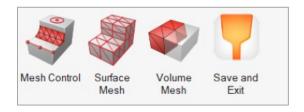**RELEASE NOTES**

Altair® Inspire™ Cast 2021.2

New Features and Enhancements 2021.2

Altair Inspire Cast 2021.2 includes the following new features and enhancements.

Casting

Integration With Altair® SimLab®

When running an analysis, you can automatically export your model and perform advanced meshing in SimLab.
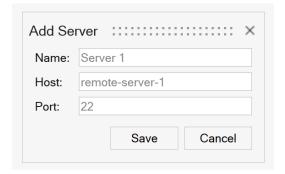

The available meshing tools include:

- **Mesh Controls**: Modify any aspect of the mesh, including the geometry, and features such as fillets and washers, and logos, etc.

- **Surface Mesh**: Once the mesh controls have been modified, use this tool to generate, visualize, and query the surface mesh.

- **Volume Mesh**: After adjusting the mesh controls and iterating on the surface mesh, use this tool to generate the volume mesh.

- **Save and Exit**: Use this option to save changes to the mesh, exit the SimLab interface, and return to Inspire Cast. The analysis calculations will begin automatically.

Option To Run On A Remote Server

You can now run casting analysis on a remote server using Altair PBS Professional.
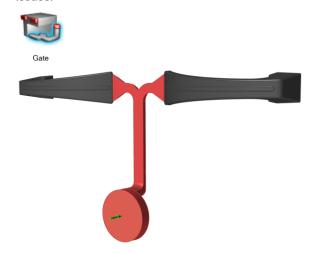

MPI Remote Parallel Processing

You can now choose either SMP or MPI as a remote parallel processing method in the Preferences under Remote Run Options. The SMP method shares memory between all cores; for MPI each core has its own memory. SMP is only available for shared memory machines (a single computer), while MPI works on both shared and distributed memory machines (such as a cluster).

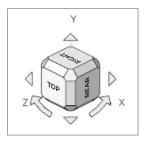### Improvements to the Casting Solver

Enhancements include:

- New Arrow Gate:
  This new way to designate a surface as a gate will help eliminate unnecessary additional volume and minimize meshing issues.

Geometry

View Cube

A new navigation cube has been added to the view controls in the lower left corner of the modeling window, replacing the old View Rotator.

- Clicking a major face (Top, Bottom, Right, Left, Rear, or Front) rotates the model to the nearest possible orientation of that face. If that orientation is not the standard, clicking the face again re-aligns the model back to the standard orientation. If the orientation is already standard, repeated clicks on a major face reverses the view.

- Clicking the arrows incrementally rotates the view. Left- and right-clicking increments by + and - 15 degrees while middle-clicking increments by 90 degrees.
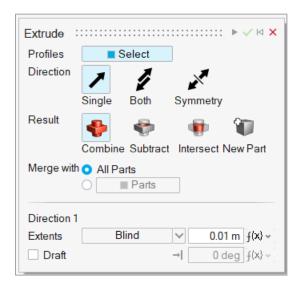
- The display and behavior of the View Cube can be adjusted in the Preferences under **File→Preferences→Inspire→Visualization**.

Extrude Tool

Use the Extrude tool to sketch profiles in one or two directions. Create a new part or combine, subtract, or intersect the extruded shape with existing parts.

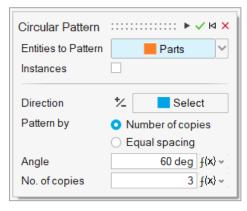In the guide panel, select profiles and choose a direction, result type, and merge method.
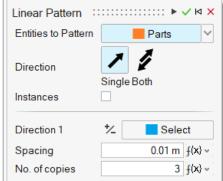
Pattern Tool

Use the Pattern tools to create a linear or circular pattern of parts or faces.

In the guide panel, select the entities to pattern and define the direction.

Offset Tool

Use the Offset tool on the Geometry ribbon to offset parts or surfaces.

Choose the Parts or Surfaces on the guide bar, then select either parts or surfaces in the modeling window.

You can also thicken parts by selecting Thicken on the guide bar. Surfaces cannot be thickened.

Additional Changes and Enhancements for Geometry

- The sketch Intersect tool can now be applied to parts or surfaces.
- Inspire now reads surface color meta data from Catia files.

Resolved Issues

- • When running a cycling analysis, the cooling channels were not restarting for every cycle. This is now fixed.

Learn More About Inspire

You can learn more about new and existing features in Inspire using the following resources:
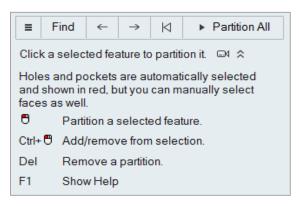
In-Application User Assistance

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.
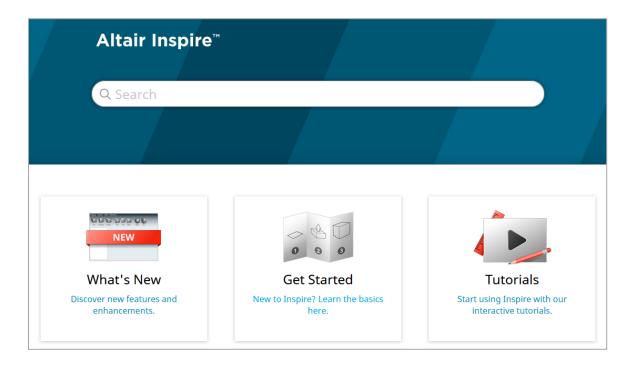

Click ⌄ to view additional tips and shortcuts. Some tools also include a video ▭◁ .

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.