

CoCoALib - Support #618

Instructions for compiling libnormaliz

09 Sep 2014 11:34 - Anna Maria Bigatti

<b>Status:</b>	Closed	<b>Start date:</b>	09 Sep 2014
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>	Anna Maria Bigatti	<b>% Done:</b>	100%
<b>Category:</b>	Portability	<b>Estimated time:</b>	2.55 hours
<b>Target version:</b>	CoCoALib-0.99800	<b>Spent time:</b>	2.60 hours
<b>Description</b> Collection of instructions for compiling normaliz. (keep up-to-date)			
<b>Related issues:</b>			
Related to CoCoA-5 - Feature #1367: CoCoA-5.3.0: release linked with more rec...		<b>Closed</b>	<b>24 Nov 2019</b>
Related to CoCoALib - Support #1591: Compilation of Normaliz		<b>Closed</b>	<b>30 Apr 2021</b>

History

#1 - 09 Sep 2014 12:08 - Anna Maria Bigatti

- Category set to Portability
- Target version set to CoCoALib-0.99534 Seoul14
- % Done changed from 0 to 30
- Estimated time set to 2.00 h

This is what I did (on Mac)  
- create a build dir, cd into it, run cmake.  
This is what I did

```
cd source/  
mkdir BUILD  
cd BUILD  
CC=gcc CXX=g++ cmake ..
```

I got some errors because I have a personal installation of some libraries, so I had to tweak the configuration using cmake:

```
ccmake .  
---- then set (Press [enter] to edit option)  
GMPXX_INCLUDE_DIR      /Users/bigatti/0.99/gmp  
GMPXX_LIBRARIES         /Users/bigatti/0.99/gmp/.libs/libgmpxx.a  
GMPXX_STATIC_LIBRARIES /Users/bigatti/0.99/gmp/.libs/libgmpxx.a  
GMP_INCLUDE_DIR        /Users/bigatti/0.99/gmp  
GMP_LIBRARIES           /Users/bigatti/0.99/gmp/.libs/libgmp.a  
GMP_LIBRARIES_DIR       /Users/bigatti/0.99/gmp/.libs  
GMP_STATIC_LIBRARIES    /Users/bigatti/0.99/gmp/.libs/libgmp.a  
  
NMZ_BUILD_STATIC  --> ON  
NMZ_OPENMP        --> OFF  
  
---- (Press [t] to toggle advanced mode)  
Boost_INCLUDE_DIR --> /Users/bigatti/0.99/boost  
  
CMAKE_CXX_FLAGS    --> -m64  
CMAKE_C_FLAGS       --> -m64  
  
---- (Press [c] to configure)  
---- (Press [g] to generate and exit)  
  
make  
mv libnormaliz/libnormaliz.a ../libnormaliz/
```

## #2 - 09 Sep 2014 16:20 - Anna Maria Bigatti

- Status changed from New to In Progress
- Estimated time changed from 2.00 h to 3.00 h

## #3 - 09 Sep 2014 16:50 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99534 Seoul14 to CoCoALib-0.99536 June 2015

## #4 - 30 Jun 2015 10:55 - Anna Maria Bigatti

- Assignee set to Anna Maria Bigatti
- Target version changed from CoCoALib-0.99536 June 2015 to CoCoALib-0.99540 Feb 2016

Normaliz is making a new release and we will refine the configuration in September (in Aarhus)

## #5 - 22 Mar 2016 17:32 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99540 Feb 2016 to CoCoALib-1.0

## #6 - 22 Mar 2016 18:08 - John Abbott

This is \* **OBSOLETE** \* -- see next comment!

Here are the notes I have made for myself (compiling using make rather than cmake). These notes refer to Normaliz 2.x; I don't know about Normaliz 3.x (which uses C++11 features).

To compile Normaliz on abbottpb (old MacBook Pro with Intel core2 processor)

Edit Normaliz2.11/source/Makefile.configuration

Compiler should be defined like this (for my MacBook):  
[the flags are to be compatible with 64-bit GMP library]  
CXX = g++ -m64 -mtune=core2 -march=core2

Add this line  
CXXFLAGS += -Wno-long-long

Remove line about  
CXXFLAGS += --std=c++0x

Edit the "static" flags for MacOS (at the bottom of Makefile.configuration);  
comment out one line, and remove comment at start of another line.

Finally, in the Normaliz/source/ directory, run the command  
make OPENMP=no

The built (static) library will be in Normaliz2.11/source/libnormaliz/libnormaliz.a

#### #7 - 27 Jan 2020 15:40 - John Abbott

Here is what I did:

```
cd normaliz-3.8.3
./configure
make # took about 5 mins' CPU
--> result is in source/.libs/libnormaliz.a
```

Note that I do have gmp-6.2.1 installed in /usr/local/include & /usr/local/lib

Everything seems to work fine (even compilation with CoCoA).  
Note sure what "adventures" Anna will have with a non-installed GMP.

#### #8 - 27 Jan 2020 17:31 - John Abbott

- Target version changed from CoCoALib-1.0 to CoCoALib-0.99700
- % Done changed from 30 to 60

#### #9 - 12 Feb 2020 14:36 - John Abbott

- Priority changed from Normal to High
- Target version changed from CoCoALib-0.99700 to CoCoALib-0.99800

#### #10 - 17 Feb 2020 15:22 - John Abbott

- Related to Feature #1367: CoCoA-5.3.0: release linked with more recent version of normaliz added

#### #11 - 19 Mar 2021 13:12 - John Abbott

Anna will check what happens on her (new) computer.  
Hope we can close this soon.

Update website too!

#### #12 - 04 Feb 2022 21:40 - John Abbott

- % Done changed from 60 to 70

This probably needs changing after issue [#1655](#).  
How does this issue differ from [#1591](#) ?

#### #13 - 04 Feb 2022 21:40 - John Abbott

- Related to Support #1591: Compilation of Normaliz added

#### #14 - 14 Feb 2022 18:22 - John Abbott

- *Status changed from In Progress to Closed*
- *% Done changed from 70 to 100*
- *Estimated time changed from 3.00 h to 2.55 h*

This is effectively superseded by issue [#1591](#).  
Closing -- the info here seems rather out of date.