Minutes: MDT-DCS meeting, 19.6.2007
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Joerg Wotschack, Paolo Iengo, Stephanie Zimmermann, Stepan Kovar, Doris Merkl and
Claudio Ferretti

1) Technical student project: Chamber t-sensors
We discussed the Chamber T-sensors that Hermann Fuchs should work on.

Mission and Scope:
- Implement calibration constants
- Implement MDT chamber coordinates in ATLAS
- Implement the local coordinates on a chamber
- Create a mapping between T-sensors and chambers
- Provide an application to:
    Manage t-sensor flags
    Display the Temperature Map of the ATLAS detector
    Generate summary reports (routines)

What is to be done?
- Database repository to store:
    T-Sensor local coordinates with errors
    T-Sensor global (ATLAS) coordinates
    Number of T-Sensors on a chamber
    Calibration constants
    Working range of T-sensors
    Flag whether a sensor is in operational mode or not
    DCS channel connectivity

- Use temperature information from B-field sensors as cross-check

- Tool in PVVS to
    Manage the repository
    Upload and download from/to a database
    Generate Temperature Map of the ATLAS detector
    Display values

- Technical documentation
- End user documentation
- Project presentation to the Muon community

Who is involved?
- Project Leaders
  Joerg Wotschack and Rudiger Voss
- Team Members
  Hermann Fuchs
  Paolo Iengo
  Stepan Kovar
- Contacts
  Stephanie Zimmermann
  Doris Merkl
  Claudio Ferretti

Where are we?

Doris Merkl and Clauido Feretti work with T-sensor data, and they have already collected a major part of the requested data (calibration constants, coordinates). In addition, Doris developed a tool (written in C++) for off line analysis so she has expertise that can help us in the development phase of the project.

Doris and Claudio will prepare sets of data in text format (or excel) that Hermann Fuchs will import in to the database. These sets will contain:

- T-Sensor local coordinates with errors
- T-Sensor global (ATLAS) coordinates
- Calibration constants of T-sensors mounted on the End Cap Chambers

2) Data availability and accessibility

Needs to be solved whether all T-sensor data is readout and accessible, and where it is located. How to get temperature data that is accessible via the alignment system (EMS1 and chambers on the small wheels)?
The mask – needs to be discussed and solved in cooperation with a readout expert (Robert Hart).

Another question concerns the temperature data for the mezzanine and CSM cards. Are those values available? How, where?

3) Next MDT-DCS meeting

Regular: on the 20th of June, 14:00, meeting area 40-2D