

# Dimuon Offline Status

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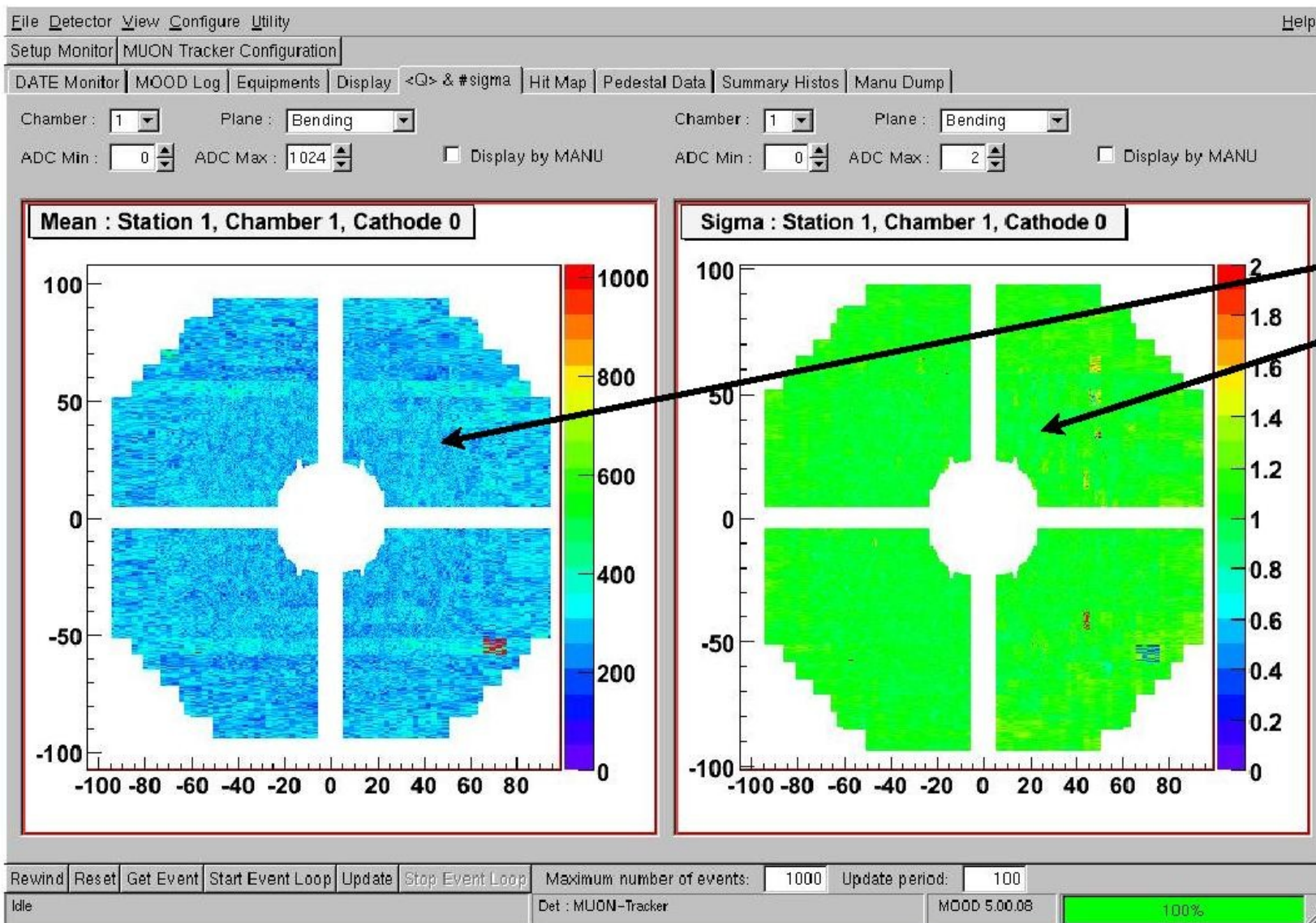
# Outline

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- News from Online
- Software overview
  - MUON packages (libraries)
- Recent developments
  - Mapping, Alignment, Survey
- Project schedule

# MUON Tracking Commissioning

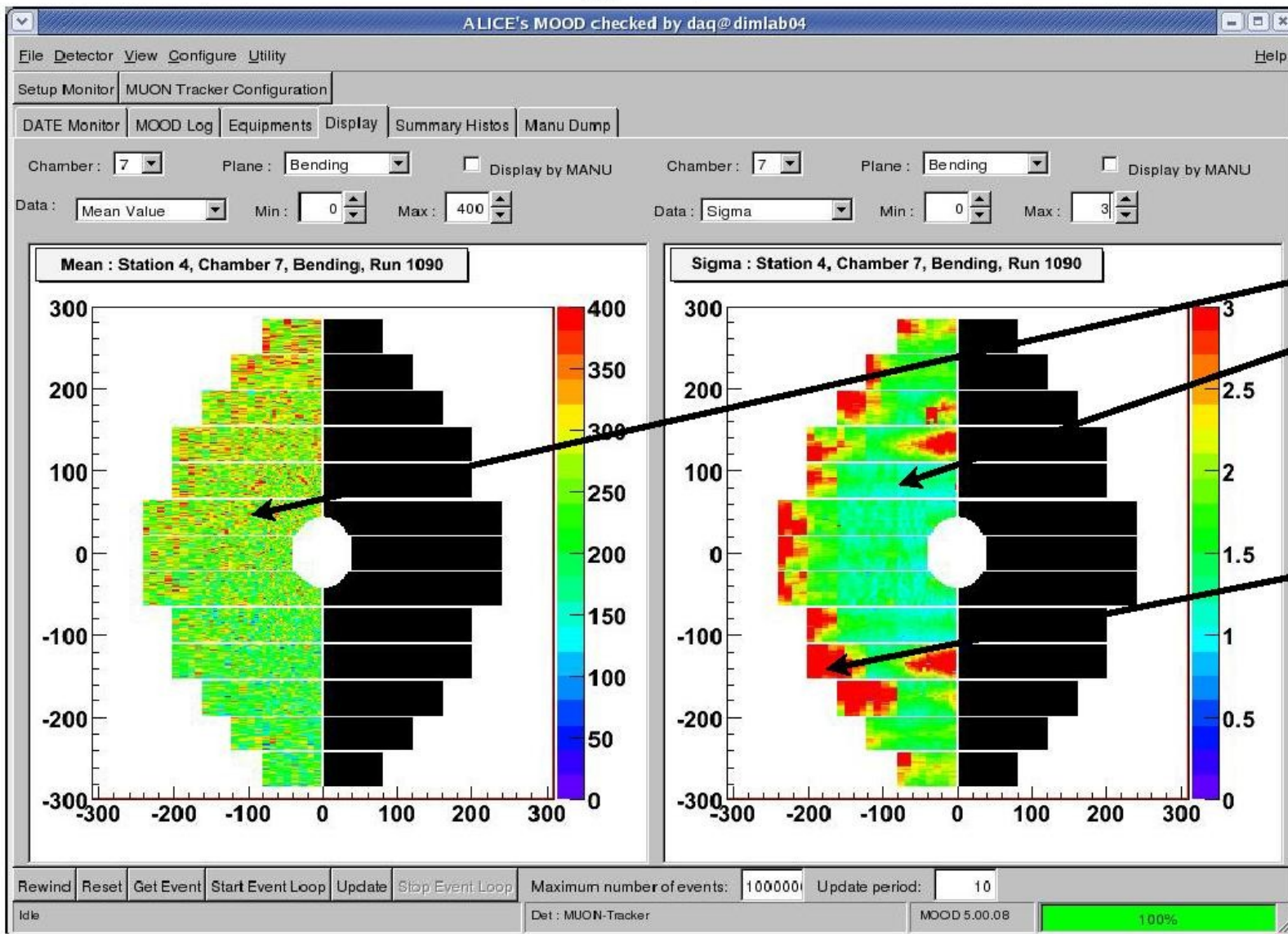
- Station 1 local commissioning (in the cavern) **done**
- Local LDC / local trigger / pedestals & calibration / DATE / MOOD



C. Suire @ Tracking meeting Oct. 07

# MUON Tracking Commissioning

- Station 4 (first 1/2 chamber) local commissioning (in the cavern)
- Local LDC / local trigger / pedestals / DATE / MOOD



# MUON Tracking Commissioning @ ACR

- Station 1 commissioning in the Alice Control Room
- 1 LDC (4 fibers) / CTP emulator / pedestals / DATE / MOOD

The screenshot displays the DAQ - Run Control interface with several key components:

- ALLDETECTORS (LDC status display):**

LDC name: alonefdc	
Number of sub-events	151969
Sub-event rate	583
Sub-events recorded	151970
Sub-event recorded rate	583
Bytes injected	70588384524
Byte injected rate	270.984 MB/s
Bytes recorded	70587920032
Byte recorded rate	270.984 MB/s
- ALLDETECTORS (GDC status display):**

GDC name: alonegdc	
Number of sub-events	0
Sub-event rate	0
Events recorded	0
Event recorded rate	0
Bytes recorded	0
Byte recorded rate	0 B/s
File count	0
- CTP emulator:**
  - Sequence: L2ar.seq
  - Buttons: Examine SLM, Load sequence, Sequencer editor
  - Status: Errors disabled
  - L1 message format: Complete L1m, LHC Gap Veto OFF
  - Automatic START signal selection: BC, BC downscaling factor: 0x9c4
  - Generate SW 'Start signal(s)': # of signals: 1, spacing [ms]: 0
  - Buttons: Check emulation status, Start emulation, Break emulation, Quit emulation
- DATEALLDETECTORS:**
  - Buttons: Disconnected Configuration, Connected Run Parameters, Ready to start
  - Buttons: Define, Show
  - Buttons: Start processes, AFFAIR, EDM, HLT node A: DAQ only, Recording disabled
- ALICE's MOOD checked by daq/ipndaq4:**
  - Chamber: 1, Plane: Banding
  - ADC Min: 0, ADC Max: 1024
  - Station 1, Chamber 1, Cathode 0 and Station 1, Chamber 1, Cathode 1: Heatmaps showing detector response with a color scale from 0 to 1000.
- Trace Log:**

```

RUN NUMBER : 441 Run Control Status : RUNNING
Trace
  Run 23:20:46:28 (DC) Saving Data Taking for run 441
  Run 23:20:46:27 (H) Current PC opened loaded from : DATE_COBEG
  Run 23:20:46:27 (H) Start process: name: 4 seconds
  Run 23:20:46:23 (DC) Saving run 441
  Run 23:20:46:23 (DC) Get and update run number from database
  Run 23:20:46:23 (DC) RunBus opened loaded from : Database DATE_COBEG
  Run 23:20:46:44 (H) Stop process: name: 4 seconds
  Run 23:20:46:40 (DC) END_p_EVT request received by Logic Engine
  Run 23:20:46:39 (DC) Saving Data Taking for run 441
  Run 23:20:46:57 (DC) Saving Data Taking for run 441
  Run 23:20:46:56 (H) Current PC opened loaded from : DATE_COBEG
        
```

C. Suire @ Tracking meeting Oct. 07

# MUON Tracking DA

- New version committed (and tested)

- Pedestal extraction
- Gain parameters

```
//=====
// Calibration file calculated by MUONTRKda
//=====
// * Run      : 0
// * Date     : Thu, 04 Oct 2007 10:10:29 +0200 (CEST) +633601000 nsec
// * Statistics : 0
// * # of MANUS : 0
// * # of channels : 0
//=====
// BP MANU CH. a1 a2 thres. Q
//=====
26 4 0 1.0450 1.419e-04 1903 fa
26 4 1 1.1989 1.651e-04 1660 fd
26 4 2 1.2299 1.321e-04 1621 ff
26 4 3 1.2979 2.052e-04 1533 fd
26 4 4 1.2712 1.343e-04 1569 ff
26 4 5 1.2988 1.805e-04 1534 ff
```

**FXS ⇒ SHUTTLE**

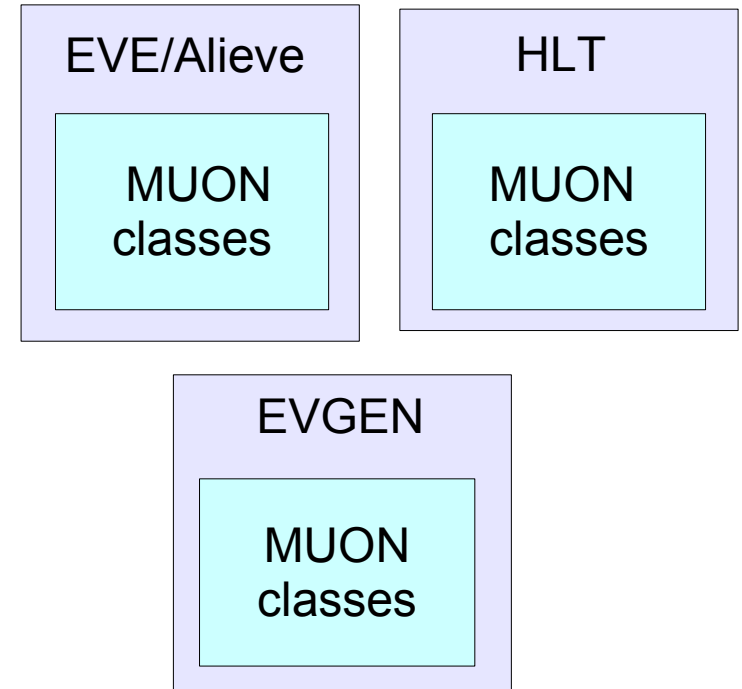
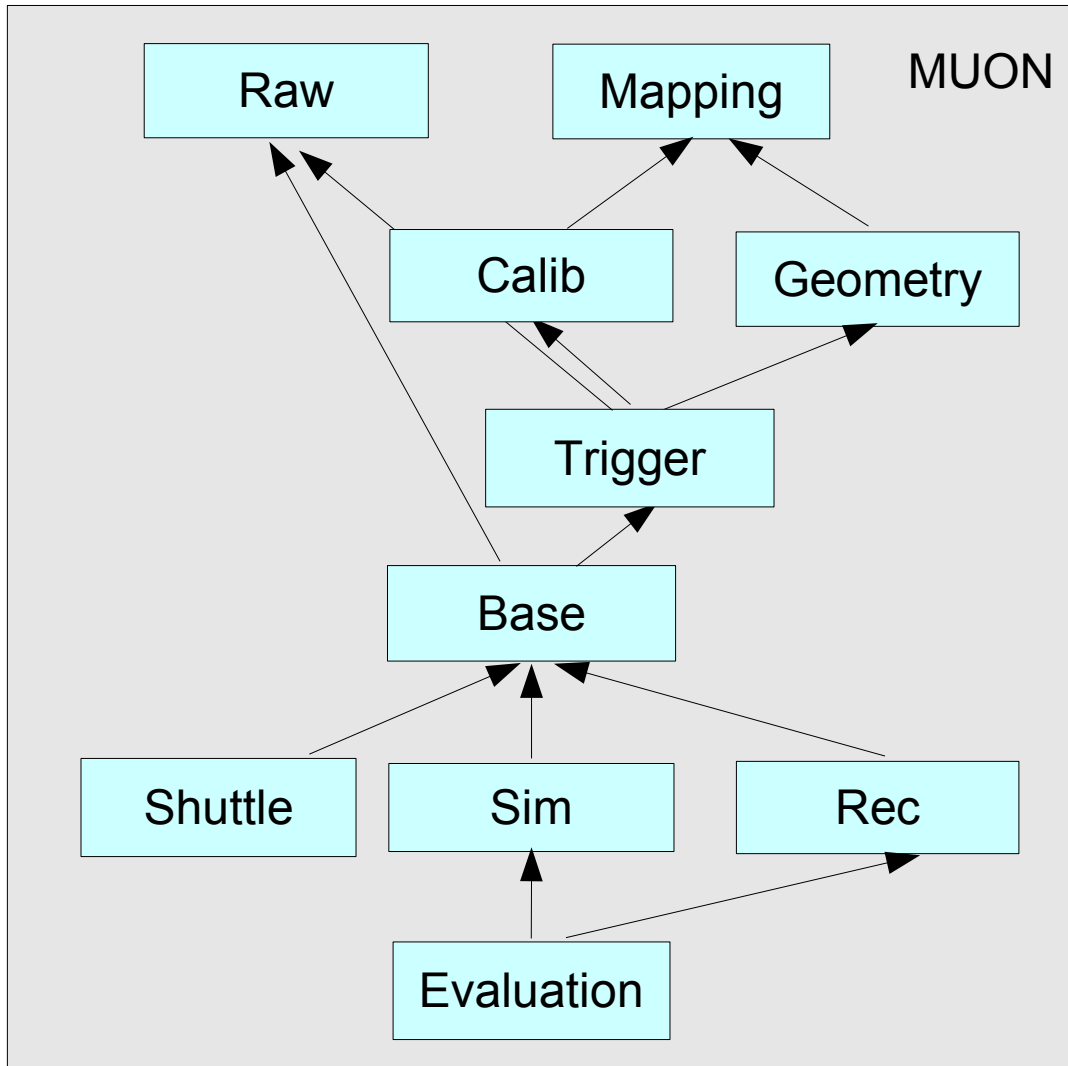
```
//=====
// Pedestal file calculated by MUONTRKda
//=====
// * Run      : 282
// * Date     : Wed, 03 Oct 2007 16:36:08 +0200 (CEST) +522025000 nsec
// * Statistics : 1521
// * # of MANUS : 36
// * # of channels : 2304
//=====
//                               FXS ⇒ SHUTTLE
//=====
//format : BUS_PATCH MANU_ID CHANNEL MEAN SIGMA
//=====
41          56          0          183.846          1.86571
41          56          1          218.928          1.82473
41          56          2          212.387          1.87207
41          56          3          203.793          1.83959
41          56          4          259.25          1.70307
41          56          5          191.486          1.52186
```

- Integration with the final ECS

- end of October @ CERN
- Using the MUON\_TRK LDC @ ACR

**Will be ready for the cosmic run**

# Software Packages



No modifications in the packages dependencies since July 07

# Mapping

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- Frequent updates of mapping data with commissioning
  - Both in *ASCII* files and *OCDB*
  - Adding serial manu Ids as they are installed
- Verification (with the complete test suite) that we can run only with *OCDB* files without *ASCII* files



# Alignment & Survey

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- From [Javier Castillo](#):
- We have now a general approach for quadrants or slats based on local to global transformation fit plus plane fit when available
- The code is written and complies with the core team requests, i.e. reads the survey data using their interface classes and writes a CDB entry
- Right now it is in macros style so one would need one macro per half-chamber and is being rewritten in few compiled classes to be more efficient
- The code has been tested and we have final results for chambers 1, 2 and 3

# Alignment With Tracks

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- From [Javier Castillo](#):
- Testing more realistic events with a variety of initial conditions but no relevant results are yet available.

# Reconstruction

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- The overview & new developments in the talk by [Philippe Pillot](#) on Tuesday

# Project Schedule

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- Shuttle - preprocessor algorithm - MTR - LUTs, Masks
  - Shifted date to 30/10/07
  - The work on preprocessor started at mid September, when the files format was fixed
- HLT DA (responsible Corrado Cicalo, 30/04/07)
- HLT FXS Output Files (responsible Corrado Cicalo, 30/04/07)
- Documentation (31/12/07)
- ESD QA (31/07/2007)
  - The task re-opened by core team with log "Still waiting for QA framework"
- Pre-production validation (31/07/07)
  - "Validate the entire detector software (geometry, alignment, simulation, calibration, reconstruction) on the set of data produced with day-1 version of AliRoot" - too vague description to take a concrete action

# Project Schedule (2)

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- Geometry as installed (31/07/07)
  - Shifted date to 30/10/07
  - A piece of geometry has to be added to geometry of station 1
- Geometry outside active zone (support) (31/12/2007)

# More on Dimuon Offline

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- Project URL:
  - <http://aliceinfo.cern.ch/Offline/Detectors/Dimuon>
- Offline meetings in 2007
  - Since November 2006 meeting, we joined Offline and Online, as many current offline tasks are closely related to Online
  - Nantes, 4 - 6 April 2007
  - CERN, 14 June 2007
  - Cagliari, 23 - 25 October 2007
    - Agenda in preparation:
    - Educative presentations on mapping, trigger classes, analysis, reconstruction, mood, HLT, ...