

# NobbZ-Emacs Configuration

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## 1 Foreword

A properly rendered version of this document is available at the following places:

**PDF** <https://nobbz.github.io/emacs.d/settings.pdf>

**HTML** <https://nobbz.github.io/emacs.d/settings.html>

This file is massively inspired/shamelessly stolen from the one shown at <https://ogbe.net/emacsconfig.html>

Before this file is actually loaded the following `init.el` is executed.

```
;; NobbZ init.el
;; Real stuff happens in =settings.org=

(require 'package)
(setq package-archives
  '(("gnu" . "https://elpa.gnu.org/packages/")
    ("melpa" . "https://melpa.org/packages/")
    ("org" . "http://orgmode.org/elpa/")))
```

```

(when (boundp 'package-pinned-packages)
  (setq package-pinned-packages
        '((org . "org"))))
(package-initialize)
(unless (package-installed-p 'use-package)
  (package-refresh-contents)
  (package-install 'use-package))

(eval-when-compile
  (require 'use-package))

;; Set the load path
(add-to-list 'load-path "~/.emacs.d/lisp/")
(add-to-list 'load-path "~/.emacs.d/vendor/org/lisp")

;; Moved all the custom.el stuff into its own file called
;; ~/.emacs.d/customize.el=
(setq custom-file "~/.emacs.d/customize.el")
(load custom-file)

(setq hostname
  (replace-regexp-in-string "\\['[ \\t\\n]*" ""
    (replace-regexp-in-string "[ \\t\\n]*\\'" ""
      (shell-command-to-string "hostname"))))

(require 'org)
(deface org-block-begin-line
  '((t (:foreground "#99968b" :background "#303030")))
  "Face used for line delimiting the begin of source blocks.")

(deface org-block-end-line
  '((t (:foreground "#99968b" :background "#303030")))
  "Face used for line delimiting the end of source blocks.")

(org-babel-load-file "~/.emacs.d/settings.org")

```

The structure of the loading sequence as it is today can be seen in figure 1, while the planned way to load can be found in figure 2.



Figure 1: Current file loading structure

## 2 Helpers

Small little helpers which make it easier to live-reload the config:

```
(defun reload-settings ()  
  (interactive)  
  (org-babel-load-file "~/.emacs.d/settings.org"))  
(defun settings ()  
  (interactive)  
  (find-file "~/.emacs.d/settings.org"))
```

## 3 Packages

```
(setq package-list '(use-package framemove htmlize))  
  
;; (unless package-archive-contents  
;;   (package-refresh-contents))  
  
(dolist (package package-list)
```

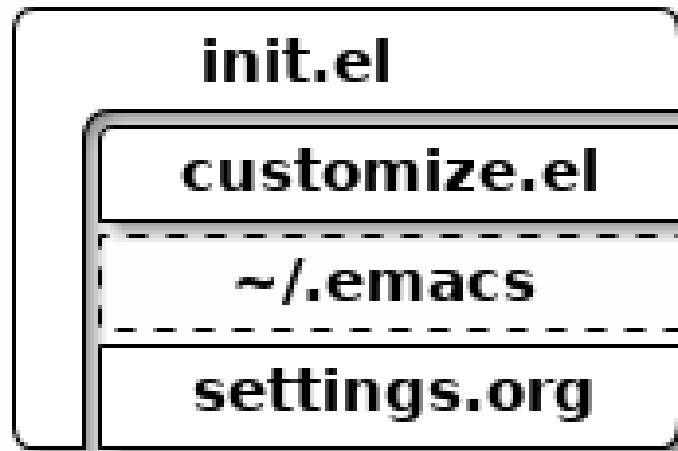


Figure 2: Planned file loading structure

```
(unless (package-installed-p package)
  (package-install package))

(use-package framemove)
```

### 3.1 which-key

`which-key` provides a minor mode, that displays the key bindings following your currently entered incomplete command in a pop up.

<https://github.com/justbur/emacs-which-key>

#### 3.1.1 Install and load

```
(unless (package-installed-p 'which-key)
  (package-install 'which-key))
(require 'which-key)
(which-key-mode)
```

### 3.1.2 Configuration

1 second is a very long delay, I do think that about a tenth of a second is enough.

```
(setq which-key-idle-delay 0.1)
```

### 3.1.3 Key-chords

`which-key` does not have any key-chords on its own, but I will enter some global stuff here.

```
(which-key-add-key-based-replacements  
  "C-x C-f" "Open file"  
  "C-x C-s" "Save file")
```

## 4 TODO Security

## 5 Appearance, UI Elements, and the Emacs server

First start a server and then set some important appearance settings. Note that some of the settings are in `init.el`.

### 5.1 The server

Start the server if not already running.

```
(load "server")  
(unless (server-running-p) (server-start))
```

When connected to a server using `emacsclient`, we want to kill the client using `C-x k`, the way it seems natural.

```
(add-hook 'server-switch-hook  
  (lambda ()  
    (when (current-local-map)  
      (use-local-map (copy-keymap (current-local-map))))  
    (local-set-key (kbd "C-x k") 'server-edit)))
```

## 5.2 Appearance

### 5.2.1 Theme & Faces

```
(load-theme 'wheatgrass) ;; A nice dark theme
(set-face-attribute 'default nil :height 100) ;; 10pt font height
(set-face-attribute 'default nil :family "Consolas")
(set-face-attribute 'fringe nil :background "#2d2d2d")
(set-face-attribute 'font-lock-comment-face nil :slant 'italic :weight 'semibold)
;; (set-fontset-font "fontset-default" 'unicode "DejaVu Sans Mono for Powerline")

(global-hl-line-mode t)
```

### 5.2.2 UI Elements

Get rid of that ugly disturbing stuff no one needs

```
(menu-bar-mode -1)
(when (display-graphic-p)
  (tool-bar-mode -1)
  (scroll-bar-mode -1))
```

### 5.2.3 Welcome Screen

We also want to get rid of the splash screen and start into home directory.

```
(setq inhibit-startup-message t)
(setq inhibit-splash-screen t)
(setq initial-scratch-message nil)
(setq initial-buffer-choice "~/")
```

### 5.2.4 TODO Window Geometry

### 5.2.5 TODO Scrolling

I need to find out how to let emacs behave as with spacemacs smooth-scrolling setting.

## 6 Pathes

### 6.1 Autosave and Backup

Autosaves directly beneath the edited files do clutter up the sourcetree. Instead let's throw them inside ~/tmp/.

```

(defvar backup-dir (expand-file-name "~/tmp/emacs_backup/"))
(defvar autosave-dir (expand-file-name "~/tmp/emacs_autosave/"))

(setq backup-directory-alist (list (cons ".*" backup-dir)))
(setq auto-save-list-file-prefix autosave-dir)
(setq auto-save-file-name-transforms `((".*" ,autosave-dir t)))
(setq tramp-backup-directory-alist backup-directory-alist)
(setq tramp-auto-save-directory autosave-dir)

```

## 6.2 TODO Dropbox

We need to know the basepath of dropbox.

The current function to read the path from `dropbox`' config is very ugly and needs some care to make it more beautiful.

```

(require 'json)

(defun find-dropbox-folder ()
  (interactive)
  (let ((json-path (if (eq system-type 'gnu/linux)
                       (expand-file-name "~/.dropbox/info.json")
                       (concat (getenv "APPDATA") "\\..\\Local\\Dropbox\\info.json"))))
    (cdr (assoc 'path (car (json-read-file json-path))))))
  (defvar dropbox-base-path (find-dropbox-folder))

```

## 7 Window Movement

Use Shift-<Arrow> to navigate through windows.

```

(require 'framemove)
(windmove-default-keybindings)
(setq framemove-hook-into-windmove t)

```

## 8 Debugging

Setup some keys to make it easier to use GUD.

```

(global-set-key (kbd "<f7>") 'gud-cont)
(global-set-key (kbd "<f6>") 'gud-step)
(global-set-key (kbd "<f5>") 'gud-next)
(global-set-key (kbd "<f8>") 'gud-finish)

```



## 9 Trailing Whitespace

We want to see trailing whitespace, since it is the devil.

```
(require 'whitespace)
(setq-default show-trailing-whitespace t)
```

### 9.1 But do not display in some modes

```
(defun no-trailing-whitespace ()
  (setq show-trailing-whitespace nil))
```

Add a line for each mode:

```
(add-hook 'buffer-mode-hook 'no-trailing-whitespace)

(add-hook 'minibuffer-setup-hook 'no-trailing-whitespace)
(add-hook 'term-mode-hook      'no-trailing-whitespace)
```

## 10 TODO Dired

### 10.1 General Settings

The first two lines stop dired from asking me if I really want to recursively delete/copy directories. I never answer "no" to that question.

The other lines enable "Do What I Mean" mode for dired, using the other buffers location as target when copying in split-screen mode.

```
(setq dired-recursive-copies 'always)
(setq dired-recursive-deletes 'always)
(setq dired-dwim-target t)
(setq dired-listing-switches "-alh")
```

## 11 Org-Mode

org-mode might be THE killer app for emacs.

### 11.1 Installation

```
(use-package org
  :ensure t
  :defer t
  :pin org)
```

## 11.2 General settings

Some general settings for org.

```
(require 'org)
(setq-default
  org-return-follows-link t
  org-image-actual-width '(400)
  org-highlight-latex-and-related '(latex script entities))
(add-hook 'org-mode-hook 'turn-on-auto-fill)
```

## 11.3 Allow execution of src-blocks

First we need an empty list

```
(setq nobbz-babel-languages-alist '())
```

### 11.3.1 L<sup>A</sup>T<sub>E</sub>X

```
(require 'ob-latex)
(add-to-list 'nobbz-babel-languages-alist '(latex . t))
```

### 11.3.2 Emacs-Lisp

```
(add-to-list 'nobbz-babel-languages-alist '(emacs-lisp . t))
```

### 11.3.3 Dita

```
(add-to-list 'nobbz-babel-languages-alist '(dita . t))
```

### 11.3.4 Applying the stuff

```
(org-babel-do-load-languages
  'org-babel-load-languages
  nobbz-babel-languages-alist)
```

# Hello World!

### 11.3.5 Execution security

```
(defun nobbz-org-confirm-babel-evaluate (lang body)
  (not (string= lang "ditaa"))) ; don't ask for ditaa
(setq org-confirm-babel-evaluate 'nobbz-org-confirm-babel-evaluate)
```

### 11.4 Syntax-Highlighting in sourceblocks

This is a very important feature in an org-document. Also adds native <tab> behaviour in those blocks.

```
(setq
  org-src-fontify-natively t
  org-src-tab-acts-natively t)
```

### 11.5 HTML Export

There shall be a custom stylesheet for HTML export.

```
(require 'ox-html)
(setq org-html-htmlize-output-type 'inline-css)
```

### 11.6 PDF-Export

Use minted as a highlighter.

```
(require 'ox-latex)
(add-to-list 'org-latex-packages-alist '("" "minted"))
(setq org-latex-listings 'minted)
```

Also we want to use `latexmk` as the build-manager and `lualatex` as the engine.

```
(setq org-latex-pdf-process
      '("latexmk -lualatex -f -shell-escape %f"))
```

## 11.7 Agenda

We want to have this file itself on our agenda.

```
(setq org-default-notes-file (concat dropbox-base-path "/Dokumente/org/TODO.org"))
(add-to-list 'org-agenda-files (concat dropbox-base-path "/Dokumente/org/TODO.org"))
(add-to-list 'org-agenda-files "~/emacs.d/settings.org")
```