



```

[root@wiki ~]# fdisk /dev/sdb 选择要分割的硬碟

The number of cylinders for this disk is set to 3916.
There is nothing wrong with that, but this is larger than 1024,
and could in certain setups cause problems with:
1) software that runs at boot time (e.g., old versions of LILO)
2) booting and partitioning software from other OSs
   (e.g., DOS FDISK, OS/2 FDISK)

Command (m for help): n 创建一个分区
Command action
   e   extended
   p   primary partition (1-4)
p 按p, 选择基本分区
Partition number (1-4): 1 这里我选择1, 创建一个分区
First cylinder (1-3916, default 1): 1 分区开始数值, 缺省为1
Last cylinder or +size or +sizeM or +sizeK (1-3916, default 3916): 3916
                                                                    分区结束数值, 缺省为最大
Command (m for help): w 保存并分割
The partition table has been altered!

Calling ioctl() to re-read partition table.
Syncing disks. 分割成功
[root@wiki ~]#
[root@wiki ~]# fdisk -l 再次查看, 可看到硬碟已经分割好了

Disk /dev/sda: 21.4 GB, 21474836480 bytes
255 heads, 63 sectors/track, 2610 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sda1  *           1           13       104391    83  Linux
/dev/sda2                14        2610    20860402+   8e  Linux LVM

Disk /dev/sdb: 32.2 GB, 32212254720 bytes
255 heads, 63 sectors/track, 3916 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1                1        3916    31455238+   83  Linux

```

???? PV ??? PV ?????????????? pvcreate ??????????????????????

????????? /dev/sdb ?? LVM????????? partition ?????????? pvcreate ???

1????? ID ? 8e ??LVM DISK ????

```
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1) software that runs at boot time (e.g., old versions of LILO)
2) booting and partitioning software from other OSs
   (e.g., DOS FDISK, OS/2 FDISK)

Command (m for help): p

Disk /dev/sdb: 32.2 GB, 32212254720 bytes
255 heads, 63 sectors/track, 3916 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1             1         3916     31455238+  83  Linux

Command (m for help): t
Selected partition 1
Hex code (type L to list codes): 8e
Changed system type of partition 1 to 8e (Linux LVM)

Command (m for help): p

Disk /dev/sdb: 32.2 GB, 32212254720 bytes
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   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1             1         3916     31455238+  8e  Linux LVM

Command (m for help): w
The partition table has been altered!

Calling ioctl() to re-read partition table.
Syncing disks.
此命令可以讓核心立刻讀取最新的
partition table 而不需要重新開機!
```

2???????????? PV ???

```
[root@wiki ~]# pvcreate /dev/sdb1
Physical volume "/dev/sdb1" successfully created
[root@wiki ~]# pvscan
PV /dev/sda2   VG VolGroup00   lvm2 [19.88 GB / 0   free]
PV /dev/sdb1   VG VolGroup00   lvm2 [30.00 GB]
Total: 2 [49.87 GB] / in use: 1 [19.88 GB] / in no VG: 1 [30.00 GB]
```

???????????????????? pvdisplay ??????????VG name ??????????????????

????????? PV ?? VG ??

???????? PE ?3MB

```
[root@wiki ~]# pvdisplay
--- Physical volume ---
PV Name           /dev/sda2
VG Name           VolGroup00
PV Size           19.89 GB / not usable 19.49 MB
Allocatable       yes (but full)
PE Size (KByte)   32768
Total PE          636
Free PE           0
Allocated PE      636
PV UUID           o1Jm23-0lbP-28DU-kg2c-fyuq-tOjE-BFpW8z

--- NEW Physical volume ---
PV Name           /dev/sdb1
VG Name
PV Size           30.00 GB
Allocatable       NO
PE Size (KByte)   0
Total PE          0
Free PE           0
Allocated PE      0
PV UUID           GhMilJ-2ABP-MOBS-WF8z-EaKO-rO49-4oJZFq
```

???? VG????? PV ??????? partition ??????? VG ??????????????????????

```
[root@wiki ~]# vgcreate wikivg /dev/sdb1
Volume group "wikivg" successfully created
[root@wiki ~]# vgscan
Reading all physical volumes. This may take a while...
Found volume group "wikivg" using metadata type lvm2
Found volume group "VolGroup00" using metadata type lvm2
[root@wiki ~]# vgsdisplay
--- Volume group ---
VG Name           wikivg
System ID
Format            lvm2
Metadata Areas    1
Metadata Sequence No 1
VG Access         read/write
VG Status         resizable
MAX LV            0
Cur LV           0
Open LV           0
Max PV            0
Cur PV           1
Act PV            1
VG Size           30.00 GB
PE Size           4.00 MB
Total PE          7679
Alloc PE / Size   0 / 0
Free PE / Size    7679 / 30.00 GB
VG UUID           fvEBFW-DJYe-VkmT-D2tO-Nygg-MS3R-aOOBup
```

???? LV???? VG ?????????????? ?????????? LV ?????????? wikivg ?????? wikilv ? ?? VG

????? wikilv ??????????????

```
[root@wiki ~]# lvcreate -L 29G -n wikilv wikivg
Logical volume "wikilv" created
```

?????

```
[root@wiki ~]# ls -l /dev/wikivg/wikilv
lrwxrwxrwx 1 root root 25 09-18 17:01 /dev/wikivg/wikilv -> /dev/mapper/wikivg-wikilv
```

??????? partition ???????

```
[root@wiki ~]# lvscan
ACTIVE          '/dev/wikivg/wikilv' [29.00 GB] inherit
ACTIVE          '/dev/VolGroup00/LogVol00' [17.94 GB] inherit
ACTIVE          '/dev/VolGroup00/LogVol01' [1.94 GB] inherit
[root@wiki ~]#
[root@wiki ~]#
[root@wiki ~]# lvdisplay
--- Logical volume ---
LV Name         /dev/wikivg/wikilv
VG Name         wikivg
LV UUID         GYpl43-kk3r-LeXW-qLMb-qmSH-o757-JBlyuZ
LV Write Access read/write
LV Status       available
# open         0
LV Size         29.00 GB
Current LE      7424
Segments       1
Allocation      inherit
Read ahead sectors 0
Block device    253:2
```

??partition ???????

1???? partition

```
[root@wiki ~]# mke2fs -j /dev/wikivg/wikilv
mke2fs 1.39 (29-May-2006)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
3801088 inodes, 7602176 blocks
380108 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=0
232 block groups
32768 blocks per group, 32768 fragments per group
16384 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
    4096000

Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

This filesystem will be automatically checked every 26 mounts or
180 days, whichever comes first.  Use tune2fs -c or -i to override.
```

???? partition

```
[root@wiki ~]# mkdir /lvm
[root@wiki ~]#
[root@wiki ~]# mount -t ext3 /dev/wikivg/wikilv /lvm
[root@wiki ~]#
[root@wiki ~]#
[root@wiki ~]# df
文件系统          1K-块      已用    可用  已用% 挂载点
/dev/mapper/VolGroup00-LogVol100
                  18219452  4231016 13047996  25% /
/dev/sda1          101086    11782   84085   13% /boot
tmpfs              517660      0   517660    0% /dev/shm
/dev/mapper/wikivg-wikilv
                  29931580  176200 28234948   1% /lvm
[root@wiki ~]#
[root@wiki ~]# fdisk -l /dev/sdb

Disk /dev/sdb: 32.2 GB, 32212254720 bytes
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   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1            1         3916     3145238+   8e  Linux LVM
```

????? partition ??? /lvm??????????????????.

????????????????LVM????????? /etc/fstab ????

```
/dev/VolGroup00/LogVol00 / ext3 defaults 1 1
LABEL=/boot /boot ext3 defaults 1 2
tmpfs /dev/shm tmpfs defaults 0 0
devpts /dev/pts devpts gid=5,mode=620 0 0
sysfs /sys sysfs defaults 0 0
proc /proc proc defaults 0 0
/dev/VolGroup00/LogVol01 swap swap defaults 0 0
/dev/wikivg/wikilv /lvm ext3 defaults 1 2
```

~ 添加这一行