

NuSoft/NuTools - Support #2677

Provide code for lossless conversion from genie::EventRecord to/from simb::MCTruth

04/24/2012 01:44 PM - Robert Hatcher

Status:	Assigned	Start date:	04/24/2012
Priority:	Normal	Due date:	
Assignee:	Robert Hatcher	% Done:	90%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
In order to preserve the necessary info for GENIE event re-weighting, but not tie the code base to linking to GENIE dictionaries we need a lossless conversion between the two classes. MCTruth gets stored in the ART record, but can be converted back to genie::EventRecord in order to calculate new weights.			

History

#1 - 06/10/2015 05:51 PM - Robert Hatcher

- Status changed from New to Assigned

- % Done changed from 0 to 90

Code to do this was provided by Nate Mayer as GTruth. Currently one small outstanding issue is:

```
RetrieveGHEP(simb::MCTruth,simb::GTruth) is not correctly setting KinePhaseSpace_t in SetDiffXSec()  
At the time of the conversion to R-2_8_0 (2013-05-01) this is not critical  
But it should be fixed
```

The necessary interface for getting the parameter from the GENIE GHEP record was added to R-2_9_0. Needs to be called by nutools code and stored in the GTruth record, and restored upon recreation.

#2 - 05/23/2018 11:14 AM - Robert Hatcher

This was extracted into GENIE2ART in nutools v2_19 and beyond. There are minor issues to be fixed (phase space enumerator) and a final validation to complete.