

 **RELEASE NOTES**

Altair[®] Inspire PolyFoam[™]

2025

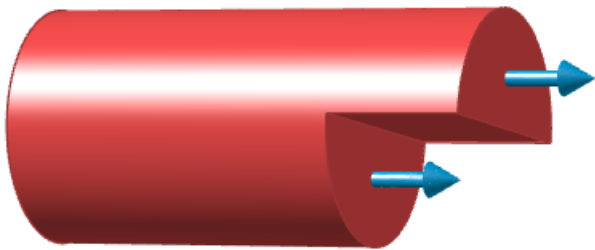
New Features and Enhancements 2025

Altair Inspire PolyFoam 2025 includes the following new features and enhancements.

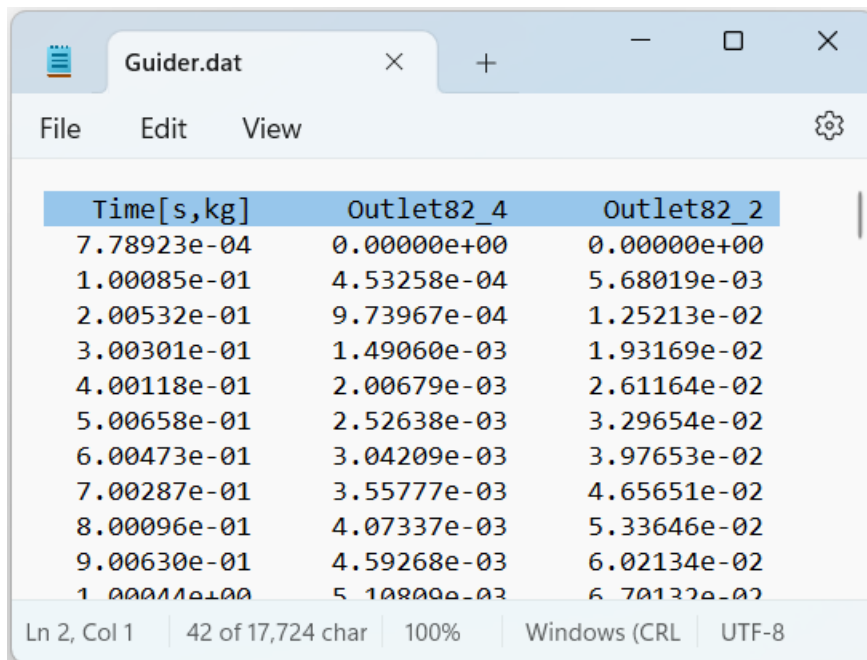
New Features and Improvements

Mass Output of Guiders

PolyFoam 2025 records the accumulated mass of fluids from the guider outlet. This is useful for analyzing and evaluating the efficiency of guider geometries with multiple outlets.

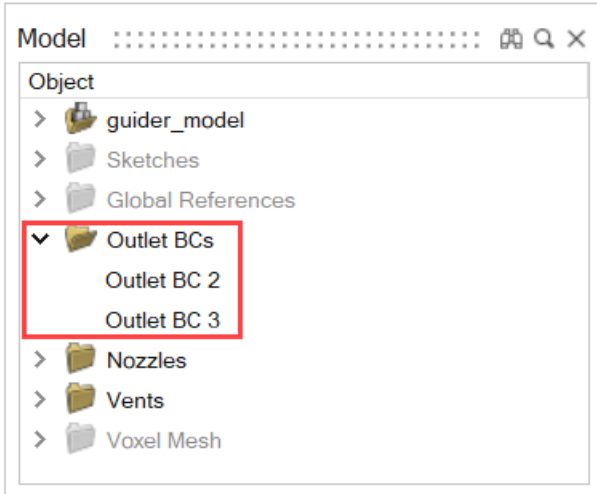


The information is written to the “guider.dat” file in the pfoam_Res sub-folder in the run folder.



Time[s,kg]	Outlet82_4	Outlet82_2
7.78923e-04	0.00000e+00	0.00000e+00
1.00085e-01	4.53258e-04	5.68019e-03
2.00532e-01	9.73967e-04	1.25213e-02
3.00301e-01	1.49060e-03	1.93169e-02
4.00118e-01	2.00679e-03	2.61164e-02
5.00658e-01	2.52638e-03	3.29654e-02
6.00473e-01	3.04209e-03	3.97653e-02
7.00287e-01	3.55777e-03	4.65651e-02
8.00096e-01	4.07337e-03	5.33646e-02
9.00630e-01	4.59268e-03	6.02134e-02
1.00011e+00	5.10800e-03	6.70132e-02

The name of each outlet is shown in the Model Browser.



Leakage Volume Output

PolyFoam 2025 captures the mass and volume of foam leakage when analyzing models with moving parts. The data is written to the file "FSILeak.dat" in the pfoam_Res sub-folder in the run folder.

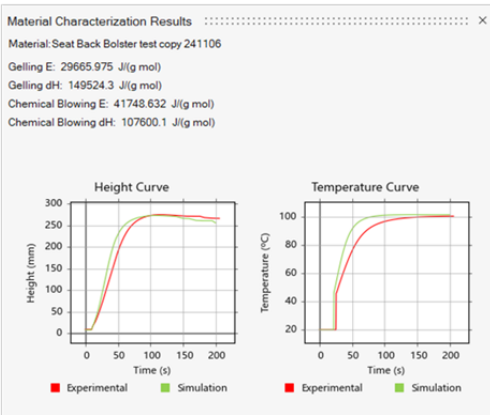
The screenshot shows a text editor window titled 'FSILeak.dat'. The data is as follows:

Time	Volume [m3]	Mass [kg]
0.00000e+00	0.00000e+00	0.00000e+00
5.31497e+00	0.00000e+00	0.00000e+00
5.40195e+00	0.00000e+00	0.00000e+00
5.52306e+00	0.00000e+00	0.00000e+00
5.60336e+00	0.00000e+00	0.00000e+00
5.70597e+00	0.00000e+00	0.00000e+00
5.80117e+00	0.00000e+00	0.00000e+00
5.91739e+00	0.00000e+00	0.00000e+00
6.00423e+00	0.00000e+00	0.00000e+00
6.11206e+00	0.00000e+00	0.00000e+00
6.20563e+00	0.00000e+00	0.00000e+00

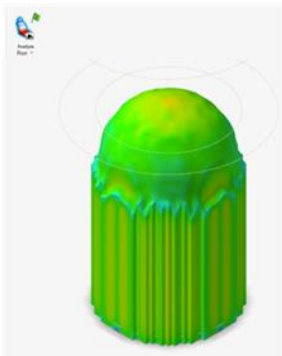
At the bottom of the window, the status bar shows: Ln 2, Col 1 | 36 of 3,708 chars | 100% | Windows (CRL) | UTF-8

Material Characterization Window Updates

- Material Characterization can now run if only height curve data is available; temperature curve data is now optional.
- The Variable Limits range now reflects the material's parameters.
- Physical dH values are constants, so they have been removed from the Variable Limits area of the Material Characterization window.
- Physical plowing reaction parameters appear only when working with rigid foam.
- CO₂ saturation is now available as a parameterized variable.
- When the material characterization is complete, Inspire PolyFoam now displays a comparison graph of experiment data and analysis data in a results window.



- The foam shape of the optimal result is displayed to check the shape.



- When material characterization has finished, show a dialog with the experimental/simulation curves and the material properties.

Additional Changes and Enhancements for 2025

- Custom unit settings are now reflected in the Nozzle microdialog and the Density result type.
- PolyFoam's solver is now 10-30% faster.
- FSI modeling has improved:
 - All solid motion is stored even when moving solids are out of the analysis domain.
 - FSI Modeling now captures accurate movement even when moving times of moving parts overlap.
- PolyFoam analysis results are now compatible with SimLab and can be used to run a structural analysis in OptiStruct.

Resolved Issues

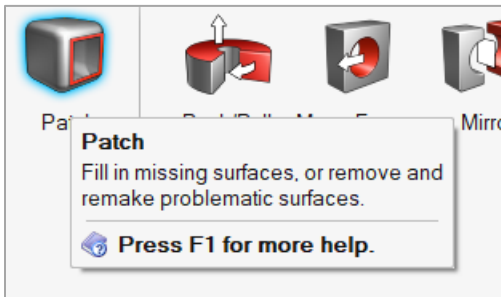
- An issue where materials deleted from the My Materials database were still available for selection has been resolved. [INSPFOAM-1345]
- Corrected a solver calculation error when running the Seller Royal model with PSSD. [POLYFOAM-196]
- Added the treatment code when foam part is divided into several pieces due to FSI without nozzles. [POLYFOAM-205]
- The solver can now find the region for the moving nozzles even if there are no mold parts present. [POLYFOAM-227]
- Added a more descriptive error message when the solver cannot find the injection cells [POLYFOAM-231]

Learn More About Inspire PolyFoam

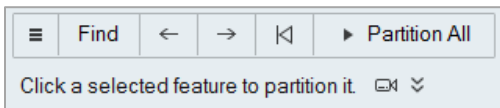
You can learn more about new and existing features in Inspire using the following resources:

In-Application User Assistance

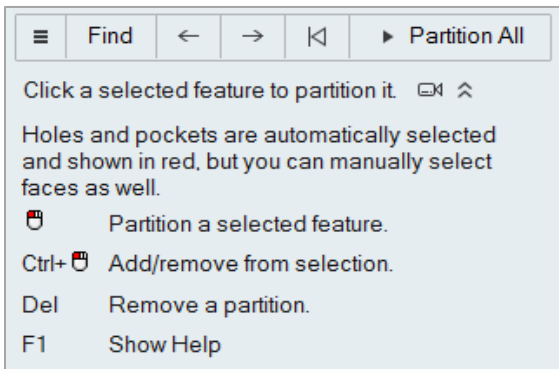
Inspire provides two types of user assistance. **Enhanced tooltips** appear when you hover over icons and other features. They describe what the tool does.



Workflow help appears when you select a tool that opens a guide bar or microdialog. The text prompts you what to do next.

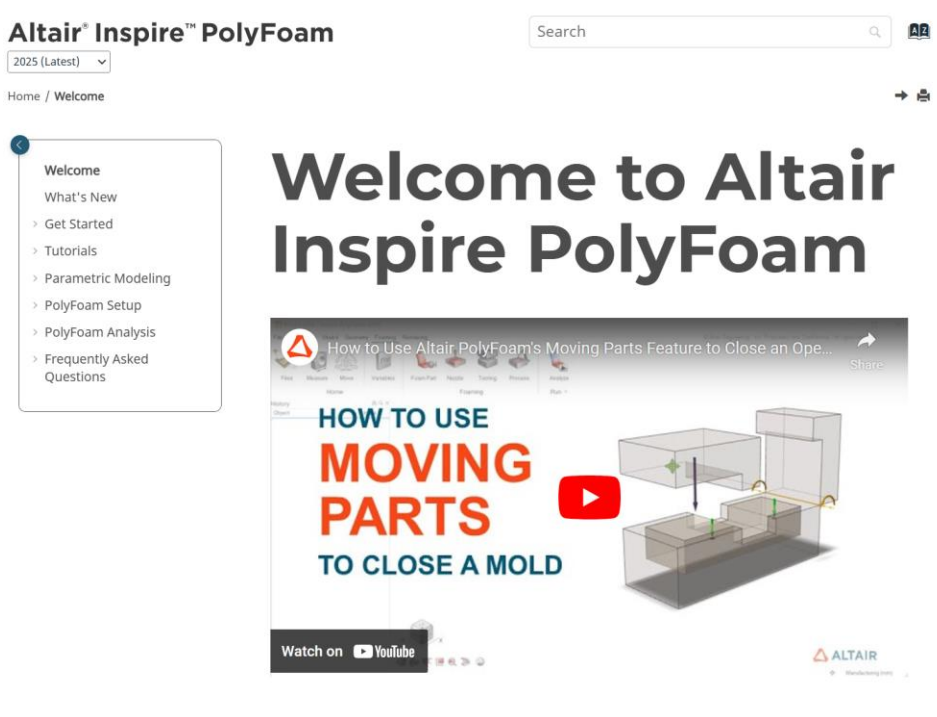


Click  to view additional tips and shortcuts. Some tools also include a video .



Online and Offline Help

Press **F1** or select **File > Help > Help** to view the online help.



You can download an offline version by selecting **File > Help > Download Offline Help**. An internet connection is required to download.

