

EJERCICIOS DE TAR

Resumen de opciones básicas de tar

- -c → crear un archivo.
 - -x → extraer un archivo.
 - -t → listar el contenido.
 - -v → modo detallado (verbose).
 - -f → especifica el nombre del archivo.
 - -z → comprime con gzip.
 - -j → comprime con bzip2.
 - -J → comprime con xz (muy usado hoy en día).
 - --exclude → excluir archivos o directorios.
 - -C → cambiar al directorio indicado antes de operar.
-

Ejercicios propuestos (basados en lo que muestras)

1. Crear un backup simple:
2. `tar -cvf backup01.tar /home`

```
~/Documents/box > tar -cvf backup01.tar /home/kali/Documents
tar: Removing leading '/' from member names
/home/kali/Documents/
/home/kali/Documents/.trash/
/home/kali/Documents/.trash/.p10k.zsh
/home/kali/Documents/.trash/hosts.html
/home/kali/Documents/.trash/.bashrc
/home/kali/Documents/.trash/.tmux.conf
/home/kali/Documents/.trash/.zshrc
/home/kali/Documents/.trash/.bash_history
/home/kali/Documents/.trash/Inception.7z
/home/kali/Documents/.trash/.vimrc
/home/kali/Documents/.trash/* Essentials Configs.md
/home/kali/Documents/.trash/bookmarks.html
/home/kali/Documents/.trash/.zsh_history
/home/kali/Documents/Ejercicios_seguridad_informatica_2025/
```

```
~/Documents/box > ll
total 375820
drwxrwxr-x  4 kali kali    4096 Sep 24 08:55 ./
drwxr-xr-x  5 kali kali    4096 Sep 22 11:02 ../
-rw-rw-r--  1 kali kali 384768000 Sep 24 08:55 backup01.tar
-rw-rw-r--  1 kali kali    676 Sep 23 08:28 dmitry.txt
-rw-rw-r--  1 kali kali      0 Sep 23 08:28 docenum.xml
```

3. Crear un backup comprimido con gzip:

```
tar -cvzf backup02.tar.gz /home
```

```
~/Documents/box > tar -cvzf backup02.tar.gz /home/kali/Documents/box/ejercicios_tar
tar: Removing leading `/' from member names
/home/kali/Documents/box/ejercicios_tar/
/home/kali/Documents/box/ejercicios_tar/Esto
```

```
~/Documents/box > ls
archivo.txx      dmi
backup01.tar     dns
backup02.tar.gz  eje
```

4. Crear un backup comprimido con bzip2:

```
tar -cvjf backup03.tar.bz2 /home
```

```
~/Documents/box > tar -cvjf backup03.tar.bz2 /home/kali/Documents/box/ejercicios_tar
tar: Removing leading `/' from member names
/home/kali/Documents/box/ejercicios_tar/
/home/kali/Documents/box/ejercicios_tar/Esto
```

```
~/Documents/box > ls
archivo.txx      dmi
backup01.tar     dns
backup02.tar.gz  eje
backup03.tar.bz2 es
```

5. Comprimir varios directorios:

```
tar -cvf backup04.tar /etc /var /home
```

```
~/Documents/box > tar -cvf backup04.tar /etc/logrotate.d /home/kali/Documents/box/ejercicios_tar
tar: Removing leading `/' from member names
/etc/logrotate.d/
/etc/logrotate.d/bootlog
tar: Removing leading `/' from hard link targets
/etc/logrotate.d/tor
/etc/logrotate.d/nginx
/etc/logrotate.d/alternatives
/etc/logrotate.d/stunnel4
/etc/logrotate.d/mosquitto
/etc/logrotate.d/apache2
/etc/logrotate.d/btmp
/etc/logrotate.d/wtmp
```

```
~/Documents/box > ll
total 375864
drwxrwxr-x  5 kali kali      4096 Sep 24 09:09 ./
drwxr-xr-x  5 kali kali      4096 Sep 22 11:02 ../
-rw-rw-r--  1 kali kali         0 Sep 24 09:01 archivo.txx
-rw-rw-r--  1 kali kali 384768000 Sep 24 08:55 backup01.tar
-rw-rw-r--  1 kali kali      173 Sep 24 09:01 backup02.tar.gz
-rw-rw-r--  1 kali kali      192 Sep 24 09:03 backup03.tar.bz2
-rw-rw-r--  1 kali kali    30720 Sep 24 09:09 backup04.tar
```

6. Excluir un directorio concreto:

```
tar -cvf bk05.tar /home --exclude=/home/usuario/Descargas
```

```
~/Documents/box > tar -cvf backup05.tar --exclude=/home/kali/Documents/box/excluirDir /home/kali/Documents/box/ejercicios_tar
tar: Removing leading `/' from member names
/home/kali/Documents/box/ejercicios_tar/
/home/kali/Documents/box/ejercicios_tar/Esto
/home/kali/Documents/box/ejercicios_tar/excluirDir/
```

```
~/Documents/box > ll
total 945120
drwxrwxr-x  5 kali kali      4096 Sep 24 09:12 ./
drwxr-xr-x  5 kali kali      4096 Sep 22 11:02 ../
-rw-rw-r--  1 kali kali         0 Sep 24 09:01 archivo.txx
-rw-rw-r--  1 kali kali 384768000 Sep 24 08:55 backup01.tar
-rw-rw-r--  1 kali kali      173 Sep 24 09:01 backup02.tar.gz
-rw-rw-r--  1 kali kali      192 Sep 24 09:03 backup03.tar.bz2
-rw-rw-r--  1 kali kali    10240 Sep 24 09:12 backup04.tar
-rw-rw-r--  1 kali kali    10240 Sep 24 09:13 backup05.tar
-rw-rw-r--  1 kali kali 582922240 Sep 24 09:10 bk05.tar
-rw-rw-r--  1 kali kali      676 Sep 23 08:28 dmitry.txt
-rw-rw-r--  1 kali kali         0 Sep 23 08:39 dnseenum.xml
```

7. Excluir por patrón:

```
tar -cvf bk06.tar /home --exclude=/home/*.mp4
```

```
~/Documents/box > tar -cvf bk06.tar --exclude=/home/kali/Documents/box/*.txt /home/kali/Documents/box/ejercicios_tar
tar: Removing leading `/' from member names
/home/kali/Documents/box/ejercicios_tar/
/home/kali/Documents/box/ejercicios_tar/Esto
/home/kali/Documents/box/ejercicios_tar/excluirDir/
```

8. Listar contenido sin descomprimir:

```
tar -tvf bk06.tar
```

```
~/Documents/box > tar -tvf bk06.tar
drwxrwxr-x kali/kali      0 2025-09-24 09:11 home/kali/Documents/box/ejercicios_tar/
-rw-rw-r-- kali/kali      0 2025-09-24 09:01 home/kali/Documents/box/ejercicios_tar/Esto
drwxrwxr-x kali/kali      0 2025-09-24 09:11 home/kali/Documents/box/ejercicios_tar/excluirDir/
```

Con gzip:

tar -ztfv backup02.tar.gz

```
~/Documents/box > tar -ztfv backup02.tar.gz
drwxrwxr-x kali/kali 0 2025-09-24 09:01 home/kali/Documents/box/ejercicios_tar/
-rw-rw-r-- kali/kali 0 2025-09-24 09:01 home/kali/Documents/box/ejercicios_tar/Esto
```

Con bzip2:

tar -jtfv backup03.tar.bz2

```
~/Documents/box > tar -jtfv backup03.tar.bz2
drwxrwxr-x kali/kali 0 2025-09-24 09:01 home/kali/Documents/box/ejercicios_tar/
-rw-rw-r-- kali/kali 0 2025-09-24 09:01 home/kali/Documents/box/ejercicios_tar/Esto
```

9. Extraer un archivo:

tar -xvf backup01.tar

```
~/Documents/box > tar -xvf backup01.tar
home/kali/Documents/
home/kali/Documents/.trash/
home/kali/Documents/.trash/.p10k.zsh
home/kali/Documents/.trash/hosts.html
home/kali/Documents/.trash/.bashrc
home/kali/Documents/.trash/.tmux.conf
home/kali/Documents/.trash/.zshrc
home/kali/Documents/.trash/.bash_history
```

Con gzip:

tar -xvzf backup02.tar.gz

```
~/Documents/box > tar -xvzf backup02.tar.gz
home/kali/Documents/box/ejercicios_tar/
home/kali/Documents/box/ejercicios_tar/Esto
```

Con bzip2:

tar -xvjf backup03.tar.bz2

```
~/Documents/box > tar -xvjf backup03.tar.bz2
home/kali/Documents/box/ejercicios_tar/
home/kali/Documents/box/ejercicios_tar/Esto
```

📌 Complementos recomendados para tus alumnos

- ◆ **Compresión moderna con xz** (mejor ratio que gzip y bzip2):

tar -cvjf backup04.tar.xz /home

tar -xvjf backup04.tar.xz

```
~/Documents/box > tar -cvjf backup04.tar.xz /home/kali/Documents/box/ejercicios_tar
tar: Removing leading `/' from member names
/home/kali/Documents/box/ejercicios_tar/
/home/kali/Documents/box/ejercicios_tar/Esto
/home/kali/Documents/box/ejercicios_tar/excluirDir/

~/Documents/box > tar -xvjf backup04.tar.xz
home/kali/Documents/box/ejercicios_tar/
home/kali/Documents/box/ejercicios_tar/Esto
home/kali/Documents/box/ejercicios_tar/excluirDir/
```

- ◆ **Extraer en un directorio específico:**

tar -xvf backup01.tar -C /tmp/restauracion

```
~/Documents/box > tar -xvf backup04.tar.xz -C /tmp/
home/kali/Documents/box/ejercicios_tar/
home/kali/Documents/box/ejercicios_tar/Esto
home/kali/Documents/box/ejercicios_tar/excluirDir/
```

◆

Crear backup incremental (muy útil en sistemas):

1. Crear snapshot inicial:

```
tar -cvf full-backup.tar --listed-incremental=snapshot.file /home
```

```
/home/kali/Documents/box/webs/  
tar: /home/kali/Documents/box/full-backup.tar: archive cannot contain itself; not dumped  
/home/kali/Documents/box/snapshot.file  
~/Documents/box > tar -cvf full-backup.tar --listed-incremental=snapshot.file /home/kali/Documents/box/
```

2. Crear backup incremental:

```
tar -cvf inc-backup.tar --listed-incremental=snapshot.file /home
```

```
/home/kali/Documents/box/webs/  
tar: /home/kali/Documents/box/inc-backup.tar: archive cannot contain itself; not dumped  
/home/kali/Documents/box/snapshot.file  
~/Documents/box > tar -cvf inc-backup.tar --listed-incremental=snapshot.file /home/kali/Documents/box/
```

♦ Comprobar integridad:

```
tar -tvf backup02.tar.gz > /dev/null
```

```
~/Documents/box > tar -tvf backup02.tar.gz > /dev/null  
~/Documents/box > tar -tvf inc-backup.tar > /dev/null
```

Éjercicio duplicity pag 99

Ese ejercicio hay que hacer estos cambios

1º hay que utilizar sudo

2º {1..40}

3º ///var/local/datos/copia

```
~/Documents/box > sudo mkdir /var/local/datos  
~/Documents/box > sudo touch /var/local/datos/file{1..40}.conf
```

```
~/Documents/box > sudo mkdir /var/local/copia /var/local/restauracion  
~/Documents/box > sudo chmod 777 /var/local/copia /var/local/restauracion
```

```
~/Documents/box > duplicity full /var/local/datos file:///var/local/copia
Local and Remote metadata are synchronized, no sync needed.
Last full backup date: none
GnuPG passphrase for decryption:
Retype passphrase for decryption to confirm:
-----[ Backup Statistics ]-----
StartTime 1758700524.69 (Wed Sep 24 09:55:24 2025)
EndTime 1758700524.72 (Wed Sep 24 09:55:24 2025)
ElapsedTime 0.02 (0.02 seconds)
SourceFiles 41
SourceFileSize 4096 (4.00 KB)
NewFiles 41
NewFileSize 4096 (4.00 KB)
DeletedFiles 0
ChangedFiles 0
ChangedFileSize 0 (0 bytes)
ChangedDeltaSize 0 (0 bytes)
DeltaEntries 41
RawDeltaSize 0 (0 bytes)
TotalDestinationSizeChange 570 (570 bytes)
Errors 0
```

```
~/Documents/box > duplicity list-current-files file:///var/local/copia
Local and Remote metadata are synchronized, no sync needed.
Last full backup date: Wed Sep 24 09:55:14 2025
Wed Sep 24 09:51:53 2025 .
Wed Sep 24 09:51:53 2025 file1.conf
Wed Sep 24 09:51:53 2025 file10.conf
Wed Sep 24 09:51:53 2025 file11.conf
Wed Sep 24 09:51:53 2025 file12.conf
Wed Sep 24 09:51:53 2025 file13.conf
Wed Sep 24 09:51:53 2025 file14.conf
Wed Sep 24 09:51:53 2025 file15.conf
Wed Sep 24 09:51:53 2025 file16.conf
Wed Sep 24 09:51:53 2025 file17.conf
```

```

~/Documents/box > duplicity collection-status file:///var/local/copia
Last full backup date: Wed Sep 24 09:57:59 2025
Collection Status
-----
Connecting with backend: BackendWrapper
Archive dir: /home/kali/.cache/duplicity/4a5c328ed9a9804c405c557c79de76ce

Found 1 secondary backup chain(s).
Secondary chain 1 of 1:
-----
Chain start time: Wed Sep 24 09:55:14 2025
Chain end time: Wed Sep 24 09:55:14 2025
Number of contained backup sets: 1
Total number of contained volumes: 1
Type of backup set:                               Time:           Num volumes:
Full                Wed Sep 24 09:55:14 2025          1
-----

Found primary backup chain with matching signature chain:
-----
Chain start time: Wed Sep 24 09:57:59 2025
Chain end time: Wed Sep 24 09:57:59 2025
Number of contained backup sets: 1
Total number of contained volumes: 1
Type of backup set:                               Time:           Num volumes:
Full                Wed Sep 24 09:57:59 2025          1
-----

No orphaned or incomplete backup sets found.

```

```

~/Documents/box > sudo duplicity restore file:///var/local/copia /var/local/restauracion
Synchronizing remote metadata to local cache...
GnuPG passphrase for decryption:
Copying duplicity-full-signatures.20250924T075759Z.sigtar.gpg to local cache.
Copying duplicity-full.20250924T075759Z.manifest.gpg to local cache.
Last full backup date: Wed Sep 24 09:57:59 2025

```

```

~/Documents/box > ls /var/local/restauracion
file10.conf file15.conf file1.conf file24.conf file29.conf file33.conf file38.conf file5.conf
file11.conf file16.conf file20.conf file25.conf file2.conf file34.conf file39.conf file6.conf
file12.conf file17.conf file21.conf file26.conf file30.conf file35.conf file3.conf file7.conf
file13.conf file18.conf file22.conf file27.conf file31.conf file36.conf file40.conf file8.conf
file14.conf file19.conf file23.conf file28.conf file32.conf file37.conf file4.conf file9.conf

```

```

~/Documents/box > duplicity --time "2002-03-26T09:08:00" --path-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
Local and Remote metadata are synchronized, no sync needed.
Last full backup date: Wed Sep 24 09:57:59 2025
GnuPG passphrase for decryption:
*.conf not found in archive - no files restored.

```

```

~/Documents/box > duplicity /var/local/copia ftp://antonio@paraninfo.es/copia
No valid action found. Will imply 'backup' because a path source was given and target is a url location.
/bin/sh: 1: lftp: not found
LFTP not found: Please install LFTP.

```



```
~/Documents/box > duplicity -t 3D ssh://antonio@paraninfo.es/copia /var/local/restauracion
No valid action found. Will imply 'restore' because url source was given and target is a local path.
UnsupportedBackendScheme: scheme not supported in url: ssh://antonio@paraninfo.es/copia
```

```
~/Documents/box > duplicity --no-encryption remove-all-but-n-full 1 --force rsync://antonio@paraninfo.es/copia
^C
```

Listado de comandos:

```
sudo mkdir /var/local/datos
```

```
sudo touch /var/local/datos/file{1..40}.conf
```

```
mkdir /var/local/copia /var/local/restauracion
```

```
sudo mkdir /var/local/copia /var/local/restauracion
```

```
sudo chmod 777 /var/local/copia /var/local/restauracion
```

```
duplicity full /var/local/datos file:///var/local/copia
```

```
duplicity list-current-file file:///var/local/copia
```

```
duplicity list-current-files file:///var/local/copia
```

```
duplicity collection-status file:///var/local/copia
```

```
duplicity restore file:///var/local/copia /var/local/restauracion
```

```
sudo duplicity restore file:///var/local/copia /var/local/restauracion
```

```
ls /var/local/restauracion
```

```
duplicity --time 24/09/2025 --file-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
```

```
duplicity --time 09/24/2025 --file-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
```

```
duplicity --time 23/09/2025 --file-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
```

```
duplicity --time "2025-09-24T09:09:01-10:00" --file-to-restore *.conf restore file:///var/local/copia
```

```
/var/local/restauracion
```

```
duplicity --time "2025-09-24" --file-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
```

```
duplicity --time "3D64s" --file-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
```

```
duplicity --time 3D64s --file-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
```

```
duplicity --time 3D --file-to-restore *.conf restore file:///var/local/copia /var/local/restauracion
```

```
duplicity --time "2002-03-26T09:08:00" --file-to-restore *.conf restore file:///var/local/copia
```

```
/var/local/restauracion
```

```
duplicity --time "2002-03-26T09:08:00" --path-to-restore *.conf restore file:///var/local/copia
```

```
/var/local/restauracion
```

```
duplicity /var/local/origen ftp://antonio@paraninfo.es/copia
```

```
duplicity /var/local/copia ftp://antonio@paraninfo.es/copia
```

```
duplicity -t 3D ssh://antonio@paraninfo.es/copia /var/local/restauracion
```

```
duplicity --no-encryption remove-all-but-n-full 1 --force rsync://antonio@paraninfo.es/copia
```