Status – I&T support

• Pipeline
  – Dan adding archiving, email notification this week
  – Awaiting db pooler from Alex
  – Matt completing web front end for task config/editing
  – Still need dataset catalogue display
  – Longer term – start next iteration of selected pieces in java

• EM Package
  – Adding headers (DavidC)
  – Heather updating tag prior to EM2

• Calibration
  – Joanne working on new CAL types
  – CAL chugging away
  – ToT – Root files will need another mechanism to create (not AstroRoot)
GlastRelease

- **TkrRecon**
  - Big rewrite in progress – due end Oct
- **CalRecon**
  - “task force” agreed to for rewrite, with completion of E vs angle energy corrections phase space; addition of clustering and MIP-segment finding
  - Asked for as Xmas present
- Livetime now available
- GEM info in merit tuple
Infrastructure Stuff

• Installer – Navid
  – Extlibs + GR, EM, ST with binaries
  – Linux side done and in beta test
  – Windows side restricted to extlibs; use of line mode ftp, unzip tools. Awaiting windows builds with RM for code distribution
• User Workbook
  – Chuck is plugging away!
• FRED
  – Riccardo working on ways to make connection to Gleam even easier

• Systests
  – Julie/Navid wiring test submission to RM
  – Still supporting old asp front end
  – Matt to resume work on new front end after pipeline
• RM
  – Alex/Navid looking at connection methods for RM to trigger and run on windows
  – Need working mechanism for builds (nmake/MRvcmt?)
New & Potential Initiatives

• J2EE/JSP
  – Tony Johnson to conduct review of Matt’s setup in late Oct
  – Assuming more or less sensible (with tweaks), would get help from Tony’s java group at SLAC
  – Systests front end next, then pieces of pipeline

• JAS??
  – Now supports python. JAS team may investigate “native” access to our Root data from JAS via python. Maybe PYROOT; depends on details.

• RootCnvSvc
  – DavidC getting back to this with Heather

• Gleam geometry in Root?
  – Requests to access geometry constants from Root
  – Looking at simple wrapper for detModel

• Data Server/Access
  – Need to query pipeline dataset catalogue
  – Web service for C++ (RootCnvSvc?) to access catalogue?
  – Will need to revisit the whole data server idea
Science Tools

- A 3-week ‘Science Tools Check Out’ starts next week
  - As you have probably heard
  - And will hear again
    - Today
  - This is to semi-formally evaluate the tools from the perspective of a user trying to accomplish an analysis that we want to support for DC2
- Where we think that we stand (pending the outcome of the Checkout) with the SAE
  - GRB
    - Event binning, response matrix generation have been implemented
    - Joint analyses with GBM via XSPEC are now in principle possible
  - Pulsar
    - Arrival time corrections
    - Ephemeris database & periodicity tests
  - Source characterization (likelihood)
    - Precomputation of ‘exposure’
    - Flexible specification of source model
    - Generation of TS maps
    - Binned likelihood (for point sources)
  - Observation simulation
    - Now can generate FT2 files independently of simulated data, and some scanning/pointing options are available
    - A wide variety of sources are available, including blazars, GRBs, pulsars, and extended sources
More SAE Status

• Additional development is anticipated (and largely scheduled) for DC2

• **Source analysis**
  – **GRB**
    • Scripting for binned analysis via XSPEC – fits of series of spectra
    • Unbinned spectral analysis (A9) – derivative of likelihood
  – **Pulsar**
    • Binary pulsar timing corrections
    • Possibly a periodicity search algorithm (A4)
  – **Source characterization**
    • Binned analysis for diffuse sources
    • Characterization of binned vs. unbinned analysis
    • Zenith angle cuts
    • Source model definition tool – catalog access

• **General & wish list**
  – Further integration of plotting in science tools
  – IRF visualization
Non-SAE work for DC2

• See the talks & minutes from the splinter session last week
  – http://www-glast.slac.stanford.edu/Sciencetools/splinter04

• Interstellar emission model
  – For DC2 we will have an updated model, with improvements in ISM, ISRF, models of CR distribution, and $\gamma$-ray production function, coordinated through GALPROP

• Source catalog generation
  – We plan to have a pipeline of some kind for generation of the catalog from DC2
  – This will rely on having a robust source detection algorithm to support likelihood for detailed characterization of sources