

Me encanta Rust,

y ahora, ¿para qué lo uso?

\$ who

- VMware
- Desarrollador C/C++ (KDE)
- Ruby on Rails
- Docker
- Kubernetes
- Rust
- WebAssembly

\$ who

- ~~VMware~~ Broadcom
- Desarrollador C/C++ (KDE)
- Ruby on Rails
- Docker
- Kubernetes
- Rust
- WebAssembly

\$ who

- ~~VMware Broadcom~~ Funemployed
- Desarrollador C/C++ (KDE)
- Ruby on Rails
- Docker
- Kubernetes
- Rust
- WebAssembly

Me encanta Rust

α Verdi

For the eighth year in a row, [Rust](#) has topped the chart as “the most desired programming language” in [Stack Overflow’s annual developer survey](#). And with more than 80% of developers reporting that they’d like to use the language again next year, you have to wonder how a language created less than 20 years ago has stolen the hearts of developers around the world.

<https://github.blog/2023-08-30-why-rust-is-the-most-admired-language-among-developers/>

Me encanta Rust

For the eighth year in a row,

<https://github.blog/2023-08-30-why-rust-is-the-most-admired-language-among-developers/>

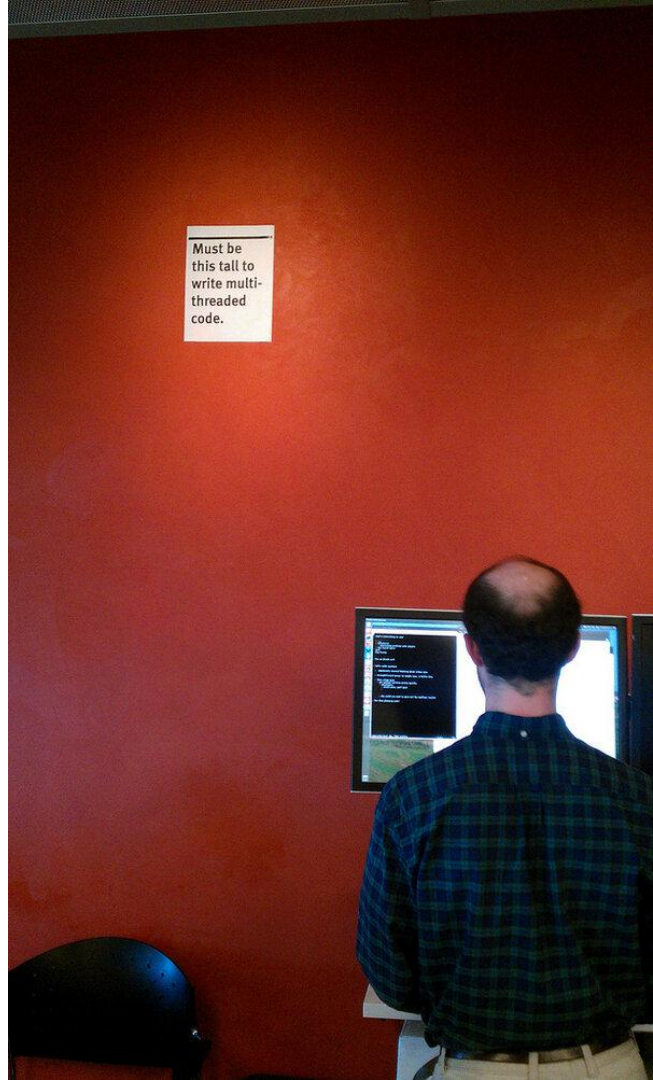
Me encanta Rust



<https://survey.stackoverflow.co/2023/#section-admired-and-desired-programming-scripting-and-markup-languages>

Me encanta Rust

- Concurrencia sin miedo
- Sin recolector de basura
- Gestor de dependencias (cargo)
- Abstracciones de coste cero
- Coincidencia de patrones (pattern matching)
- Inferencia de tipos
- Tipos de datos algebraicos



Me encanta Rust



```
fn main() {  
    break rust;  
}
```

Interoperabilidad

- C: manual, bindgen, ...
- C++: cxx, ...
- C#: rnet, ...
- Java: j4rs, ...
- Javascript: wasm-bindgen, ...
- Python: PyO3, ...
- Ruby: Rutie, ...
- ...

Y ahora, ¿para qué lo uso?

- Aplicaciones de escritorio
 - GTK ([gtk-rs](#)): Glib, cairo, GTK 3, GTK 4)
 - Qt ([cxx-qt](#))
 - [Slint](#)
 - [Tauri](#)
 - [Iced](#)
- Computación en el edge
 - Cloudflare
 - HTTP Proxy ([Pingora](#)): 1 trillón de peticiones al día
 - Workers
- Escribir tu propio lenguaje de programación
 - [Inkwell](#)

Y ahora, ¿para qué lo uso?

- Contenedores
 - [containerd-wasm-shims](#): ejecutar WebAssembly en containerd
 - [youki](#): container runtime (similar a runc)
 - [Bottlerocket OS](#) (sistema operativo basado en Linux)
- Kubernetes
 - [Kubewarden](#): Policy Engine
 - [kube-rs](#)
 - Cliente de Kubernetes
 - Controller runtime
- Serverless
 - [Wasm Workers Server](#): servidor de aplicaciones
- OEM
 - [System76](#): desde certificación de hardware, pasando por servicios de sistema hasta aplicaciones de escritorio basadas en GTK

Y ahora, ¿para qué lo uso?

- Seguridad
 - Motor de Firefox (Servo)
 - [rustls](#)
 - [webpki](#)
- Criptografía
 - [aws-lc-rs](#)
 - [ring](#)
- WebAssembly
 - Frontend
 - [Leptos](#)
 - [Slint](#)
 - Backend
 - WebAssembly System Interface (WASI)
 - [wasmtime](#)

Y ahora, ¿para qué lo uso?

- Frameworks Web
 - [Rocket](#)
 - [Actix](#)
 - [Axum](#) (de Tokio)
 - [warp](#)
- Sistemas en chip (SOC)
 - [esp-rs](#)
- Sistemas críticos
 - [Ferrocene](#) (basado en rust 1.80.0)
 - ISO-26262:2018 y IEC-61508:2010
 - Seguridad funcional en automoción.
 - Seguridad funcional de los sistemas eléctricos/electrónicos/electrónicos.
- Migrar aplicaciones escritas en otros lenguajes de programación



Y ahora, ¿para qué lo uso?

- Migrar aplicaciones escritas en otros lenguajes de programación

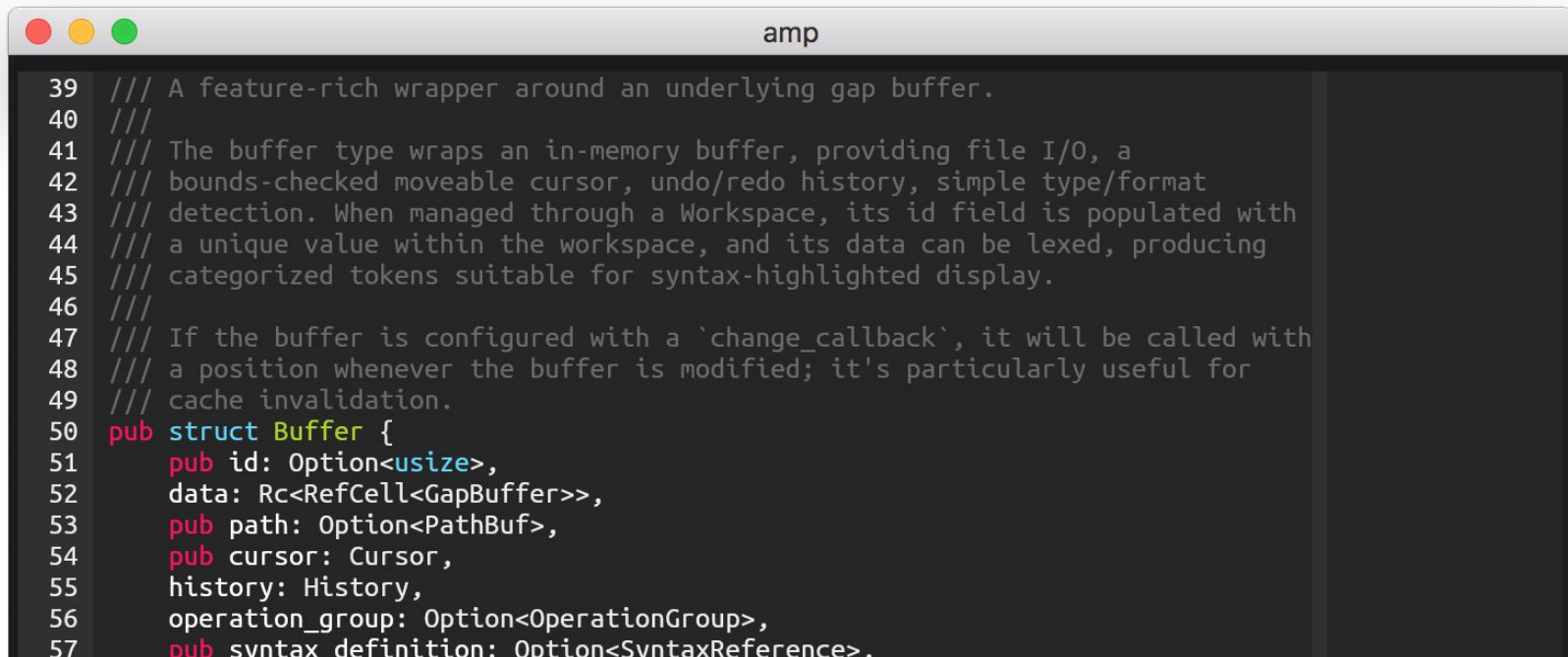
Y ahora, ¿para qué lo uso?

- Migrar aplicaciones escritas en otros lenguajes de programación

alacritty: emulador de terminal

```
122  /// Run main Alacritty entrypoint.
123  ///
124  /// Alacritty indeed looks just like a terminal emulator.
125  ///
126  /// Creates a window, the terminal state, PTY, I/O event loop, input processor,
127  /// config change monitor, and runs the main display loop.
128  fn alacritty(options: Options) -> Result<(), Box<dyn Error>> {
129      // Setup winit event loop.
130      let window_event_loop = WinitEventLoopBuilder::<Event>::with_user_event().build();
131
132      // Initialize the logger as soon as possible as to capture output from other subsystems.
133      let log_file = logging::initialize(&options, window_event_loop.create_proxy())
134          .expect("Unable to initialize logger");
135
136      info!("Welcome to Alacritty");
137      info!("Version {}", env!("VERSION"));
138
139  let showing_off_undercurl = []
140
```

amp: editor de texto



```
39 /// A feature-rich wrapper around an underlying gap buffer.
40 ///
41 /// The buffer type wraps an in-memory buffer, providing file I/O, a
42 /// bounds-checked moveable cursor, undo/redo history, simple type/format
43 /// detection. When managed through a Workspace, its id field is populated with
44 /// a unique value within the workspace, and its data can be lexed, producing
45 /// categorized tokens suitable for syntax-highlighted display.
46 ///
47 /// If the buffer is configured with a `change_callback`, it will be called with
48 /// a position whenever the buffer is modified; it's particularly useful for
49 /// cache invalidation.
50 pub struct Buffer {
51     pub id: Option<usize>,
52     data: Rc<RefCell<GapBuffer>>,
53     pub path: Option<PathBuf>,
54     pub cursor: Cursor,
55     history: History,
56     operation_group: Option<OperationGroup>,
57     pub syntax_definition: Option<SyntaxReference>.
```

bandwidth: monitorización de recursos de red

```
sudo su
```

IF: all | Total Rate (Up / Down): 1.47KiB / 13.76KiB

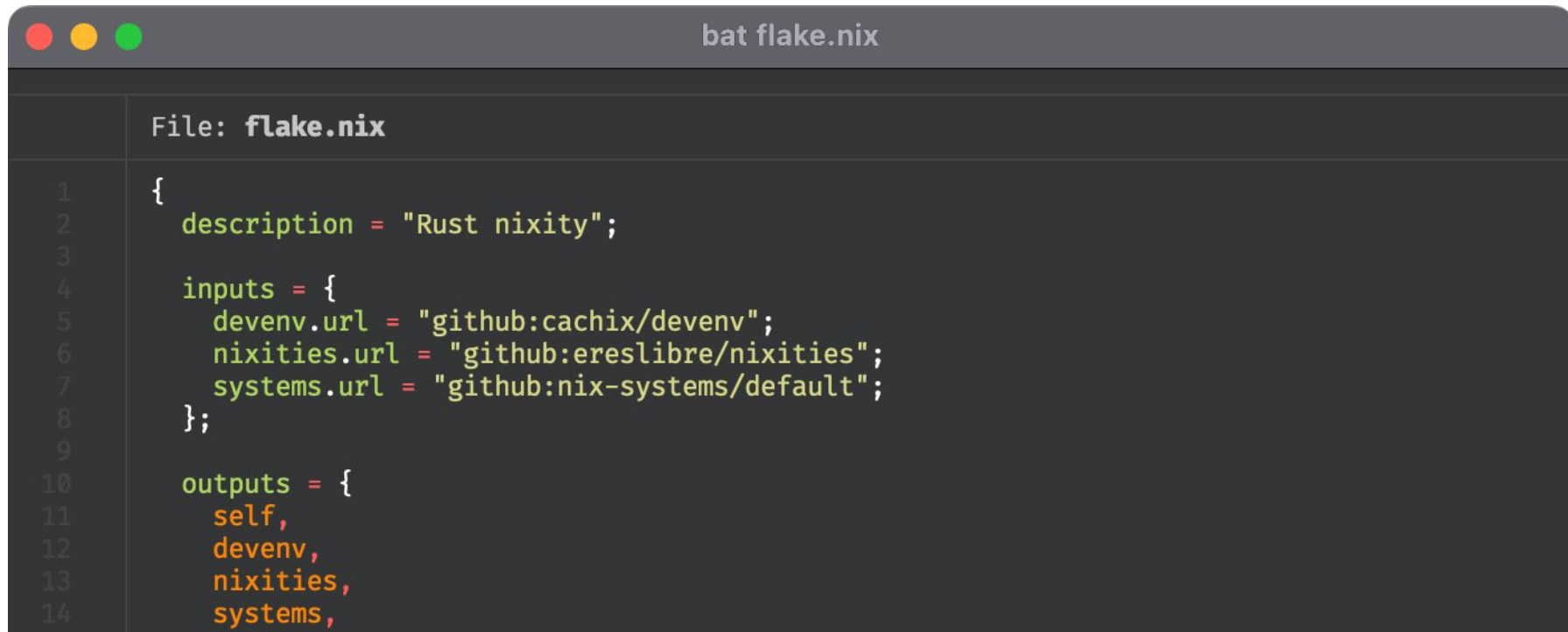
Utilization by process name

Process	Connections	Rate (Up / Down)
<UNKNOWN>	8	100.00B / 13.06KiB
.tailscaled-wra	6	892.00B / 564.00B
sshd	1	517.00B / 158.00B

Utilization by remote address

Remote Address	Connections	Rate (Up / Down)
10.0.4.1	4	34.00B / 11.50KiB

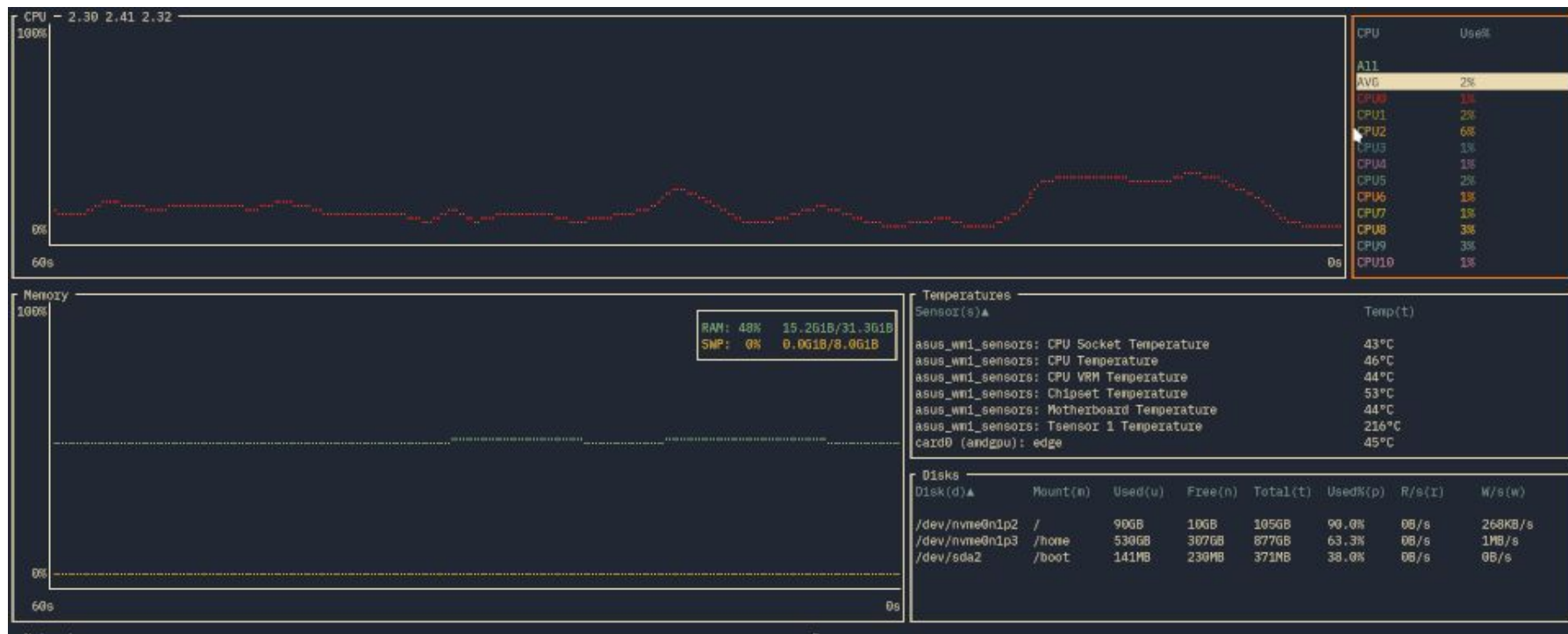
bat: un gato – cat – con alas!



```
File: flake.nix

1 {
2   description = "Rust nixity";
3
4   inputs = {
5     devenv.url = "github:cachix/devenv";
6     nixities.url = "github:ereslibre/nixities";
7     systems.url = "github:nix-systems/default";
8   };
9
10  outputs = {
11    self,
12    devenv,
13    nixities,
14    systems,
```

bottom: reemplazo de top



brout: navegando directorios

```
7.5M /home/dys/dev/miaou/src /dev/nvme0n1p2 SSD 322G/1.0T 32%
406K — main-js
6762   |— groumf.js
5773   |— hu.js
      |— 51 unlisted
328K — main-scss
192   |— autocomplete.scss
3149   |— bubble.scss
25K   |— chat.scss
      |— 25 unlisted
70K — page-js
1233   |— auths.js
1858   |— chat.js
1167   |— chat-mob.js
```

choose: reemplazo de cut y, a veces, de awk



```
> echo '1 2 3 4 5' | choose 2:4  
3 4 5
```


coreutils: reemplazo de GNU coreutils

- [coreutils](#)
- [findutils](#)
- [diffutils](#)



Ejem...



cpc: calculadora + conversiones

delta: resaltador de sintaxis para git y diffs

redis-cli.c

```
static sds cliReadLine(int fd) {
```

```
135 : 135
```

```
136 : 136     while(1) {
```

```
137 : 137         char c;
```

```
    : 138         ssize_t ret;
```

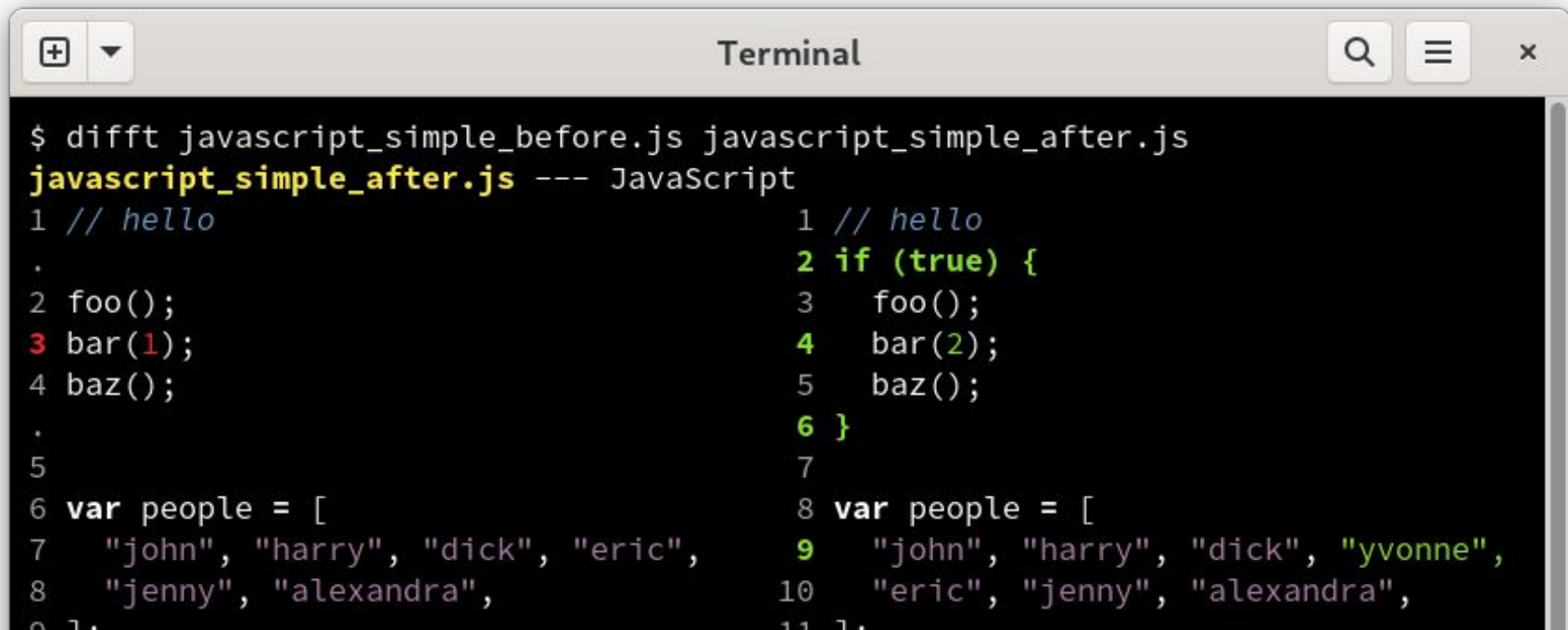
```
138 : 139
```

```
139 :         if (read(fd,&c,1) == -1) {
```

```
    : 140         ret = read(fd,&c,1);
```

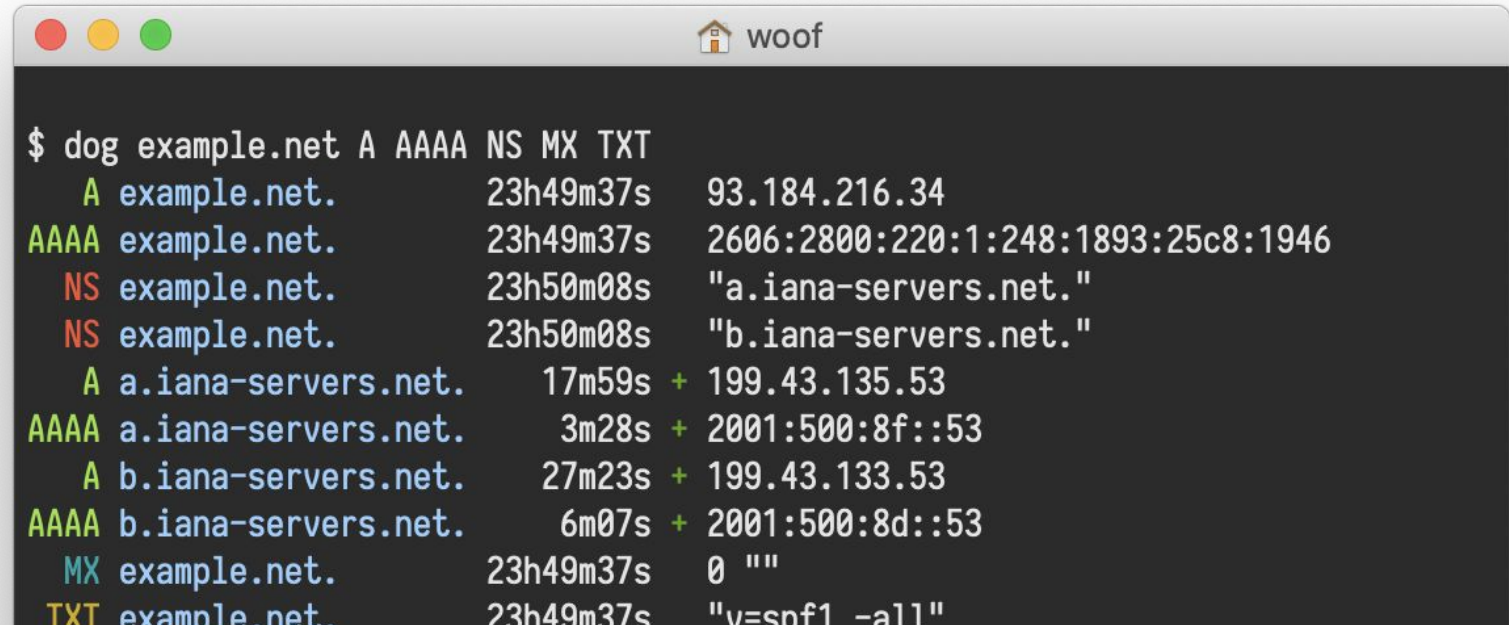
deno_lint: linter para Javascript / TypeScript

diffstatic: diff estructural que entiende la sintaxis

A terminal window titled "Terminal" with standard macOS window controls (plus, minus, close buttons) and search, menu, and close icons on the right. The terminal shows a command to run 'diff' on two JavaScript files. The output is a side-by-side diff of 'javascript_simple_after.js'. The left column shows the original code, and the right column shows the modified code. Changes are highlighted with green for additions and red for deletions. Line numbers are shown on the left of each column.

```
$ diff javascript_simple_before.js javascript_simple_after.js
javascript_simple_after.js --- JavaScript
1 // hello                                1 // hello
.                                          2 if (true) {
2 foo();                                3   foo();
3 bar(1);                                4   bar(2);
4 baz();                                5   baz();
.                                          6 }
5                                          7
6 var people = [                        8 var people = [
7   "john", "harry", "dick", "eric",    9   "john", "harry", "dick", "yvonne",
8   "jenny", "alexandra",              10  "eric", "jenny", "alexandra",
9 ],                                    11 ],
```

dog: reemplazo de dig; los perros saben buscar – lookup –



```
$ dog example.net A AAAA NS MX TXT
  A example.net.      23h49m37s  93.184.216.34
 AAAA example.net.    23h49m37s  2606:2800:220:1:248:1893:25c8:1946
  NS example.net.     23h50m08s  "a.iana-servers.net."
  NS example.net.     23h50m08s  "b.iana-servers.net."
  A a.iana-servers.net. 17m59s + 199.43.135.53
 AAAA a.iana-servers.net. 3m28s + 2001:500:8f::53
  A b.iana-servers.net. 27m23s + 199.43.133.53
 AAAA b.iana-servers.net. 6m07s + 2001:500:8d::53
  MX example.net.     23h49m37s  0 ""
  TXT example.net.    23h49m37s  "v=spf1 -all"
```

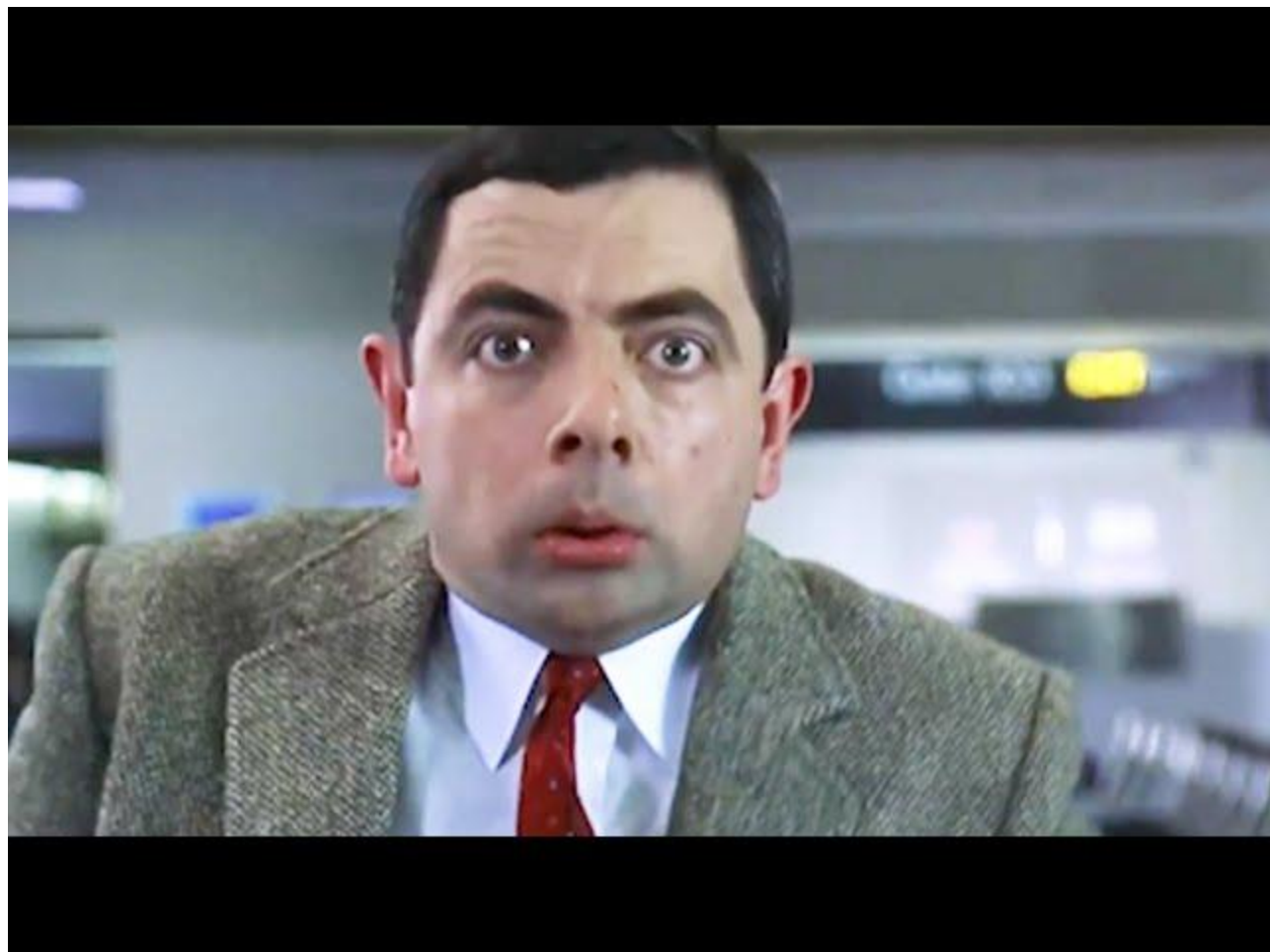
dprint: formateador de código

drill: pruebas de carga HTTP

dua: visualiza (y libera) utilización de disco

dust: reemplazo de du





eva: calculadora REPL; reemplazo de bc

exa: reemplazo de ls

```
... pkgs.clang
ereslibre in 🌐 hulk in llama2.c on 📁 master [?] via C v13.2.0-gcc via 🐉 via ⚙️ impure (nix-shell-env)
> exa -l
drwxr-xr-x  - ereslibre 25 Aug 2023 assets
.rw-r--r-- 45 ereslibre 25 Aug 2023 build_msvc.bat
.rw-r--r-- 1.8k ereslibre 25 Aug 2023 configurator.py
.rw-r--r-- 19k ereslibre 25 Aug 2023 export.py
.rw-r--r-- 1.1k ereslibre 25 Aug 2023 LICENSE
.rw-r--r-- 2.0k ereslibre 25 Aug 2023 Makefile
.rw-r--r-- 15k ereslibre 25 Aug 2023 model.py
.rw-r--r-- 29k ereslibre 25 Aug 2023 README.md
.rw-r--r-- 107 ereslibre 25 Aug 2023 requirements.txt
.rwxr-xr-x 73k ereslibre 25 Aug 2023 run
.rw-r--r-- 34k ereslibre 25 Aug 2023 run.c
.rw-r--r-- 4.0k ereslibre 25 Aug 2023 run.ipynb
.rw-r--r-- 3.4k ereslibre 25 Aug 2023 sample.py
.rw-r--r-- 3.5k ereslibre 25 Aug 2023 test.c
.rw-r--r-- 3.7k ereslibre 25 Aug 2023 test_all.py
.rw-r--r-- 12k ereslibre 25 Aug 2023 tinystories.py
```

fastmod: reemplazo de codemod para refactorizar

fd: reemplazo de find

fend: calculadora con conversión de unidades



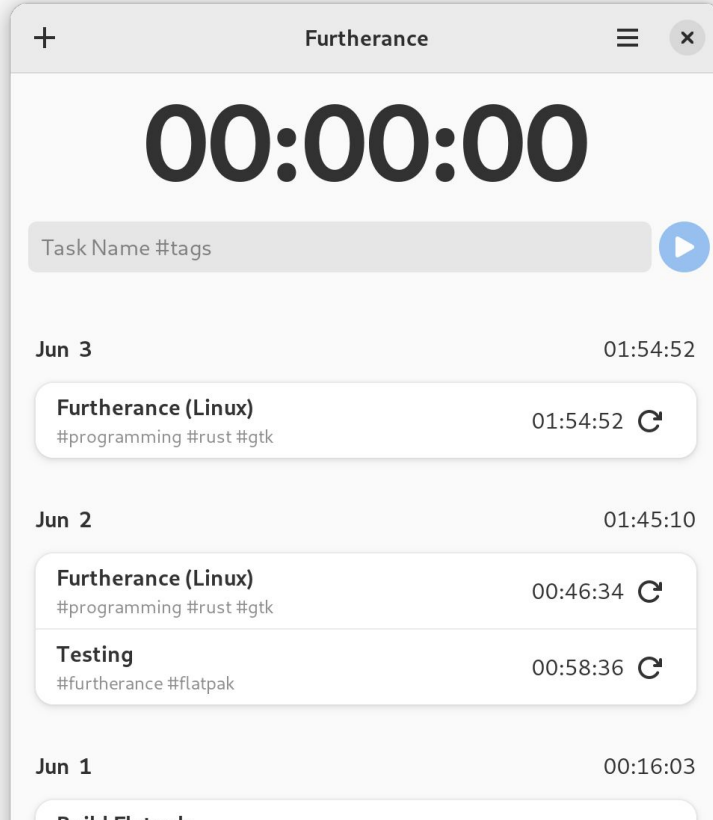
```
> fend '2h/3 to min'  
40 mins
```

fnm: gestión de versiones de node.js

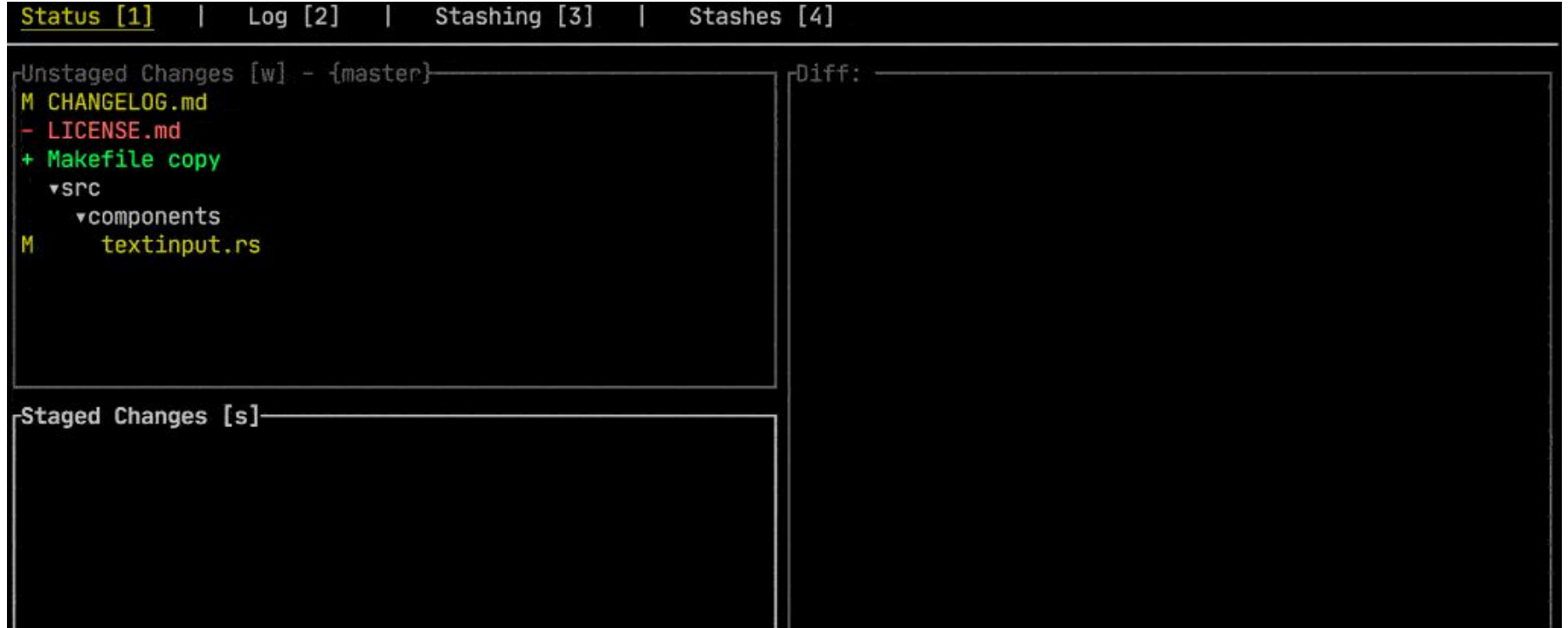
frawk: lenguaje similar a awk

from: gestión de versiones de Ruby

furtherance: Gestión de tiempo (basado en gtk-rs)



gitui: Terminal UI (tui) para git



The screenshot displays the gitui terminal interface with a dark background and light-colored text. At the top, a navigation bar contains four tabs: 'Status [1]', 'Log [2]', 'Stashing [3]', and 'Stashes [4]'. The 'Status' tab is active. Below the navigation bar, the interface is split into two main panels. The left panel, titled 'Unstaged Changes [w] - {master}', lists the following files: 'M CHANGELOG.md' (modified), '- LICENSE.md' (deleted), '+ Makefile copy' (new), a directory '▼src' containing a sub-directory '▼components', and 'M textinput.rs' (modified). The right panel, titled 'Diff:', is currently empty. At the bottom left, there is a section for 'Staged Changes [s]' which is also empty.

```
Status [1] | Log [2] | Stashing [3] | Stashes [4]

Unstaged Changes [w] - {master}
M CHANGELOG.md
- LICENSE.md
+ Makefile copy
  ▼src
    ▼components
M   textinput.rs

Diff:

Staged Changes [s]
```

goku: pruebas de carga HTTP

grex: generador de expresiones regulares



```
> grex hola hala  
^h[ao]la$
```


hck: reemplazo de cut

hexyl: visor hexadecimal

► hexyl small.png

89 50 4e 47 0d 0a 1a 0a	00 00 00 0d 49 48 44 52	xPNG .	000 IHDR
00 00 00 80 00 00 00 44	08 02 00 00 00 00 c6 25 aa	000x000D	••000x%x
3e 00 00 00 c2 49 44 41	54 78 5e ed d4 81 06 c3	>000xIDA	Tx^xxx•x
30 14 40 d1 b7 34 dd ff	ff 6f b3 74 56 ea 89 12	0•@xx4xx	xoxTVxx•
6c 28 73 e2 aa 34 49 03	87 d6 fe d8 7b 89 bb 52	l(sxx4I•	xxxx{xxR
8d 3b 87 fe 01 00 80 00	00 10 00 00 02 00 40 00	x;xx•0x0	0•00•0@0
00 08 00 00 01 00 20 00	00 04 00 80 00 00 10 00	0•00•0 0	0•0x00•0
00 02 00 40 00 00 08 00	00 01 00 20 00 00 00 d4	0•0@00•0	0•0 000x
5e 6a 64 4b 94 f5 98 7c	d1 f4 92 5c 5c 3e cf 9c	^jdKxxx	xxx\\>xx
3f 73 71 58 5f af 8b 79	5b ee 96 b6 47 eb f1 ea	?sqX_xxy	[xxxGxxx
d1 ce b6 e3 75 3b e6 b9	95 8d c7 ce 03 39 c9 af	xxxxu;xx	xxxx•9xx
c6 33 93 7b 66 37 cf ab	bf f9 c9 2f 08 80 00 00	x3x{f7xx	xxx/•x00
10 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00000000	00000000

huniq: eliminador de duplicados – `sort | uniq`

hyperfine: herramienta de benchmarking

```
► hyperfine --warmup 3 'fd -e jpg -uu' 'find -iname "*.jpg"'
```

jql[jackal]: JSON query language



```
> echo '{ "a": 1, "b": 2, "c": 3 }' | jql '"a","b","c"'  
[  
  1,  
  2,  
  3  
]
```

just: reemplazo de make

```
alias b := build

host := `uname -a`


# build main
build:
    cc *.c -o main

# test everything
test-all: build
    ./test --all

# run a specific test
test TEST: build
    ./test --test {{TEST}}
```

```
: just -l ~
Available recipes:
    build      # build main
    b          # alias for `build`
    test TEST  # run a specific test
    test-all  # test everything
: █ ~
```

lemmy: agregador de enlaces y foro para el fediverse

 **Lemmy** [Communities](#) [Create Post](#) [Create Community](#) [Login](#) [Sign Up](#)

Posts

Comments

Subscribed

Local

All

Active

?

🔔

↑

↓

1.91K

literally no clue
media.infosec.exchange
👤 @Masimatutu@lemm.ee to 👤 Memes • 23 hours ago
💬 148 🌈

↑

↓

1.37K

We're doomed
lemmy.world
👤 @hypertown@lemmy.world to 👤 Memes • 2 days ago
💬 64 🌈


↑


↓


1.37K


survival optional.


Trending communities


 Landlord Love

 Tankie

 asonix pokes Lemmy

 Pikmin Bloom

 Beeper

 lemmy-meter.info

Create a Community

Explore Communities

lsd: reemplazo de ls

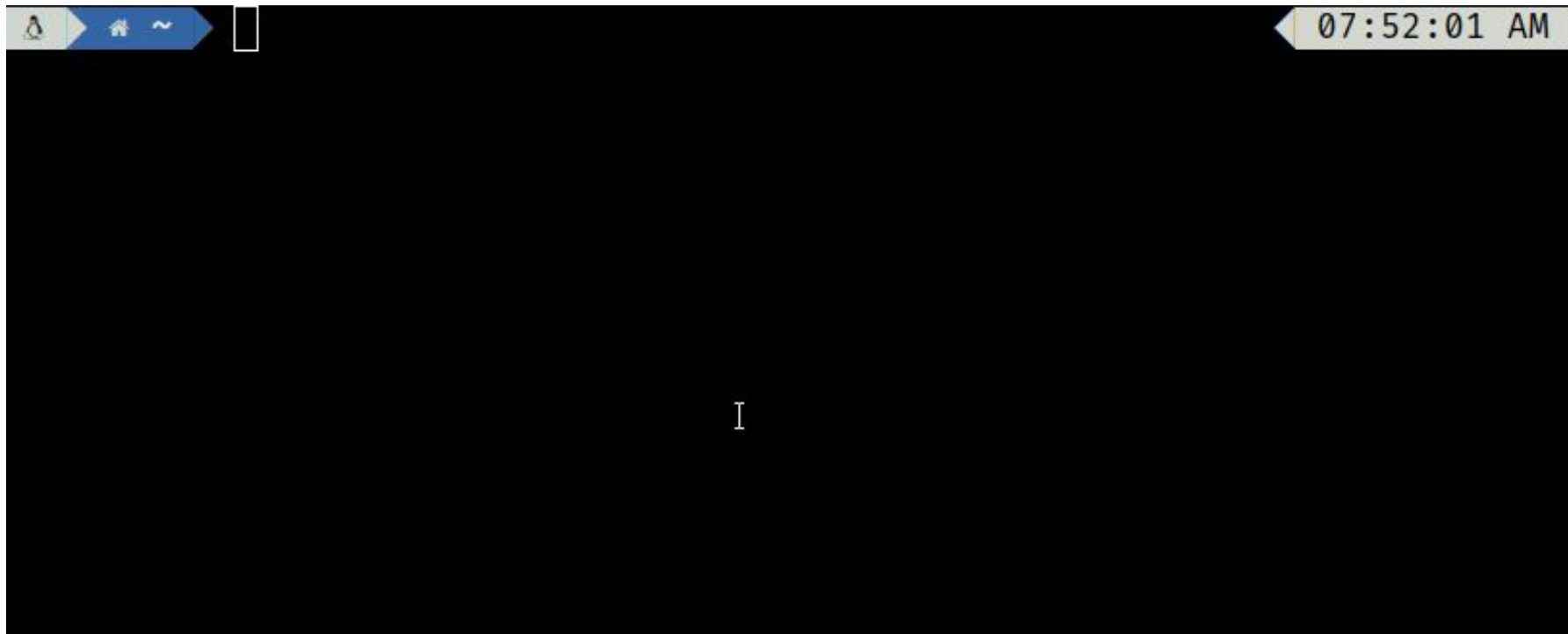
~	Code	Perso	lsd	master	if	%	prod	id	prod	lsd -l target/debug
drwxr-xr-x		peltoche	users	-		Thu Dec 13 12:27:23 2018				build
drwxr-xr-x		peltoche	users	-		Thu Dec 13 15:28:44 2018				deps
drwxr-xr-x		peltoche	users	-		Thu Dec 13 10:51:57 2018				examples
drwxr-xr-x		peltoche	users	-		Thu Dec 13 14:58:34 2018				incremental
drwxr-xr-x		peltoche	users	-		Thu Dec 13 10:51:57 2018				native
.rw-r--r--		peltoche	users	879 B		Thu Dec 13 14:29:26 2018				liblsd.d
.rw-r--r--		peltoche	users	0 B		Thu Dec 13 15:28:44 2018				liblsd.rmeta
.rwxr-xr-x		peltoche	users	11.7 MB		Thu Dec 13 14:50:47 2018				lsd
.rwxr-xr-x		peltoche	users	9.2 MB		Thu Dec 13 15:28:41 2018				lsd-e1fd8883f3461759
.rw-r--r--		peltoche	users	887 B		Thu Dec 13 15:27:01 2018				lsd-e1fd8883f3461759.d
.rw-r--r--		peltoche	users	870 B		Thu Dec 13 10:52:06 2018				lsd.d

nat: reemplazo de ls

nats: sistema de mensajería NATS

navi: chuleta interactiva para la línea de comandos

nushell: un nuevo tipo de shell



oreboot: reemplazo de coreboot

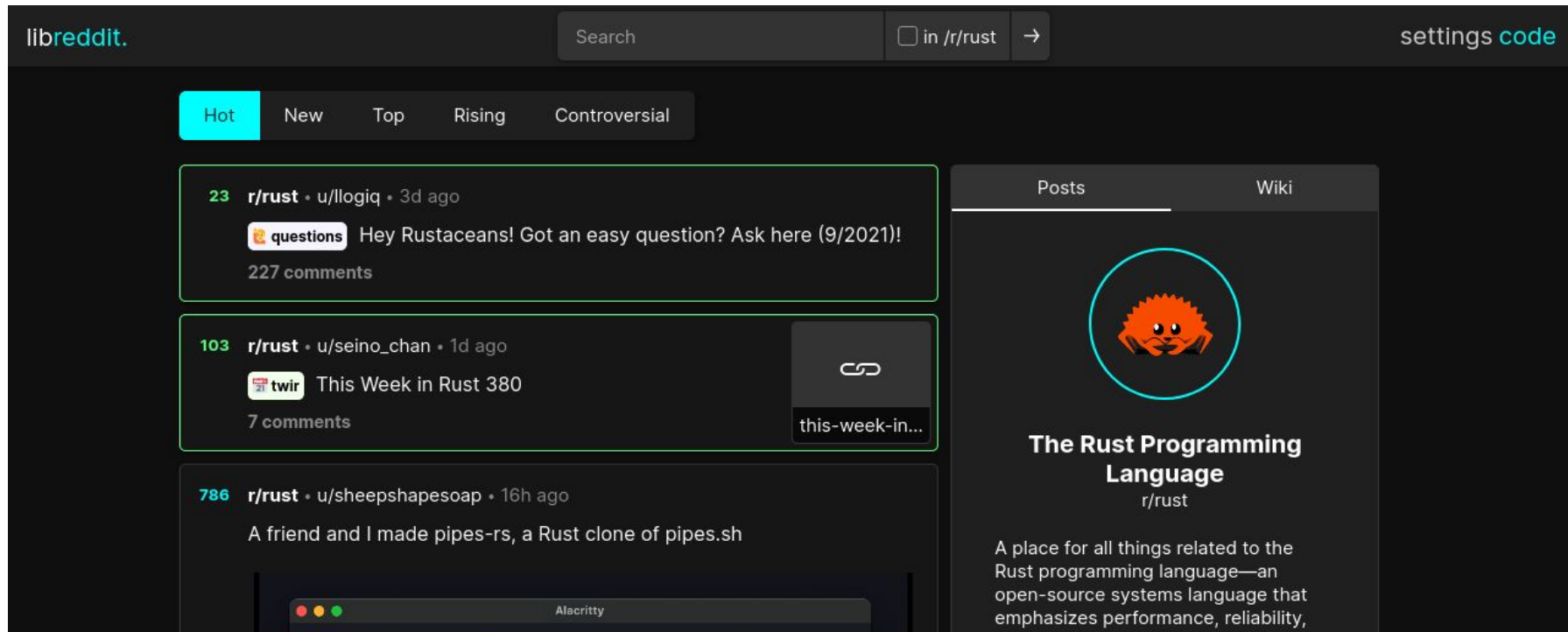
paru: Ayudante de AUR de Arch

please: reimplementación de sudo

pleco: reemplazo del motor de ajedrez Stockfish

procs: reemplazo de ps

redlib: frontend privado para Reddit



rargs: xargs + awk con pattern matching

rip: reimplementación de pip de Python

ripgrep: reimplementación de grep

```
[andrew@Cheetah rust] rg -i rustacean
```

```
src/doc/book/nightly-rust.md
```

```
92:[Mibbit][mibbit]. Click that link, and you'll be chatting with other Rustaceans
```

```
src/doc/book/glossary.md
```

```
3:Not every Rustacean has a background in systems programming, nor in computer
```

```
src/doc/book/getting-started.md
```

```
176:Rustaceans (a silly nickname we call ourselves) who can help us out. Other great
```

```
376:Cargo is Rust's build system and package manager, and Rustaceans use Cargo to
```

```
src/doc/book/guessing-game.md
```

```
444:it really easy to re-use libraries, and so Rustaceans tend to write smaller
```

```
CONTRIBUTING.md
```

```
322:* [rustaceans.org][ro] is helpful, but mostly dedicated to IRC
```

```
333:[ro]: http://www.rustaceans.org/
```

```
[andrew@Cheetah rust] □
```


rnr: renombrador de ficheros y directorios



eslint: linter para JavaScript y TypeScript

sad: búsqueda y reemplazo interactiva

```
|jojo| 1 zsh CPU 16% MEM 68%  
> # search and replace using fzf  
~/dev.localized/sad master  
> fd '\.rs' | sad 'std' 'joseph joestar'
```

A stylized illustration of a character from Jojo's Bizarre Adventure, specifically Jotaro Kujo, is positioned in the bottom right corner of the terminal window. The character is depicted from the chest up, wearing his signature black and white outfit with a large, ornate collar. He has a white face with a red dot on his forehead and a black key-shaped mark on his chin. His right hand is raised, holding a silver key. The background of the terminal is a light blue grid pattern.

sd: alternativa a sed

shellharden: marcador de sintaxis de bash

skim: búsqueda borrosa (similar a fzf)

starship: prompt para cualquier shell



systemd: reemplazo de sysctl(8) con un TUI

```
(orhun ζ ~) █
```

tealdeer: reimplementación de tldr

```
daniilo@x2000:~$ tldr strace
```

Troubleshooting tool for tracing system calls.

Start tracing a specific process by its PID:

```
strace -p pid
```

Trace a process and filter output by system call:

```
strace -p pid -e system call name
```

Count time, calls, and errors for each system call and report a summary on program exit:

```
strace -p pid -c
```

Show the time spent in every system call:

```
strace -p pid -T
```

Start tracing a program by executing it:

tokei: analiza tu código, de forma rápida



Language	Files	Lines	Code	Comments	Blanks
BASH	4	49	30	10	9
JSON	1	1332	1332	0	0
Shell	1	49	38	1	10
TOML	2	77	64	4	9
Markdown	5	1355	0	1074	281
- JSON	1	41	41	0	0
- Rust	2	53	42	6	5
- Shell	1	22	18	0	4
(Total)		1471	101	1080	290
Rust	19	3416	2840	116	460
- Markdown	12	351	5	295	51

volta: toolchains de JS como código

xcp: un cp extendido

xh: herramienta para enviar peticiones HTTP



zellij: espacio de trabajo en terminal – similar a tmux –

A screenshot of a terminal window with a black background and green text. The top line shows the path `~/c/output-dump` followed by a horizontal line. The second line shows the prompt `aras@green ~/c/output-dump (main)>` with a white cursor. The rest of the terminal is empty.

```
~/c/output-dump  
aras@green ~/c/output-dump (main)>
```

zoxide: un cd más inteligente

¡Gracias!

- ¡A vosotros!

¡Gracias!

- ¡A vosotros!
- A Kairós Digital Solutions por el espacio

¡Gracias!

- ¡A vosotros!
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- Enlaces para comenzar a contribuir en proyectos escritos en Rust:
 - [Good First Issue](#)

¡Ñam!

- Patrocinado por Radix DLT (<https://www.radixdlt.com/>)

