

**LHC EXPERIMENT-ACCELERATOR DATA EXCHANGE WORKING GROUP
(LEADE)**

Minutes of the 27th Meeting held on December 05, 2005

Present: S. Baron, R. Billen, N. Ellis, D. Evans, C. Fabjan, Ph. Farthouat, R. Hall-Wilton, Ch. Ilgner, R. Jones, R. Lauckner, D. Macina, Th. Pauly, W. Smith, D. Swoboda, E. Tsesmelis

1. MATTERS ARISING

Approval of the Minutes

The minutes of the 26th LEADE meeting were approved without modification.

Approval of Document for Proposed Upgrade to TTC System

Sophie Baron announced the release of the TTC upgrade proposal to the public, which is approved and available on EDMS under document number 628545, reachable for ex. over a link on the LEADE homepage.

At the moment, the user schedule for the 25 ns structured test beam is being prepared. So far, only ATLAS has abstained from using it, the other experiments still need to express their needs. Also the request for fibres is still pending.

All necessary information on these issues, as well as the module design, is available on the TTC upgrade web site.

2. SUMMARY OF DATA EXCHANGE BETWEEN EXPERIMENTS AND ACCELERATOR (E. TSESMELIS)

Emmanuel Tsesmelis gave a summary of the current status of the data exchange between experiments and accelerator. For timing purposes, there are two racks reserved in each experimental area, with space already assigned to machine clocks (TTC), Beam Synchronous Timing (BST) and General Machine Timing (GMT).

The BST signal needs to be checked on the machine side, so the necessary diagnostics equipment, a receiver card, needs to be provided. For the beam interlock and inhibit veto, there are only functional specifications so far. Steps need to be undertaken in view of a design. Since cabling is an important issue at the moment, AB will be asked for a progress report on this at the next meeting.

3. STATUS OF COLLISION-RATE MONITORS (D. MACINA)

Daniela Macina gave an update on the collision rate monitors, which will now be installed also at Points 2 and 8. A major change is the use of solid state detectors (CdTe) there, instead of fast ionization chambers. Points 2 and 8 have lower rates, however, there was a request from the machine to have the same type of monitors throughout the LHC.

For the CdTe sensors, the advantages are no use of gas and an easy integration.

Whether the collision-rate monitors can stay in front of the ZDC also during the heavy-ion run is currently under study.

BDI is responsible for the provision of the system. The data will be distributed by DIP.

4. DEMONSTRATION OF DIP (M. BEHARRELL)

Mark Beharrell gave an introduction and a demonstration on the DIP system, which is a high-availability 250kBps data bus system between domains. It has two name servers, one running under LINUX, the other under Windows XP, with a synchronisation taking place every 30s. A so-called publication consists of a value, which can be a primitive or an array of primitives, its type, a timestamp and a quality/error string. Interfaces are available in Java/C++, Linux/XP and PVSS API manager. A PCView driver is available, a LabVIEW driver is in preparation.

In the following discussion, the idea came up to provide a “common screen”, like ACnet at Fermilab, a kind of remote control room.

5. DEMONSTRATION OF TIMBER (R. BILLEN)

Another demonstration was given by Ronny Billen on the web-deployed LHC logging project TIMBER. The system respects the functional specifications even beyond LHC and also complies with the demands of the SPS. It can even cope with arrays of vector data and time-stamps any data with UTC. The system is designed to be consulted interactively.

6. A. O. B.

Some issues were briefly discussed:

Daniela Macina suggested, that for any dump, triggered by the experiments, a frozen-memory dump should be sent to the machine, explaining, why the dump was triggered.

Another short discussion took place on the safe movement of the Roman Pots. Wesley Smith suggested to set up a system that can automatically pull the Roman Pots out.

Ch. Ilgner

Provisional date and room for the remaining meeting in 2006 (16:00 hrs):

February 6, room: 4-S-013,

March 6, room: 40-4-C01,

April 3, room for this and the following meetings: 40 R-A10,

May 15,

June 26,

July 24,

September 4,

October 16,

November 27.