

# Custom-numbered-blocks Example

## 1 Custom blocks and crossreferencing

With this filter, you can define custom div classes (environments) that come with numbering, such as theorems, examples, exercises. The filter supports output formats pdf and html.

### Feature 1.1: Numbering

Numbering is (currently) within section for single documents, or within chapter for books. Grouped classes share the same counter, and the same default style.

Numbered custom blocks can be cross-referenced with `\ref`.

Default numbering can be switched off for the whole class by setting the `numbered` to false, or for an individual block by adding the class `unnumbered`.

Crossreferences may need a re-run to update.

### DONE is Done :-) 1.1

mock done

### Feature 1.2: Block box style

The default style for custom divs is `foldbox`: a collapsible similar to quarto's callouts, with a collapse button at the bottom that makes it easier collapse long boxes, and box open to the right. It comes with the variant `foldbox.simple`, with closed box and no additional close button. (needs a fix for the moment)

### To do 1.2: Custom styles

- ☐ create an API for user defined block styles
- ☐ provide an example

□ and documentation

### To do 1.3: Custom list of blocks

Make lists of selected block classes available as `qmd`, optionally intermitted with headers from the document for easy customization and commenting. This way, one could make a list of all definitions, examples, or {theorems, propositions and lemmas} etc.

## 2 Pseudomath examples

### Definition 2.1: Fancybox

A box is called *fancybox* if it looks quite fancy.

In this context, by *fancy* we mean that the title of the box appears as a clickable button when rendered as html, where *clickable* implies that it throws a small shadow that becomes bigger when hovering over it.

### Corollary 2.2

By Definition ??, `foldboxes` are fancyboxes.

Needs fix: ref filter does not crawl into divs yet.

### Conjecture 2.3

Students are lured into clicking on the title and unfolding the fancybox.

### Theorem 2.4

This extension has been written by a teacher who hopes that students read the course notes...

Theorem 2.4 is suggested by Conjecture 2.3, but it cannot be proven theoretically. It does give rise to more conjectures, though.

### Conjecture

The teacher mentioned in Theorem ?? is a statistician who got addicted to quarto due to James J Balamuta's web-r extension, and desperately wanted to have a common counter for theorem and alike. She got also convinced that everything is possible in quarto by the many nice extensions from Shafayet Khan Shafee.