

## CoCoALib - Design #1767

### Finalize design for ideals in CoCoALib

31 Oct 2023 11:19 - Anna Maria Bigatti

|  |                  |                        |                    |
|--|------------------|------------------------|--------------------|
| <b>Status:</b>   | In Progress      | <b>Start date:</b>     | 31 Oct 2023        |
| <b>Priority:</b>   | Normal           | <b>Due date:</b>       |                    |
| <b>Assignee:</b>   |                  | <b>% Done:</b>         | 10%                |
| <b>Category:</b>   | Data Structures  | <b>Estimated time:</b> | 0.00 hour          |
| <b>Target version:</b>   | CoCoALib-0.99900 | <b>Spent time:</b>     | 0.20 hour          |
| <b>Description</b>   |                  |                        |                    |
| Some functions for ideals are internally implemented changing the given ideal and <b>returning void</b> : myAdd, myMul, myElim, ...  |                  |                        |                    |
| For these functions I think we should instead have 2 arguments and return an ideal.<br>I cannot imagine (but I might be wrong) a case in which we actually want to <b>modify</b> the ideal and destroy the original. |                  |                        |                    |
| <b>Related issues:</b>   |                  |                        |                    |
| Related to CoCoALib - Design #871: Redesign ideals   |                  | <b>New</b>             | <b>26 Apr 2016</b> |
| Related to CoCoALib - Design #1326: Modify function myElim so that it returns...   |                  | <b>Closed</b>          | <b>03 Oct 2019</b> |

### History

#### #1 - 31 Oct 2023 11:19 - Anna Maria Bigatti

- Related to Design #871: Redesign ideals added

#### #2 - 04 Jan 2024 10:18 - John Abbott

Also for *exception cleanliness*, an operation such as  $I += J$  would almost certainly have to compute a temporary ideal containing  $I+J$ , and then if that succeeds, swap it into the correct place. This means that there no benefit in offering a low-level implementation for  $+=$ .

Can we change the implementation quickly & easily?

#### #3 - 15 Jan 2024 19:25 - John Abbott

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

#### #4 - 08 Mar 2024 17:26 - John Abbott

- Target version changed from CoCoALib-0.99850 to CoCoALib-0.99900

#### #5 - 15 Mar 2024 16:50 - Anna Maria Bigatti

- Related to Design #1326: Modify function myElim so that it returns ideal? (not quite) added