art - Feature #13275

Disabling fast cloning on data products with updated checksum

07/18/2016 12:43 PM - Gianluca Petrillo

Status:	Closed		**Start date:**	07/18/2016
Priority:	Normal		**Due date:**	
Assignee:	Paul Russo		**% Done:**	100%
Category:	I/O		**Estimated time:**	24.00 hours
Target version:	2.03.00		**Spent time:**	60.00 hours
Scope:	Internal		**SSI Package:**	art
Experiment:	-			

Description

RootOutput's fastCloning fails when the running data product definition is changed respect to the one stored in the input ROOT file. Failure mode is currently via exception.
Disabling fastCloning is possible from job configuration on a per-job basis, and it affects all the data products in the same way.

LArSoft would like the possibility to disable fast cloning on a per-data product basis, and even better it would be if *art* could detect when that is needed for each product.
This would make run-time schema evolution completely automatic for the experiments.

History

#1 - 07/18/2016 12:47 PM - Christopher Backhouse

In practice NOvA's fcls are all littered with fastCloning: false, so we never get the benefits of fast cloning even in the cases where it could have been used, and having to add those lines is one of the most common gotchas for new users.

So, I'm definitely in favour of (the automatic part of) this request.

#2 - 07/25/2016 12:01 PM - Kyle Knoepfel

- Status changed from New to Assigned

- Assignee set to Paul Russo

- Estimated time set to 24.00 h

#3 - 08/11/2016 12:17 PM - Paul Russo

It should be noted that ROOT 6 does not currently support cloning individual branches of a tree, cloning is a whole-tree operation.

However it is still possible for *art* to issue an informational message when it is not possible to clone a branch and continue on copying branches event-by-event in the normal manner without throwing an exception and ending the job.

#4 - 08/17/2016 05:59 PM - Paul Russo

Feature added with commit eb7f8833682e8ea7719421bec5a887f71d858ed4. If fast cloning fails then instead of failing the job *art* will continue using normal event processing instead.

#5 - 08/17/2016 06:00 PM - Paul Russo

- Status changed from Assigned to Resolved

- % Done changed from 0 to 100

#6 - 08/18/2016 08:55 AM - Kyle Knoepfel

- Status changed from Resolved to Closed

- Target version set to 2.03.00