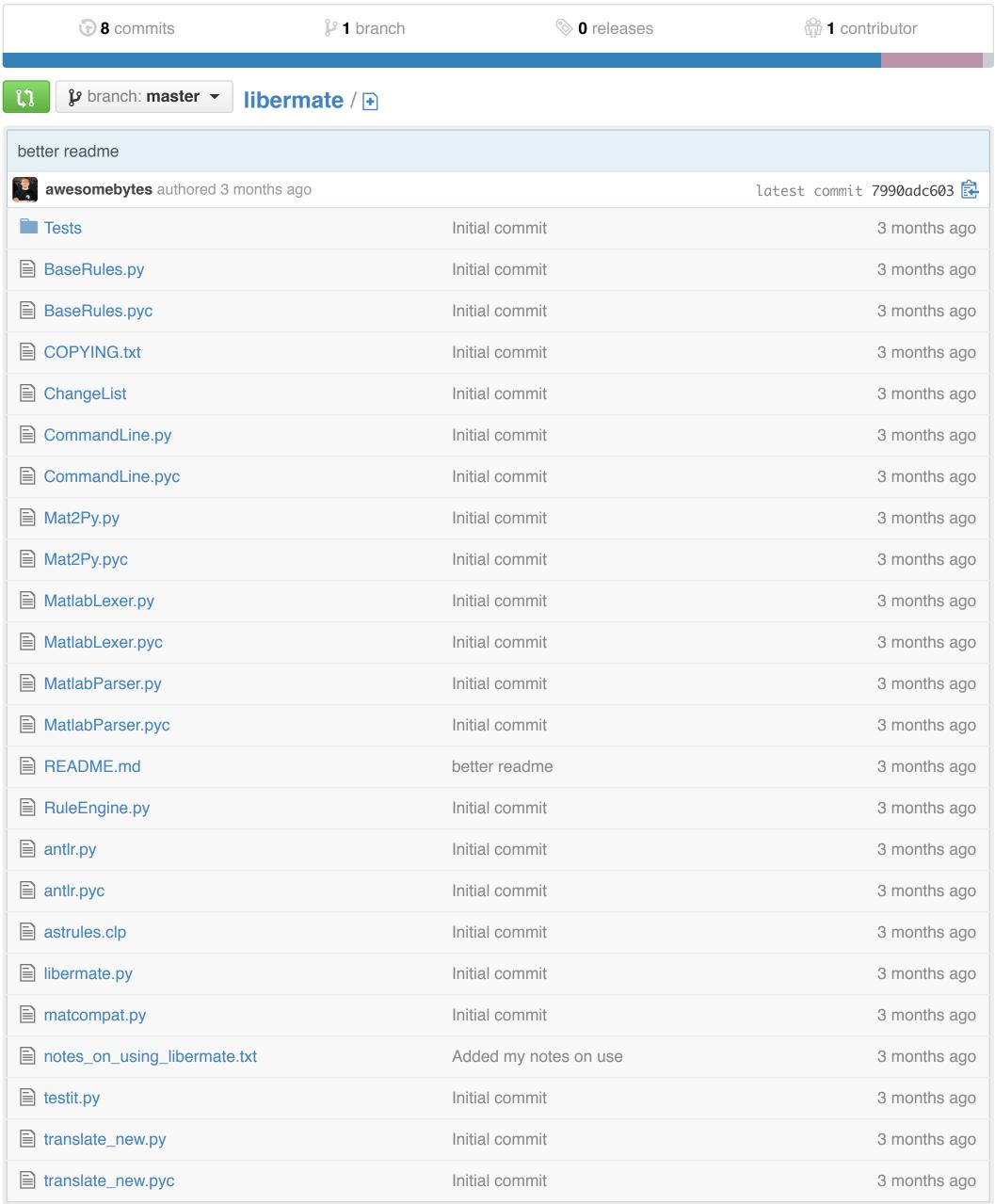
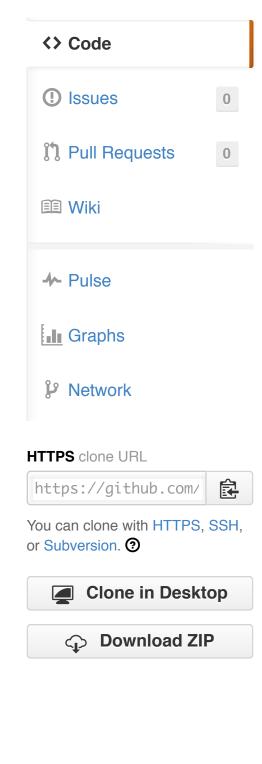




LiberMate - A MATLAB to Python (SciPy/NumPy) Translator





README.md

libermate

LiberMate - A MATLAB to Python (SciPy/NumPy) Translator

All credit goes to Eric C. Schug for this incredible work.

Check notes_on_using_libermate.txt if you use it and it doesn't work properly (it's normal!) I give many hints there on how to correct problems I had while translating

https://github.com/awesomebytes/parametric_modeling

(Almost) Original README from http://sourceforge.net/p/libermate/code/HEAD/tree/

=== LiberMate ===

LiberMate - A MATLAB to Python (SciPy/NumPy) Translator

git clone https://github.com/awesomebytes/libermate.git

===Setup===

Libermate needs pyclips http://pyclips.sourceforge.net/web/ --> http://sourceforge.net/projects/pyclips/files/pyclips/pyclips-1.0/

Download pyclips-1.0.7.348.tar.gz

Extract and install (there is a README if you have doubts)

tar -zxvf pyclips-1.0.7.348.tar.gz
cd pyclibs
sudo python setup.py build
sudo python setup.py install

===Run===

Change directory to the libermate directorie e.g.

\$ cd libermate

To get command line help use

\$ python libermate.py -h

To convert a single test file type

\$ python libermate.py Tests/colon.m

and will print the following output

Opening File Tests/colon.m

Starting Parser

Parser Complete

Starting Translator

Translation Complete

writing to file Tests/colon.py

To convert all test files type

\$ python libermate.py Tests/*.m

To output Abstract Syntax Tree from colon.m

\$ python libermate.py --astdump Tests/colon.m

```
Opening File Tests/colon.m

Starting Parser

Parser Complete

writing to file Tests/colon.ast

Starting Translator

Translation Complete

writing to file Tests/colon.py
```

This will create a file called Tests/colon.ast which contains the AST for the parsed file. The AST file can be useful to track where the Parser may have had problems.

LiberMate will attempt to convert MATLAB source files to python. The MATLAB files must end with .m and the translated python code will be written to python files, of the same name but ending with .py.

===Known Issues===

LiberMate does not handle command style MATLAB expressions such as

grid on

instead use function expressions such as

grid('on')

- LiberMate does not map all MATLAB functions to SciPy/NumPy equivalents. It does map several common functions.
- LiberMate does not completely support freeform matrix expressions (e.g.

\$./libermate.py Tests/matrix_tests.m

```
Opening File Tests/matrix_tests.m

Starting Parser

syntax error: unexpected symbol at line 10 (column 4): "

"

syntax error: unexpected symbol at line 11 (column 3): " "

Parser Complete

Starting Translator

error: unexpected end of subtree

Translation Complete

writing to file Tests/matrix_tests.py
```

The output shows two errors on lines 10 and 11 that are cause by an initial newline and final newline in matrix expression for variable d.

- numpy does not automatically grow arrays
- python scalars behave differently from matlab arrays
- plot title, ylabel do not take extra arguments
- missing waitbar function

•

TODO

- replace a.copy() with copy(a)
- •