

CoCoALib - Feature #730

Stats in GBMill (GReductor)

10 Jun 2015 11:18 - John Abbott

Status:	Closed	Start date:	10 Jun 2015
Priority:	Normal	Due date:	
Assignee:	Anna Maria Bigatti	% Done:	100%
Category:	Improving	Estimated time:	4.00 hours
Target version:	CoCoALib-0.99560	Spent time:	3.90 hours
Description			
There is already some implementation for gathering stats in G-basis computation. Review it! Perhaps separate stats from progress logging?			
Related issues:			
Related to CoCoALib - Feature #931: GBasis verbose mode		Closed	24 Sep 2016

History

#1 - 10 Jun 2015 11:24 - John Abbott

Mario asked about gathering stats for his involutive basis code.

I suggested using a struct to keep all the stats stuff together.

Why a struct rather than a class? Not entirely sure; a struct seems simpler: by having all data members public any code can increment counters etc.. With a class it would probably be necessary to have lots of one line functions (at least one to increment a counter, and another to read the counter), yet without any obvious gain.

Anyway, we can try first with a struct; if that proves not to be as easy/clean as hoped then it should be easy to switch to a class.

#2 - 10 Jun 2015 11:30 - John Abbott

I suppose Mario ought to write about this. He has followed my design suggestion, and seems to be happy with it. If it continues to work well, perhaps we should consider adapting the GBMill stats gatherer to work in a similar way.

After speaking to Mario we felt that it was appropriate to have separate mechanisms for gathering stats and for producing progress/logging info. The GBMill implementation seems to have both combined (see TmpGRStats.H). I also note that the counters in the GBMill impl are unsigned int; it would probably be better to replace them with long (or possibly unsigned long) since unsigned int may be limited to 2^{32} .

#3 - 14 Apr 2017 14:51 - Anna Maria Bigatti

- Related to Feature #931: GBasis verbose mode added

#4 - 14 Apr 2017 14:56 - Anna Maria Bigatti

- Subject changed from Stats in GBMill to Stats in GBMill (GReductor)

- % Done changed from 0 to 20

- Estimated time set to 6.00 h

This issue is about "Stats", i.e. gathering info about number of pairs, timings, etc.
This is strictly related with "verbosity", which prints them out, but without recording data.

I'm now resurrecting the GRStats code, making it compatible/complementary with the new verbosity mechanism.

#5 - 18 Apr 2017 12:09 - Anna Maria Bigatti

- *Status changed from New to In Progress*
- *Assignee set to Anna Maria Bigatti*
- *% Done changed from 20 to 30*

Studying and organizing the old GRStats code by Max Caboara.
Now adapting it to VerbosityLevel.

#6 - 26 Apr 2017 14:57 - Anna Maria Bigatti

- *Target version changed from CoCoALib-1.0 to CoCoALib-0.99550 spring 2017*

Current version is OK, probably not final but acceptable for version 99550/5.2.0

#7 - 26 Apr 2017 15:07 - Anna Maria Bigatti

- *Target version changed from CoCoALib-0.99550 spring 2017 to CoCoALib-0.99560*

#8 - 06 Nov 2017 14:06 - John Abbott

- *Status changed from In Progress to Feedback*
- *% Done changed from 30 to 90*

#9 - 20 Nov 2017 16:12 - Anna Maria Bigatti

- *Status changed from Feedback to Closed*
- *% Done changed from 90 to 100*
- *Estimated time changed from 6.00 h to 4.00 h*

Closing this issue.
May be improved, but it is acceptable for the general requirement.
I needed make a more specific issue.