CoCoA-5 - Bug #922

Release for MacOS: compilation on 10.11 incompatible with 10.6.8

16 Sep 2016 14:47 - Anna Maria Bigatti

Status:	Closed		Start date:	16 Sep 2016
Priority:	Normal		Due date:	
Assignee:	Anna Maria Bigatti		% Done:	100%
Category:	Portability		Estimated time:	1.25 hour
Target version:	CoCoA-5.4.0		Spent time:	1.25 hour
Description				
Binary from 10.11 gives Illegal instruction on 10.6.8. Investigate how to solve this, and at what OS version the incompatibility started.				
Related issues:				
Related to CoCoA-5 - Support #851: Release: CoCoA-5.2.0		**Closed**		01 Aug 2014

History

#1 - 16 Sep 2016 15:55 - John Abbott

- Category set to Portability

- Assignee set to Anna Maria Bigatti

- Target version set to CoCoA-5.?.?

The nm function on my computer (Mac OS X 10.6.8) complains that a compiled program from Anna's 10.11 Mac is **malformed object (unknown load command 9)**. A quick web search found the following link:
http://stackoverflow.com/questions/9496100/mac-load-commands-corruption

#2 - 16 Sep 2016 15:57 - John Abbott

See also this link http://grauonline.de/wordpress/?p=71
JAA thinks it could be useful.

#3 - 16 Sep 2016 17:56 - Anna Maria Bigatti

I tried the suggestion:

```
bash-3.2$ export MACOSX_DEPLOYMENT_TARGET=10.6; g++ -Wall -pedantic -fPIC -m64 -mtune=core2 -march=core2 -O2 -
DCoCoA_ULONG2LONG=1        -DCoCoA_WITH_READLINE  -I../../include -isystem ../../configuration/ExternalLibs/in
clude -o test-BigRat3 test-BigRat3.C ../../lib/libcocoa.a -L../../configuration/ExternalLibs/lib        -l
gmpxx-symlink  -lgmp-symlink       -lreadline -Wl,-no_pie
```

and got

```
ld: warning: object file (../../lib/libcocoa.a(BigRat.o)) was built for newer OSX version (10.11) than being l
inked (10.6)
```

This means that everything should be compiled in this way (gmp, boost, normaliz, ...)
and then maybe it works: is it worth it? For the time being it seems easier to have a double binary (as for linux) in the CoCoA-5/bin/ directory.
Probably we have done that for 10.5/10.6 (should search for the script John wrote)

#4 - 16 Sep 2016 18:22 - Anna Maria Bigatti

Tried: John's compilation (for 10.6) works on 10.11.
So for next release we can use his compilation.
(it's on my white USB key ;-)

#6 - 12 Oct 2016 16:18 - Anna Maria Bigatti

- Related to Support #851: Release: CoCoA-5.2.0 added

#7 - 22 Jan 2021 09:36 - Anna Maria Bigatti

- Target version changed from CoCoA-5.?.? to CoCoA-5.4.0

#8 - 09 Feb 2022 16:45 - Anna Maria Bigatti

- % Done changed from 0 to 40

Does it still matter?
Should we worry about 10.6? I guess John can still compile it for any user who asks for it.
My version is 10.15, and not the latest.

#9 - 09 Feb 2022 19:41 - John Abbott

- Status changed from New to Closed

- % Done changed from 40 to 100

- Estimated time set to 1.25 h

My 13 year old MacBook now has MacOS 10.11.6. So if anyone is stuck on 10.6.8, they must have a very old computer.
We are a small project, and can ill afford to spend resources for "extreme edge cases". So if someone has an old
computer with an old version of MacOS, they can still download the sources and compile (assuming they can find a
compiler which accepts std=c++14).

Closing!