

Conda, Conda-Forge, Python3, Docker notes

Alex Reustle

Changes to SCons to address building the ScienceTools outside of slac with some alternate structure for GLAST_EXTERNAL configure data.

The condaforge/linuxanvil docker container has the following limitations

1. No ssh. must use `repoman --remote-base <http://github.com/fermi-lat>` to perform checkouts
2. Python 3.6.4 is the default version
 - a. Scons 2.3.0 is in conda default channel, but built against py27
 - b. Scons 3.0.0 works, but runs on python 3 so our SConstruct and SConscript files don't parse correctly (we use print expressions, they expect print functions)
3. Use conda environments to build against 2.7 instead
 - a. conda create -n py2 python=2.7 git && source activate py2
 - b. pip install fermi-repoman
 - c. repoman --remote-base <http://github.com/fermi-lat> checkout --force --develop ScienceTools master
 - d. conda install -y scons=2.3.0
 - e. scons --with-cxx=/opt/rh/devtoolset-2/root/usr/bin/gcc
 - f. Must rewrite chunks of allExternals.scons to compensate for conda. Or possibly take the smart choice and add a function in SConstruct_common.scons to handle it there.
- 4.