Computational Fluid Dynamics

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Thursday April 7, 2016

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Throughout this project Wolfram Mathematica 10.1.0 for Linux x86 was used to sift through the vast data files and extract the relevant information to produce the plots. The SU^2 code natively writes to the data files in the format used for Tecplot, a visualization and analysis tool for computational fluid dynamics [?]. Since Tecplot was not used, a Wolfram function was needed to convert the data to a form Mathematica could use. Once the data was in a usable form, the ListDensityPlot function was used to create the images. The function to tidy the data along with the plotting function were combined into a Wolfram script such as Figure ??, which can be executed from the terminal. To fully automate the image generation, a shell script was written to iterate over each data file.

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Static Cylinder

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