

## Computer Basics Part 2 – Backup Data

In these instructions we will cover the following:

- Why You Want to Backup your Data.
- Old Options that are Not Often Used Today.
- Different Options on Backing up your Data.
- Using the External Drive
- Using a Windows Home Server

### Why You Want to Backup your Data

You always want to keep a copy of your data in more than one place. Why? Let us say that you worked hard creating a document that you want to keep. If your hard drive fails or is damaged, or if you are using a laptop and the laptop is stolen then what do you do? In the case of the hard drive failing you may be able to have someone recover or restore the data, but it may cost thousands of dollars. In the case of a stolen computer then, sorry the data is gone forever!

Your hard drive will eventually fail. It isn't a matter of "if" but rather "when." This isn't being pessimistic, but rather understanding that computers are made by humans and all things eventually break down.

Be ready!

Copy your data to another location. If your computer is on a network then you can copy the data from your computer to another computer on the network, even if you have a home network! If your computer is not on a network and you only own one computer then I recommend using an external hard drive or thumb drive to copy your data. I will explain these items a little more later in these instructions. Before we go any farther, if you do not know what a hard drive is, then I recommend that you begin by reading my "Computer Basics" information which is available on this website.

Another reason to backup your data is if you are purchasing a new computer then you can easily copy the data from one computer to another by first copying it to the external device.

### Old Options that are Not Often Used Today

There are many old options that are not used as often today. You may have heard of **Floppy Disks**, **ZIP Disks**, or **JAZ Drives**. These were disks which allowed you to copy data to them, however they are older technology and will not give you the storage space that newer technology gives you. In addition, they are slow. Do not use these.

### **Different Options on Backing up your Data**

As mentioned before, you have different options to use when backing up your data. If you have two or more computers then it may be better to setup a network. This would give you the opportunity to backup the data to a different computer and would give you the option to use resources on the other computer such as connected printers. For information on setting up a simple network for two or more computers please see my instructions “Network Computers” available from this website.

If you do not have a second computer then you can either use a thumb drive or external hard drive.

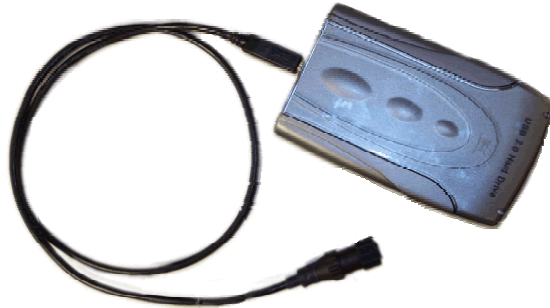
A Thumb drive is a small device which connects to the USB port on the computer. These devices can store a large amount of data and are easy to carry. They do not need an external power source since they get their power from the computer. The more they hold the more expensive they are. We mentioned Thumb drives in our instructions “Computer Basics” which is available from this website.



*Illustration 1: Thumb Drive*

An external hard drive can come in many different shapes and sizes. There are also different types of drives. They all do the same thing, they magnetically store your data just like the hard drive inside your computer. In fact, external hard drives are actually internal hard drives in their own case! External hard drives that are small, designed to be put into a laptop computer, may not need an external power source when used externally so only one wire... connecting to the computer, is needed. Larger hard drives, such as those that are used in desktop computers may need a second cable to connect it to power to spin the drive.

Here are two examples of external hard drives:



*Illustration 2: External hard Drive*



*Illustration 3: External Hard Drive*

External Hard drives usually have a cable that allows you to connect to USB, however, some brands may connect to SATA, or FireWire (different types of connections which most newer computers now have).

When you make a purchase for an external hard drive you can either purchase an external hard drive (which contains the hard drive inside the case), or you can purchase just the case (**drive enclosure**) to make your own external hard drive (requires you to buy the hard drive if you do not have one and install it into the case). This is usually the best priced option, however if you are new to computers I recommend you purchase one which already has the hard drive inside.

A good External hard drive will may cost about \$100.00, but look for discounts and sales.

### **Using the External Drive**

No matter if you are using an external hard drive or a thumb drive when you connect the drive to your Windows 2000, XP, or Vista computer the computer will automatically detect the drive and will assign a drive letter to it making it available to you through My Computer. No additional driver is needed to make the drive work! You would then be able to simply copy your data to the external drive just as you do with any other drive.

Do not install applications to the external hard drive or Thumb Drive except those applications which are “portable” applications. For information about **“Portable Applications”** and a list of Portable Applications you can get for free, please see the “Freeware” section of our website and select “Portable Apps.”

When you are done copying data to the hard drive you need to disconnect the drive. You can't just pull the cable out of the computer. You first have to tell the computer you want to disconnect. If you don't then your data may be damaged! To tell the computer you want to disconnect the drive do the following:

1. Look down at the System Tray (where the clock is). You will see an icon that looks similar to a drive with an arrow. (See Illustration 4) These graphics are from Windows XP. The icons will look a little different in Windows Vista. Left-click on the icon.
2. After you left-click on the icon a list will appear (see Illustration 5). In this case I only have one item in the list. Left-click on any item on the list to disconnect it. This tells Windows that you are going to physically disconnect it.
3. After you left-click on an item on the list Windows will tell you it is safe to remove the item (see Illustration 6). When you see that it is safe to remove the item then you can physically disconnect the item from the computer. If Windows tells you that you need to try again later then Windows was still copying to the device. Try to remove the item again if needed.

**Warning: Disconnecting the item without telling Windows you are going to disconnect it can damage the data on your portable device (external hard drive or thumb drive).**



## Using a Windows Home Server

The newest option to backing up your data is using a Windows Home Server. Microsoft has an operating system called "Windows Home Server." You can purchase a computer with this software on it for only about \$550.00 - \$600.00. With a Windows Home Server running on your home network it will back up your computer (up to 10 computers) for you and will even give you the ability to restore them if their drive fails. It also provides a way to share pictures and sounds and even has a built-in website so you can dump pictures from your camera directly to your home server from anywhere in the world! The benefits of the Windows Home Server are great. The only thing it won't protect against is a fire.

I hope this information has been helpful to you.

You may print this information if needed.

Check [www.scottfam.us](http://www.scottfam.us) for additional information!