
Computers & Electronics

November 2009 • Vol.20 Issue 12

Page(s) 34-36 in print issue

DIY Project

Create A Drive Image



Despite more than two decades of PCs being commonplace in homes and businesses, a Harris Interactive survey in mid-2006 found that 43% of people who store personal data on their computers still don't back it up. That's surprising, given that almost one in four of the 2,400 respondents lost personal information in the preceding *month*. Data disasters strike frequently and randomly. Are you adequately protected with a backup solution that's easy to use and offers all of the features you really need, both for backup and data security?

■ CMS BounceBack Ultimate



When you need to add advanced capabilities to a backup routine, the Backup Set Editor lets you modify everything from scheduling

to enabling encryption.

There are plenty of backup software options available, but to give you a good idea of what a proper backup experience should entail, we're going to take you through the backup process with CMS BounceBack Ultimate (\$69; www.cmsproducts.com). It contains all of the essentials we consider necessary in a modern backup tool.

What sort of essentials? Topping the list is the drive image, also known as a "bare-metal backup." This term means that everything on the disk's volume gets copied, including the operating system and boot files. Traditionally, most backup applications only copy user data, such as videos or Office documents. (Most backup apps will copy the My Documents folders by default.) In that scenario, if you have to replace a failed drive, you must reinstall Windows, then (depending on the backup software and how it was configured) the applications, and then start the backup application's recovery process in order to copy back data from the backup drive.

A drive image duplicates everything. It gives your backup drive a snapshot of everything on your current drive, including your operating system (Windows); all of your applications; and any documents, photos, or other files. If your computer's current drive dies, you can replace it with a new drive and then transfer the drive image from your backup drive to your new hard drive. Once the drive image is on your new hard drive, it will be as if your computer never experienced a problem. There's no additional software to reinstall. You merely run the rescue disc after installing the new drive, and when the restoration is complete, you're ready to run. This process works just as well if you have a healthy drive but a damaged version of Windows. Replacing the ailing OS with the image should fix everything.



When selecting a target drive, make extra sure you pick the right one. All data on the selected drive gets eliminated.

What if you don't have a replacement drive standing by to swap in for the failed drive? BounceBack Ultimate features an Instant PC Recovery Mode, which is a fancy way of saying you can boot and run Windows straight from your external backup drive. We'll demonstrate how to enable and use this recovery mode next month.

We've already mentioned that BounceBack Ultimate can retain multiple past versions of files. The software also lets you synchronize data. This

means that you can pick certain folders for BounceBack Ultimate to monitor. Whenever a file is saved within one of those folders, it gets immediately copied to the backup image. This way, even if you haven't done a normal backup in the last few days, critical files are always protected with no additional work on your part.



Pack a lunch. A full system backup can be a lifesaver, but the first backup will probably take several hours.

Finally, BounceBack Ultimate can apply 256-bit AES (Advanced Encryption Standard) encryption to back up data files. This is U.S. military-class encryption, commonly accepted to be “unhackable” by anything even remotely close to modern computing hardware.

■ Backing Up

1 Installation. As with most software installations, our adventure with BounceBack Ultimate began with inserting the installation CD, seeing the splash screen come up, accepting the license agreement, and selecting Install. Once installation completes, you input the activation code found on the sticker inside the CD case, then decide whether you want to register now or later—we’ll say later.

2 Install external drive. If you have a healthy Windows system, this should be a snap. Simply plug the drive into an available USB port. A pop-up above the system tray should alert you that drivers for the external unit are being installed, then another message will tell you that the drive is ready to use. You can bring up a Computer window by clicking Start, Computer to verify that the new drive has been added.

3 Select the backup. Next comes the first backup selection. You’ll be prompted to select either a Full System Backup or Create a Backup Set. By default, the Full System Backup option selects your C: volume as a source. It does not support some of BounceBack’s advanced functions, including synchronization, versioning, and encryption, but it will leave you with an external drive able to substitute for your C: volume in the event of failure. For now, select Full System Backup for the simplest, quickest option to get you protected right off the bat. As we’ll see, you can always go back and optimize later. Click the Next button.



BounceBack Ultimate may prompt you to close certain applications if you risk having an incomplete backup by keeping them open.

4 Select the target drive. CMS now shows you a list of possible drives to which you can back up your system. Of all the steps involved in the backup process, pay extra-close attention to this one. System backup is a destructive operation, meaning that any data on your target drive will be wiped out. The first time we ran BounceBack Ultimate, we'd neglected to plug in our USB drive and very nearly selected one of our internal drives by mistake. Make sure you select the correct drive, then click Next.

5 Format the target. After clicking OK at a confirmation prompt, BounceBack Ultimate will partition and format your target drive. (These are technical steps needed to ensure a clean, optimal backup drive.) On our test run, we didn't get far into formatting before Windows displayed an error message

informing us that "This drive is in use. Another program or process is using this drive. Do you want to format it anyway?" We answered Yes, made sure the Quick Format box was checked in the formatting window, and clicked Start.

6 Let it run. Now BounceBack Ultimate catalogs all of the files to be transferred, showing you a Data Optimization screen that counts all of your files. Once the counting is finished, the application launches straight into the backup process with no further prompting. To give you a sense of what to expect, our system contained 148,389 files constituting 262.4GB. It took BounceBack Ultimate seven hours and 31 minutes to complete the backup to our CMS V2ABS drive.

■ Ultimate Options

Let's explore the BounceBack Control Center. You can launch the Control Center from the Windows system tray by clicking the BounceBack icon and selecting BounceBack Control Center. There are five tabs along the top of the Control Center. We'll briefly touch on each of these.



Picking a different drive letter for your backup target, such as Z:, can help avoid accidentally deleting data from your drive.

Backup. At this point, you already have one backup “set” created—a full system backup. You can launch this operation again from this tab.

Restore. The name is self-explanatory. Again, we’ll circle back next month to cover restoring in much greater detail.

Add New Backup. A straight C: volume backup is a good starting point, but many users now have additional drives to protect. Alternatively, for whatever reason, you may want to back up most of your C: volume to one location but back up certain folders (videos or your iTunes music collection, for example) to a different target. Clicking this tab spawns the Backup Set Editor window, which is divided into four fairly intuitive sections.

First, you select the source volumes or folders within those volumes by clicking the plus symbol (+) in the folder hierarchy. (Note that you can also select network locations for both the backup source and/or target.) Simply put check marks next to whichever locations you wish to include in your backup set. In box 2, select a target drive, making sure to remember cautions about having enough capacity for your backup set and the fact that any prior data in that location will be deleted.

In box 3, you can opt for the previously absent advanced features, such as synchronization and encryption. To be very sure that your backup data copied accurately, you can check the Verify Data box, which compares the files in the target location against the source to confirm that they’re identical. Obviously, this takes more time. In box 4, you can set up a backup schedule. We strongly advise doing this. Automated backups are essential safeguards against fallible human memory. (“Oh, I forgot to back the data up . . . for the last three months!”) Be sure to give your backup set a distinctive name so you can easily recognize it.

Edit. This is simply the entrance to modifying a backup set you’ve already created. Click the Edit tab, highlight the backup set you want to change, and that set will open as you left it in the Editor window.

Options. If you don’t have a dual-drive external backup target, you can get similar protection by backing up to two external drives simultaneously. This is possible when you check the Allow Access to Multiple Backup Destinations box under Options. The only other

noteworthy option here is being able to change the volume letter of your backup target (such as changing volume G to L). Click Next, select your target drive, and click the Change Drive Letter button. Select the letter you want from the pop-up menu and click OK.

If all of this sounds pretty easy, it is. But the real test of a backup tool is how well it can put you back in business once trouble strikes. Tune in next month to see how well our application performs under pressure. ■

by William Van Winkle