CoCoALib - Support #234

Update/Improve geobucket documentation

25 Sep 2012 16:44 - John Abbott

Status:	Closed	**Start date:**	25 Sep 2012
Priority:	High	**Due date:**	
Assignee:	Anna Maria Bigatti	**% Done:**	100%
Category:	Documentation	**Estimated time:**	5.00 hours
Target version:	CoCoALib-0.99532	**Spent time:**	5.45 hours

Description			
The geobucket doc is very old and needs a major revision.			
Related issues:			
Related to CoCoALib - Feature #253: W.Bruns's wish list		**Closed**	**04 Oct 2012**

History

#1 - 04 Oct 2012 12:48 - John Abbott

Anna will add a clear example.

#2 - 05 Oct 2012 08:50 - Anna Maria Bigatti

- Status changed from New to In Progress

- % Done changed from 0 to 50

I made an example showing how to add one monomial at a time and comparing timings with standard "+=".

... "+=" is surprisingly slow, even on small polynomials where I expect it to be indeed faster than the geobucket sum. Needs investigation.

#3 - 05 Oct 2012 16:17 - Anna Maria Bigatti

I found the reason why "lhs+=f" is slow:
to guarantee **exception safety** it has to make a copy of lhs.
But, when f is just a monomial it is easy (well, a juggle with a few pointers) to make it exception safe.
So I wrote the function **myAddMonomial** to the class **DistrMPolyClean** and timings for "+=" are much much better.
Now I have to do it also for **DMPI** and **DMPII**.

I had forgotten how stressful it is to deal with memory and pointers....

#4 - 05 Oct 2012 17:42 - Anna Maria Bigatti

Improved all multivariate polynomials (using new function **myAddMonomial**)
Need some memory checking, just to make sure....

#5 - 08 Oct 2012 12:36 - John Abbott

Don't forget the **DEBUG2** setting available in autoconf.mk; it activates checking in MemPool managed memory, and may do most of what you want.

#6 - 28 Jan 2014 14:59 - Anna Maria Bigatti

- Status changed from In Progress to Feedback

- Target version set to CoCoALib-0.9953

- % Done changed from 50 to 90

#7 - 21 Mar 2014 14:29 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.9953 to CoCoALib-0.99532

#8 - 01 Apr 2014 19:37 - Anna Maria Bigatti

- Status changed from Feedback to Closed

- % Done changed from 90 to 100

#9 - 03 Apr 2014 11:51 - Anna Maria Bigatti

- Estimated time set to 5.00 h