115 - Tar
Curs 2021 - 2022

ASIX M01-ISO UF1-A01-16 tar

tar

Descripció

Conceptes clau:
- ❏ tar

Ordres a treballar:
- ❏ tar

Tar (tape archiver)

Create and list

```
#1
$ tar cvf documentation.tar /usr/share/doc
...
...

$ ls -l documentation.tar
-rw-r--r-- 1 ecanet inf 237475840 Oct 22 11:25 documentation.tar

$ file documentation.tar
documentation.tar: POSIX tar archive (GNU)

$ tar tf documntation.tar
...
```

```
#2
```

```
$ tar cf man.tar /usr/share/man/man1 /usr/share/man/man3
tar: Removing leading `/' from member names
tar: Removing leading `/' from hard link targets

$ ls -l man.tar
-rw-r--r-- 1 ecanet inf 15790080 Oct 22 11:27 man.tar

$ file man.tar
man.tar: POSIX tar archive (GNU)


$ tar tf man.tar
...
```

```
#3
$ tar cf dades.tar /etc/passwd /etc/group /etc/services /usr/bin/y*
tar: Removing leading `/' from member names
tar: Removing leading `/' from hard link targets

$ tar tf dades.tar
etc/passwd
etc/group
etc/services
usr/bin/y2racc2.7
usr/bin/ybmtopbm
usr/bin/yelp
usr/bin/yes
usr/bin/ypdomainname
usr/bin/yuvsplittoppm
usr/bin/yuvtoppm
```

Files and directories

```
#4
$ pwd
/tmp
$ mkdir target
$ cd target
$ pwd
/tmp/target

$ tar xvf /tmp/dades.tar
etc/passwd
etc/group
etc/services
usr/bin/y2racc2.7
usr/bin/ybmtopbm
usr/bin/yelp
usr/bin/yes
usr/bin/ypdomainname
usr/bin/yuvsplittoppm
usr/bin/yuvtoppm

$  tree
.
├── etc
│   ├── group
│   ├── passwd
│   └── services
└── usr
    └── bin
        ├── y2racc2.7
        ├── ybmtopbm
        ├── yelp
        ├── yes
        ├── ypdomainname -> hostname
        ├── yuvsplittoppm
        └── yuvtoppm
```

Compress: zip, bzip

```
#5
$ tar czf config.tgz /etc

$ ls -l config.tgz
-rw-r--r-- 1 ecanet inf 1514151 Oct 22 11:43 config.tgz

$ file config.tgz
config.tgz: gzip compressed data, from Unix, original size modulo 2^32 11980800

$ tar tf config.tgz
...
```

```
#6
$ tar cjf man.tar.bz2 /usr/share/man
tar: Removing leading `/' from member names

$ ls -l man.tar.bz2
-rw-r--r-- 1 ecanet inf 24770489 Oct 22 11:48 man.tar.bz2

$ file man.tar.bz2
man.tar.bz2: bzip2 compressed data, block size = 900k

$ tar tf man.tar.bz2
```

Relative path

```
#7
$ cd /var/tmp/

$ git clone https://www.github.com/edtasixm01/LPIC-1
Cloning into 'LPIC-1'...
warning: redirecting to https://github.com/edtasixm01/LPIC-1.git/
remote: Enumerating objects: 494, done.
remote: Counting objects: 100% (494/494), done.
remote: Compressing objects: 100% (352/352), done.
remote: Total 494 (delta 205), reused 396 (delta 107), pack-reused 0
Receiving objects: 100% (494/494), 23.61 MiB | 19.98 MiB/s, done.
Resolving deltas: 100% (205/205), done.

$ tar czf lpic1.tar.gz /var/tmp/LPIC-1/
tar: Removing leading `/' from member names

$ tree LPIC-1
```

```
#8
$ rm -rf LPIC-1/

$ tar tf lpic1.tar.gz | head -n5
var/tmp/LPIC-1/
var/tmp/LPIC-1/102-Linux_installation_and_package_management/
var/tmp/LPIC-1/102-Linux_installation_and_package_management/102.2-Install_a_boot_manage
r/
var/tmp/LPIC-1/102-Linux_installation_and_package_management/102.2-Install_a_boot_manage
r/README.md
var/tmp/LPIC-1/102-Linux_installation_and_package_management/centos_install_lab.pd

$ pwd
/var/tmp


$ tar xzf /var/tmp/lpic1.tar.gz

$ tree -L 3 var/
var/
└── tmp
```

```
          └── LPIC-1
          ├── 101-System_architecture
          ├── 102-Linux_installation_and_package_management
          ├── 103-GNU_and_unix_commands
          ├── 104-Devices_fylesystem_and_FHS
          ├── Data_sources
          ├── HowTo-LPIC1-101-500.pdf
          ├── Questions-101-500
          ├── README.md
          ├── Resources.md
          └── WorkMap.md
```

```
#9
$ cd /var/tmp/
$ pwd
/var/tmp

$ tar xzf lpic1.tar.gz

$ tree -L 3 var/
var/
└── tmp
            └── LPIC-1
            ├── 101-System_architecture
            ├── 102-Linux_installation_and_package_management
            ├── 103-GNU_and_unix_commands
            ├── 104-Devices_fylesystem_and_FHS
            ├── Data_sources
            ├── HowTo-LPIC1-101-500.pdf
            ├── Questions-101-500
            ├── README.md
            ├── Resources.md
            └── WorkMap.md

$ ls -l var/
total 4
drwxr-xr-x 3 ecanet inf 4096 Oct 22 11:59 tmp

$ tar xzf lpic1.tar.gz  -C /

$ tree -L 1 LPIC-1/
LPIC-1/
├── 101-System_architecture
├── 102-Linux_installation_and_package_management
├── 103-GNU_and_unix_commands
├── 104-Devices_fylesystem_and_FHS
├── Data_sources
├── HowTo-LPIC1-101-500.pdf
├── Questions-101-500
├── README.md
├── Resources.md
└── WorkMap.md
```

Absolute Path

```
#10
$ cd /var/tmp
$ pwd
/var/tmp

$ git clone https://www.github.com/edtasixm01/LPIC-1.git
Cloning into 'LPIC-1'...
warning: redirecting to https://github.com/edtasixm01/LPIC-1.git/
remote: Enumerating objects: 494, done.
remote: Counting objects: 100% (494/494), done.
remote: Compressing objects: 100% (352/352), done.
remote: Total 494 (delta 205), reused 396 (delta 107), pack-reused 0
Receiving objects: 100% (494/494), 23.61 MiB | 16.37 MiB/s, done.
Resolving deltas: 100% (205/205), done.
```

```
#11
$ tar czPf lpic.tgz /var/tmp/LPIC-1/

$ ls -l lpic.tgz
-rw-r--r-- 1 new new 54987993 Oct 22 12:56 lpic.tgz

$ mv lpic.tgz /tmp/
$ cd /tmp/
$ pwd
/tmp

$ tar xzf lpic.tgz
tar: Removing leading `/' from member names

$ tree -L 3 var/
var/
└── tmp
    └── LPIC-1
        ├── 101-System_architecture
        ├── 102-Linux_installation_and_package_management
        ├── 103-GNU_and_unix_commands
        ├── 104-Devices_fylesystem_and_FHS
        ├── Data_sources
        ├── HowTo-LPIC1-101-500.pdf
        ├── Questions-101-500
        ├── README.md
        ├── Resources.md
        └── WorkMap.md
```

```
#12
$ rm -rf /var/tmp/LPIC-1/

$ tar xzPf lpic.tgz

$ tree -L 1 /var/tmp/LPIC-1/
/var/tmp/LPIC-1/
├── 101-System_architecture
├── 102-Linux_installation_and_package_management
├── 103-GNU_and_unix_commands
├── 104-Devices_fylesystem_and_FHS
├── Data_sources
├── HowTo-LPIC1-101-500.pdf
├── Questions-101-500
├── README.md
├── Resources.md
└── WorkMap.md
```

Extract tar parts

```
#13
$ pwd
/tmp

$ ls -l lpic.tgz
-rw-r--r-- 1 new new 54987993 Oct 22 12:56 lpic.tgz


$ tar xvzf lpic.tgz /var/tmp/LPIC-1/104-Devices_fylesystem_and_FHS
tar: Removing leading `/' from member names
/var/tmp/LPIC-1/104-Devices_fylesystem_and_FHS/

$ tree -L 2 var/tmp/
var/tmp/
└── LPIC-1
    └── 104-Devices_fylesystem_and_FHS
```

```
#14
$ tar tzf lpic.tgz /var/tmp/LPIC-1/Data_sources
```

```
tar: Removing leading `/' from member names
/var/tmp/LPIC-1/Data_sources/
/var/tmp/LPIC-1/Data_sources/join1s
/var/tmp/LPIC-1/Data_sources/training/
/var/tmp/LPIC-1/Data_sources/training/productos.dat
```

Exercicis d'exemple

1. Github LPIC-1
2. LPI Exercices

3. Empaqueta el contingut de /var/tmp a un fitxer de /tmp anomenat paquet.tar.
4. Llistar el contingut de paquet. Són rutes absolutes o relatives?
5. Extreure el contingut de paquet dins de /tmp/newdata.
6. Extreure només els fitxers txt i desar-los a /tmp/prova.
7. Empaquetar el contingut de /tmp/newdata en un fitxer anomenat paquet-absolute.tar al directori /tmp. Cal que el paquet es generi mantenint les rutes absolutes dels fitxers orígens.
8. Llistar el contingut de paquet. Són rutes absolutes o relatives?
9. Esborrar el directori /tmp/newdata i tot el que conté.
10. Desempaquetar paquet-absolute.tar indicant com a destí /tmp/prova, però observar on es generen els elements desempaquetats. Aquí dins o al seu path absolut?
11. Repetir l'exercici anterior provant les diferències de desempaquetar amb l'opció -p o -P.
12. Empaquetar el contingut de /var/tmp generant un paquet comprimit. Llistar el contingut i extreure'n només els fitxers txt.
13. Empaquetar el contingut de /var/tmp generant un paquet comprimit amb bzip. Llistar el contingut i extreure'n només els fitxers txt.