News from CERN

Miscellanea of things I heard around during meetings/coffeebreaks/etc… (bias view):

- Pixel has been making good progresses (last chances to see it at SR1)
- Discussions on data format (still…), a new acronym appeared:
  Event Summary Data or ESD (aimed at ~500 kB/event) which summarizes the raw data of event.
  Analysis Object Data or AOD (aimed at ~100 kB/event) which is directly analyzable.
  Derived Physics Data or DPD which serves the role served in previous generations by ntuples.
- New release 13.0.0 shifted to March, 14.0.0 will be used for real data
  - Also upgrading of SLC3 -> SCL4
- Most of the attention on CSC preparation but also for the next step: The Final Rehearsal (FDR)
- A lot of activities on Trigger/DAQ/DCS (they have a Technical Run)
- Preparation for offline/online commissioning with cosmics in the pit (calo+muon?+ID, use of triggers instead of scintillators, etc…)
- … and much more.
ID Software Week in Jan

Very useful meeting, all expert around and a lot of time to interact/discuss

The Duke group gave 3 talks and our work/effort is well appreciated by the TRT community

Personally I had very useful discussions with the NBI group and we establish some lines of collaboration on common issues (they have done the efficiency/noise study on CTB, we do that on cosmics, we can profit on sharing our experiences)

It is clear we are taking a major role in TRT alignment and validation albeit we cannot do these important tasks by ourselves.

In both cases the major milestone is the release 13 that need to be ready by middle March (next ATLAS SW). All the SW groups are totally focused on that.

Next slides stolen from the Final Remarks of the meeting....
Milestones for 2007

- Graphical view:

  - CDC
  - FDR
  - Barrel TRT+SCT cosmics
  - Endcap TRT+SCT cosmics
  - Pixels cosmics
  - HLT Commissioning
  - Release 13
  - Release 14
  - Data taking

TRT Issues

For 13.0.0
- Updates for End-Cap geometry and material
- Validation in RTT of TRT code
- Validation of TRT misaligned geometry
- TRT ByteStream converter for new ROD
- Calibration / Alignment for the Cosmosics
- Aligning individual straws is done
- TRT Monitoring (first version)
- Tuning of TRT particle ID

For 14.0.0
- Bad channel list in database and other database work
- Optimization and tuning of TRM model and digi. params.
- Late conversions / conversion fitting in TRT
Commissioning/ Calibration/ Alignment

✓ demonstration of full scale alignment progressing well, expect first results soon \( \rightarrow \) no need for additional manpower
  - systematic tests of approaches
  - validation of alignment constants
  - include additional constraints (vertex, mass constraints, \ldots)

? calibration/alignment SR1 cosmic data, barrel part reasonable covered, endcap alignment at the beginning, not sure what we learn by applying all algorithms \( \rightarrow \) discussion
  - alignment using cosmic data in the pit \( \rightarrow \) manpower needed
  - prototype for calibration streaming at the eventfilter: additional manpower required for track selection, prescaling, \ldots
  - investigate about possible start up scenarios: minimum bias events, beam halo, alignment of complete ID, \ldots
Upcoming Meetings

- Feb. 19 – Feb. 23: ATLAS Overview Week
  - Some Physics meeting also in the same week (like SM meeting)

- Feb. 26 – Mar. 2: Inner Detector Week
  - Offline session, ID integration, ID software, etc…

- Mar. 19 – Mar 23: Trigger and Physics Week
  - All major physics meeting this week

- Mar. 26 – Mar. 30: ATLAS Software Week (in Munich)
  - Endorsement of the 13.0.0 release

(this list is not exhaustive of course…)