ALTAIR

RELEASE NOTES

Altair Inspire Form 2021

New Features and Enhancements

Altair Inspire Form 2021 includes the following new features and enhancements.

General

Improvements to Materials

Several improvements have been made to materials, including:

- A new import option has added in the Materials dialog to import material data downloaded from the new Altair Material Data Center.
- A new script is included with the installation that can convert an existing HyperForm Feasiblity material database to an Inspire Form material database.
- New analytical methods to create Forming Limit curves are now supported.

Feasibility

Preform Shape

Parts can now be unwrapped to a user-defined shape rather than to a flat blank for feasibility analysis.

Custom Mesh Definition

A new mesh definition, Custom non-uniform mesh, has been added to allow users to define custom mesh parameters for non-uniform surface deviation meshing.

Reference System

Reference system support has been extended to feasiblity analysis to eliminate rigid body translations and rotations from springback results.

Tryout

Cam Pad Forming Tool

A new Cam Pad tool that supports the sheet from behind has been added to the forming tools.

Lancing Trim Tool

A new Lancing tool has been added to the trim tools that supports modeling slits/lances during forming.

Reference Part and Constraint Tools for Springback

New tools for reference parts and constraints are now available to constrain the part during springback.

New Options for Tryout Analysis Results

Several improvements have been made to tryout analysis, including:

- A new animation option has been added that allows animation of all the operations in sequence when the play button on the Animation toolbar is clicked.
- The animation step label is now displayed on the screen.
- A new result type, Signed Distance, has been added to include the sign with the magnitude based on the springback part position relative to its reference.
- Major strain and minor strain directions can now be plotted to indicate the direction of the deformation.