

CoCoALib - Support #694

In test files: when is assert.H needed?

08 May 2015 11:30 - John Abbott

Status:	Closed	Start date:	08 May 2015
Priority:	Normal	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	Tidying	Estimated time:	3.51 hours
Target version:	CoCoALib-0.99550 spring 2017	Spent time:	3.25 hours
Description Some test files explicitly include CoCoA/assert.H but many do not. Check that it is truly needed when it is present.			
Related issues:			
Related to CoCoALib - Design #642: Move code in test file into namespace CoCoA		Closed	29 Oct 2014
Related to CoCoALib - Support #695: Remove cruft from test files		New	08 May 2015

History

#1 - 08 May 2015 11:32 - John Abbott

Actually I am rather surprised that it is not necessary for all tests.

Investigate why it works without explicitly including assert.H

#2 - 21 Mar 2016 15:40 - John Abbott

- Target version changed from CoCoALib-0.99540 Feb 2016 to CoCoALib-0.99550 spring 2017

#3 - 14 Sep 2016 16:38 - John Abbott

- Status changed from New to In Progress

- Assignee set to John Abbott

- % Done changed from 0 to 50

The explanation is fairly obvious (and simple): some header files already include assert.H. Here is the current list:

```
DenseUPolyClean.H:#include "CoCoA/assert.H"
DistrMPolyClean.H:#include "CoCoA/assert.H"
DistrMPolyInlFpPP.H:#include "CoCoA/assert.H"
DistrMPolyInlPP.H:#include "CoCoA/assert.H"
DynamicBitset.H:#include "CoCoA/assert.H"
FloatApprox.H:#include "CoCoA/assert.H"
MachineInt.H:#include "CoCoA/assert.H"
OrdvArith-OpenMP.H:#include "CoCoA/assert.H"
OrdvArith.H:#include "CoCoA/assert.H"
SmallFpDoubleImpl.H:#include "CoCoA/assert.H"
SmallFpImpl.H:#include "CoCoA/assert.H"
SmallFpLogImpl.H:#include "CoCoA/assert.H"
TmpPPVector.H:#include "CoCoA/assert.H"
ring.H:#include "CoCoA/assert.H"
```

The only remaining doubt is whether the tests should have an #include "assert.H" directive even when it is not strictly needed. If a header file which currently include assert.H is changed not to include it then some tests may need to be changed to include assert.H explicitly...

What to do?

#4 - 14 Sep 2016 17:19 - John Abbott

- % Done changed from 50 to 60

Anna points out that if we do this for `assert.H` then why shouldn't we do it for all header files... at which point the situation becomes unmanageable. Also if someone modifies the library (incl. changing some header files) then it is to be expected that code depending on the library may well need to be modified (e.g. change the list of explicitly/directly included files).

The original question was about whether some `#include "assert.H"` directives were superfluous. Really it does not matter if they are superfluous, and the time spent "cleaning and tidying" superfluous includes is probably better spent elsewhere.

#5 - 14 Sep 2016 18:17 - John Abbott

- % Done changed from 60 to 70

Since all tests must include `GlobalManager.H` and that file indirectly includes `assert.H`, there is no need for any test to specifically include `assert.H`.

Anna suggested moving the definition of the `TEST_ASSERT` macro to `assert.H` to avoid having separate definitions in each test file. This is an appealing idea, but we need a new name beginning with `CoCoA`.

#6 - 15 Sep 2016 17:05 - John Abbott

JAA suggests the short name `CoCoA_CHECK`, but Anna thinks that is not so clear.

Anna suggests the longer name `CoCoA_ASSERT_ALWAYS`; she argues that the length is not so important as it is used really only in tests.

#7 - 16 Sep 2016 08:12 - Anna Maria Bigatti

John Abbott wrote:

JAA suggests the short name `CoCoA_CHECK`, but Anna thinks that is not so clear.

Anna suggests the longer name `CoCoA_ASSERT_ALWAYS`; she argues that the length is not so important as it is used really only in tests.

slightly shorter `CoCoA_ASSERT_TEST` makes it clear that the functions do something very similar, and that this is used (only?) in the tests.

#8 - 16 Sep 2016 18:18 - John Abbott

- Status changed from *In Progress* to *Feedback*

- % Done changed from 70 to 90

In the end I chose `CoCoA_ASSERT_ALWAYS` as it is pretty clear what it means.

I have removed every include directive for `assert.H` (even the commented out ones).

Everything seems to work OK, so will check in (shortly).

I'll leave the status as "feedback" for a few weeks.

#9 - 21 Sep 2016 07:47 - Anna Maria Bigatti

Works fine for me (clang)

#10 - 21 Sep 2016 18:17 - John Abbott

- *Status changed from Feedback to Closed*

- *% Done changed from 90 to 100*

#11 - 28 Apr 2017 09:32 - Anna Maria Bigatti

- *Estimated time set to 3.51 h*