

MARTe2-core - Meeting #303

MARTe2 QA-audit (v0.12)

06.04.2016 10:56 - André Neto

Status:	Closed	Start date:	06.04.2016
Priority:	Normal	Due date:	
Assignee:	Ivan Herrero	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	0.12	Spent time:	0.00 hour

Description

Requirements review

Date of the review: 20/12/2016

Person who did the review: Ivan Herrero

Version of requirements: 0.12

Result of review: N/A

List of non-conformities: N/A

Comments: As per the original MARTe implementation, the user stories of this sprint are support functions and do not require formal requirements.

Architecture & design review

Date of the review: 20/12/2016

Person who did the review: Ivan Herrero

Version of architecture & design document: 0.12

Result of review: N/A

List of non-conformities: N/A

Comments: As per the original MARTe implementation, the user stories of this sprint are support functions and do not require formal design.

Code and documentation review

Date of the review: 20/12/2016

Person who did the review: Ivan Herrero

Version of source code: 0.12

Result of review: PASS

List of non-conformities:

```
Note 974: Worst case function for stack usage: 'MARTe::ConfigurationDatabase::Copy' is recursive,
loop contains call to 'MARTe::ConfigurationDatabase::Copy'. See +stack for a full report. [MISRA
C++ Rule 7-5-4]
MARTe::Atomic::Exchange lacks documentation for return value.
```

List of warnings reported by Doxygen:

```
/Source/Core/BareMetal/L0Types/Matrix.h:501: warning: Member Determinant(float32 &det) const (function) of class MARTe::Matrix is not documented.
/Source/Core/BareMetal/L0Types/Matrix.h:543: warning: Member Determinant(float64 &det) const (function) of class MARTe::Matrix is not documented.
/Source/Core/BareMetal/L0Types/Matrix.h:584: warning: Member Inverse(Matrix< float32 > &inverse) const (function) of class MARTe::Matrix is not documented.
/Source/Core/BareMetal/L0Types/Matrix.h:631: warning: Member Inverse(Matrix< float64 > &inverse) const (function) of class MARTe::Matrix is not documented.
```

Disclaimer: These warnings are due a bug of Doxygen (https://bugzilla.gnome.org/show_bug.cgi?id=406027), fixed on version 1.8.10 (we use 1.6.1 on vcis-jenkins.f4e.europa.eu).

Remark

The following classes have non-virtual destructors. As long they are not base classes of any derived class, it is safe, but they need to be monitored (flexlint will check and signal this as error code 1509).

Matrix, Vector, GlobalObjectsDatabase, LoadableLibrary, MemoryArea, StaticListHolder, CharBuffer, AnyTypeCreator, LexicalAnalyzer, Token, TokenInfo, Directory, MutexSem, ThreadInformation.

Unit test review

Date of the review: 20/12/2016

Person who did the review: Ivan Herrero

Version of unit tests: 0.12

Result of coverage tests review: PASS

Result of functional tests review: PASS

Result of review: PASS

List of non-conformities:

LCOV report (methods not executed at all):

```
TimeoutType EmbeddedThreadI::GetTimeout() const
inline ExceptionHandler::~ExceptionHandler()
bool GAMDataSource::Synchronise()
bool GAM::SetContext(ConstReference context)
ReferenceT<T>* ReferenceT<T>::operator&() (*)
Object *Object::Clone() const
IntrospectionEntry::IntrospectionEntry()
Introspection::Introspection()
uint32 ClassProperties::GetSize() const
void MemoryArea::SetHeapName(const char8 * const name)
```

(*) The ReferenceT<T>::operator& is private. See solution applied in Reference::operator&.

LCOV report (fragments of code not executed):

```
case if (timeout.IsFinite()) @ bool BasicUDPSocket::Write(const char8 * const input, uint32 & size
, const TimeoutType &timeout)
loop for (uint32 i = 0u; i < numberOfChildren; i++) @ bool RealTimeThread::ToStructuredData(Struct
uredDataI& data)
call with recursive==true @ Reference ReferenceContainer::Find(const char8 * const path, const boo
l recursive)
case if (dllOpened) @ ClassRegistryItem *ClassRegistryDatabase::Find(const char8 *className)
case if (ok) @ bool BasicConsole::Open(const FlagsType &mode)
case else if (shift < bitSize) @ DoubleInteger<T2> Shift::LogicalRightShift(DoubleInteger<T2> numb
er, uint8 shift)
error reporting and set variables to default values on error checking @ all classes
```

GTest report

```
[-----] Global test environment tear-down
[=====] 3674 tests from 133 test cases ran. (225205 ms total)
[ PASSED  ] 3664 tests.
[ FAILED  ] 10 tests, listed below:
[ FAILED  ] DirectoryGTest.TestGetSize_FileIncorrect
[ FAILED  ] DirectoryGTest.TestGetSize_FileIncorrect2
[ FAILED  ] DirectoryGTest.TestGetLastAccessTime_ReRead
[ FAILED  ] DirectoryGTest.TestGetLastAccessTime_ReRead2
[ FAILED  ] DirectoryGTest.TestGetLastWriteTime_ReWrite
[ FAILED  ] DirectoryGTest.TestGetLastWriteTime_ReWrite2
[ FAILED  ] ThreadsGTest.TestGetThreadInfoCopy
[ FAILED  ] ThreadsGTest.TestPriority
[ FAILED  ] IOBufferGTest.TestPrintStructuredDataInterface
[ FAILED  ] BasicConsoleGTest.TestOpenModePerformCharacterInput
```

Integration test review

Date of the review: 20/12/2016

Person who did the review: Ivan Herrero

Version of integration tests: 0.12

Result of review: N/A

List of non-conformities: N/A

Comments: As per the original MARTe implementation, the user stories of this sprint are support functions and do not require formal integration tests.

Acceptance test review

Date of the review: 20/12/2016

Person who did the review: Ivan Herrero

Version of acceptance tests: 0.12

Result of review: N/A

List of non-conformities: N/A

Comments: As per the original MARTe implementation, the user stories of this sprint are support functions and do not require formal acceptance tests.

Associated revisions

Revision 0073390e - 28.12.2016 12:29 - Ivan Herrero

#303 - Fix warnings reported by Doxygen.

History

#1 - 20.12.2016 19:11 - Ivan Herrero

- Description updated

- Assignee set to Ivan Herrero

- % Done changed from 0 to 50

#2 - 21.12.2016 12:07 - Ivan Herrero

- Description updated

#3 - 21.12.2016 12:08 - Ivan Herrero

- Description updated

#4 - 21.12.2016 12:09 - Ivan Herrero

- % Done changed from 50 to 100

- Status changed from New to Closed

#5 - 21.12.2016 18:04 - Ivan Herrero

- Description updated

#6 - 28.12.2016 10:32 - Ivan Herrero

- Description updated

#7 - 30.12.2016 09:56 - Ivan Herrero

- Description updated

#8 - 30.12.2016 10:49 - Ivan Herrero

- Description updated