art - Feature #6803

EmptyEvent_source.cc Doesn't support second time. Only nanosec time.

08/14/2014 04:54 PM - Nathan Mayer

Status:	Closed		**Start date:**	08/14/2014
Priority:	Immediate		**Due date:**	
Assignee:	Christopher Green		**% Done:**	100%
Category:	Event Loop		**Estimated time:**	2.00 hours
Target version:	1.11.00		**Spent time:**	24.00 hours
Scope:	Internal		**SSI Package:**	art
Experiment:	NOvA			

Description

The EmptyEvent_source module doesn't support second time. It only supports nanosecond time. Further more, as near as I can tell. When the ns roll over into seconds. The seconds term doesn't increment. I've written a fix, to the module that should be able to be imported directly into art as is. I'd be happy to show it to someone.

Associated revisions

Revision aacd7992 - 08/22/2014 10:21 AM - Christopher Green

Issue #6803.

Operation verified manually. Automated tests to follow.

History

#1 - 08/14/2014 05:12 PM - Gavin Davies

It's probably useful to add a link to what Nate has done for NOvA.
He took a copy of the EmptyEvent_source.cc module and edited it within the NOvA code here:

https://cdcvs.fnal.gov/redmine/projects/novaart/repository/changes/trunk/EventGenerator/NovaMCEmptyEvent_source.cc

He added support for time in seconds when the nanoseconds roll over into a second, but only into the first second. Thus all of our simulated events will have a timestamp occuring within a second.

Essentially we are trying to match what our Data timestamps look like and would like to be able roll forward into the seconds term for the timestamp. Does adding this support break any fundamental thinking for Simulation Event generation?
Given that the support is there and provided for building the art::Event from our data we;d be surprised if it wasn't possible but please advise. Maybe there is something obvious we are missing - I'm not claiming to be the expert on this either I'm just adding some extra information to Nate's ticket to help expedite feedback.

#2 - 08/18/2014 11:27 AM - Christopher Green

- Status changed from New to Assigned

- Assignee set to Christopher Green

- Priority changed from Normal to Immediate

- Target version set to 1.11.00

- Estimated time set to 2.00 h

- SSI Package art added

- SSI Package deleted ()

#3 - 09/02/2014 05:42 PM - Christopher Green

- Category changed from User Code to Event Loop

- Status changed from Assigned to Resolved

- % Done changed from 0 to 100

Solution implemented with tests with 25528730d2ccc0b887b5d4d462d0ba7f65e58753.

The user is expected to write their own plugin inheriting from source:art/Framework/Core/EmptyEventTimestampPlugin.h. The resulting .so library should have a name ending in _plugin.so. Documentation to follow, see upcoming release notes.

#4 - 09/03/2014 09:26 AM - Christopher Green

- Status changed from Resolved to Closed

#5 - 09/09/2014 10:40 AM - Gavin Davies

Correction

Christopher Green wrote:

> Solution implemented with tests with [25528730d2ccc0b887b5d4d462d0ba7f65e58753](#).
>
> The user is expected to write their own plugin inheriting from [source:art/Framework/Core/EmptyEventTimestampPlugin.h](#). The resulting .so library should have a name ending in _plugin.so. Documentation to follow, see upcoming release notes.

#6 - 09/10/2014 09:51 AM - Christopher Green

Gavin, I'm not sure what you were intending to say with this last update. Could you clarify, please?

#7 - 09/10/2014 09:52 AM - Gavin Davies

Oh the link to the source file in your previous comment had a typo. Empry vs. Empty.
I just reposted with the correction.

#8 - 09/10/2014 02:06 PM - Christopher Green

Ah, fixed in-place. I looked at it multiple times and didn't see the problem.

Thanks,
Chris.