

art - Feature #19485

Milestone # 15372 (Closed): art multi-threading phase 1

Convert art-provided modules to the appropriate MT type

03/26/2018 09:18 AM - Kyle Knoepfel

Status:	Closed	Start date:	03/26/2018
Priority:	Normal	Due date:	
Assignee:	Kyle Knoepfel	% Done:	100%
Category:	Application	Estimated time:	0.00 hour
Target version:	3.00.00	Spent time:	17.00 hours
Scope:	Internal	SSI Package:	art
Experiment:	-		
Description			
All <i>art</i> -provided modules must be specified as the correct MT type ("shared" or "replicated"), with the appropriate serialize or async calls being made in the constructor. The following modules need to be converted:			
<ul style="list-style-type: none">• BlockingPrescaler• DataFlowDumper• EventIDFilter• FileDumperOutput• Prescaler• ProvenanceCheckerOutput• RandomNumberSaver• RootOutput			
In addition, the following class templates should also be updated:			
<ul style="list-style-type: none">• MixFilter• ProvenanceDumper			

History

#1 - 03/26/2018 11:26 AM - Kyle Knoepfel

- Status changed from New to Assigned
- Assignee set to Kyle Knoepfel

#2 - 04/09/2018 10:48 AM - Kyle Knoepfel

- Target version set to 3.00.00
- % Done changed from 0 to 10
- SSI Package art added

The Prescaler and BlockingPrescaler modules have been converted to shared::Filters (commit [art:f41cc9c](#)), that serialize only against themselves--they can process one event at a time, but independent of any other shared resource.

#3 - 04/09/2018 10:52 AM - Kyle Knoepfel

- % Done changed from 10 to 20

The EventIDFilter module was changed to a shared module, whose event-level calls can be called asynchronously (commit [art:92a4372](#)).

#4 - 06/05/2018 04:08 PM - Kyle Knoepfel

- Category set to Application
- Status changed from Assigned to Closed

The modules were changed to the following types (all modules in bold face have been upgraded to take advantage of multi-threading behavior):

- **BlockingPrescaler**: shared producer with asynchronous event call
- DataFlowDumper: legacy output module

- **EventIDFilter**: shared filter with asynchronous event call
- FileDumperOutput: legacy output module
- **Prescaler**: shared producer with asynchronous event call
- ProvenanceCheckerOutput: legacy output module
- **RandomNumberSaver**: shared producer with serialized event call if debugging enabled; otherwise asynchronous event call
- RootOutput: legacy output module

For [art3.00.00](#), all MixHelper and ProvenanceDumper modules are legacy modules.

#5 - 06/05/2018 04:08 PM - Kyle Knoepfel

- % Done changed from 20 to 100