Science Tools Update, August 19, 2008

Science Tools Working Group

Since August 12, the current release version of the Science Tools is **v9r7p1**. Here are the **differences** from v9r7. Among the updates are the addition of an optional zenith angle cut to **gtmktime** (see below). Also as described last week, a fix to **gtmodel** has been made. The skymaps and pointlike packages have been updated as well.

John Vernaleo has recently joined the GSSC as a programmer. He has been working with **gtbin** and **gtrspgen**, two Standard Analysis Environment tools that will be (or are being) distributed by the GSSC to support analysis of GBM data.

In the not-too-distant future, the Release Manager will be able to make builds of the Science Tools on **RHEL5/gcc4** systems. This will be a step toward being sure that the Science Tools compile/run on more-current versions of gcc. Eric W. is working on making gcc4 builds of the external libraries.

Reminder: A tutorial on high-level analyses is most likely going to be scheduled for Monday, September 15, the day of splinter session meetings before the collaboration meeting at SLAC.

Data products: Proposed **additions to FT1 and FT2 contents** are open for comments; see here and here. 'Proposed' means suggested.

Databases and related utilities

My understanding (from Julie) is that Tom S. has data being ingested in the server at GSSC but some of the details of the authentication of users via SLAC have not yet been worked out. Tony announced the FT1 skimmer last week; the updated Astro Data Server is not online yet.

Jim reports that in Science Tools **v9r7p1** he added a "capability to **gtmktime** wherein it will compute the appropriate ROI-based zenith angle cut if the corresponding DSS keywords are present from **gtselect**"; see last week's report.

Likelihood analysis

Jim reported last week **v9r7p1** will have "a fix for **gtmodel** wherein the normalization of the model maps was somewhat off from the fit result (Likelihood v13r17)"

Jim has implemented a fix for another problem with **gtmodel** that Jean reported. He noticed that diffuse sources were being offset in latitude by 0.25 or 0.3 deg, with the offset apparently depending on the size of the diffuse model map. The fix is not yet in a release of Science Tools.

GRB tools

No news

Pulsar tools

From Masa: "I am thinking of modifying the existing tools (such as **gtpphase**) to report ephemeris gaps and glitches which overlap with GTI's of input file (s). That way, users can do whatever they want to do with a list of potentially problematic time intervals (which I can call BTI, or Bad Time Intervals). Also, it serves as a warning message to notify users something that might affect their analysis results."

Observation simulation

No news

User interface and infrastructure (& utilities)

No news

Source Catalog

Met last week; see Dave's notes linked to the agenda page. The topics included spectral fits and light curves for the First Light sources.