Release Notes

Altair Inspire Form 2020.1.1

The following issues were resolved for Inspire Form version 2020.1.1.

- Fixed modeling pin without initial interference for coarse blank mesh in Tryout.
- Resolved issue with thickness units in Tryout model file started with a meshed blank and saved in version 2020 and before.
- Fixed application crashing while deleting a run in the Analysis Explorer.
- Improved trimming on the blank surface not normal to trim line.

Release Notes

Altair Inspire Form 2020.1

Altair Inspire form 2020.1 includes the following new features and enhancements.

New Features: Feasibility

Analysis Explorer

Tracers are available in Feasibility to trace line and points to analyze blank shape modifications on the part and for Flange development.

Blank shape

After a Feasibility run, the blank shape is also exported in DXF file format.

Additional Changes and Enhancements for Feasiblity

Report

Feasibility model setup and results are now published in Microsoft PowerPoint format allowing user to edit the published report.

New Features: Tryout

Predict Blank Shape

Blank shape predictor was introduced to predict optimal blank shape, based on the target finished part boundary from Tryout results, to manufacture net shape parts after final forming stage.

Predict Trim Line

Trim line predictor was introduced to predict optimal trim line, based on the target finished part boundary from Tryout results, to manufacture net shape parts after final forming stage.

3D Representation in Analysis Explorer

The deformed sheet metal can now be thickened and viewed as a 3D solid to enhance post processing.

Skid Marks Result Type

New Skid Marks result type added for contact of the tool with the sheet to indicate the severity/probability of skid marks on the sheet surface due to forming.

Interoperability with Inspire Studio

Transfer to Inspire Studio

New context menu option in Inspire Form, **Open in Studio**, transfers any selected part(s) from Inspire Form and opens it in Inspire Studio, creating opportunities for geometry manipulation and die face design.

Transfer from Inspire Studio

New context menu option, **Import Model From Studio**, opens Exchange folder in the file browser to select a file exported from Inspire Studio to open.

Additional Changes and Enhancements for Tryout

Report

Feasibility model setup and results are now published in Microsoft PowerPoint format allowing user to edit the published report.

Material

Yoshida material support was enhanced to support both the original and modified version.

Tracers

Tracers have been enhanced to address sheet metal forming specific analysis such as material draw-in, spotting, and conventional tracing.

View Now and Disk Space

Disk space to store analysis results has been considerably reduced with complete switch to H3D format from the solver, and the performance of View Now has been significantly improved.

Model setup

Tool and blank free edges are now included for contact in the analysis. There has also been improvement in handling excessive wrinkling and self-folding of blanks during forming.

Animation

Animation play bar enhanced to display the moving tool distance from closed position for each animation step.

Resolved Issues

- Formability plot showing red for points below FLC curve in feasibility.
- Constraints failed to be applied in feasibility.
- Excessive thinning/thickening at localized zones in multistage tryout analysis.
- Larger element size for the tools.
- Excessive run time for models with adaptive mesh.