ANSYS Steady Flow over Cylinder - Results

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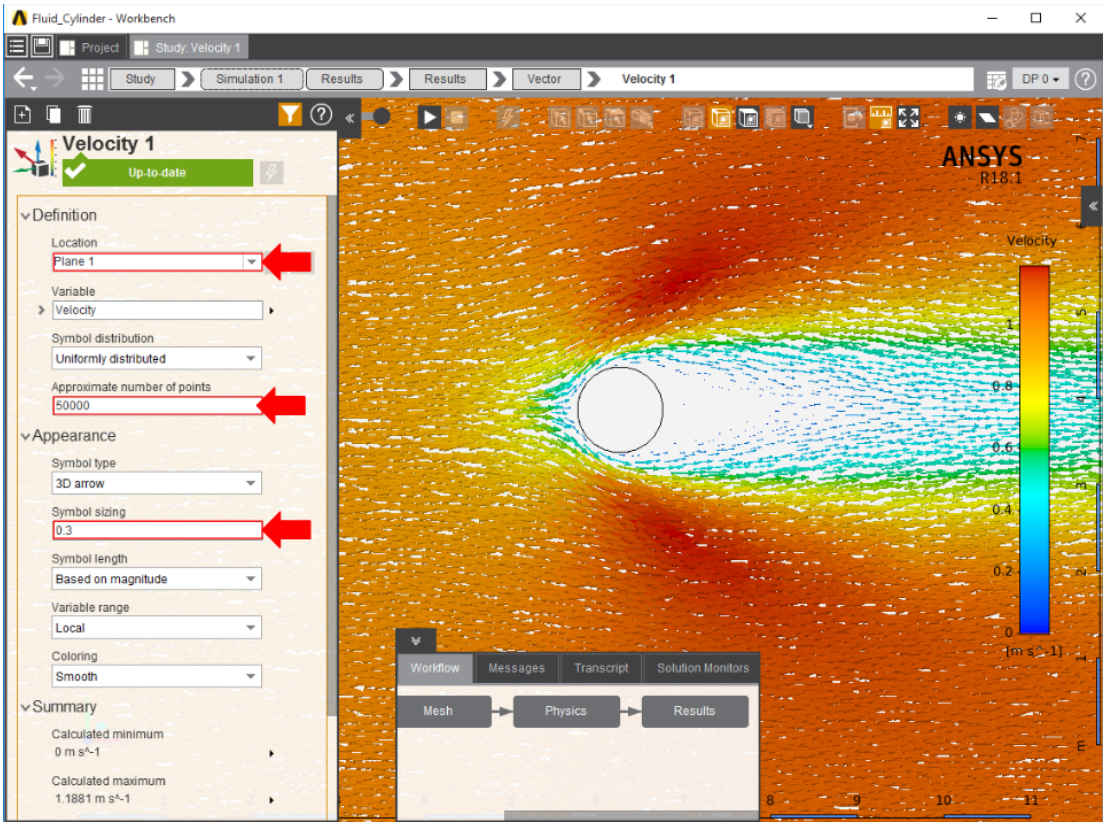
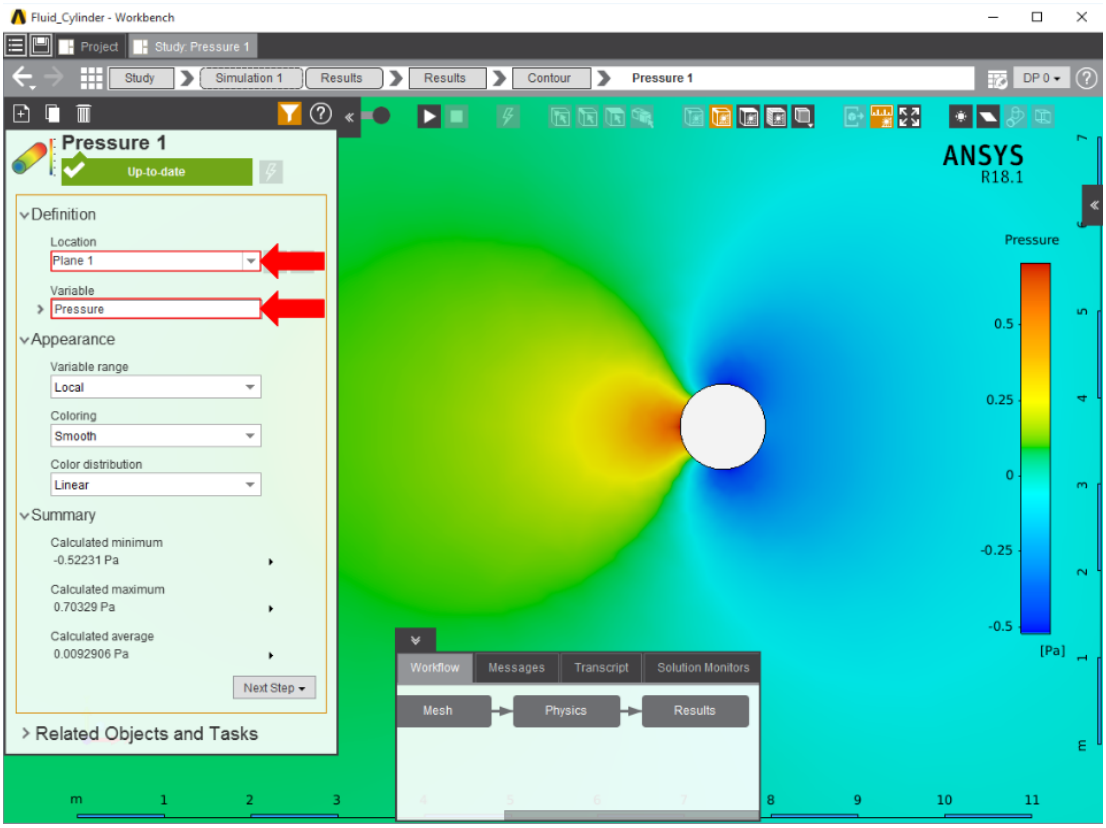
Solution/Results

Press the **Results** button in the **Workflow** to extract information from the simulation. In order to find information that can be readily used, first press **Evaluate Results**. Once the evaluation is complete, AIM will automatically output a vector in the **Results** section under **Objects**. This vector will be a velocity vector, but the arrows that represent velocity are either too big or in the way. A good solution is to create a plane that bisects the cylinder. This is done by selecting the **Add** plane button in the upper right corner and positioning it directly in the middle of the flow volume.

Select the **Velocity vector** to edit the settings with which the vectors are defined. Update the **Location** to be the newly created plane, and input 50000 for **Approximate number of points**. Change the **Symbol sizing** in the **Appearance** section to 0.2. Press the **Play** button in the model window to see how these velocity vectors develop over time.



To plot the pressure change, a contour on the plane within the flow volume will most accurately represent a 2D pressure contour of the flow. In the **Results** panel, select **Contour** in the **Add** drop down menu, change the location to the plane to map the contour onto, and assign the **Variable** to be **Pressure**.



To find the total pressure on the walls of the flow volume, add another **Contour**, select the face of the flow volume in contact with the cylinder, and change the **Variable** to **Total Pressure**.

Go to Step 6: Validation

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