

Science Tools Update, May 27, 2008

Science Tools Working Group

We met last week, 12 attendees (F de Palma, T Stephens, J Peachey, N Giglietto, F Gargano, J Chiang, S Digel, E Winter, D Band, F Giordano, A Caliendo, M Hirayama).

Dave Davis and Eric Winter provided recap of the feedback to the GSSC from the GLAST Users Group from their 'beta test' of the Science Tools. The Beta Test was not limited to the GLAST Users Group members, in that the GSSC also recruited some other likely users.

The GSSC has been able to verify installations working at about 10 institutions representing 17 Beta Test participants, on a remarkable variety of Linux versions, thanks to a lot of work. In making distributions in the HEASARC hmake system, Eric found that he had to make some small changes in some packages to get the 64-bit builds to work. He is planning to enter these changes as JIRA issues for the package owners in our repository. Eric reports that the tools cannot be ported to Mac OSX 10.5 before a ROOT build for that version is made. [Update from Eric W.: "we have a 10.4 binary running on 10.5 now"]

Dave Davis said that only 5 feedback reports had been about the tools themselves, rather than installation issues. Apparently none of the comments were about bugs; some were comments on the documentation. So right now it looks like no major issues will arise from the Beta Test. This is ok.

The current release version of the Science Tools remains **v9r5p4**.

Data products: No news. We had a long discussion about whether TDMIN/TDMAX keywords should be included in the FT1 files. These are optional in the HEASARC specification; they are defined to contain the minimum and maximum values of a given column. Some tools, e.g., ds9, use them if they are present to set scaling parameters without having to read through the data. The GSSC data server has been configured to add them to the FT1 files. This is semi-problematic right now as they are not part of the agreed-on format and in particular **gtselect** does not interpret or update them. This does not break any of the Science Tools but we'll move to a resolution with the GSSC.

Discussion on this issue led to a discussion on delivery of the Science Tools to the GSSC, and what constitutes a part of the distribution intended for release by the GSSC to the public. Eric and Jim have converged on a current list of tools; this will get posted in...Confluence. More importantly, Jim has defined a checkout package, **ST_dist**, for the tools for the GSSC. Eric also has a proposed procedure for joint agreement on additions/deletions from the set of distributed tools. I think that it will fly; details later.

Databases and related utilities

No news

Likelihood analysis

No news

GRB tools

No news

Pulsar tools

Masa reports that he and James "are still working on the time handling classes (bug fixes and clean-ups)"

Observation simulation

From Jim: "I fixed a bug in **FitsTransient** that Johann encountered for very fast transients (i.e., GRBs) that was related to roundoff errors for small time intervals being added to our 9 digit MET values (celestialSources/genericSources v1r11p2)."

Max's recently (Monday) checked in a new version of **PulsarSpectrum** (v2r5) that should fix a bug in handling environment variables that point to the location of files of pulsar parameters: "now the input method is more robust for preventing loops and wrong input files". He has also posted a [tutorial](#).

User interface and infrastructure (& utilities)

From Jim: "I updated **evtClassDefs** to use the pass-5 style event (non-) classifications so that FT1 files coming out of L1Proc correspond to the P6_v1 IRFs."

Source Catalog

Did not meet last week. Will meet this week, primarily for discussion of issues related to source association and identification.