



ILC Controls Planning

Since September

- Contributed pieces to controls BCD (global accelerator control, hardware and software architecture).
- Weekly (mostly) GG2 meetings with primarily SLAC, Argonne, and FNAL. Been sorting out GCD writing assignments.
 - GG2 has been reorganized/disbanded at Frascati (see Patty's talk).
 - The "team" is working well together, so will continue weekly meetings for the foreseeable future. This week will be to discuss how.
- Coordinating FNAL interested and available people.
 - llc-controls-fnal@fnal.gov biweekly meetings have begun (first one last week).
- LLRF controls (hardware, firmware, software) has received a lot of attention over the last few weeks
 - Organizational structure established at the lab
 - FNAL/DESY workshop in progress. Another one scheduled for January.

Communication Venues

- Wiki –
<http://www.linearcollider.org/wiki>
- Mail list –
 - Ilc-controls@fnal.gov
 - Ilc-controls-fnal@fnal.gov
- Documentation database –
docdb.fnal.gov
 - [public](#) ILC documents - demo database
 - [certificate-based](#) ILC demo document database
 - [private](#) ILC demo document database

Summary of Controls@fnal

- What is available effort?
 - LLRF controls for ILTCA and FNAL sanctioned cavity testing
 - Gustavo actively looking at hardware/firmware investigations
 - Ron, Luciano on doocs interface. This is more work than anticipated. Margaret will help.
 - Dennis Nicklaus, Sharon Lackey, Geoff Savage on epics interface
 - There is a year long program of work.
 - Luciano is on MIBPM through spring
 - Geoff is on D0 until after the shutdown
 - GG2
 - There is interest in participating, but still no plan on how (partly because of limits on who)
 - Many people in LLRF
 - Paul is working on main linac emittance simulation
 - Jim Patrick is writing BCD pieces. Mike Martens potentially interested. Neither have mandate from division.
 - Fritz has no time until after the shutdown
 - Jerzy Nogiec is nuturing an idea on high availability from a low level software perspective. This is interesting.
 - Just keeping an FNAL presence in the GG2 effort

Summary of Controls@fnal

- What is the testing plan?
 - Capture Cavity 2 (December/January)
 - Doocs not working. May be Matlab in the end
 - 3.9 GHz coupler testing/commissioning March
 - Control system not yet decided
 - 1.3 dressed (horizontal) cavity in May
 - Photo injector – needs 5 cavities but can be independently controlled
 - Vertical cavity testing at IB1
 - Full Cryomodule test (8 cavities) in early FY2007
- Issues
 - All need controls systems LLRF included
 - A few competing alternatives for LLRF that have significant impact on the effort needed.
 - Simcon 2.1/3.1 – doocs based.
 - SNS – EPICS based.
 - Other commodity potential
 - No control system can do multi-cavity control now
 - SNS and Simon 2.1 cannot do multi cavities
 - Simcon 3.1 very new and not ready (yet)
 - Software
 - Doocs is epics aware, but not vice versa.
 - At least not without a lot of work

What next?

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- Work on BCD?
 - Fleshing out architecture
 - 2006 Costing
- R&D?
 - Software High availability
 - ATCA investigation
- Controls Workshop in SLAC

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- Help Ron