Project Managers' Report

August 2009

ILC Global Design Effort

With this issue of the Technical Design Phase Monthly Report, you will find summary notes for the Group's monthly meetings (Main Linac Technology - Superconducting RF, Conventional Facilities and Siting, and Accelerator Systems), and a report from the Cost and Schedule Group (Peter Garbincius). These meeting notes show progress made and plans for upcoming meetings and work. This monthly report complements the weekly ILC Newsline. Please see the 'Director's Corner' for important planning and policy communication.

The Project Managers: Marc Ross, Nick Walker and Akira Yamamoto
August 2009

Global Design Effort
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Monthly Report from Project Managers for August 2009

In mid-August, the 'International Linear Collider Steering Committee (ILCSC)', was held at DESY, Hamburg, and we reported the 'ILC Research and Development Plan for the Technical Design Phase Release 4' which was updated and published in July, and also reported to the 'Funding Agencies for Large Colliders (FALC)', met in Canada, July.

In the MLT-SCRF activity, a global database team, led by C. Ginsburg (FNAL), proceeded to understand the cavity gradient status in a common-way, world wide. The effort started with checking the 'old' yield plot presented in PAC, Vancouver, and revised/updated the yield to achieve 35 MV/m in a vertical test. It remains 50+/-13% in JLab results, and 28+/-9% in DESY results based on the cavities fabricated by two European companies, ACCEL and ZANON. A new 'production yield' was introduced and is defined with only using the 1st pass (and 2nd pass). The new yields at 35 MV/m with the 1st pass are evaluated to be 43+/-19% in JLab results, and 13+/-9% in DESY results, respectively. This study is to be extended and to be discussed in the joint meeting of the American Linear Collider Physics Group (ALCPG), and the ILC Global Design Effort (GDE) to be held at Albuquerque, in next month.

As a joint effort in the AS, CF&S, and SCRF activities, study of 'Accelerator Design & Integration (AD&I)', renamed from 'Minimum Machine Design' is progressing to prepare for a 'Strawman Baseline Design 2009 (SB2009)', including studies of 'Availability' and 'Risk Register'. It is to be proposed by PMs by the end of this year. It will be submitted to the GDE Director and will be reviewed by AAP in January, 2010, to prepare for 'Re-baseline' of the ILC toward the 'Technical Design Phase 2', which will start in late 2010. The new ILC baseline, SB2009, will be highlighted with designs of a single main-linac tunnel with 'Clustered Klystron System (CKS)' and 'Distributed RF System (DRFS)'.

Marc Ross visited KEK, and an ad-hoc meeting was held with KEK collaborators together with Nick Walker joining through webex, in order to get better communication and understanding on the AD&I study. The consensus, to study further the single-tunnel concept with DRFS by comparing it with CKS option, was reached. The adoption of the second (minor/partial) tunnel might be a possible option for 'redundant safety' if it is required in Japan. Nobu Toge agreed to help PMs on documentation and editing of the AD&I PM proposal.

Marc Ross and Akira Yamamoto visited Oak Ridge National Laboratory (ORNL) and the superconducting linear accelerator at the Spallation Neutron Source (SNS). Much operational experience exists at SNS and the possibility of future collaboration between SNS and ILC-GDE has been discussed.

The DESY VUV – FEL 'FLASH' downtime begins in mid-August and the FLASH-ILC joint team is now planning to raise the beam power in FLASH to roughly 30

kW. At 30 kW, the FLASH beam intensity and temporal structure are similar to those planned for ILC. We expect further progress, and which will be included in the next PM monthly report.

Minutes of ML-SCRF Technology Meeting (090821)

Date & Time:
12:00-12:55 GMT, August 21, 2009, via WebEx.

Participants:
A. Yamamoto, M. Ross, N. Ohuchi, H. Hayano, J. Kerby, Y. Yamamoto, R. Geng, T. Shidara, M. Champion, W. Bialowons, T. Peterson, Z. Conway, B. Kephart, S. Mishra

Presentation files are available at the following Indico site;
http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4108

1) Report from ML Project Managers (A. Yamamoto)

- Akira presented the slides given to Barry for the ILCSC (posted), and commented on the upcoming timeline for the efforts. Rongli, among others, commented that the effort has gotten off to a very good start and thanked the members of the team for their efforts on it. He noted that there remains work to do, such as how to handle the various materials, vendors, and processes, but noted the database effort go a long ways to being able to review such things in an organized manner. He noted that as new vendors succeed (such as the recent AES result) having the database will be a more and more important tool. The next S0 Cavity Group Webex is Tuesday 25 August.

2) GL Reports

Rongli reported on the recent successful test of 9-cell cavity "AES9" to 34MV/m in pi mode w/ Q_0 of 1e10, limited in later tests to 30MV/m by field emission. Studies are continuing and it will be reported in more detail at next week's S0 meeting, but it is certainly a good result and the best result for this vendor to date.

3) Topics

- **S1 Global Status (N. Ohuchi)**
  Norihito presented the status of the S1 cryomodule (slides posted), in particular reviewing the schedule and showing pictures of the considerable progress seen at Zanon during his visit there in late July. Norihito noted the upcoming schedule, including the timing of Cryomodule C and A in 2010 due to assembly constraints in the tunnel. Upcoming discussions include a visit to FNAL Sept 10-11-12 to review the preparations of a cavity for HTS testing at Fermilab, understanding of the tuner control system(s), and alignment and assembly procedures. A visit is also under discussion for DESY a week later to discuss the DESY delieverables to S1 Global, including possible DESY participation in the assembly of the couplers to the FNAL cavities in Cryomodule C. Bob Kephart notes that progress at FNAL on cavities has been slowed recently due to handling issues.

- **ALCPG09 Planning (A. Yamamoto)**
  Akira presented a list of topics we would like to cover at ALCPG09 (slides posted), noting that this conference is one of the last group meetings before the

writing of the updated design report, so a focus will be on preparing inputs for the AD&I effort. The main organizers of the Main Linac sessions are Hitoshi Hayano and Chris Adolphsen. Akira would like a discussion / presentation of the cavity yield work at the meeting. Jim noted that in his view the plug compatibility discussion is closely coupled with the industrialization discussion / model, and that a couple of models might be defined by upper management for discussion as opposed to it being completely ground up. Norihito noted he would not be attending due to other travels, and Akira asked Jim to help organize the plug compatibility, industrialization, S1 global, and conduction cooled quadrupole discussions. Hitoshi agreed to handle the S1 Global test preparations. Tom Peterson offered to Webex in from CERN for the cryogenics discussions, as needed. Webex or alternative means of communication may also be needed for others, particularly those participating in SRF09. Comments or questions on the organization should be sent to Hitoshi and Chris.

4) Further Plans and Meetings

The upcoming ML-SCRF webex meetings are scheduled for 16 Sept, 14 Oct, 11 Nov, 9 Dec.

SRF09: Sept 21-25 (Berlin)
ALCPG09: Sept 29 – Oct 3 (Albuquerque)
AD&I 2: tentatively scheduled for early December (DESY?)
AAP Review #2: Jan. 6-8, 2010 (Oxford)
GDE meeting: March, 2010 (Beijing)
TTC: probably in April, 2010 (FNAL)
IPAC: 24 – 28 May, 2010 (Kyoto)

Akira mentioned his willingness to organize an informal satellite meeting on the SCRF cavity R&D collaboration between laboratories and industries during the International Particle Accelerator Conference, to be held in Kyoto, May 2010. An informal discussion may be held during the SRF conference to prepare for it. More announcements will be made.

5) Next SCRF Meeting Schedule

- Next ML-SCRF WebEx meeting: 16 September, 13:00- GMT, with the main topic tentatively scheduled to be cavity database status (to be confirmed).

21. Accelerator Systems WebEx Conference
05 August 2009, 13:00 GMT

Minutes (v1.2)

Attending: P. Garbincius, F. Lehner, T. Omori, M. Palmer, M. Ross, A. Seryi, T. Shidara, N. Solyak, N. Toge, J. Urakawa (Chair), A. Yamamoto, K. Yokoya

Agenda and Minutes also available on the indico site:

http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4093

1. Welcome and News (J. Urakawa)

J. Urakawa welcomed the attendees. There was no news reported.

2. Short status report by TAGLs

BDS/ATF2 (A. Seryi):
During summer, the ATF2 activities proceeded with the upgrade of the Shintake monitor and its laser system, with manufacturing of the multi-OTR and preparation of new electronics for ATF2 Extraction line strip-line BPMs. The tests of MonaLisa interferometer force compensated vacuum chamber were completed successfully, and installation of the MonaLisa system is planned for end of 2009. The ATF2 team is also developing detailed schedule for Fall-Winter 09 commissioning activity.

The work on IR and MDI received significant push forward with two month working visit of Alain Herve (ETH-Zürich group at CERN) to SLAC during May - July of 2009, and also a one week visit of Klaus Sinram (ILD / DESY) to SLAC in June. Frequent discussions were held with SiD engineers and SLAC resident engineers and physicists.

The goal of this period was to make progress on a practical push-pull design where different concepts (SiD/ILD, SiD/4th or ILD/4th) could co-exist. The work focused primarily on the configuration of shielding, motion systems for detectors and supports of the final doublet.

The design work started with the assumption that present design choices of the concepts (in particular whether a platform is employed) would be respected.

For the shielding design, it was quickly concluded that present design differences between the SiD and ILD pacman shielding could be eliminated and a common design adopted. Considerations of how to integrate additional shielding around the 4th with pacman shields were begun.

An IR layout was developed that attempts to provide a seamless floor for a detector that does not roll in on a platform while permitting the use of a platform for the second detector.

Subsequent discussions resulted in the conclusion that further progress on design choices for the detector supports and motion systems could only be made after a quantitative vibration and stability analysis of the combined detector/support/motion system was developed, focused in particular on the effect of ground and local vibration sources on the stability of the final doublet. In connection with this analysis a cross-regional experimental program was proposed and various analytic tools discussed.

The work at BNL on ILC IR quad continued, with the first layers of the 2meter long prototype manufactured and being analyzed. The design of ATF2 SC quad at BNL is proceeding well, aiming toward review of the final design by late 2009, when interfaces for cryo system will be also finalized with KEK.

The beam dump design work is going through the phase of review. Satyamurthy Polepalle (BARC) is now leading the beam dump design. Dr. Polepalle is currently visiting SLAC for three weeks, working with SLAC colleagues on review of the work done at BARC over past year. The results include a complete CFD (Computational Fluid Dynamics) study of the beam dump, including distribution of water vortex velocity, temperature in the water, window and vessel, methods of cooling the window with an additional jet, etc., that allow to freeze all its parameters and proceed with more detailed technical design.

ATF R&D (J. Urakawa):
ATF is preparing 4 sets of modified fast pulsers and modified strip-line kicker electrodes for a second fast kicker bunch by bunch beam extraction system. It is scheduled to be commissioned/tested in the October operation run. 40 % of the ring BPM circuits (about 40 BPM circuits) will be replaced in October and November. All replacements will be complete by the end of March 2010. The upgraded BPM system will allow a better control (correction) of the coupling in the ring.

CesrTA (M.Palmer):
A CESR upgrade down took place from June 16 to July 26, 2009. Major CesrTA upgrade activities included:

- Installation of wiggler vacuum chamber with grooved surface for electron cloud mitigation (CU-KEK-LBNL-SLAC). Chamber has 3 retarding field analyzers
- Installation of amorphous carbon coated chamber along with an Al “control” chamber in drift region (directly illuminated by arc dipoles) for mitigation tests (CU-CERN collaboration)
- Installation of a grooved chamber in a chicane dipole (SLAC)

- Installation of an instrumented quadrupole chamber
- Installation of solenoid windings in drift regions around CESR (presently this task is approximately two-thirds complete)
- Upgrade of an x-ray beam line which will support a high resolution beam size monitor for use with ultra-low emittance electron beams

The down was also used to complete a number of CESR-related maintenance activities.

1.1.1 CESR Startup and Experimental Run:

CESR was returned to operational status on July 23, 2009 with first beam stored early the following morning. A principal issue during the startup and first two weeks of the CesrTA run is machine scrubbing. During the scrubbing period we are continuously monitoring the electron cloud currents in the 29 retarding field analyzers that are deployed around CESR. This will help us to evaluate the effects of processing of the surfaces of the various vacuum chambers. Machine scrubbing activities are expected to continue into the week of August 10.

Since July 31st, daytime and evening shifts have been directed towards machine development shifts and CesrTA experimental activities while overnight shifts have been devoted to machine scrubbing. Particular activities have included:

- Electron cloud measurements with RFA and TE wave techniques
- 5 GeV optics development
- X-ray beam size monitor alignment and commissioning activities
- Visible beam size monitor alignment and commissioning activities
- General instrumentation and feedback system commissioning activities

The CesrTA experimental run will continue until September 8th. During the week of August 10 we intend to switch to operations at 2.1 GeV with our ultra-low emittance optics. Key activities for the remainder of the run include:

- Low emittance operations and tuning
- Continued instrumentation development
- Characterization of the effectiveness of the new vacuum chambers with electron cloud mitigations
- Continued measurements (eg, bunch-by-bunch tunes) to characterize the EC build-up around CESR
- Studies of electron cloud instabilities in low and ultra-low emittance conditions
- Implementation of intermediate energy optics (from 2.5 to 4GeV) to facilitate measurements over a wide parameter range (eg, IBS studies)

Positron Source R&D (J. Urakawa):

KEK is preparing hardware for hybrid target system with a 1mm W crystal, located at the end of the KEKB Linac. We are planning first experiments in mid-September. The French group (Orsay, Lyon and CERN) is preparing simulation results for the experiment which should be ready be the time of the run.

The BINP Liquid Pb target prototype will be sent to KEK around October and BINP is preparing a short collaboration report/proposal for a beam experiment at the end of ATF linac.

RTML (N. Solyak):

The major RTML activity was focused in following areas:

1. Single-stage bunch compressor lattice design and evaluation
    a. Lattice was modified to improve performances and tuneability. All cryomodules were replaced with Type-4 cryomodules, Wiggler design is now similar to that used in the baseline RDR design. Diagnostic section and extraction line elements were also reviewed.
    b. Extraction Line used after single-stage bunch compressor was re-designed. After a few iterations we now have a pretty good design, which transports an extract compressed beam with ~3.6% energy spread. The latest design use three sextupoles and no collimators. Preliminary results were presented at CLIC-ILC LET workshop at CERN (23 June 2009). Now we are working on documentation: report, lattice file, specs for elements and counts of components.

2. CFS and cost estimation.
    a. RTML system prepared and provided updated information for the CFS group. We had two meetings with the CFS group (FNAL and SLAC) to discuss RTML configuration, requirements (power, water, etc ..) and constraints.
    b. Started re-evaluation of the RTML layout and lattice to integrate it into the proposed new configuration for the central injector area. We are trying to define constraints for the new lattice, which will preserve the required functionality of the RTML and does not deteriorate the performance.
3. Preparation for RF phase/amplitude stability studies to demonstrate requirements needed for RTML bunch compressor. Studies are being considered as part of the September 9mA run at FLASH/DESY
    a. Proposal and request for studies was submitted
    b. Few meeting (including webex), e-mail exchanges and phone calls with experts were set-up to discuss details of experiment.

3. PM status and information report (M. Ross)

Marc explained the on-going preparation for the ALCPG Workshop to be held in Albuquerque, New Mexico from September 29 - October 03, 2009. The PMs have

drafted goal statements and will release them to the TAGs next week. The hope is to decide on working assumptions for the strawman baseline layout SB2009. During ALCPG work has to start towards the SB2009 proposal report to be submitted to Barry and to the EC by end of this year followed by an in-depth review by the AAP in January 2010.

Marc encouraged all participants to register at the ALCPG workshop site http://panda.unm.edu/LCWA09/ and look at the agenda how SB2009 discussion can further be added.

He further mentioned that Jonathan Bagger (future ILCSC chair) will take part in a panel discussion at ALCPG. Moreover, a talk was added in the workshop program by a SNS project manager on SCRF.

As regards AD&I a lot of activity on action items is going on in general. There will be also a report from the availability study group at ALCPG. Marc and Nick will clarify the AD&I meeting situation, since it has led to some confusion previously.

The next TAGL meeting is tentatively set on 02 September 2009 at 13:00 GMT.

CFS & Global Systems Monthly Webex Meeting

August 26, 2009

AGENDA

1. Project Managers' Report (M. Ross)
2. CFS Report (V. Kuchler, J. Osborne, A. Enomoto)
3. FLASH 9mA Studies Update (J. Carwardine)

Attendance

A. Enomoto, A. Yamamoto, V. Kuchler, M. Ross, J. Osborne N. Toge, P. Garbincius, T. Lackowski, J. Carwardine.

MEETING NOTES

Project Managers' Report (Marc)

- Marc noted that highest priority at the present time is preparing for the upcoming GDE at ALCPG in Albuquerque. The focus of the meeting will be Accelerator Design & Integration, and the expectation is that we will finish the meeting with an agreement of the SB2009 configuration and a clear path forward. There is a very tight timeline for completing the TDP Report, which is due to Executive Committee and Accelerator Advisory Panel at the end of December. Marc showed a proposed outline for the SB2009 proposal document.

- Marc showed a draft meeting outline:
    - Tuesday afternoon: plenary with Detector/Physics groups: will include summary talks on SNS, CLIC, and other?, PM report and general meeting with Detector/ Physics group
    - Wednesday morning GDE plenary will be specifically a session on 'AD & I.' It is anticipated that the session will comprise presentations on Availability, single tunnel safety, and the SB2009 configuration proposal.
    - Wednesday after morning break – Friday afternoon will comprise parallel sessions of the Working Groups. The focus of the WGs should be AD&I.
    - On Friday afternoon there will be a second 'AD & I' Session to review the activities of the parallel sessions.
    - Saturday will be a closing plenary with summaries from each Working Group.

- Upcoming meetings

- A second AD&I meeting is planned for the first week of December at DESY, where there will be a final review of the draft report and resolution of any remaining issues from the ALCPG meeting.
- The Second AAP review will be held in England from January 4th to 6th 2010.
- LCWS will be in Beijing from 26-30 March, 2010

- PM Issues
  - Re-evaluating the baseline cavity gradient. A plan is due to AAP in January 2010.
  - Planning for CLIC/ILC collaboration presentations for ALCPG09 and CLIC09.
  - CFS R&D Plan items (see next talk)
  - Preparation of the report from the Dubna site study.

- The CFS portion of the SB2009 Report as three components
  - AD&I activities (to be written in collaboration with Ewan
  - R&D Plan Value Engineering work, including the one vs two tunnel assessments
  - Integration and collaboration with CLIC and XFEL

Conventional Facility and Siting Group report (Vic, John, Atsushi)

AD&I

- Vic noted that a lot of work has been done by the group on the AD&I.
- The first CFS AD&I Meeting was held at SLAC on July 20-21, and a second meeting is planned for early September at the Daresbury. The Daresbury agenda provides time for discussion with each Area System (just as with the SLAC Meeting).
- The weekly CFS Meeting has been wsed for direct discussion with Area System representatives to finalize area system criteria and layout requirements
- With the exception of the issue of cavity gradient, all of the SB2009 working assumptions are reflected in the criteria developed for the various areas systems.
- Peter noted that he didn't think the changes in CFS costs resulting in a new gradient selection would have a significant effect on the overall ILC costing.
- Initial 2d drawings are being prepared at Fermilab with consultant support and will be used as the basis for discussion at the Daresbury meeting. Development of 3d layout drawings has started at CERN, and Fermilab and KEK will begin their efforts soon. The goal is to have a complete 2D baseline drawing package by the end of ALCPG.
- A full 3D drawing should be completed by the DESY AD&I meeting.
- Vic showed a template for the CFS criteria being collected from each region.
- John reported that CERN is continuing efforts on the 3-D model of the central region. He noted that the transfer tunnel around the detectors has been moved to the other side from the layout shown at the last CFS/Global meeting.

Klystron Cluster and DRFS Information and Cost Estimates

- Americas
  - Klystron Cluster Design and Cost Estimate Complete
  - DRSF Design and Cost Estimate in-Progress
- Asia
  - Klystron Cluster Design Complete, Cost Estimate in-Progress
  - DRFS Design Complete, Cost Estimate in Progress
- Europe

- Klystron Cluster Design and Cost Estimate in-Progress
- DRFS Design and cost Estimate in Progress

The objective is for all three regions to complete design assessments for both HLRF options as appropriate for their reference sites Efforts on the two systems are at different stages in the three areas, but it is still the goal to have the effort completed by Albuquerque.

Planning for ALCPG

- Vic reported that the CFS group is hoping to have sessions with all the Area Systems representatives to go over the completed requirements tables.
- The group plans to internally review and to level any discrepancies in the costings of the two HLRF options in the three regions.

Other

- Vic noted that the CLIC/ILC joint working group has been very active, and they will have a lot to report at the Autumn CLIC Collaboration Meeting.

FLASH 9mA Update (John)

- FLASH stopped user operation 10 days ago, and is now in the midst of a shutdown to replace the dump vacuum line and install new diagnostics. Work is progressing well.
- This week there are RF-only commissioning activities and some studies over night. The major commissioning effort is on ACC456 LLRF system, where a new 'SimconDSP' system has been installed that should provide better noise characteristics and allow higher feedback gains compared with the older 'DSP' system.
- DESY LLRF group is also aiming to demonstrate closed-loop operation of their newly developed ATCA Low-Level RF system, which is a prototype for the XFEL.
- We plan gradient studies and Cavity loaded-Q studies for later this week.
- Next week it is expected we will close the tunnels and start beam commissioning around midweek. We then have two full weeks of beam time between Sept 7th and Sept 21st.
- We plan to be conservative with increasing the beam power, stopping at particular power levels in order to characterize machine operation and to gain experience running steady-state at the higher power levels.
- John showed a flowchart of the general approach to be taken to ramping up the beam power.
- If all goes well, we will reach beam powers up to 36kW (2400 3nC bunches at 3MHz repetition rate). There are several studies proposals for using the higher power beams should we reach our goals with time to spare.

Next Meeting: September 23, 2009

Monthly Report (August 1-31, 2009) for Peter H. Garbincius
PHG_monthly_report_31aug09.doc
distributed Aug 30 to: Marc Ross, Tetsuo Shidara, John Carwardine, Wilhelm Bialowons, Frank Lehner.

Accelerator Design and Integration (AD&I) activities:

I didn't get any additional information (except some magnet lists for RTML) or got much done during August. I'll have to work to get prepared for the ALCPG meeting in Albuquerque beginning at the end of September.

Will we be considering Chris Adolphsen's second Low-P approach with all beam bunches populated but with only ½ the beam pulse width? Apparently not!

Triad's ILC Cost Estimating Tool (ICET):

J. Carwardine, T. Himel, T. Shidara, P. Garbincius, Maura Barone, David Seigle (summer student)

Triad: S. Curtis, L. Lew, and K. Long, and

DESY-EDMS: Daniel Szepielak (& Jasper Dammann working on a technical file transfer solution)

Triad-EDMS-ILC webex meetings were held on (with agendas & meeting notes posted on EDMS):
Aug 4 (EDMS *888075), Aug 11 (EDMS *888115), Aug 18 (EDMS *888155), and Aug 25 (EDMS *888195).

Our student, David Seigle, returned to college on August 12. I had intended that he would load data into ICET. Alas, he spent his summer finding Triad's errors and helping to develop solutions. He will be able to continue to provide some support to Maura and Peter for a few hours per week during the school year.

Triad Releases: ICET V1.5 (8aug09), ICET V1.5a (16aug09), and revised \scripts (24aug09)

DESY EDMS completed implementation of a URL-like EDMSdirect call for accessing native EXCEL files.

Thanks, Daniel and company!

All of David's tests of the EDMS tests of the confidentiality groups and Designated Access Schemes (Projects in which to release items) projects have been successful.

David (and then Peter) has been conversing with Jasper Dammann about procedures for moving files or folders BETWEEN teams in EDMS. Although it is simple to move files

and folders between folders within a team, it is not apparent how to move these between teams – task is still with Jasper – vacation to 9/7.

Spencer provided a Data Cube report which can access an EXCEL file produced from the Data Base to allow various correlation matrices and other data displays and tables to be easily produced. David modified this to allow the data cube reports to be "data-driven" by whatever tags are active within that particular estimate or study. Peter checked the tagging and roll-ups for the Data Cube using Cost Estimating Modules filled with simulated estimating data.

Peter tested ICET successfully to WBS Level 13 !

Peter sent ILC's response to Triad's proposed ICET work list to Spencer Curtis. We asked that the Error Checking/Error Handling, Data Integrity, CEM Data Validation, Extractor Validation, ICET User Guide, and ICET Code Documentation tasks be implemented. We feel that we already have enough very general reports provided by Triad, including the Data Cube. We feel that we can copy and modify their scripts that produce these reports and access the mysql data base (or port the data to MS ACCESS data base) to generate our own reports.

Spencer Curtis visited Peter on Wednesday, August 12. We discussed the need plan for "regression" testing all new or modified code before release to make sure that Triad sends operational code and to reduce the testing and de-bugging burden on ILC. We also need a way to track "issues", their status, temporary solutions, and making sure they get into future releases. Led by Maura, we are discussing possible commercial software tools, initially just for the ICET application. However, it is evident that such issue tracking tools eventually will be needed for many global ILC activities.

The ICET STAGER using EDMS Generic Parts seems to have problems with removed files. Adding files is OK. There needs to add an update query, not implemented yet, which prevents the display of removed files from the Stager selection list. Files will need to be checked into the EDMS team before showing-up on Stager selection list. This is about the only feature not yet implemented under ICET V1.5a. August 24, Larry sent supplementary scripts to correct this. David has agreed to test, but is having difficulties accessing EDMS since his university gives students a variable IP address.

We are trying to converge on a standard WBS structure through Level 3 for the ILC estimate before starting to load the existing RDR cost estimating information into ICET. Peter distributed a proposal to the people working with ICET and also to Wilhelm Bialowons for their comments and suggestions.

ILC has agreed to Spencer's e-mail proposal of 18aug1556, of the end-game for ICET development.
Triad's Goal: Complete Development & Begin Maintenance (& Enhancement) Phases by September 30

1. Flag status of extract to db operation - indicate whether successful or not - by September 8
2. Data validation of CEMs before & at the extract to DB phase – to be ready by September 22
3. Documentation – goal is to push to be ready by end of September
   This would include a User Manual, an Operator's Reference Guide, and commentary included within program scripts. This will have to include instruction on how to use, what the messages mean, and what to expect.

Peter still has to learn: REBUILDER (David's instructional notes), STAGER, and EDMS GENERIC PARTS.

We increased the Purchase Order to Triad to cover activities through the end of the US Fiscal Year (end of September, 2009). We expect to be just about finished with the development and documentation of ICET at that point. There will need to be some continuation of Triad to maintain the ICET system. There will need to be some funding allocated for ICET for FY 2010 (Oct2009-Sept2010). We have received a proposal from Triad for a retainer to guarantee response by the ICET developers to our request within a given time period. (Remember that they will be reassigned to other primary tasks by Triad.) The options presented by this proposal are under consideration.

Triad sent a proposal (28july09) to do the Primavera implementation and initial schedule development for ILC, which Peter presented to the ILC-GDE Executive Committee on 13aug09. The questions are the scope of the schedule(s) needed for mid-2012, how late can we wait before starting to use Primavera, and when will access to the Project Managers and the technical experts be available to effectively work with the people developing the schedule(s). We await Barry's and the EC's guidance.

CLIC-ILC Cost & Schedule Working Group:

G. Riddone, P. Lebrun, J. Carwardine, T. Shidara, and P. Garbincius

At the request of Philippe Lebrun, who was traveling for most of August, we did not have a CLIC-ILC Cost & Schedule Working Group meeting this past month. We still need to plan our meetings and agenda for the upcoming Albuquerque meeting.

However, there was a more general discussion of CLIC-ILC activities at a webex meeting on August 18 including Marc Ross, Jean-Pierre Delahaye, Akira Yamamoto, and Peter Garbincius. A major part of the discussion was whether the CLIC-ILC Cost and Schedule Working Group will be requested to validate the actual cost estimate to be produced for CLIC, rather than just agreeing on cost estimating methodologies and understanding the differences in the estimates due to the different choices of technologies, geometries, etc.

Peter