

## CoCoALib - Design #1422

### Remove flag IHaveGBasisValue?

25 Feb 2020 16:15 - Anna Maria Bigatti

<b>Status:</b>	In Progress	<b>Start date:</b>	25 Feb 2020
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Anna Maria Bigatti	<b>% Done:</b>	10%
<b>Category:</b>	Data Structures	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	CoCoALib-0.99880	<b>Spent time:</b>	0.40 hour
<b>Description</b> As often happens, storing twice an information may lead to problems. We have the fields IHaveGBasisValue and myGBasisValue. Currently we cannot have myGBasisValue not empty which is not a valid GBasis. So, what's the point in having IHaveGBasisValue?  Check well, and decide.			
<b>Related issues:</b>			
Related to CoCoA-5 - Bug #1420: IdealOfProjectivePoints and MinGens: problem ...		<b>Closed</b>	<b>18 Feb 2020</b>
Related to CoCoALib - Design #924: FlagManager for bool/bool3 flags		<b>New</b>	<b>19 Sep 2016</b>
Related to CoCoALib - Design #1255: Ideals with trivial GBasis		<b>New</b>	<b>11 Mar 2019</b>

### History

#### #1 - 25 Feb 2020 16:16 - Anna Maria Bigatti

- Related to Bug #1420: IdealOfProjectivePoints and MinGens: problem with CoCoA\_ASSERT added

#### #2 - 25 Feb 2020 16:16 - Anna Maria Bigatti

- Related to Design #924: FlagManager for bool/bool3 flags added

#### #3 - 25 Feb 2020 17:50 - John Abbott

Some notes:

- if the ideal is zero then the GBasis is empty (but correct)
- if our impl assumes that non-empty gbasis means that it is correct and complete then this must be clearly documented!

#### #4 - 25 Feb 2020 17:50 - John Abbott

- Related to Design #1255: Ideals with trivial GBasis added

#### #5 - 26 Feb 2020 11:30 - John Abbott

- Status changed from New to In Progress

**IMPORTANT** When the task is almost finished, we must review the impl of `SparsePolyRingBase::IdealImpl::myGBasis`.

#### #6 - 03 Nov 2021 20:07 - John Abbott

We should see who uses the flag IHaveGBasis.

Presumably it could be replaced by a function which returns true if the ideal is 0 or if myGBasisValue is not empty.

Is this an issue we can resolve quickly and easily... here "we" probably means Anna ;-)

**#7 - 28 Jan 2022 13:05 - Anna Maria Bigatti**

- Target version changed from CoCoALib-0.99800 to CoCoALib-0.99850

**#8 - 16 Feb 2024 17:56 - John Abbott**

- Target version changed from CoCoALib-0.99850 to CoCoALib-0.99880