

LArSoft - Necessary Maintenance #16812

Remove DUNE-specific code from GeometryGeo

06/12/2017 05:01 PM - Gianluca Petrillo

Status:	Resolved	Start date:	06/12/2017
Priority:	Normal	Due date:	
Assignee:	Saba Sehrish	% Done:	100%
Category:	Geometry	Estimated time:	8.00 hours
Target version:		Spent time:	0.00 hour
Experiment:	-		

Description

The code in `geo::CryostatGeo` constructor has hard-coded logic to determine whether to use a special, DUNE FD sorting for optical detectors.

This should be replaced by a virtual call to the proper sorter in `geo::CryostatGeo::SortSubVolumes()`.

That infrastructure has still to be created, but it should be straightforward to expand the current `geo::GeoObjectSorter` structure to include it.

History

#1 - 06/19/2017 10:27 AM - Lynn Garren

- Status changed from New to Assigned

- Assignee set to Gianluca Petrillo

LArSoft will provide an optical detector sorter interface. It will be up to the experiments to use the sorter interface.

#2 - 09/13/2017 11:47 AM - Gianluca Petrillo

- Estimated time set to 8.00 h

#3 - 09/25/2017 10:07 AM - Gianluca Petrillo

- Description updated

#4 - 05/02/2018 03:24 PM - Katherine Lato

- Assignee changed from Gianluca Petrillo to Saba Sehrish

#5 - 03/04/2019 03:10 PM - Saba Sehrish

Following changes have been made:

1. A new virtual function has been added to the `geo::GeoObjectSorter` class - `virtual void SortOpDets(std::vector<geo::OpDetGeo*> & opdet) const;`
It is not made a pure virtual function and base implementation is provided in the corresponding `cxx` file.
2. The generic sort order function in `larcorealg/larcorealg/Geometry/CryostatGeo.cxx`, `opdet_sort` is renamed to `sortorderOpDets` and moved to `larcorealg/larcorealg/Geometry/GeoObjectSorter.cxx`. The implementation of `SortOpDets` that uses this sort order has been added to the `larcorealg/larcorealg/Geometry/GeoObjectSorter.cxx`.
3. The `SortOpDets` function is now called in the `geo::CryostatGeo::SortSubVolumes()`.
4. The dune specific code has been removed from inside the `geo::CryostatGeo` constructor in `larcorealg/larcorealg/Geometry/CryostatGeo.cxx`. The function named `DUNE_opdet_sort` now renamed `sortorderOpDet` and is moved to a header `dunetpc/dune/Geometry/OpDetSorter.h`. This Dune specific `sortorder` for the case `OpDets.size() > 600` is used in the implementation of `SortOpDets` for the following two `GeoObjectSorters`: `dunetpc/dune/Geometry/GeoObjectSorterCRM.h` and `dunetpc/dune/Geometry/GeoObjectSorterAPA.h`.

#6 - 03/11/2019 10:23 AM - Kyle Knoepfel

- % Done changed from 0 to 100

- Status changed from Assigned to Resolved

In release `v08_12_00`.