

How to create a Velocity Model Manually

1. Follow the steps from README on github repository : [Velocity-Model](#)
2. make sure **params_vel.yaml** exist, it contains all the necessary parameters. (create on if does not)

```
mag: 7.851606725813582
centroidDepth: 24.3651
MODEL_LAT: -45.44974469006495
MODEL_LON: 168.6825803393135
MODEL_ROT: 45.0
hh: 0.4
min_vs: 0.5
model_version: '2.01'
topo_type: BULLDOZED
output_directory: FiordSZ09
extracted_slice_parameters_directory: SliceParametersNZ/SliceParametersExtracted.txt
code: rt
extent_x: 303.6
extent_y: 501.20000000000005
extent_zmax: 60.800000000000004
extent_zmin: 0.0
sim_duration: 223.54
flo: 0.25
nx: 759
ny: 1253
nz: 152
sufx: _rt01-h0.400
```

3. After Models are successfully finished (all *.r.s .p files exist)

Run gen_coords.py from Qcore repository. the first argument is where your velocity models files are

```
python $gmsim/Pre-processing/SrfGen/gen_coords.py $nobackup/Runfolder/TestRuns/Data/VMs/Hossack
```

Note: The function is importable as well. So can be used in bulk/batch VM generation.