

Demonstration Video

Voxler – Part 5

VectorPlot and StreamLines

PART 1

1. Introduction
 2. VectorPlot
 3. StreamLines
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1. In this part I will demonstrate how to create a vector plot, and add Streamlines.
2. First load your data set by going to File | Load Data, selecting the data file and clicking Open. For this demonstration I will choose vortex.vdat, this data file can be downloaded from goldensoftware.com.
 - a. Once the data is loaded select the vortex.vdat module from the network window and double click on the VectorPlot module in the Graphics Output folder in the module library.
 - b. The VectorPlot properties allow you to change the frequency of the vectors by moving the slider bar or entering a number to the left of the slider bar.
 - c. You have your options of vector style, which changes the shape of the vector head arrow.
 - d. You can change the color method so that either the vectors are all the same color, or they can be colored by magnitude. If you choose to color the vectors by magnitude, you can change the color map by clicking on the drop down menu and selecting the color spectrum you like.
 - e. You also have the options for the scale method; you can set the minimum and maximum scales, the arrow scale, and the base symbol size. All these options are here to be sure you can create the vector plot exactly how you want it.
3. While the VectorPlot is full of information it may be difficult to see main trends so streamlines can be added to the plot to help visualize the vector trends. The streamlines show the path that the vectors would cause an object to take.
 - a. To add streamlines, select the vortex.vdat module in the network window and double click on StreamLines in the Graphics Output folder in the module library.
 - b. The width of the streamlines can be changed by moving the slider on the line width row or selecting the number to the left of the slider and inputting the exact width you wish to use.
 - c. The color method of the vectors, either a fixed color can be used or the streamlines can be colored by magnitude. When colored by magnitude you can change the color map by clicking on the current color map and selecting the new color map from the
 - d. You can increase the number of streamlines by increasing the number of seeds in the properties pull down menu.