Technical Coordination

One sentence summary

- SCA should be (seen to be) leader in mainstream computing technologies for the lab, a reliable partner for collaboration and able to develop and support tools for the wider physics community.

First Steps

- Developing criteria/metrics for project support levels within SCA
    - Take into account need to support existing experiments/projects vs need to develop new initiatives
    - Support single experiment/projects vs set of SLAC based projects vs extended community
    - Internal funding vs external funding
- Understanding existing and planned projects within SCA
    - Including projects which SCA could/should be involved in
    - Try to identify common requirements which can be "factored out"
        - Maximize reuse, eliminate unnecessary/unintentional duplication
- Defining technical direction for new projects
    - Attempt to balance leveraging of existing skill-sets vs understanding and exploiting new industry trends
    - Need people's input on what we should be doing
    - Form "task-force" to evaluate some new technologies
    - Create SLAC wide developers "journal-club"
- Developing targets of opportunity for new projects and collaborations
    - Set of projects ready when new funding opportunities present themselves
    - Developing priority list for existing/new projects
- Creation of (new) project teams
    - Possibly bring people together from different parts of SCA, and people from outside of SCA
        - E.g. LSST Camera Control System
            - SLAC Max, Tofigh, Owen Saxton, Stuart Marshall
            - Paris, Indiana, Arizona, Brookhaven, ...

Possible Projects (very early ideas -- not meant to all be **good** ideas)

- New Projects
    - Projects with Computing Division
        -
            - Support for GIT, Fisheye, ...
        - Interactive web based scientific computing status page
        - Better integration between Crowd, Group Manager, Single sign-on
        - Account management
        - mathjax for confluence
        - LSF with virtualization
    - Data Management
        - Data Portal for Photon Science (and Astro physics)
            - Best features from Fermi data catalog, JCSG, CXIDB, ICAT, Dirac, ...
        - Why stop at presenting data location via the web?
            - Should be able to drill into and operate on data
        - In a collaborative way
    - Web based scientific data visualization tools
        - Extension/compatible with Google Visualization API
    - Virtual Observatory integration
    - LCLS real-time image displays
- Existing Projects

Improved SCA web presence

Possible Technologies (see above)

- Technology selection criteria
    - Lifespan/stability
    - Adoption/Support
    - Popularity/Mindset
    - Language neutrality/Interoperability
- Google visualization API
- Web/HTML5/GWT/Dart/Json
- HDF5
- IPython/IPython Notebook
- Virtual Observatory
- MatLab
- DGAS (http://www.to.infn.it/dgas/)
- LSF virtualized cluster support
- Google Cloud
- Replacement for LSF (Steffen)

See also SCA Tech Coord.pdf