

## Examples

### Example files not included in the PyLith Git repository

These are intermediate files used in the examples that are generated by third-party software (for example, mesh files from CUBIT/Trelis) and are larger than what we want to include in the Git repository. We provide these files so that users need not have this third-party software to run the examples.

#### CUBIT/Trelis Meshes

[mesh\\_tet.zip](#) (2 MB, uploaded by Lorraine Hwang 8 months 3 weeks ago)

### Additional Examples Not Included in the Manual

Examples not included in manual. Most of these are too big to be included in the manual.

#### Volcano with dike and magma chamber

- [volcano\\_chamberdike.tgz](#) (80 KB, uploaded by Lorraine Hwang 8 months 3 weeks ago) (Updated 2018-12-19)

This is a simple demonstration of a problem involving volcanic deformation. The demo includes files for creating the mesh using Trelis/CUBIT along with .cfg files and the necessary spatial databases to run a problem. The problem includes coarse topography of Mt. Ruapehu volcano, a vertical dike, and a spherical magma chamber.

**\*\*Updated 2018-12-18\*\*** to fix a topology issue associated with smoothing the mesh that resulted in NaN residual norm when running PyLith. Also updated the field split solver settings in pylithapp.cfg for PyLith v2.2.1.

#### Missing file for examples/meshing/cubit\_cellsize

- (file:cubit\_cellsize\_missing.tgz.doc not found)

'atprops.spatialdb' is missing from directory examples/meshing/cubit\_cellsize in v2.0.1 and earlier.

```
cd examples/meshing/cubit_cellsize
tar -zxvf cubit_cellsize_missing.tgz
```

## EXAMPLES

---

### for debugging example

[debugging.tgz](#) (13 KB, uploaded by Lorraine Hwang 8 months 3 weeks ago)

Extracting tarball in examples directory.

```
examples
  cvf debugging.tgz
  debugging
```

### for examples/3d/hex8

[missing-files.tgz](#) (3 KB, uploaded by Lorraine Hwang 8 months 3 weeks ago)

Extracting tarball in examples/3d/hex8 directory.

```
examples/3d/hex8
  hex8-missing-files.tgz
```

### on meshing based on sizing function – single surface, with info added in matlab instead of

[sizing\\_function\\_example.tar](#) (60 KB, uploaded by Lorraine Hwang 8 months 3 weeks ago)