Transition Duct - Results

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Solution/Results

Press the **Results** button in the **Workflow** to extract information from the simulation. In order to calculate the solution and 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**. The vectors show air velocity.

Select the **Vector** to edit the settings with which it is defined. Change the **Approximate number of points** to 1000 to increase the density of vectors in the display, then change the **Symbol length** to **Constant** to make the smaller vectors easier to see. Press the **Play** button in the model window to see how these velocity vectors develop over time.
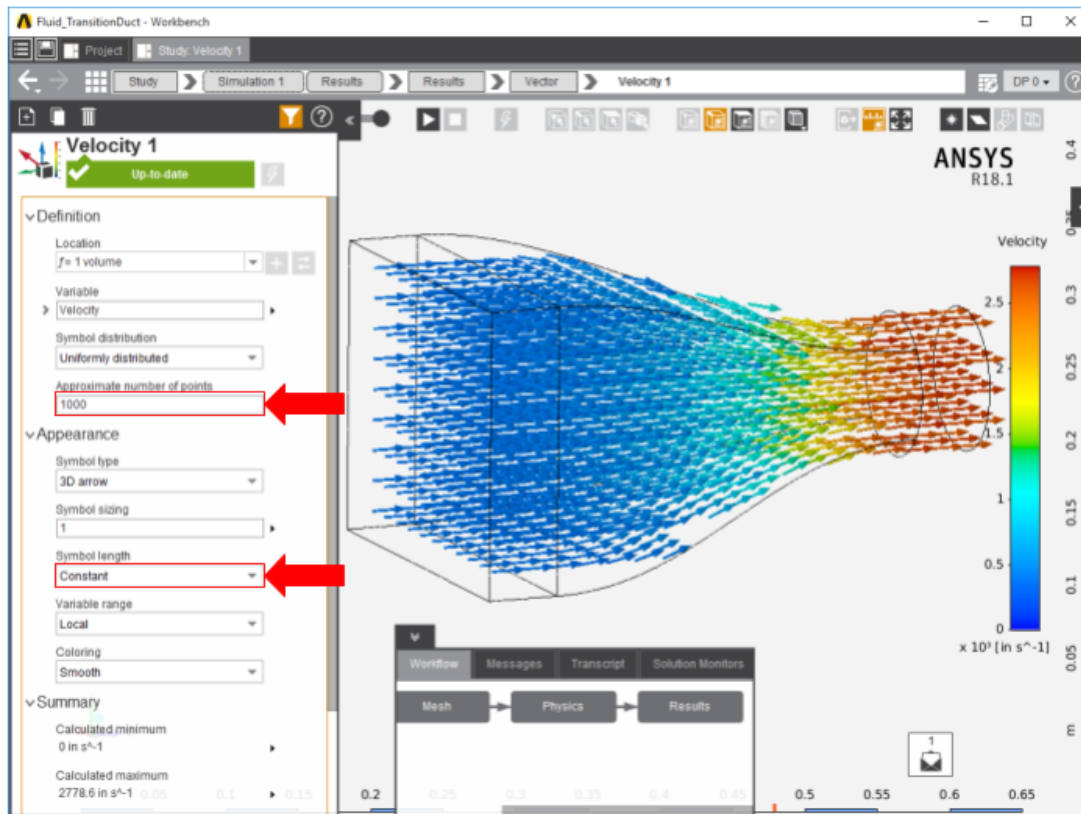
To find the total pressure on the walls of the duct, return to the **Results** task and select **Contour** from the **Add** dropdown menu. Select all of the outside faces of the flow volume (except the inlet and outlet) and change the **Variable** to **Total Pressure**. This will plot the pressure on the duct walls.

A temperature contour can be added by using the same process, but instead selecting **Temperature** as the **Variable**.

Streamlines are also an excellent way of visualizing the flow and are easily created in the **Results** section of the **Workflow**. Right click in an empty space of the model window and select **Add** > **Results** > **Streamline**. Change the **Seed location** to **Inlet 1** and change the **Approximate number of points** to 100. Finally, press **Evaluate** to calculate and display the streamlines. A creative way of seeing how the streamline behaves over time is to change the appearance of it to show different things. For example, the line type can be changed in order to show how the streamlines rotate in response to the flow. Change the **Line type** to **Ribbon** and increase the **Ribbon width** to 2 or 3. Press the **Play** button in the model window to see how these streamlines develop over time.
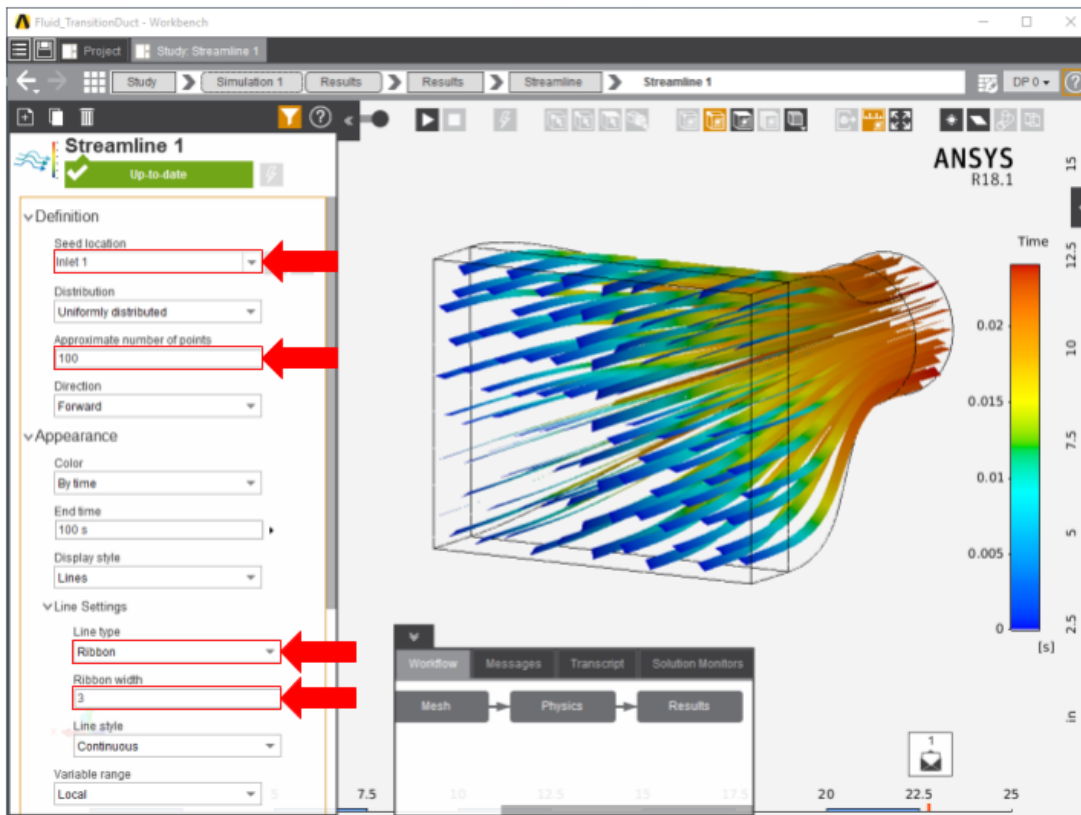
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