Backup Using Windows 10 – Protect your Data (and System)

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As many of us have learned from hearing some sad stories, data backup needs to be an integral part of using our computers. As such, you would think that the Operating System developer would have included Backup as part of the OS; well, fortunately, they did. Not only did Microsoft include the ability to back up your data, but it included the ability to back up your system as well. Although Windows 10 offers these backup solutions, this has not always been the case. In the Operating System's early days (maybe all the way leading up to Windows 7), Data and System backup was left to third-party software developers, who provided software such as Acronis True Image, Goodsync, and Macrium Reflect. So, at this point, many of us are using other solutions for Backup, like FreeFileSync for Data backup and EaseUs Todo for System backup. But the Windows 10 features may be a good choice for someone who does not want to get involved with new applications but wants to start to protect their data at least, and possibly even have a System Image backup.

This may be obvious, but the reason for having a backup is to restore a file, a folder, or a collection of files and folders if something is accidentally destroyed or deleted. The backup is just a copy, an exact duplicate, and is not processed in any way so that the backup files can be used by any programs that could use the original files. (Most backup software does not process the data files at all, but some backup software does. Some backup applications process the files to make the resulting backup files smaller, probably to save space, but this makes the files useable only by the backup application and not the original applications.)

So, first, let's review the difference between Data and System. Data is all the files created by applications. This could be documents which may be the output from Word or Excel, pictures that come from a camera or your phone, music purchased from iTunes, videos that have been produced by MovieMaker, financial and tax records that TurboTax may have produced, etc. Data is basically all the "stuff" you produce while using your computer software applications. Hopefully, in File Explorer, you have the "File name extensions" box in the View Tab checked so you can identify these files. Once that box is checked you will see file extensions on each file like .docx, .xlsx, .jpg, .png, .mp3, .wav, .mov, .avi, .ttax. Hopefully, most of these are familiar to you.

System, on the other hand, is a copy of the Operating System and all of its components (referred to as the Operating Environment), as they exist in the memory of your operating computer. This includes Applications installed like Photoshop, Virus, and Malware software like Malwarebytes, added Utilities like CCleaner, Drivers added to the OS, and Updates to all the above. The resulting System backup file(s) is typically referred to as an Image (of the Operating Environment). The Image can only be created by a specific imaging program, and the image created can then only be used by that

same imaging program to restore the Image. (The reason for having an image is to be able to re-install your "Operating Environment" if, or rather when, a virus or hardware problem makes your system unusable. For example, ever have a Disk failure or a Malware infection?)

Now that we know what is being protected when we say Data or System Backup let us look at the backup features provided in Windows 10. The Data backup feature is in The "Update & Security" section of Settings. (Windows Start – Settings – Update & Security) Next, choose Backup in the list on the left. The backup feature is called "Back up using File History." The first step is to connect an external or portable drive to the computer using one of the USB connectors and then click the "+ Add a drive." Next in the list of drives, select the drive you just connected. This will change the "+" to "Automatically back up my files" with the switch set to "On." Your added drive is now set up to be the backup drive. Next, select "More Options" so you can determine how often your files are backed up (default is "every hour"), how long to keep your backup files (default is "forever," but "until space is needed" may be a better choice), and what files are backed up. (To remove a folder, click the folder and then click "Remove," to add a folder, click "+Add a folder" under "Back up these folders." There is even an "Exclude these folders" option at the end of the list of folders.) If, or when, you no longer want to backup to the drive shown, click "Stop using drive" under "Backup to a different drive." To restore a file or folder from a backup drive, choose "Restore files from a current backup" at the bottom of the "Backup options."

Creating a System Image is, as usual, a little more complicated. It is not in Settings, but rather it is in the Control Panel. Click the Search icon next to the Start button and type in Control. Select "Control Panel" and when in Control Panel select "Backup and Restore (Windows 7)." (I know this is Windows 10.) Choose "Create a system image" on the left side of the "Backup or Restore your files" choose "Create a system image." On the "Where do you want to save the backup" screen, select a hard drive. Select the C: drive if it is not selected already on the "Which drives do you want to include in the backup" screen. And finally, on the "Confirm your settings" screen, review the settings and "Start the backup." You will also have to "Create a system repair disc" to use to boot your system. Restoring your System Image is done by selecting "Restore my files" on the bottom of the "Backup or Restore your files" screen. Creating a System Image is relatively easy; however, "Restoring" an Image takes a little training, even though the individual steps are not difficult. My practical feeling is that Restoring an image should be done only by, or with the help of, a tech-savvy friend. Even if you don't attempt to create/restore an image, make sure you backup your data.