

The mkessler-mathalias package

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Abstract

Lazy people prefer to write stuff like \mathbb{Z} , \mathbb{Q} to get the integers \mathbb{Z} and rationals \mathbb{Q} . They also often use shortcuts like \mathbf{A} for \mathbf{A} . While the author does not encourage such usage, this package provide a general syntax to generate such aliases.

1 (Don't) be lazy

You actually should *not* use this package. This is poor L^AT_EX style. In case you don't care, or you must, because your co-workers do so, this package is for you.

The author personally uses **Vim** and the **UltiSnips** plugin to facilitate L^AT_EX writing whilst producing a clean document without those poor shortcut styles. So in fact, *be* lazy, but do it the proper way.

If you are, however, lazy, then put

```
\usepackage[extended]{mkessler-mathalias}
```

in your preamble.

2 Aliases

`\MakeAliasesForWith` `\MakeAliasesForwith{<macro>}{<shortcut>}{<token list>}`

For each $\langle token \rangle$ in the $\langle token list \rangle$, this declares “ $\langle shortcut \rangle \langle token \rangle$ ” as an abbreviation for “ $\langle macro \rangle \langle token \rangle$ ”.

T_EXhackers note: In L^AT_EX3 syntax, this function would have signature `Nnn`, so give the $\langle macro \rangle$ as a single token directly.

T_EXhackers note: Technically, the $\langle token list \rangle$ can contain any tokens that are fully expandable and thus accepted by `\csname ... \endcsname`. However, as you want *shortcuts*, you would typically invoke this with tokens of category code 12.

As an example,

```
\MakeAliasesForWith\mathcal{c}{ABC}
```

would define the three macros `\cA`, `\cB` and `\cC` to expand to \mathcal{A} , \mathcal{B} and \mathcal{c} , respectively.

3 Options for default aliases

There are two options:

basic This declares `\C`, `\F`, `\K`, `\N`, `\Q`, `\R` and `\Z` to expand to the `\mathbb` variants of these letters.

extended Implies option **basic**. Also defines shortcuts for `\mathbb`, `\mathfrak` and `\mathcal` for each capital arabic letter with the prefixes “b”, “f” and “c”, respectively.

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