

Other High-Level Databases S. W. Digel (SU/HEPL) for the SSC-LAT Working Group

SSC-LAT Science Tools Workshop June 12-14, 2002, SLAC

Science Tools Workshop, June 12-14, 2002



GLAST LAT Project

Plan of the talk

- Highlight some relatively poorly defined aspects of the standard analysis environment that were glossed over yesterday
- For details see the requirements summaries at http://www-glast.slac.stanford.edu/ScienceTools/tool_defs
- Advertising for the databases and interstellar emission model breakout sessions this afternoon

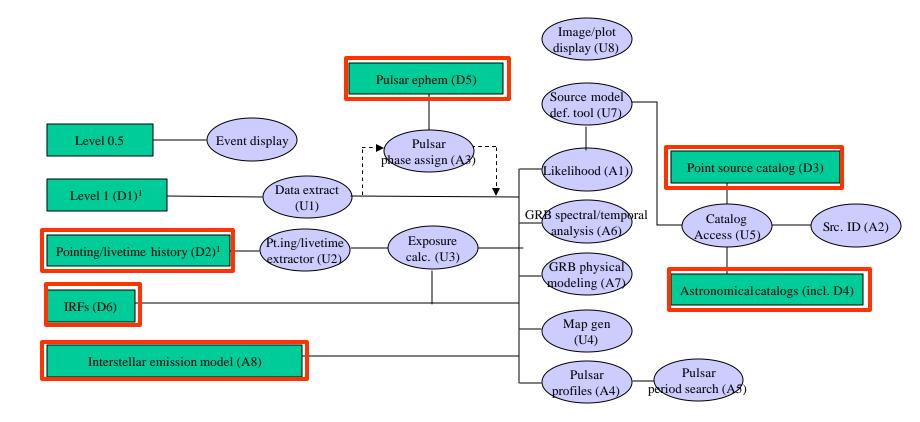
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What are they?

• Are they databases? What's a database?



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Rundown

- Pointing/livetime history (D2)
 - Access by time range only a runt database
- Point source catalog (D3)
 - Note that we will ikely have a 'release' version, and a working version (the next release in progress) outside of the standard analysis environment
 - Contents of 3EG catalog entries is 0th order guess, but will be better able to quantify time histories; other additional contents TBD
- Astronomical catalogs (D4)
 - This includes GLAST-specific catalogs, like for GRBs & blazar transient alerts
 - Externally-hosted catalogs, like the NASA Extragalactic Database (<u>http://ned.ipac.caltech.edu</u>) also belong in this category
 - [Outside of the standard analysis environment it will have some additional members, including something that might be called a catalog of source detections that would be used to decide whether we had a detected a source before and whether its flux had changed.]

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Rundown 2

- Pulsar ephemerides (D5)
 - Sensible definitions can be inherited from EGRET with slight modifications
 - Also a runt database, even if want to search by coordinates of pulsar
- Instrument response functions (D6)
 - See talk by Dave Davis
- Interstellar emission model (A8)
 - The model will have some adjustable parameters (although not necessarily the same as EGRET's GMULT & GBIAS)
 - One concept is for the model to be a 'library' of components, e.g., for separate emission processes or for cosmic-ray densities to be maintained separately from ISM and radiation field
 - Gridding, coordinate projection of the model will have to be considered