

# Emacs

Emacs is a text editor from the mid 70's by Richard Stallman. Ported to Mac, Windows, Linux... and works basically the same way on all systems. Though, derivatives may have custom behavior, eg Aquamacs for Mac, or EmacsW32 for Windows. Emacs is open free software.

- Starting Emacs (or Aquamacs)

Start Emacs either by

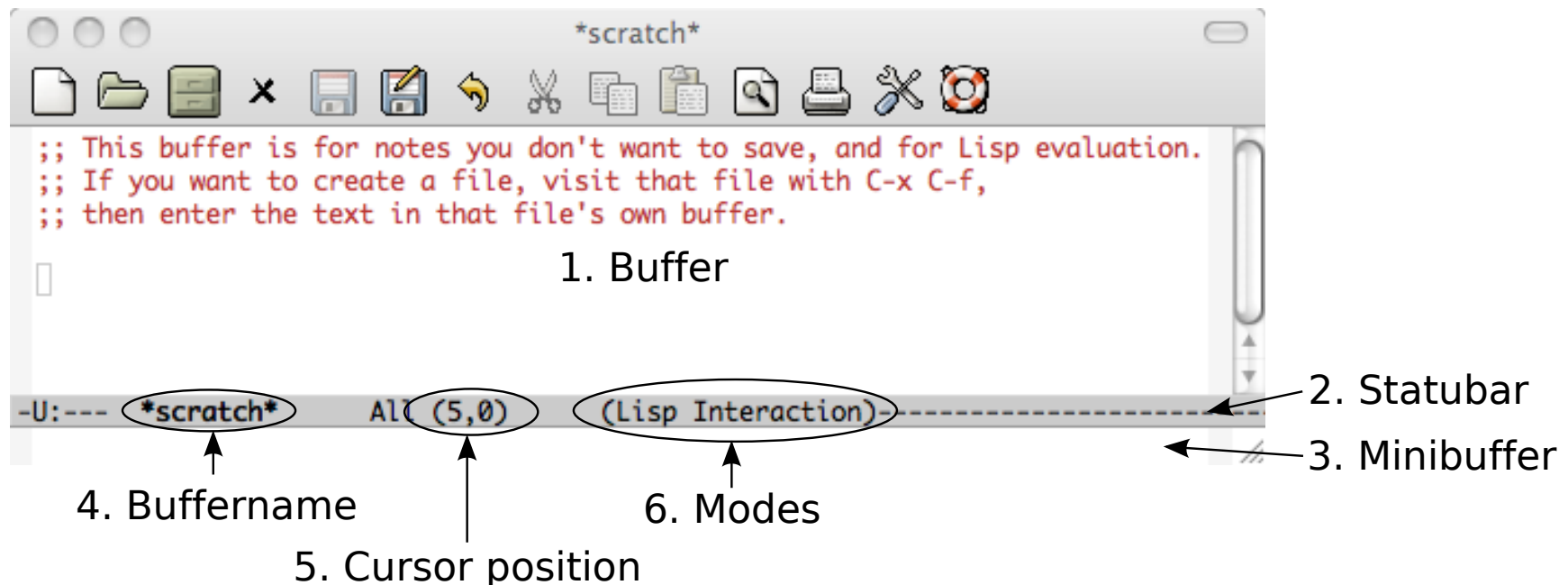
- typing the command `emacs` on a command-line,
- typing `emacs ARG` where `ARG` is a path to a file to be opened, or
- starting it from Finder under the Applications folder.

After starting a startup screen with various information will be displayed, pressing `q` in this window will get rid of it.

- The Emacs Window

In addition to the usual toolbar at the top of the Emacs window, notice

1. the *buffer* where you can write texts/programs etc,
2. the *statusbar* shows condensed info about the buffer immediately above it, and
3. the *minibuffer* which Emacs uses to request information. Even when using the menubar or toolbar buttons it can ask for input in the minibuffer. The keyboard shortcut C-g will quit any interaction in the minibuffer.



In the statusbar

4. the buffer's name, often filename, will be displayed,
5. the position of the caret (`row,col`), and
6. what mode is currently used.

The statusbar also shows if the buffer is saved etc.

- Modes

A mode adapts the editor's behaviour. It can be set automatically when opening a file depending on the file type. Emacs can also be forced to change mode by typing a command in the minibuffer, eg

`M-x python-mode`

will change the current buffer's mode so Emacs will assist in python programming.

- Commands, M-x

Emacs can also, apart from the menu- and toolbar, be controlled by issuing commands in the minibuffer. Press the keyboard shortcut M-x followed by a COMMAND. M- is the <alt>-key on our Macs, and corresponds eg to the `esc`-key on other systems.

N.B. The ordinary Mac <cmd>-X shortcuts etc do not work when running Emacs on our Macs.

Two really important commands

M-x `doctor` and M-x `tetris`

Jokes aside, using Emacs one will some day need to issue commands using M-x COMMAND.

The minibuffer can be <TAB>-completed...eg

M-x <TAB><TAB><TAB>...

- Keyboard Shortcuts

Emacs is known for its numerous keyboard shortcuts.

Please review some examples for common shortcuts in the attached PDF documents.

Again, the ordinary Mac `<cmd>-X` shortcuts etc do not work. Remember `M-` is the `<alt>`-key and `C-` is the `<ctrl>`-key.

N.B. Some keyboard shortcuts will ask for input in the minibuffer, eg `C-x C-f` will ask for a filename.

- Python Programming in Emacs

When writing Python programs, make sure that the mode is set to Python, which will give you

- the Python menubar,
- syntax highlighting, and
- Python indentation etc.

To run a Python program inside Emacs, type the keyboard shortcut `C-c C-c` and view the buffer `*Python*` using the buffer management shortcuts above.

## TextMate

TextMate is a text editor like Emacs, but Macified, developed by the company Macromates. Works on MacOS X only. Also, TextMate is closed proprietary software that comes with a small fee. Though, it's free to develop plug-ins/bundles.

- Starting TextMate

Start TextMate either by

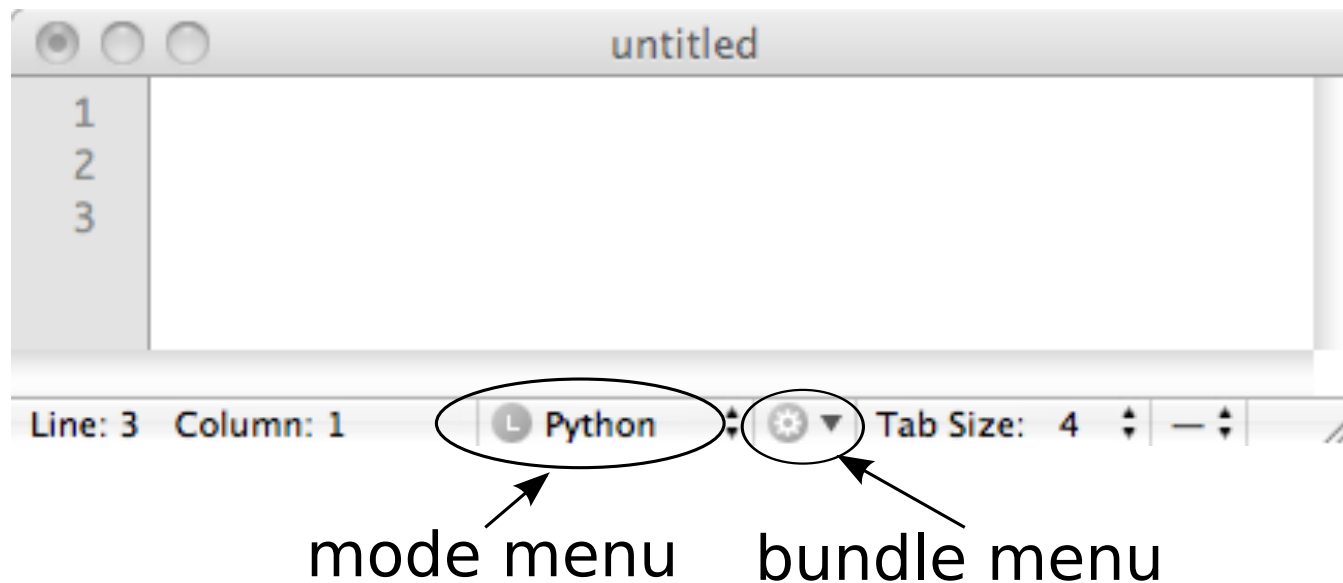
- typing the command `mate` on a command-line (`ln -s /Applications/TextMate.app/Contents/Resources/mate /usr/local/bin/mate`),
- typing `mate ARG` where `ARG` is a path to a file to be opened, or
- starting it from Finder under the Applications folder.

After starting the program, a startup screen with various information will be displayed. You can close this window.

- The TextMate Window

In addition to the usual menubar at the top and the document area where you can write texts/programs, please notice

1. the *mode menu* for changing mode, and
2. the *bundle menu* for running misc commands.





- Python Programming in TextMate

When writing programs in Python, please make sure that the mode menu is set to Python which will give you

- syntax highlighting, and
- Python indentation etc.

To run a Python program inside TextMate, you press the Apple keyboard shortcut `<cmd>-R`.

## Refs

<http://www.gnu.org/software/emacs/>

<http://en.wikipedia.org/wiki/Emacs>

<http://manual.macromates.com/en/>