

Metadata for merit, FT1, FT2 files

AllGamma data

For ScienceTools and IRF processing, the following metadata should appear in the merit file header for AllGamma data and so should accompany these data in the data catalog:

- number of incident gammas
- energy range of incident gammas
- input spectrum
- input angular distribution
- cuts that have been applied
- Gleam version

For debugging and quality control purposes, the following would be useful to have as well:

- Isf job ids
- date of Gleam runs
- names of the individuals who ran the simulations

Flight and/or simulation data (from Seth)

- source of the data (simulation, flight, beam test, etc.)
- the version of the task or tool that generated the file
- the name(s) and processing version(s) of the input files that were processed by the task or tool;
 - for a simulation this would be something like the task name of the simulation or I suppose the path to a file that defines the simulation. I suppose that if every file that is worth something is somehow registered with the Data Catalog, then maybe the Data Catalog can be referenced rather than the files themselves.
 - for flight data either the names of the input files would define the run and downlink number and version of downlinked data or that information would have to be tracked separately
- the version of the output file
- date and time of generation (obviously)
- where the task or tool was run (might be marginally interesting if some farms are used in addition to the SLAC farm).
- for FT1 files, and I suppose Merit ROOT files, the cuts used to select the events for the file should be defined in the files. For FT1 files, the event class specification probably should be considered useful metadata, too.

Use Case: GRB studies

Jay Norris and I (JC), and others I hope, would like to investigate modifying the standard set of DC2 cuts to open up the acceptance for GRB analysis. We will thus need to

- Generate new IRFs and so reselect DC2-era AllGammas with new cuts
- Reselect DC2 data, including gammas and interleaved backgrounds, during GRB epochs.

So we need lessons on how to do this and thereby make more concrete what sort of metadata are required to perform this study.