

Running IMEX–Lava on VICTOR

*For more detailed info about input parameters, please see [documentation](#)

1. Log into victor at `victor.2i2c.cloud`. We suggest using the second smallest machine size for this workflow.
2. Open a Terminal window, enter `'victor setup'` and then enter the number associated with IMEX–Lava.
3. Open `IMEX.ipynb` inside the new folder that has been created within your home directory.
4. Run the import cells to ensure you have the necessary tools to run the model.
5. Input initial information to determine some baseline features of the output. “`Dt_output`” will be used to determine the frequency of snapshot outputs. Use True/False (‘T’ and ‘F’) flags to decide if the output will have conservation, use an esri ascii DEM, use a physical variable, or have a max runout at each dt.
6. Set parameters for a radial source including: total volume of effused material, UTM coordinates, radius (in km), and temperature (in Kelvin).
7. If needed, set additional flags to specify granularity.
8. Ensure you have a DEM file named “`topography_dem.asc`” located in the same folder as this notebook. Run the cell to plot your DEM and check the vent location.
9. Run the cell to check your current bounds, and then update your bounding box if necessary.

10. Using the comments as a guide, enter thermal and numerical parameters. Please use the following format to assign the “`solver_scheme`” variable: `solver_sceme = "\"KT\""` where `KT` may be replaced by `LxF` or `GFORCE` depending on your needs.
11. If necessary, change the gravity variable to reflect your environment.
12. Set your rheological and gas (if considering degassing) parameters.
13. Play the next three cells without any inputs to run the model. It should take some time for the third cell to finish running. Check for a “`CompletedProcess`” message and any errors listed in the output.
14. Check to see the number of timesteps you have available to visualize, and select one by assigning its number (in quotations) to the “`step`” variable – ex: `step = "2"`
15. Run the remaining cells to plot the results of your model.