How to use Windows Disk Management to format the USB Disk
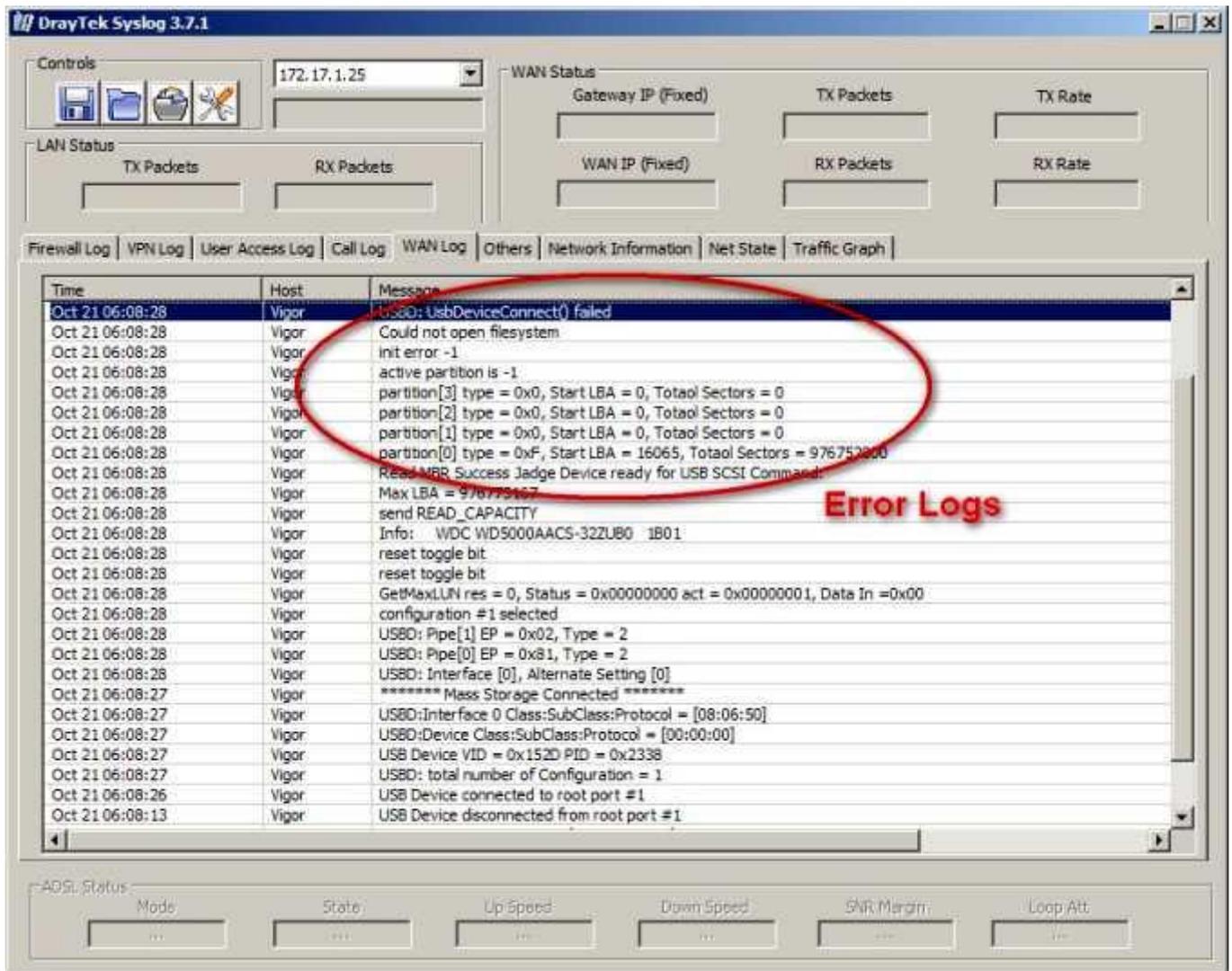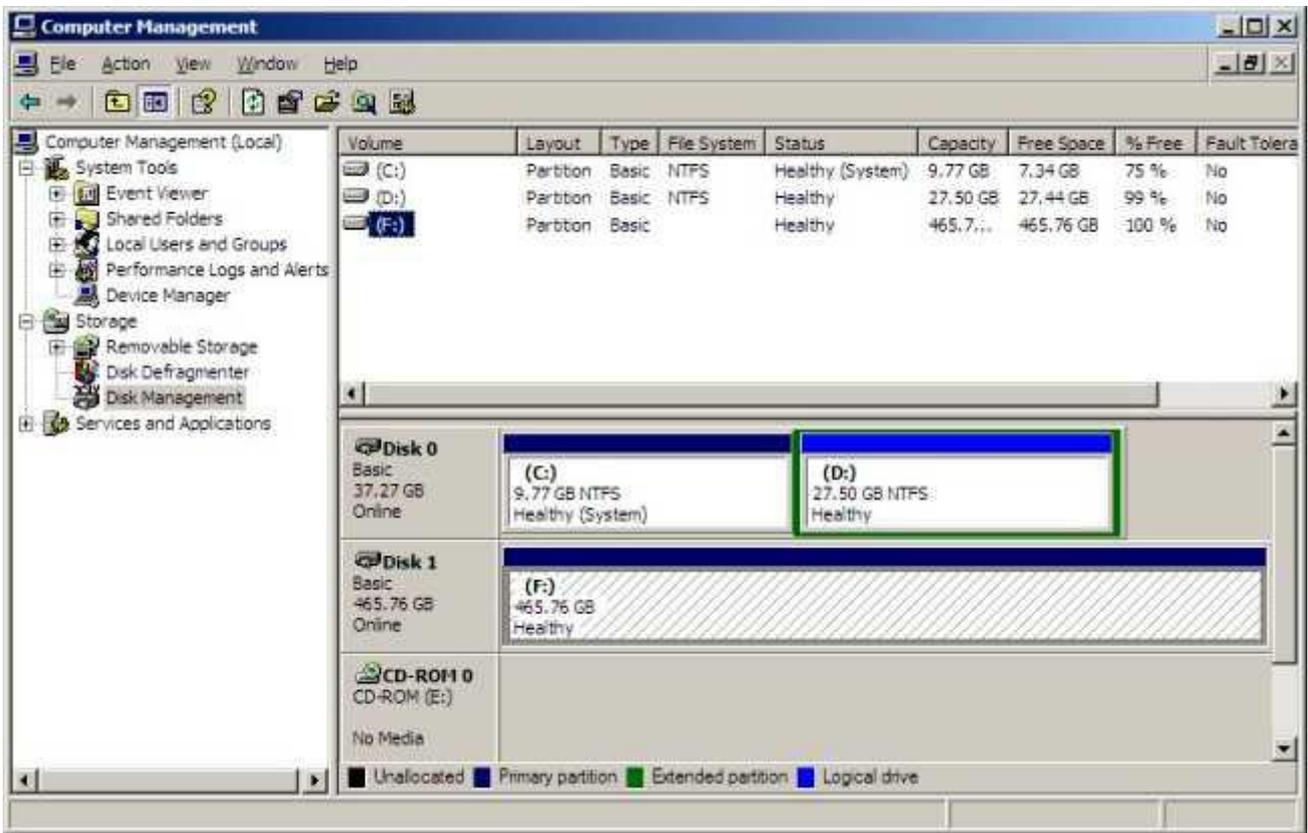
Vigor routers supports FAT32 file system, but sometimes users may encounter problems even it is sure that the USB disk has already been formatted as FAT32. Like shown in the below picture, it is the syslog message that generated when a USB disk is connected to the USB port on Vigor router:
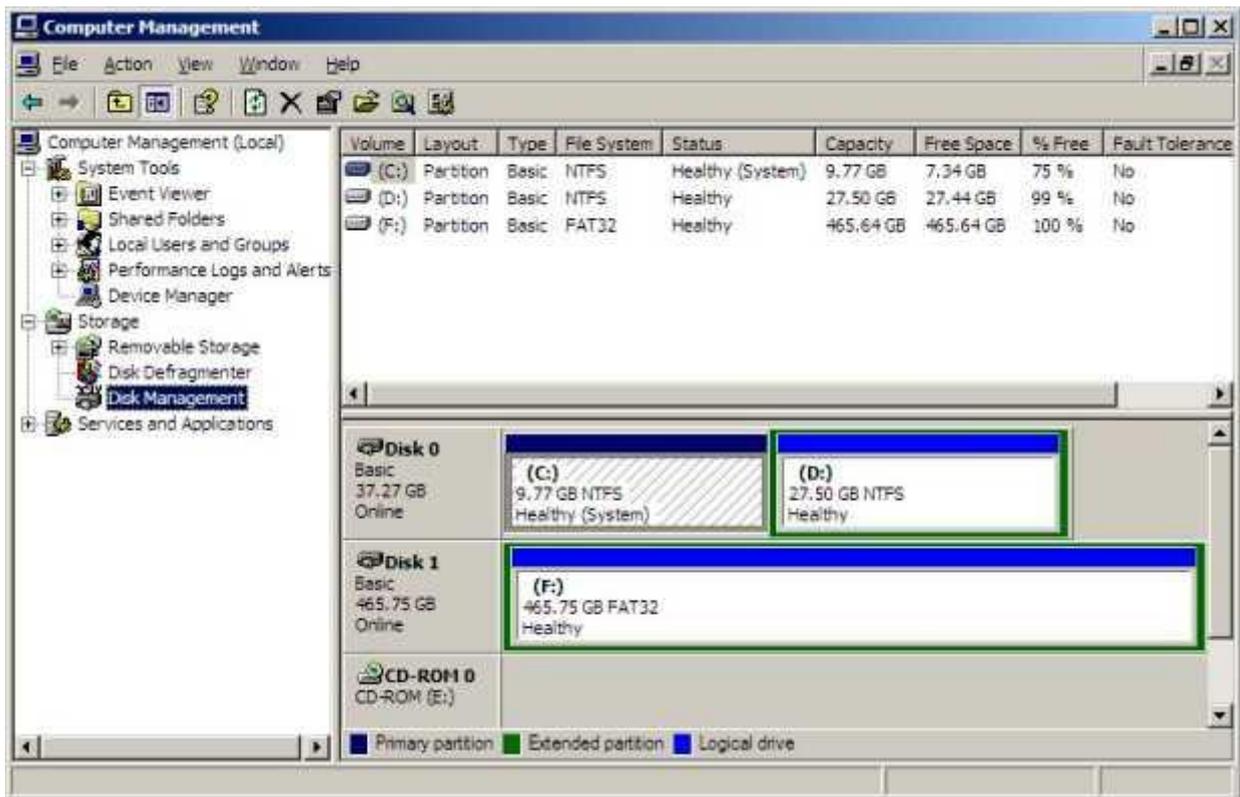

According to the syslog, the file system is 0xF (**partition[0] type= 0xF, Start LBA = …**) , and in the same time, users may find the "Connection Status" changes from Green to Red characters again and again, or disk detection failure.

This mainly happens when the USB disk is formatted as an extended partition, rather than master partition which is supported by Vigor. Users can compare the below two pictures to know about "master partition" and "extended partition" for the same external USB disk.

External USB disk (Disk 1) as a master partition :

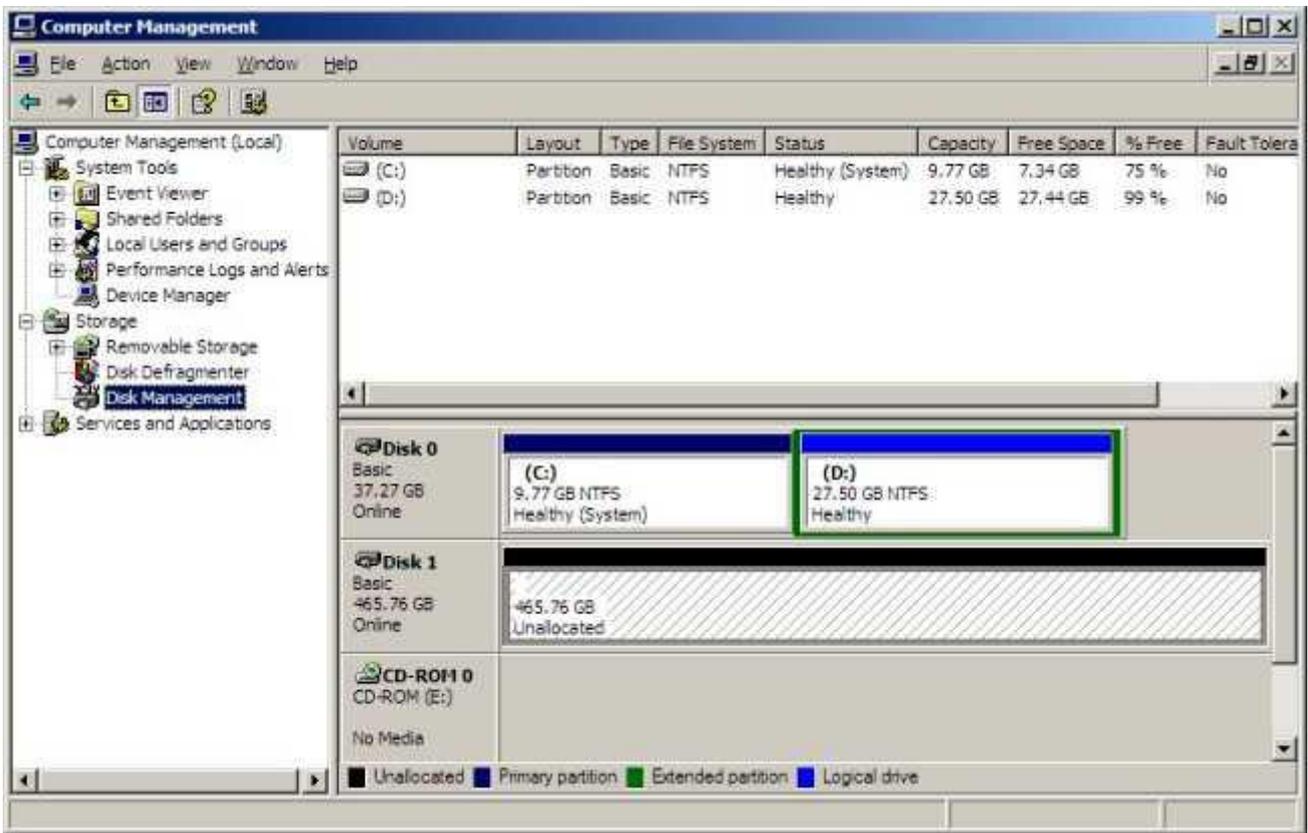External USB disk (Disk 1) as an extended partition :

Notice that the green rim indicates extended partition. In the former picture, Disk 1 has no green rim, but in the latter picture, it has.
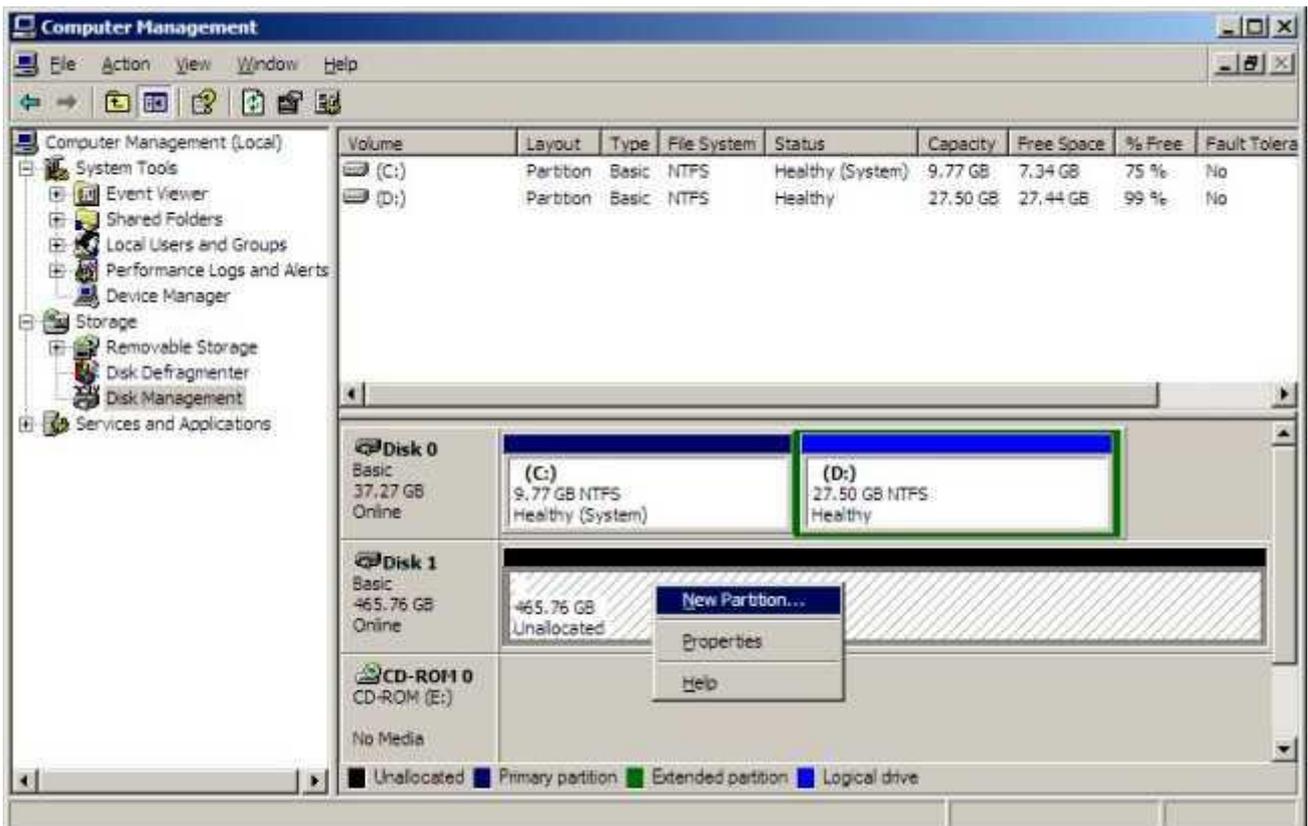
Here we mainly discuss the steps of dealing with a newly installed USB disk (format it as master partition with FAT32 file system).

1. Connect the USB disk to a USB port on the PC, and make sure it has been detected by the system.

2. Open "Computer Manager" (right-click on "My Computer" and select "Manage") and check the status of the USB disk:
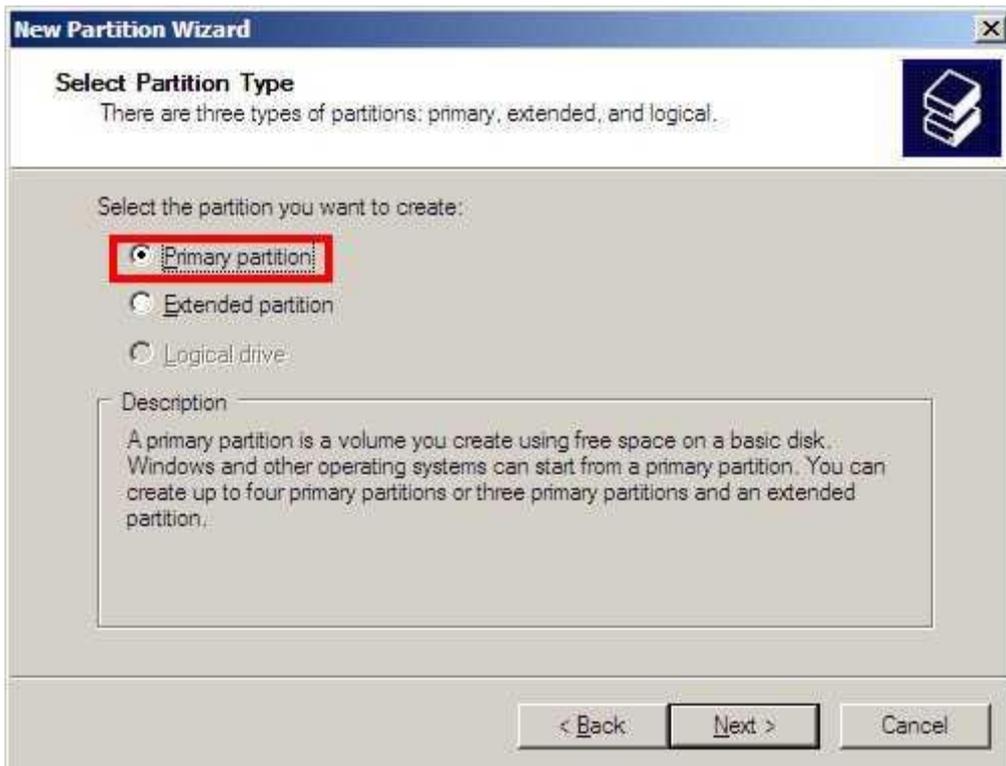
Disk 1, 465.76GB, Status : Unallocated

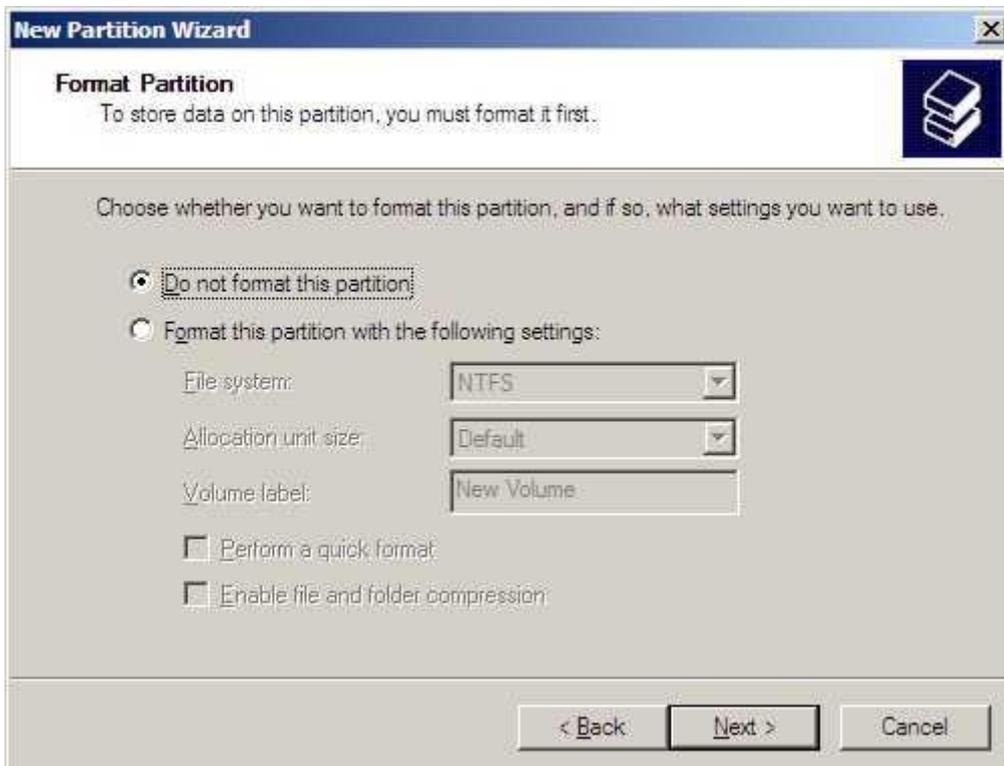3. Right-click on the block, and start to add a new partition :

3-1. Select "Primary partition".

New Partition Wizard

Specify Partition Size
Choose a partition size that is between the maximum and minimum sizes.

Maxium disk space in megabytes (MB):   476937

Minimum disk space in MB: 8

Partition size in MB: 476937

< Back   Next >   Cancel

New Partition Wizard

Assign Drive Letter or Path
For easier access, you can assign a drive letter or drive path to your partition.

○ Assign the following drive letter: F

○ Mount in the following empty NTFS folder: Browse...

○ Do not assign a drive letter or drive path

< Back   Next >   Cancel

3-2. Choose "Do not format" and finish the procedure :

4. After the job above, the USB disk is formatted as a master partition. We need to formatted it as FAT32 file system so that it can be recognized by Vigor routers. We need to introduce a small tool here to do the job, fat32format.zip.

Download fat32format.exe and store it to a familiar path on the PC. For example, it's put in the root directory of local disk D. Open Command Prompt, and check the directory to D, type command "fat32format" to know about its usage :

Then use command "fat32format X:" to format the disk to FAT32 file system (F is the disk volume name that assigned to this partition in previous steps):

Caution: Replace the character "X" with the driver letter that assigned to the USB disk. In this example, we use "F" to replace "X".

Finally we may get the USB disk configured as a master partition, and FAT32 file system. You may unplug it and connect it to the USB port of Vigor routers and start to use USB Application: