

CoCoA-5 - Bug #1093

GUI: bugs and slugs

23 Jul 2017 16:14 - John Abbott

Status:	In Progress	Start date:	23 Jul 2017
Priority:	Low	Due date:	
Assignee:	John Abbott	% Done:	10%
Category:	GUI	Estimated time:	0.00 hour
Target version:	CoCoA-5.?.?	Spent time:	3.00 hours
Description			
I know the GUI is on "life support" (or worse), but I'd like to gather in one place some of the problems it has just in case someone wants to improve it (or make a new one).			
Related issues:			
Related to CoCoA-5 - Slug #741: C5 GUI: slow to close		Closed	26 Jun 2015
Related to CoCoA-5 - Slug #750: C5 GUI: very slow when printing many short lines		Closed	27 Jul 2015
Related to CoCoA-5 - Support #1393: GUI with Qt5		Feedback	13 Jan 2020

History

#1 - 23 Jul 2017 16:14 - John Abbott

- Related to Slug #741: C5 GUI: slow to close added

#2 - 23 Jul 2017 16:15 - John Abbott

- Related to Slug #750: C5 GUI: very slow when printing many short lines added

#3 - 23 Jul 2017 16:20 - John Abbott

The GUI really seems to have trouble with big outputs; my guess is that this is a QT "feature" :-/

factorial(10⁵) takes a long time to print, and then "fills the screen" with digits.

factorial(5*10⁶) produces a "scrambled" line (it looks like overprinting); I think this puts the GUI in a near coma (consuming 99% CPU).

factorial(10⁷) causes a complete crash of the GUI; output is a bit more than 64Mbyte on one line.

PS I'm pretty sure that printing out factorial(10⁷) would floor Emacs as well.

#4 - 23 Jul 2017 16:30 - John Abbott

I have changed the way CoCoALib handles signals. This forced me to make some changes to the source of the GUI (but without really understanding what the code was supposed to do).

In particular, I replaced two fn calls by calls to GetAndResetSignalReceived (in lines 80 and 120 of C5.C).

At two points the GUI also wants to "set" the signal received (lines 1634 and 1922 in C5.C). I don't know why; anyway I had to make available a public fn for setting the signal received (see SignalWatcher.H)

It is possible that my "blind" changes have broken something, but I am sure this is unrelated to the problems of large outputs.

#5 - 16 Dec 2019 21:31 - John Abbott

Ulrich reported that the GUI fails to compile now that we are using `nullptr`.

I had a quick search online, and found something on StackOverflow. I tried putting the compilation flag `-std=c++14` for the compiler and also `c++14` as a CONFIG parameter, but the error persists: it complains that `nullptr` is a keyword in C++11 (so is presumably trying to compile as if in c++03 mode... no idea why).

Anyway, I think I shall change the CoCoA-5 configuration so that the user must explicitly request that the Qt GUI be compiled (even if it does not currently work). The current default is that it will attempt to compile the GUI if `qmake` was found; so users who have `qmake` will see failed compilations even if the normal textual interface compiled fine.

#6 - 17 Dec 2019 12:25 - John Abbott

- Status changed from New to In Progress

- Assignee set to John Abbott

- % Done changed from 0 to 10

I have changed `configure` so that it sets a flag saying whether to build the Qt GUI; this is determined by a command line option (default is **NOT** to build the GUI).

Configuration will fail if the user requests building the GUI, but `qmake` is not found or does not work properly.

I have done some other tidying in the `configure` script.
Now testing on my machine...

#7 - 13 Jan 2020 21:36 - John Abbott

- Related to Support #1393: GUI with Qt5 added

#8 - 18 Aug 2022 15:36 - John Abbott

Interrupt messages from CoCoALib functions are discarded/ignored.

There does not appear to be a "kill" option for a running CoCoA-5; the only way seems to be to kill the whole GUI.