

# 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](#)