

Scientific Computing Applications - LSST

- SCA Data Handling group has been peripherally involved with LSST camera control software (CCS) group for ~2 years
 - They have used our JAIDA software for plotting
 - We have set up small demos:
 - Fermi web framework for displaying trending plots
 - JAS framework for console and GUI
- About 2 months ago Jon and Terry approached us about getting more seriously involved now that LSST was selected as top priority in decadal survey

SCA - LSST

- Max Turri and I traveled to Paris to work with CCS team for one week
 - Spent time understanding in detail what code exists and existing plans for development
 - Defined some very short-term “confidence building” steps for collaboration
 - Impressions:
 - Existing framework makes sense and can be made to work
 - Manpower in Paris is limited
 - Only one person working ~100% on this project
 - They are working a little in isolation – no existing interfaces to hardware
 - Infrastructure for making it easy to attract collaborators lacking
 - The experience and expertise of SCA data handling team would be very useful and complementary to existing effort
 - Experience in developing Java based web framework for Fermi
 - Experience in building GUI and scientific data handling
 - Experience in managing distributed collaboration around Java
 - Experience in setting up and managing large databases for science control data

SCA - LSST

- Short term goals
 - Set up Maven/Hudson infrastructure
 - Define interface between CCS and trending applications
 - Create demo GUI for carousel and shutter
 - Interface demo to CCS simulation
 - Understand what exists for
 - Shutter prototype
 - Software to interface to shutter
- Have this done by Camera Collaboration meeting
 - Next week – all essentially done

Potential medium-term goals for SCA

- Develop GUIs (web based and/or Java) (1 FTE)
 - Trending system
 - Generic overview page
 - _ Subsystem specific displays (Shutter Control, Carousel Control)
 - Console
- Set up “real-time” database (.75 FTE)
 - Test scalability/performance/database technology
- Interface to Shutter Control System (.75 FTE - Owen)
 - Develop driver interface
 - Interface to GUI Trending
- Improvements to core CCS system and infrastructure (1 FTE)
 - Implement Rest Interface
 - Feedback/Improvements based on real-live use
 - Hudson, Maven, Unit tests
 - Perparation of “out-of-the-box” setup for use on test stands
 - Address issues of integration of CCS with DAQ
 - Planning and Management