CoCoALib - Feature #310

ordering and grading (weights) matrix

13 Feb 2013 11:57 - Anna Maria Bigatti

Status:	Closed	**Start date:**	13 Feb 2013
Priority:	Normal	**Due date:**	
Assignee:	Anna Maria Bigatti	**% Done:**	100%
Category:	Renaming	**Estimated time:**	5.30 hours
Target version:	CoCoALib-0.99534 Seoul14	**Spent time:**	3.10 hours

Description

We should have a function for accessing the matrix and the grading/weights matrix of a PPOrdering.

Now we have **GetMatrix** (I wrote it in 2004) but I do not like that name for many reasons: **OrderingMat**?
And the other? **WeightMat**? **GradingMat**?

2014-07 Choice was made: **OrdMat** and **GradingMat**

As PPOrdering is implemented now, these functions would be forced to make a new matrix (because some orderings do not have a matrix to reference).
We could store a **MatrixView** in all PPOrderings, but I think this is not a problem.

2014-07 this moved to a specific issue #602

Related issues:

Related to CoCoA-5 - Feature #78: Elim ordering and matrix ordering in CoCoA-5	**In Progress**	**16 Jan 2012**
Related to CoCoALib - Feature #174: IsStdGraded: add for PPOrdering, PPMonoid...	**New**	**01 Jun 2012**
Related to CoCoALib - Support #256: Improve doc about ordering/grading for po...	**Closed**	**08 Oct 2012**
Related to CoCoALib - Design #602: OrdMat: should it be a reference to a Mat...	**Closed**	**31 Jul 2014**

History

#1 - 29 Oct 2013 13:47 - Anna Maria Bigatti

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

#2 - 01 Apr 2014 19:14 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99532 to CoCoALib-0.99533 Easter14

#3 - 11 Apr 2014 17:56 - John Abbott

- Target version changed from CoCoALib-0.99533 Easter14 to CoCoALib-0.99534 Seoul14

#4 - 31 Jul 2014 13:52 - John Abbott

- Status changed from New to In Progress

- Assignee set to John Abbott

- % Done changed from 0 to 20

- Estimated time set to 5.30 h

We have chosen the name **OrdMat** (and mem fn called **myOrdMatCopy**). Also added this fn for PPMonoid and SparsePolyRing -- trivial one line defns.

Unresolved aspects:

- is this fn actually useful? Maybe **GradingMat** is more useful? (check where/how OrdMat is used!)
- we are considering putting a ConstMatrixView into every PPOrdering so this fn could simply return a reference to that (rather than make a dense copy)

Note: GradingMat can easily be simulated by submat(OrdMat(...),...) but you cannot get OrdMat from GradingMat.

#5 - 31 Jul 2014 13:54 - John Abbott

- Target version changed from CoCoALib-0.99534 Seoul14 to CoCoALib-1.0

Postponing to after Seoul as there are some unresolved aspects.

#6 - 31 Jul 2014 17:43 - Anna Maria Bigatti

- Status changed from In Progress to Resolved

- Assignee deleted (John Abbott)

- Target version changed from CoCoALib-1.0 to CoCoALib-0.99534 Seoul14

- % Done changed from 20 to 70

Renaming done: OrdMat, GradingMat (2014-07)

Moving the MatrixView proposal into another issue

#7 - 31 Jul 2014 17:49 - Anna Maria Bigatti

- Status changed from Resolved to Closed

- Assignee set to Anna Maria Bigatti

- % Done changed from 70 to 100