
install.sh

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1  #!/bin/bash -e
2  #
3  # This script installs all of the dependencies for pycftboot locally into
4  # your home directory, making them available for you to use everywhere on
5  # the School Linux platform, including the School Compute Cluster.
6  #
7  # It also demonstrates a local run of pycftboot, though it's not totally
8  # clear how you'd do a "proper" install of pycftboot! See below for details.
9
10 BUILD_DIR=/tmp/I180712-0576
11 mkdir -p $BUILD_DIR
12
13 # We'll install into ~/.local, which is a semi-standardish
14 # location for installing things locally
15 INSTALL_DIR=~/.local
16 mkdir -p $INSTALL_DIR
17
18 #####
19 # Dependencies
20
21 # Download, build and install Symengine
22 cd $BUILD_DIR
23 wget https://github.com/symengine/symengine/archive/v0.3.0.tar.gz -O symengine-0.3.0.tar.gz
24 tar xzf symengine-0.3.0.tar.gz
25 cd symengine-0.3.0
26 cmake -DCMAKE_INSTALL_PREFIX:PATH=$INSTALL_DIR -DWITH_MPFR:BOOL=ON
27 make && make install
28
29 # Download, build and install Symengine.py
30 # NB: Building only Python 2 bindings for now as pycftboot is Python 2
31 cd $BUILD_DIR
32 wget https://github.com/symengine/symengine.py/archive/v0.3.0.tar.gz -O symengine.py-0.3.0.tar.gz
33 tar xzf symengine.py-0.3.0.tar.gz
34 cd symengine.py-0.3.0
35 python2 setup.py install --user build_ext --symengine-dir=$INSTALL_DIR
36
37 # Download, build and install SDPB
38 cd $BUILD_DIR
39 wget https://github.com/davidsd/sdpb/archive/v1.0.tar.gz -O sdpb-1.0.tar.gz
40 tar xzf sdpb-1.0.tar.gz
41 cd sdpb-1.0
42 sed -i -e 's|/usr/local|/usr|g' Makefile
43 make
44 mkdir -p $INSTALL_DIR/bin
45 cp sdpb $INSTALL_DIR/bin
46
47 #####
48
49 # pycftboot stuff
50 # TODO: It's not obvious how/where this should get installed...
51 # The bootstrap.py file reads in various other files using open(),
52 # and it seems they need to be in the current directory.
53 # So the only way I could get this working is to run my stuff from
54 # the same directory as bootstrap.py et al...
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55 #
56 cd $BUILD_DIR
57 rm -rf pycftboot
58 git clone https://github.com/cbehan/pycftboot.git
59 cd pycftboot
60 # Need to hard-code the path to the SDPB binary
61 sed -i -e "/sdpb_path =/c sdpb_path = \"\$INSTALL_DIR/bin/sdpb\" common.py
62
63 #####
64 # Things you need to do to run stuff
65
66 # Do the following if you want to run SDPB directly.
67 # It's not needed if you're just using pycftboot as that hard-codes
68 # the path to SPDB (see above)
69 export PATH=$INSTALL_DIR/bin:$PATH
70
71 # Probably need to be in the same directory as all of the pycftboot files
72 cd $BUILD_DIR/pycftboot
73
74 # Test!
75 python2 tutorial.py

```