

## LArSoft - Necessary Maintenance #18137

### The method `geo::GeometryCore::WirePitch()` with two wires as argument should be removed

11/07/2017 12:48 PM - Gianluca Petrillo

<b>Status:</b>	Closed	<b>Start date:</b>	11/07/2017
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Paul Russo	<b>% Done:</b>	0%
<b>Category:</b>	Geometry	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>Spent time:</b>	0.00 hour
<b>Experiment:</b>	-		

**Description**

The method `geo::GeometryCore::WirePitch()` allows the optional specification of two wire numbers.

- the implicit assumption, pervasive of most of geometry code related to wires and tested in the standard geometry test, of even wire spacing makes it unnecessary to know which wires we are looking for the pitch of
- the current implementation of this method also relies on this assumption
- furthermore, the current implementation assumes that the two wires are consecutive, i.e. it does not really return their distance, but just the pitch between single wires
- in short, the current implementation always returns the fixed wire pitch as reported by `geo::PlaneGeo`

Given that this implementation fulfills the current needs, we should make it official and have this method not accept wire numbers any more.

This will be a breaking change and if some code does specify the two wire numbers, it will have to be checked (it may be either unnecessarily specifying them, or it may be buggy -- no other possibility given the current implementation).

#### Associated revisions

##### Revision 28f587f3 - 06/04/2018 07:28 PM - Tingjun Yang

Change `WirePitch` interface, issue #18137.

#### History

##### #1 - 11/07/2017 01:03 PM - Gianluca Petrillo

- Subject changed from *The method `@geo::GeometryCore::WirePitch()` with two wires as argument should be removed* to *The method `geo::GeometryCore::WirePitch()` with two wires as argument should be removed*

##### #2 - 11/13/2017 10:29 AM - Lynn Garren

- Status changed from *New* to *Assigned*  
- Assignee set to *Gianluca Petrillo*

##### #3 - 04/13/2018 03:13 PM - Katherine Lato

- Assignee changed from *Gianluca Petrillo* to *Paul Russo*

##### #4 - 05/21/2018 10:51 AM - Lynn Garren

- Tracker changed from *Bug* to *Necessary Maintenance*  
- Occurs In deleted (*v06\_55\_00*)

##### #5 - 06/01/2018 12:03 PM - Paul Russo

- Status changed from *Assigned* to *Resolved*

Done. The necessary changes to user code are:

Change calls from:

```
geo::Length_t geo::GeometryCore::WirePitch(geo::PlaneID const& planeid, unsigned wire1 = 0, unsigned wire2 = 1) const;  
geo::Length_t geo::GeometryCore::WirePitch(unsigned wire1 = 0, unsigned wire2 = 1, unsigned plane = 0, unsigned tpc = 0, unsigned cryostat = 0)  
const;  
double geo::TPCGeo::WirePitch(unsigned wire1 = 0, unsigned wire2 = 1, unsigned plane = 0) const;
```

to calls to:

```
geo::Length_t geo::GeometryCore::WirePitch(geo::PlaneID const& planeid) const;  
geo::Length_t geo::GeometryCore::WirePitch(unsigned plane = 0, unsigned tpc = 0, unsigned cryostat = 0) const;  
double geo::TPCGeo::WirePitch(unsigned plane = 0) const;
```

That is, the two wire arguments must be deleted.

This was released in v06\_79\_00.

**#6 - 09/20/2018 02:59 PM - Katherine Lato**

- *Status changed from Resolved to Closed*