Science Tools Update, October 14, 2008

Science Tools Working Group

The current release version of the Science Tools remains **v9r7p1** - 2+ months of stability. In the current release candidate (HEAD1.690) a number of updates for Likelihood and the pulsar tools (see below) are pending; see this summary from the Release Manager.

Data products: The planned additions to **FT2 contents** are posted are closer to implementation; Andrea is working on modifications to ft2util and will produce some test files using a new ft2.tpl file. The revised format will be submitted as a change to the File Format Document for the LAT science data products

Databases and related utilities

No news.

Likelihood analysis

No news

GRB tools

No news

Pulsar tools

From Masa: "In the pulsar tool development, we added a geocentric option to **gtbary**. Two JIRA issues (PULS-46 and 47) were fixed. Some tools add leapsecfile parameter (hidden) to specify a leap second file, just in case a user want it other than a system default. As a result, all the pulsar tools change their version numbers. The latest versions as of this writing is timeSystem v6, pulsarDb v8, pulsePhase v8, and periodSearch v10r2p1." [N.B. These updates are not yet in a release version of Science Tools]

Observation simulation

There was an unannounced change in the flux package in how it handles FT2 files with gaps. Now it apparently silently interpolates across those gaps instead of raising an exception as it had before. I've modified gtobssim to return zero livetime if a candidate event arrives during a gap. The upshot is that gtobssim can now be run reliably on FT2 files with gaps. (observationSim v8r2)

User interface and infrastructure (& utilities)

No news

Source Catalog

Last week's discussion included a comparison of pointlike and **gtlike** results for the August source list. Juergen also described his use of **gtlike** to obtain model-independent spectra. Benoit showed a very interesting sensitivity map for August. Will not meet this week.