

Tracking Meeting

Joseph Bertaux

Purdue University

May 29, 2025



```
sphnxuser07:jbertain:coresoftware>git diff --compact-summary upstream/master
```

```
calibrations/intt/inttcalib/InttCalib.cc | 303
```

```
+++++-----
calibrations/intt/inttcalib/InttCalib.h | 16 +-
offline/packages/intt/InttArborist.cc | 19 +--
offline/packages/intt/InttArborist.h | 4 +-
offline/packages/intt/InttBadChannelMap.h | 4 +-
offline/packages/intt/InttCombinedRawDataDecoder.cc | 9 +-
offline/packages/intt/InttFeeMap.cc (gone) | 275
```

```
-----
offline/packages/intt/InttFeeMap.h (gone) | 50 -----
offline/packages/intt/InttMap.cc (gone) | 1072
```

```
-----
offline/packages/intt/InttMap.h (gone) | 133 -----
offline/packages/intt/InttMapping.cc | 579
```

```
+++++-----
offline/packages/intt/InttMapping.h | 131 ++++++-----
offline/packages/intt/InttSurveyMap.cc | 32 +++--
offline/packages/intt/InttSurveyMap.h | 7 +-
offline/packages/intt/Makefile.am | 21 ----
simulation/g4simulation/g4intt/PHG4InttDetector.cc | 12 +-
simulation/g4simulation/g4intt/PHG4InttHitReco.h | 2 +-
17 files changed, 400 insertions(+), 2269 deletions(-)
```

- `inttcalib`
 - `inttcalib/InttCalib`
- `intt`
 - `intt/InttArborist`
 - `intt/InttBadChannelMap`
 - `intt/InttCombinedRawDataDecoder`
 - `intt/InttNameSpace`
 - `intt/InttSurveyMap`
- `g4intt`
 - `g4intt/PHG4InttDetector`
 - `g4intt/PHG4InttHitReco`

- Normal Jenkins tracking reconstruction check:
 - `intt/InttBadChannelMap`
 - `intt/InttCombinedRawDataDecoder`
- Simulation macro with fixed seed:
 - `intt/InttSurveyMap`
 - `g4intt/PHG4InttDetector`
 - `g4intt/PHG4InttHitReco`
- Custom checks:
 - `intt/InttArborist`
 - `inttcalib/InttCalib`

- There is a draft PR open with completed checks ([link](#))
- There are checks where the p-Value is not exactly equal to 1
 - The INTT QA checks report identically no change
 - Maybe because new KShort test was added?
 - Waiting on feedback in the PR conversation

- Workflow is committed in the INTT repository ([link](#))
- Script to run macros with or without custom libraries
 - Run under Condor
- First ROOT macro is default simulation macro with fixed seed and 50 events
- Second ROOT macro to print cluster x , y , z , g_x , g_y , g_z to `std::cout`
 - Check positions by running `diff` on Condor output files
- Aside:
 - TFiles contain metadata (e.g. timestamps)
 - Therefore binary comparison isn't a good approach

- Implement custom checks for:
 - `inttcalib/InttCalib`
 - `intt/InttArborist`
 - `intt/InttMapping`
- Already extremely unlikely there is a bug in `intt/InttMapping` at this point
- Wrote a macro to check all conversion combinations anyway