

# mcode.sty Demo

Florian Knorn, [florian@knorn.org](mailto:florian@knorn.org)

June 22, 2020

## NOTE — BEFORE YOU START

All that this package does is to configure the `listings` package for you. If anything is not working the way you want it, refer to the `listings` documentation first and / or take a look at the `mcode.sty` file itself, which is well documented internally.

The `listings` documentation can be accessed either by typing `texdoc listings` into a command prompt on your system, or online:

<http://mirrors.ctan.org/macros/latex/contrib/listings/listings.pdf>

## Installation of the package

As with any other small package, just place the `mcode.sty` file in the same folder as your document, or put it somewhere where L<sup>A</sup>T<sub>E</sub>X can find it. Done!

## Usage — 3 ways

1) This inline demo `for i=1:3, disp('cool'); end;` uses the `\mcode{}` command.<sup>1</sup>

2) The following is a block using the `lstlisting` environment.

---

<sup>1</sup>Works also in footnotes: `for i=1:3, disp('cool'); end;`

```

1  for i = 1:3
2      if i ≥ 5 && a ≠ b          % literate programming replacement
3          disp('cool');          % comment with some  $\pi x^2$ 
4      end
5      [:,ind] = max(vec);
6      x_last = x(1,end) - 1;
7      v(end);
8      really really long really really long really really long ...
          really really long really really long line % blaiaaaaaaa
9      ylabel('Voltage ( $\mu V$ )');
10 end

```

Note: Here, the package was loaded with the `framed`, `numbered`, `autolinebreaks` and `useliterate` options. **Please see the top of `mcode.sty` for a detailed explanation of these options.**

3) Finally, you can also directly include an external m-file from somewhere on your hard drive (the very code you use in MATLAB, if you want) using the `\lstinputlisting{/SOME/PATH/FILENAME.M}` command. If you only want to include certain lines from that file (for instance to skip a header), you can use `\lstinputlisting[firstline=6, lastline=15]{/SOME/PATH/FILENAME.M}`.

## FAQ

**Why does delta get replaced by  $\Delta$ ,  $\sim$  by  $\neq$ , etc.?** Well, that's precisely what the `useliterate` option does. If you don't want that, don't use it.

**Can I get contiguous line numbers from one code block to another?**

Yes, but you have to read the `listings` documentation for that (Section 4.8 in particular).

**`mcode.sty` doesn't work in my document!** Well, try your (Matlab) code fragment in this demo document here to see whether there's something in it that might be causing a problem (not so likely, but possible), or if there's some conflict between the `listings` package and some other package you have loaded.

**Is feature XYZ possible?** Well, the `listings` package might already be able to do that. Please consult its documentation (see red box at the top)!