# CoCoALib - Feature #257

## Transcribe C4 code for GCD in QQ[x]

09 Oct 2012 15:36 - John Abbott

| | | | |
|---|---|---|---|
| **Status:** | New | **Start date:** | 09 Oct 2012 |
| **Priority:** | Normal | **Due date:** | |
| **Assignee:** | | **% Done:** | 0% |
| **Category:** | | **Estimated time:** | 0.00 hour |
| **Target version:** | CoCoALib-1.0 | **Spent time:** | 0.00 hour |

**Description**

The old CoCoA-4 univariate GCD code should be transcribed into CoCoALib.

It comprises:

- gcd in Fp[x] via standard euclidean algorithm.
- Removal of content.
- Leading coeff handling.
- Optional reversal trick.
- chinese remaindering of many modular images
- heuristic stopping criterion & check
- final content correction

Why not use Hensel?

**Related issues:**

| | | |
|---|---|---|
| Related to CoCoA-5 - Support #242: CoCoA-5 Projects for students (e.g. credit... | **In Progress** | **28 Sep 2012** |
| Related to CoCoALib - Feature #127: Convert DUPFF code to C++ | **In Progress** | **05 Apr 2012** |
| Related to CoCoALib - Slug #952: GCD very slow | **Closed** | **25 Oct 2016** |
| Related to CoCoA-5 - Slug #480: gcd too slow for large degree univariate poly | **New** | **18 Mar 2014** |

### History

**#1 - 01 Aug 2014 08:59 - Anna Maria Bigatti**

*- Target version set to CoCoALib-1.0*

**#2 - 24 Nov 2016 13:23 - John Abbott**

*- Related to Feature #127: Convert DUPFF code to C++ added*

**#3 - 24 Nov 2016 13:23 - John Abbott**

*- Related to Slug #952: GCD very slow added*

**#4 - 24 Nov 2016 13:24 - John Abbott**

*- Related to Slug #480: gcd too slow for large degree univariate poly added*