

# The mathcomp package for using Text Companion fonts in math mode \*

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## 1 Purpose

It always bothered me that I had to write the unit ‘ $\mu\text{m}$ ’ with an italic ‘ $\mu$ ’. There is a ‘ $\mu$ ’ in the Text Companion (TC) fonts, and it’s available in most of the font families, shapes and series. The `textcomp` package provides access to the TC fonts from L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>. But I wanted to use some of these fonts in math mode, so I decided to write a package to achieve this goal.

Most of the characters don’t make sense in math mode or they are already present in the standard math fonts. The useful ones are:

<code>\tcohm\$</code>	$\Omega$	<code>\tcpertousand\$</code>	$\text{‰}$
<code>\tccelsius\$</code>	$^{\circ}\text{C}$	<code>\tcpertenthousand\$</code>	$\text{‰‰}$
<code>\tcmu\$</code>	$\mu$	<code>\tcdegree\$</code>	$^{\circ}$
<code>\tcdigitoldstyle{0}\$</code>	o ...	<code>\tcdigitoldstyle{9}\$</code>	9

The names for the symbols are the same as in the `textcomp` package except that you have to type `\tcsymbol-name` instead of `\textsymbol-name`. The oldstyle digits are defined in a different way, see section ?? . `\tccelsius` is also available with the name `\tccentigrade`, for the sake of compatibility with earlier versions of the `textcomp` and `mathcomp` packages.

Additionally, the `mathcomp` package will redefine the macros `\dagger` and `\ddagger` so as to take their symbols from the text companion fonts, thus also making sure that the symbols produced by `\fnsymbol` will always match the text font family.

The extra math symbols are made available for math versions ‘normal’ and ‘bold’, provided that a ‘bold’ math version is actually defined.

The default behaviour of the `mathcomp` package is to use the text companion fonts from the font family CM Roman. Any other text font family can be specified as a package option; e.g., say `\usepackage[pp1]{mathcomp}` to make `mathcomp` use the Adobe Palatino (pp1) text companion fonts. The option `rmdefault` is special: It makes the `mathcomp` package load the particular font family which has been chosen as the default roman font family (`\rmdefault`) for the document, whatever it is.

The package is based on the `textcomp` package<sup>1</sup> by Sebastian Rahtz. This package is required because I didn’t want to declare the font encoding TS1 once again.

The `mathcomp` package is preliminary because both the TS1 encoding and the `textcomp` package might change in the future.

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\*Preliminary version v0.1f

<sup>1</sup>Ver. 1.4, 1995/12/11