

## CoCoALib - Support #1263

### Tidy CoCoALib test directory

26 Mar 2019 16:44 - John Abbott

<b>Status:</b>	Resolved	<b>Start date:</b>	26 Mar 2019
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	John Abbott	<b>% Done:</b>	80%
<b>Category:</b>	Tidying	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	CoCoALib-0.99880	<b>Spent time:</b>	4.35 hours
<b>Description</b>			
I have done some cleaning and have noticed some files called test-*.C in the test directory which are not listed in the Makefile. We should either add them to the list in the Makefile, or remove them from the directory...			

#### History

##### #1 - 26 Mar 2019 16:47 - John Abbott

- Status changed from New to In Progress

- % Done changed from 0 to 10

The files I have are:

```
test-Dynamic1.C
test-F5.C
test-implicit1.C
test-implicit2.C
test-implicit3.C
test-JBMill.C
test-OpenMath2.C
test-PBMill.C
test-RingTwinFloat3.C
test-TmpPartialMorseBetti.C
```

I guess that test-F5.C should just be eliminated, along with all the F5 code in CoCoALib?

##### #2 - 29 Apr 2019 13:57 - John Abbott

I have noticed that there some tests which run quickly (*e.g.* less than 0.01s on my computer), but the compilation time is considerably longer (*e.g.* around 0.7s on my computer).

It may make some sense to condense several tests into a single file in the hope that the compilation time for the single file is rather less than that for the several small files.

The current situation is:

- make executables takes about 105s on my computer
- make check (after compiling the executables) takes about 15s on my computer

That is: almost 90% of the time is for compilation and linking. I would hope that we can make compilation time about the same length as execution time... (am I too optimistic?)

### #3 - 03 May 2019 14:05 - John Abbott

I have just checked that running **all** test-bugNNN executables takes about 0.03s on my computer. Since these files are "miscellaneous", I see no real objection against combining them into one larger test.

Compiling all these files took about 15s (roughly 1.5s per file)

### #4 - 13 Sep 2019 11:30 - John Abbott

I added a new "exbug" to one of the test-bugN.C files, and noticed that it was quite a nuisance having to add all the appropriate include directives. So, I suggest that if we do opt to combine several exbugs into a single file then we might as well simply include the combined header file for CoCoALib -- I think this is justifiable since the tests are likely to cover many different areas of CoCoALib.

The structure I used in my one experiment is the following:

```
#include "CoCoA/library.H

void exbug123()
{
    ...
}

void exbug456()
{
    ...
}

void program()
{
    GlobalManager CoCoAFoundations;
    exbug123();
    exbug456();
}
```

**#5 - 13 Sep 2019 11:30 - John Abbott**

- Related to Support #1311: THINGS TO DO IN GENOVA September 2019 added

**#6 - 25 Sep 2019 14:28 - John Abbott**

Anna approves of merging the exbugs into a single file, and to including CoCoA/library.H.

Do this (soon!)

**#7 - 25 Sep 2019 14:28 - John Abbott**

- Assignee set to John Abbott

- % Done changed from 10 to 20

**#8 - 27 Sep 2019 17:28 - Anna Maria Bigatti**

- Subject changed from Tidy test directory to Tidy CoCoALib test directory

**#9 - 30 Sep 2019 19:32 - John Abbott**

- % Done changed from 20 to 50

I have transferred test-bugN into test-bug1 for N=6,7,8,9. So far, so good.

**#10 - 17 Oct 2019 23:27 - John Abbott**

- % Done changed from 50 to 60

I have merged several tests in the series test-NumTheory and test-SparsePolyRing into fewer files.

I have preferred not to merge into one very big file, and hope that I have found a reasonable compromise.

I have checked in.

**SPEED CHECK** compilation of executables took 104s (real), 94s (user). I had hoped for a bigger difference (but maybe there are some new test files now?)

**SPEED CHECK** compilation of all test-bugNNN took about 4.7s (real), 4.2s (user). That is definitely better.

**#11 - 09 Jan 2020 12:28 - John Abbott**

- Related to Support #1387: John's visit Feb 2020 added

**#12 - 12 Feb 2020 15:49 - John Abbott**

- % Done changed from 60 to 70

I have merged test-bug5 into test-bug2 and test-bug4 into test-bug3.

**SPEED CHECK** compilation of all test-bugNNN took about 4.0s (real), 3.7s (user). A bit better.

**#13 - 12 Feb 2020 15:53 - John Abbott**

- Target version changed from CoCoALib-0.99700 to CoCoALib-0.99800

**#14 - 13 Feb 2020 13:57 - John Abbott**

- Related to deleted (Support #1387: John's visit Feb 2020)

**#15 - 14 Feb 2020 10:51 - John Abbott**

- Related to deleted (Support #1311: THINGS TO DO IN GENOVA September 2019)

**#16 - 25 Sep 2020 15:16 - John Abbott**

- Status changed from In Progress to Resolved

- % Done changed from 70 to 80

I have now merged all "exbugs" into a single file called **test-exbugs.C** (with corr expected output in test-exbugs.out).

**SPEED CHECK:** compilation took 108s real, 97s user (a bit slower... why?). All tests ran in just less than 15s.

**SPEED CHECK** compilation of test-exbugs.C took 2.0s (that is faster)

**#17 - 09 Oct 2020 15:18 - John Abbott**

- Target version changed from CoCoALib-0.99800 to CoCoALib-0.99850

**#18 - 07 Mar 2023 20:49 - John Abbott**

- Target version changed from CoCoALib-0.99850 to CoCoALib-0.99880

It would be nice to close this issue... I have decided to postpone it, since it likely requires some discussion.

I did notice that **test-TmpPartialMorseBetti.C** seems to compile and run fine. Should we activate it?