



LAr::PtrMaker

Saba Sehrish

LArSoft Coordination Meeting

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Purpose and Goal

- A utility to simplify the creation of an `art::Ptr`, with an end goal to simplify the creation of `art::Assns`.
- See the following links for more details:
 - <https://indico.fnal.gov/getFile.py/access?sessionId=9&resId=0&materialId=5&confId=11857>
 - <https://indico.fnal.gov/getFile.py/access?contribId=5&resId=1&materialId=slides&confId=12162>
- The code is already in develop as of `larsoft-v06_16_00`, in `lardata/lardata/Utilities/PtrMaker.h`.
- This utility will be eventually added to `art`.

Usage

- Creating an `art::Ptr` is a two step process
 1. Construct a `lar::PtrMaker` object
 1. Both data product and Ptrs are created in the same module
 2. Both data product and Ptrs are created in different modules
 2. Use the index with `PtrMaker` object to create an `art::Ptr`
- Example: Creating an association between a `SpacePoint` at index 1 and a `Track` at index 0.

```
auto assns = std::make_unique<Assns<SpacePoint, Track>>();  
lar::PtrMaker<SpacePoint> makeSpacePointPtr(event, module);  
art::Handle<std::vector<SpacePoint>> h;  
lar::PtrMaker<Track> makeTrackPtr(event, h.id());  
auto p1 = makeSpacePointPtr(1); // SpacePoint at index 1  
auto p2 = makeTrackPtr(0);      // Track at index 0  
assns->addSingle(p1, p2);
```