Minutes of the DAQ-Meeting on Wed, 25-June-2008:

Presentations are available at http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=2823.

Present:

Ties Behnke
Klaus Dehmelt
Jean Paul Dewulf
Paul Colas
Xavier Janssen
Alexander Kaukher
Martin Killenberg
Takeshi Matsuda
Ulf Mjoernmark
Oliver Schaefer
Jan Timmermanns
Stephen Turnbull
anybody forgotten?

The slide of http://ilcagenda.linearcollider.org/materialDisplay.py?materialId=2&confId=2823, was the starting point of the discussion. It was suggested that the slow control (SC) should not be included into the data stream. The trigger as well will not be included in the data stream, but only that a trigger was present. The merging of the event number will be implemented already in the particular DAQ.
The cosmic trigger will be starting as SC alike, i.e. independently of a common data stream. This trigger will be installed in the 28. week. The question is how to implement it into the TLU.
Another TLU is needed in the test bench of the Brussels group up to the end of summer; only four TLU is available, each providing four inputs; the TLU can be inserted into EUDAQ, but we might need a second TLU.
The raw data from the AFTER electronics will be in binary format, but not in LCIO at this time. This means that the MicroMegas data will be processed as standalone. It was suggested that each system should write an own raw DAQ processor, i.e. duplicate data and write a common LCIO format to the data stream; this will keep the monitoring of each system simple. The question came up how much effort it would be to convert raw data into LCIO. This has to be estimated and it was then suggested to develop common monitoring tools. 'JTPC' was mentioned to be an ideal tool for monitoring if LCIO compatible, however, there are plans to make it LCIO compatible.
A major conclusion was to use LCIO just from the beginning of the chain, so raw data should be converted into LCIO as the first step.
EUDAQ should be used as Run Control and Event Builder framework. It has been developed so far that it can put LCIO into the data stream to be saved on the GRID. A question came up if it waits for the slowest component; the answer was no, it buffers and has to provide synchronization with the TLU. A timeout option will be thought of.
The Bonn group works o ALTRO DAQ producer; the producer is actually a data converter; EUDAQ developers are working on Event Builder features. It was suggested that Bonn and Saclay should work together to develop the producers for ALTRO/AFTER DAQ. A 2 hours meeting on July 3, 10:00 was scheduled for that.
Lund mentioned that the Distributor-box will be the link to the TLU and that EUDAQ is already used as a common framework for the ALTRO electronics. For the TDC based DAQ all hardware is available so far and there is ongoing work on converting raw data into LCIO.

It was pointed out that EUDAQ is presently not yet capable to communicate with the GRID in order to put the data stream on tape. This will be investigated.