Subject: Segfault while using BiVector
Posted by jjacksonRIAB on Tue, 06 Apr 2021 17:51:47 GMT
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I'm using a BiVector as a multimedia queue. I'm a noob as far as this stuff is concerned but what happens is I have a frame of audio/video that serves as a wrapper. Anyway I found out rather quickly that I can't use item& AddHead() method on BiVector because another thread will see it's inserted but not fully initialized and then try to dereference a null pointer. So I construct it, initialize it first and then insert it using pick, taking care that I set the prior reference to nullptr after the move so it won't try to delete it at the end of the loop.

Problem is it still seems to be doing it even when I do AddHead(item&&). I have been able to make it work using INTERLOCK but the demands on the queue are so high that it never fills up beyond one item with the locking added and I end up dropping many frames. I haven't looked at the code for BiVector yet (so forgive me if I'm wrong) but from the behavior I'm indirectly observing the container count seems to increment before the container actually "owns" the data unless I'm doing something wrong - which is probably more likely.

Subject: Re: Segfault while using BiVector
Posted by jjacksonRIAB on Tue, 06 Apr 2021 19:51:25 GMT
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OK, the problem seems to have manifested with ReAlloc. I reserved a bunch of elements and the problem went away.

Subject: Re: Segfault while using BiVector
Posted by jjacksonRIAB on Wed, 07 Apr 2021 03:21:40 GMT
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Nope, I was completely wrong. Oh well, that's multithreading for you.
Fix ended up being what I started with - Mutexes, but making them more fine-grained.