

Git II - Desde la línea de comandos

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Resumen

- Es un software de control de versiones diseñado por Linus Torvalds (2005).
- Lleva registro de cambios en archivos.
- Puede funcionar a nivel *directorio*, no requiere acceso a Internet ni de un servidor central.
- Presente en los principales sistemas operativos.

Cómo funciona

DIFF(1)

NAME

diff - compare files line by line

SYNOPSIS

diff [OPTION]... FILES

DESCRIPTION

Compare FILES line by line.

-u, -U NUM, --unified[=NUM]

output NUM (default 3) lines of unified context

```
$ pwd
```

```
/home/uma/ownCloud/TeX/github/examples
```

```
$ ls
```

```
httpd.conf  httpd.conf.~2~ httpd.conf.~4~ my.cnf.~1~  php-7.0.ini.~1~
```

```
httpd.conf.~1~ httpd.conf.~3~ my.cnf      php-7.0.ini  php-fpm.conf
```

```
$ for i in httpd.conf*; do wc -l $i; done  
38 httpd.conf  
28 httpd.conf.~1~  
28 httpd.conf.~2~  
38 httpd.conf.~3~  
38 httpd.conf.~4~
```

```
$ diff -p httpd.conf.~1~ httpd.conf.~2~  
5c5  
< server "nextcloud.example.com" {  
---  
> server "janikua.geociencias.unam.mx" {  
7c7  
<     listen on $ext_if tls port 443  
---  
>     #listen on $ext_if tls port 443
```



```
$ diff -p httpd.conf.~1~ httpd.conf.~2~ >httpd-01.patch  
$ wc -l httpd-01.patch  
      8 httpd-01.patch
```

PATCH(1)

PATCH(1)

NAME

patch - apply a diff file to an original

-C, --check

Checks that the patch would apply cleanly, but does not modify anything.

-p strip-count, --strip strip-count

Setting -p0 gives the entire pathname unmodified.

```
$ mkdir tmp
```

```
$ cp {httpd.conf.~1~,httpd-01.patch} tmp/
```

```
$ cd tmp/
```

```
$ sha1 *
```

```
SHA1 (httpd-01.patch) = 6ff58bedf80de760a2d1694636bd443a858cbe24
```

```
SHA1 (httpd.conf.~1~) = 5f5eb1b845e9e611be85f51baf06a40317c0d287
```

```
$ patch -C -p0 httpd.conf.~1~ httpd-01.patch
```

```
Hmm... Looks like a normal diff to me...
```

```
Patching file httpd.conf.~1~ using Plan A...
```

```
Hunk #1 succeeded at 5.
```

```
Hunk #2 succeeded at 7.
```

```
$ patch -p0 httpd.conf.~1~ httpd-01.patch
```

```
Hmm... Looks like a normal diff to me...
```

```
Patching file httpd.conf.~1~ using Plan A...
```

```
Hunk #1 succeeded at 5.
```

```
Hunk #2 succeeded at 7.
```

```
done
```

```
$ sha1 *
```

```
SHA1 (httpd-01.patch) = 6ff58bedf80de760a2d1694636bd443a858cbe24
```

```
SHA1 (httpd.conf.~1~) = be5b367ecb497351a83a71b664500f383503b8c
```

```
SHA1 (httpd.conf.~1~.orig) = 5f5eb1b845e9e611be85f51baf06a40317c0
```

```
$ patch -C -p0 httpd.conf~1~ httpd-01.patch
Hmm... Looks like a normal diff to me...
Patching file httpd.conf~1~ using Plan A...
Reversed (or previously applied) patch detected! Assume -R? [y]
Hunk #1 succeeded at 5.
Hunk #2 succeeded at 7.
done
```

GIT desde la línea de comandos

```
$ pwd  
/home/uma/ownCloud/TeX/github/examples/tmp  
$ cd ../  
$ mkdir my1stgit  
$ cd my1stgit/  
$ git config --global user.name "Ulises M. Alvarez"  
$ git config --global user.email uma@sophie.unam.mx
```


Importando un proyecto

Para importar un nuevo proyecto y ponerlo bajo GIT:

```
$ cp ../httpd.conf.~1~ httpd.conf
```

```
$ git init
```

```
Initialized empty Git repository in .../my1stgit/.git/  
git add .
```

Almacenando: git commit

```
$ git commit
```

```
Este es mi primer repo de GIT.
```

```
#
```

```
# Initial commit
```

```
#
```

```
# Changes to be committed:
```

```
#      new file:   httpd.conf
```

```
#
```

```
~
```

```
~
```

```
~
```

```
[master (root-commit) 7ca8a8e] Este es mi primer repo de GIT.
```

```
1 file changed, 28 insertions(+)
```

```
create mode 100644 httpd.conf
```

Editamos el archivo y agregamos los cambios...

```
$ emacs httpd.conf
```

```
$ git add httpd.conf
```

Haciendo cambios

Para ver el estado general:

```
$ git status
```

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: httpd.conf

Registrando el cambio

```
$ git commit
```

Se modifica el nombre del servidor y se bloquea el puerto 80.

```
# On branch master
```

```
# Changes to be committed:
```

```
#       modified:   httpd.conf
```

```
#
```

```
~
```

[master be1ec04] Se modifica el nombre del servidor y se bloquea el puerto

1 file changed, 2 insertions(+), 2 deletions(-)

```
$ git status
```

```
On branch master
```

```
nothing to commit, working tree clean
```