

El Zen de git



© Angel Pablo Hinojosa Gutiérrez



El Zen de git

Un taller de introducción al uso de git del humilde sensei Psicobyte para la honorable Oficina de Software Libre de la UGR.



El problema

Al principio, sin sistemas de control de versiones, todo era caos, desorden, desconcierto y lágrimas.

El problema



borrame



borrame (de verdad)



copias antiguas



backup proyecto.zip



proyecto.zip



proyecto ANTERIOR.
zip



proyecto (copia).zip



proyecto (copia) (3ª
copia).zip



proyecto (copia)
(copia).zip



proyecto (copia)
(copia) (copia)
(copia).zip



proyecto
(otra copia).zip



proyecto (otra
copia).zip



proyecto otra copia.
zip



El Nirvana (¿Qué queremos?)

Guardar una copia de todos los estados anteriores, con todas las modificaciones hechas por todos los participantes, con comentarios y notas asociadas a cada cambio, y que permita gestionar conflictos entre versiones, crear diferentes ramas de proyecto y gestionarlás.

El Nirvana (¿Qué queremos?)

Y que sea sencillo

Koans de git (¿Qué es git?)

git es un Sistema de Control de Versiones

(aunque hay otros: CVS, Subversion, Bazaar...)

Koans de git (¿Qué es git?)

git es distribuido

(aunque se suele usar como si fuera centralizado)

Koans de git (¿Qué es git?)

git es de línea de comandos

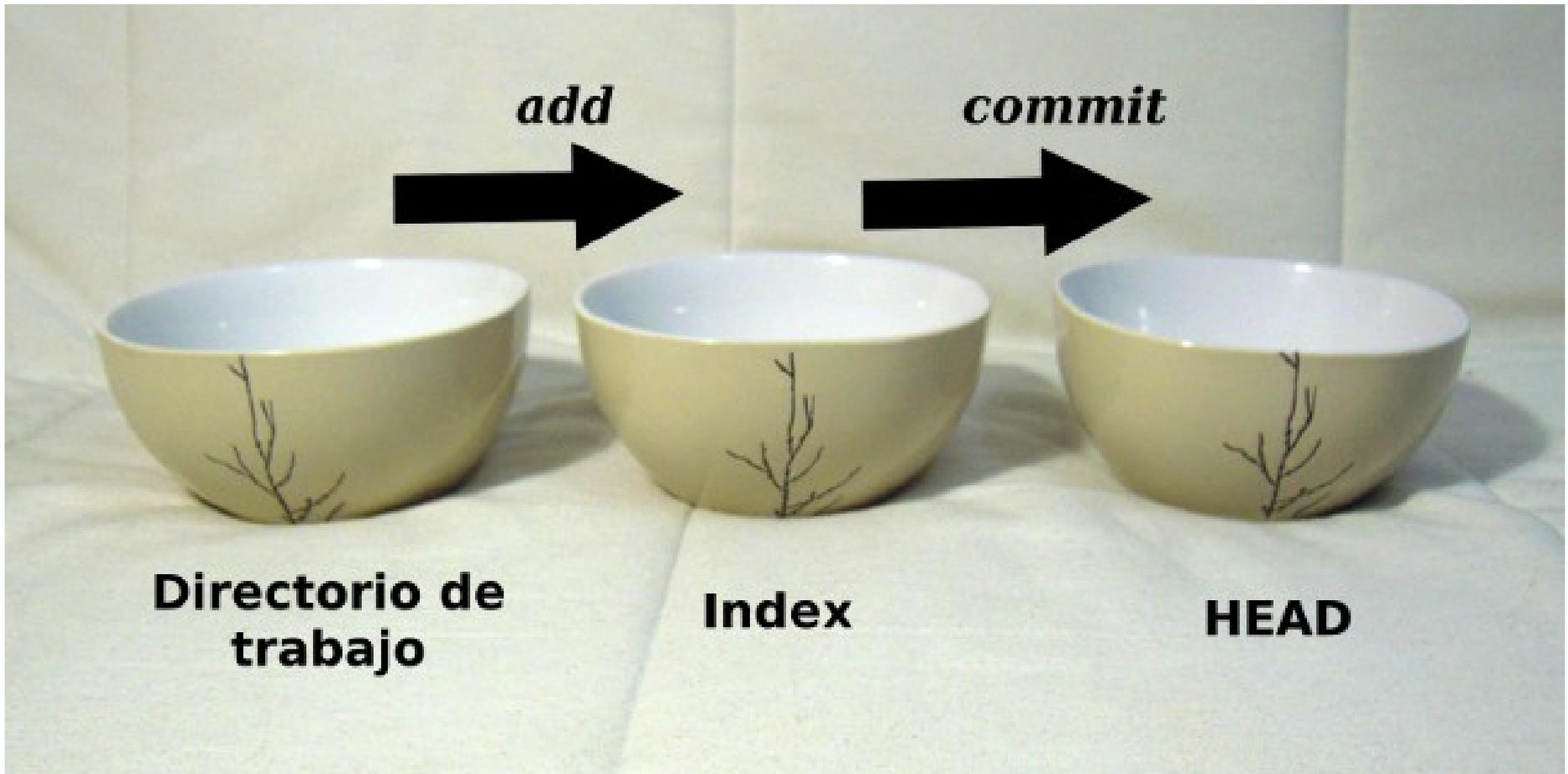
(aunque hay clientes gráficos: Tortoise, gitg, Gigggle...)

Koans de git (¿Qué es git?)

git se creó en y para Linux

(aunque se usa en y para todas las plataformas)

Los tres cuencos



Comenzar el Tao (Instalando git)

Debian: # aptitude install git

Archlinux: # pacman -S git

Windows: <http://windows.github.com> Clic aceptar...

Mac: <http://mac.github.com> Clic aceptar...

Android: Playstore -> Buscar "git" -> Instalar -> Aceptar permisos

La vía interior (Configuración)

```
git config --global user.name "Psicobyte Sensei"
```

```
git config --global user.email "psicobyte@gmail.com"
```

```
git config --global color.ui true
```

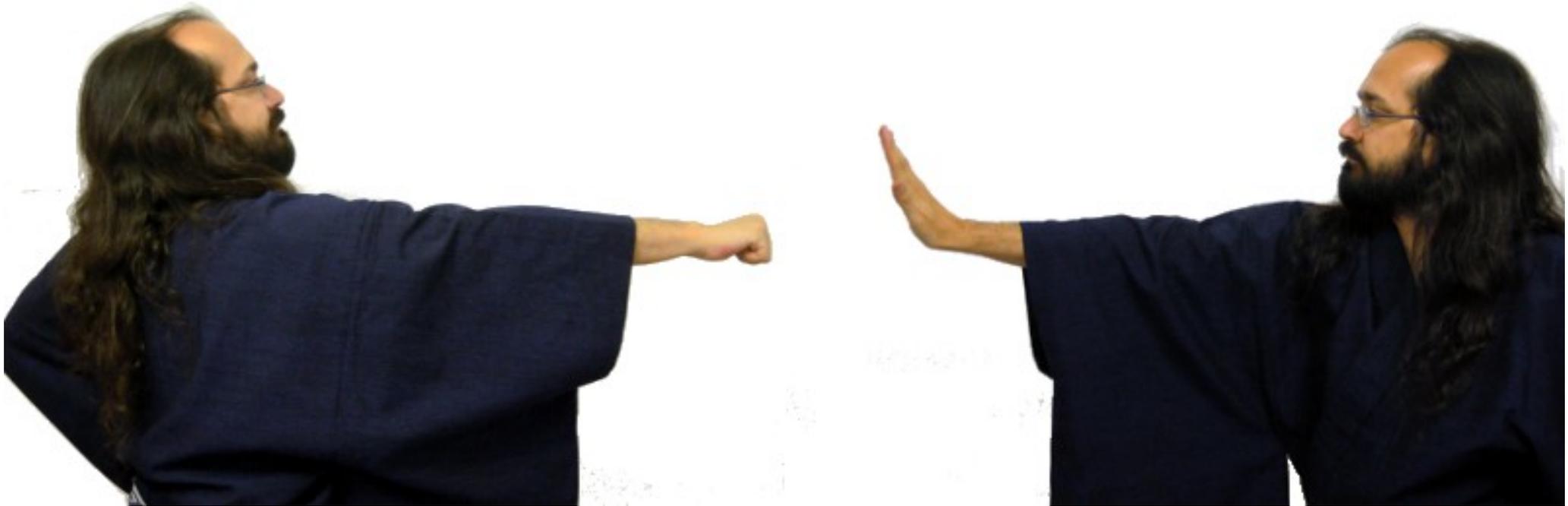
La vía exterior (Claves ssh)

ssh-keygen

ssh-copy-id Dirección-Del-Servidor

git como arte marcial

(O el “Dar cera – Pulir cera” de git)



git como arte marcial

Inicia un repositorio

```
git init
```

git como arte marcial

¡Ayuda!

`git --help COMANDO`

`git --help init`

git como arte marcial

Añade un origen remoto:

```
git remote add origin URL
```

git como arte marcial

O, directamente, clona un repositorio existente:

```
git clone URL
```

```
git clone git@github.com:psicobyte/PiMondrian.git
```

git como arte marcial

Añade ficheros al índice

```
git add Nombre-del-Fichero
```

```
git add Nombre-del-Directorio
```

```
git add .
```

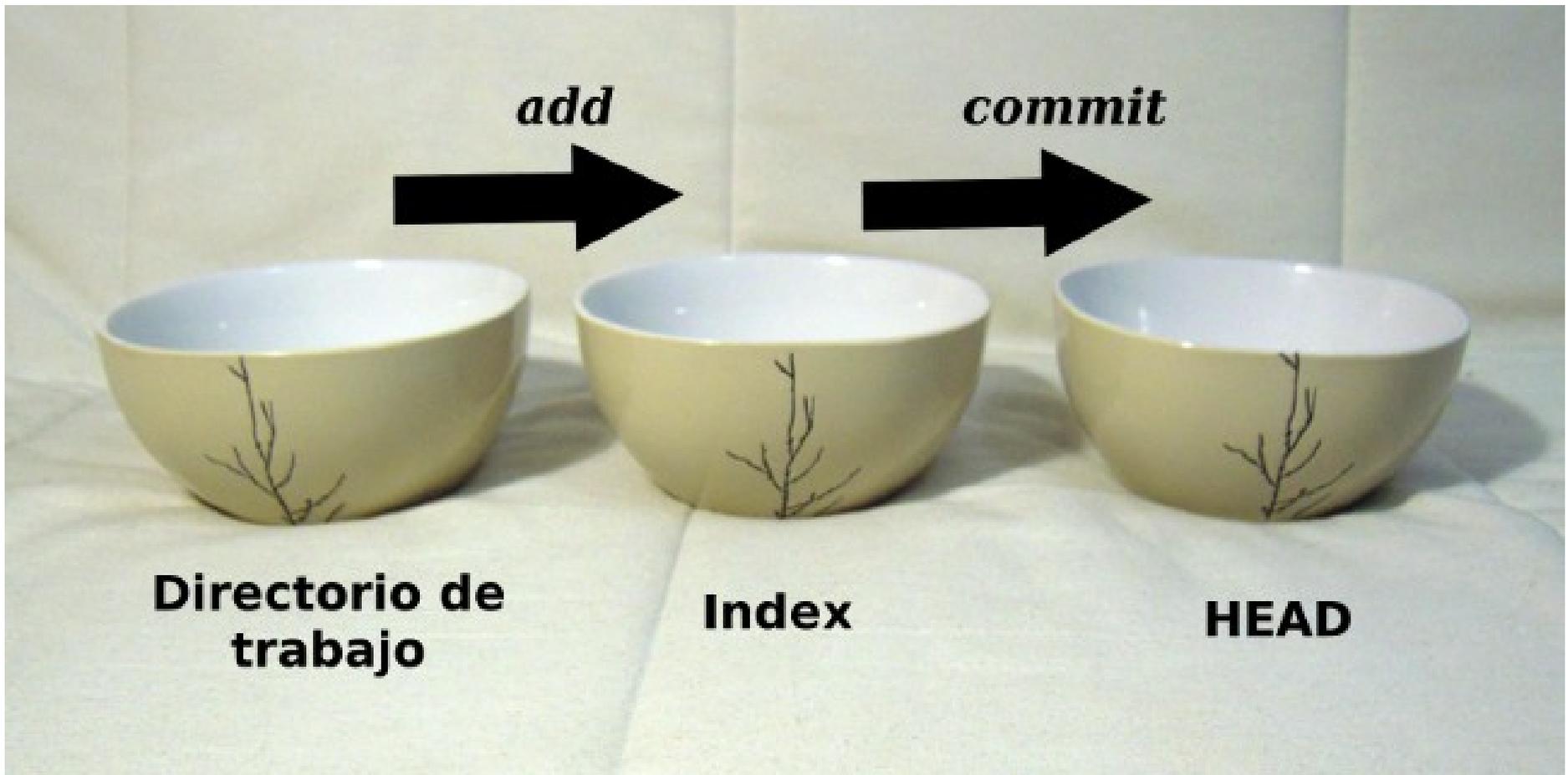
git como arte marcial

Pasa del índice al HEAD:

```
git commit
```

```
git commit -m "Comentario al commit"
```

¿Recuerdas los tres cuencos?



git como arte marcial

Borra:

```
git rm Nombre-del-Fichero
```

```
git rm --cached Nombre-del-Fichero
```

git como arte marcial

Mueve (o renombra):

```
git mv Nombre-del-Fichero Nuevo-Nombre
```

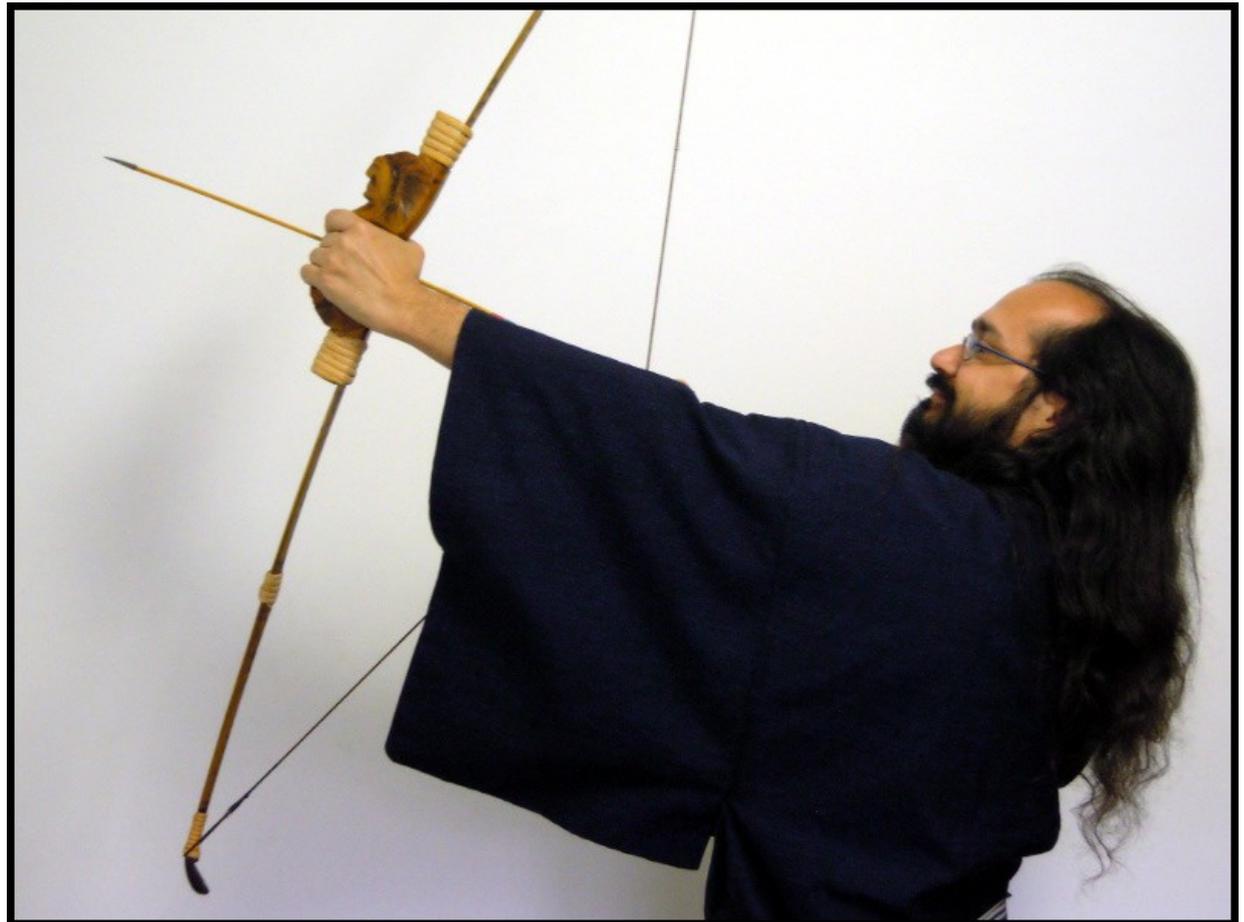
git como arte marcial

¿Ya he hecho commit? ¿En qué rama? ¿Me falta un add? ¿Qué está pasando?

git status

Más allá del horizonte

(sincronizando con repositorios remotos)



Más allá del horizonte

Envía cambios al servidor remoto

```
git push origin master
```

```
git push origin Nombre-De-La-Rama
```

```
git push
```

(recordamos)

Añade un origen remoto:

```
git remote add origin URL
```

O, directamente, clona un repositorio existente:

```
git clone URL
```

Más allá del horizonte

Recibe cambios desde el servidor remoto

```
git pull origin master
```

```
git pull origin Nombre-De-La-Rama
```

```
git pull
```

Más allá del horizonte

¡Conflicto entre servidores!

¿Qué hacemos?

git informa detalladamente del problema y debemos arreglarlo nosotros mismos y hacer un commit y un push.

La vía óctuple

(Usando ramas)



La vía óctuple

Crea una rama:

```
git branch Nombre-De-La-Rama
```

La vía óctuple

Nos movemos a una rama:

```
git checkout Nombre-De-La-Rama
```

Nos movemos a la rama principal:

```
git checkout master
```

La vía óctuple

Crea una rama y nos movemos a ella:

```
git checkout -b Nombre-De-La-Rama
```

La vía óctuple

¡Por el gran dragón! ¿En qué rama estoy?

git branch

La vía óctuple

Borra una rama:

```
git branch -d Nombre-De-La-Rama
```

La vía óctuple

Mezcla una rama con aquella en la que estés:

```
git merge Nombre-De-La-Otra-Rama
```

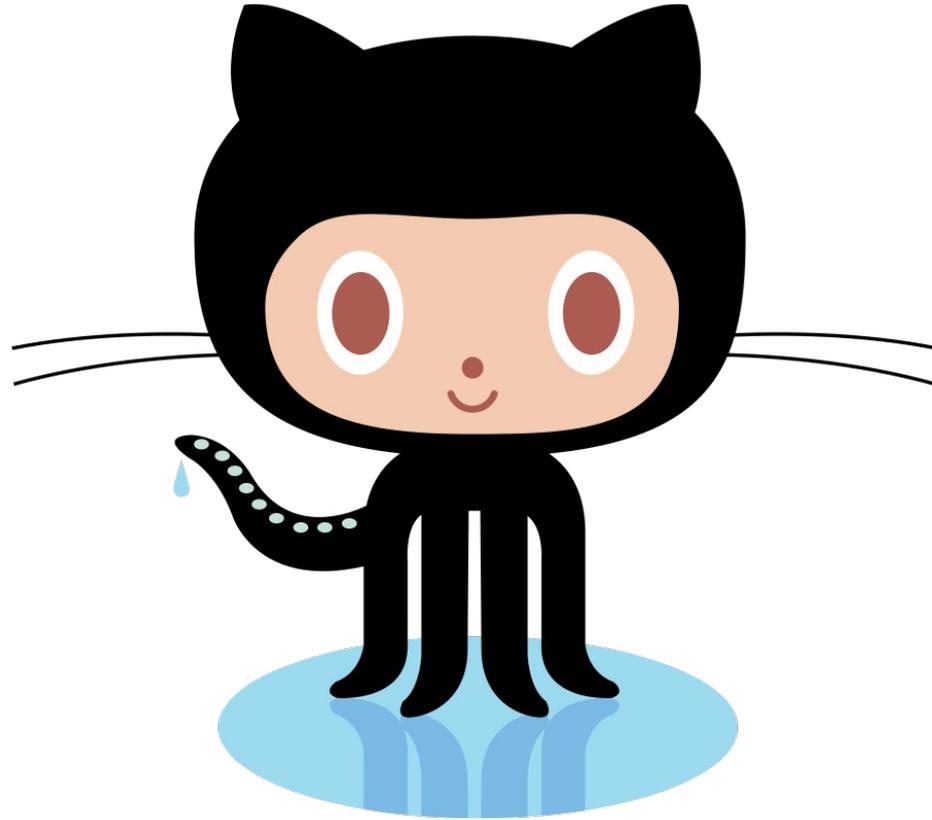
La vía óctuple

¡Conflicto entre ramas!

¿Qué hacemos?

git informa detalladamente del problema y debemos arreglarlo nosotros mismos y hacer un commit.

Github.com: El templo shaolin de git



Abrir cuenta

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Where software is built

Powerful collaboration, code review, and code management for open source and private projects. Public projects are always free.

Private plans start at \$7/mo.

Pick a username

Your email

Create a password

Use at least one lowercase letter, one numeral, and seven characters.

[Sign up for GitHub](#)

By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We will send you account related emails occasionally.

Iniciar repo

The screenshot shows the GitHub homepage for the user 'psicobyte'. At the top, there is a search bar and navigation links for 'Pull requests', 'Issues', and 'Gist'. A notification banner for 'Git Large File Storage v1.0' is visible. The main feed shows several activity items: an issue opened by 'renatoIrr' in the repository 'oslugr/CodeweekETSIIT#2', a push to master by 'Makova' in 'oslugr/CodeweekETSIIT', and several other pushes to master by 'renatoIrr' in the same repository. On the right side, there are two panels: 'Repositories you contribute to' listing repositories like 'proyectopetra/Traffic-Project' and 'oslugr/campus15', and 'Your repositories' showing 'oslugr/CodeweekETSIIT' and 'GrHackLab-logo'.

Search GitHub

Pull requests Issues Gist

psicobyte

Git Large File Storage v1.0
Git LFS is now available for all repositories.

View 161 new broadcasts

4 days ago
renatoIrr opened issue **oslugr/CodeweekETSIIT#2**
Utilizar xcircuit pra dibujar esquemas.

4 days ago
Makova pushed to **master** at **oslugr/CodeweekETSIIT**
a4a8cb4 repes

★ demiurgosoft starred psicobyte/markdown_slides 5 days ago

5 days ago
renatoIrr pushed to **master** at **oslugr/CodeweekETSIIT**
ef2b56a Update README.md

5 days ago
renatoIrr pushed to **master** at **oslugr/CodeweekETSIIT**
69ecd00 Update README.md

Repositories you contribute to

| | |
|----------------------------------|-----|
| proyectopetra/Traffic-Project | 1 ★ |
| MercAddons/Command-Finder | 1 ★ |
| oslugr/campus15 | 5 ★ |
| openxxi/fines_sociales | 2 ★ |
| Makova/Expresion-regular-traf... | 0 ★ |

Your repositories 75 + New repository

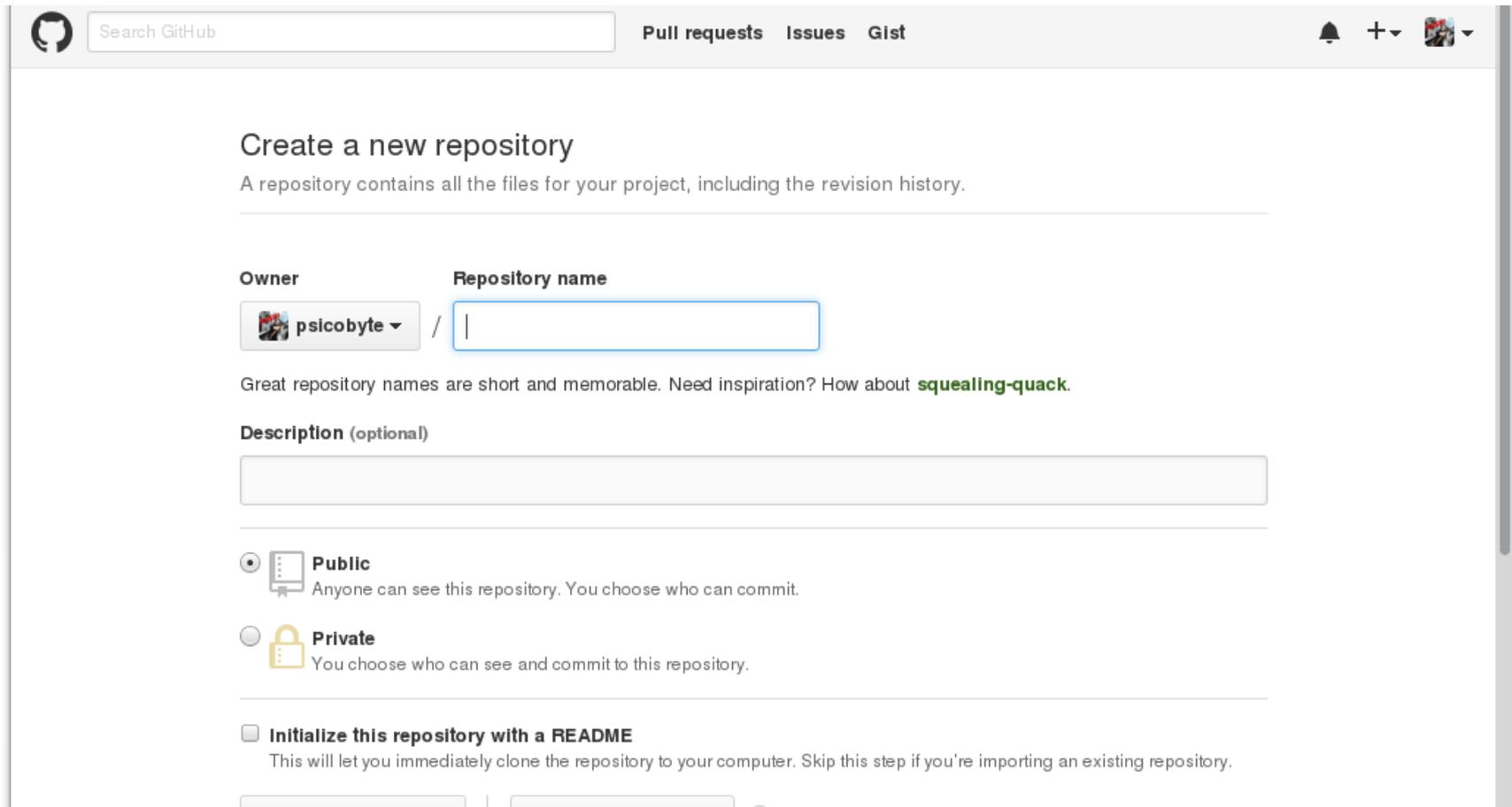
Find a repository...

All Public Private Sources Forks

oslugr/CodeweekETSIIT

GrHackLab-logo

Iniciar repo



The screenshot shows the GitHub interface for creating a new repository. At the top, there is a search bar with the text 'Search GitHub', navigation links for 'Pull requests', 'Issues', and 'Gist', and a notification bell icon. The main heading is 'Create a new repository', followed by the subtext 'A repository contains all the files for your project, including the revision history.' Below this, there are two input fields: 'Owner' with a dropdown menu showing 'psicobyte' and a 'Repository name' field. A suggestion for 'squealing-quack' is shown below the name field. There is a 'Description (optional)' text area. Underneath, there are two radio button options: 'Public' (selected) and 'Private'. At the bottom, there is a checkbox for 'Initialize this repository with a README'.

Search GitHub

Pull requests Issues Gist

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner: psicobyte / Repository name:

Great repository names are short and memorable. Need inspiration? How about [squealing-quack](#).

Description (optional)

Public
Anyone can see this repository. You choose who can commit.

Private
You choose who can see and commit to this repository.

Initialize this repository with a README
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Social: Ojos, estrellas, tenedores (y pull requests)

The screenshot shows a GitHub repository page for 'psicobyte / Test'. The repository is currently on the 'master' branch. It has 12 commits, 3 branches, 0 releases, and 1 contributor. The latest commit is 'Añadida licencia GPL' by psicobyte, committed 2 minutes ago. The repository contains three files: LICENSE, README.md, and renombra. The README.md file is currently open, displaying the text 'All this project is only a test.' The right sidebar shows navigation options for Code, Issues, Pull requests, Wiki, Pulse, Graphs, and Settings. The SSH clone URL is 'git@github.com:psicob'.

This repository Search

Pull requests Issues Gist

psicobyte / Test

Unwatch 1 Unstar 1 Fork 0

Testing github use — Edit

12 commits 3 branches 0 releases 1 contributor

Branch: master Test / +

psicobyte Añadida licencia GPL Latest commit ef06ed8 2 minutes ago

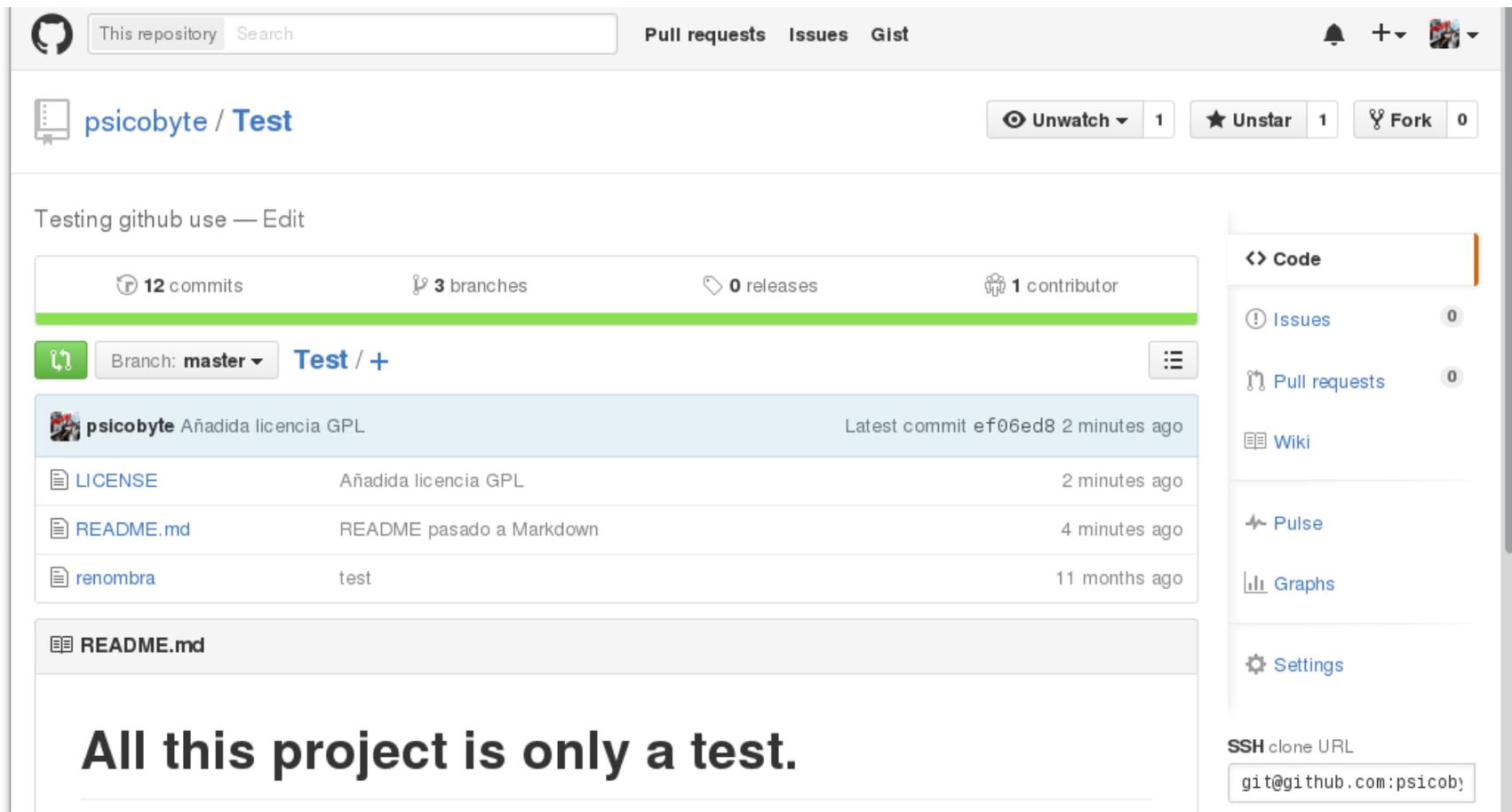
| | | |
|-----------|--------------------------|---------------|
| LICENSE | Añadida licencia GPL | 2 minutes ago |
| README.md | README pasado a Markdown | 4 minutes ago |
| renombra | test | 11 months ago |

README.md

All this project is only a test.

SSH clone URL
git@github.com:psicob

Ponlo fácil: README, LICENSE...



The screenshot shows a GitHub repository page for 'psicobyte / Test'. The repository is currently on the 'master' branch. The commit history shows three recent commits: 'Añadida licencia GPL' (2 minutes ago), 'README pasado a Markdown' (4 minutes ago), and 'test' (11 months ago). The repository statistics show 12 commits, 3 branches, 0 releases, and 1 contributor. The README file is visible at the bottom of the page, containing the text: 'All this project is only a test.'

Testing github use — Edit

12 commits 3 branches 0 releases 1 contributor

Branch: master Test / +

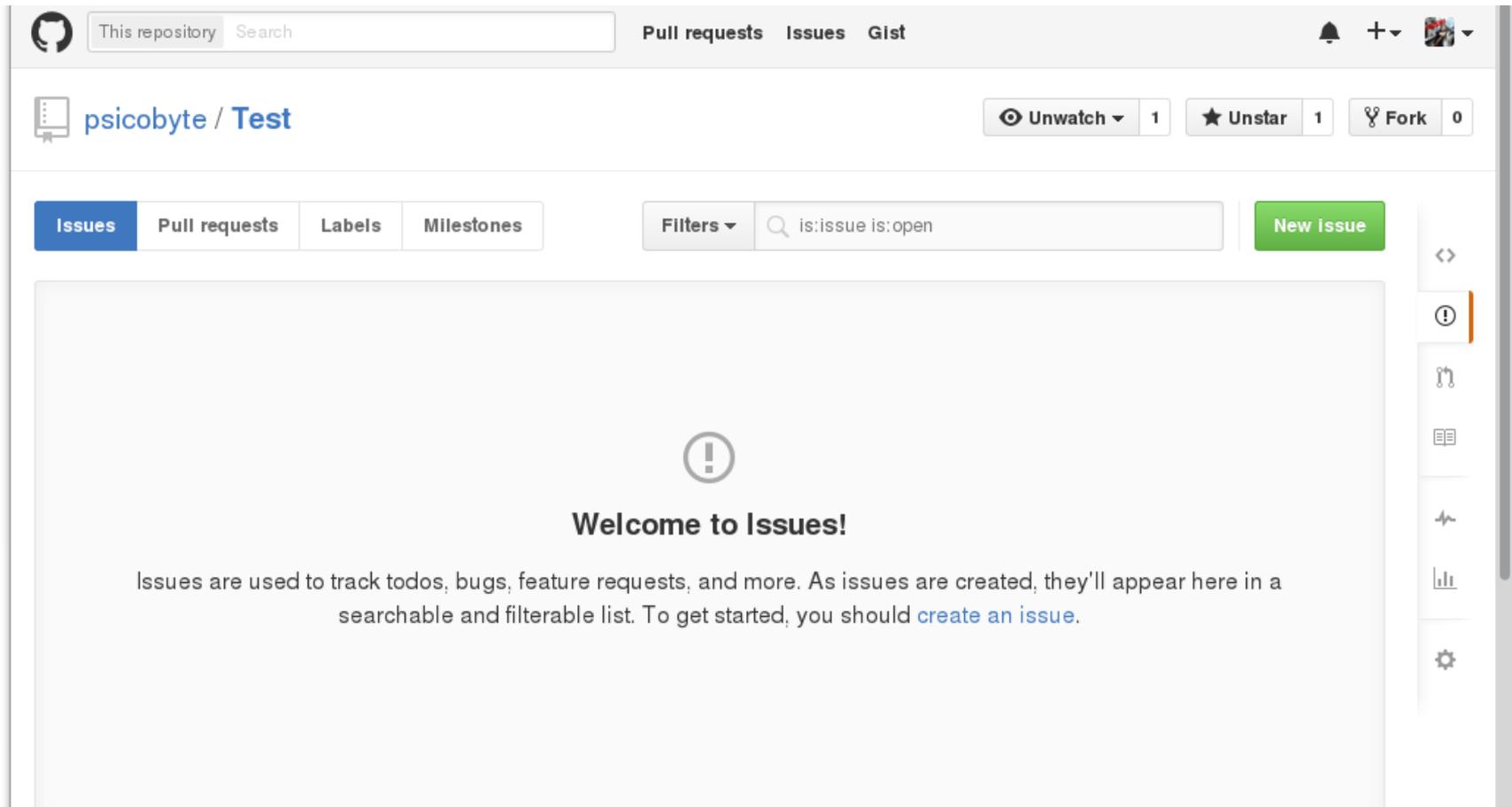
| Commit | Message | Time |
|-----------|--------------------------|-------------------------------------|
| psicobyte | Añadida licencia GPL | Latest commit ef06ed8 2 minutes ago |
| LICENSE | Añadida licencia GPL | 2 minutes ago |
| README.md | README pasado a Markdown | 4 minutes ago |
| renombra | test | 11 months ago |

README.md

All this project is only a test.

SSH clone URL
git@github.com:psicob...

Abrir y cerrar issues



The screenshot shows the GitHub interface for the repository 'psicobyte / Test'. At the top, there is a search bar with 'This repository' and 'Search' text, and navigation links for 'Pull requests', 'Issues', and 'Gist'. On the right side of the top bar, there are notification and user profile icons. Below the repository name, there are buttons for 'Unwatch' (1), 'Unstar' (1), and 'Fork' (0). The main navigation bar includes 'Issues' (selected), 'Pull requests', 'Labels', and 'Milestones'. A search filter is set to 'is:issue is:open'. A green 'New issue' button is visible on the right. The main content area displays a large grey box with a warning icon and the text: 'Welcome to Issues! Issues are used to track todos, bugs, feature requests, and more. As issues are created, they'll appear here in a searchable and filterable list. To get started, you should [create an issue](#).' On the far right, there is a vertical sidebar with icons for code, issues, pull requests, activity, and settings.

Abrir (y cerrar) issues

This repository Search

Pull requests Issues Gist

psicobyte / Test

Unwatch 1 Unstar 1 Fork 0

Issues Pull requests Labels Milestones

Title

Write Preview Styling with Markdown is supported

Leave a comment

Attach files by dragging & dropping or [selecting them](#).

Labels

None yet

Milestone

No milestone

Assignee

No one—assign yourself

Desde el commit

Commit -m "Archivo modificado close #7"

- closes #7
- closed #7
- fix #7
- fixes #7
- fixed #7
- resolve #7
- resolves #7
- resolved #7

Enlaces y referencias

Git: <http://git-scm.com/>

GitHub: <http://github.com/>

TryGit: <http://try.github.io/>

mozillascience.github.io/code-research-object/

OSL de la UGR: <http://osl.ugr.es/>

Muchas gracias

<http://www.psicobyte.com>

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[@psicobyte_](#)

Esta presentación se puede descargar de:

<http://www.psicobyte.com/info/descargas>

