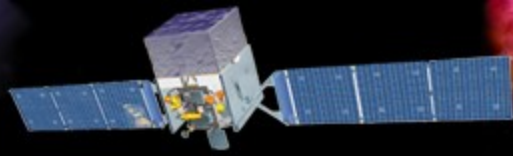# FSSC Software Status

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Science Tools Status

▶ *Science Tools Release for NRA2*

  – *Based on LAT Team ST v9r8p2*

  – *uses V6_P1_Diffuse version of the irfs*

▶ *Extensive FSSC Testing*

  – *implimented test scripts (currently 2)*

  – *testing by scientists (complete)*

▶ *Software is currently available on the FSSC website*

  – *Scientific Linux 4 & 5 32 bit*

  – *MAC OSX 10.4 and 10.5*

  – *Scientific Linux 4 & 5 64 bit*

Science Tool Testing

► *Thread tests were developed for this release*

  – *Likelihood thread test*

  – *Pulsar thread test*

► *These are included in the distribution so that users can run the tests to verify their installation*

  – *After installing the tools*

    • *hmake test*

    • *hmake test-install*

► *At this point the tests can be run from the command prompt like any other science tool*

  – *ST-1pl-test.pl*

  – *St-pulsar-test.pl*

Science Tool Test Coverage

gtobssim	gtselect
gtbin	gtltcube
gtexpmap	gtdiffrsp
gtlike	gtbary
gtephem	gtpulsardb
gtpphase	gtophase
gtpsearch	gtpspec
gtptest	

Tools selected to emphasize NRA usage.

Science Tool Testing Summary

Platform	Configure Success	Build Success	Install Success	PI Thread Test pass	Pulsar Thread Test pass
SL 4 32bit	100%	100%	100%	100%	100%
SL 5 32bit	100%	100%	100%	100%	100%
SL 4 64bit	100%	100%	100%	85%	100%
SL 5 64bit	100%	100%	100%	85%	100%
OSX PPC Tiger	100%	100%	100%	100%	100%
OSX Intel Tiger	100%	100%	100%	100%	100%
OSX PPC Leopard	100%	100%	100%	100%	100%
OSX Intel Leopard	100%	100%	100%	100%	100%

Known Bugs

▶ *OSX Tiger (10.4)*

   – *Loading python modules fails*

▶ *gtltcube*

   – *binning irregularities*

      • *e.g. dcostheta parameter yields different binning on different platforms*

      • *fix in progress*

▶ *64 bit OS's*

   – *optimizer faults*

      • *fix in progress*

Future Work

- ► *Develop additional thread tests*

    – *python tests*

    – *binned analysis tests*

    – *GRB analysis tests*

- ► *64 bit fixes*

    – *optimizer package is being debugged*

- ► *GCC 4 fixes*

    – *more consistent results between compilers (~1% currently)*

- ► *Tools will need extensive testing with the new data format*