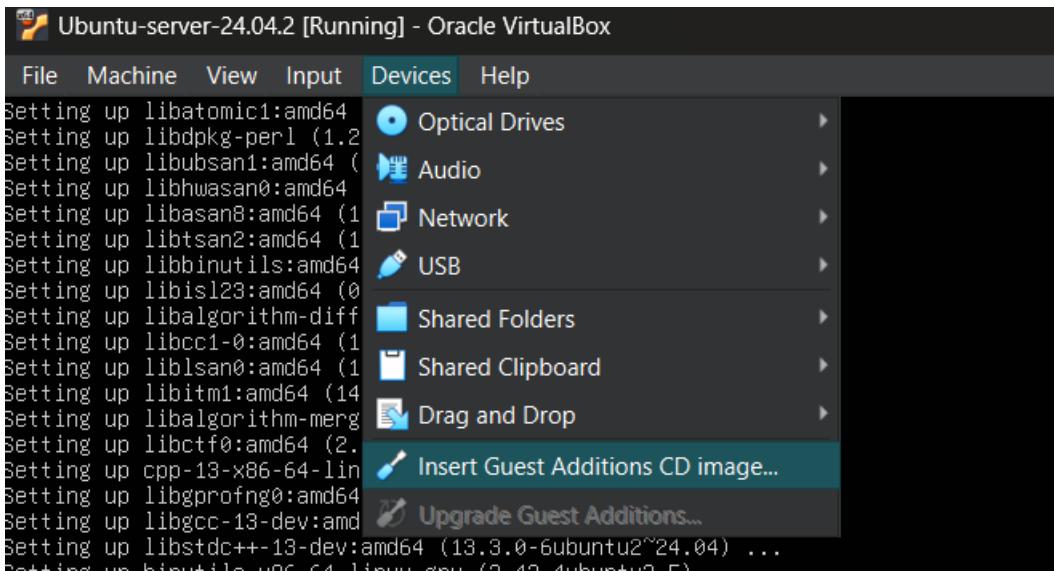


Integração Linux – VirtualBox em Windows

1. Na consola do Linux:

```
sudo apt install build-essential dkms linux-headers-$(uname -r) -y
```

2. Com a VM ligada, selecionar Devices -> Insert Guest Additions CD Image



3. Novamente na consola do Linux, verificar se o CD já está disponível:

```
to@estgv-so:~$ ls -la /media/
total 8
drwxr-xr-x  2 root root 4096 Feb 16  2025 .
drwxr-xr-x 23 root root 4096 Jul 24 14:20 ..
to@estgv-so:~$ _
```

Se não aparece nada, na consola, criar a diretoria fazer o *mount* o cdrom:

```
sudo mkdir /mnt/cdrom
```

```
sudo mount /dev/cdrom /mnt/cdrom
```

```
ls -la /mnt/cdrom (para verificar se já está disponivel)
```

```

to@estgv-so:~$ ls -la /media/
total 8
drwxr-xr-x 2 root root 4096 Feb 16 2025 .
drwxr-xr-x 23 root root 4096 Jul 24 14:20 ..
to@estgv-so:~$ sudo mkdir /mnt/cdrom
to@estgv-so:~$ sudo mount /dev/cdrom /mnt/cdrom/
mount: /mnt/cdrom: WARNING: source write-protected, mounted read-only.
to@estgv-so:~$ ls -la /mnt/cdrom/
total 50009
dr-xr-xr-x 5 root root 2742 Jun 3 11:44 .
drwxr-xr-x 3 root root 4096 Sep 24 09:38 ..
-r--r--- 1 root root 1048 Oct 23 2024 AUTORUN.INF
-r-xr-xr-x 1 root root 7003 Jun 3 11:13 autorun.sh
dr-xr-xr-x 2 root root 1468 Jun 3 11:44 cert
dr-xr-xr-x 2 root root 1252 Jun 3 11:44 NT3x
dr-xr-xr-x 2 root root 2828 Jun 3 11:44 OS2
-r-xr-xr-x 1 root root 5096 Jun 3 11:13 runasroot.sh
-r--r--- 1 root root 653 Jun 3 11:44 TRANS.TBL
-r--r--- 1 root root 2094980 Jun 3 11:16 VBoxDarwinAdditions.pkg
-r-xr-xr-x 1 root root 4224 Jun 3 11:16 VBoxDarwinAdditionsUninstall.tool
-r-xr-xr-x 1 root root 2896398 Jun 3 11:16 VBoxLinuxAdditions-arm64.run
-r-xr-xr-x 1 root root 6633976 Jun 3 11:13 VBoxLinuxAdditions.run
-r--r--- 1 root root 954096 Jun 3 11:17 VBoxSolarisAdditions.pkg
-r-xr-xr-x 1 root root 17975880 Jun 3 11:43 VBoxWindowsAdditions-amd64.exe
-r-xr-xr-x 1 root root 1070688 Jun 3 11:18 VBoxWindowsAdditions.exe
-r-xr-xr-x 1 root root 10962280 Jun 3 11:41 VBoxWindowsAdditions-x86.exe
-r--r--- 1 root root 261 Oct 23 2024 windows11-bypass.reg
to@estgv-so:~$
```

cd /mnt/cdrom

sudo ./VBoxLinuxAdditions.run

4. Na homedir do utilizador, criar uma nova diretoria, por exemplo SO, onde se podem aceder os ficheiros.

```

to@estgv-so:~$ mkdir SO
to@estgv-so:~$ ls -la
total 56
drwxr-x-- 6 to to 4096 Sep 24 09:45 .
drwxr-xr-x 3 root root 4096 Jul 24 14:32 ..
-rw----- 1 to to 874 Sep 24 09:28 .bash_history
-rw-r--r-- 1 to to 220 Mar 31 2024 .bash_logout
-rw-r--r-- 1 to to 3771 Mar 31 2024 .bashrc
drwx----- 2 to to 4096 Jul 24 14:32 .cache
-rw-rw-r-- 1 to to 125 Jul 27 10:26 expo
-rw-rw-r-- 1 to to 178 Jul 27 12:19 exp1
drwxrwxr-x 3 to to 4096 Jul 27 10:25 .local
-rw-rw-r-- 1 to to 125 Jul 27 12:23 osqueexistem
-rw-rw-r-- 1 to to 53 Jul 27 12:23 osquenaoexistem
-rw-r--r-- 1 to to 807 Mar 31 2024 .profile
drwxrwxr-x 2 to to 4096 Sep 24 09:45 SO
drwx----- 2 to to 4096 Jul 24 14:32 .ssh
-rw-r--r-- 1 to to 0 Jul 24 14:42 .sudo_as_admin_successful
to@estgv-so:~$ cd SO
to@estgv-so:~/SO$ pwd
/home/to/SO
to@estgv-so:~/SO$ cd ..
to@estgv-so:~$ pwd
/home/to
to@estgv-so:~$ _
```

cd SO

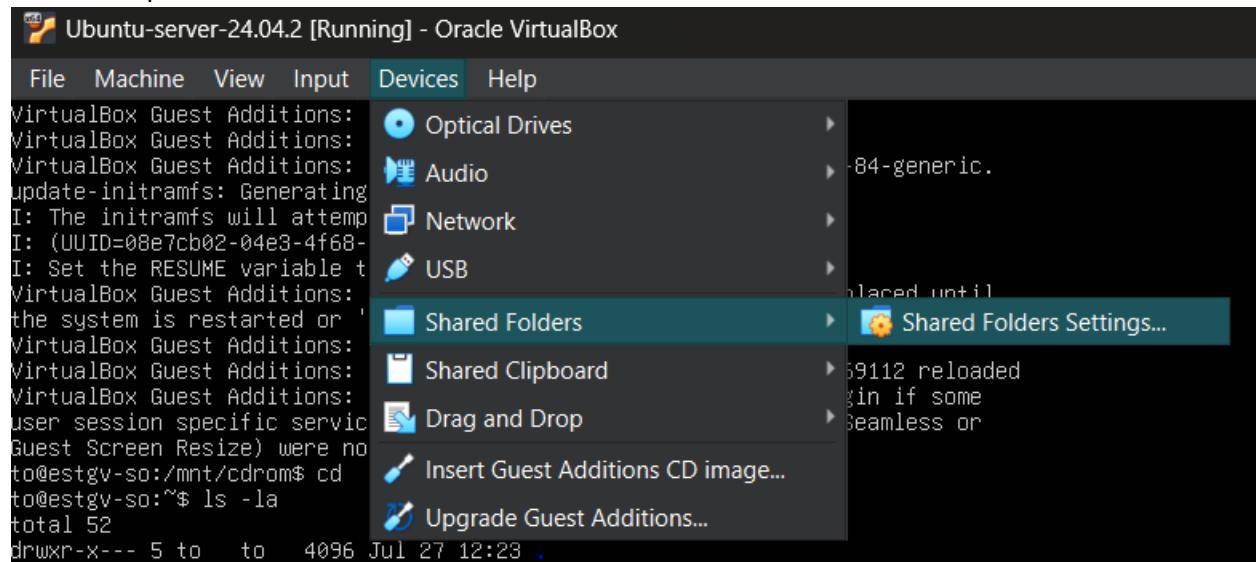
ou

cd /home/UTILIZADOR/SO

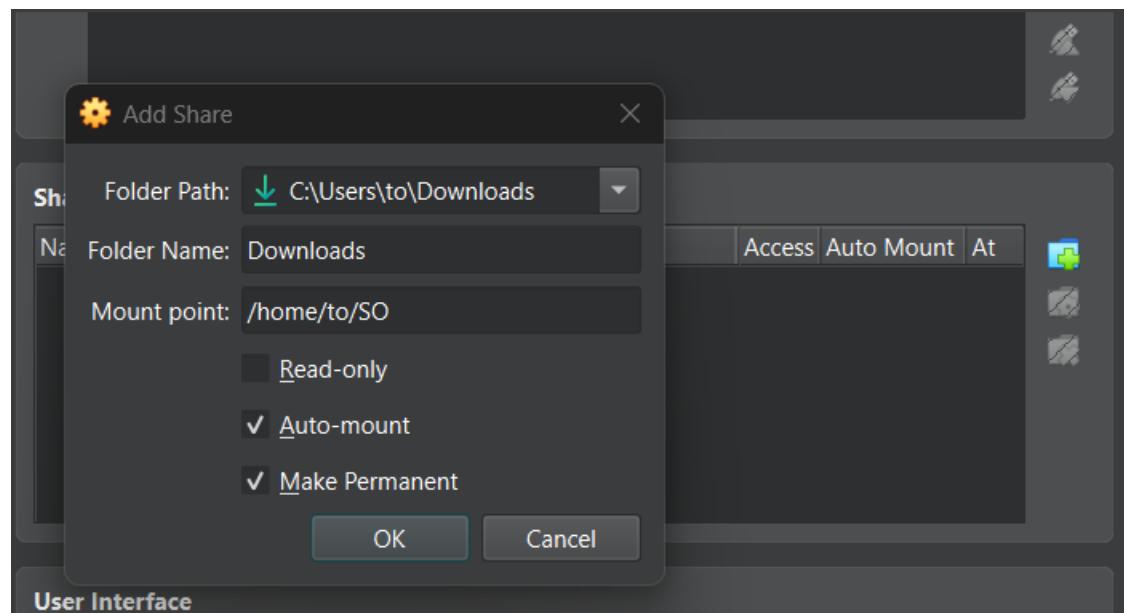
pwd

NOTA: é necessário sair da pasta para poder efetuar o mount

5. Partilhar a pasta internamente:



Adicionar o Share:



Selecionar a pasta do Windows e colocar corretamente o mount point e podem ser definidas as opções para ficar permanentemente e efetuada de modo automático.

6. Erro de permissões? Porquê?!

```
to@estgv-so:~$ cd SO
-bash: cd: SO: Permission denied
to@estgv-so:~$ ls -la
total 144
drwxr-x--- 6 to to 4096 Sep 24 09:45 .
drwxr-xr-x 3 root root 4096 Jul 24 14:32 ..
-rw----- 1 to to 874 Sep 24 09:28 .bash_history
-rw-r--r-- 1 to to 220 Mar 31 2024 .bash_logout
-rw-r--r-- 1 to to 3771 Mar 31 2024 .bashrc
drwx----- 2 to to 4096 Jul 24 14:32 .cache
-rw-rw-r-- 1 to to 125 Jul 27 10:26 expo
-rw-rw-r-- 1 to to 178 Jul 27 12:19 exp1
drwxrwxr-x 3 to to 4096 Jul 27 10:25 .local
-rw-rw-r-- 1 to to 125 Jul 27 12:23 osqueexistem
-rw-rw-r-- 1 to to 53 Jul 27 12:23 osquenaoexistem
-rw-r--r-- 1 to to 807 Mar 31 2024 .profile
drwxrwx--- 1 root vboxsf 94208 Sep 24 09:00 SO
drwx----- 2 to to 4096 Jul 24 14:32 .ssh
-rw-r--r-- 1 to to 0 Jul 24 14:42 .sudo_as_admin_successful
to@estgv-so:~$
```

O dono da diretoria é o root. É necessário dar permissões ao vosso user e colocar o vosso utilizador como membro do grupo vboxsf para ter acesso. Não é possível alterar as permissões com o volume montado.

NOTA: neste exemplo o utilizador é “to”.

```
sudo umount /home/ UTILIZADOR /SO
sudo sudo usermod -aG vboxsf UTILIZADOR
```

```
to@estgv-so:~$ sudo umount SO
to@estgv-so:~$ sudo chown to:vboxsf SO/
to@estgv-so:~$ ls -la
total 56
drwxr-x--- 6 to to 4096 Sep 24 09:45 .
drwxr-xr-x 3 root root 4096 Jul 24 14:32 ..
-rw----- 1 to to 874 Sep 24 09:28 .bash_history
-rw-r--r-- 1 to to 220 Mar 31 2024 .bash_logout
-rw-r--r-- 1 to to 3771 Mar 31 2024 .bashrc
drwx----- 2 to to 4096 Jul 24 14:32 .cache
-rw-rw-r-- 1 to to 125 Jul 27 10:26 expo
-rw-rw-r-- 1 to to 178 Jul 27 12:19 exp1
drwxrwxr-x 3 to to 4096 Jul 27 10:25 .local
-rw-rw-r-- 1 to to 125 Jul 27 12:23 osqueexistem
-rw-rw-r-- 1 to to 53 Jul 27 12:23 osquenaoexistem
-rw-r--r-- 1 to to 807 Mar 31 2024 .profile
drwxrwxr-x 2 to vboxsf 4096 Sep 24 09:45 SO
```

7. Fazer reboot. Se tudo correr bem já é possível listar o conteúdo da diretoria SO que está mapeada à diretoria do Windows