

# Setting up Haskell Mode for Emacs

## 1 Note to Windows Users

Depending on Windows setup, you may see the error “zlib library not found”. This library is not required for `haskell-mode` and may be ignored.

## 2 Correct Emacs Version

The Emacs package `haskell-mode` only works for version of Emacs 24.3 or higher. To ensure you have a compatible version of emacs open the text editor and inspect the version number, anything  $\geq 24.3$  will be sufficient. If the welcome splash screen is not open the version can be found by running the command `M-x version` (for how to do this see section 1.1).

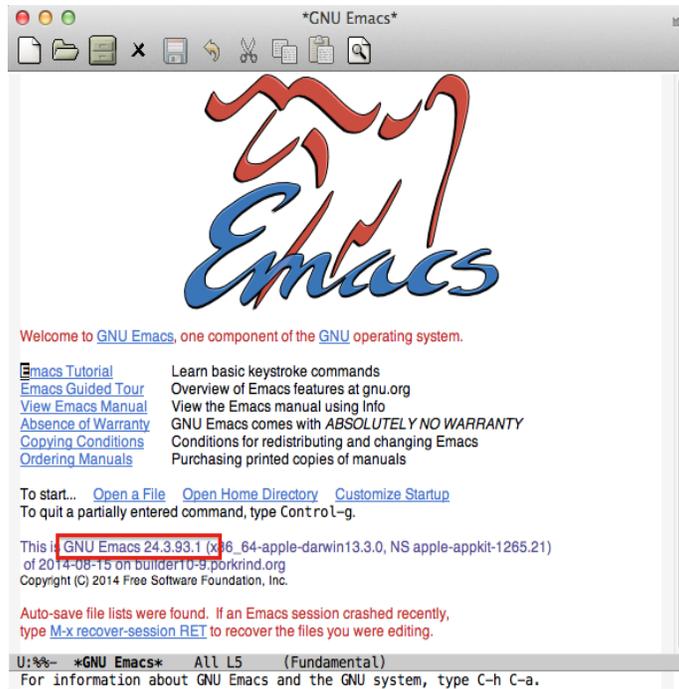


Figure 1: Finding Emacs version via splash screen

## 2.1 Running Emacs commands

Emacs can be manipulated by entering extended commands as well as through key combinations. The term `M-x` corresponds to pressing `x` while the `Alt` key is held. This will switch focus to the mini-buffer (the tiny text-box at the bottom), from here commands can be directly entered. The key combination `C-g` (pressing `g` while holding `control`) will cancel any partially entered command and return focus back to the main buffer.

To find the version number type `version` into the mini-buffer after pressing `M-x` and hit enter.

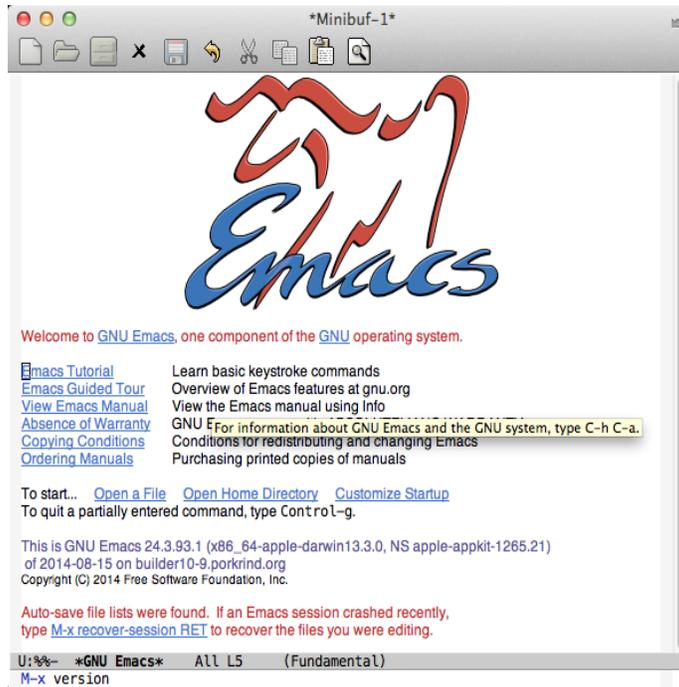


Figure 2: Finding Emacs version via extended command

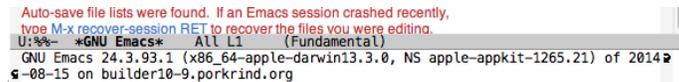


Figure 3: Emacs version

### 3 Finding your init file

In order to download `haskell-mode` and configure it to load automatically you will first need to find and (create/edit) the emacs initialisation file.

To do this open Emacs and press the key command `M-:`, that is, pressing colon while the Alt key is held. A prompt will appear at the bottom of the screen, enter `(find-file user-init-file)` exactly (including parentheses) and press Enter.

This command will open a buffer (file) that allows you to customise Emacs. This file may be empty if you are new to Emacs, or contain commands already. In either case this is fine.

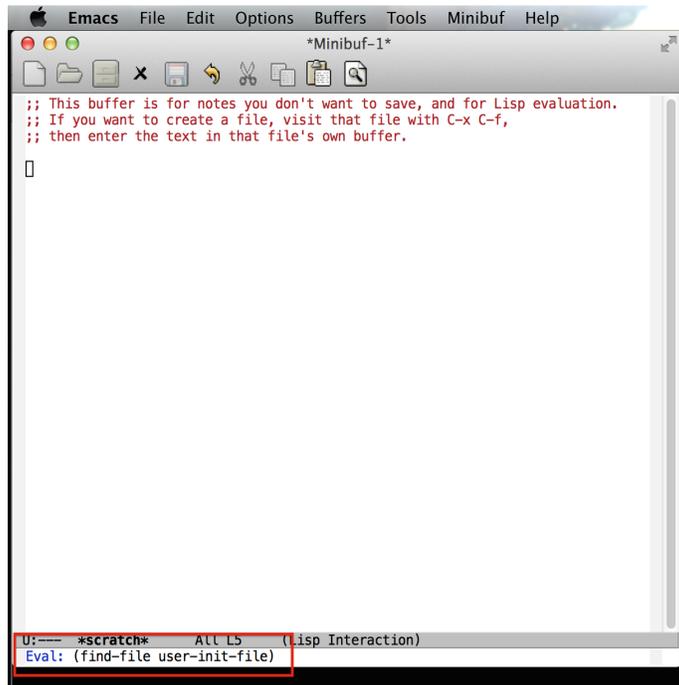


Figure 4: Entering find-file command

Above shows Emacs prior to executing the command. If the main window contains a different file (such as the Emacs splash screen), this is fine. The only important part is the mini-buffer at the bottom, outlined in red.

After executing the command Emacs will open a new buffer into which you will copy all the code from the supplied text file `haskell-setup.txt`. Copying and pasting in Emacs is bound to different keys, for simplicity highlight the code and copy using the menu item, then paste also using the menu item. The following picture indicates the copy/paste buttons and the state of the buffer after correctly pasting the code.

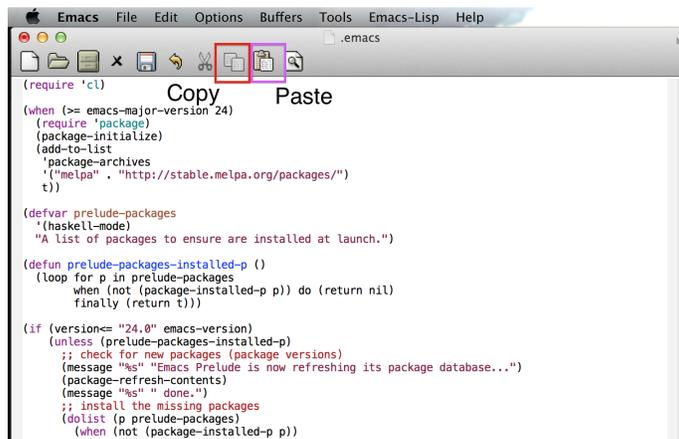


Figure 5: Entering configuration code

If the file already contains code, enter the new commands at the top of the file. Once this has been entered, save the file using `C-x C-s`. `C` is mapped to the `Ctrl` key in Windows, Linux, and Mac OS X; and the fact that two key combinations are given separated by space means that you need to press `C-x` and then `C-s`, in separate keystrokes.

Now all is left is to close Emacs and re-open it. The new configuration code should cause Emacs to download `haskell-mode`, install it and add hooks to automatically start when you open a file ending in `*.hs`. The first time you open Emacs it will be slow while it downloads the package and installs it, this is normal and just requires you to wait for it to finish.

To test your setup open a haskell file and execute key bindings `C-c C-l` to launch a `ghci` buffer within Emacs. If you have followed the instructions correctly and Haskell is installed on your machine this should look something like below (ignore the colour changes and code in the file).

The image shows a screenshot of an Emacs window titled "hello-haskell.hs". The window contains a Haskell program snippet: `main = print "Hello from Emacs!"`. Below the code, the Emacs interface displays the output of the program, which is "Hello from Emacs!". The window also shows the Emacs command line and the Interactive-Haskell Helm help text, which includes instructions on how to restart the process, configure logging, and hide debug tips. The window title bar shows "hello-haskell.hs" and the Emacs status bar shows "Haskell Ind Interactive Helm Doc 8:57pm 1 : 12 All".

```
main = print "Hello from Emacs!"

- hello-haskell.hs  Haskell Ind Interactive Helm Doc 8:57pm 1 : 12 All
Your wish is my IO ().
If I break, you can:
 1. Restart:           M-x haskell-process-restart
 2. Configure logging: C-h v haskell-process-log (useful for debugging)
 3. General config:   M-x customize-mode
 4. Hide these tips:  C-h v haskell-process-show-debug-tips
Changed directory: /Users/jackw/emacs-cfg/
λ>

* *haskell*  Interactive-Haskell Helm 8 : 3 All
print :: Show a => a -> IO ()
```

Figure 6: Hello Haskell!