

Tips and Tricks from the



A collection of tips from the Detroit Local User Group

Moldflow Summit 2025

Jay Shoemaker – WMU and HLS Consulting
Tim VanAst – Hunter Industries

Jay Shoemaker



Injection molding simulation
is our passion



**WESTERN
MICHIGAN
UNIVERSITY**

Tim VanAst



Intro to Jay and Tim

- Previous episodes of the Jay and Tim show
 - 2012 AU – Customizing Your Results
 - 2013 AU – Tips and Tricks for Moldflow Experts
 - 2015 AU – Battle Royale
 - 2016 AU – Battle Royale, Round 2
 - **2025 Summit – we're back with more Tips and Tricks**

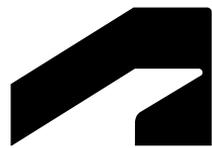


Tips from The

- Collection of tips and tricks from users at the Detroit local user group (dLUG)
- Topics...
 - History of dLUG
 - Usability Tips
 - Report Creation Tips
 - Meshing Tips

History of dLUG

- When did it start
- Typical attendance
- Topics
- Value
- Who attends

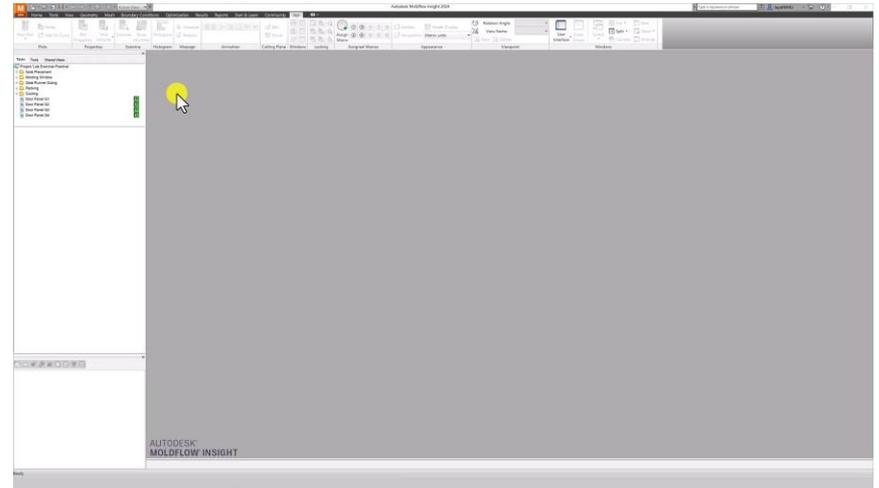


Usability Tips and Tricks



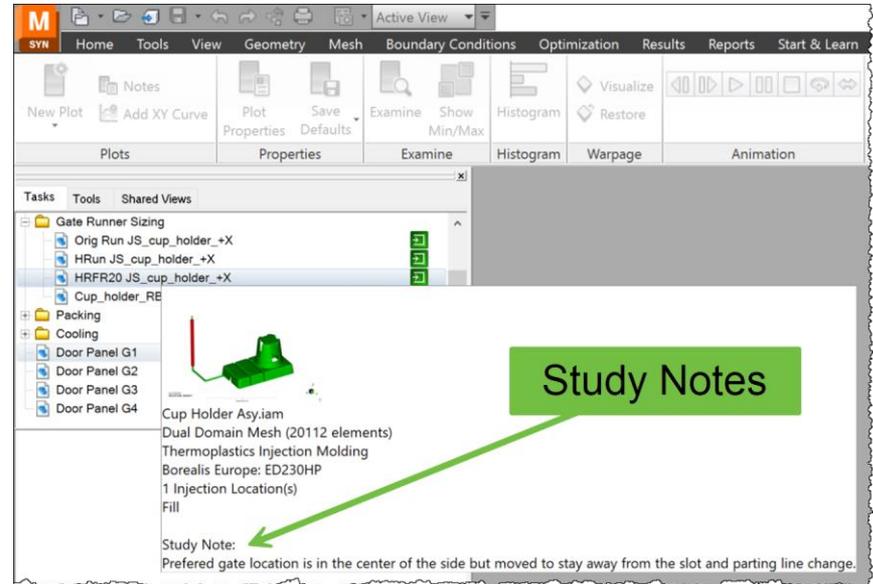
Drag and Drop Studies

- Drag and drop multiple studies to open them at the same time
- Drag and drop a study onto an open study to open it in compare mode
- Change the order of the studies by drag and drop



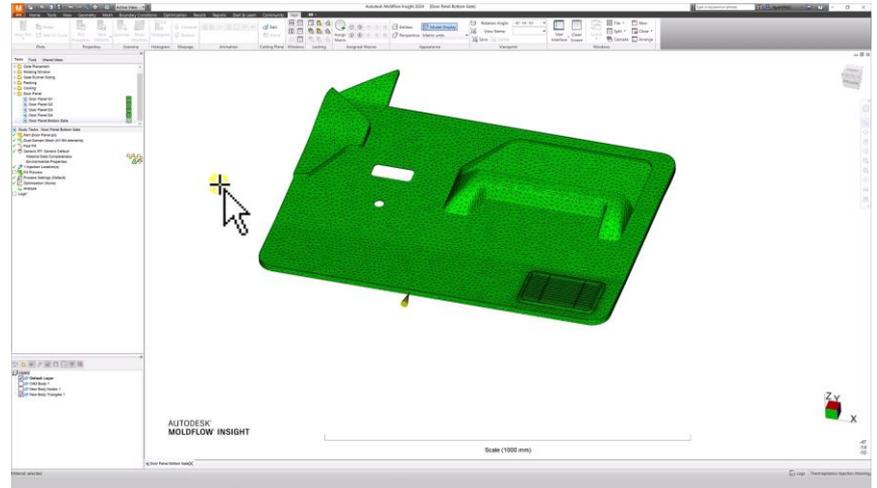
Study Notes

- Study notes visible when hovering the mouse over a study
- Great for
 - Changes in this study
 - Milestones in the project

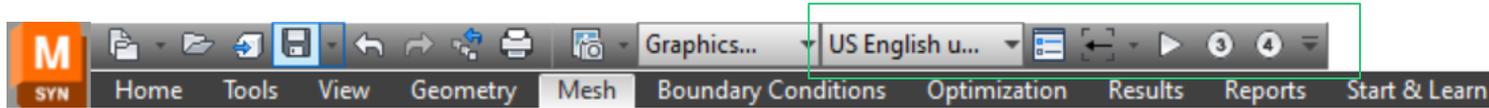


Copy Paste Study Settings

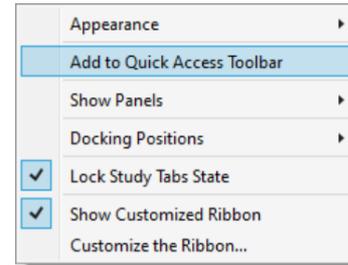
- Copy/paste study settings
 - Copy from one study and paste on another
 - The study where the settings are pasted must be open
 - Ensure the mesh type is the same between the two studies
- Caution:
 - Material changes only 60% of the time. WHY?
 - Pasting a second time normally gets the material copied
 - Doesn't copy mesh settings, UNLESS you mark it to copy them in the copy interface (maybe??)



Quick Access Bar



- Quick access bar
 - Unit change!!!
 - Job manager
 - Previous/Next view
 - Play Macro button
 - Assigned macros buttons



R-click on any menu button to “Add to Quick Access Toolbar”

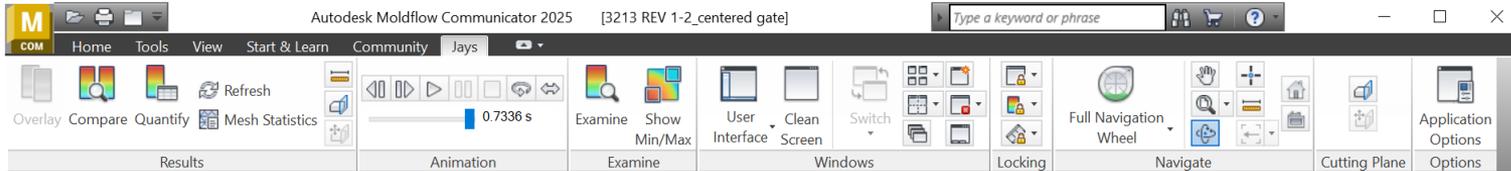
Custom Ribbon

In Synergy

Customize a Ribbon for how you work
This one is based on Results but adds, Macros, Units, Rotation, User Interface



In Communicator



Export and import custom ribbons



Mouse Options

- Mouse tab in Options menu to set mouse to what you like

External applications	Viewer	Background and Colors	Language and Help System
Compute Manager	Network	Reports	Idle Mode
General	Directories	Mouse	Results

Buttons			
	+ SHIFT	+ CTRL	+ ALT
Right:	Rotate	Pan	Mouse apply
Middle:	Pan	Pan	Center
Wheel:	Dynamic zoom		
	<input checked="" type="checkbox"/> Reverse direction	<input type="checkbox"/> Reverse direction	<input type="checkbox"/> Reverse direction
Left:	Initial mode for new windows:		Select

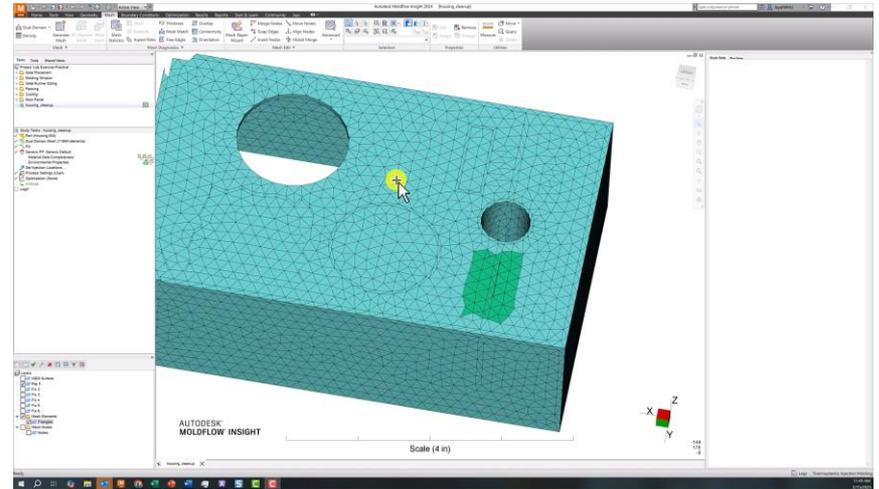
Project items
<input type="radio"/> Single-click to open an item (point to select)
<input checked="" type="radio"/> Double-click to open an item (single-click to select)

Available options

- Mouse apply
- Rotate
- Rotate Z
- Pan
- Banding zoom
- Dynamic zoom
- Center
- Fit to window
- Reset
- Measure
- Mouse apply

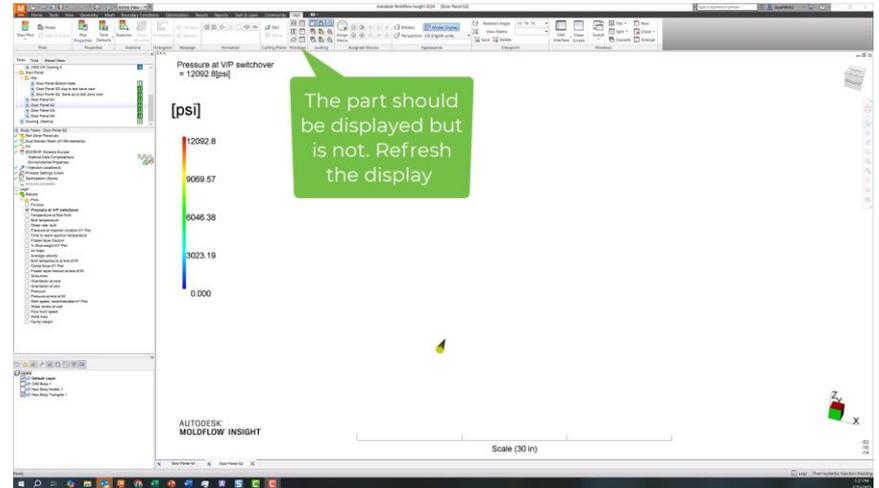
Mouse Options

- Mouse apply
 - Saves significant mouse travel



Refresh Display

- Refresh button for when result display disappears
 - Often it occurs on one result of several being displayed
 - Unselect and reselect result also works, but is a bit slower than the Refresh button



Keyboard Shortcuts

- Typical like Ctrl+Z for undo and Ctrl+S for save
- Ctrl+I – Capture Image
- Ctrl+V – hides and opens Viewcube
- Does anyone know shortcut for:
 - Navigation Bar
 - Rotation Axis
 - Rotation Angle

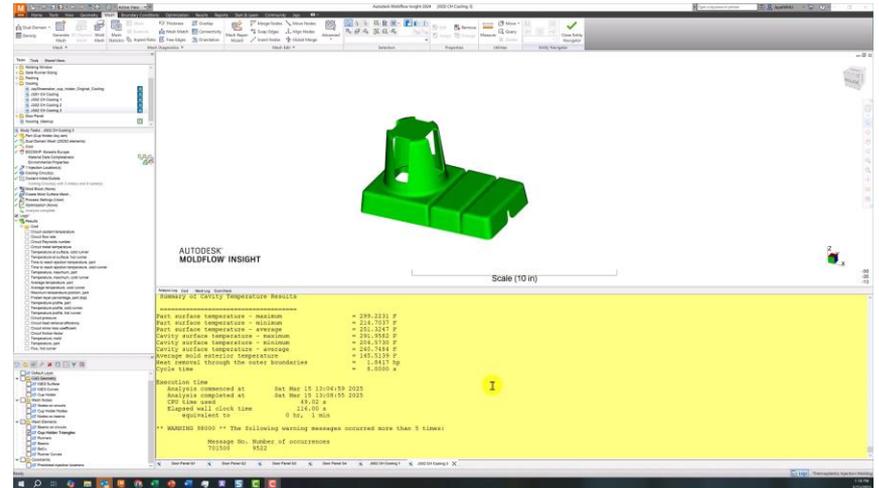
File management functions	
Open Project	Ctrl + O
New Study	Ctrl + N
Close	Alt + F, C
Save Study	Ctrl + S
Print	Ctrl + P
Editing functions	
Undo	Ctrl + Z
Redo	Ctrl + Y
Delete	Del
Select By Properties	Ctrl + B
Select All	Ctrl + A
Copy Image to Clipboard	Ctrl + I
Save Image to File	Ctrl + F
Properties	Alt + Enter
Viewing functions	
Layers	Ctrl + L

Modeling functions	
Move/Copy (Translate)	Ctrl + M
Query Entities	Ctrl + Q
Mesh functions	
Increase Local Mesh Density	Ctrl + Up Arrow
Decrease Local Mesh Density	Ctrl + Down Arrow
Mesh Tools (Auto Repair)	Ctrl + T
Show Diagnostics	Ctrl + D
Analysis functions	
Fixed Constraint	Ctrl + Shift + C
Compute Manager	Ctrl + J
General	
Search Help	F1
To get help on a dialog/results	F1
In a dialog, cycle forwards through the items and boxes	Tab
In a dialog, cycle backwards through the items and boxes	Shift + Tab
To close a dialog without saving	Esc
To show/hide Full Navigation Wheel	Shift + W
Mouse Buttons	
Display popup context menu	Right-click in the display area
Select toolbars to display	Right-click in the Toolbar area

From Moldflow help files, search *shortcuts*

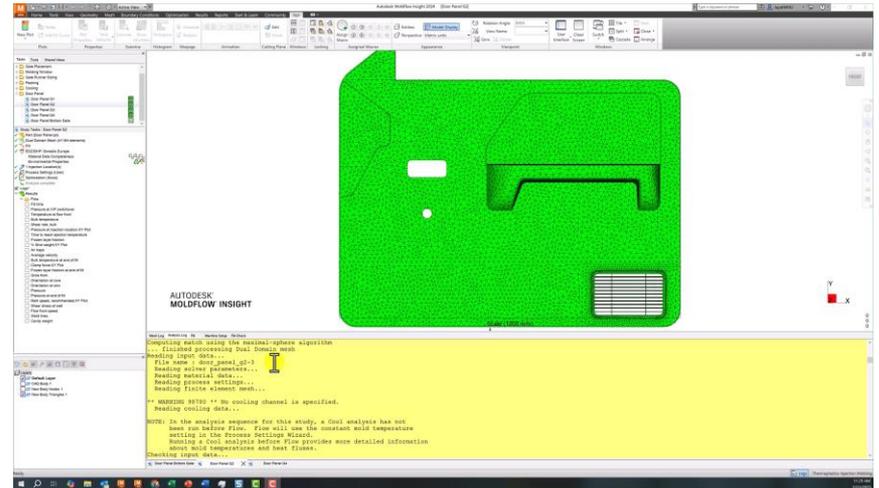
Select by Warnings/Errors

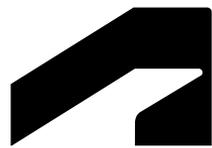
- Select by warning/error from log file
 - Right-click and select the warning/error
 - All elements/nodes with this warning/error are selected
 - Can create a new layer to move selected entities to the layer for investigation and fixing



Help on Warnings/Errors

- The log file may contain warnings you don't understand
- Get information on the warning or error from the help

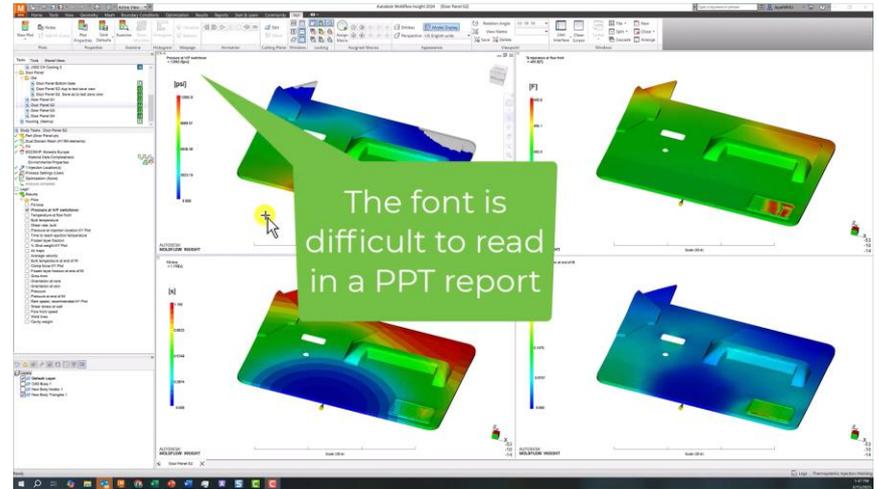




Report Tips

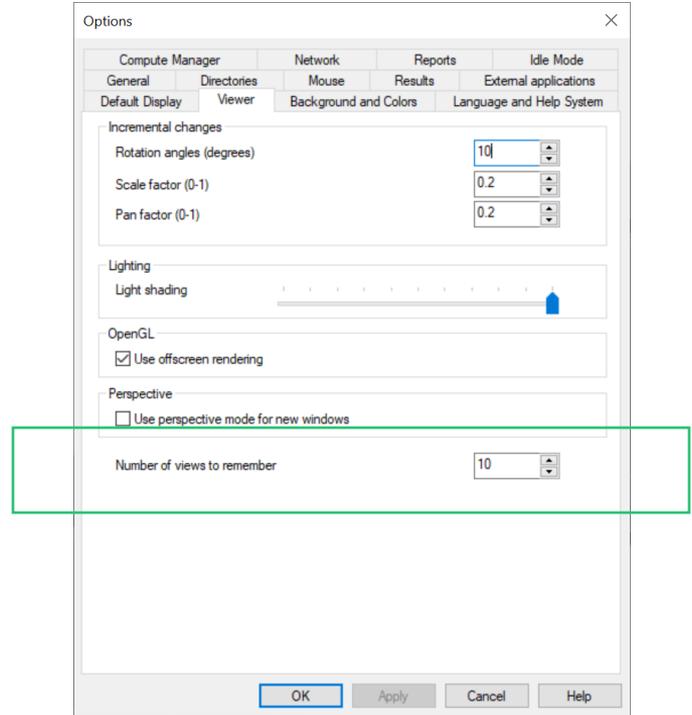
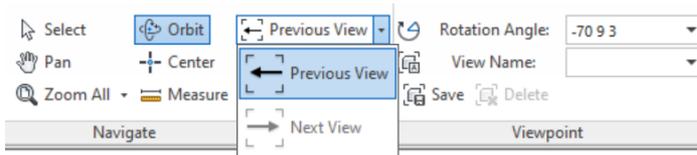
Results Tab Options

- Results tab in Options menu
 - Font size
 - The font size may be too small to read for a PPT report or presentation
 - Increase the font size to make the scale readable
 - 2nd units for results
 - Your audience may want both metric and English units
 - If two units are displayed, this may influence the size font you use



Viewer Tab Options

- Change the number of Previous Views the program remembers
 - Default is 5, I like 10, but why not 20?



Save Views

- Can also Save views
 - On View Tab
 - Saved views are saved with the study

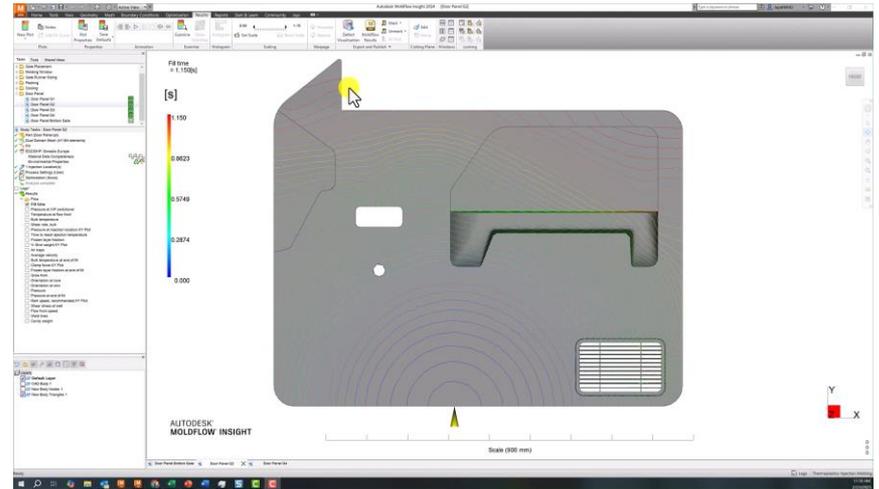
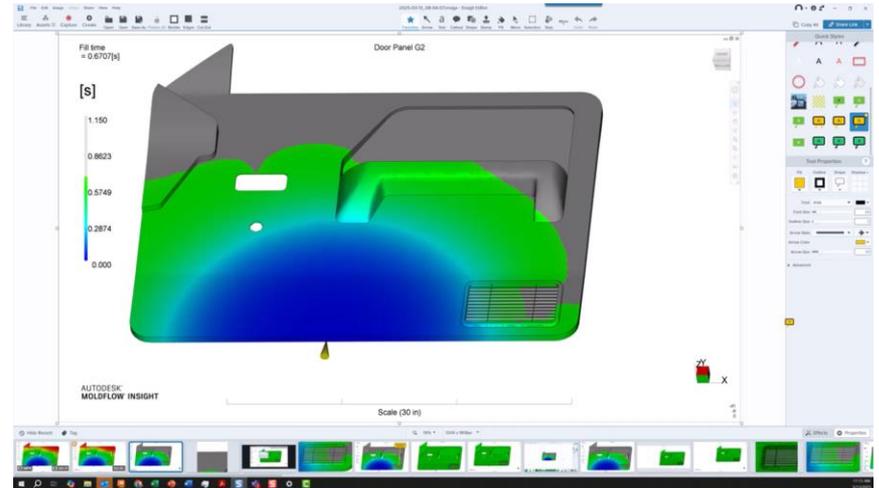


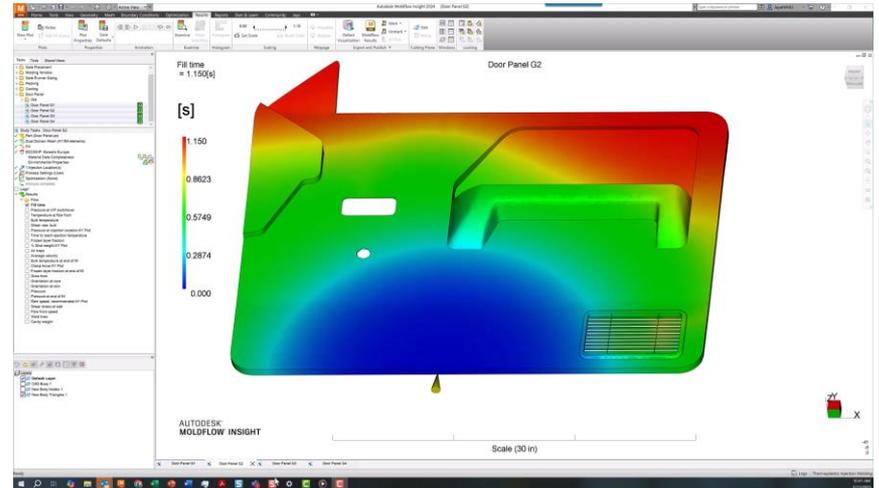
Image Capture

- Snag it – From Techsmith
 - Screen capture tool
 - Images
 - Videos
 - Edit images
 - Image resolution
 - Image size (in, cm, px, %)
 - Change colors
 - Background
 - Replace colors
 - Annotate



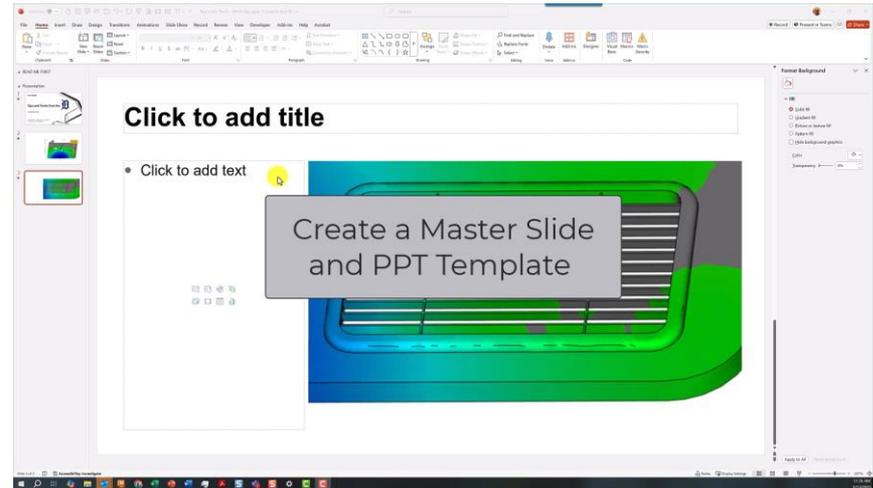
Video Capture

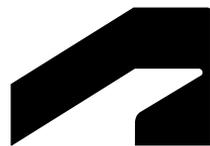
- Snag it – From Techsmith
 - Videos
 - Define video size
 - Portion of the screen to capture
 - Cut sections of videos out
 - Combine videos
 - Save
 - MP4
 - Gif



PowerPoint Templates

- PowerPoint
 - Create custom template
 - Use slide layouts set up for the aspect ratio of the images you capture in Synergy
 - 1:1
 - 3:4
 - 9:16
 - Have other slide layouts as needed for your reports
 - Can have many slide layouts
 - Save the file as a template to easily use the template





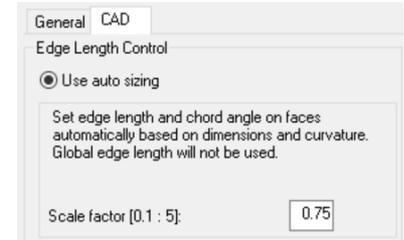
Meshing Tips and Tricks



Meshing Tips

If meshing fails, try:

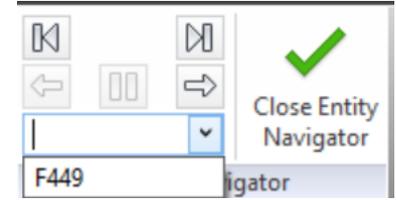
- Mesh with different Auto size (typically smaller, occasionally larger)



- Whitewash the CAD: Import/Export into CAD software then try to mesh in Moldflow again
- Try autofix in CAD, then try to mesh again

Meshing Tips

- If surf fails – use Query on surf#, then use navigation bar to find
 - Then go to CAD and fix surf since you know where it is

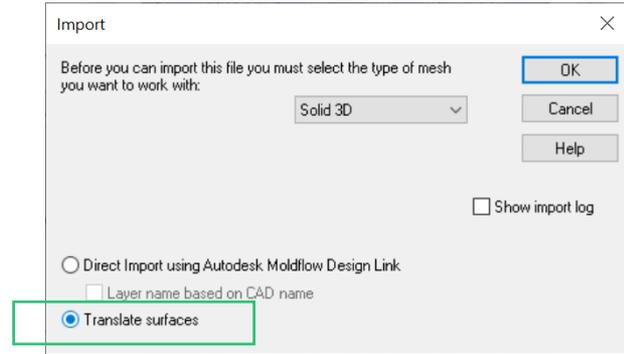


- Split CAD body in $\frac{1}{2}$, or $\frac{1}{4}$'s and see which part doesn't mesh
 - Keep splitting if you need to find problem area
 - Mesh all split areas as DD, delete mesh on split edges and merge nodes to make watertight DD mesh

Meshing Tips

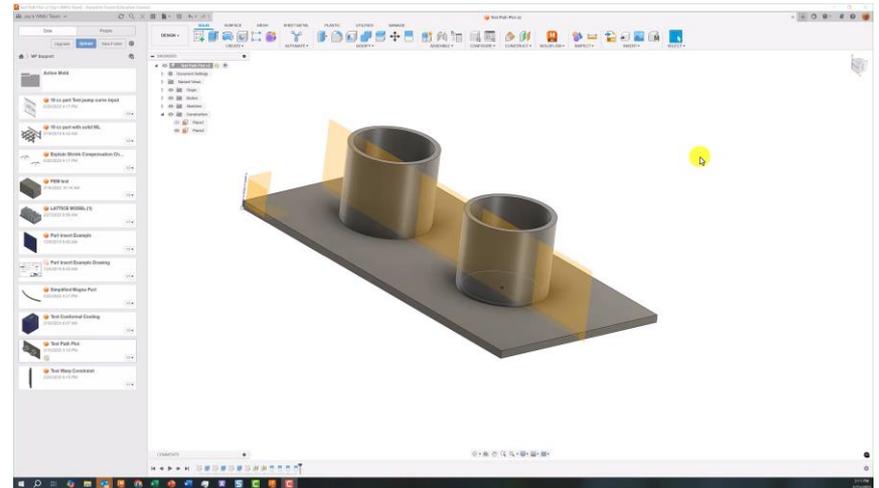
- Translate surfaces during MF import
 - This breaks solid model into surfaces, then meshes with .stl mesher
 - Low quality mesh, but better than no mesh

- Mesh cad in Adviser, then export as .udm. Import .udm into Insight – then fix mesh issues and stick w DD or convert to 3d.



Meshing Tips

- Split Face in cad to get surface lines
 - Used to place gates at specific locations
 - Mesh “typically” follows surface lines
 - If not in the correct location,
 - Mesh in DD, move nodes
 - Convert to 3d
- An alternative method
 - Place injection cone on part before meshing to 3D
 - Move node to exact location as necessary





Thank You



Make Anything