

Testing ST on MountainLion

Introduction

SLAC needs to relinquish bldmac01 & bldmac02 which are our sole Snow Leopard boxes. We have a new Mountain Lion box now capable of producing ST builds.

Version used for testing: [ST 09-34-00 Optimized](#)

Testing

Ran both test_Likelihood and test_dataSubselector, which provide clear pass/fail results. Both passed, just as they did in the RM run of the unit tests.

test_sane is a more intensive test. The output created via the RM is [available here](#).

The output when running the same binary distribution of ST 09-34-00 Optimized on PPA-PC90719 (which should be the same box we built on) is [here](#). Note that real, user and sys refer to times, and clearly running times are not going to be identical. In principle it looks like everything checks out and we will retire bldmac01 and bldmac02.

```
RM Results
Warning in <TClass::TClass>: no dictionary for class
TGMimeTypes is available
Warning in <TGMimeTypes::TGMimeTypes>: error opening
mime type file /etc/root/root.mimes
Warning in <TClass::TClass>: no dictionary for class
TGMimeTypes is available
Warning in <TGMimeTypes::TGMimeTypes>: error opening
mime type file /etc/root/root.mimes
time -p gtobssim infile=xmlFiles.txt
srclist=source_names.txt scfile=none sctable="SC_DATA"
  evroot="test" evtable="EVENTS" simtime=86400.0 ltfrac=0.
9
  tstart=86400.0 nevents=no maxtime=315500000.0
startdate="2001-01-01 00:00:00" offset=0
  rockangle="INDEF" use_ac=yes ra=90.0 dec=20.0 radius=30.
0 emin=100.0
  emax=300000.0 edisp=yes irfs="DC1A" area=1.0
maxrows=1000000 seed=479153 chatter=2
clobber=yes debug=no gui=no mode="ql"
Warning in <TClass::TClass>: no dictionary for class
TGMimeTypes is available
Warning in <TGMimeTypes::TGMimeTypes>: error opening
mime type file /etc/root/root.mimes
added source "anticenter-32mev"
added source "Galactic_diffuse"
Generating events for a simulation time of 86400
seconds....
Done.
real 28.35
user 28.11
sys 0.22
time -p gtmktime scfile=orbSim_scData_0000.fits sctable="
SC_DATA" filter="IN_SAA!=T"
  roicut=yes evfile=test_events_0000.fits evtable="
EVENTS" outfile="test_events.fits"
  apply_filter=yes overwrite=no header_obstimes=yes
tstart=0.0 tstop=0.0 gtifile="default"
  chatter=2 clobber=yes debug=no gui=no mode="ql"
Warning in <TClass::TClass>: no dictionary for class
TGMimeTypes is available
Warning in <TGMimeTypes::TGMimeTypes>: error opening
mime type file /etc/root/root.mimes
DSS keywords required for ROI-based zenith angle cut
are not present in the FT1 file.
real 0.29
user 0.23
sys 0.04
```

Binary installation of ST 09-34-00 on ppa-pc90719

```
Warning in <TClass::TClass>: no dictionary for class TGMimeTypes is
available
Warning in <TGMimeTypes::TGMimeTypes>: error opening mime type file
/etc/root/root.mimes
Warning in <TClass::TClass>: no dictionary for class TGMimeTypes is
available
Warning in <TGMimeTypes::TGMimeTypes>: error opening mime type file
/etc/root/root.mimes
time -p gtobssim infile=xmlFiles.txt srclist=source_names.txt scfile=none
sctable="SC_DATA"
  evroot="test" evtable="EVENTS" simtime=86400.0 lfrac=0.9 tstart=86400.0
nevents=no maxtime=315500000.0
startdate="2001-01-01 00:00:00" offset=0 rockangle="INDEF" use_ac=yes
ra=90.0 dec=20.0 radius=30.0
emin=100.0 emax=300000.0 edisp=yes irfs="DC1A" area=1.0
maxrows=1000000 seed=479153 chatter=2
clobber=yes debug=no gui=no mode="ql"
Warning in <TClass::TClass>: no dictionary for class TGMimeTypes is
available
Warning in <TGMimeTypes::TGMimeTypes>: error opening mime type file
/etc/root/root.mimes
added source "anticenter-32mev"
added source "Galactic_diffuse"
Generating events for a simulation time of 86400 seconds....
Done.
real 30.51
user 30.29
sys 0.21
time -p gtmktime scfile=orbSim_scData_0000.fits sctable="SC_DATA" filter="
IN_SAA!=T" roicut=yes
  evfile=test_events_0000.fits evtable="EVENTS" outfile="test_events.fits"
apply_filter=yes overwrite=no
  header_obstimes=yes tstart=0.0 tstop=0.0 gtfiler="default" chatter=2
clobber=yes debug=no gui=no mode="ql"
Warning in <TClass::TClass>: no dictionary for class TGMimeTypes is
available
Warning in <TGMimeTypes::TGMimeTypes>: error opening mime type file
/etc/root/root.mimes
DSS keywords required for ROI-based zenith angle cut are not present in the
FT1 file.
real 0.31
user 0.25
sys 0.04
```

Further testing by Eric C. on laptop.

Laptop details:

OS X version 10.8.5 (Mountain Lion)

```
Mac PORTs gcc:
gcc version 4.4.7 (MacPorts gcc44 4.4.7_8)
```

Installer command:

```
/Users/echarles/glast/software/SCons-installer/src/installer.py -v Optimized -t RELEASE -e /Users/echarles/glast/externals/mountainlion-x86_64-64bit-gcc44 -p ScienceTools -s 09-34-00 -o mountainlion-x86_64-64bit-gcc44 -d Developer -i ST-09-34-00 -c install
```

Successful Testing:

gtlike, gtsrcmaps, pyLikelihood, gtbin, etc... all seem to work fine.

Issues:

Issue	Fix	Notes
python version for darwin in allExternals.scons	I've committed a fixed version of allExternals.scons	Change 2.7.2 to 2.7.2-gl4 in the darwin block of python 2.7-i2

Running ROOT standalone		<p>Fails to run ROOT, fails with the following error message:</p> <pre>laura% root rootx xpm error: XpmOpenFailed root: can't start ROOT -- check that /data/RM/GLAST_EXT/mountainlion-x86_64-64bit-gcc44/ROOT/v5.34.03-gr01/bin/root.exe exists!</pre> <p>Note that running ROOT directly with \$ROOTSYS/bin/root.exe works, but gives two warning messages:</p> <pre>Error: cannot open file "iostream" (tmpfile):2: *** Interpreter error recovered *** Error: cannot open file "DllImport.h" (tmpfile):2: *** Interpreter error recovered ***</pre>
Running pyroot		<p>Fails to import ROOT, fails with the following message:</p> <pre>>>> import ROOT Fatal Python error: PyThreadState_Get: no current thread Abort</pre>