Guide to Creating 3D Representations of Contour Plots from STAR-CCM+

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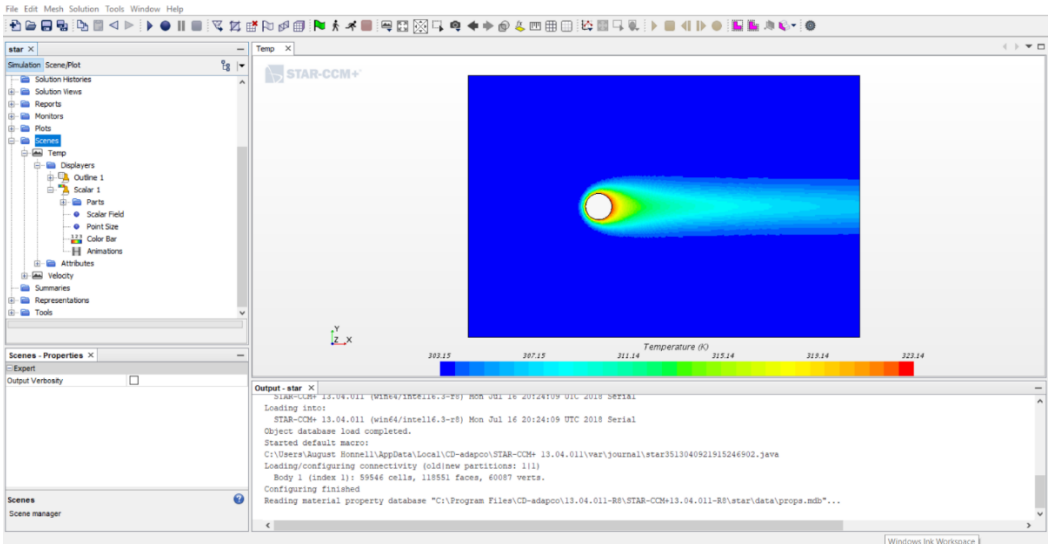
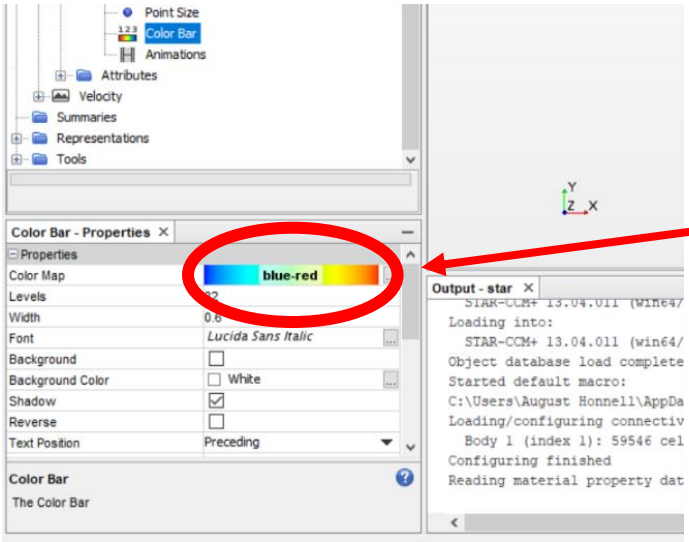
First, open the plot you would like to convert to a 3D object

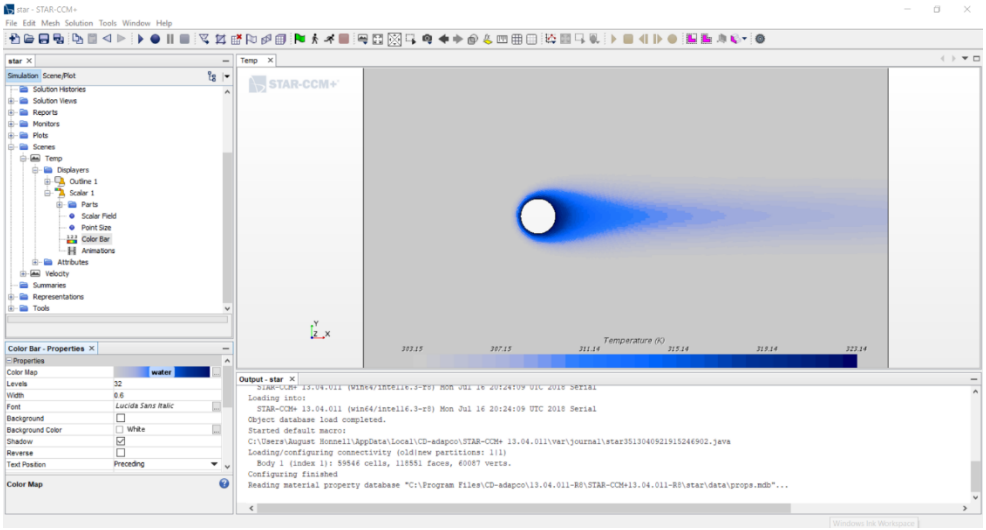


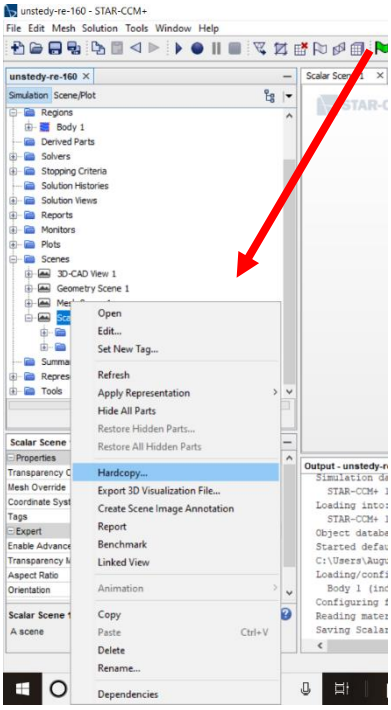
Select the color bar within “displayers” for the plot.



Within the properties menu click on color map and change it to “water”.

The plot should now have a blue color gradient like shown below.

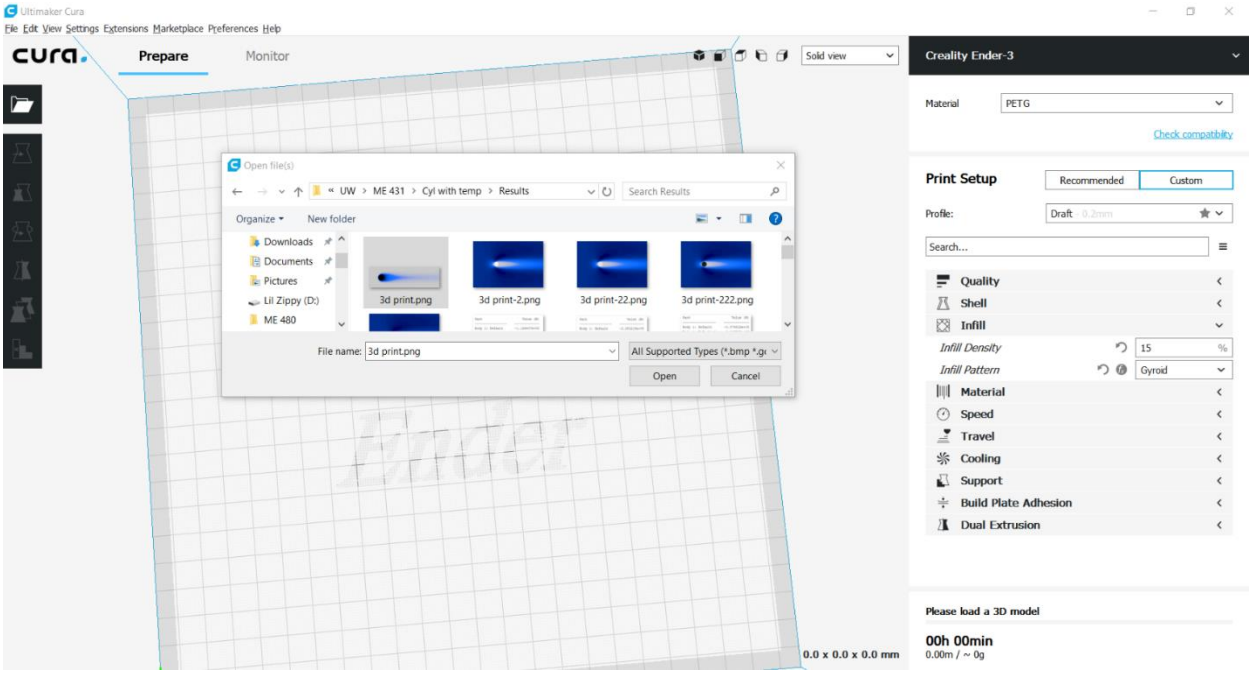




Save the plot as a .png by right clicking on the plot in the side bar and clicking on "hardcopy".

After saving the file, the photo should be cropped. The boundaries can also be removed using photo editing software. This step will produce better looking plots.

The image can now be opened in Cura.

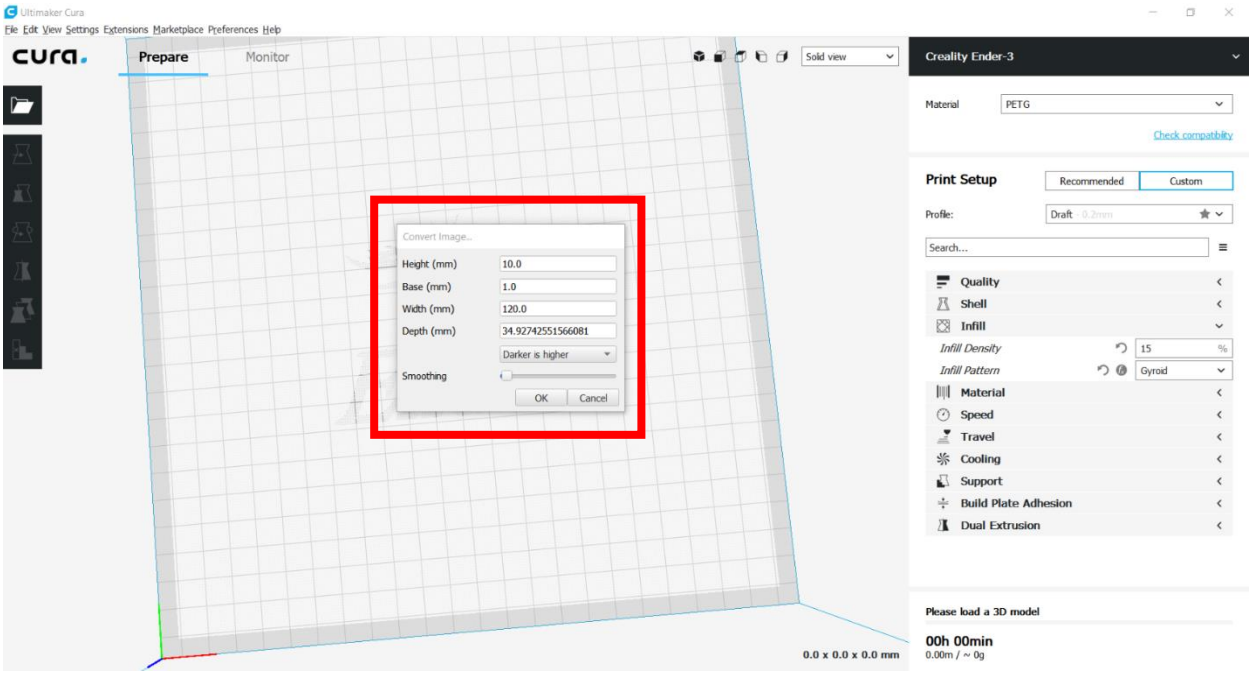


Cura is a free slicing program used for 3D printing. If Cura is not already installed on your computer, it can be downloaded from the link below.

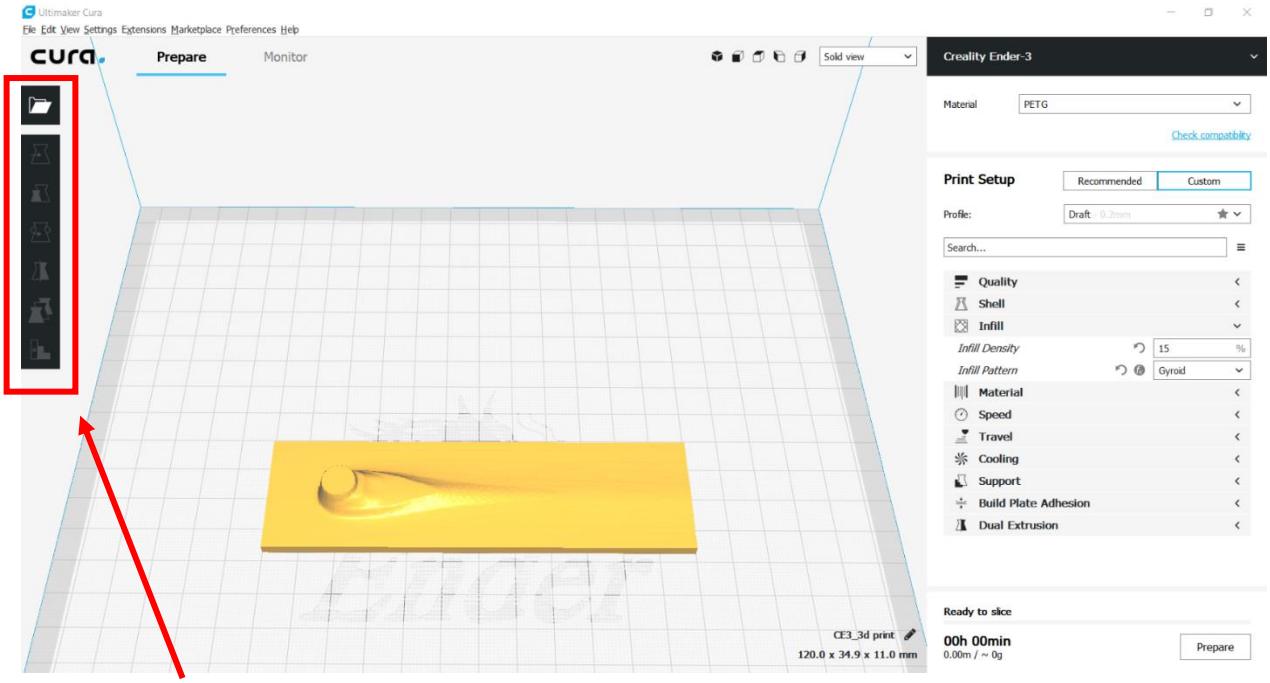
https://ultimaker.com/en/products/ultimaker-cura-software

If this is your first time installing Cura, follow the set-up instructions in the install. If you don't want to 3D print the plot from Cura, select Ultimaker 3 as your default printer. Later the image can be exported as a STL file.

Upon loading the image, the menu shown below will appear. Leaving the defaults and clicking ok generally gives good results. The settings may be tweaked to generate the best results for your plot.



After clicking ok, a 3D object should appear. The object can now be printed using Cura or the STL file can be saved. To save the STL, go to file > export and select STL



Additionally, the model can be scaled, rotated, or moved using the tools in the side bar.