MARTe2-core - User story #849

Investigate stream FileWriter issue

12.05.2021 09:51 - André Neto

Status:	New		**Start date:**	12.05.2021
Priority:	Normal		**Due date:**	
Assignee:			**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:			**Spent time:**	0.00 hour
Git branch (link):			**SVN commit (link/?p=rev):**	
Git merge to develop (link):				

Description

Hector Fernandez 10:52 AM
@André I have found a bug in FileWriter. In the past, we noticed and fixed another patch related to Flush. Now, I have noticed that in every cycle, inside Synchronize method, no flush is called after writing into the file. So, the file is not completely filled after every cycle because there are some remaining bytes in the buffer. I have solved this problem by calling Flush of the file in every synchornize. Now, it works with big chunks of data. I have created a new branch "FileWriter_flush_problem", so you can inspect the patch and apply it to develop if you agree.

André 10:54 AM
Hi @Hector Fernandez, thanks, I will look into it. Having to flush after every write seems to be related to the clib or the operating system
10:54
What is your chunk data size?

Hector Fernandez 11:00 AM
As far as I know, files in Linux work with cache buffers, so they are not writing every byte immediately. In our FileWriter, as the file keeps open during all the app execution, it is not flushed automatically. And after checking the code, Synchronize doesn't flush after writting into the file. So, I just forced flush after every write.
11:00
Our chunk of data is all the data generated by the tokamak simulator algorithm, that is a matrix of 4096x53 doubles
11:01
and I have noticed that after every cycle, 32 bytes of data are missing, but in the next cycle, those 32 bytes are written but the 32 last bytes of the next chunk of data are missing again

André 11:05 AM
I suspect that the Flush is just hiding a more deep bug in the core... I will look into that.

History

#1 - 12.05.2021 09:51 - André Neto

- Status changed from New to Code: Impl

#2 - 12.01.2022 08:00 - André Neto

- Status changed from Code: Impl to New