Timebased Simulation

Status

15. Januar 2013 | Tobias Stockmanns

Status

- FairRoot framework

  - Event mixing of background and signal data   **DONE**
  - TimeStamp info in data classes   **DONE**
  - Pile-up / mixing mechanism   **DONE**
  - Time sorting of data   **DONE**
  - Extraction of data for reconstruction   **DONE**
  - MC truth propagation for time based data   **PARTLY DONE**
    (it works but it is too slow)

STATUS

Detector	Status	Responsible	Comment
DRC	No	DRC group	
EMC	TS-PU-ST	Jifeng / Philipp	Not in SVN
FTOF	No	Stefano / Alicia ?	
FTS	No	Isabella ?	Why not derived from STT?
GEM	PU-ST	Radek	Time stamp not correctly assigned
LMD	TS-PU-ST-RC	Mainz	Derived from SDS
MDT	No	Stefano	
MVD	TS-PU-ST-RC	Tobias	Derived from SDS
RICH	No	Stefano	
SciTil	No	Alicia	No digitization
STT	TS-PU-ST-RC	Tobias / Marius	

TS: time stamp assinged – PU: pile-up implemented – ST: sorting – RC: time based reconstruction

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Important Tasks

- Detectors
  - Assign to each detector hit a reasonable time stamp
  - Implement the sorting of the data
  - Implement the pile-up effects
  - Use time information for reconstruction

- Local time based tracking
- Global time based tracking
- Event reconstruction

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