CoCoA-5 - Design #483

Unique copies of rings in CoCoA-5

19 Mar 2014 21:32 - John Abbott

Status:	New	Start date:	19 Mar 2014	
Priority:	Normal	Due date:		
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Assignee:		% Done:	0%	
Category:	CoCoA-5 function: new	Estimated time:	0.00 hour	
Target version:	CoCoA-5.?.?	Spent time:	0.25 hour	
Description				
If a user creates the same ring twice, should he get the exact same ring?				
Use QQ[x];				
f := x;				
Use QQ[x];				
g := x;				
f+g;> should this work?				
Currently, CoCoA-5 creates two distinct but "identical" rings, so f+g produces a MixedRings error. This is quite close to a nasty surprise.				
Related issues:				
Related to CoCoALib - Feature #482: Unique copies of rings smart ctor			In Progress	19 Mar 2014
Related to CoCoA-5 - Feature #274: InputForm for output readable as input			In Progress	20 Jun 2012
Related to CoCoA-5 - Feature #7: Automatic mapping between (some) rings			Resolved	20 Oct 2011
Related to CoCoALib - Feature #281: Store unique copy of FF(p) in GlobalManager			New	03 Dec 2012
Related to CoCoALib - Feature #390: Store unique copy of QQ[t_1t_n] (RingQQ			Closed	23 Jul 2013
Related to CoCoA-5 - Feature #18: Printing matrices: I/O unified style for Co			Closed	02 Nov 2011
Related to CoCoA-5 - Support #548: Printing rings with ID			Closed	06 May 2014
Related to CoCoA-5 - Design #646: Unique copies of free modules?			New	10 Nov 2014

History

#1 - 19 Mar 2014 21:37 - John Abbott

Conceptually this issue seems practically identical to #482.

Yet, I think they are slightly independent: if CoCoALib makes unique copies of rings then CoCoA-5 pretty much has no choice, **but** CoCoA-5 could make unique copies even if CoCoALib does not: *e.g.* CoCoA-5 maintains a global registry of rings, but CoCoALib does not.

To facilitate the porting of CoCoA-5 code into CoCoALib it is probably best that two adopt the same policy.

#2 - 02 Apr 2014 17:34 - Anna Maria Bigatti

- Target version set to CoCoA-5.1.0 Easter14

#3 - 04 Apr 2014 16:42 - John Abbott

- Target version changed from CoCoA-5.1.0 Easter14 to CoCoA-5.?.?