

CoCoA-5 - Feature #1718

FactorINT with time-out

16 Dec 2022 17:04 - John Abbott

Status:	Closed	Start date:	16 Dec 2022
Priority:	Normal	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	Renaming	Estimated time:	4.10 hours
Target version:	CoCoA-5.4.2	Spent time:	4.15 hours
Description I have found it useful to be able to impose a time-out on FactorINT calls. I already have a first impl which seems to pass some basic tests. What should the fn be called? The prototype is FactorINT_TimeOut I note that we already have GBasisTimeout : no underscore, and "o" is small. We also already have FactorINT_TrialDiv and FactorINT_PollardRho. So there is some inconsistency in fn naming!			
Related issues: Related to CoCoALib - Bug #1719: FactorINT has got worse Closed 18 Dec 2022			

History

#1 - 16 Dec 2022 17:07 - John Abbott

- Status changed from New to In Progress
- % Done changed from 0 to 10

My first thought was to let FactorINT accept an optional second arg: this is more-or-less what the CoCoALib impl does.

For a prototype it seemed simpler to introduce a new fn; and I think it is clearer to read FactorINT_TimeOut(N,20) rather than FactorINT(N,20).

Comments? Opinions? Suggestions?

#2 - 18 Dec 2022 22:24 - John Abbott

- Related to Bug #1719: FactorINT has got worse added

#3 - 01 Jan 2023 12:38 - John Abbott

- Status changed from In Progress to Resolved
- Assignee set to John Abbott
- % Done changed from 10 to 80

Implemented (but see also issue [#1719](#)).

Remaining question: fn name, currently **FactorINT_TimeOut** (see discussion in main descr)

#4 - 09 Mar 2023 22:39 - John Abbott

- Status changed from Resolved to Feedback
- % Done changed from 80 to 90

No one objected to **FactorINT_TimeOut**.

I wonder if **GBasisTimeout** should be renamed to **GBasis_TimeOut** -- what do you think?

#5 - 14 Mar 2023 21:36 - John Abbott

I think I prefer with the underscore... not entirely sure why.
Should I change **GBasisTimeout** to **GBasis_TimeOut**?

#6 - 14 Mar 2023 21:58 - Anna Maria Bigatti

John Abbott wrote:

I think I prefer with the underscore... not entirely sure why.
Should I change **GBasisTimeout** to **GBasis_TimeOut**?

I agree. But make it obsolescent (not just rename it)

#7 - 14 Mar 2023 22:29 - John Abbott

Do you prefer **GBasis_TimeOut** or **GBasis_Timeout**?
(and then analogously for **FactorINT_TimeOut**)

#8 - 22 Dec 2023 19:46 - John Abbott

- *Status changed from Feedback to Closed*

- *% Done changed from 90 to 100*

- *Estimated time set to 4.10 h*

I have decided to disable **FactorINT_timeout** because

- FactorINT now auto times-out after about 20s (since it is very unlikely that more factors will be found in a reasonable amount of extra time)
- I cannot really think of any good use-case for FactorINT_timeout in CoCoA-5
- anyone who wants to factorize "tough" integers should use some other software -- it's not CoCoA's forte!

The question about the suffix remains. Are fn names with underscores handled correctly in the documentation (esp. LaTeX)?