

1 H5 data structure

H5 file

```
|_ /image_data/dset_0 [dataset]
|_ /image_data/dset_0_sim [group]
|   |_ Error norm: Inf norm of nodal residual vector [attribute]
|   |_ Tensor notation: Normalized Voigt [11 22 33 12 23 13] [attribute]
|   |_ combo_discretisation: [8.00e+00 8.00e+00 8.00e+00] [attribute]
|   |_ combo_method: ['hadamard'] [attribute]
|   |_ combo_volume_fraction: [8.00e-01 2.00e-01] [attribute]
|   |_ convergence_tolerance: [1.00e-10] [attribute]
|   |_ data_format: saved using matlab [attribute]
|   |_ element_formulation: ['hex8'] [attribute]
|   |_ element_integration_points: 8 [attribute]
|   |_ method: FANS [attribute]
|   |_ original_discretisation: [2.56e+02 2.56e+02 2.56e+02] [attribute]
|   |_ original_volume_fraction: [8.00e-01 2.00e-01] [attribute]
|   |_ vox_type: ['combo'] [attribute]
|   |_ /image_data/dset_0_sim/combo_idx [dataset]
|   |_ /image_data/dset_0_sim/combo_vol_frac0 [dataset]
|   |_ /image_data/dset_0_sim/eff_conductivity_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/eff_heat_capacity_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/eff_stiffness_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/eff_thermal_strain_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/localization_mat_stiffness_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/localization_mat_thermal_strain_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/localization_strain_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/localization_strain0_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/localization_strain1_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/localization_mat_stiffness_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/localization_mat_thermal_strain_0300.00 [dataset]
|   |_ /image_data/dset_0_sim/mat_id [dataset]
|   |_ /image_data/dset_0_sim/material_0300.00 [group]
|       |_ conductivity: [4.01e+05 1.73e+05] [attribute]
|       |_ elastic_modulus: [1.30e+08 4.08e+08] [attribute]
|       |_ heat_capacity: [3.41e+03 2.56e+03] [attribute]
|       |_ poisson_ratio: [3.40e-01 2.80e-01] [attribute]
|       |_ temperature: [2.93e+02] [attribute]
|       |_ thermal_strain: [0.00e+00 0.00e+00] [attribute]
```