

MARTe2-core - User story #1177

Improve thread priority implementation

22.06.2022 08:29 - Giuseppe Ferro

Status: Closed	Start date: 22.06.2022
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	
<pre>--- Source/Core/Scheduler/L1Portability/Environment/Linux/Threads.cpp 2022-02-02 09:30:34.000000000 0000 ++ Source/Core/Scheduler/L1Portability/Environment/Linux/Threads.cpp 2022-04-22 13:04:23.235370771 0000 @ -161,8 +161,8 @ policy = SCHED_FIFO;//Only put FIFO (more aggressive) for the RealTimePriorityClass break; } - uint32 priorityLevelToAssign = 28u * priorityClassNumber; - priorityLevelToAssign += (static_cast<uint32>(prioLevel)); uint32 priorityLevelToAssign = 25u * priorityClassNumber; + priorityLevelToAssign += ((static_cast<uint32>(prioLevel)/15u)*24u); sched_param param; int32 ignore = 0; - Better mapping between (PriorityClass, PriorityLevel)-->[0, 99] - Replace polling+sleeptime with event semaphore in the CircularBufferThreadInputDataSource::Synchronise method</pre>	

History

#1 - 22.06.2022 08:30 - Giuseppe Ferro

- Status changed from New to Code: Impl

#2 - 22.06.2022 12:11 - Giuseppe Ferro

Giuseppe Ferro wrote:

```
--- Source/Core/Scheduler/L1Portability/Environment/Linux/Threads.cpp 2022-02-02 09:30:34.000000000 0000
++ Source/Core/Scheduler/L1Portability/Environment/Linux/Threads.cpp 2022-04-22 13:04:23.235370771 0000
@ -161,8 +161,8 @
policy = SCHED_FIFO;//Only put FIFO (more aggressive) for the RealTimePriorityClass
break;
}
-      uint32 priorityLevelToAssign = 28u * priorityClassNumber;
-      priorityLevelToAssign += (static_cast<uint32>(prioLevel));
uint32 priorityLevelToAssign = 25u * priorityClassNumber;
+      priorityLevelToAssign += ((static_cast<uint32>(prioLevel)*24u)/15u);

sched_param param;
int32 ignore = 0;
```

- Better mapping between (PriorityClass, PriorityLevel)-->[0, 99]
- Replace polling+sleeptime with event semaphore in the CircularBufferThreadInputDataSource::Synchronise method

#3 - 22.06.2022 13:24 - Giuseppe Ferro

branch '#1177_thread_priority'
added few CircularBufferThreadInputDataSource tests for coverage

#4 - 22.06.2022 13:24 - Giuseppe Ferro

- Status changed from Code: Impl to Unit: Rev

#5 - 22.06.2022 13:24 - Giuseppe Ferro

- Assignee changed from Giuseppe Ferro to André Neto

#6 - 30.06.2022 13:45 - André Neto

- Assignee deleted (André Neto)

- Status changed from Unit: Rev to Closed

Merged at b191ac7f8a1840d15ff91c8b65d0049219040748