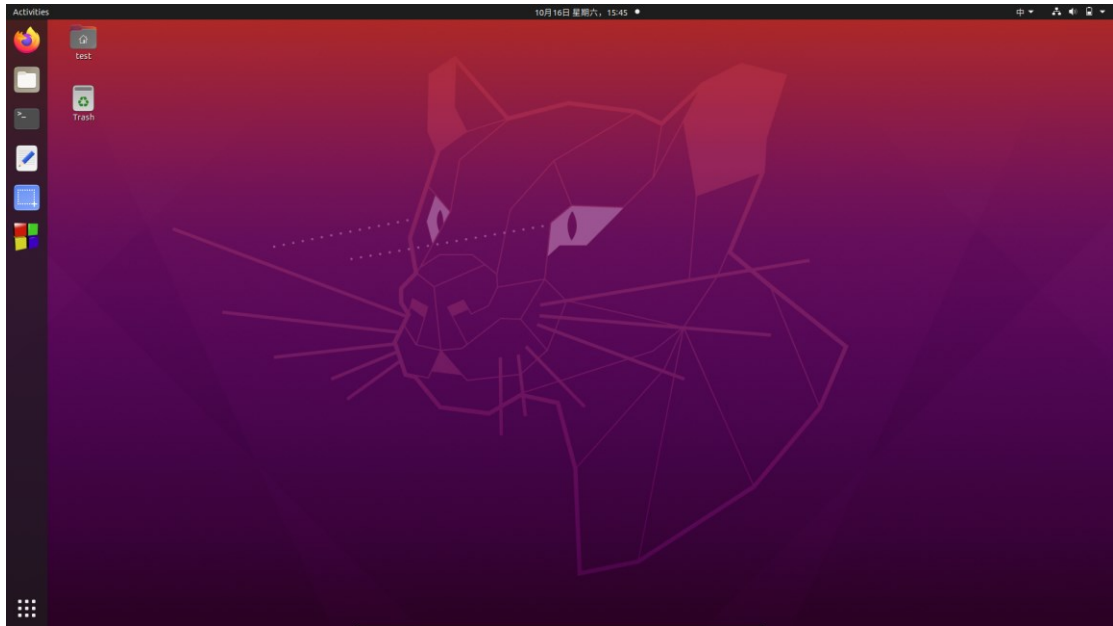
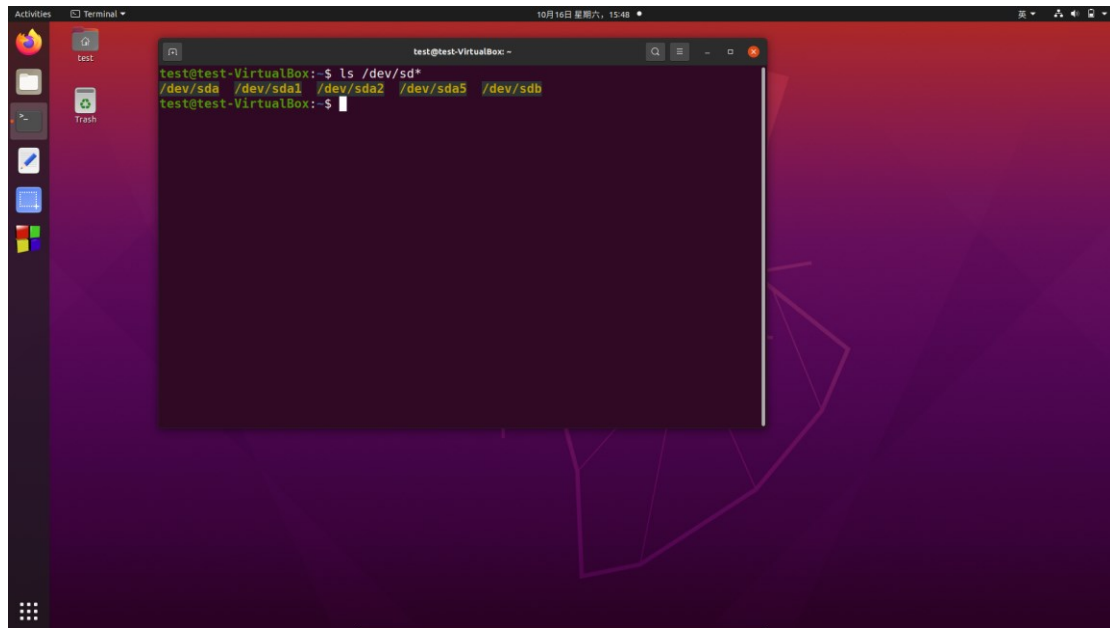


# Add a New Disk and Resize it In Linux

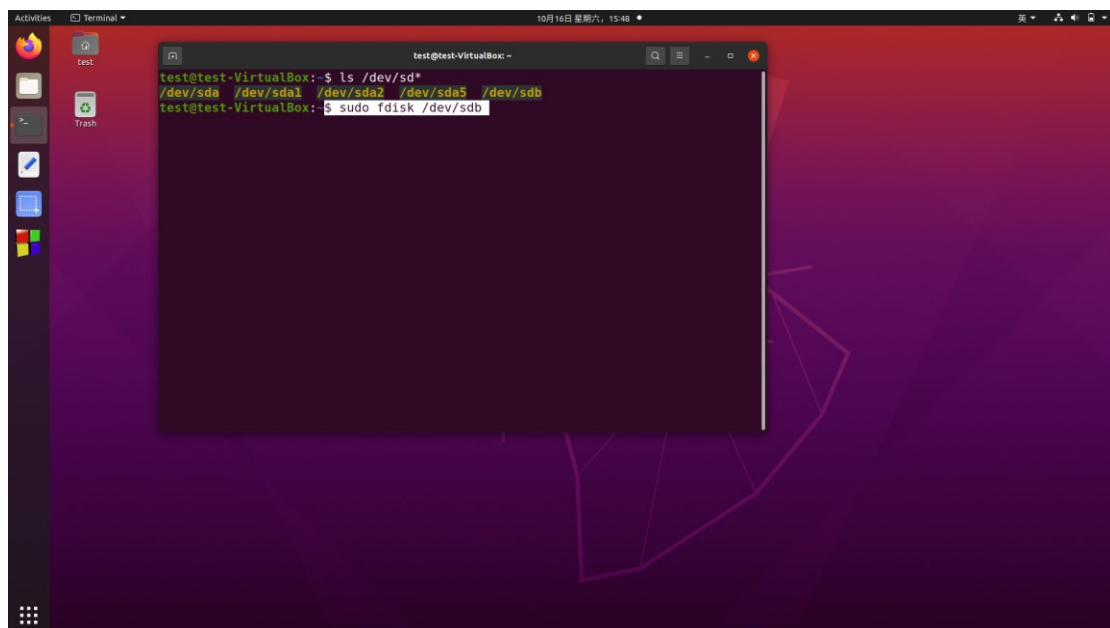
## Make a New Partition

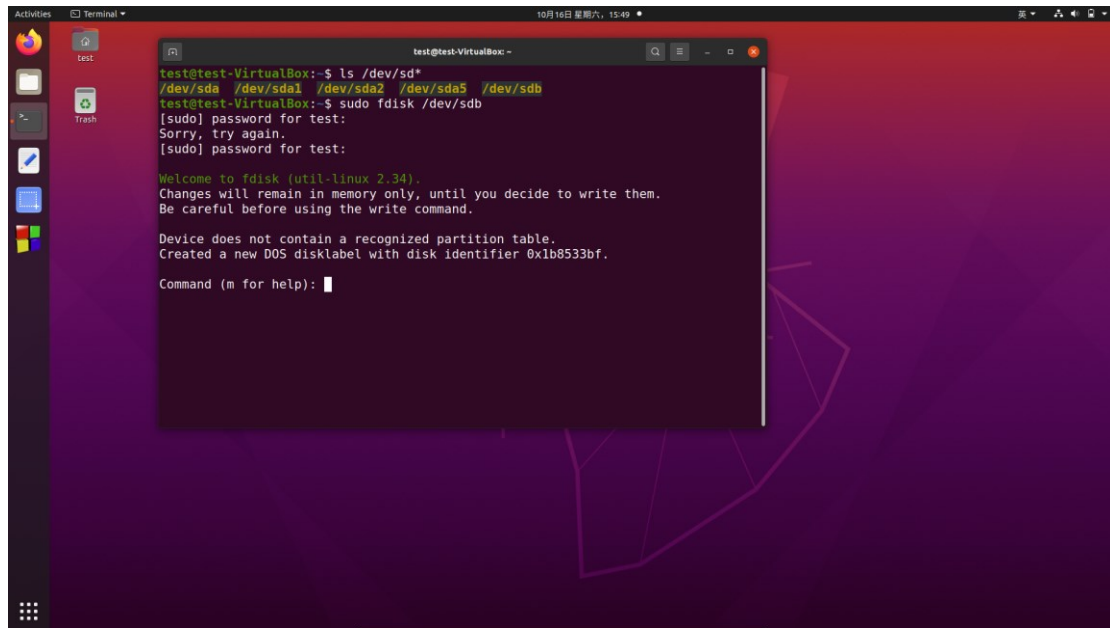


```
test@test-VirtualBox:~$ ls /dev/sd*  
/dev/sda  /dev/sda1  /dev/sda2  /dev/sda5  /dev/sdb  
test@test-VirtualBox:~$
```



\$ sudo fdisk /dev/sdb





```
test@test-VirtualBox:~$ ls /dev/sd*
/dev/sda /dev/sda1 /dev/sda2 /dev/sda5 /dev/sdb
test@test-VirtualBox:~$ sudo fdisk /dev/sdb
[sudo] password for test:
Sorry, try again.
[sudo] password for test:

Welcome to fdisk (util-linux 2.34).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0x1b8533bf.

Command (m for help):
```

Welcome to fdisk (util-linux 2.34).  
Changes will remain in memory only, until you decide to write them.  
Be careful before using the write command.

Device does not contain a recognized partition table.  
Created a new DOS disklabel with disk identifier 0x1b8533bf.

Command (m for help): m

Help:

#### DOS (MBR)

- a toggle a bootable flag
- b edit nested BSD disklabel
- c toggle the dos compatibility flag

#### Generic

- d delete a partition
- F list free unpartitioned space
- l list known partition types
- n add a new partition
- p print the partition table
- t change a partition type
- v verify the partition table
- i print information about a partition

#### Misc

- m print this menu
- u change display/entry units
- x extra functionality (experts only)

#### Script

- I load disk layout from sfdisk script file
- O dump disk layout to sfdisk script file

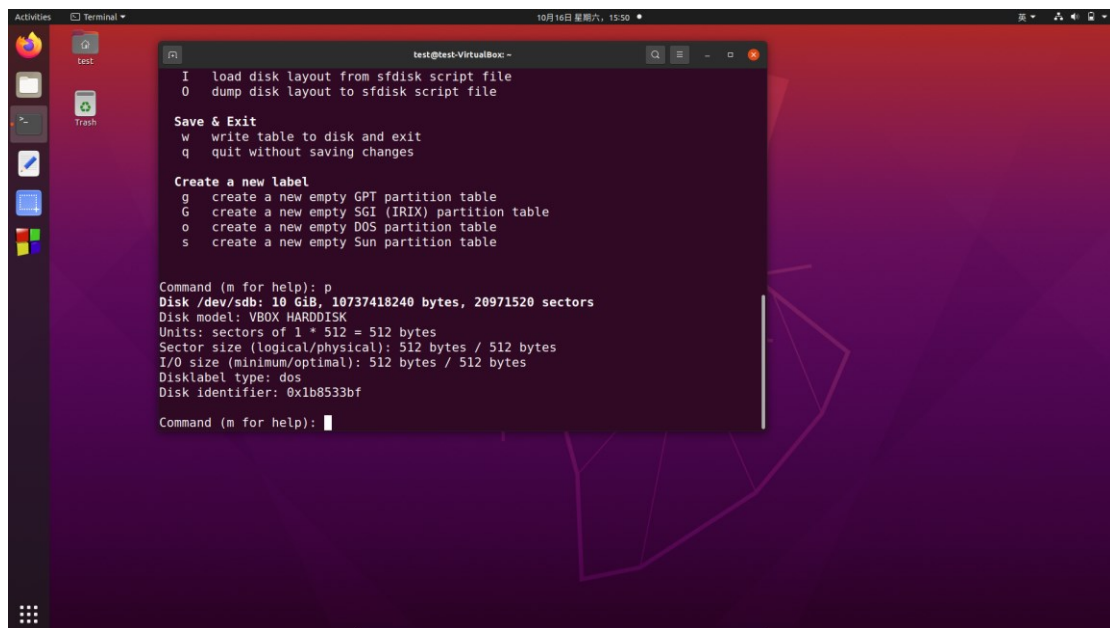
#### Save & Exit

- w write table to disk and exit
- q quit without saving changes

#### Create a new label

- g create a new empty GPT partition table
- G create a new empty SGI (IRIX) partition table
- o create a new empty DOS partition table
- s create a new empty Sun partition table

Command (m for help):



```
test@test-VirtualBox: ~  
I load disk layout from sfdisk script file  
O dump disk layout to sfdisk script file  
  
Save & Exit  
w write table to disk and exit  
q quit without saving changes  
  
Create a new Label  
g create a new empty GPT partition table  
G create a new empty SGI (IRIX) partition table  
o create a new empty DOS partition table  
s create a new empty Sun partition table  
  
Command (m for help): p  
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x1b8533bf  
  
Command (m for help):
```

Command (m for help): p

Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors

Disk model: VBOX HARDDISK

Units: sectors of 1 \* 512 = 512 bytes

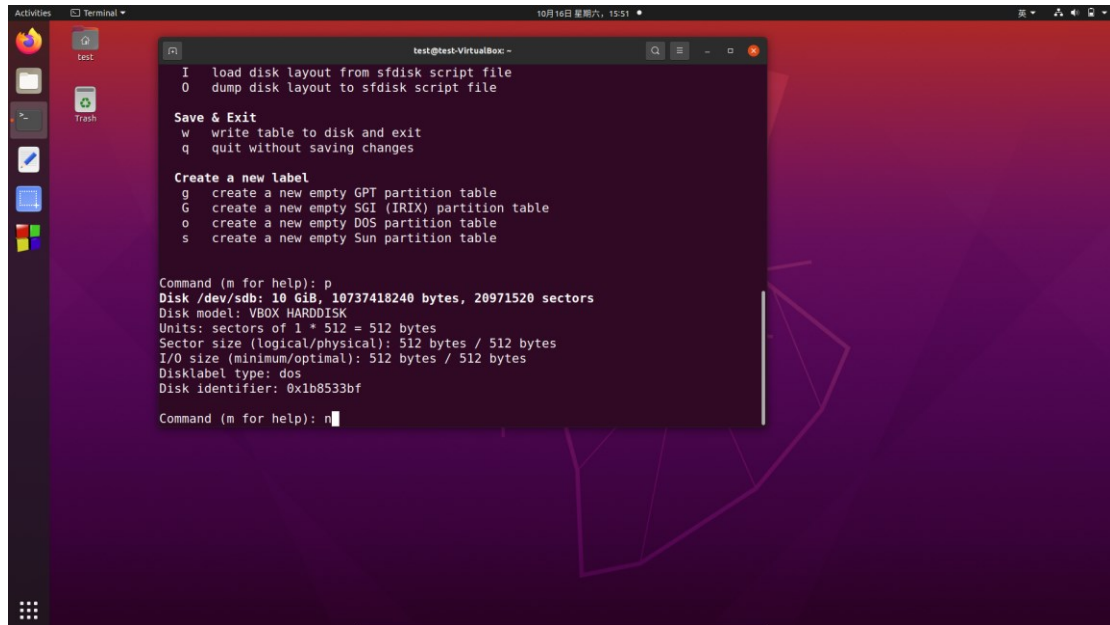
Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disklabel type: dos

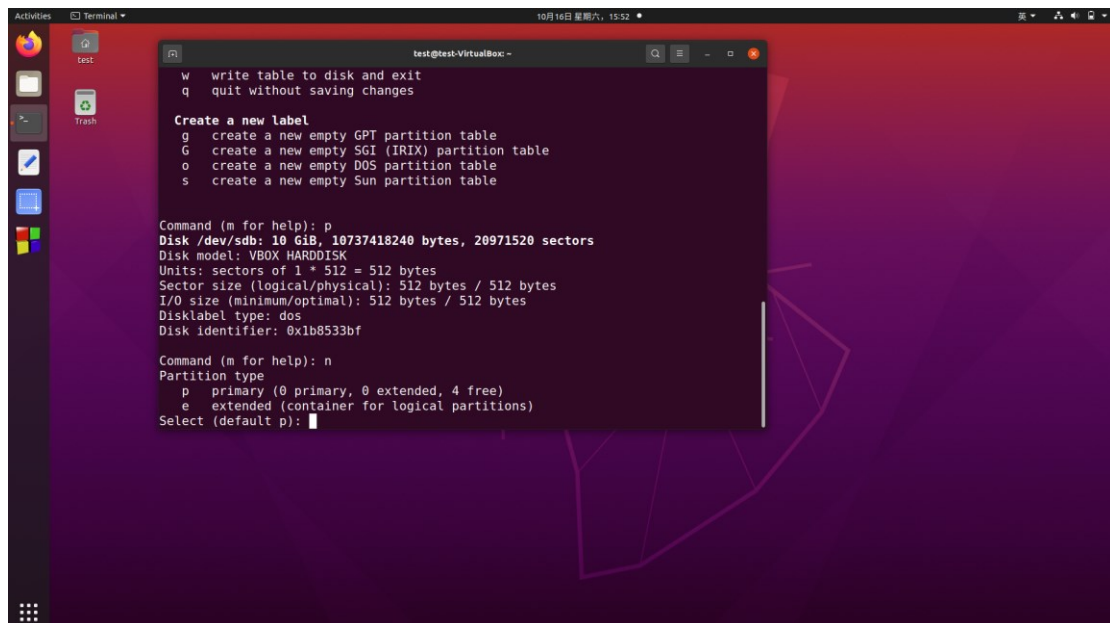
Disk identifier: 0x1b8533bf

Command (m for help):



```
test@test-VirtualBox: ~  
I load disk layout from sfdisk script file  
O dump disk layout to sfdisk script file  
  
Save & Exit  
w write table to disk and exit  
q quit without saving changes  
  
Create a new Label  
g create a new empty GPT partition table  
G create a new empty SGI (IRIX) partition table  
o create a new empty DOS partition table  
s create a new empty Sun partition table  
  
Command (m for help): p  
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x1b8533bf  
  
Command (m for help): n
```

Command (m for help): n



```
test@test-VirtualBox: ~  
w write table to disk and exit  
q quit without saving changes  
  
Create a new Label  
g create a new empty GPT partition table  
G create a new empty SGI (IRIX) partition table  
o create a new empty DOS partition table  
s create a new empty Sun partition table  
  
Command (m for help): p  
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x1b8533bf  
  
Command (m for help): n  
Partition type  
p primary (0 primary, 0 extended, 4 free)  
e extended (container for logical partitions)  
Select (default p):
```

```
test@test-VirtualBox: ~  
g create a new empty GPT partition table  
G create a new empty SGI (IRIX) partition table  
o create a new empty DOS partition table  
s create a new empty Sun partition table  
  
Command (m for help): p  
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x1b8533bf  
  
Command (m for help): n  
Partition type  
  p primary (0 primary, 0 extended, 4 free)  
  e extended (container for logical partitions)  
Select (default p): p  
Partition number (1-4, default 1):  
First sector (2048-20971519, default 2048):  
Last sector, +/-sectors or +/-size[K,M,G,T,P] (2048-20971519, default 20971519):
```

```
test@test-VirtualBox: ~  
Command (m for help): p  
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x1b8533bf  
  
Command (m for help): n  
Partition type  
  p primary (0 primary, 0 extended, 4 free)  
  e extended (container for logical partitions)  
Select (default p): p  
Partition number (1-4, default 1):  
First sector (2048-20971519, default 2048):  
Last sector, +/-sectors or +/-size[K,M,G,T,P] (2048-20971519, default 20971519):  
  
Created a new partition 1 of type 'Linux' and of size 10 GiB.  
Command (m for help):
```

```
test@test-VirtualBox: ~  
Partition type  
  p primary (0 primary, 0 extended, 4 free)  
  e extended (container for logical partitions)  
Select (default p): p  
Partition number (1-4, default 1):  
First sector (2048-20971519, default 2048):  
Last sector, +/-sectors or +/-size[K,M,G,T,P] (2048-20971519, default 20971519):  
  
Created a new partition 1 of type 'Linux' and of size 10 GiB.  
  
Command (m for help): p  
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x1b8533bf  
  
Device Boot Start End Sectors Size Id Type  
/dev/sdb1 2048 20971519 20969472 10G 83 Linux  
  
Command (m for help):
```

```
test@test-VirtualBox: ~  
Partition type  
  p primary (0 primary, 0 extended, 4 free)  
  e extended (container for logical partitions)  
Select (default p): p  
Partition number (1-4, default 1):  
First sector (2048-20971519, default 2048):  
Last sector, +/-sectors or +/-size[K,M,G,T,P] (2048-20971519, default 20971519):  
  
Created a new partition 1 of type 'Linux' and of size 10 GiB.  
  
Command (m for help): p  
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x1b8533bf  
  
Device Boot Start End Sectors Size Id Type  
/dev/sdb1 2048 20971519 20969472 10G 83 Linux  
  
Command (m for help): w
```



```
Activities Terminal 10月16日 星期六, 15:53
test
test@test-VirtualBox: ~
First sector (2048-20971519, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-20971519, default 20971519):

Created a new partition 1 of type 'Linux' and of size 10 GiB.

Command (m for help): p
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors
Disk model: VBOX HARDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x1b8533bf

Device      Boot Start      End  Sectors  Size Id Type
/dev/sdb1             2048 20971519 20969472   10G 83 Linux

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

test@test-VirtualBox:~$
```

```
Activities Terminal 10月16日 星期六, 15:53
test
test@test-VirtualBox: ~
Created a new partition 1 of type 'Linux' and of size 10 GiB.

Command (m for help): p
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors
Disk model: VBOX HARDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x1b8533bf

Device      Boot Start      End  Sectors  Size Id Type
/dev/sdb1             2048 20971519 20969472   10G 83 Linux

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

test@test-VirtualBox:~$ ls /dev/sd*
/dev/sda /dev/sda1 /dev/sda2 /dev/sda5 /dev/sdb /dev/sdb1
test@test-VirtualBox:~$
```

End.