
pynoddy Documentation

Release

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PYNODDY PACKAGE

1.1 Submodules

1.2 pynoddy.history module

Noddy history file wrapper Created on 24/03/2014

@author: Florian Wellmann

class pynoddy.history.**NoddyHistory** (*history*)

Class container for Noddy history files

change_cube_size (*cube_size*)

Change the model cube size (isotropic)

Arguments:

- *cube_size* = float : new model cube size

determine_events ()

Determine events and save line numbers

..Note: Parsing of the history file is based on a fixed Noddy output order. If this is, for some reason (e.g. in a changed version of Noddy) not the case, then this parsing might fail!

load_history (*history*)

Load Noddy history

Arguments:

- *history* = string : Name of Noddy history file

write_history (*filename*)

Write history to new file

Arguments:

- *filename* = string : filename of new history file

NB: Just love it how easy it is to 'write history' with Noddy ;-)

1.3 pynoddy.output module

Noddy output file analysis Created on 24/03/2014

@author: Florian Wellmann

class pynoddy.output.NoddyOutput (*output_name*)

Class definition for Noddy output analysis

export_to_vtk (***kws*)

Export model to VTK

Export the geology blocks to VTK for visualisation of the entire 3-D model in an external VTK viewer, e.g. Paraview.

..Note:: Requires pyevtk, available for free on: <https://github.com/firedrakeproject/firedrake/tree/master/python/evtk>

Optional keywords:

- *vtk_filename* = string : filename of VTK file (default: *output_name*)

load_geology ()

Load block geology ids from .g12 output file

load_model_info ()

Load information about model discretisation from .g00 file

plot_section (*direction='y', position='center', **kws*)

Create a section block through the model

Arguments:

- *direction* = 'x', 'y', 'z' : coordinate direction of section plot (default: 'y')
- *position* = int or 'center' [cell position of section as integer value] or identifier (default: 'center')

Optional Keywords:

- *ax* = matplotlib.axis : append plot to axis (default: create new plot)
- *figsize* = (x,y) : matplotlib figsize
- *colorbar* = bool : plot colorbar (default: True)
- *title* = string : plot title
- *savefig* = bool : save figure to file (default: show directly on screen)
- *fig_filename* = string : figure filename

1.4 Module contents

Package initialization file for pynoddy

pynoddy.compute_model (*history, output_name*)

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