

## CoCoA-5 - Design #1697

### Specifying BOOST in configure

18 Aug 2022 14:37 - John Abbott

<b>Status:</b>	Closed	<b>Start date:</b>	18 Aug 2022
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	John Abbott	<b>% Done:</b>	100%
<b>Category:</b>	Cleaning	<b>Estimated time:</b>	4.49 hours
<b>Target version:</b>	CoCoA-5.4.2	<b>Spent time:</b>	4.45 hours
<b>Description</b>			
The code handling the BOOST libraries in configure is an "unholy mess".			
If the user specifies no BOOST option then configure tries to search for BOOST.			
I am now inclined to simplify this:			
<ul style="list-style-type: none"><li>• if no BOOST option is specified then compilation is <b>without BOOST</b></li><li>• new configure option <b>--with-boost</b> which assumes a standard system installation.</li><li>• the old option to specify where the BOOST libraries are remains (in case not a standard system installation)</li></ul>			
This new approach should allow me to simplify the configure script... I hope!			
<b>Related issues:</b>			
Related to CoCoA-5 - Bug #1695: boost-find-lib.sh		<b>Closed</b>	<b>16 Aug 2022</b>
Related to CoCoA-5 - Design #1696: Which BOOST libs are actually needed?		<b>Closed</b>	<b>18 Aug 2022</b>
Related to CoCoALib - Support #1700: boost_1_80_0		<b>Closed</b>	<b>14 Oct 2022</b>
Related to CoCoALib - Feature #1360: configure script: add flags for "only co..."		<b>Closed</b>	<b>01 Nov 2019</b>

### History

#### #1 - 18 Aug 2022 14:38 - John Abbott

- Related to Bug #1695: boost-find-lib.sh added

#### #2 - 18 Aug 2022 14:38 - John Abbott

- Related to Design #1696: Which BOOST libs are actually needed? added

#### #3 - 22 Aug 2022 16:59 - John Abbott

- Status changed from New to In Progress

- % Done changed from 0 to 10

In a sense there is no difference between **--with-boost** and **--also-build-CoCoA5** (except that one is clearly boolean, while the other can specify where to find the lib)

Mmmm.

#### #4 - 15 Sep 2022 14:55 - John Abbott

- Assignee set to John Abbott

- % Done changed from 10 to 50

After discussions with Anna, we will try a new configure option **--only-cocoalib** (which supplants --no-boost).  
If **--only-cocoalib** is not specified then BOOST is assumed to be system-wide installed unless **--with-boost=XXX** is specified.

Specifying **--only-cocoalib** and a BOOST or READLINE option will give an error (currently)  
[maybe a warning would be better? This would allow easier testing perhaps?]

I have modified configure; it seems fine on my Linux box.

**#5 - 14 Oct 2022 10:18 - Anna Maria Bigatti**

- *Related to Support #1700: boost\_1\_80\_0 added*

**#6 - 14 Oct 2022 10:26 - Anna Maria Bigatti**

I would change `--with-boost` with `--with-boost-hdrs` or `--with-boost-incdir` (or similar) to highlight that for boost we point to the include dir, instead of passing the library file (as it is for all other external libraries)

```
"--with-boost-hdrs=/Users/XXXXXXXXXX/boost_1_80_0/include/"
```

[I use a minimal personal installation of boost for experimental purposes]

**#7 - 14 Oct 2022 10:31 - Anna Maria Bigatti**

It seems that `-Bstatic` works only for linux

```
CoCoAInterpreter: linking everything together
ld: unknown option: -Bstatic
clang: error: linker command failed with exit code 1 (use -v to see invocation)
make[2]: *** [CoCoAInterpreter] Error 1
```

I changed `BOOST_LDLIBS=-Wl,-Bstatic -lboost_filesystem -Wl,-Bdynamic` into `BOOST_LDLIBS=-lboost_filesystem` and my compilation goes a little further

**#8 - 23 Nov 2022 17:25 - John Abbott**

- *Status changed from In Progress to Feedback*

- *% Done changed from 50 to 90*

- *Estimated time set to 2.99 h*

Anna: I think this issue no longer exists with the new/revised configuration system (scripts).  
Correct? If so, please close.

**#9 - 23 Nov 2022 17:33 - John Abbott**

- *Related to Feature #1360: configure script: add flags for "only cocoalib" or "both cocoalib and cocoa5" (for boost) added*

**#10 - 14 Dec 2022 22:33 - John Abbott**

- *Status changed from Feedback to Closed*

- % Done changed from 90 to 100

- Estimated time changed from 2.99 h to 4.49 h

I have made a major revision to doc/txt/ExternalLibs-BOOST.txt  
I think it is now up-to-date.

Closing.