Science Tools Update, December 1, 2008

Science Tools Working Group

The current release version of the Science Tools is **v9r8p3**. Jim reports "ST v9r8p3 was tagged to gather up the changes in ST HEAD before including the **gtdiffrsp** column name changes in the next major release." See below for details regarding the pending changes to gtdiffrsp. The differences from v9r8p2 are mostly small but include some important bug fixes.

Data products: No news about the reprocessing of the FT2 files to remake them with the updated format; progress took a Thanksgiving holiday.

The pending changes to **gtdiffrsp** above will regularize the names of the columns added to the FT1 files. Presently the names of the columns that gtdiffrsp adds are the conjoined names of the IRFs and the diffuse source name in the XML file. In the new version that Jim has put together, the column names will be simple and uniform, but the headers of the files will include new diffuse response keywords that contain the information formerly encoded in the column names. This will make FT1 files that include diffuse responses something that can be accepted by the FSSC, which has to live by HEASARC conventions for naming columns in FITS binary tables.

Databases and related utilities

No news

Likelihood analysis

From Jim:

- I improved the upper limit calculation following a bug-report from Jean (pyLikelihood v1r9p1, ST v9r8p3)
- There had been a suggestion to make the default "strategy" for NewMinuit be 2 (instead of 1). This change was made in optimizers v2r14 and made part of ST v9r8p2, but subsequent tests revealed this to produce unreliable results in some cases, so it was changed back to 1 in optimizers v2r14p1 and ST v9r8p3.
- The new diffuse response column conventions are implemented in Likelihood v14r0p1 and fitsGen v4r2 (both still in ST LATEST).

GRB tools

No news

Pulsar tools

No news; Masa reports that he is updating the user-level documentation for the tools. This is going on behind the scenes so far - not yet in the User Workbook.

Observation simulation

No news

User interface and infrastructure (& utilities)

No news. Eric W. reports that the FSSC builds of the parts of **v9r8p2** that will be supported for Guest Investigators by the FSSC are still under test. Dave Davis estimates that a week or two of testing/fixing will be required to make the builds work reliably on all of the platforms they intend to support (which include Mac OS X).

Source Catalog

The Catalog group met last week and talked about the 3-month source list and 'unassociated' sources.