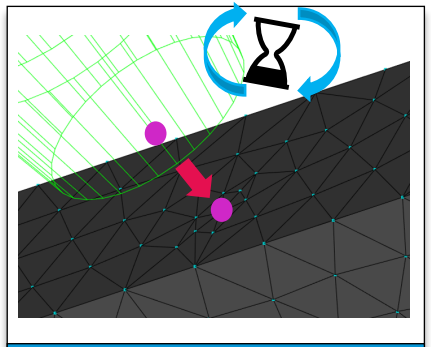
What’s new in Moldflow 2026

Moldflow 2026.0 Release overview



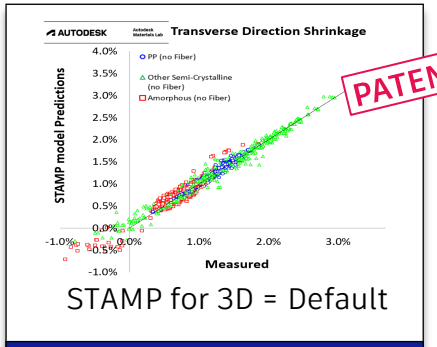
New Capabilities

- Easier to compare warpage with Scanning data
- Cool(FEM) for Resin Transfer Molding (RTM)
- Improved workflow between Moldflow and Digimat 2025.1



Productivity & Workflow

- Targeted Synergy performance improvements:
  - Merge nodes on 3D models and other modelling operations
- Modernization:
  - new .mp4 animation export
  - Archive of projects and communicator files larger than 2Gb
  - New PowerShell Command window
  - Remove old unused features
- Component upgrades:
  - Material Database update
  - New CAD model translator updates
  - SCM2.4
- Quality of life improvements and Bug fixes

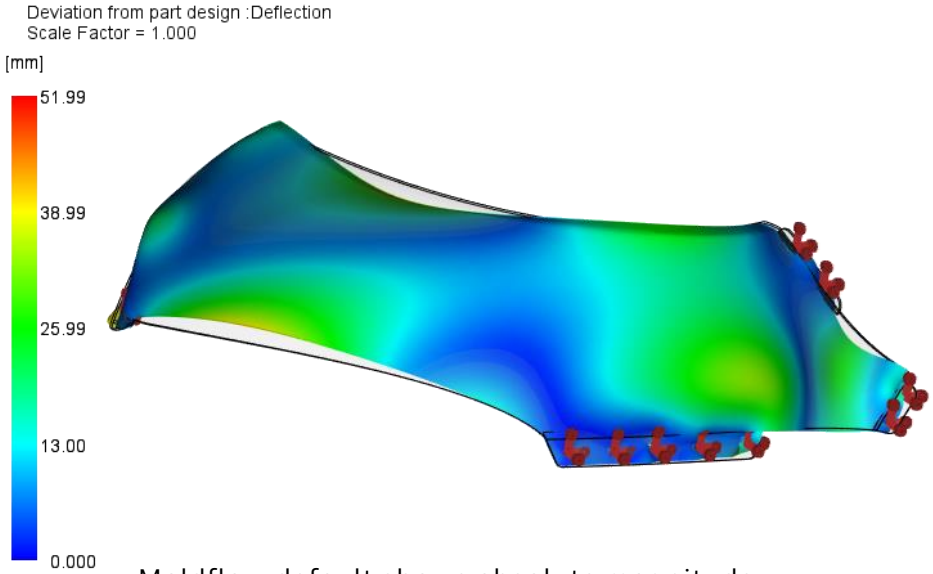


Solver Improvements

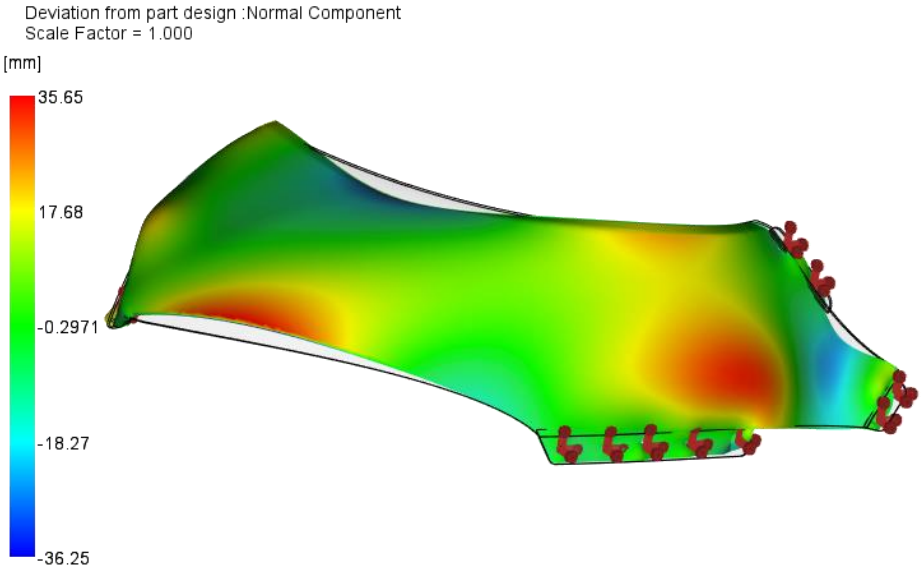
- STAMP improvements and set to default.
- Speed improvements:
  - SCM efficiency
  - Solver speed
  - Meshing speed
- Solver improvements and bug fixes:
  - MP/DD Composite Properties calculation
  - Automatic V/P switch-over (3D)
  - MP/DD barrel compressibility improvement for absolute ram speed profile
  - 3D Compression molding ‘Total Part weight’

Compare Moldflow with Laser Scanned Data

Laser scanner inspection software will report differences between design and actual I both ‘Direction’ and ‘magnitudes. This makes it difficult to compare the data.



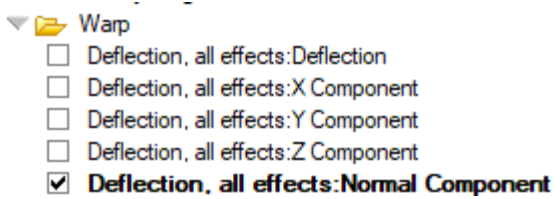
Moldflow default shows absolute magnitude



The new <u>additional</u> plot that shows both magnitude and direction following Scanner data method.

Compare Moldflow with Laser Scanned Data

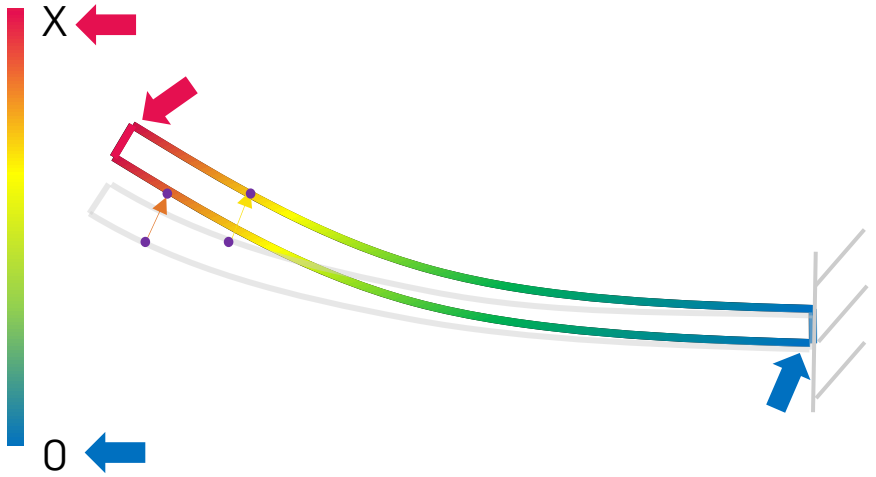
This is an additional new plot



Compare Moldflow with Laser Scanned Data

In Moldflow we compare how far the given node moves from its initial position to the warped position in absolute terms.

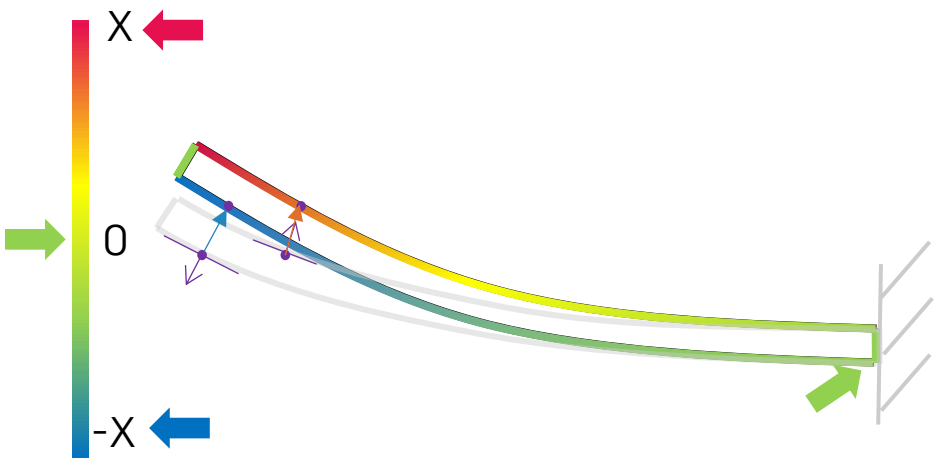
The colors show the magnitude of movement.



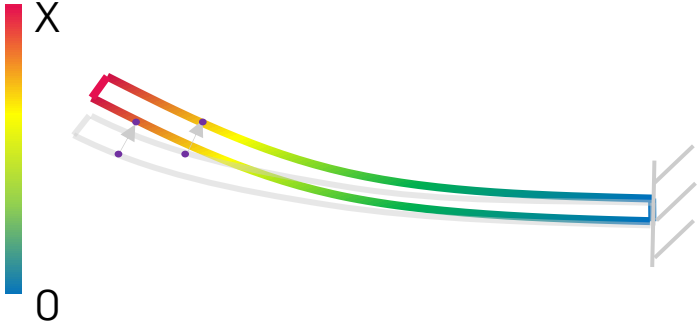
Compare Moldflow with Laser Scanned Data

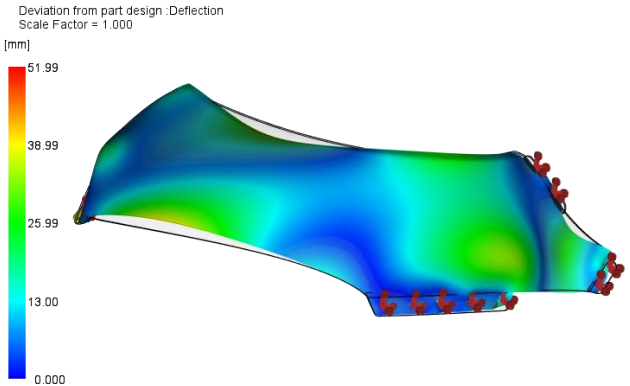
In laser scanning software provides both direction and information. To do this in Moldflow we look at the local normal of every face and calculate the movement of a node relative to the local normal direction.

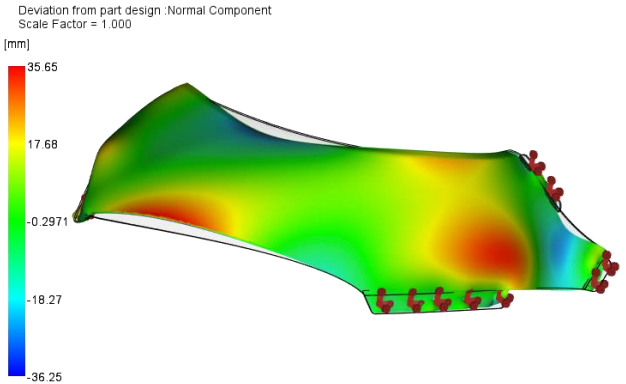
The colors show the direction AND magnitude of movement (positive and negative).



Compare Moldflow with Laser Scanned Data



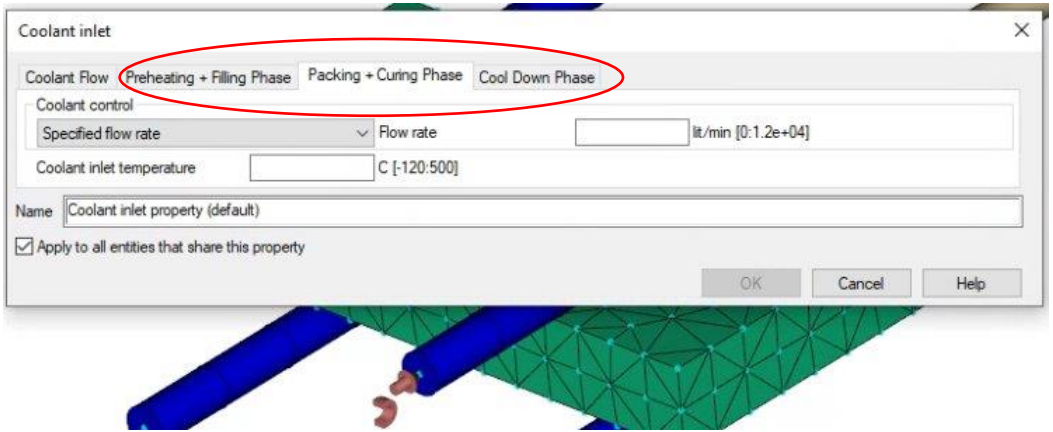


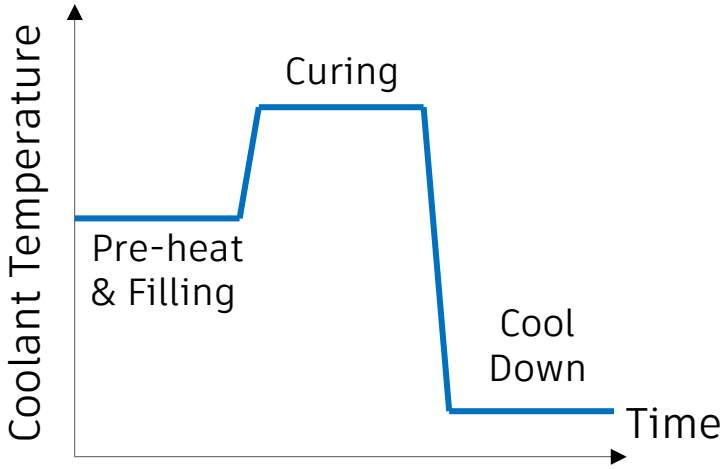


Mold Thermal Analysis for RTM (3D)

Add Cool(FEM) for the Resin Transfer Molding process in 3D

- Allow different coolant (heating fluid) temperatures during various phases of the process:

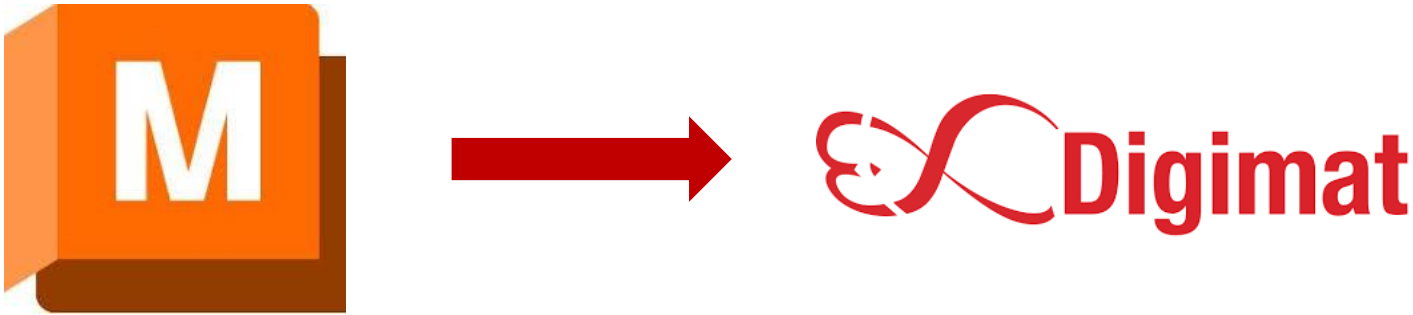




Moldflow to Digimat workflow improvement

Digimat 2025.1 can now read SDZ files exported by Moldflow. This simplifies the exchange of information between Moldflow and Digimat. The Scalaris format (.sdz) was introduced in the Moldflow 2025 release and currently contains information needed to run structural analyses with Moldflow's injection molding simulation data as input. The old methods of interfacing data between Moldflow and Digimat are still available.

- Note: Interfacing of weld line information to Digimat through the Scalaris export is not included in this release.



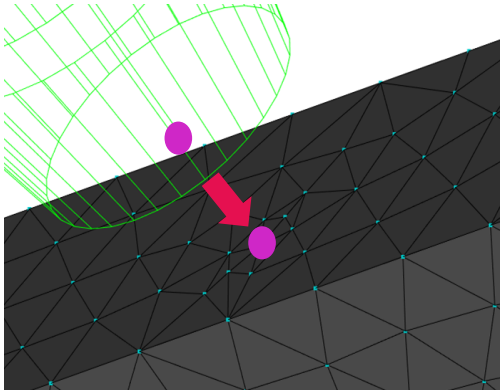
Model Operations speed improvements

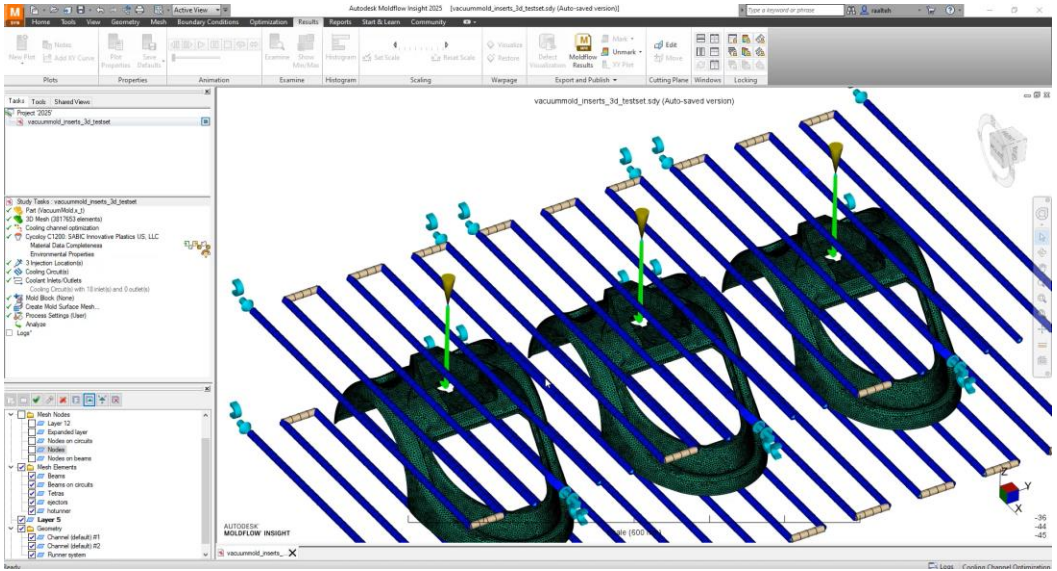
- Speed improvements for operations on 3D models like:
  - Merge nodes on 3D models (case dependent but we've seen speed up factors of 3 or more for on very large models)
  - Change elements to a different layer.
  - Delete anything to study
  - Add anything to study
  - Any mesh edit related operations.
  - Undo/Redo
- Speed up factor is bigger for large models!

Demo model introduction

Medium size tetrahedral model with around 3.8 Million tetrahedral elements.

Scenario: New cold runner is not connected to the mesh, and a ‘merge nodes’ is needed to connect the gate to the part.

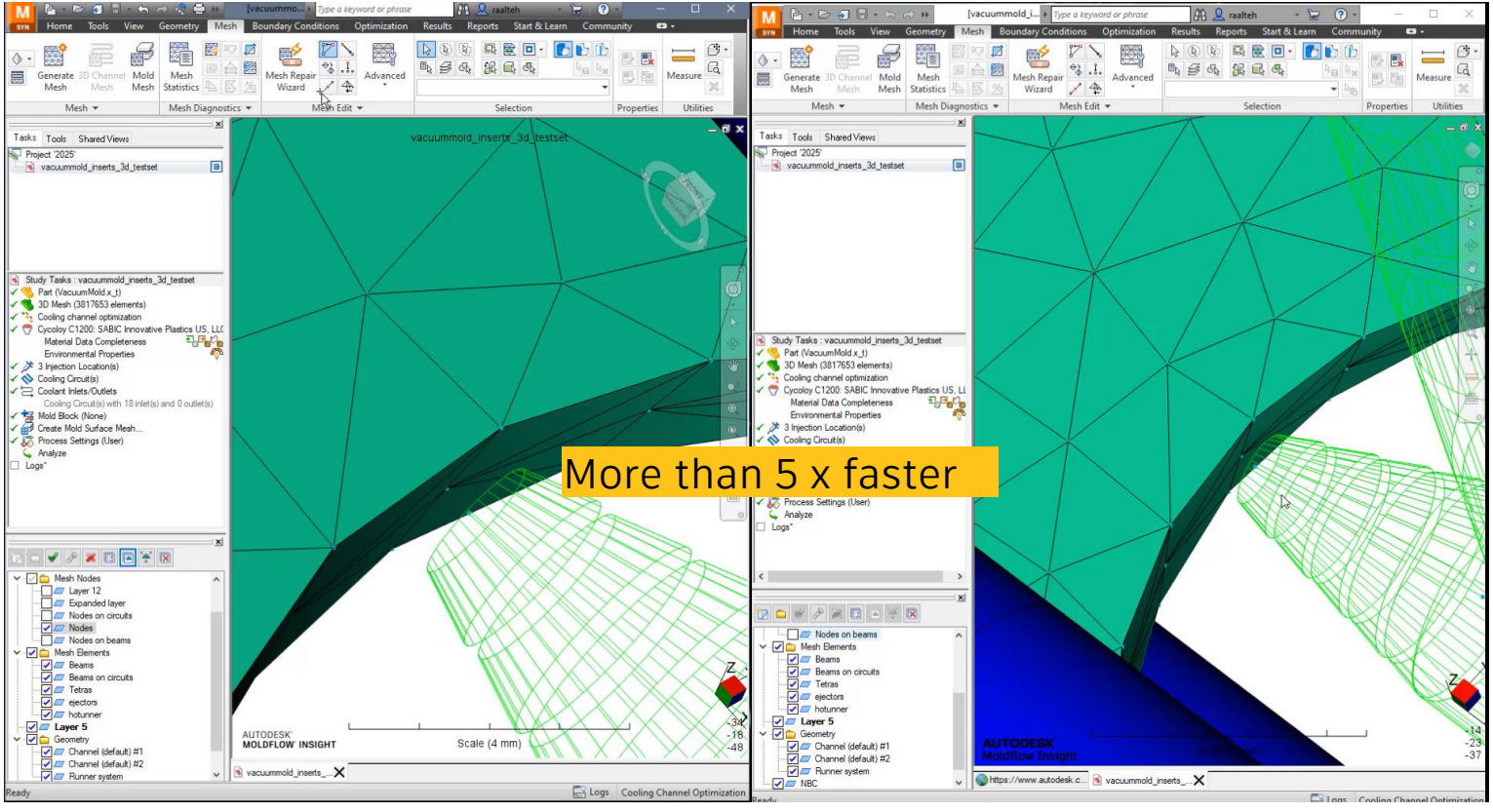




Merge nodes operation

Moldflow 2025

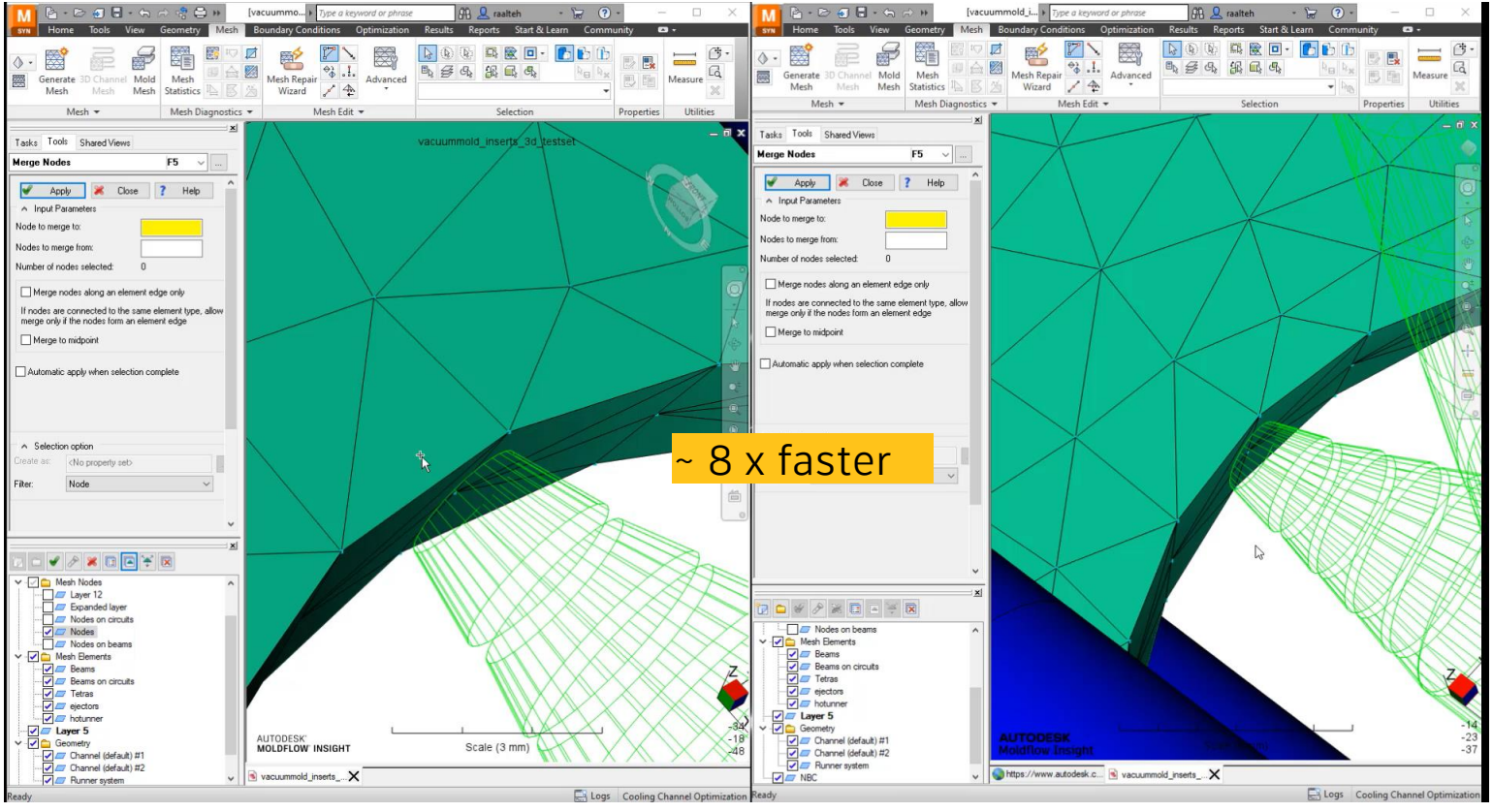
Moldflow 2026



Undo merge nodes operation

Moldflow 2025

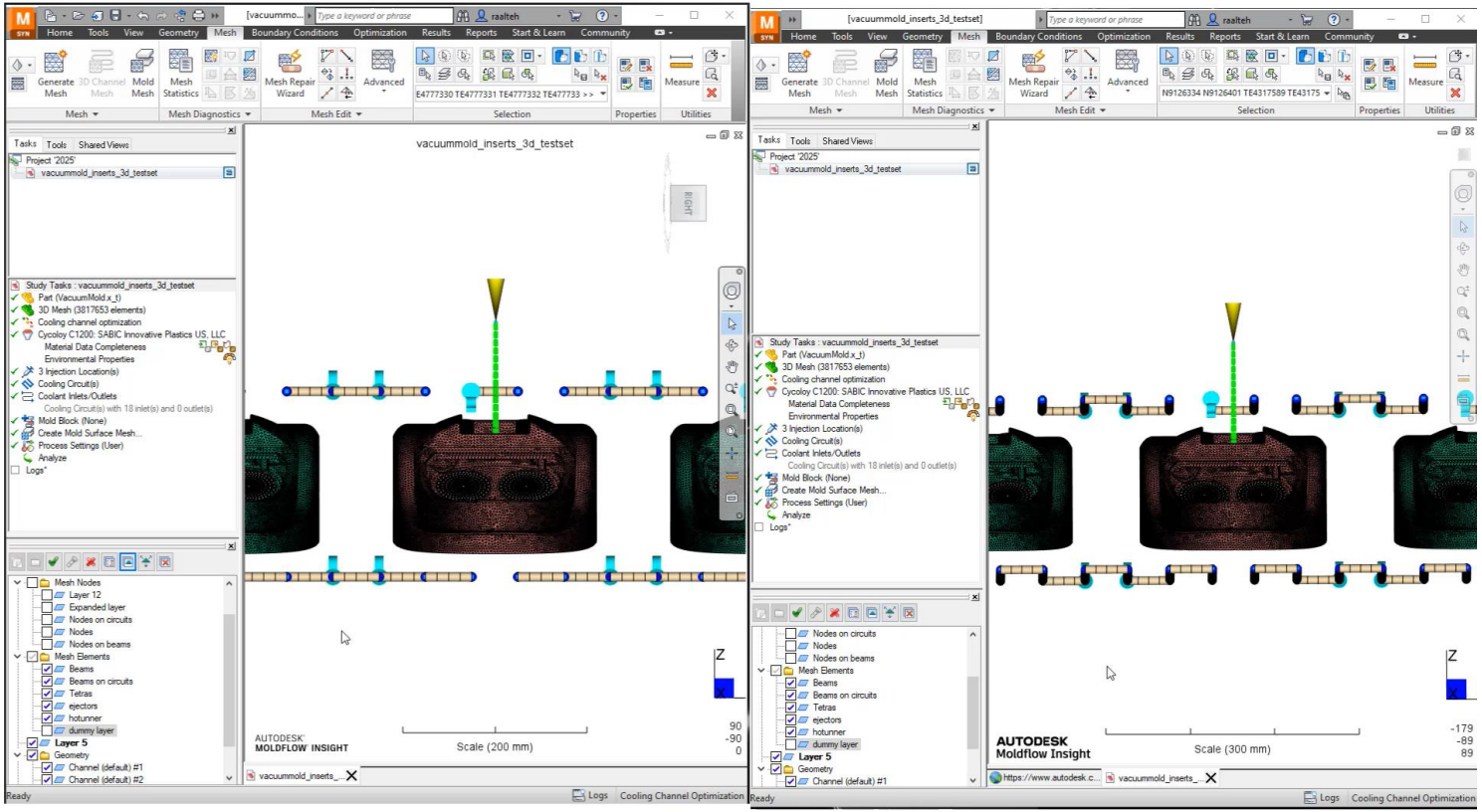
Moldflow 2026



Move elements to different layer

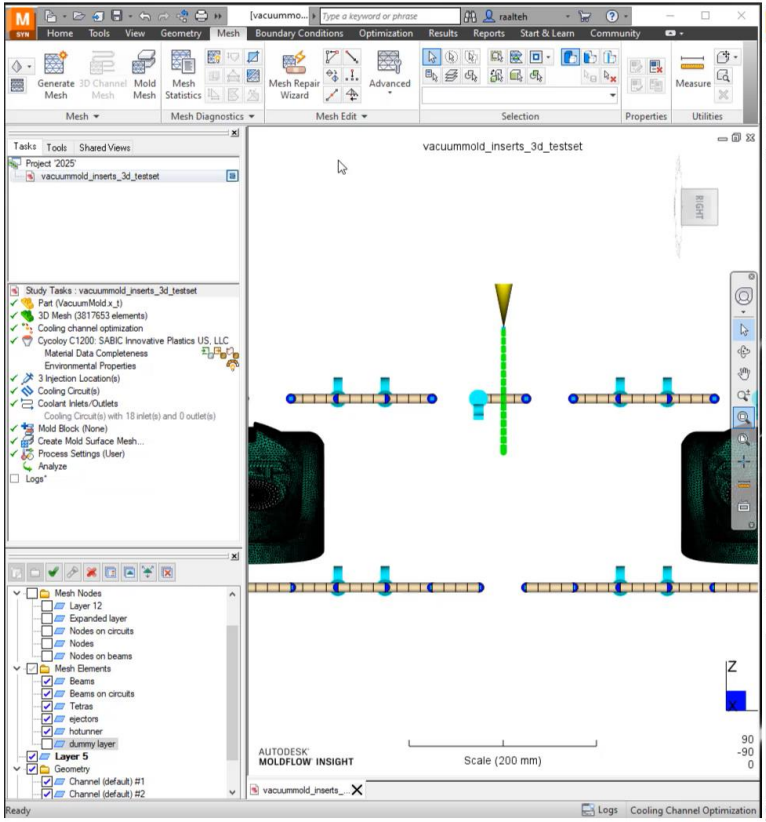
Moldflow 2025

Moldflow 2026

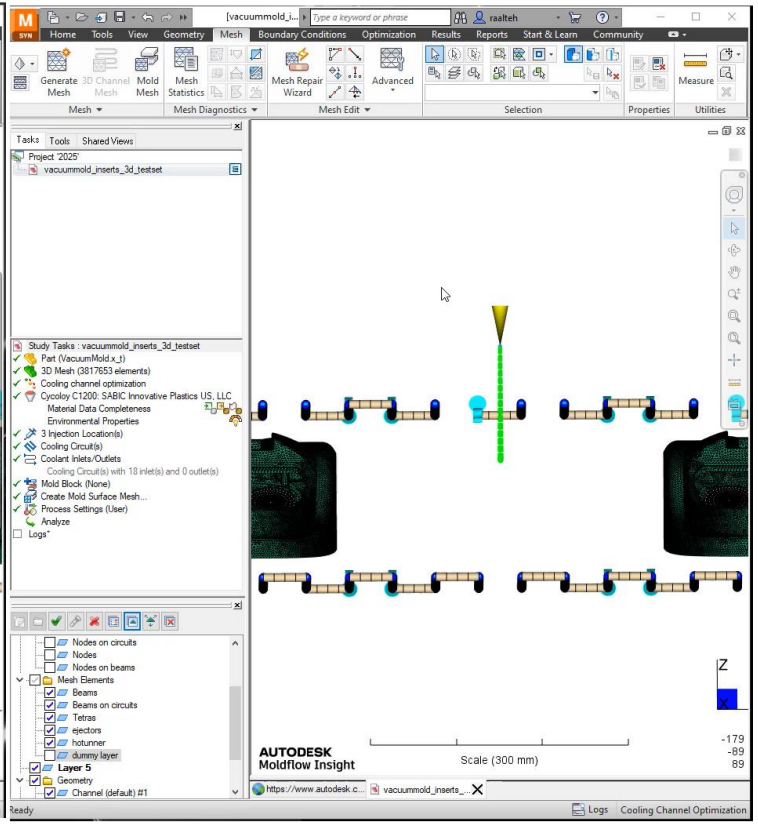


Undo move elements to different layer

Moldflow 2025



Moldflow 2026

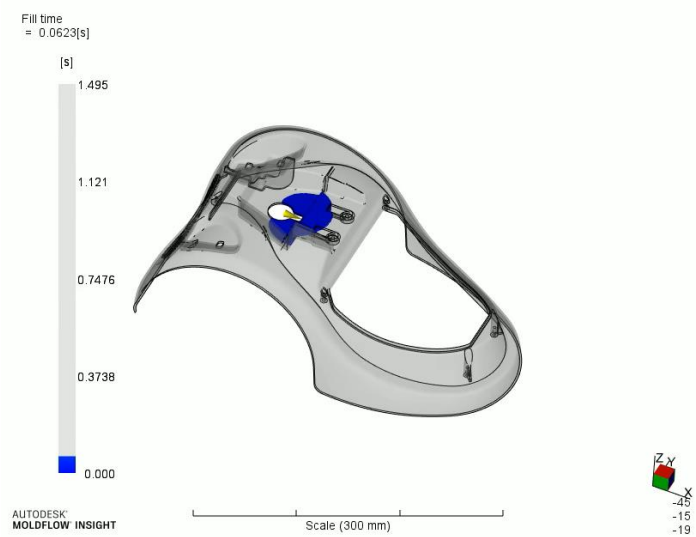


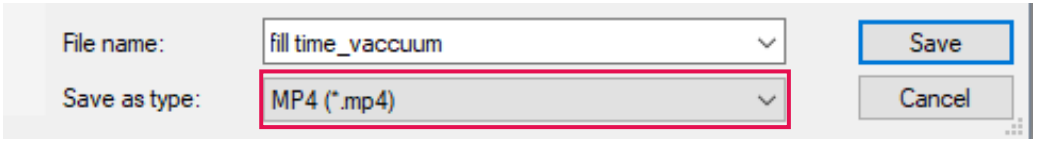
Animation export in .mp4 format

Animations can now be exported in .mp4 format.

- Report generator and custom reports have been updated.
- Old animated .gif and .avi are removed.
- New API calls to support the new format.
- Existing Moldflow scripts and reports have been updated.

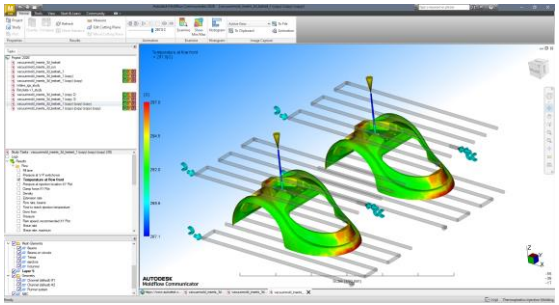
IMPORTANT: Windows 10/11 N or NK will need to install the Windows Media Pack (link)

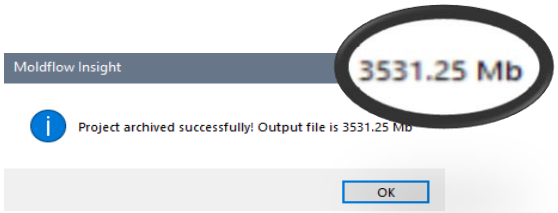




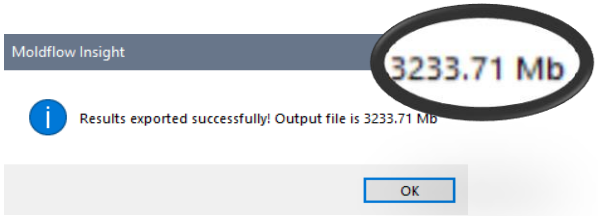
.zip Archives and Communicator files > 2Gb

- Moldflow results can be archived in .zip files larger than 2 Gb.
- Moldflow Communicator files can be larger than 2 Gb.

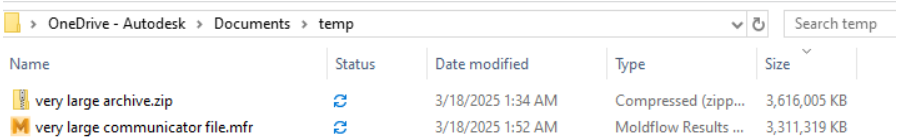




.zip archive



.mfr file

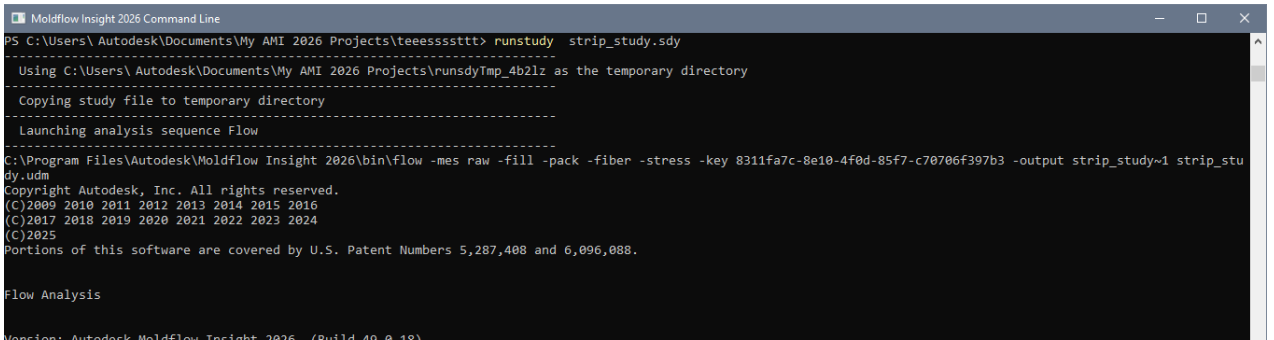


PowerShell Command window

Moved our ‘command-line window’ to a ‘PowerShell command window’. This is to align with Microsoft move to PowerShell.

PowerShell is similar to Command Prompt has more powerful options know to Linux users (e.g. example ‘ls’, ‘pwd’). A list of common PowerShell commands can be found here.

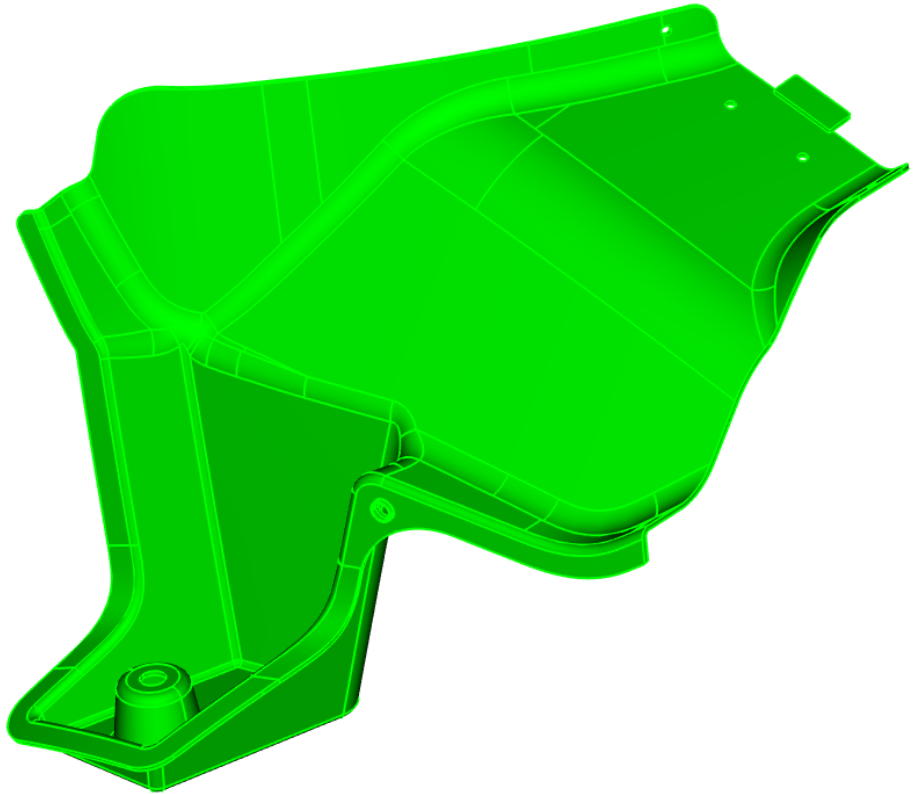
- Important difference:
  - CMD:
    - C:\> "C:\path with space\synergy_automation.vbs"
  - PowerShell:
    - PS C:\> & "C:\path with space\synergy_automation.vbs" (‘&’ = execute command)



CAD import formats

- CAD supported platform updates

  Alias 2025
  Autodesk Shape Manager 231
  CATIA 6R2024
  CATIA 6R2024 Assembly
  Creo™ Parametric 11.0
  Inventor 2026
  Inventor 2026 Assembly
  Parasolid® V36
  Rhino 8.0
  SOLIDWORKS 2024
  JT 10.9
  NX 2312 Series



Material data update

- Total number of grades: 13816
- Since the 2025.1 material database update:
  - Grades added: 321
  - Grades amended: 117
  - Grades deleted: 49
- Materials with measured shrinkage data (CRIMS/STAMP): 6359

Details can be found in the online help here.

Removed old Features

- Removed old Moldflow and C-mold formats:
  - Obsolete Moldflow MPI2.0 Project (*.prj)
  - Obsolete Moldflow MFL Geometry (.*mfl,*,bf3, *.nda, *.sra, *.pta, *.ain, *.ata, *.atb)
  - Obsolete Moldflow 3D Geometry (*.m3i)
  - Obsolete C-MOLD Geometry (*.cmf)
- Removed writing and reading of (*.criteria) files
- File support for Animation formats *
  - Audio Video Interleave (*.avi)
  - Graphics Interchange Format (*.gif)

* .mp4 format was added

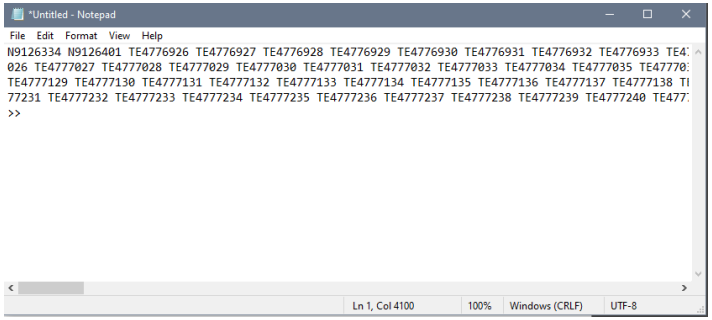
Quality life improvements & Bug fixes

- Significantly increased the number of characters that can be copied out of a selection list. New limit nearly 10 Million characters.

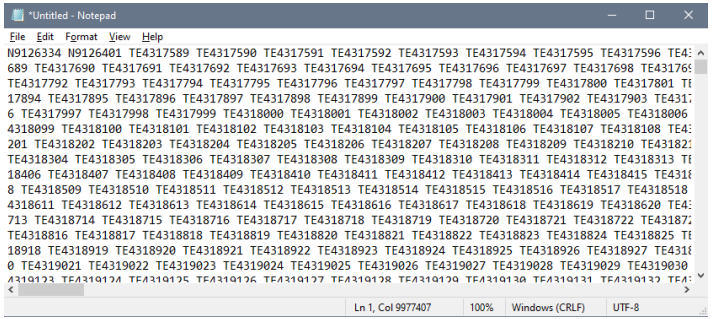
- New Copy selection to clipboard option with even higher limit.

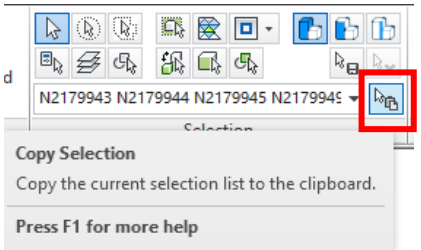
NOTE: Operations on very large selection can take longer as they are no longer limited.

Moldflow 2025 4099 characters



Moldflow 2026~10M characters





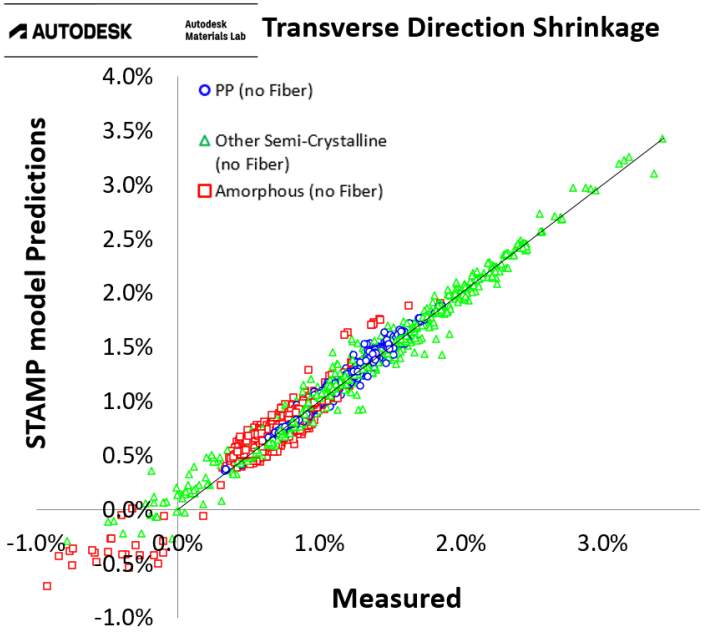
STAMP for 3D is Default in Moldflow Insight

- STAMP is the algorithm introduced in Moldflow 2024 as a non-default, that uses shrinkage data to substantially improve warpage results. In Moldflow Insight 2026 this is now set as the default method.

  2026 STAMP has improved Stress prediction. Specifically important for:

  - 2 shot overmolding
  - Birefringence

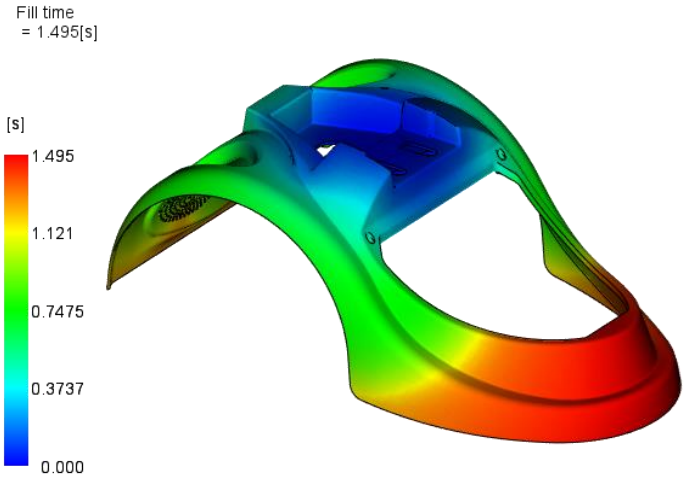
- US patent approved on Feb 4 2025



Shorter analysis time for 3D models (3D flow results format)

3D Flow file format change reduces the time spent in result transfer and keeps the 3D solver running. For larger the 3D flow result files, the speed up is larger.

Name	Status	Date modified	Type	Size
speed_test_SCM.mpi			Autodesk Moldflo...	1 KB
vacuum_2026_0p5_50_20_20_1~3.001.of1			OF1 File	7,693 KB
vacuum_2026_0p5_50_20_20_1~3.002.of1			OF1 File	2,856 KB
vacuum_2026_0p5_50_20_20_1~3.003.of1			OF1 File	4,042 KB
vacuum_2026_0p5_50_20_20_1~3.004.of1			OF1 File	5,267 KB
vacuum_2026_0p5_50_20_20_1~3.005.of1			OF1 File	6,800 KB
vacuum_2026_0p5_50_20_20_1~3.006.of1			OF1 File	8,315 KB
vacuum_2026_0p5_50_20_20_1~3.007.of1			OF1 File	8,842 KB
vacuum_2026_0p5_50_20_20_1~3.008.of1			OF1 File	9,961 KB
vacuum_2026_0p5_50_20_20_1~3.009.of1			OF1 File	11,409 KB
vacuum_2026_0p5_50_20_20_1~3.010.of1			OF1 File	12,762 KB
vacuum_2026_0p5_50_20_20_1~3.011.of1			OF1 File	13,513 KB
vacuum_2026_0p5_50_20_20_1~3.012.of1			OF1 File	14,668 KB



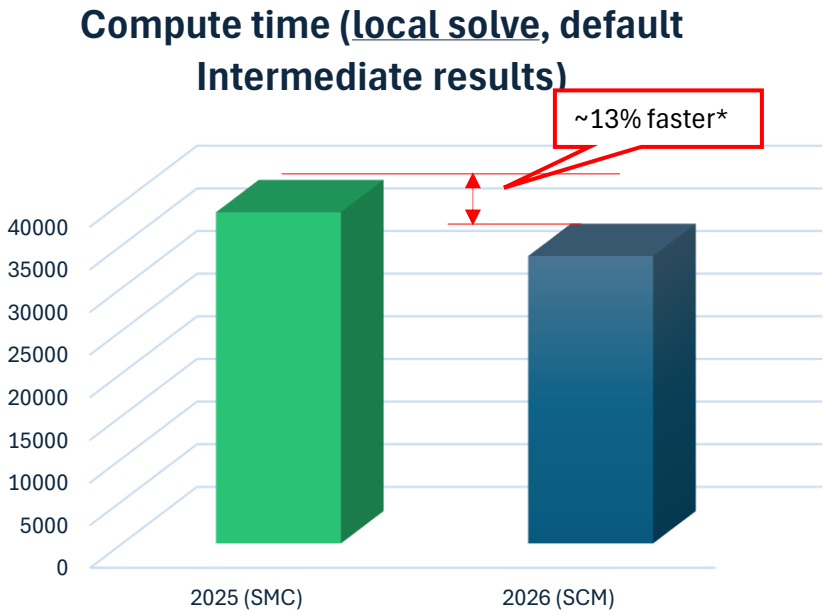
Example model, results are illustrative

Shorter analysis time for 3D models (3D flow results format)

3D Flow file format change reduces the time spent in result transfer and keeps the 3D solver running. For larger the 3D flow results, the speed up is larger

For a large model, the speed up for a locally solved analysis through SCM the analysis should complete faster.

In case the 3D Flow analysis completes 13% faster.



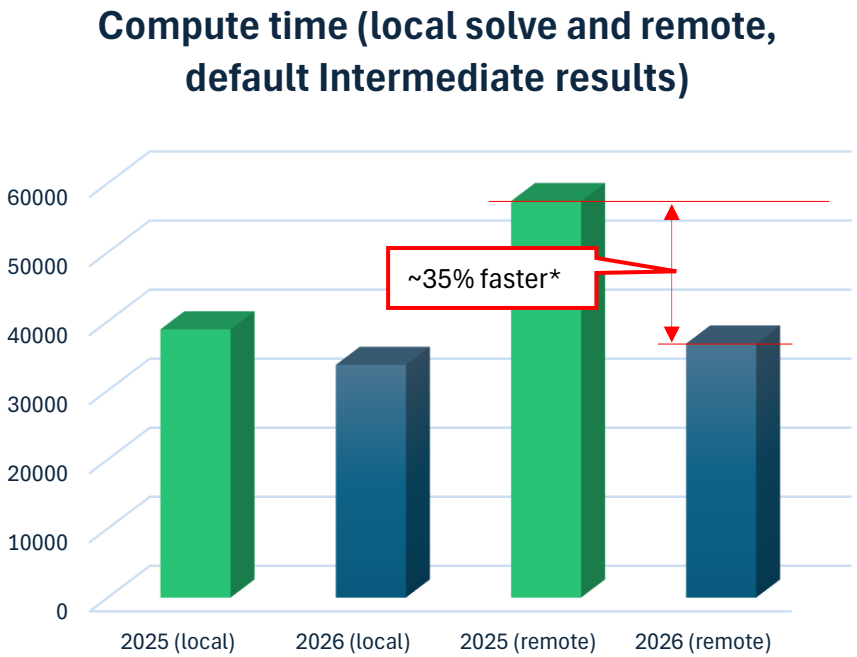
* Results are illustrative scenario dependent

Shorter analysis time for 3D models (3D flow results format)

3D Flow file format change reduces the time spent in result transfer and keeps the 3D solver running. For larger the 3D flow results, the speed up is larger

For the same model solved on a remote machine:

1) Analysis is ~35% faster (less data transfer over the network)
2) Not a large difference between local and remote solve.



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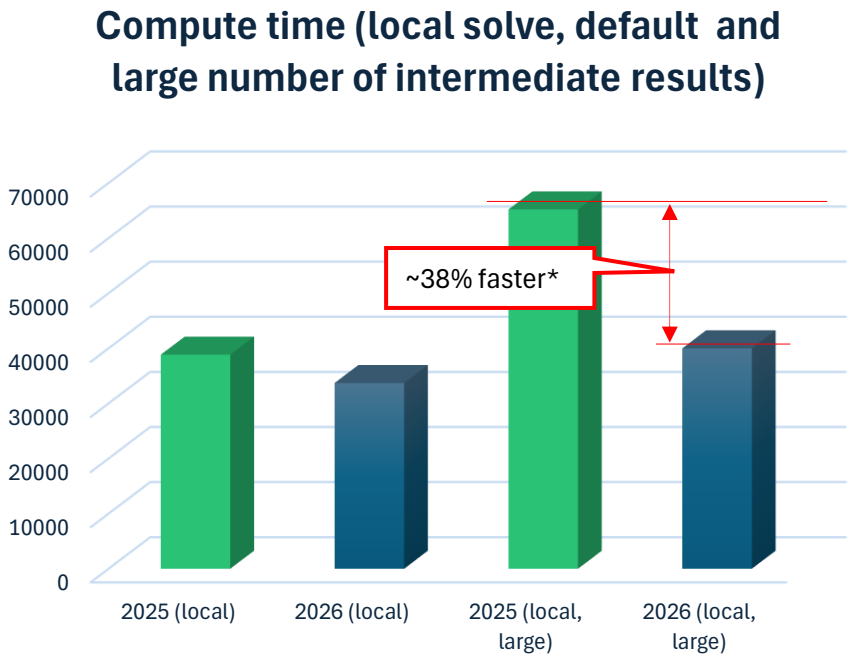
Shorter analysis time for 3D models (3D flow results format)

3D Flow file format change reduces the time spent in result transfer and keeps the 3D solver running. For larger the 3D flow results, the speed up is larger

Impact of number of intermediate results.

1) Large number of intermediate results will see a big speed up.
2) Analysis time penalty for more intermediate results is not as large.



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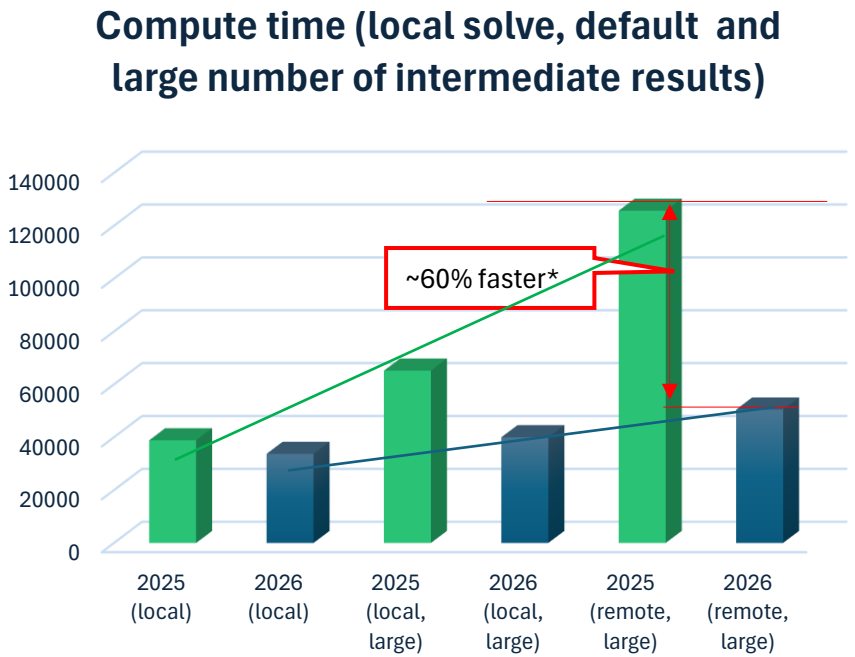
Shorter analysis time for 3D models (3D flow results format)

3D Flow file format change reduces the time spent in result transfer and keeps the 3D solver running. For larger the 3D flow results, the speed up is larger

Compounding impact of large number of intermediate results and remote solve

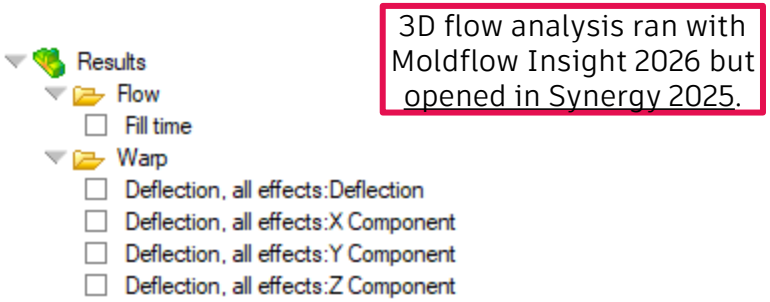
1) Large number of intermediate results and remote solve will see a very big speed up
2) 2026 will not have a big penalty for remote solve with large number of intermediate results



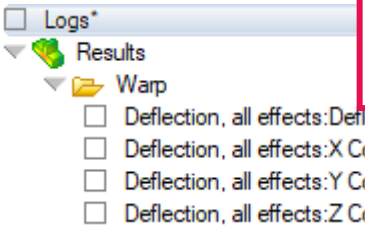
* Results are illustrative scenario dependent

Results viewing in older versions of Synergy

As a result of the result format changes that gives us the 3D flow solver speed improvements, analyses created with Moldflow 2026 products cannot be viewed with prior versions of Synergy, Adviser or Communicator.



3D flow analysis ran with Moldflow Insight 2026 but opened in Synergy 2025.

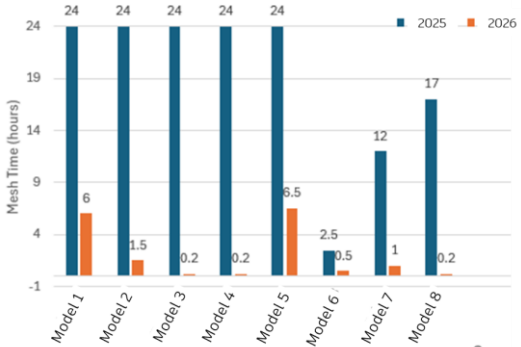


3D flow analysis ran with Moldflow Insight 2026 but opened in Synergy 2024 or before.

Other speed improvements:

- 3D Warp:
  - Technical improvement should see a speed improvement. Only small improvements for small models (between 1-15%), but bigger for large models (15-25%). Memory usage will go up.

- Meshing:
  - Meshing Dual Domain models for some very large models can be substantially faster (up to 30%, but is very model dependent).
  - 3D meshing for chunky models can be up to 50% faster, with better quality and fewer flat tetrahedral elements.



Other solver improvements

- Solver improvements and bug fixes:
  - MP/DD Composite Properties calculation
  - Automatic V/P switch-over (3D)
  - MP/DD barrel compressibility improvement for absolute ram speed profile
  - 3D Compression molding ‘Total Part weight’

- More details on “What’s new in Moldflow 2026” can be found in the online help.

Make Anything