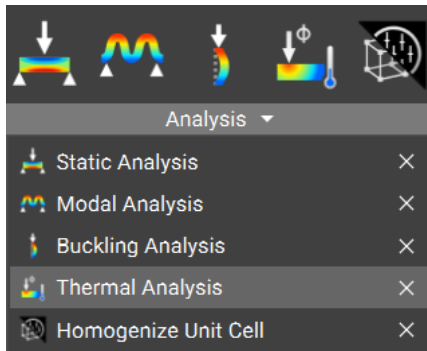


# Follow Along: Running a Thermal Analysis

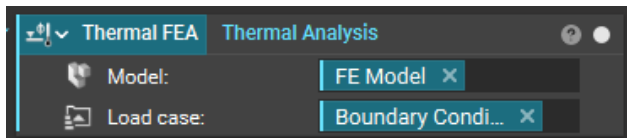
Now that we've created our **FE Model** and constructed our Load case with a **Boundary Conditions List**, let's run a **Thermal Analysis** and discuss the results.

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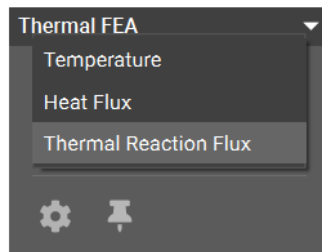
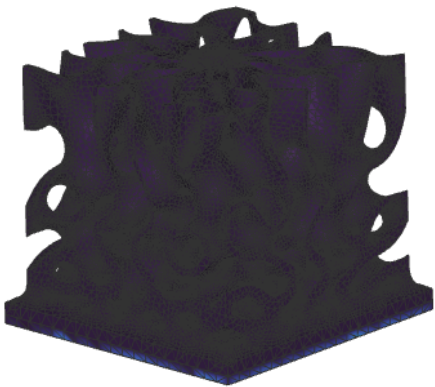
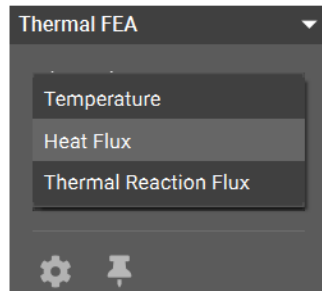
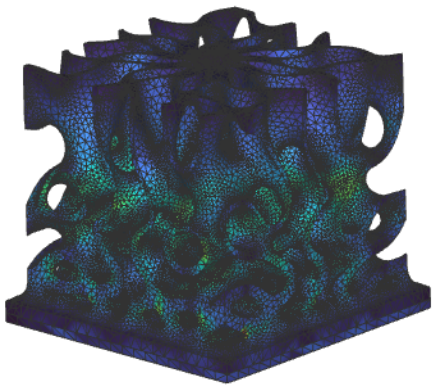
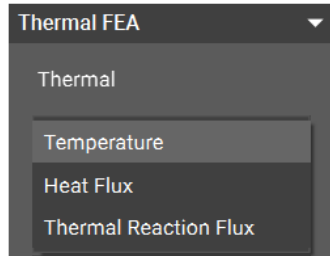
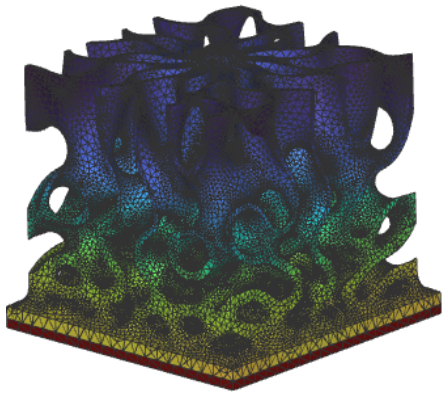
**Step 1:** Add a **Thermal Analysis** block to the Notebook from the Analysis dropdown menu in the Simulation tab.



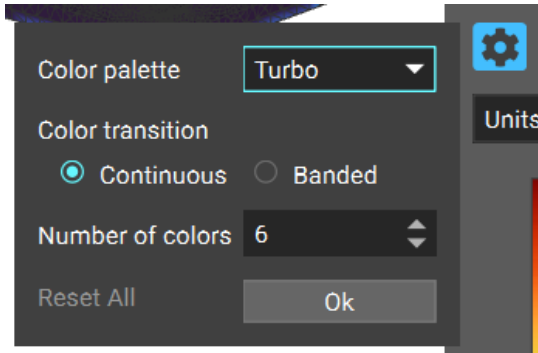
Drop the *FE Model* and *Boundary Conditions* variables into the block inputs, and the analysis will automatically run.



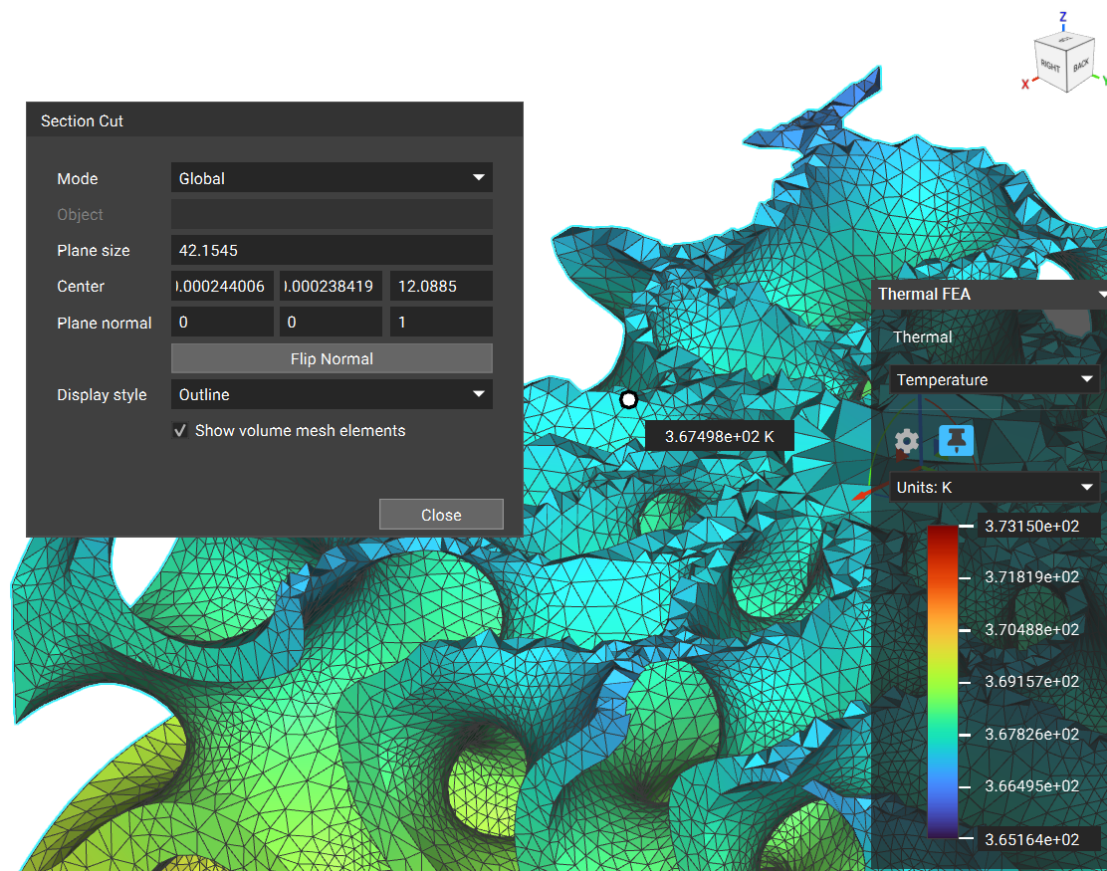
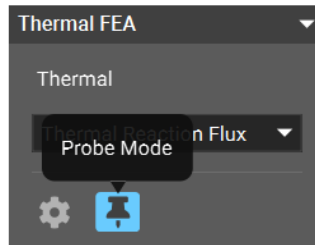
**Step 2:** In the results window, you can choose the results you want to visualize: Temperature, Heat Flux, and Thermal Reaction Flux.



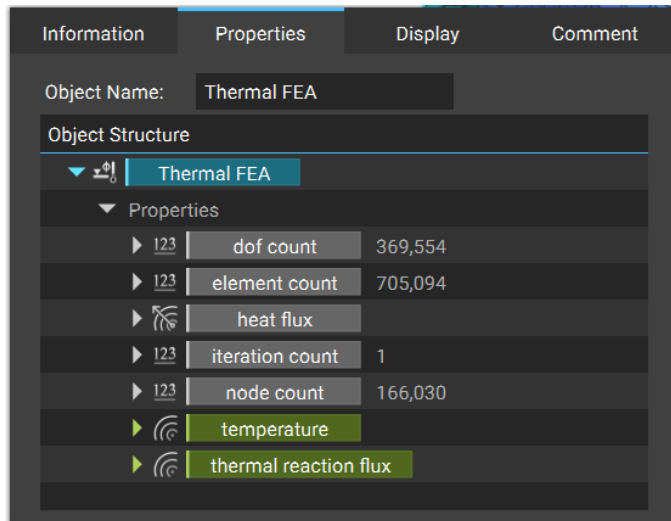
Use the Color Settings to choose one of three Color palette options, select a Continuous or Banded Color transition, and assign a number of color bands between 3 and 9 if applicable.



Use Probe Mode to view results at individual mesh elements. Note that Probe Mode can also be used on Section Views when the “Show volume mesh elements” box is checked.

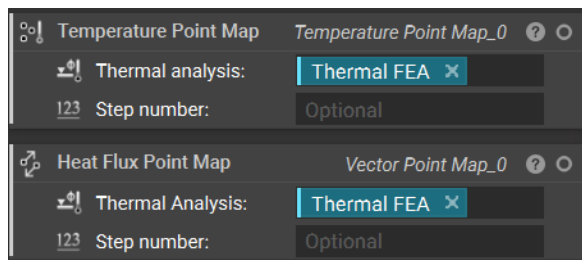


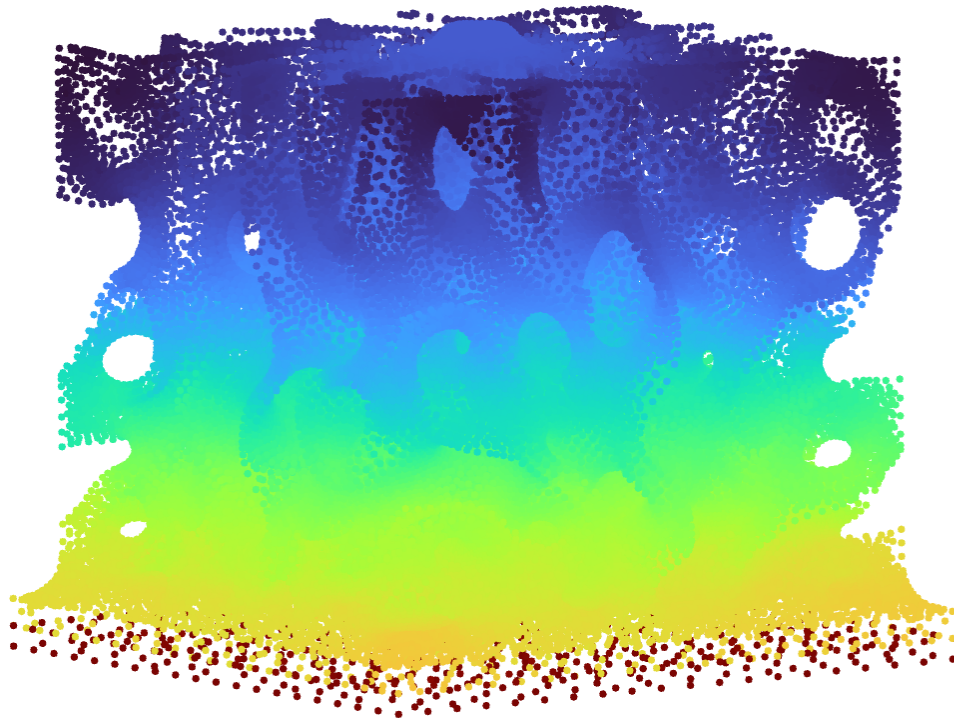
**Step 3:** From the Properties of the Thermal Analysis block, we can pull three different fields into our workflow: a vector field of heat flux, a scalar field of temperature, and a scalar field of thermal reaction flux.



Pull these fields into your Notebook and view the fields by selecting the block and using the hotkey "F" to pull up the Field Viewer window.

Note that you can use your **Thermal Analysis** as an input for a **Temperature Point Map** and **Heat Flux Point Map** block, giving the outputs below.





Temperature Point Map\_0

Temperature Point Map

Lower bound: 361.512

Upper bound: 376.881

Units: K

3.73150e+02

3.71819e+02

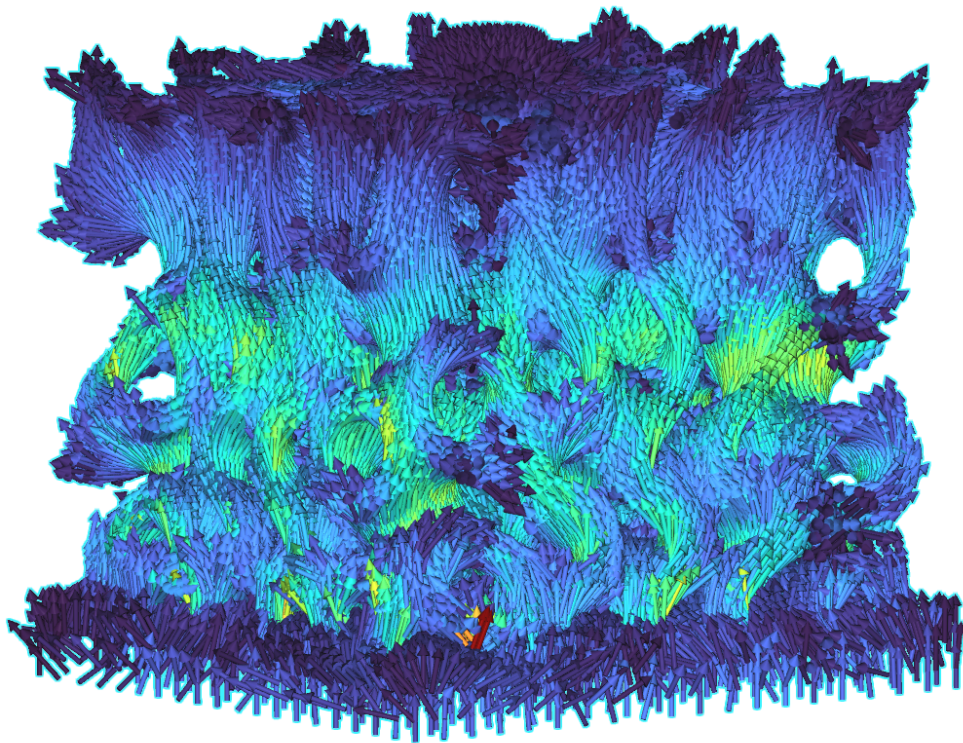
3.70488e+02

3.69157e+02

3.67826e+02

3.66495e+02

3.65164e+02



Vector Point Map\_0

Vector Point Map

Scale: 50

Weight: 1

Lower bound: 191.881

Upper bound: 139774

Units: W/m^2

1.38390e+05

1.15358e+05

9.23249e+04

6.92921e+04

4.62593e+04

2.32266e+04

1.93819e+02