

# MarlinTPC Status Overview

## MarlinTPC phone meeting

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- 1 Review November wishlist
- 2 Code Status and Issues
- 3 Missing parts
- 4 Status of Marlin related topics
- 5 Open Questions
- 6 Communication
- 7 Next steps

Follow-up from the MarlinTPC meeting at the end of last year:

- Wishlist
  - Data browser – Status unknown
  - Event display – being worked on
- Webpage setup – is being worked on
- *Run* database is currently sleeping a collection of
  - Geometry description of the module
  - Pad/channel mapping
  - Conditions data (readout frequency, etc.)
  - Data location

# Current work (Status: November 09)

- @ASIA
  - Track fitting (Kalman)
  - Multi-module reconstruction
- @BONN
  - TimePIX reconstruction chain
  - Track fitting ( $\chi^2$ , simple)
- @CARLETON & SACLAY
  - Starting with MarlinTPC
- @DESY
  - Basic pad-based reconstruction
  - Track finding
  - Track fitting (*broken line* and simple  $\chi^2$ )
  - Conditions objects & database

# Code basis: next steps

- Extend and facilitate documentation: DOXYGEN documentation, put on webpage
- Move to another svn (the *official one* )
- Common style definition (one beautifier, one config file)
- Clean-up: deprecation and removal of unused processors
- Prepare version tagging

## Requests:

- Please commit your running/working code to the trunk!
- Please incorporate as much Doxygen comments as needed
- Take care to use proper/clean interfaces  
good/bad counterexample: don't take the drift velocity from GEAR

# List of missing parts (unsorted)

- Test processors
- Dummy data generators  
(trivial/steerable input generators for the processors)
- Conditions objects
- Test database to develop the conditions objects with
- Robust standard analysis code
- A list of *recommended* processors  
(e.g. with a standard reconstruction sequence)
- ...

Nice to have: easier steering files (being worked on)

- Event building cannot be done in Marlin  
needs some thought and discussion with the core developers  
⇒ inclusion of several detectors is in our hands
- Calibration and (especially) alignment is not yet foreseen
- Iterative processor calls (might be in preparation)  
needed e.g. for fitting
- *Dynamic* conditions data needs to be processed independently  
(*dynamic*  $\approx$  conditions data that needs calculation)
- Need for extension(s) of LCIO?

- Define the short-term and long-term goals of MarlinTPC
  - Full test beam reconstruction framework
  - Large Prototype reconstruction framework
  - Only basic reconstruction chain
  - Inclusion of (more) realistic detailed simulation
- Author list: need to take a more formal approach
- Definitions and conventions within:  
write binding/authoritative note



- General information  
<https://twiki.cern.ch/twiki/bin/view/ILCTPC/MarlinTPC>
- General discussions:
  - Forum (esp. sub-forum *Tracking & Vertexing*)  
<http://forum.linearcollider.org/>
  - Mailing list [ilcsoft-marlintpc@desy.de](mailto:ilcsoft-marlintpc@desy.de)
- Bug tracker  
<https://jira.slac.stanford.edu/browse/MAR>
- Informal info (might/should move to the twiki page):  
<http://www-flc.desy.de/flc/flcwiki/ChristophRosemann>
- Central website: t.b.a.

# Summary and/or Next steps

- 1 Reach primary goal(s):
  - **Finish complete, basic reconstruction chain**
  - Extensively test the processors
  - Find out what is missing
- 2 Ease the usage
  - Build central website
  - Extend documentation
  - Prepare more examples
- 3 Put MarlinTPC on a more profound basis
  - Agree about authors list
  - Prepare note/paper
  - Start to make and use conditions objects