Altair® Inspire Cast™ 2026

NEW FEATURES

Inspire Cast 2026 includes the following new features and enhancements.

Vacuum Simulation

The High Pressure Process Setup window now includes a control to enable the simulation of vacuum during the casting process. You can manually or automatically select air exits and simulate the effect of the vacuum system in your mold cavity. This makes the flow analysis more accurate and can help you to better predict potential defects.


For more information, see High Pressure Process in the help.

New Thickness Tool

In the Part Analysis subribbon, there is a new Thickness Results tool. It presents part thickness data as a heat map, like in the Analysis Explorer. The original Thickness viewer tool is renamed to Critical Areas. With the ability to visualize thickness data as a heat map as well as highlighted potential problem areas, you can gain a more comprehensive understanding of thickness distribution in your part, saving time in design reviews and quality-control processes.
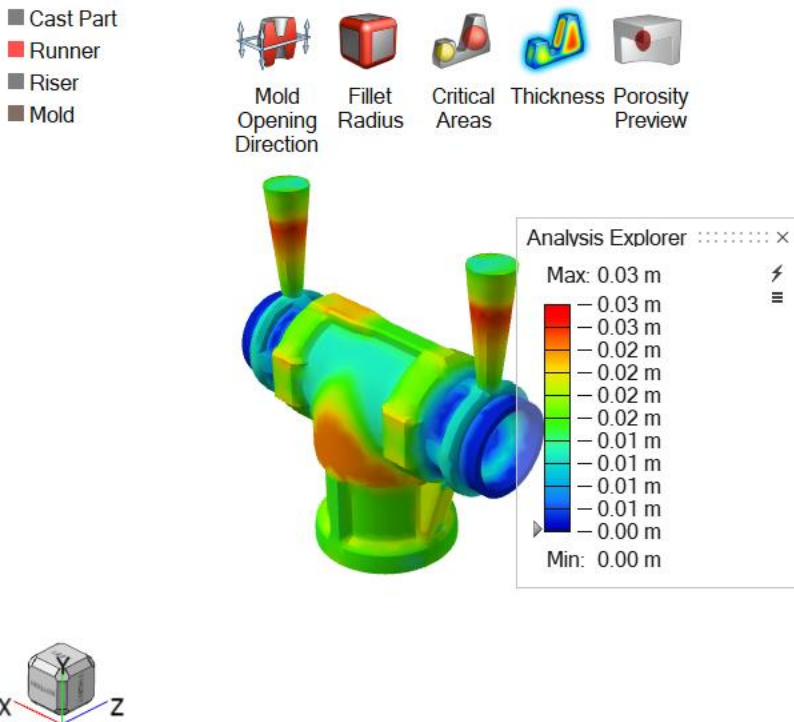
For more information, see Thickness Analysis in the help.

Compensated Geometry

You can use the new Compensated Geometry tool to export an .stl file of the mold cavity that will create a part that, during solidification, will shrink/warp into the geometry that you designed. This is especially helpful when casting material that is prone to nonuniform deformation.

For details on this update, see Compensated Geometry in the help.

Altair Inspire Cast 2026
Release Notes

ENHANCEMENTS

New Friction Strategy Options

In File -> Preferences -> Inspire Cast -> Analysis -> Run Options, you can now select from four friction strategy options. **AUTO** lets the solver select the most appropriate friction strategy. **HPDC** is a strategy designed specifically for high-pressure die casting. **GC** is designed for gravity casting. **GC (EXPERIMENTAL)** is aimed at testing alternative friction approaches for gravity casting, allowing users to explore new methods and potentially improve simulation accuracy.
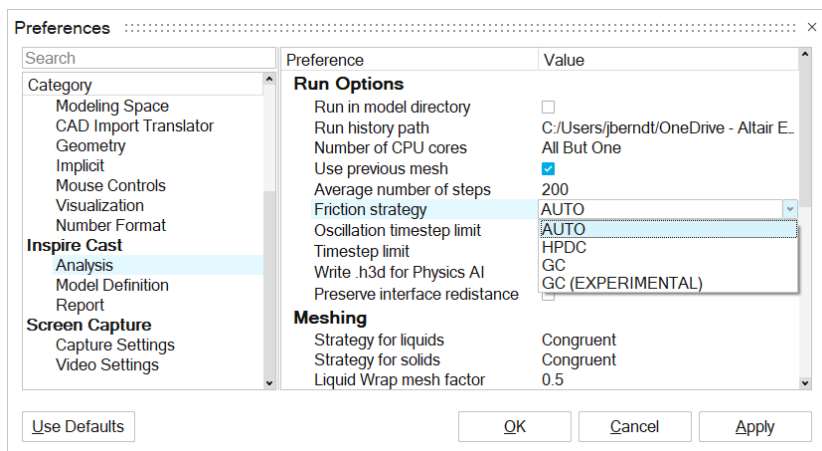

For more information, see [Preferences, Inspire Cast](#) in the help.

Multiple Stalks in Low-Pressure Die Casting

Low-Pressure Die Casting (LPDC) processes increasingly use multiple stalks to feed the mold, improving filling efficiency and enabling more complex part designs. To reflect this industry practice, Inspire Cast now supports multiple stalk configurations within LPDC simulations. With this enhancement, you can now simulate mold filling with two or more stalks for improved accuracy, evaluate flow balance and filling behavior across multiple filling channels, and optimize stalk placement and geometry to reduce defects and cycle time.
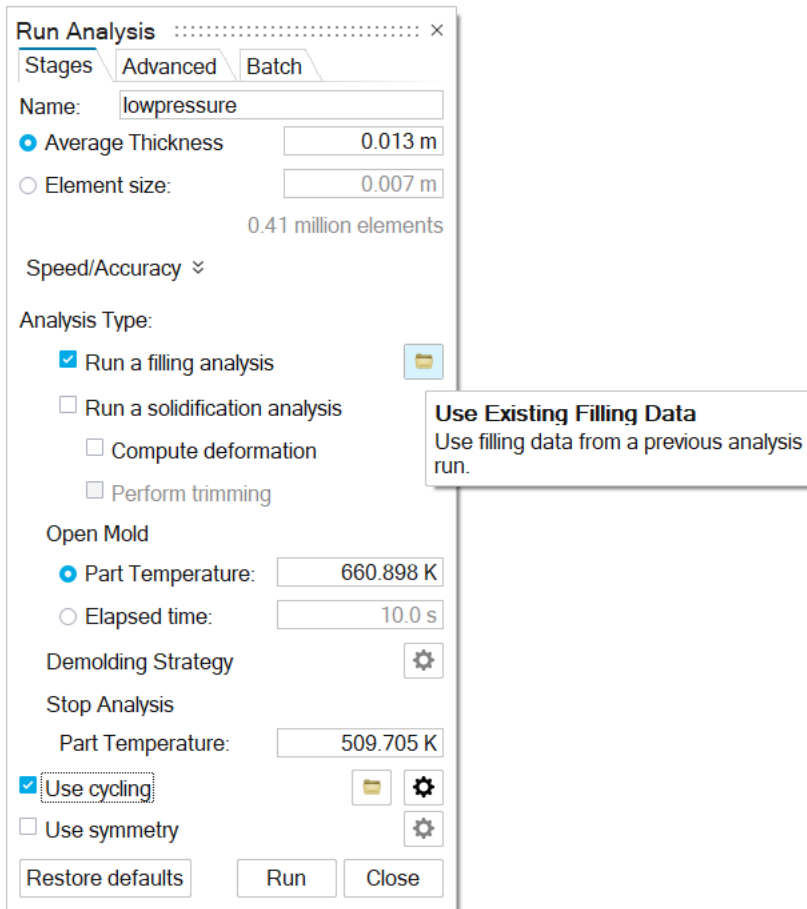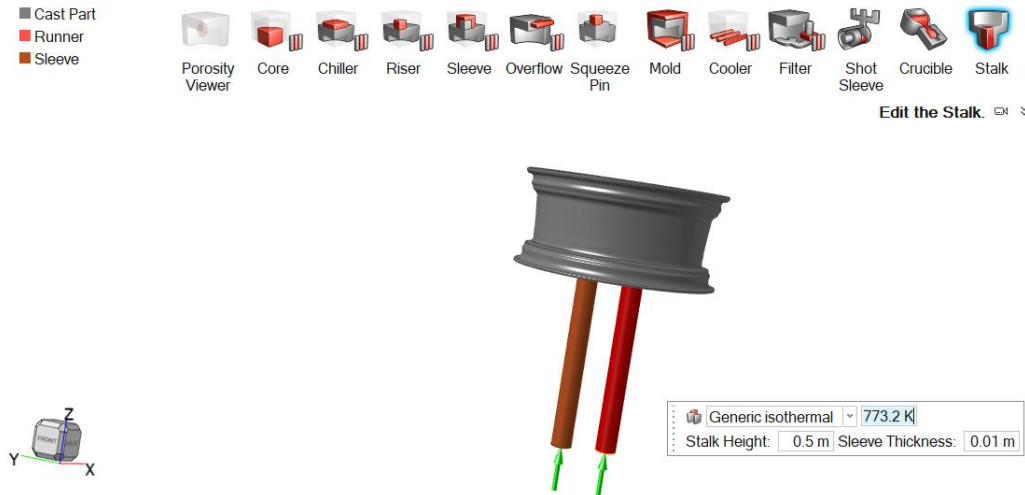

For more information, see Add/Edit Stalk in the help.

Start Analysis from Filling or Cycling

In the Run Analysis window, you can now use filling or cycling data from a previous casting analysis to save time on your current analysis while maintaining accuracy. Note that this feature is not available unless a previous filling or cycling analysis has been run.

For more information, see Run Analysis in the help.

Design Explorer Update

The DOE (Design of Experiments) analysis module has been expanded to include a wider range of casting-specific variables. Users can now perform systematic studies and sensitivity analyses not only on geometry, but also on critical casting variables such as initial and boundary temperatures, flow velocities, etc.

For more information see Design Explorer in the help.

Additional Changes and Enhancements for 2026

- Custom materials data is now saved to your model's .icast file, so when you share the file, the materials data is shared along with it.

- Filling results are now more detailed/precise.

- Octree voxel mesh: Inspire Cast now uses an octree algorithm for the voxel mesher, which enables more efficient and adaptive mesh generation. This update is transparent to the user, and yields improved performance, faster meshing, and optimized memory usage for complex geometries.

- Extended Python APIs: Cast's Python API capabilities are greatly expanded. You can now use Python APIs to run more types of analyses including Filling and Solidification, simulate more casting processes including tilt pouring and high-pressure die casting, and access and edit new variables like dimensions, temperatures and other component-specific parameters.

KNOWN ISSUES

The following known issues will be addressed in a future release:

- On October 14, 2025, Microsoft Windows 10 reached its end of support. Following Microsoft's messaging, all Altair 2026.0 applications no longer support Windows 10. Altair is providing this information to help our customers prepare and accommodate for this change. Altair 2026.0 supports the Windows 11 operating system, along with our other Linux-based operating systems. Please contact your local Altair support teams if you have any questions or concerns.

- Windows does not support Unicode characters in folder names by default. When using a run folder that contains Unicode characters, please enable **Beta: Use Unicode UTF-8 for worldwide language support** in the Windows system locale settings.

  - Select Start → Settings.

  - In Settings, select **Time & language**.

  - Select Language & region.

  - Select Administrative language settings.

  - Click Change system locale.

  - Select the Beta: Use Unicode UTF-8 for worldwide language support checkbox.

- MOTION - Certain boundary entities such as grounded Pin and structural support are hidden when leaving the Review Flexible Body Results context [INSPIRE-35999]

- MOTION - Combined motion load case is missing in re-analysis results for optimization from motion loads [INSPIRE 48809]