

## MARTe2-core - User story #103

### MARTe-EX-D-1.2.1: The framework shall offer multi-threading support to application developers.

29.05.2015 14:18 - André Neto

<b>Status:</b> Closed	<b>Start date:</b>
<b>Priority:</b> Normal	<b>Due date:</b>
<b>Assignee:</b>	<b>% Done:</b> 0%
<b>Category:</b>	<b>Estimated time:</b> 8.00 hours
<b>Target version:</b> 0.2	<b>Spent time:</b> 0.00 hour
<b>Git branch (link):</b>	<b>SVN commit (link/?p=rev):</b>
<b>Git merge to develop (link):</b>	

#### Description

See [#160](#)

Implement requirement MARTe-EX-D-1.2.1 based on the original MARTe implementation

Note: One of the key features of MARTe is the possibility of executing real-time multi-threading applications.

#### Source code files modified

- Source/Core/L0Portability/ThreadsDatabase.h
- Source/Core/L0Portability/ThreadsDatabase.cpp
- Source/Core/L0Portability/Threads.h
- Source/Core/L0Portability/Threads.cpp
- Source/Core/L0Portability/OperatingSystem/Linux/ThreadsOS.h
- Source/Core/L0Portability/OperatingSystem/Windows/ThreadsOS.h
- Source/Core/L0Portability/ThreadInformation.h
- Source/Core/L0Portability/TimeoutType.h

#### Architecture & design review

**Date of the review:** 08/06/2015

**Person who did the review:** André Neto

**Version of architecture & design document:** N/A. As per the original MARTe implementation, this is a support class and does not require formal design in UML.

**Result of review:** N/A

**List of non-conformities:** N/A

#### Code and documentation review

**Date of the review:** 18/06/2015

**Person who did the review:** Ivan Herrero

**Result of review:** PASS

**List of non-conformities:** N/A

#### Unit test review

**Date of the review:** 01/07/2015

**Person who did the review:** Ivan Herrero

**Result of coverage tests review:** FAIL

**Result of functional tests review:** FAIL

**Result of review:** FAIL

**List of non-conformities:**

Classes ThreadsDatabase and Threads reviewed on [#109](#).

The classes TimeoutType and ThreadInformation lack unit tests.

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## Associated revisions

### Revision 67764feb - 11.06.2015 07:56 - Giuseppe Ferrò

Implemented threads functionalities described in redmine #103 #104 #112 #107 #108 #111 #105 #106 #110 #109

### Revision 9bf99966 - 15.06.2015 14:53 - Giuseppe Ferrò

Used references in operators of TimeoutType.h  
Added the initialization of the internal semaphore in all ThreadInformation constructors.  
#103

### Revision 54acac5a - 15.06.2015 16:31 - Giuseppe Ferrò

Formatted TimeoutType with new templates.  
#103

### Revision 8c12c7dd - 15.06.2015 16:35 - Giuseppe Ferrò

Added const to the input parameters of the functions when necessary.  
#103

### Revision f048da13 - 17.06.2015 12:10 - Giuseppe Ferrò

Moved THREADS\_DEFAULT\_STACKSIZE in GeneralDefinitionsOS.h.  
Formatted code with new templates.  
Fixed errors accordingly with the revision.  
#109 #110 #106 #105 #111 #108 #107 #112 #113 #104 #103

### Revision 5d7c7a45 - 18.06.2015 08:09 - Giuseppe Ferrò

Fixed errors accordingly with revision.  
#103 #104 #112 #107 #108 #111 #105 #106

### Revision 9b815252 - 18.06.2015 14:42 - Giuseppe Ferrò

Fixed minor issues  
#103

### Revision 56f896af - 23.06.2015 16:59 - Giuseppe Ferrò

Added Threads and ThreadsDatabase tests.  
#110 #123 #103 #104 #112 #107 #108 #111 #106 #105 #109 #113

### Revision a1ee0477 - 25.06.2015 13:37 - Giuseppe Ferrò

Added Threads unit tests.  
Renamed previous tests because they are integration tests.  
#110 #123 #103 #104 #112 #107 #108 #111 #106 #105 #109 #113

### Revision 82e5a66a - 02.07.2015 12:19 - Giuseppe Ferro

Fixed minor issues.  
Made private the ThreadsDatabase members.  
#103

### Revision 49629537 - 02.07.2015 12:21 - Giuseppe Ferro

Added Threads Tests.  
#103

**Revision cb3c4fa0 - 02.07.2015 15:44 - Giuseppe Ferro**

Minor changes  
#103

**Revision d2209ae1 - 27.07.2015 14:59 - Giuseppe Ferrò**

Windows porting for Threads.  
#103

**History**

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**#1 - 03.06.2015 10:18 - Riccardo Vitelli**

- Target version changed from Backlog to 0.1
- Start date deleted (29.05.2015)
- Estimated time set to 8.00 h

**#2 - 08.06.2015 09:25 - Riccardo Vitelli**

- Status changed from New to Arch: Rev

**#3 - 08.06.2015 09:26 - Riccardo Vitelli**

- Assignee set to André Neto

**#4 - 08.06.2015 13:13 - André Neto**

- Description updated

**#5 - 08.06.2015 17:53 - Riccardo Vitelli**

- Status changed from Arch: Rev to Code: Impl

**#6 - 08.06.2015 17:54 - Riccardo Vitelli**

- Assignee changed from André Neto to Giuseppe Ferro

**#7 - 12.06.2015 10:29 - Riccardo Vitelli**

- Status changed from Code: Impl to Code: Rev

**#8 - 12.06.2015 11:16 - Riccardo Vitelli**

- Assignee changed from Giuseppe Ferro to Ivan Herrero

**#9 - 16.06.2015 17:13 - Ivan Herrero**

- Description updated

**#10 - 16.06.2015 17:25 - Ivan Herrero**

- Description updated

**#11 - 17.06.2015 12:55 - Ivan Herrero**

- Description updated

**#12 - 17.06.2015 16:55 - Ivan Herrero**

- Description updated

**#13 - 18.06.2015 09:48 - Ivan Herrero**

- Assignee changed from Ivan Herrero to Giuseppe Ferro

**#14 - 18.06.2015 15:38 - Ivan Herrero**

- Description updated

**#15 - 18.06.2015 17:10 - Ivan Herrero**

- Description updated
- Assignee deleted (Giuseppe Ferro)

**#16 - 18.06.2015 17:10 - Ivan Herrero**

- Status changed from Code: Rev to Unit: Impl

**#17 - 18.06.2015 18:18 - Ivan Herrero**

Code and documentation review passed. Unit testing implementation pending.

**#18 - 25.06.2015 17:22 - Riccardo Vitelli**

- Status changed from Unit: Impl to Unit: Rev

**#19 - 01.07.2015 16:49 - Ivan Herrero**

- Description updated

Unit test review made on revision 8b64124 [FAIL].

*Note: It is currently being refactored.*

**#20 - 01.07.2015 17:59 - Riccardo Vitelli**

- Status changed from Unit: Rev to Unit: Impl

**#21 - 02.07.2015 15:49 - Riccardo Vitelli**

- Status changed from Unit: Impl to Unit: Rev

**#22 - 02.07.2015 18:06 - Riccardo Vitelli**

- Target version changed from 0.1 to 0.2

**#23 - 08.07.2015 12:15 - Ivan Herrero**

- Assignee set to Ivan Herrero

**#24 - 15.07.2015 15:30 - Ivan Herrero**

- Description updated

A unit test review has been done on revision 6072de0 with a result of "FAIL".

**#25 - 15.07.2015 15:30 - Ivan Herrero**

- Status changed from Unit: Rev to Unit: Impl

**#26 - 15.07.2015 15:31 - Ivan Herrero**

- Assignee deleted (Ivan Herrero)

**#27 - 15.07.2015 18:02 - Llorenc Capella**

- Assignee set to Llorenc Capella

**#28 - 16.07.2015 09:28 - Riccardo Vitelli**

- Status changed from Unit: Impl to Code: Impl

**#29 - 16.07.2015 09:28 - Riccardo Vitelli**

- Assignee deleted (Llorenc Capella)

**#30 - 29.07.2015 15:14 - Riccardo Vitelli**

- Description updated

**#31 - 29.07.2015 15:15 - Riccardo Vitelli**

- Status changed from Code: Impl to Closed