3D Convection through an Electronics Box - Numerical Results

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Problem Specification

1. Pre-Analysis & Start-Up

2. Geometry

3. Mesh

4. Physics Setup

5. Numerical Solution

6. Numerical Results

7. Verification & Validation

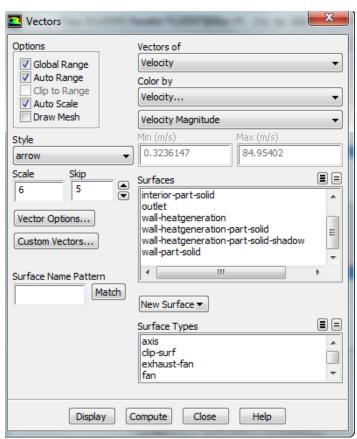
Exercises

Comments

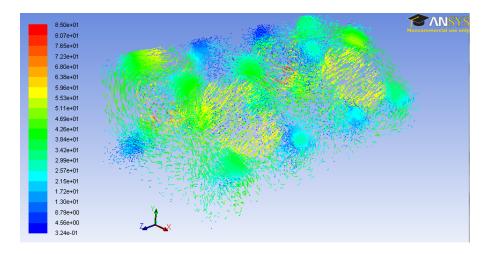
Numerical Results

Velocity

First, we will look at the velocity vectors of the solution to see if the make intuitive sense. To plot the velocity vectors, go to **Results > Graphics and Animations**. In the **Graphics and Animations** Window, select **Vectors** and click **Set Up....** This will bring up the **Vectors** Menu.



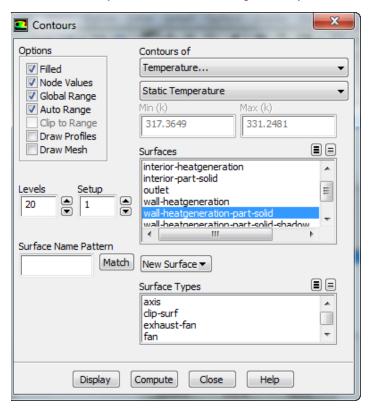
Make sure the settings of the menu match the figure above: namely *Vectors of > Velocity*, *Color by > Velocity*, and set the second box as *Velocity Magnitude*. To see the velocity vectors, press *Display*.



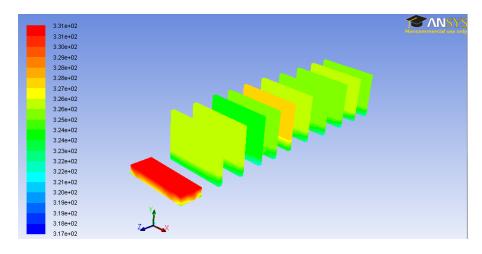
Temperature Contours

To view the pressure contours over the entire mesh, go to *Results > Graphics and Animations* again, and in the *Graphics and Animations* Window, select *Contours*.

Click Set Up... to bring up the Contours Menu. Check the box next to Filled. Under Contours Of, ensure that the two boxes that are selected are Temperat ure... and Static Temperature. Select the wall-heatgeneration-part-solid in the surfaces window.



Once these parameters are set, press *Display* to see the temperature contours.



Go to Step 7: Verification & Validation

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