

# Vim

The last editor you will need

phil

# Slides

If you want to follow along

- Slides: <https://x4m3.rocks/talks/vim.pdf>



# Agenda

- History
- Modal editor
- Navigation
- Text edition
- Configuration

# History



# Vi

## The OG

- 1976, Bill Joy
- First visual editor for UNIX
- Very popular, included by default in UNIX distributions
- Wide availability on many platforms



# Vim

## Vi IMproved

- 1991, Bram Moolenaar
- Syntax highlighting
- Script language for plugins
- GUI (gvim)
- Many more features!



# Neovim

## The new kid on the block

- Fork of vim, 2015
- Built in Language Server Protocol (LSP)
- Asynchronous IO
- Scripting with Lua programming language



# Modal editor



# Modal editor

- Modal interface
  - Different actions depending on the current mode
- 
- Total of 12 modes
  - 6 Basic
  - 6 Variants

# How do I exit Vim?

Ask Question

Asked 10 years, 5 months ago Modified 9 days ago Viewed 2.8m times

I am stuck and cannot escape. It says:

5003

```
type :quit<Enter> to quit VIM
```

But when I type that it simply appears in the object body.

vim vi

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edited Jun 4, 2022 at 11:47

UnrealApex  
446 ● 7 ● 18

asked Aug 6, 2012 at 12:25

jclancy  
47.9k ● 5 ● 28 ● 33

## The Overflow Blog

- AI applications open new security vulnerabilities
- How chaos engineering preps developers for the ultimate game day (Ep. 531)

## Featured on Meta

- 2022 Community-a-thon Recap
- Accessibility Update: Colors
- Introducing a new close reason specifically for non-English questions

# Important modes

- Normal
- Visual
- Insert
- Command-Line

# Normal

- Default mode
- Used to move around in the file

# Visual

- Select a piece of text
  - Used for running commands on a selection
- 
- Character mode (v)
  - Line mode (V)
  - Block mode (ctrl + v)

```
src — vim password.rs — vim — Vim password.rs — 80x24
14 use crate::hash::{hash, Hash};
13 use crate::Error;
12
11 #[derive(Debug)]
10 pub struct Password(Hash);
9
8 impl Password {
7     pub fn new(plain: &str) -> Result<Self, Error> {
6         Ok(Self(Hash::from_hash(hash(plain)?)))
5     }
4     pub fn from_hash(hash: impl Into<String>) -> Self {
3         Self(Hash::from_hash(hash))
2     }
1     pub fn hash(&self) -> &str {
15     self.0.hash()
1     }
2     pub fn compare(&self, plain: &str) -> Result<bool, Error> {
3         self.0.compare(plain).map_err(Error::from)
4     }
5 }
~
~
password.rs [rust] utf-8[unix] 75% 15:14
-- VISUAL --
```



```
15 use crate::hash::{hash, Hash};
14 use crate::Error;
13
12 #[derive(Debug)]
11 pub struct Password(Hash);
10
9 impl Password {
8     pub fn new(plain: &str) -> Result<Self, Error> {
7         Ok(Self(Hash::from_hash(hash(plain)?)))
6     }
5     pub fn from_hash(hash: impl Into<String>) -> Self {
4         Self(Hash::from_hash(hash))
3     }
2     pub fn hash(&self) -> &str {
1         self.0.hash()
16 }
1     pub fn compare(&self, plain: &str) -> Result<bool, Error> {
2         self.0.compare(plain).map_err(Error::from)
3     }
4 }
```

~  
~

password.rs  
-- VISUAL LINE --

[rust] utf-8[unix] 80% 16:6

```
src — vim lib.rs — vim — Vim lib.rs — 80x24
16 mod error;
15 pub(crate) mod hash;
14 pub mod id;
13 mod paper_key;
12 mod password;
11 mod roles;
10 mod settings;
9
8 /// Export sql pool + migrations
7 pub use sql::run_migrations;
6 pub use sql::Pool;
5
4 /// Error
3 pub use self::error::Error;
2
1 /// Export
19 pub use self::about::About;
1 pub use self::admin_users::{AdminUser, Error as AdminUserError};
2 pub use self::paper_key::PaperKey;
3 pub use self::password::Password;
4 pub use self::roles::{Error as RoleError, Role};
5 pub use self::settings::Settings;
lib.rs [rust] utf-8[unix] 79% 19:8
-- VISUAL BLOCK --
```



# Insert

- Insert some piece of text
  - Insert at current cursor (i)
  - Insert at start of line (l)
  - Append after current cursor (a)
  - Append at end of line (A)

```
src — vim lib.rs — vim — Vim lib.rs — 80x24
14 mod error;
13 pub(crate) mod hash;
12 pub mod id;
11 mod paper_key;
10 mod password;
9 mod roles;
8 mod settings;
7
6 /// Export sql pool + migrations
5 pub use sql::run_migrations;
4 pub use sql::Pool;
3
2 /// Error
1 pub use self::error::Error;
17
1 /// Export
2 pub use self::about::About;
3 pub use self::admin_users::{AdminUser, Error as AdminUserError};
4 pub use self::paper_key::PaperKey;
5 pub use self::password::Password;
6 pub use self::roles::{Error as RoleError, Role};
7 pub use self::settings::Settings;
lib.rs [rust] utf-8[unix] 70% 17:1
-- INSERT --
```

# Command-Line

- Mode to run quick commands
- Used for editor commands
  
- Examples: Write, Quit, Open a file, Split window



# Navigation

# Move in the file

- Arrow keys
  - HJKL keys
- 
- Learn to use HJKL
  - Keep your fingers on the home row

# HJKL

- Arrow keys on ADM-3A keyboard
- Bill Joy created vi on this computer

- H: Left
- J: Down
- K: Up
- L: Right





# Chain navigation

- Combine navigation with a number to repeat the navigation
- Example: 12j: Move 12 times down

# Additional movements

## On the same line

- 0 (zero): Move to beginning of line
- \$ (dollar): Move to end of line
  
- w: Next word
- b: Beginning of word
- B: Previous word
- e: End of word

# Additional movements

## Across multiple lines

- `:123` (column 123): Go to line 123
- `gg`: Go to first line of file
- `G`: Go to last line of file
- `%`: Go to matching bracket. Works on `{}` `[]` `()`

# Search

- `/text`: Search “text” in file
- `n`: Move to next search result
- `N`: Move to previous search result
- `:noh` (column `noh`): Turn off highlighting until next search

# Text edition

# Delete / Cut

- `dd`: Delete / Cut the current line
- Chain commands: Example: `d2j` to delete 2 lines down
- Select text in visual mode and use command ``d``

# Copy (yank)

- `yy`: Copy the current line
- Select text in visual mode and use command ``y``

# Paste

- p: Paste clipboard after cursor
  - P: Paste clipboard before cursor
- 
- By default, Vim uses its own clipboard system



# Undo / Redo

- u: Undo last action
- ctrl + r: Redo

# Replace

## In whole file

- `:s/find/replace/g` (column s / find / replace / g)
- Find “text”, substitute it by “replace”, and do it globally

# Replace

## In selection

- Select your text with visual mode
- `:s/find/replace/g` (column s / find / replace / g)
- Find “text”, substitute it by “replace”, and do it globally

# Configuration

# vimrc

## The config file

- Lives in ~/.vimrc
- Comments begin with “
- Documentation available online



One more thing

# So much more...

- Windows
- Run commands
- Use plugins
- Write your own plugins
- And more!

# Vim without vim

- Visual Studio Code
- <https://marketplace.visualstudio.com/items?itemName=vscodvim.vim>
- JetBrains
- <https://plugins.jetbrains.com/plugin/164-ideavim>



# Thank you

- <https://philippeloctaux.com>