

# Edit live Jupyter notebook cells with Emacs

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emacsconf22, virtual Meeting  
3-4 December 2022

# Two software packages required

- **GHOSTTEXT** extension for web browser
- **ATOMIC-CHROME** package for Emacs

# GhostText Extension



chrome web store



## GhostText



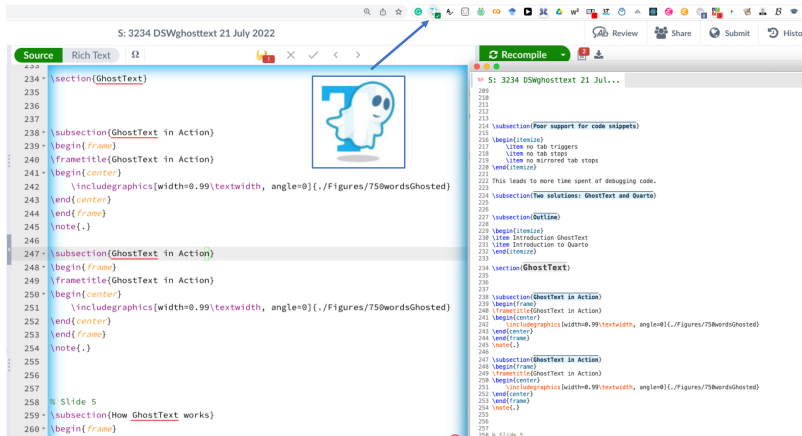
Featured

By Federico Brigante

<https://ghosttext.fregante.com/>

<https://github.com/fregante/GhostText>

# Editing Overleaf via Emacs



Click on the GhostText icon in the browser toolbar.

LaTeX in Emacs: <https://github.com/MooersLab/BerlinEmacsAugust2022>

emacs29 -init-directory /latex-emacs <https://github.com/MooersLab/latex-emacs>

# Editing 750words in Emacs

```
Write your words
39 \item Make up new solutions
40 \item consider all possible combinations of
41 \begin{itemize}
42 \item Plan PHP follow-up tray based on
43 \begin{itemize}
44 \item make production tray to reproduce the
45 \item make trays with cryogenic solution additions
46 \item make trays with cryogenic solution substitutions
47 \end{itemize}
48 \item Follow-up on the PHP refinement
49 \item Required training
50 \item Transfer data from SSRL
51 \item Start working on the COBRE report
52 \item Work on the SciPy paper
53 \item Plan multilevel model of diffraction experiments
54 \end{itemize}
55 % i5 (end)
56
57 \subsection{Multilevel}
58
```

```
\end{itemize}
\item Plan PHP follow-up tray based on the lead conditions
\begin{itemize}
\item make production tray to reproduce the leads
\item make trays with cryogenic solution additions
\item make trays with cryogenic solution substitutions
\end{itemize}
\item Follow-up on the PHP refinement
\item Required training
\item Transfer data from SSRL
\item Start working on the COBRE report
\item Work on the SciPy paper
\item Plan multilevel model of diffraction experiments
\end{itemize}
% i5 (end)

\subsection{Multilevel}
```

750 Words — Private, unfiltered, spontaneous, daily

Write in  $\text{\LaTeX}$  where it is not supported.

# Editing Julia with Emacs

Untitled31 Last Checkpoint: 02/27/2020 (autosaved) Logout

View Insert Cell Kernel Navigate Widgets Help Snippets pymolpy Trusted | Julia 1.7.3

Run Code Autosave interval (min): off

```
✓ Makie
✓ CairoMakie
7 dependencies successfully precompiled in 108 seconds (484 already
```

In [11]: 1 using CairoMakie

In [14]: 1 CairoMakie.activate!(type="svg")

In [ ]: 1 f(x) = pdf(g, x)
2 xs = 0:0.1:4
3 ys = f.(xs)
4 lines(xs, ys)
5 hist!(samples, normalizaiton=:pdf, bins=40, alpha=0.4)
6 current\_figure()
7

```
1 f(x) = pdf(g, x)
2 xs = 0:0.1:4
3 ys = f.(xs)
4 lines(xs, ys)
5 hist!(samples, normalizaiton=:pdf, bins=40, alpha=0.4)
6 current_figure()
```

# Supported Fields

- textarea elements, including cells in Jupyter Notebooks
- Content editable areas (e.g., Outlook Webmail, Gmail)
- CodeMirror editors (e.g., CodePen, JSFiddle, JS Bin)
- Ace editors (e.g., AWS, Khan Academy, Wikipedia)

# GhostText Keyboard Shortcuts

Mac            cmd + shift + k

Linux          ctrl + shift + h

Windows      ctrl + shift + k

Yeah! Keybindings! Count me in! 😁



# How GhostText works

- Open Emacs and enter **M-x atomic-chrome-server-start**
- Activate GhostText with key-binding or mouse click.
- Browser contacts running atomic-chrome server.
- localhost:4001 is used to open a WebSocket connection.



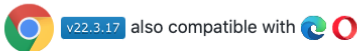
- To close connection: close buffer in Emacs or right click icon in browser
- Can activate multiple webpages. Each has a separate buffer.

# Supported browsers and text editors

## Installation

---

1. Install your browser extension:



2. Install your editor extension:



Source: <https://github.com/fregante/GhostText>

HTML editing with Sublime Text (Moodle):

<https://www.youtube.com/watch?v=JWW3o104npY&t=190s>

Designed for Sublime Text. Easy to install for Atom.

# Atomic Chrome for Emacs

master ▾

1 branch 4 tags

Go to file

Add file ▾

Code ▾



alpha22jp Merge pull request #63 from mavit/docstring-warnings ...

061958a on Jul 22 72 commits



images

Add screencast

6 years ago



README.md

add macOS to OS list

2 years ago



atomic-chrome.el

Merge pull request #63 from mavit/docstring-warnings

2 months ago



README.md

## Atomic Chrome for Emacs

melpa 20220723.113

melpa stable 2.0.0

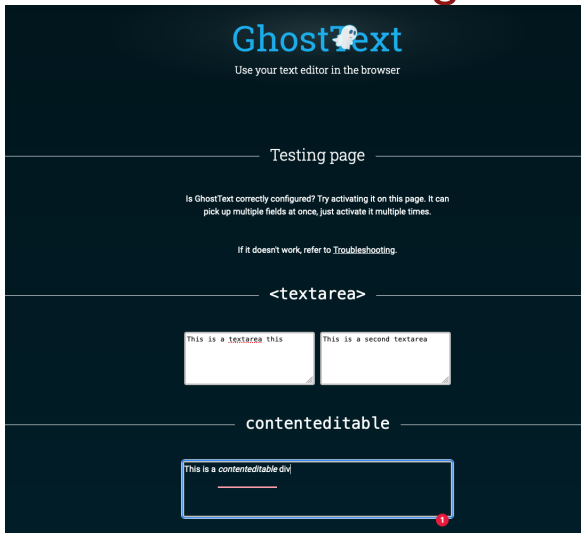
This is the Emacs version of [Atomic Chrome](#) which is an extension for Google Chrome browser that allows you to edit text areas of the browser in Emacs. It's similar to [Edit with Emacs](#), but has some advantages as below with the help of websocket.

- The input on Emacs is reflected to the browser instantly and continuously.
- You can use both the browser and Emacs at the same time. They are updated to the same content bi-directionally.

# Configuration for Emacs

```
(use-package atomic-chrome)
(atomic-chrome-start-server)
(setq atomic-chrome-default-major-mode 'python-mode)
(setq atomic-chrome-extension-type-list '(ghost-text))
(setq atomic-chrome-server-ghost-text-port 4001)
(setq atomic-chrome-url-major-mode-alist
      '(("github\\.com" . gfm-mode)
        ("overleaf.com" . latex-mode)
        ("750words.com" . latex-mode)))
```

# GhostText Testing Site



# Cautions about GhostText

- **GHOSTTEXT DOES NOT WORK IN PLUTO.** Run in Jupyter via IJulia.
- **DOES NOT WORK IN RSTUDIO.** Run in Jupyter via Ipykernel.
- **DO NOT SAVE THE TEXT FROM THE EDITOR.** Save work in the browser.
- **EMACS SERVER MAY USURP PORT 4001.** Assign to a different port.
- **NO CONFLICT WITH ORG-ROAM-UI** 🥰

# Conclusions about GhostText

- Edit prose in your favorite major-mode.
- Edit live Jupyter notebook cells.
- Snippets save time.

# Acknowledgements

Friends and mentors:

- Oklahoma Data Science Workshop
- Berlin Emacs Meetup
- Austin Emacs Meetup
- UK-RSE M-x research Slack Channel

Support for working in Emacs all day:

- NIH: R01 CA242845, R01 AI088011
- NIH: P30 GM145423, P30 CA225520, P30 AG050911-07S1
- OCAST HR20-002
- PHF Team Science Grant with Ian Dunn