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Subject: genfit: TrackCand available

Posted by [Sebastian Neubert](#) on Tue, 15 May 2007 12:07:08 GMT

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Hi!

genfit now provides a class called TrackCand which just manages a list of hit ids. This is the basic class for pattern recognition.

In the near future this class will get the functionality to be merged with other candidates.

To use this update genfit and recotasks. In the demo the TrackCand idates are already used.

There is still one issue which we have to think about:

at the moment as soon as you put the TrackCand into a Track object the candidate is copied. So data is in principle duplicated which is not nice.

However if we would pass a pointer onto the candidate to the track, we would have to make sure, that the track is notified when somebody changes something in the candidate, since in that case the fits are not valid anymore.

We are thinking about a system that tracks changes to the reco objects and ensures a consistent state at all time.

Cheers! Sebastian.

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Subject: Re: genfit: TrackCand available

Posted by [StefanoSpataro](#) on Tue, 15 May 2007 13:26:54 GMT

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I tried to download the last svn version (741) but I could not compile it, for an error on the Tpc code.

First there are strange warnigs (apart several about the comparisons between signed and unsigned integer expressions...):

```
../pandaroot/tpc/TpcPadPlane.h: In constructor `
TpcPadPlane::TpcPadPlane(int, int, double, double, double, double)':
../pandaroot/tpc/TpcPadPlane.h:145: warning: `TpcPadPlane::_nSectors' will
be initialized after
../pandaroot/tpc/TpcPadPlane.h:135: warning: `TpcPadPlane::PadIndexer
TpcPadPlane::Indexer'
../pandaroot/tpc/TpcPadPlane.cxx:42: warning: when initialized here

../pandaroot/tpc/TpclnhFieldDrifter.h: In constructor `
TpclnhFieldDrifter::TpclnhFieldDrifter(std::basic_string<char,
std::char_traits<char>, std::allocator<char> >, std::basic_string<char,
std::char_traits<char>, std::allocator<char> >, int, int)':
../pandaroot/tpc/TpclnhFieldDrifter.h:51: warning: `
TpclnhFieldDrifter::_outFile' will be initialized after
```

```
../../pandaroot/tpc/TpcInhFieldDrifter.h:48: warning: `double
TpcInhFieldDrifter::_sc'
../../pandaroot/tpc/TpcInhFieldDrifter.cxx:44: warning: when initialized here
```

Then the errors:

```
../../pandaroot/tpc/TpcXYRecoHit.cxx: In member function `virtual double
TpcXYRecoHit::residualScalar(double, const AbsTrackRep*, const
TMatrixT<double>&)':
../../pandaroot/tpc/TpcXYRecoHit.cxx:117: warning: control reaches end of
non-void function
In file included from ../../pandaroot/tpc/TpcSimplePatternRecoTask.cxx:30:
../../pandaroot/genfit/Track.h: In member function `void
Track::setCardinalRep(unsigned int)':
../../pandaroot/genfit/Track.h:95: warning: comparison between signed and
unsigned integer expressions
../../pandaroot/tpc/TpcSimplePatternRecoTask.cxx: In member function `virtual
void TpcSimplePatternRecoTask::Exec(const Option_t*)':
../../pandaroot/tpc/TpcSimplePatternRecoTask.cxx:113: error: `addHitIndices'
undeclared (first use this function)
../../pandaroot/tpc/TpcSimplePatternRecoTask.cxx:113: error: (Each undeclared
identifier is reported only once for each function it appears in.)
../../pandaroot/tpc/TpcSimplePatternRecoTask.cxx:122: error: `getHitIndices'
undeclared (first use this function)

../../pandaroot/tpc/TpcSimplePatternRecoTask.cxx:157: error: `getDetIDs'
undeclared (first use this function)
../../pandaroot/tpc/TORPadProcessor.h: In constructor `
padprocessor::padprocessor(unsigned int)':
../../pandaroot/tpc/TORPadProcessor.h:84: warning: `padprocessor::_active_state
' will be initialized after
../../pandaroot/tpc/TORPadProcessor.h:81: warning: `int
padprocessor::_dominant_neighb'
../../pandaroot/tpc/TORPadProcessor.cxx:42: warning: when initialized here
../../pandaroot/tpc/TORPadProcessor.h:81: warning: `
padprocessor::_dominant_neighb' will be initialized after
../../pandaroot/tpc/TORPadProcessor.h:76: warning: `unsigned int
padprocessor::_myid'
../../pandaroot/tpc/TORPadProcessor.cxx:42: warning: when initialized here
make[1]: *** [TpcSimplePatternRecoTask.lo] Error 1
make[1]: *** Waiting for unfinished jobs....
```

I have seen that the genfit/Track.h was changed.  
Is it possible to fix the bug?  
Thanks.

Subject: Re: genfit: TrackCand available  
Posted by [Sebastian Neubert](#) on Tue, 15 May 2007 13:55:36 GMT  
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Hi!

Don't care about the warnings at the moment, they are low priority.

The error is bad. I recommend not to update tpc until there is a new announced revision. I will work on that, but it will take some time.

Sebastian.

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