

# CoCoA-5

|  | 2024-10 |    |    |    | 2024-11 |    |    |    | 2024-12 |    |    |    | 2025-1 |   |   |   | 2025-2 |   |   |   | 2025-3 |    |    |    |
|--|---------|----|----|----|---------|----|----|----|---------|----|----|----|--------|---|---|---|--------|---|---|---|--------|----|----|----|
|  | 41      | 42 | 43 | 44 | 45      | 46 | 47 | 48 | 49      | 50 | 51 | 52 | 1      | 2 | 3 | 4 | 5      | 6 | 7 | 8 | 9      | 10 | 11 | 12 |
| CoCoA                                      | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| CoCoA-5                                    | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| CoCoA-5 - CoCoA-5.1.0 Easter14             | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Printing matrices: I/O unified (...)       | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Default reason for protected variables     | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| CoCoAManual: Doc for new commands          | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| TeX documentation for CoCoA-5              | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| CoCoAManual: entries for operators         | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| add modules and module operations          | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| describe \$package                         | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| HilbertBasis: cocoa vs normaliz            | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Normaliz functions not available (...)     | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| BuiltInFunctions: more flexible (...)      | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| How to obtain an integer from a (...)      | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| CoCoAManual: entry for "and", "or", (...)  | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Remove/replace the word "vector" (...)     | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| New function: IsZeroDivisor                | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| implement LF/DF for an ideal               | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| write documentation for TgCone (...)       | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Emacs User Interface: Easier binding (...) | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| IsZero for matrix                          | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Naming conventions: upper or lower (...)   | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Resurrect Relnotes()                       | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| New fn to increase max recursion (...)     | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| FloatStr                                   | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Emacs UI: C-c C-e does not ignore (...)    | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| CoCoA-5.0.3 Microsoft std::bad_alloc       | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |
| Emacs UI: updating abbrev-table            | CoCoA-5 |    |    |    |         |    |    |    |         |    |    |    |        |   |   |   |        |   |   |   |        |    |    |    |

**Emacs UI: semicolon problems**  
**Make man page for "It" easier to (...)**  
**Emacs UI: cocoa5-close-block should (...)**  
**Nested multiline comments**  
**Record keyword**  
**Multiline string literals - useful (...)**  
**Eliminate package approx**  
**Multiline comments -- obsolescent?**  
**CoCoAManual: Doc for strings**  
**Emacs UI: installation on Mac OS (...)**  
**CoCoAManual: add page about creating (...)**  
**New fn/object type: timer**  
**submodule: minimalize, minimalized**  
**SyzOfGens (CoCoA-5) does not have (...)**  
**EmacsUI: lower case keywords**  
**Naive version of resolution and (...)**  
**New package: OBSOLESCE**  
**Remove float.cpkg5**  
**CoCoAManual: improve part on data-types**  
**sorted gives wrong answer sometimes**  
**CoCoAManual: improve part on language**  
**CoCoAManual: semi-automatic check (...)**  
**Release: CoCoA-5.1.0**