



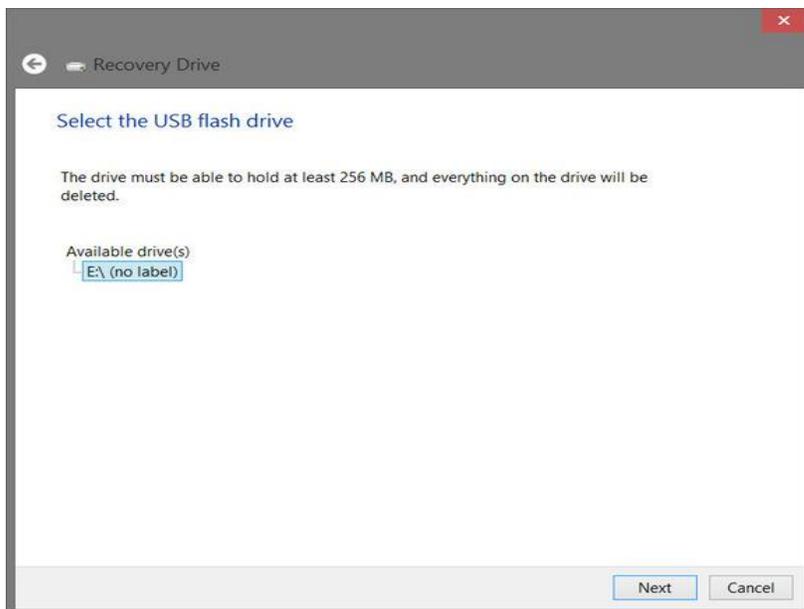
If we show you how to back up your PC for free will you finally do it?

If we show you how to back up your PC for free, will you finally do it? Beyond simple hard drive failure, your PC could fall prey to user error or all sorts of nefarious malware. The only way to ensure that none of your personal files or programs is lost in a catastrophe is to back up everything regularly.

While backing up your data *can* be as simple as dumping critical files on a USB key or external hard drive every now and again, you'll ideally want to make multiple backups and store them on different drives—preferably with the drives stashed at different physical locations. Here's an easy, comprehensive three-pronged backup method, using free tools that can save your bacon in the event of a catastrophic OS failure.

Creating Windows images with System Backup

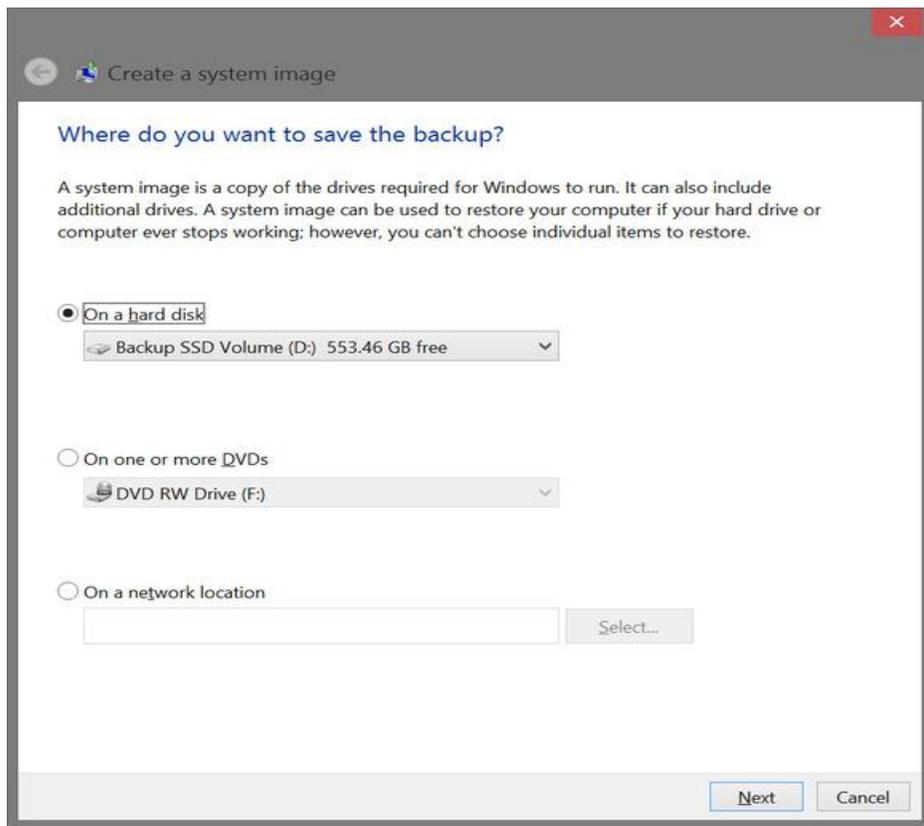
The built-in Windows imaging tool—which creates a backup of all the data on your drive, including Windows itself and your settings, programs, and files—is nowhere near as comprehensive as some premium solutions, and it sometimes has issues with restoring system images from one machine to another, but for maintaining a personal computer it's acceptable.



You need to use a recovery disk to restore the images created with the built-in Windows imaging tool. Creating one takes only a few seconds.

To use it, you'll first need to create a recovery drive. A recovery drive is a small, bootable disk that can boot into the Windows Recovery Tool, independent of the OS. Type `recovery` in the Start menu or Windows 8's Start screen, and then click on the Recovery link in the results. In the window that opens, click the link to create a recovery drive and insert a USB flash drive into your system to use as the recovery disk. Be warned: Any data on the drive will be destroyed when creating the recovery disk. Follow the on-screen instructions, and Windows will create the recovery disk in a few seconds.

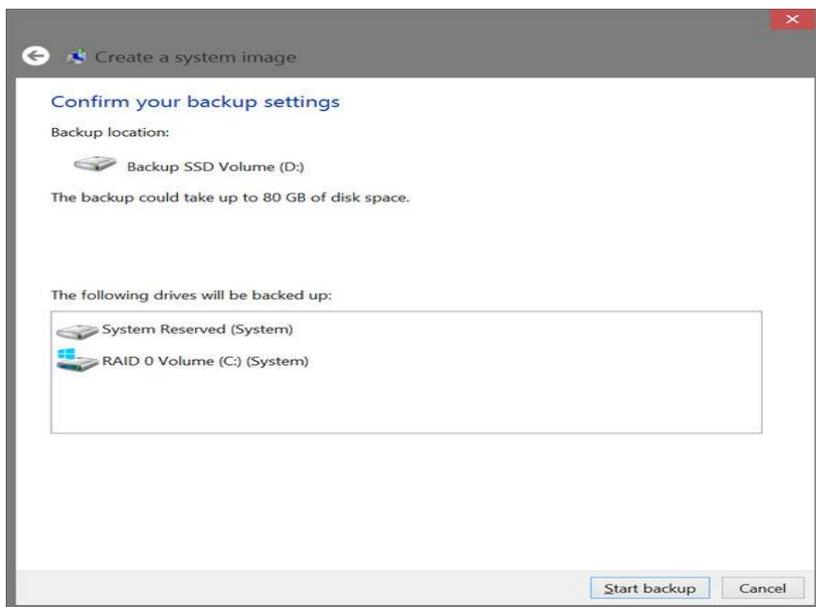
Once the recovery disk is created, try booting to it. If it works properly you're ready to create a system image. Restart Windows, go to your Start screen, and type `File History`. Click on the *File History* link that appears and click on the *System Image Backup* link at the lower-left of the window. Windows 7 users can find the feature at *Control Panel > System and maintenance > Backup and Restore > Create a system image*.



Step One: Select the destination for you system image.

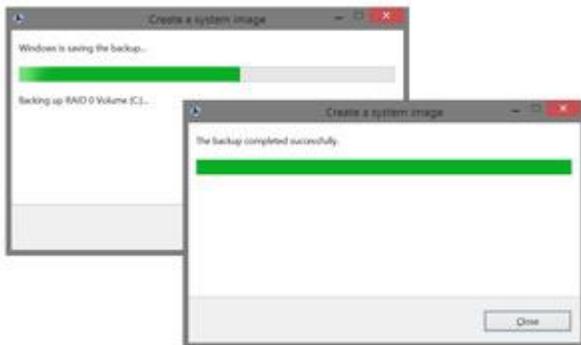
When you click *System Image Backup*, a 'Create a system image' window will open. On the first screen, you'll be asked to select the destination for your backup image. In the image above, I'm selecting the secondary drive in my system, but you could also store the backup image on a network location, an external drive, or burn it to DVDs. Note that if you do the latter, you'll need a *lot* of discs. My image was almost 47GB.

Next, you'll be asked to confirm your backup settings. Double-check that you're backing up your primary drive, which contains your operating system, applications, personal files, and the like. If the correct drive is listed, click the *Start Backup* button, and the Windows imaging tool will create the system image.



Step Two: Confirm the source drive(s) to be imaged.

Depending on the amount of data involved and the speed of the drives, this system-image creation process could take anywhere from a few minutes to a few hours. On my system, about 95GB of data on the OS volume was compressed into a 47GB image, and the process took about 10 minutes. My system uses all solid-state storage, though; the process would be much slower on a PC using traditional hard drives.



Make a new image regularly—say, every month or two, or before you do something drastic to your PC.

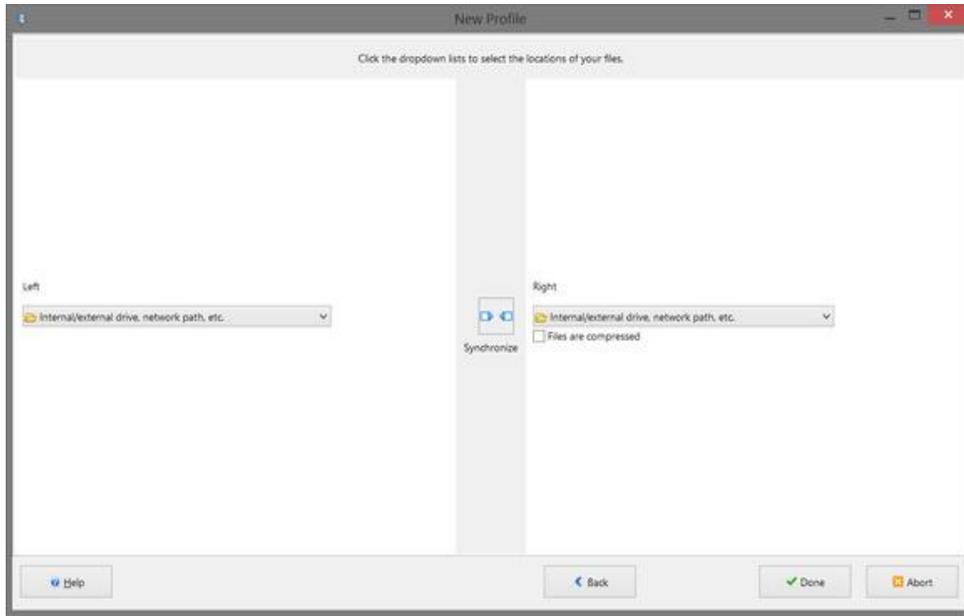
The actual restoration process is also quite easy. All you need to do is boot to the recovery disk created earlier, and on the first screen presented to you, select your preferred keyboard layout. Then select *Troubleshoot* > *Advanced Option* > *System Image Recovery*. The tool will then automatically scan your system for images and prompt you to restore the most recent image. If you stored your image on an external drive, be sure it's connected when the recovery tool scans for images.

Synchronizing with SyncBackFree

System images are great for restoring an entire system back to its original state, but there's no need to create new images constantly when only a few files may change on a system daily. To back up personal files, you could use Windows 8's File History, but SyncBackFree is much more intuitive and configurable, *and* it'll run on Windows XP on up.

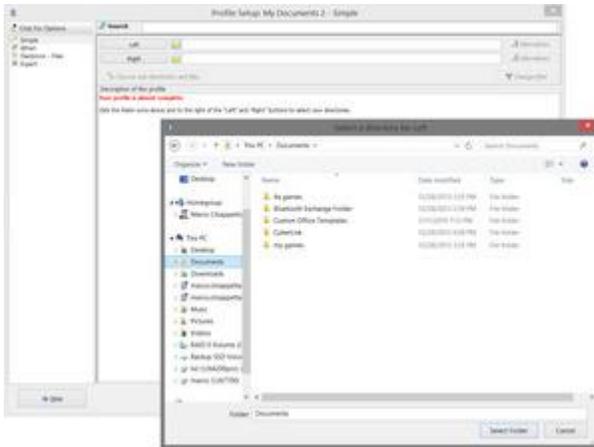
With SyncBackFree, you can create profiles for backing up, synchronizing, or copying individual files or folders from one location into another. You can also schedule those profiles to run at specific times, to maintain multiple copies of your data.

Once you've installed SyncBackFree, start the program and run through the 'New Profile' creation wizard. When it starts, you'll need to name the profile. Afterward, click *Next*.



Select the type of drives to synchronize on this screen.

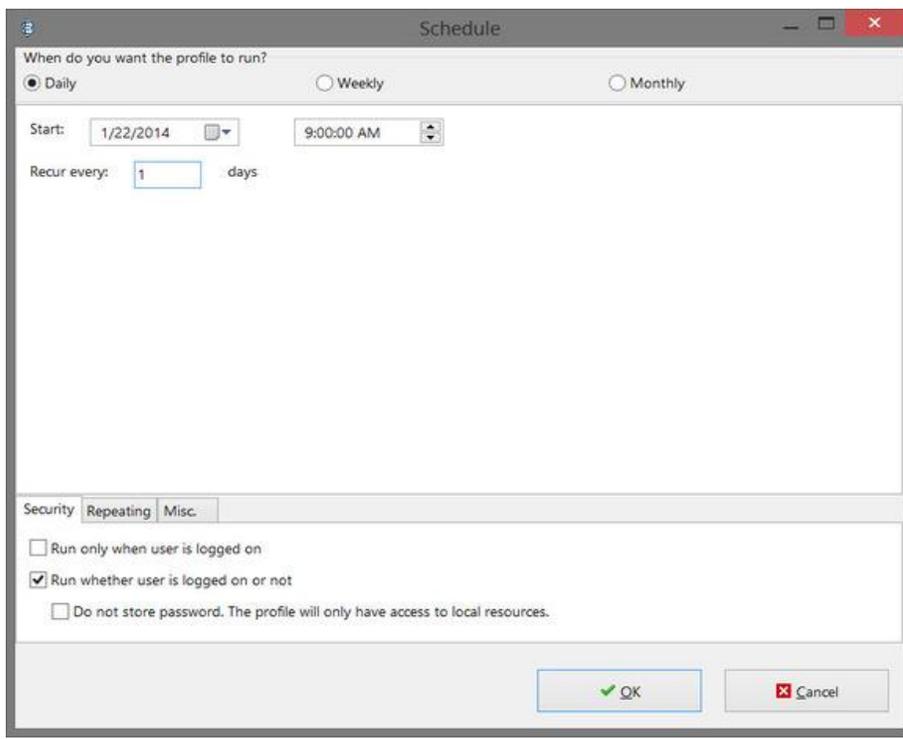
Select *Synchronize* on the next screen and you'll be asked to choose the type of drive you'll be backing up, *and* the type of drive that will store the backup. This is a somewhat confusing screen, because the source location is labeled 'Left' and the destination location is labeled 'Right.' Select *Internal/External drive, network path, etc.* for both sides.



Select your source and destination folders to tell SyncBackFree what you'd like to backup, and where you'd like to your synchronized files to be stored.

Next, select the specific folders to synchronize. In the main SyncBackFree window, click the folder icon next to the 'Left' button, then browse to the folder you'd like to back up. Next, click on the folder icon by the 'Right' button and select the backup destination drive. Ideally, you'd want this to be an external drive or networked storage location.

Once you've set your source and destination folders, right-clicking the profile and selecting *Run* will start the synchronization process. It's best to create a schedule so the program will back up your files automatically on a regular basis. Right-click on the profile's name and select *Schedule*. When prompted, click *Yes* to create a new schedule. You'll also be able to choose what time to sync your folders.



Schedule when you want to sync your folders.

Here's where it gets a little tricky. If you really want a disaster-proof backup, you should create multiple SyncBackFree profiles and synchronize your source data to different folders, at different intervals, to maintain multiple copies of your data.

Why would you want to do that? Every time SyncBackFree syncs the two folders, it overwrites the previous version of the data in the destination folder. Maintaining multiple profiles that back up to multiple locations protects against losing your files to data corruption or, say, a particularly nasty bit of ransomware that encrypts your files and throws away the key.

Put it in the Cloud!

You may also want to sync individual files for backup or sharing across several devices with SkyDrive (or Dropbox, or Google Drive, or...). That's simply a matter of copying the files you'd like to back up into your cloud-storage service of choice. Check out our comprehensive article explaining how to use SkyDrive, and remember, its name will be changing to OneDrive sometime soon.

There are countless other methods and tools available to back up a PC that may be better suited to your particular needs—we also have articles outlining how to protect your PCs with cloud backup services and offline hardware alike. If you've come across other tools or have handy tips and tricks that may help fellow readers, we'd love to hear about them in the comments below. But this is for certain: Having a comprehensive backup plan in place can prevent a lot of heartache. Take the time and implement a backup plan that works for you—trust us on this one.