LArSoft - Bug #18583

Inconsistent documentation of geo::GeometryCore::NearestWireID() and geo::GeometryCore::NearestChannel()

12/15/2017 04:22 PM - Gianluca Petrillo

Status:	Assigned		**Start date:**	12/15/2017
Priority:	Normal		**Due date:**	
Assignee:	Saba Sehrish		**% Done:**	0%
Category:	Geometry		**Estimated time:**	0.00 hour
Target version:			**Spent time:**	0.00 hour
Occurs In:	v06_60_00		**Co-Assignees:**	
Experiment:	-			

Description

Both methods declare to return an invalid value on failure, while they actually throw an exception.
This inconsistency must be fixed.

History

#1 - 12/15/2017 04:29 PM - Gianluca Petrillo

While the easiest way is to change the documentation, the behaviour reported by the documentation yields to faster code, which is potentially relevant for example in LArG4 module, where geo::Geometry::NearestChannel() takes non-negligible time.

The solution goes upstream to a change in geo::PlaneGeo::NearestWireID(), which should be modified (breaking change) to return an invalid wire instead of throwing an exception. After that, the methods using it should be modified to correctly react. For the two methods of geo::GeometryCore subject of this ticket, this means to just act as pass-through.
Note that the standard geometry test (larcorealg:source:test/Geometry/GeometryTestAlg.cxx) is actually testing the throw of an exception, and it will have to be updated too.

#2 - 12/18/2017 10:28 AM - Gianluca Petrillo

- *Status changed from New to Assigned*

- *Assignee set to Gianluca Petrillo*

My proposal to attack the problem the hard way and fix the code (as opposed to fix the documentation) was accepted.

#3 - 04/03/2018 03:33 PM - Katherine Lato

- *Assignee changed from Gianluca Petrillo to Erica Snider*

#4 - 09/20/2018 03:00 PM - Katherine Lato

- *Assignee changed from Erica Snider to Paul Russo*

#5 - 09/19/2019 03:09 PM - Katherine Lato

- *Assignee changed from Paul Russo to Saba Sehrish*