

## MARTe2-core - User story #184

### Smart pointer base infrastructure

31.07.2015 15:42 - André Neto

<b>Status:</b> Closed	<b>Start date:</b> 11.08.2015
<b>Priority:</b> Normal	<b>Due date:</b>
<b>Assignee:</b>	<b>% Done:</b> 100%
<b>Category:</b>	<b>Estimated time:</b> 0.00 hour
<b>Target version:</b> 0.3	<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

Refactor the original MARTe smart pointer infrastructure (aka GCReference).

This would satisfy requirements:

- MARTe-EX-F-2.1.1: The framework shall offer developers a smart pointer infrastructure..
- MARTe-EX-F-2.1.3: The framework shall offer to developers the possibility of getting a reference to any object instantiated by the framework.

#### Source code files modified

- Source/Core/L0Portability/Heap.cpp
- Source/Core/L0Portability/Heap.h
- Source/Core/L1Objects/ClassProperties.cpp
- Source/Core/L1Objects/ClassProperties.h
- Source/Core/L1Objects/ClassRegistryDatabase.cpp
- Source/Core/L1Objects/ClassRegistryDatabase.h
- Source/Core/L1Objects/ClassRegistryItem.cpp
- Source/Core/L1Objects/ClassRegistryItem.h
- Source/Core/L1Objects/Introspection.h
- Source/Core/L1Objects/Iterator.h
- Source/Core/L1Objects/IteratorT.h
- Source/Core/L1Objects/LinkedListable.cpp
- Source/Core/L1Objects/LinkedListable.h
- Source/Core/L1Objects/LinkedListHolder.cpp
- Source/Core/L1Objects/LinkedListHolder.h
- Source/Core/L1Objects/Object.cpp
- Source/Core/L1Objects/Object.h
- Source/Core/L1Objects/Reference.cpp
- Source/Core/L1Objects/Reference.h
- Source/Core/L1Objects/ReferenceT.cpp
- Source/Core/L1Objects/ReferenceT.h
- Source/Core/L1Objects/SearchFilter.h
- Source/Core/L1Objects/SearchFilterT.h
- Source/Core/L1Objects/SortFilter.h
- Source/Core/L1Objects/SortFilterT.h
- Source/Core/L1Objects/StructuredData.h

#### Architecture & design review

**Date of the review:** 31/07/2015

**Person who did the review:** Andre' Neto

**Version of architecture & design document:** No design document was produced but this was thoroughly discussed in several meetings and reported in [#191](#). This should be captured in EA (see [#192](#)).

**Result of review:** N/A

List of non-conformities: N/A

## Code and documentation review

Date of the review: 12/08/2015

Person who did the review: Riccardo Vitelli

Result of review: PASS (with LINT)

List of non-conformities:

- MARTe2-dev/Source/Core/L1Objects/Object.cpp:95:29: Warning 1502: defined object 'ObjectHeap\_' of type 'Heap' has no nonstatic data members (accepted as the Heap interface is not yet complete)

## Unit test review

Date of the review: 20/08/2015

Person who did the review: Andre' Neto

Result of coverage tests review: PASS

Result of functional tests review: PASS

Result of review: PASS

List of non-conformities:

Notes:

The following are to be left for a later sprint when introspection, configuration and DLL support will be available:

- void Object::GetIntrospectionCopy
- bool Reference::Initialise
- bool ReferenceT<T>::Initialise
- ClassRegistryItem \*ClassRegistryDatabase::Find does not test the case with a DLL

The following are private and cannot be tested:

- ClassRegistryItem::ClassRegistryItem()
- Object \*Object::Clone() const
- ReferenceT<T>\* ReferenceT<T>::operator&()

**Subtasks:**

Meeting # 192: Describe the Object implementation in EA

**Closed**

## Associated revisions

**Revision de0444d7 - 05.08.2015 00:01 - André Neto**

Work in progress for #184.

**Revision 8bc819af - 06.08.2015 17:18 - André Neto**

Merge remote-tracking branch 'origin/#184\_Smart\_Pointer\_Base\_Infrastructure' into #184\_Smart\_Pointer\_Base\_Infrastructure

Conflicts:

Source/Core/L1Objects/Object.h

**Revision 1016c9db - 06.08.2015 17:20 - André Neto**

Finished implementation of the ClassRegistryDatabase infrastructure #184

**Revision 46036abc - 06.08.2015 17:53 - André Neto**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of

<https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

Conflicts:  
Source/Core/L1Objects/LinkedListable.h  
Source/Core/L1Objects/Makefile.inc  
Test/Core/L1Objects/Makefile.inc  
Test/Core/L1Objects/Makefile.linux  
Test/GTest/Makefile.linux

**Revision 4e8edcd4 - 06.08.2015 20:04 - André Neto**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

Conflicts:  
Source/Core/L1Objects/LinkedListHolder.h  
Source/Core/L1Objects/Makefile.inc

**Revision 0c9766ba - 06.08.2015 20:06 - André Neto**

Working but not ready for code review #184.

Documentation still to be improved.

**Revision 097d46bd - 07.08.2015 12:26 - Giuseppe Ferro**

List of changes:  
-Lint of LinkedListHolder  
-Test of LinkedListHolder  
#184

**Revision 7c4329b2 - 07.08.2015 12:46 - Giuseppe Ferro**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 632f554a - 07.08.2015 15:34 - André Neto**

Linting missing to terminate #184.

**Revision 5d183e89 - 07.08.2015 17:18 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision c9102092 - 07.08.2015 18:19 - Giuseppe Ferro**

WIP Tests.  
#184

**Revision 14dd52e2 - 07.08.2015 18:23 - Giuseppe Ferro**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 5f29690d - 09.08.2015 17:34 - André Neto**

Finished the linting of #184.

**Revision 05bc2b98 - 10.08.2015 10:12 - Giuseppe Ferro**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 9702398a - 10.08.2015 12:35 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 25c21c55 - 10.08.2015 13:29 - Giuseppe Ferro**

List of changes.  
-Added Reference tests.

User story: #184

**Revision bdb9c0b9 - 10.08.2015 15:54 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTE2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 436da978 - 10.08.2015 15:59 - André Neto**

Merge remote-tracking branch 'origin/#184\_Smart\_Pointer\_Base\_Infrastructure' into #184\_Smart\_Pointer\_Base\_Infrastructure

Conflicts:  
Source/Core/L1Objects/Reference.cpp

**Revision 6f232698 - 10.08.2015 18:37 - André Neto**

Lint of #184 finished. Still checking quality of the documentation.

**Revision 2cee8d58 - 11.08.2015 09:34 - André Neto**

Finished linting and documentation of #184. Ready for review.

**Revision 7fdd30bf - 11.08.2015 12:28 - André Neto**

Moved CreateByName to Reference. #184.

**Revision a5801f31 - 11.08.2015 14:30 - Giuseppe Ferro**

List of changes:  
-Reference and ReferenceT tests done.  
-Fixed other tests accordingly with refactoring.

#184

**Revision c799de20 - 11.08.2015 15:52 - André Neto**

Removed the global functions for sorting, iterating and searching #184.

**Revision d441fe3e - 11.08.2015 15:52 - André Neto**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTE2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 7cf6f6e2 - 12.08.2015 10:09 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTE2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

Conflicts:  
Source/Core/L1Objects/ClassRegistryItem.h

**Revision 916f7880 - 12.08.2015 10:09 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTE2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 38414163 - 12.08.2015 11:34 - Giuseppe Ferro**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTE2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision d3e362ed - 12.08.2015 11:47 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTE2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision e6db1597 - 12.08.2015 12:09 - Filippo Sartori**

Merge remote-tracking branch 'origin/#186\_Named\_Objects' into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision c0ba378d - 12.08.2015 12:14 - Riccardo Vitelli**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision c41764ab - 12.08.2015 16:02 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

Conflicts:

Source/Core/L0Portability/Heap.cpp  
Source/Core/L0Portability/Heap.h

**Revision 8856ef0d - 12.08.2015 16:48 - Giuseppe Ferro**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 165bbfa1 - 13.08.2015 10:33 - Giuseppe Ferro**

List of Changes:

-Tests of ClassRegistryDatabase done  
#184

**Revision 5fedbba9 - 13.08.2015 12:32 - Filippo Sartori**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://fsartori@vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

Conflicts:

Test/Core/L1Objects/ClassRegistryDatabaseTest.cpp

**Revision 37c18580 - 17.08.2015 14:55 - Giuseppe Ferro**

Fixed minor things in template and documentation.  
#184

**Revision bf506741 - 19.08.2015 15:32 - André Neto**

Cosmetic changes to the testing documentation #184.

**Revision c359e9a9 - 20.08.2015 11:34 - Giuseppe Ferro**

Added GetClassPropertiesCopy test.  
#184

**Revision 50c595ea - 21.08.2015 10:42 - André Neto**

Merge remote-tracking branch 'origin/develop' into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 87d5d7c3 - 21.08.2015 11:16 - André Neto**

Merge branch '#186\_Named\_Objects' into develop

Merged #184 and #186 into develop.

Conflicts:

Source/Core/L1Objects/Object.h  
Test/Core/L1Objects/ClassRegistryDatabaseTest.cpp  
Test/Core/L1Objects/ObjectTest.cpp  
Test/Core/L1Objects/ObjectTest.h  
Test/GTest/ObjectGTest.cpp

**Revision 5f1ee489 - 21.08.2015 13:11 - Giuseppe Ferro**

Minor changes in documentation.  
#184

**Revision 79fad01a - 22.08.2015 15:32 - André Neto**

Merge branch '#184\_Smart\_Pointer\_Base\_Infrastructure' of <https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2.git> into #184\_Smart\_Pointer\_Base\_Infrastructure

**Revision 21f44270 - 22.08.2015 16:03 - André Neto**

## History

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**#1 - 04.08.2015 17:28 - Riccardo Vitelli**

- Status changed from New to Code: Impl

**#2 - 04.08.2015 17:28 - Riccardo Vitelli**

- Assignee set to André Neto

**#3 - 11.08.2015 09:40 - André Neto**

- Description updated

**#4 - 11.08.2015 09:42 - André Neto**

- Description updated

**#5 - 11.08.2015 09:57 - Riccardo Vitelli**

- Status changed from Code: Impl to Code: Rev

**#6 - 11.08.2015 09:57 - Riccardo Vitelli**

- Assignee deleted (André Neto)

**#7 - 11.08.2015 10:06 - Riccardo Vitelli**

- Description updated

Corrected duplication in Source File modified.

**#8 - 12.08.2015 09:52 - Riccardo Vitelli**

- Assignee set to Riccardo Vitelli

**#9 - 12.08.2015 12:09 - Riccardo Vitelli**

- Description updated

Done Code Review for #d441fe3

**#10 - 12.08.2015 12:09 - Riccardo Vitelli**

- Status changed from Code: Rev to Unit: Impl

**#11 - 12.08.2015 12:09 - Riccardo Vitelli**

- Assignee deleted (Riccardo Vitelli)

**#12 - 17.08.2015 14:14 - Giuseppe Ferro**

Unit tests of:

- Object
- Reference
- ReferenceT
- LinkedListable
- LinkedListHolder (and filters associated)
- ClassProperties
- ClassRegistryItem
- ClassRegistryDatabase

done.

**#13 - 17.08.2015 14:52 - Giuseppe Ferro**

- Status changed from Unit: Impl to Unit: Rev

**#14 - 19.08.2015 11:26 - André Neto**

- Assignee set to André Neto

**#15 - 19.08.2015 15:40 - André Neto**

- Description updated

**#16 - 19.08.2015 15:40 - André Neto**

- Status changed from Unit: Rev to Unit: Impl

**#17 - 19.08.2015 15:40 - André Neto**

- Assignee deleted (André Neto)

**#18 - 19.08.2015 15:41 - André Neto**

- Description updated

**#19 - 19.08.2015 15:42 - André Neto**

- Description updated

**#20 - 19.08.2015 15:44 - André Neto**

- Description updated

**#21 - 19.08.2015 15:44 - André Neto**

- Description updated

**#22 - 20.08.2015 11:08 - Giuseppe Ferro**

- Assignee set to Giuseppe Ferro

**#23 - 20.08.2015 11:33 - Giuseppe Ferro**

Note: The following functions are private.  
ClassRegistryItem::ClassRegistryItem()  
Object Object::Clone() const  
ReferenceT<T> ReferenceT<T>::operator&()

**#24 - 20.08.2015 15:31 - Giuseppe Ferro**

- Status changed from Unit: Impl to Unit: Rev

**#25 - 20.08.2015 15:31 - Giuseppe Ferro**

- Assignee deleted (Giuseppe Ferro)

**#26 - 20.08.2015 21:21 - André Neto**

- Description updated

**#27 - 20.08.2015 21:23 - André Neto**

Unit test revision performed against commit: c359e9a9

**#28 - 20.08.2015 21:24 - André Neto**

- Assignee set to André Neto

**#29 - 20.08.2015 21:25 - André Neto**

- Status changed from Unit: Rev to Closed

- Assignee deleted (André Neto)

**#30 - 20.08.2015 21:48 - André Neto**

- Status changed from Closed to Unit: Rev

**#31 - 21.08.2015 10:39 - André Neto**

- Description updated

**#32 - 21.08.2015 11:30 - André Neto**

- Status changed from Unit: Rev to Closed

Merged with develop in commit 87d5d7c3