Laboratorio IV

Librerías

1. Imprimir en pantalla las librerías compartidas que usa el comando gzip.

2. Imprimir en pantalla las librerías compartidas del caché

3. Consultar el valor de la variable correspondiente al 'path' de las librerías compartidas. ¿Es lógico que tenga ese valor?

El resultado está vacío, es porque el sistema utiliza rutas por defecto, como /lib y /usr/lib.

Es lógico que esté vacío en la mayoría de los sistemas Debian, ya que las rutas estándar se gestionan automáticamente mediante el archivo /etc/ld.so.conf.

Paquetes Debian

1. Descargar (en caso de no tenerlo, desde https://pkgs.org/) los paquetes **mc** y **mc-data**. Instalar el paquete **mc**.

```
vboxuser@Debian12:~$ apt download mc mc-data
vboxuser@Debian12:~$ █
```

```
root@Debian12:/home/vboxuser# apt install ./mc_*.deb
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'mc' instead of './mc_3%3a4.8.29-2_amd64.deb'
mc is already the newest version (3:4.8.29-2).
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
root@Debian12:/home/vboxuser#
```

2. Verificar que el paquete está instalado

```
root@Debian12:/home/vboxuser# dpkg -l | grep mc
ii  libxdmcp6:amd64                    1:1.1.2-3
amd64        X11 Display Manager Control Protocol library
ii  libxvmc1:amd64                     2:1.0.12-2
amd64        X11 Video extension library
ii  mc                                 3:4.8.29-2
amd64        Midnight Commander - a powerful file manager
ii  mc-data                            3:4.8.29-2
all          Midnight Commander - a powerful file manager -- data files
root@Debian12:/home/vboxuser#
```

3. Consultar todos los paquetes instalados

Se usa el comando dpkg -l

```
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name                              Version
+++-==============================-==============================>
ii  accountsservice                  22.08.8-6
ii  acl                              2.3.1-3
ii  adduser                          3.134
ii  adwaita-icon-theme               43-1
ii  aisleriot                        1:3.22.23-1
ii  alien                            8.95.6
ii  alsa-topology-conf               1.2.5.1-2
ii  alsa-ucm-conf                    1.2.8-1
ii  alsa-utils                       1.2.8-1
ii  amd64-microcode                  3.20240820.1~deb12u1
ii  anacron                          2.3-36
ii  apache2-bin                      2.4.62-1~deb12u2
ii  apg                              2.2.3.dfsg.1-5+b2
ii  apparmor                         3.0.8-3
ii  appstream                        0.16.1-2
ii  apt                              2.6.1
ii  apt-config-icons                 0.16.1-2
ii  apt-listchanges                  3.24
lines 1-23
```

4. Consultar los archivos que contiene el paquete **mc**.

```
vboxuser@Debian12:~$ dpkg -L mc
/.
/etc
/etc/mc
/etc/mc/edit.indent.rc
/etc/mc/filehighlight.ini
/etc/mc/mc.default.keymap
/etc/mc/mc.emacs.keymap
/etc/mc/mc.ext.ini
/etc/mc/mc.menu
/etc/mc/mcedit.menu
/etc/mc/sfs.ini
/usr
/usr/bin
/usr/bin/mc
/usr/lib
/usr/lib/mc
/usr/lib/mc/cons.saver
/usr/lib/mc/ext.d
/usr/lib/mc/ext.d/archive.sh
/usr/lib/mc/ext.d/doc.sh
/usr/lib/mc/ext.d/image.sh
/usr/lib/mc/ext.d/misc.sh
/usr/lib/mc/ext.d/package.sh
```

5. Consultar la información del paquete **mc**, tales como descripción, licencia, dependencias, etc.

```
vboxuser@Debian12:~$ apt show mc
Package: mc
Version: 3:4.8.29-2
Priority: optional
Section: utils
Maintainer: Dmitry Smirnov <onlyjob@debian.org>
Installed-Size: 1,526 kB
Provides: mcedit
Depends: libc6 (>= 2.34), libext2fs2 (>= 1.37), libglib2.0-0 (>= 2.67.3), libgpm
2 (>= 1.20.7), libslang2 (>= 2.2.4), libssh2-1 (>= 1.2.8), mc-data (= 3:4.8.29-2
)
Recommends: mailcap, perl, sensible-utils, unzip
Suggests: arj, bzip2, catdvi | texlive-binaries, dbview, djvulibre-bin, epub-uti
ls, file, genisoimage, gv, imagemagick, libaspell-dev, links | w3m | lynx, odt2t
xt, poppler-utils, python, python-boto, python-tz, unar, wimtools, xpdf | pdf-vi
ewer, zip
Homepage: https://www.midnight-commander.org
Tag: admin::filesystem, devel::lang:perl, devel::library, implemented-in::c,
 implemented-in::perl, interface::commandline, interface::text-mode,
 role::devel-lib, role::program, scope::application, scope::utility,
 suite::gnu, uitoolkit::ncurses, use::browsing, use::editing,
 use::organizing, works-with::archive, works-with::file
Download-Size: 522 kB
APT-Manual-Installed: yes
```
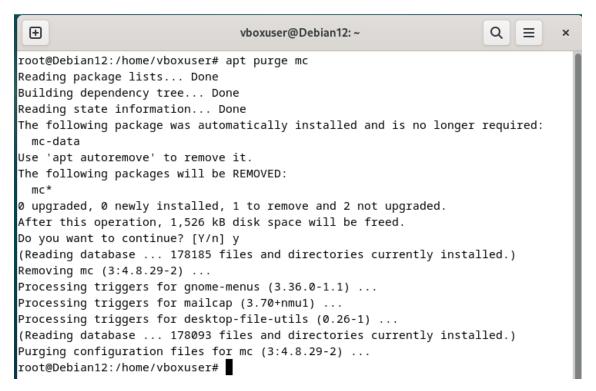
6. Desinstalar el paquete **mc**.

```
root@Debian12:/home/vboxuser# apt remove mc
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  mc-data
Use 'apt autoremove' to remove it.
The following packages will be REMOVED:
  mc
0 upgraded, 0 newly installed, 1 to remove and 2 not upgraded.
After this operation, 1,526 kB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 178185 files and directories currently installed.)
Removing mc (3:4.8.29-2) ...
Processing triggers for gnome-menus (3.36.0-1.1) ...
Processing triggers for mailcap (3.70+nmu1) ...
Processing triggers for desktop-file-utils (0.26-1) ...
root@Debian12:/home/vboxuser#
```

7. Volver a instalar el paquete **mc**.

```
root@Debian12:/home/vboxuser# apt install mc
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  arj catdvi | texlive-binaries dbview djvulibre-bin epub-utils genisoimage gv
  imagemagick libaspell-dev odt2txt python python-boto python-tz unar wimtools
  zip
The following NEW packages will be installed:
  mc
0 upgraded, 1 newly installed, 0 to remove and 2 not upgraded.
Need to get 522 kB of archives.
After this operation, 1,526 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main amd64 mc amd64 3:4.8.29-2 [522
kB]
Fetched 522 kB in 0s (2,130 kB/s)
Selecting previously unselected package mc.
(Reading database ... 178093 files and directories currently installed.)
Preparing to unpack .../mc_3%3a4.8.29-2_amd64.deb ...
Unpacking mc (3:4.8.29-2) ...
Setting up mc (3:4.8.29-2) ...
Processing triggers for mailcap (3.70+nmu1) ...
Processing triggers for desktop-file-utils (0.26-1) ...
Processing triggers for gnome-menus (3.36.0-1.1) ...
```

8. Desinstalar el paquete **mc** pero eliminando todos los archivos del paquete incluyendo los de configuración


```
root@Debian12:/home/vboxuser# apt purge mc
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  mc-data
Use 'apt autoremove' to remove it.
The following packages will be REMOVED:
  mc*
0 upgraded, 0 newly installed, 1 to remove and 2 not upgraded.
After this operation, 1,526 kB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 178185 files and directories currently installed.)
Removing mc (3:4.8.29-2) ...
Processing triggers for gnome-menus (3.36.0-1.1) ...
Processing triggers for mailcap (3.70+nmu1) ...
Processing triggers for desktop-file-utils (0.26-1) ...
(Reading database ... 178093 files and directories currently installed.)
Purging configuration files for mc (3:4.8.29-2) ...
root@Debian12:/home/vboxuser#
```

9. Buscar en el sistema el archivo **libm.so** y averiguar a qué paquete le pertenece.

```
root@Debian12:/home/vboxuser# find / -name libm.so 2>/dev/null
/usr/lib/x86_64-linux-gnu/libm.so
root@Debian12:/home/vboxuser# dpkg -S libm.so
libc6:amd64: /lib/x86_64-linux-gnu/libm.so.6
libc6-dev:amd64: /usr/lib/x86_64-linux-gnu/libm.so
root@Debian12:/home/vboxuser#
```

10. Ver la información del paquete **mc** descargado

```
root@Debian12:/home/vboxuser# apt show mc
Package: mc
Version: 3:4.8.29-2
Priority: optional
Section: utils
Maintainer: Dmitry Smirnov <onlyjob@debian.org>
Installed-Size: 1,526 kB
Provides: mcedit
Depends: libc6 (>= 2.34), libext2fs2 (>= 1.37), libglib2.0-0 (>= 2.67.3), libgpm
2 (>= 1.20.7), libslang2 (>= 2.2.4), libssh2-1 (>= 1.2.8), mc-data (= 3:4.8.29-2
)
Recommends: mailcap, perl, sensible-utils, unzip
Suggests: arj, bzip2, catdvi | texlive-binaries, dbview, djvulibre-bin, epub-uti
ls, file, genisoimage, gv, imagemagick, libaspell-dev, links | w3m | lynx, odt2t
xt, poppler-utils, python, python-boto, python-tz, unar, wimtools, xpdf | pdf-vi
ewer, zip
Homepage: https://www.midnight-commander.org
Tag: admin::filesystem, devel::lang:perl, devel::library, implemented-in::c,
 implemented-in::perl, interface::commandline, interface::text-mode,
 role::devel-lib, role::program, scope::application, scope::utility,
 suite::gnu, uitoolkit::ncurses, use::browsing, use::editing,
 use::organizing, works-with::archive, works-with::file
Download-Size: 522 kB
APT-Sources: http://deb.debian.org/debian bookworm/main amd64 Packages
```

Repositorios Debian

1. Actualizar la información de los paquetes de los repositorios


```
root@Debian12:/home/vboxuser# sudo apt update
Hit:1 http://security.debian.org/debian-security bookworm-security InRelease
Hit:2 http://deb.debian.org/debian bookworm InRelease
Hit:3 http://deb.debian.org/debian bookworm-updates InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
2 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@Debian12:/home/vboxuser#
```

2. Buscar el paquete ranger en el caché de repositorios


```
root@Debian12:/home/vboxuser# apt search ranger
Sorting... Done
Full Text Search... Done
ardour/stable 1:7.3.0+ds0-1 amd64
  the digital audio workstation

cataclysm-dda-curses/stable 0.F-3-9 amd64
  post-apocalyptic roguelike game - curses interface

cataclysm-dda-data/stable 0.F-3-9 all
  post-apocalyptic roguelike game - data files

cataclysm-dda-sdl/stable 0.F-3-9 amd64
  post-apocalyptic roguelike game - SDL interface

elpa-eyebrowse/stable 0.7.8-2 all
  simple-minded way of managing window configs in Emacs

golang-github-yl2chen-cidranger-dev/stable 1.0.2-1 all
  Fast IP to CIDR lookup in Golang

lf/stable 28-1+b3 amd64
  terminal file manager written in Go
```

3. Instalar el paquete ranger desde los repositorios

```
root@Debian12:/home/vboxuser# sudo apt install ranger
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libid3tag0 libimlib2 w3m w3m-img
Suggested packages:
  atool caca-utils highlight | python3-pygments mediainfo | exiftool unoconv
  brotli cmigemo compface dict dict-wn dictd libsixel-bin w3m-el xsel
The following NEW packages will be installed:
  libid3tag0 libimlib2 ranger w3m w3m-img
0 upgraded, 5 newly installed, 0 to remove and 2 not upgraded.
Need to get 1,633 kB of archives.
After this operation, 5,150 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://deb.debian.org/debian bookworm/main amd64 libid3tag0 amd64 0.15.1b-
14 [35.4 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 libimlib2 amd64 1.10.0-4+
deb12u1 [206 kB]
Get:3 http://deb.debian.org/debian bookworm/main amd64 ranger all 1.9.3-5 [237 k
B]
Get:4 http://deb.debian.org/debian bookworm/main amd64 w3m amd64 0.5.3+git202301
21-2 [1,102 kB]
Get:5 http://deb.debian.org/debian bookworm/main amd64 w3m-img amd64 0.5.3+git20
```

4. Desinstalar el paquete ranger incluyendo sus archivos de configuración


```
root@Debian12:/home/vboxuser# sudo apt purge ranger
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages will be REMOVED:
  ranger*
0 upgraded, 0 newly installed, 1 to remove and 2 not upgraded.
After this operation, 1,179 kB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 176387 files and directories currently installed.)
Removing ranger (1.9.3-5) ...
Processing triggers for gnome-menus (3.36.0-1.1) ...
Processing triggers for man-db (2.11.2-2) ...
Processing triggers for mailcap (3.70+nmu1) ...
Processing triggers for desktop-file-utils (0.26-1) ...
root@Debian12:/home/vboxuser#
```

5. Simular una actualización de todos los paquetes

```
root@Debian12:/home/vboxuser# apt upgrade --simulate
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages will be upgraded:
  gstreamer1.0-gtk3 gstreamer1.0-plugins-good
2 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Inst gstreamer1.0-gtk3 [1.22.0-5+deb12u1] (1.22.0-5+deb12u2 Debian-Security:12/s
table-security [amd64])
Inst gstreamer1.0-plugins-good [1.22.0-5+deb12u1] (1.22.0-5+deb12u2 Debian-Secur
ity:12/stable-security [amd64])
Conf gstreamer1.0-gtk3 (1.22.0-5+deb12u2 Debian-Security:12/stable-security [amd
64])
Conf gstreamer1.0-plugins-good (1.22.0-5+deb12u2 Debian-Security:12/stable-secur
ity [amd64])
root@Debian12:/home/vboxuser#
```

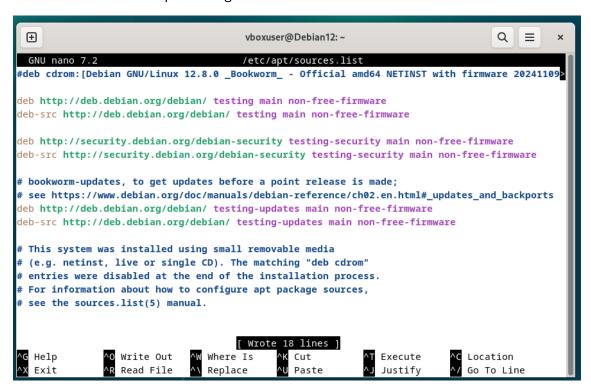6. Simular una actualización total de la distribución

```
root@Debian12:/home/vboxuser# apt full-upgrade --simulate
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages will be upgraded:
  gstreamer1.0-gtk3 gstreamer1.0-plugins-good
2 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Inst gstreamer1.0-gtk3 [1.22.0-5+deb12u1] (1.22.0-5+deb12u2 Debian-Security:12/s
table-security [amd64])
Inst gstreamer1.0-plugins-good [1.22.0-5+deb12u1] (1.22.0-5+deb12u2 Debian-Secur
ity:12/stable-security [amd64])
Conf gstreamer1.0-gtk3 (1.22.0-5+deb12u2 Debian-Security:12/stable-security [amd
64])
Conf gstreamer1.0-plugins-good (1.22.0-5+deb12u2 Debian-Security:12/stable-secur
ity [amd64])
root@Debian12:/home/vboxuser# █
```

7. Editar el archivo correspondiente para que use los paquetes de la versión testing y simular una actualización a dicha versión.

Ingresamos con sudo nano /etc/apt/sources.list

Cambiamos bookworm por testing

Presionamos Ctrl + O (para guardar). Luego Enter (para confirmar el nombre del archivo).

Y presionamos Ctrl + X (para salir).

Luego revertir el cambio.

Revertimos los cambios

```
GNU nano 7.2                          /etc/apt/sources.list
#deb cdrom:[Debian GNU/Linux 12.8.0 _Bookworm_ - Official amd64 NETINST with firmware 20241109>

deb http://deb.debian.org/debian/ bookworm main non-free-firmware
deb-src http://deb.debian.org/debian/ bookworm main non-free-firmware

deb http://security.debian.org/debian-security bookworm-security main non-free-firmware
deb-src http://security.debian.org/debian-security bookworm-security main non-free-firmware

# bookworm-updates, to get updates before a point release is made;
# see https://www.debian.org/doc/manuals/debian-reference/ch02.en.html#_updates_and_backports
deb http://deb.debian.org/debian/ bookworm-updates main non-free-firmware
deb-src http://deb.debian.org/debian/ bookworm-updates main non-free-firmware

# This system was installed using small removable media
# (e.g. netinst, live or single CD). The matching "deb cdrom"
# entries were disabled at the end of the installation process.
# For information about how to configure apt package sources,
# see the sources.list(5) manual.



^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^/ Go To Line
```