Digitization Status

Summary of Pre-Meeting
Friday, 22/3/2002
(J. Chudoba, M. Ivanov, P. Hristov,
Massimo Masera, A. Morsch)

ITS

- SDigits and Digits available for SPD, SDD and SSD

- Missing
    - More efficient use of HiMap
    - Region of interest
    - Testing macros for merging

TPC

- SDigits, Digits, Merging available and tested

- Problem

  - Backward compatibility of new segmentation

  - Correct overwriting of TPC parameters

TRD

- SDigits, Digits and Merging available

- Missing
  - Region of interest
  - More testing (also with new geometry)

TOF

- SDigits and Digits available
  - SDigits to Digits Conversion
  - Testing
  - Merging
  - Current version cannot process data from test production !

PHOS

- SDigits, Digits and Merging ok

RICH

- SDigits, Digits and Merging ok
- SDigits (PadHits) are created during simulation

PMD

- No Digits
  - manpower problem
  - should be trivial (for example using HitMap)
- Merging not needed

START, FMD

- SDigits and Digits available
- Merging not needed

ZDC

- Digits and Merging available
  - Merging = Fragments + Central Event

MUON

- SDigits, Digits and Merging ok

- SDigits (PadHits) are created during transport

- Independent production for beam-shield simulation needed
  - 1000 events to be produced in Nantes
  - 250 events exist
  - 5h per central PbPb

Digitization Control

- Two procedures are currently maintained in parallel
    - *AliDigitizer* class
    - *AliRun::Hits2Digits, AliRun::SDigits2Digits*
- Clean-up needed

Digitization Control

- To be discussed
  - What goes into general production
    - Digits, SDigits
    - Which detectors
    - Recpoints ?
  - File handling
    - Requirements on folders and split files
  - Requirements for Alien

Status

- ITS
  - Clean-up of macros
    - Old macros in directory *oldmacros*
    - Merging committed and tested on one event
  - Debug TTask Hits2SDigits
  - Merging of SDD (to be finished during the next weeks)
    - optimise time
    - electronics simulation before SDigits
    - test liniarity
  - SSD double peak problem
    - tests
    - spikes in energy
    - spikes in step-size
    - check energy cuts

Status

- TPC
  - Code changed
  - Tests running

- TRD
  - Region of interest
  - Digitization independent of geometry class

- TOF
  - Gaussian smearing of time
  - Noise, pad coupling effects, border effects

Status

- START
  - not completed
  - not working now
  - work ongoing
- PHOS/EMCAL
  - Some tuning on merging level needed