GLAST Large Area Telescope

WBS 4.1.D SAS
GSFC Monthly Review

Period Ending: June 2004

Richard Dubois
LAT SAS Subsystem Manager
May/June Accomplishments

- Flight Integration Support
  - A main focus!
  - Preparing stable version of sim/recon
    - Back versions of packages for stability
  - Migrate to new version of LAT Data Format data and library from Online
  - Calibrations user interface about to be foisted on first users
  - FRED Event display now available
    - In process of building it into the system
  - Lots of work on pipeline – more later.
- Instituted Issue Tracking System - JIRA
  - Reworking our modus operandi to use this tool for bugs, improvements and feature requests
  - Very pleased so far!
- New gui for code build tools pretty much wrung out
  - Same tool on windows and linux
- Automated code and external binary distributions almost in place
  - Source code tar/zip files for every build
  - Binaries for releases; scripts set up to allow “standalone” running of binaries for users (as opposed to developers
  - External libraries now keyed to sim/recon code version
May/June Accomplishments Cont’d

- Support of I&T Analysis workshop

- Visits to France and Italy to discuss CAL, SciTools, G4 and infrastructure

- Systems tests get breath of fresh air
  - Julie McEnery reviewing and updating content
  - More proactive in pointing out potential issues

- Wrapped standard WCSLIB coordinate transformations for our astro use

- new Java iterations of Build/Processing tools
  - Pipeline, Release Manager/Tag Collector, Data Server, System Tests
  - First generation tools written as separate entities in perl
    - Want to move to Java as OO language with a rich development environment
    - Design an overall system to share common utilities; first generation replicated all of these for each tool
  - toolset defined
  - Functional specs updated for all except Pipeline (so far)
Show and Tell 1

Build Tool GUI
Event Display
Show and Tell 3

Issue Tracker

Issue Navigator - GLAST open issues

<table>
<thead>
<tr>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYSTRATE6</td>
<td>system test for LDF converter</td>
<td>Helen C.</td>
<td>Xin Chen</td>
<td></td>
<td>Open</td>
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<tr>
<td>JIRA-3</td>
<td>Can't create new bug report</td>
<td>Johann Cohen-Tanugi</td>
<td>Anders W. Borgland</td>
<td></td>
<td>In Pro</td>
</tr>
<tr>
<td>FREED-4</td>
<td>Wrong OmniOrb version for Windows</td>
<td>Ricardo Glaumtrapi</td>
<td>Andrea Glaumtrapi</td>
<td></td>
<td>Open</td>
</tr>
<tr>
<td>FIXLUE-1</td>
<td>inconsistency in Python 2.3 library</td>
<td>Johann Cohen-Tanugi</td>
<td>Johann Cohen-Tanugi</td>
<td></td>
<td>In Pro</td>
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<tr>
<td>GMT-17</td>
<td>system cleans up more than the directory of the package cleaned</td>
<td>Ricardo Glaumtrapi</td>
<td>Richard Dubois</td>
<td></td>
<td>Open</td>
</tr>
<tr>
<td>CAL-1</td>
<td>update CalRecon to allow readouts for only one log end</td>
<td>Sasha Chelthman</td>
<td>Richard Dubois</td>
<td></td>
<td>In Pro</td>
</tr>
<tr>
<td>STDOO-1</td>
<td>Doxygen generation for remote sites</td>
<td>Johann Cohen-Tanugi</td>
<td>Toby Burnett</td>
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<td>Open</td>
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<tr>
<td>PIPE-1</td>
<td>test drive FastCopy for data after between LAT &amp; MOC &amp; BSC</td>
<td>Navid Golpayegani</td>
<td>Richard Dubois</td>
<td></td>
<td>Open</td>
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<tr>
<td>FREED-2</td>
<td>Need to be able to look with FRED at a sub-sample of previously selected events</td>
<td>Ricardo Glaumtrapi</td>
<td>Anders W. Borgland</td>
<td></td>
<td>Open</td>
</tr>
<tr>
<td>SYSTRATE8</td>
<td>Can you add the version used for the Instrument Analysis workshop in the system tests plots?</td>
<td>Matt Longton</td>
<td>Ricardo do Couto e Silva</td>
<td></td>
<td>Open</td>
</tr>
</tbody>
</table>
Upcoming for July

• Complete I&T deliverables

• Address binary formats of calibrations
  – 800k ToT gains don’t belong in an xml file!

• OPUS pipeline functioning
  – We’ve had much more trouble than expected hooking up to STScI pipeline framework
  – We replaced much of its functionality already in using Oracle database for bookkeeping and SLAC batch system for parallel processing
  – There is only a little of OPUS left and we expect to replace that in July prior to starting the 2nd iteration of the pipeline in Java.
  – This has all taken much longer than planned and we need to keep an eye on it.

• Outfitting output files with headers recording run information
  – Code versions; run parameters etc

• Participate in trade study on file transfer tools between MOC/ISOC/SSC
  – Security issues foremost for two candidate tools – DTS (HEASARC) and FastCopy (commercial)

• Prep for ISOC and GSDR reviews in August
Key Milestones

- ISOC Subsystem CDR – Aug 3, 2004
- EM2 (support) – June 2004
- Start of Flight Integration (support) – Aug 2004
- GSDR – Aug 18-19 2004
- Mission GRT1 – Feb 2005
- DC2 – Feb 2005??
Issues & Concerns

- I&T support has been heavy load

- Pipeline must be watched closely

- Start thinking about DC2 – must juggle I&T support with DC schedule

- Reviews are getting closer