

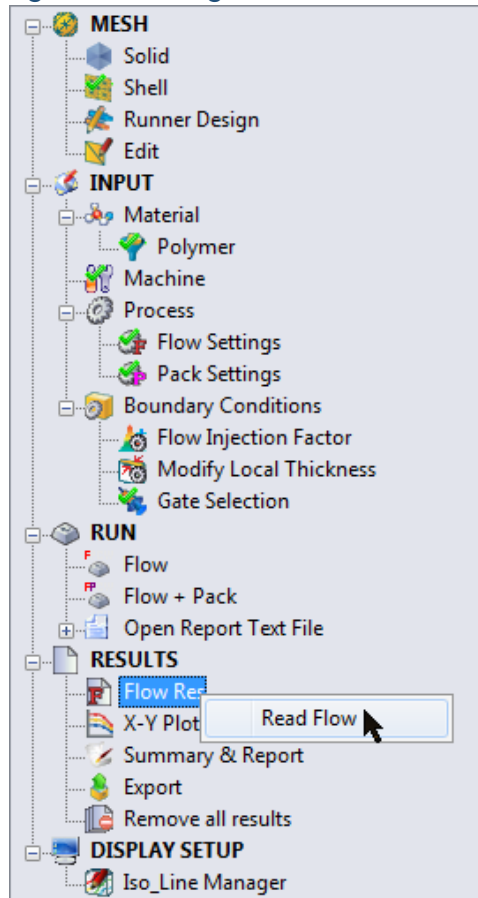
Introduction to SolidWorks Plastics

This set of instructions includes:

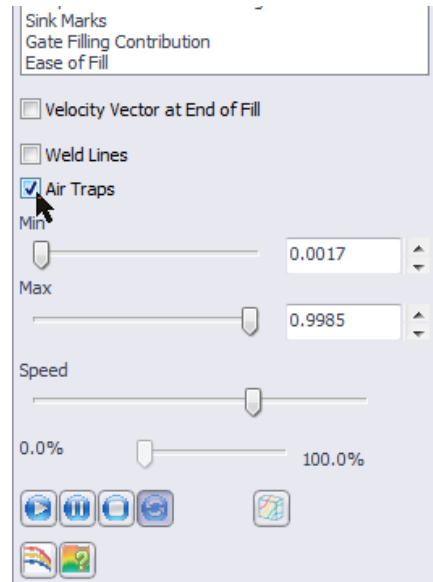
- How to view different results that were generated
- How to save and export the results
- How to animate the results

If you do not have results from an analysis, please follow the instructions available at this [link](#). You must have analysis results before attempting the instructions below.

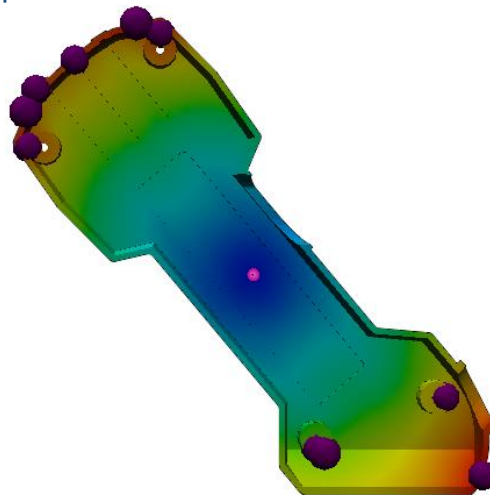
Step 1: To open the results that were generated, right click on Flow Res and then select Read Flow



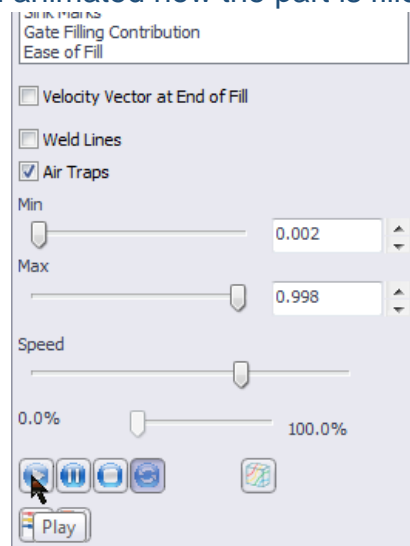
Step 2: Check the Air Traps box to see places on the model where air is likely to get trapped due to injection molding.



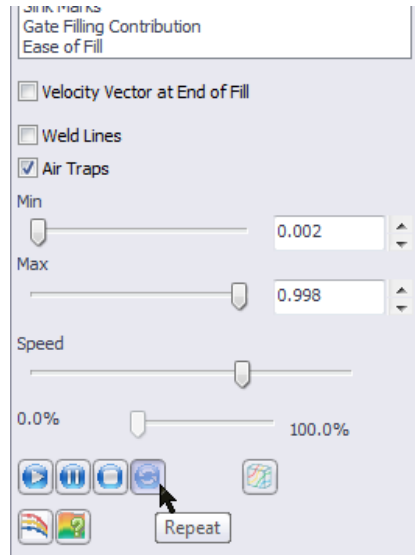
Step 3: Look at the purple spheres. They indicate locations where air is likely to get trapped. The more frequently these spheres appear, the more air will get trapped due to the design of the part. Trapped air can cause undesired results and should be eliminated. Uncheck air traps when you are done viewing these purple spheres.



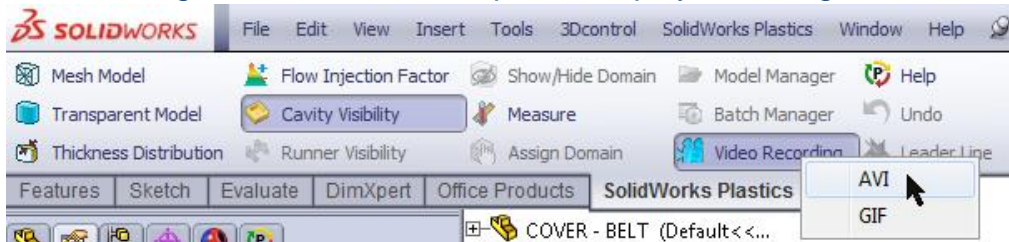
Step 4: Press the play button. This will animated how the part is filled with plastic.



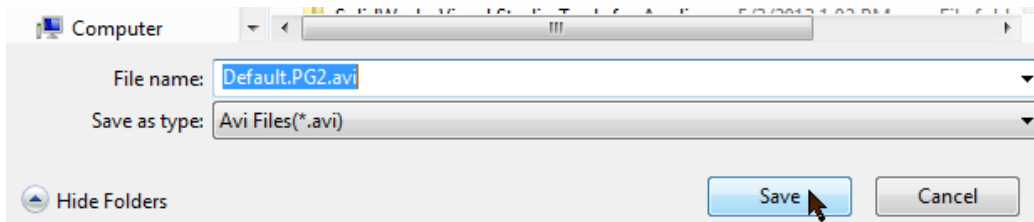
Step 5: Toggle the repeat button “Off” so the animation does not start over again and wait for the animation to end.



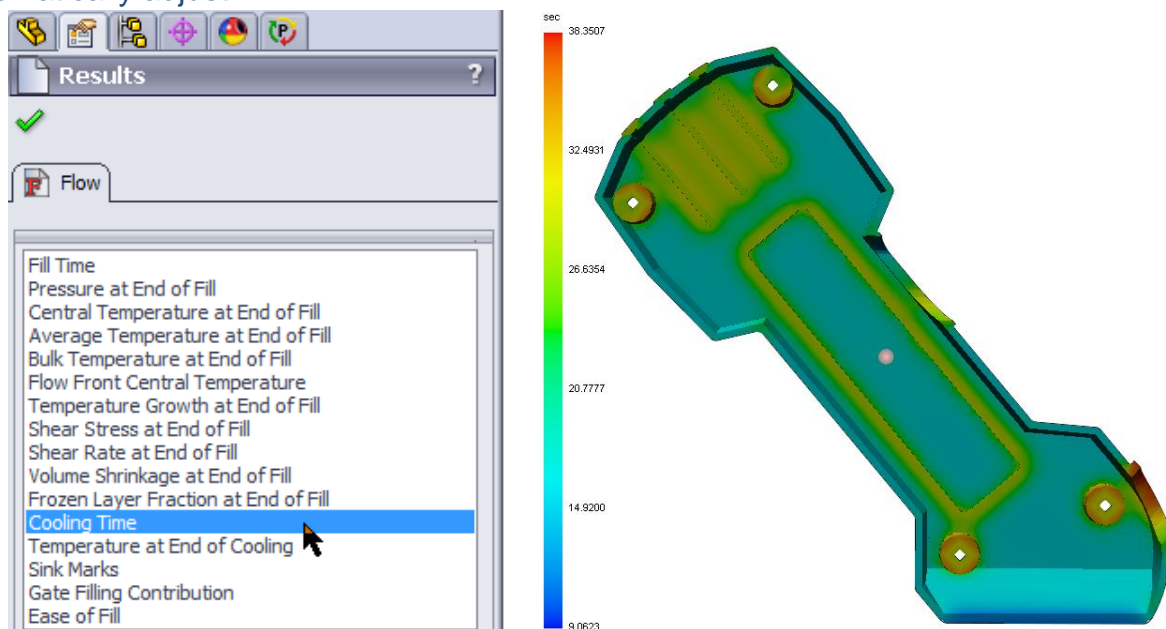
Step 6: Press the Video Recording button just above the SolidWorks Plastics tab and then choose AVI. This will start recording the animation. Then press the play button again



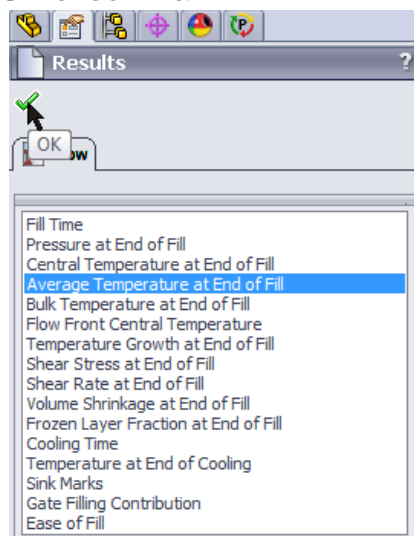
Step 7: When the animation ends, press the Video Recording button again. You will now be prompted to save the animation. Choose the file name of the video and where to save it, then click save. You will now have a video of the animation of fill time.



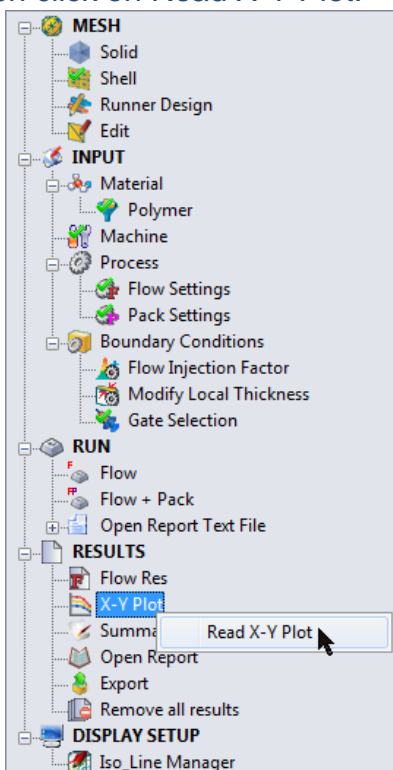
Step 8: Browse through the list of other analyses on the part. Click on Cooling Time and notice how the part now shows how long it takes to cool off. The colored scale to the left of the part will automatically adjust.



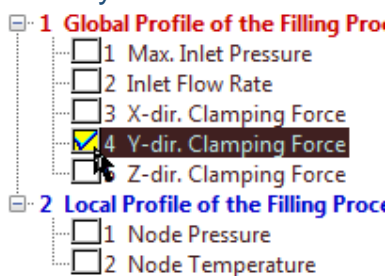
Step 9: Look at other results by clicking on other analyses in the list .When you are done viewing the different analyses click on the OK check mark.



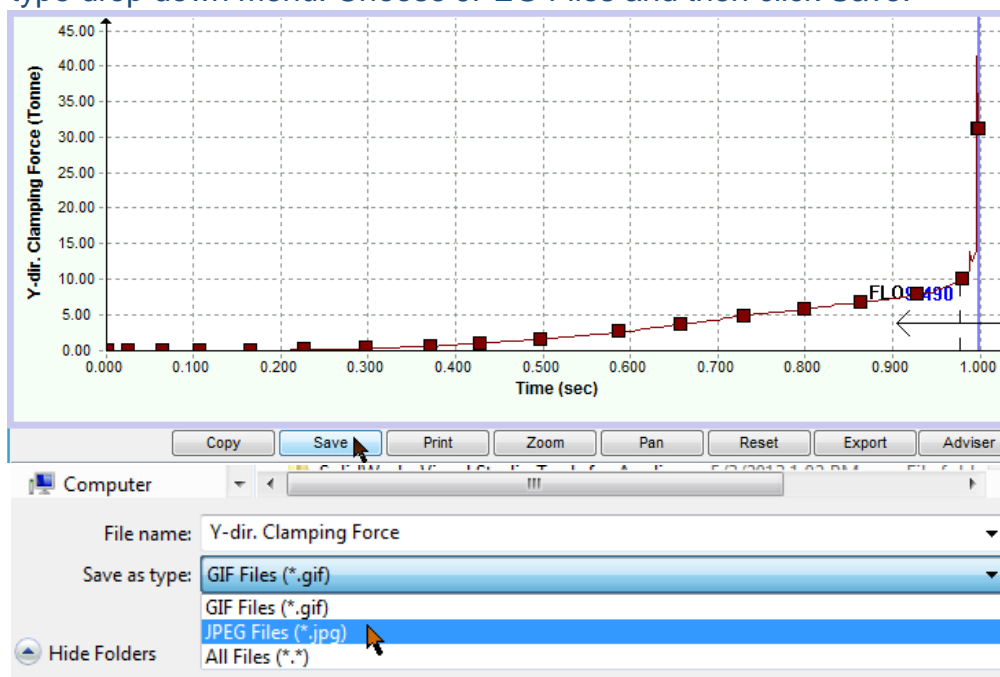
Step 10: Right click on X-Y Plot and then click on Read X-Y Plot.



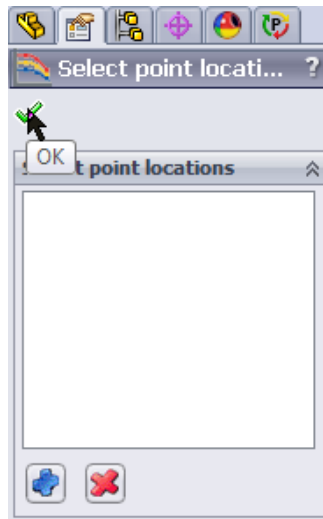
Step 11: Under the Global Profile of Filling Process, choose 4 Y-dir. Clamping Force. The graph to the right of this will then readjust to show you the Y-directional clamping force.



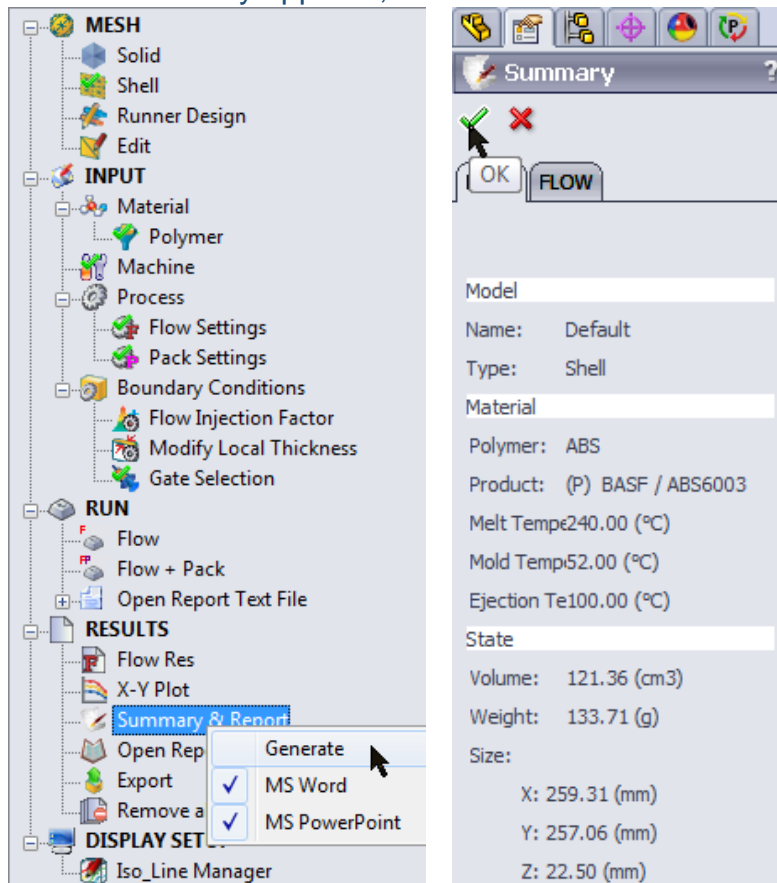
Step 12: Save this graph by clicking on the Save button. Give the graph a file name and then click on the Save as type drop down menu. Choose JPEG Files and then click Save.



Step 13: Click on the OK check mark to exit out of the X-Y Plot Results



Step 14: Right click on Summary & Report. Make sure MS Word and MS PowerPoint are ticked. Then click on Generate. When the Summary appears, click on OK.



Step 15: The Report Generator will pop up. Enter in data such as Title, Date, etc...

Report Generator

Cover Introduction Special Notes Generate Image File

Title:
Solidworks Plastics

Date:

Department:

Institute:

Author:

OK Cancel

Step 16: Click on the Introduction tab and type (or copy and paste) an introduction if you have one. Then select the Special Notes tab and type in special notes (if any).

Cover Introduction Special Notes Generate Image File

Introduction:

Cover Introduction Special Notes Generate Image File

Special Notes:

Step 17: Click on the Generate Image File tab. Then under the Material Parameter tab, check the boxes that you want a picture/analysis of.

Cover Introduction Special Notes Generate Image File

Select Output Images

Animations (Microsoft PowerPoint) ☒ GIF ☐ AVI

Select All Unselect All

Material Parameter Results Flow User-Defined

Picture Name	
<input checked="" type="checkbox"/> Shell_PT_P_1_Polymer Viscosity Graph	
<input checked="" type="checkbox"/> Shell_PT_P_2_Polymer Specific-Volume Graph	
<input checked="" type="checkbox"/> Shell_PT_P_3_Polymer Specific-Heat Graph	
<input type="checkbox"/> Shell_PT_P_4_Polymer Thermal-Conductivity Graph	
<input checked="" type="checkbox"/> Shell_PT_P_5_Polymer Elastic-Modulus Graph	
<input type="checkbox"/> Shell_PT_P_6_Polymer Poisson-Ratio Graph	
<input type="checkbox"/> Shell_PT_P_7_Polymer Linear-Thermal-Expansion-...	
<input checked="" type="checkbox"/> Shell_PT_P_8_Polymer Relaxation-Modulus Graph	

Step 18: Click on the Results tab and pick the results you want to include in the final report. Do the same with the Flow tab.

The first screenshot shows the 'Results' tab selected. It contains a table with the following data:

Picture Name
<input checked="" type="checkbox"/> Shell_PT_R_1_Max. Inlet Pressure
<input checked="" type="checkbox"/> Shell_PT_R_2_Inlet Flow Rate
<input type="checkbox"/> Shell_PT_R_3_X-dir. Clamping Force
<input checked="" type="checkbox"/> Shell_PT_R_4_Y-dir. Clamping Force
<input checked="" type="checkbox"/> Shell_PT_R_5_Z-dir. Clamping Force

The second screenshot shows the 'Flow' tab selected. It contains a table with the following data:

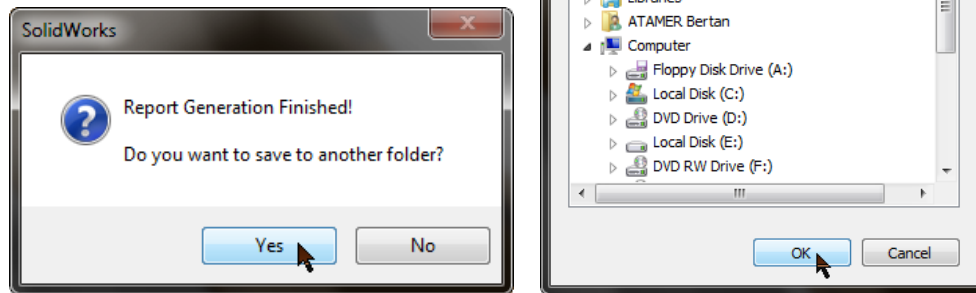
Picture Name	Orientation	Pause
<input checked="" type="checkbox"/> Shell_FLOW_Fill Time	Current View	<input type="checkbox"/>
<input checked="" type="checkbox"/> Shell_FLOW_Pressure at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Central Temperature at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Average Temperature at End of Fill	Current View	<input type="checkbox"/>
<input checked="" type="checkbox"/> Shell_FLOW_Bulk Temperature at End of Fill	Current View	<input type="checkbox"/>
<input checked="" type="checkbox"/> Shell_FLOW_Flow Front Central Temperature	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Temperature Growth at End of Fill	Current View	<input type="checkbox"/>

Step 19: When you are done selecting results to include in the report, click OK. The computer will now start to create your document(s).

The 'Report Generator' dialog box is shown with the 'Generate Image File' tab selected. It includes a 'Select Output Images' section with 'Animations (Microsoft PowerPoint)' selected, and radio buttons for 'GIF' and 'AVI'. Below this is a table with the same data as the 'Flow' tab in the previous screenshot. At the bottom right, there are 'OK' and 'Cancel' buttons, with a mouse cursor clicking on the 'OK' button.

Picture Name	Orientation	Pause
<input checked="" type="checkbox"/> Shell_FLOW_Fill Time	Current View	<input type="checkbox"/>
<input checked="" type="checkbox"/> Shell_FLOW_Pressure at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Central Temperature at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Average Temperature at End of Fill	Current View	<input type="checkbox"/>
<input checked="" type="checkbox"/> Shell_FLOW_Bulk Temperature at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Flow Front Central Temperature	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Temperature Growth at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Shear Stress at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Shear Rate at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Volume Shrinkage at End of Fill	Current View	<input type="checkbox"/>
<input type="checkbox"/> Shell_FLOW_Frozen Layer Fraction at End of Fill	Current View	<input type="checkbox"/>

Step 20: You must wait until the message shown below appears. When the message pops up, click on Yes. Then choose the location to save this file and click OK.



A YouTube video of this procedure available at this [link](#).