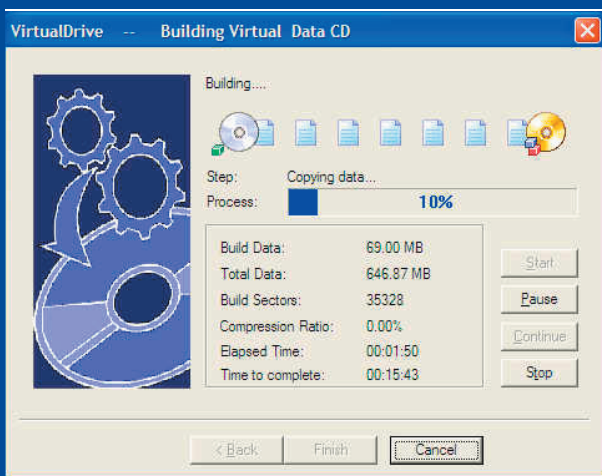# A VIRTUAL CD DRIVE FOR THE TABLET PC

One common characteristic of all the first-generation Tablet PCs is that none of them has an internal CD drive. If you need a CD drive, you have to carry a portable USB version – along with a cable, CDs, and possibly a power cube. Luckily, there's a way around this dilemma – it's called a "virtual CD drive".

Virtual CD Drive

Conceptually, a "virtual CD drive" utility provides two basic functions: (1) the ability to copy an entire CD into a single, compressed disk-image file that resides on your hard drive, and (2) a driver that fools Windows into treating the disk-image file as if it were a physical CD. A virtual CD drive eliminates the need to carry a physical CD drive and its accessories – not to mention the CDs themselves. Since one of the essential characteristics of a Tablet PC is enhanced mobility, this utility program is a perfect fit for use with Tablet PCs. Of course, a virtual CD drive is actually applicable to any single-drive Windows computer such as an ultraportable notebook, but it seems especially appropriate for the Tablet PC.

There are several virtual CD drive products on the market, but the author's personal favorite by far is "VirtualDrive Personal" from FarStone Technology (www.farstone.com). The remainder of this article refers specifically to the features and capabilities of FarStone's product.

Beyond the obvious advantage of eliminating the need to carry a physical CD drive, a virtual CD drive has several other advantages, as follows:

• As many virtual CD drives can be created as you have drive letters available. This allows you to load all the CDs of a multi-volume game (you can switch between virtual CD drives with a hot-key while playing a game), or play a game while you listen to music.

• A virtual CD runs at hard disk speed rather than CD speed. Using the SiSoftware Sandra performance benchmark on a 1.4 GHz Dell Dimension 8100 running Windows XP and equipped with a 30 GB 7,200-rpm hard disk, FarStone's virtual CD drive attained 65% of the sustained throughput of the hard disk. This is approximately equivalent to a 100X CD-ROM drive.

• VirtualDrive can load CDs onto your hard disk which otherwise cannot be copied. Instead of appearing as a regular CD-ROM drive, FarStone's virtual drive appears in the Windows Device Manager as a PNP SCSI DVD-ROM. This allows VirtualDrive to decrypt most major CD copy-protection algorithms such as Safedisk v1 & v2, Securom, Laserlock, etc. The author tried loading 10+ game CDs and VirtualDrive was able to load all of them.

• Storing and executing the CD images on your hard drive eliminates the possibility of damaging the original CDs through constant handling.

• Audio CDs can be ripped with MP3 compression and then played directly from the hard disk. As an example, a 48-minute audio CD with 15 tracks required slightly less than 15 minutes to rip on a 1 GHz Dell Inspiron 4100 laptop with a 24X CD-ROM. The resulting virtual CD file occupied slightly over 20 MB.

Using VirtualDrive

Using FarStone's VirtualDrive is easy. The small screen image below shows the user interface on top of Microsoft's "Pandora's Box" game, the large screen image below shows an alternative view of the UI, and the screen image on the left shows part of the process of building a virtual CD file. Right clicking on a virtual CD file in the user interface brings up a Properties form where the default virtual drive letter and drive-switching hot-key can be set. Right clicking on a virtual CD drive brings you into Windows Explorer to browse the contents of the CD. The user interface runs as an applet in the System Tray rather than using up Task bar space.

VirtualDrive also support a command-line interface. This can be used to automate repetitious actions involving CDs. For example, the following batch file ejects the contents of the first virtual CD drive (whatever letter it is), then inserts the "Pandora" game virtual CD file into the same drive and executes the Setup.exe file on the CD.


```
C:\WinNT\Vdrive.exe 1: /E
C:\WinNT\Vdrive.exe 1: "E:\VCD\Pandora.vcd" /I @1:\Setup.exe
```

Once a virtual CD file is on the hard disk, if it contains a program such as a game, it may still have to be installed (depending on the particular program). Playing the game directly from the CD, or installing it in a "minimum disk space" configuration conserves disk space, without the performance hit associated with a real CD.

Summary

FarStone's VirtualDrive 7.0 runs on Windows 95, 98, ME, 2000 and XP (all versions). It supports data CD-ROMs, audio CDs, mixed-mode CDs, Photo CDs, Video CDs, Super VCDs, data DVD, video DVD, and PlayStation game CDs. It's available in nine languages from the FarStone website for $39.95 (with a 15-day free trial version). If you want to avoid carrying aCD- USB ROM drive with your Tablet PC, VirtualDrive from FarStone is the answer. It works flawlessly and it's worth the money. ◆ —*Geoff Walker*