A gentle intro to `ccool` for LaTeX

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2020/04/15

Abstract

Breaking down the example in the abstract of the package's doc[1]

Let's say we want to typeset:

"Let $\mathbb{N}$ and $\mathbb{R}$ denote the natural and real numbers."

There are at least four ways to do it:

i)
```
Let~$\mathbb{N}$ and $\mathbb{R}$ denote the natural and
↪ real numbers.
```

ii)
```
\NewDocumentCommand\Nat{}{\mathbb{N}}
\NewDocumentCommand\Real{}{\mathbb{R}}
Let~$\Nat$ and $\Real$ denote the natural and real
↪ numbers.
```

iii)
```
\Ccool i{\mathbb{#1}}{ Nat = N, Real = R }
Let~$\Nat$ and $\Real$~denote the natural and real
↪ numbers.
```

iv)
```
\Ccool[Let~]
i{\mathbb{#1}}{ Nat = N, Real = R }*s{{~\rm{and}~}}
[~denote the natural and real numbers.]{}
```

Way *i)* is prone to errors, should the author change `\mathbb{R}` to `\mathcal{R}` throughout the document. Way *ii)* corrects that, as the change need only be made in place. Also, it has the advantage that it attaches a meaning (real numbers) to the macro created, by naming it accordinly (`\Real`), which should help getting one's hand (a collaborator, or the same author revisiting it when he has forgotten about it) with the source file. The advantage of way *iii)* over way *iv)*, is that it is less verbose, and, in this case, that it eliminates the redundancy of `\mathbb`. By expanding the macro definitions (`\Real`) as they are made (as instructed by `*`), way *iv)* allows to make them blend with the text, which some authors may find desirable.

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NB: The features covered are not exhaustive.

This document was generated using 2020/04/15 v2.0 cool — A tool for encoding mathematical notation.

References

[1] Erwann Rogard. *The* `ccool` *package*. 2020. URL: `https://github.com/rogard/ccool`.