

Status report (User report)

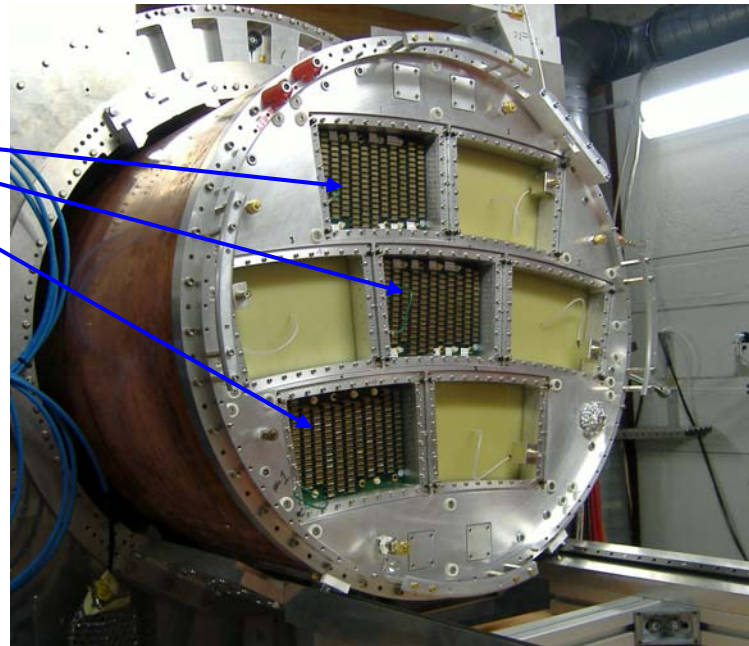
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Test beam at DESY

- LC-TPC Asia group has been taking the test beam data of GEM-TPC.
- We use MarlinTPC for the data analysis

3 GEM readout modules

Altro2lcio program (made by Martin) can translate ALTRO raw data to LCIO



Data reconstruction chain

ADC Raw Data

TrackerRawDataToDataConverter

ADCPulseConverter

Pulses

ChannelMapper

HitTrackFinderTopo

Hits

Track Candidates

TrackSeeder

Seed Track
Tracks

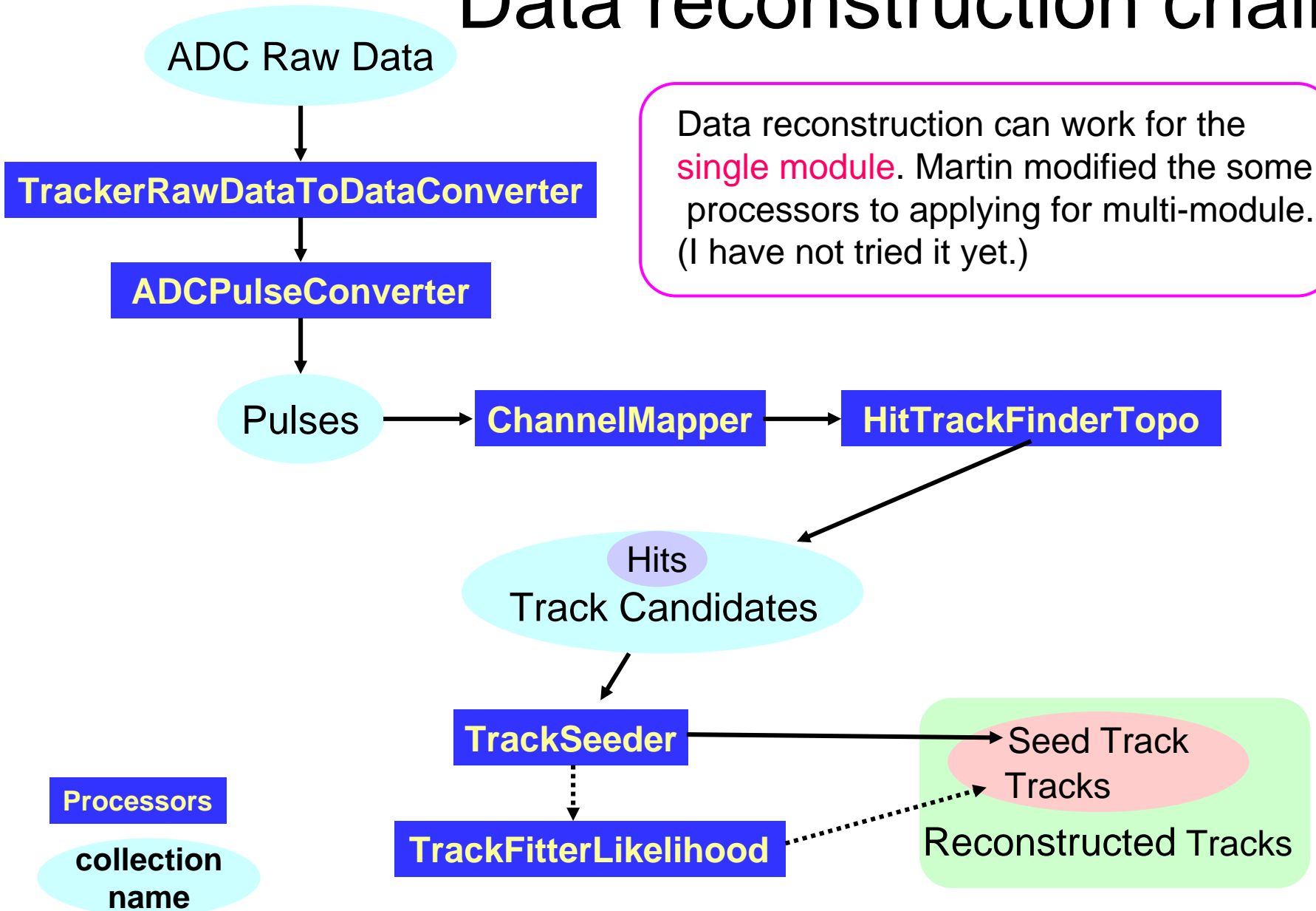
TrackFitterLikelihood

Reconstructed Tracks

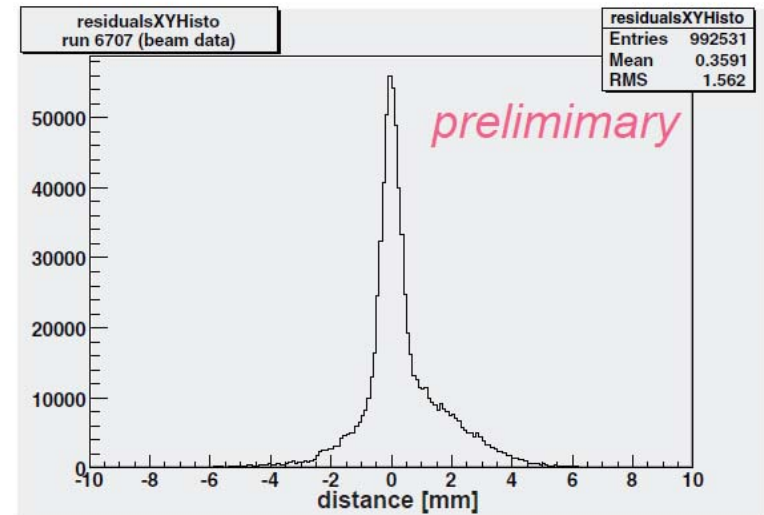
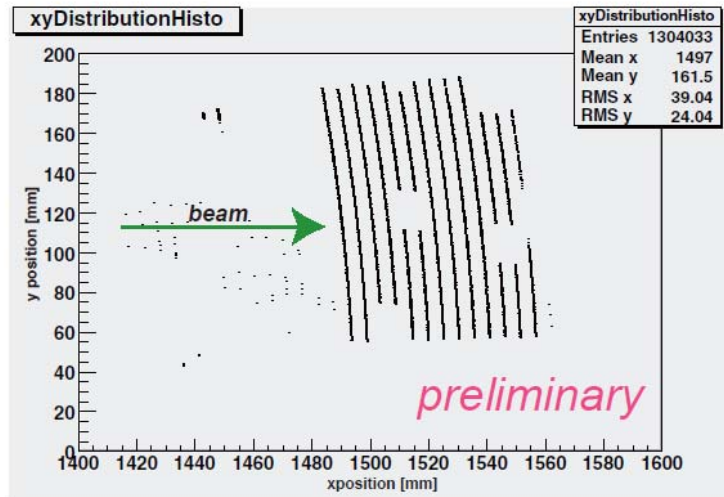
Processors

collection
name

Data reconstruction can work for the **single module**. Martin modified the some processors to applying for multi-module. (I have not tried it yet.)



Preliminary result by MarlinTPC



The plan

- (1) Working now
making processor to get the pad response distribution.
- (2) We need to provide...
 - reconstruction with multi-modules and multi-track
 - offline data quality monitor
 - estimate the spatial resolution ($r-\phi, z$)
 - estimate drift time and T_0
 - estimate the two-track separation
 - track fitting with Kalman filter
 - the non-uniform magnetic field

high
priority

