awesomebytes / libermate

Watch 1 | Star 2 | Fork 2

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

8 commits | 1 branch | 0 releases | 1 contributor

branch: master | libermate /

better readme

awesomebytes authored 3 months ago — latest commit 7990adc603

Tests	Initial commit	3 months ago
BaseRules.py	Initial commit	3 months ago
BaseRules.pyc	Initial commit	3 months ago
COPYING.txt	Initial commit	3 months ago
ChangeList	Initial commit	3 months ago
CommandLine.py	Initial commit	3 months ago
CommandLine.pyc	Initial commit	3 months ago
Mat2Py.py	Initial commit	3 months ago
Mat2Py.pyc	Initial commit	3 months ago
MatlabLexer.py	Initial commit	3 months ago
MatlabLexer.pyc	Initial commit	3 months ago
MatlabParser.py	Initial commit	3 months ago
MatlabParser.pyc	Initial commit	3 months ago
README.md	better readme	3 months ago
RuleEngine.py	Initial commit	3 months ago
antlr.py	Initial commit	3 months ago
antlr.pyc	Initial commit	3 months ago
astrules.clp	Initial commit	3 months ago
libermate.py	Initial commit	3 months ago
matcompat.py	Initial commit	3 months ago
notes_on_using_libermate.txt	Added my notes on use	3 months ago
testit.py	Initial commit	3 months ago
translate_new.py	Initial commit	3 months ago
translate_new.pyc	Initial commit	3 months ago

HTTPS clone URL
https://github.com/
You can clone with HTTPS, SSH, or Subversion.
Clone in Desktop
Download ZIP

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)
-

© 2014 GitHub, Inc. Terms Privacy Security Contact

Status API Training Shop Blog About