

## CoCoALib - Design #871

### Redesign ideals

26 Apr 2016 15:01 - John Abbott

<b>Status:</b>	New	<b>Start date:</b>	26 Apr 2016
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>	Data Structures	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	CoCoALib-0.99880	<b>Spent time:</b>	0.00 hour
<b>Description</b>			
Review the design of ideals.			
Some points to bear in mind:			
<ul style="list-style-type: none"><li>• an ideal should probably be immutable -- any operation which would "change" the ideal should actually produce a new ideal</li><li>• while the main ideals are those in poly rings, I'd like the design to work also for ideals in ZZ (at least).</li></ul>			
<b>Related issues:</b>			
Related to CoCoALib - Bug #130: Design problem in ideals		<b>New</b>	<b>15 Apr 2012</b>
Related to CoCoA-5 - Bug #870: GBasis of product of ideals is wrong (Vadim Tr...		<b>Closed</b>	<b>26 Apr 2016</b>
Related to CoCoALib - Feature #665: Integrate Janet/Pommaret basis code		<b>In Progress</b>	<b>11 Feb 2015</b>
Related to CoCoALib - Design #550: add myResolution member field to ideal an...		<b>New</b>	<b>09 May 2014</b>
Related to CoCoALib - Feature #520: Compute inverse in quotient ring (i.e. di...		<b>Closed</b>	<b>04 Apr 2014</b>
Related to CoCoALib - Design #513: Quick/correct flag for bool3 fns		<b>In Progress</b>	<b>02 Apr 2014</b>
Related to CoCoALib - Design #455: Which sets of generators in an ideal?		<b>New</b>	<b>03 Mar 2014</b>
Related to CoCoALib - Feature #400: add myJBMill member field to ideal		<b>New</b>	<b>02 Aug 2013</b>
Related to CoCoALib - Feature #399: add myHilbertSeries member field to ideal...		<b>New</b>	<b>02 Aug 2013</b>
Related to CoCoALib - Design #316: submodule constructor different from ideal		<b>In Progress</b>	<b>20 Feb 2013</b>
Related to CoCoALib - Design #297: Modules design: brainstorming		<b>In Progress</b>	<b>25 Jan 2013</b>
Related to CoCoALib - Slug #120: LT over QQ: surprisingly slow		<b>New</b>	<b>03 Apr 2012</b>
Related to CoCoALib - Bug #114: Ideals of polynomials		<b>In Progress</b>	<b>26 Mar 2012</b>
Related to CoCoALib - Design #1767: Finalize design for ideals in CoCoALib		<b>In Progress</b>	<b>31 Oct 2023</b>

### History

#### #1 - 26 Apr 2016 15:01 - John Abbott

- Related to Bug #130: Design problem in ideals added

#### #2 - 26 Apr 2016 15:08 - John Abbott

- Related to Bug #870: GBasis of product of ideals is wrong (Vadim Tropashko) --> I.myReset() added

#### #3 - 26 Apr 2016 15:08 - John Abbott

- Related to Feature #665: Integrate Janet/Pommaret basis code added

#### #4 - 26 Apr 2016 15:09 - John Abbott

- Related to Design #550: add myResolution member field to ideal and (sub)module added

#### #5 - 26 Apr 2016 15:10 - John Abbott

- Related to Feature #520: Compute inverse in quotient ring (i.e. division in algebraic extn) added

#### #6 - 26 Apr 2016 15:10 - John Abbott

- Related to Design #513: Quick/correct flag for bool3 fns added

**#7 - 26 Apr 2016 15:10 - John Abbott**

- Related to Design #455: Which sets of generators in an ideal? added

**#8 - 26 Apr 2016 15:11 - John Abbott**

- Related to Feature #400: add myJBMill member field to ideal added

**#9 - 26 Apr 2016 15:11 - John Abbott**

- Related to Feature #399: add myHilbertSeries member field to ideal and (sub)module added

**#10 - 26 Apr 2016 15:11 - John Abbott**

- Related to Design #316: submodule constructor different from ideal added

**#11 - 26 Apr 2016 15:11 - John Abbott**

- Related to Design #297: Modules design: brainstorming added

**#12 - 26 Apr 2016 15:13 - John Abbott**

- Related to Slug #120: LT over QQ: surprisingly slow added

**#13 - 26 Apr 2016 15:13 - John Abbott**

- Related to Bug #114: Ideals of polynomials added

**#14 - 22 May 2017 14:11 - Anna Maria Bigatti**

- Target version set to CoCoALib-1.0

**#15 - 31 Oct 2023 11:19 - Anna Maria Bigatti**

- Related to Design #1767: Finalize design for ideals in CoCoALib added

**#16 - 31 Oct 2023 11:23 - Anna Maria Bigatti**

Original issue about the design of the ideal class: here we collect the many aspects we should consider for the final design.

**#17 - 31 Oct 2023 11:24 - Anna Maria Bigatti**

- Category set to Data Structures

- Target version changed from CoCoALib-1.0 to CoCoALib-0.99880

**#18 - 31 Oct 2023 11:24 - Anna Maria Bigatti**

- Description updated