



## Release Notes

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# Altair Inspire Extrude 2020.1

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

## Inspire Extrude Friction Stir Welding

### New Features

#### Friction Stir Welding Profile

In this release, Friction Stir Welding profile is introduced in Inspire Extrude. Model setup for Friction Stir Welding can be achieved by a few mouse clicks. Users can either start with two plates and create all the necessary parts or even bring in the completed model and identify the parts in the interface and submit a run by providing very few process parameters. Users can also start with existing mesh by select the mesh file in the export dialog. The batch process is also implemented to create the data deck to the solver.

## Inspire Extrude Metal

### Resolved Issues: General

#### Add/Edit Material

Populate Add/Edit Material menu based on the directory permissions.

#### Part and model mass updates

There was an issue in computing and updating the mass of the parts in the model. This was happening when the column showing the mass of the part in the browser was hidden. This issue is resolved in this release. Now the mass values are correctly updated irrespective of the browser status.

## Resolved Issues: Extrusion

### **Delete Parts**

Deleting unused parts after extracting flow volume, crashed the application. This issue is resolved.

### **Container Diameter**

Container diameter should include the skin thickness when Billet Skin is modeled. This issue is resolved in batch mode.

### **Bearing Optimization**

The limit on the minimum allowed bearing length for bearing optimization is now relaxed. Users can set this to a value as low as 0.1 mm.

## Resolved Issues: Tool Deflection

### **Tool Contact Surf with Billet**

Resolved the issue of loads not been captured in batch, when the contact surface between the Tool part and Billet is already tagged in Inspire Extrude interface.

## Resolved Issues: Quenching

### **Undo/Redo**

In this release, Quench box related undo/redo issues are resolved.

## Inspire Extrude Polymer

### Resolved Issues: General

#### **Add/Edit Material**

Populate Add/Edit Material menu based on the directory permissions.

## **BC Compatibility Issues**

Resolved backward compatibility issues when the old model is re-loaded and tried to edit the BC data.

## **Part and model mass updates**

There was an issue in computing and updating the mass of the parts in the model. This was happening when the column showing the mass of the part in the browser was hidden. This issue is resolved in this release. Now the mass values are correctly updated irrespective of the browser status.

## **Resolved Issues: Extrusion**

### **BC Compatibility Issues**

Resolved backward compatibility issues in editing the BC data when an old model is re-loaded.

### **Inlet Flow Rate**

Resolved issues in numerical roundoff and truncation when the values set for flowrate is too small. In this release, we handle all the valid values irrespective of whether they are too small or big.