



```

[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-OlbP-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 ~]# vgdisplay
--- 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