

artdaq Utilities - Feature #21395

max_fragment_size_bytes in the settings file should only refer to fragments, not entire events

11/17/2018 09:04 PM - John Freeman

Status:	Resolved	Start date:	11/17/2018
Priority:	Normal	Due date:	
Assignee:	John Freeman	% Done:	100%
Category:	artdaq-daqinterface	Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour
Experiment:	-	Co-Assignees:	
Description			
<p>When advanced_memory_usage is set to false in the DAQInterface settings file, DAQInterface uses the settings file's max_fragment_size_bytes parameter to determine how large of a memory buffer the transfer plugins connecting the artdaq processes should have. Prior to commit e0d44bd5dfd7f23e4317959cce1a77bb3b77694e, meant to address this issue, the buffer was the same size regardless of whether the transfer plugin connected boardreaders and eventbuilders (and thus was just transferring single fragments) or connected downstream processes such as eventbuilders and dataloggers (and thus transferring <i>entire events</i>). In practice, this meant that max_fragment_size_bytes needed to be set to a value which could accommodate the largest conceivable event, which is not only tricky if you don't know how many boardreaders you may end up using, but also wasteful since transfer plugins between boardreaders and eventbuilders typically only need a fraction of that space.</p> <p>Now, while max_fragment_size_bytes continues to be the buffer size for transfer plugins connecting boardreaders and eventbuilders, for other transfer plugins the buffer size is either</p> <ol style="list-style-type: none">1. The value of max_event_size_bytes in the process's FHiCL, if defined, OR2. The product of the number of boardreaders times the value of max_fragment_size_bytes in the settings file			

Associated revisions

Revision 03f2549f - 11/17/2018 09:08 PM - John Freeman

JCF: in light of the settings file's max_fragment_size_bytes now no longer being used as the buffer size for transfer plugins besides those connecting boardreaders and eventbuilders (see Issue #21395), reduce the value of this parameter in the example settings file