

# Memories — Stolen but Not Lost<sup>©</sup>

## Part 1: Preparation

by Owen C. Jones

Unfortunately, in what has become an altogether too common event, another theft from a locked boat took place. This time, however, it did not happen in Trinidad, Porlamar or even in the Grenadines. This time it occurred at Village Cay Marina in Road Town, Tortola, during the early evening hours, just down the dock from our berth. The occupants returned after a nice meal ashore with friends to find various loose items gone in what amounted to a loss of several thousands of dollars. Among the purloined items, accessed through an apparently jimmed deck hatch, was a laptop computer. The theft was injury enough and I wish I had a magic bullet that would eliminate these occurrences, but I don't.

To add insult, however, the computer held about six years' worth of personal and business information, including many photographs which, unless the machine is recovered, are irreplaceable. This is the saddest part of the whole sordid situation. Again, I wish I could wave my magic wand and return the stolen memories to these nice folks but I can't. What I can do, however, is explain a system that, if used with care and regularity, can virtually eliminate loss of the most dear and important personal items and business information normally kept on one's laptop. That's the reason for this article.

The concept is simple and it is really both inexpensive and easy with today's technology. Even a relative novice can provide a reasonable degree of protection for failure or theft of information on computers.

There are three tiers to the method:

- 1) Organize the information on your computer to make it easy to copy from one location to another.
- 2) Purchase and prepare a small external hard drive that you can plug into your Universal Serial Bus (USB) port on your laptop.
- 3) Make it a habit to plug in the hard drive and back up newly created files onto the external memory base, which you then keep in a safe place apart from your laptop.

In this, Part One, I will explain how to organize your information, select your back-up device and prepare this device for use. In the second part, to appear next issue, I will discuss back-up methods and outline in detail one method that I find most useful. So that you may maintain continuity in this discussion, after this article is published, it will be placed on my website, <http://sailisv.com>, as will the second part and any subsequent articles along the same lines. In this way, after reading these in the *Caribbean Compass* you will be able to download one or both parts for reference in preparing and undertaking your back-up procedures.

## Organize Your Information

This is really very simple using modern computers with Windows operating systems. In fact, Microsoft has already done it for you by providing you with a folder called "My Documents." In Windows XP, this is located in a place with the following address:

"C:\Documents and Settings\*yourname*\My Documents."

Actually, *yourname1* is the name you use to log into the computer. For more than one user of the same machine, each with an individual log-in name or ID, the storage locations would usually be found in ...\*yourname2*|\..., ...\*yourname3*|\..., etcetera, for the names of the additional users.

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In Microsoft Vista, you can find this information in “C:\Users\*yourname1, ...2, ...3...*,” for each user. This makes it easy, for as long as individual users store all their personal information in “My Documents” you know exactly how to find it all, and more importantly, how to address it for copying.

Notice also that “My Documents” has a number of pre-defined folders. They hold music (“My Music”), photographs (“My Pictures”) designed website pages (“My Webs”) and other similar Windows-generated folders which, if used for these purposes, already provide an organizing structure for your information. So, all you have to do is use this structure for storing all your important computer-generated material. You can amplify this structure to suit your purpose by creating other folders. Simply right-click inside “My Documents” and select “New” and then “Folder,” and, when the new icon appears, give the new folder a name, such as “Invoices” and voilà, you have a new folder to store an entirely different category of information.

Of course you can create new folders inside the existing ones. Simply double click on an existing folder, for example “Invoices”, to open it, then right-click again to create another new folder inside, giving it a name such as “2008”. You can then similarly create another such as “2009” etcetera, and you have a subdirectory structure to simplify your filing. Think of this as an electronic filing cabinet. In this case you would have created a method of tracking your invoices by year inside your “Invoice” folder.

For back-up purposes, it is important to try to keep all your information in this one area, “My Documents” or “Documents”. This makes it easy to copy, mirror and retrieve information from the external storage unit.

Additionally, I find it extremely useful to place a date-group at the front of every file name that is important from a chronological standpoint. This includes bank statements, telephone bills, invoices, shipping notices, medical statements and insurance reimbursements, to name but a few categories you could create within “My Documents”. Thus, “090501 AT&T statement” would be the name of my downloaded statement from one of my telephone carriers for the date May 1, 2009.

Why is this important? Well, this allows your files to be automatically arranged in chronological order, regardless of the date of creation, making it easy to separate things year-to-year, month-to-month and so forth. Thus, finding something in the future will be much easier than without such organization. Sorting by name in XP or Vista will automatically place them in the proper order allowing for easy searching, sorting and filing. You can then file things by year and even by month in a year should you so desire.

And if you, like me, are a detail freak running a small business, and you have had enough of the tax man to last you a lifetime, you will also understand the importance of keeping receipts — on everything! This is what we do. Then, when we have a few free moments, we simply scan these into our computer, rename them so we can identify the cost in the future (i.e. “090327 Marina Cay water & ice”), and store them in an appropriate folder in “My Documents.”

## Purchase your External Hard Drive

This is the second tier of the overall methodology and involves five items:

- 1) Purchase and set up a small hard drive virtually identical to or even with larger capacity than the one in your laptop computer;
- 2) Either follow the instructions that come with the disk drive to automatically synch the drive with your computer,

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or...

3) If you are going to “roll your own” for more control of and ready access to your back-up data, format the hard drive so that it can receive and store your data in identical form (“mirror”) to that on your notebook’s internal hard drive. You can even set up a new operating system on this disk drive that would enable you to put the drive into a new computer and immediately boot up the machine with your data intact. But this requires a different external hard drive configuration and that discussion we’ll save for another story.

4) For those who wish to go their own way, prepare a small “batch” program (file containing a series of specific commands, sometimes called *script*, that the computer can then execute in sequence in a “cmd” window) that you can either run manually or set up to run on a schedule automatically at a time of your choosing. I’ll give you the one that I use myself in Part Two of this article.

5) Run the back-up program on a periodic, regular and “frequent” basis, the frequency dependent on how often you actually use your computer and how comfortable you are with having only one copy of your information without a back-up.

We will discuss the recommended software back-up options in Part Two. But first we need to get the new external hard drive and connect it to the computer.



*Figure 1. External 2.5-inch hard drive is about 0.6 inches thick and just under 5 inches long.*

Okay. The typical canned hard disk drive (HDD) for a laptop such as that shown in Figure 1 is approximately 2.5 inches wide, 0.6 inches thick and 4 inches long. Drives having excellent reputations for reliability are made by Seagate, Hitachi and Western Digital, to name three. Some come with included software designed for synchronizing data between computers. For instance, I just purchased an external USB hard drive made by Western Digital capable of storing 500 GB (equivalent to over 750 CDs or about 120 DVDs) for US\$119! That’s currently two to six times the internal storage capacity of today’s average notebook.

Your main considerations when purchasing a disk drive are size, speed and price. Size is controlled by the areal storage density (amount of information that can be stored in a given area on the HDD disk), the number of disks inside the unit and the number of sides per disk used to store information. Speed

is mostly determined by disk rotational speed (5400 rpm is typical today but speeds up to 10,000 rpm are available) and the time it takes the unit to find a particular place on a disk (seek time). Higher speeds generally cause prices to increase dramatically. I recommend that you simply duplicate the internal HDD specifications in your external unit.

Most people are more concerned with storage than anything else so the biggest concern becomes price. If purchasing any of the three brands mentioned above, simply buy the disk drive with the most storage that will fit your budget. Prices are now so low that this generally ceases to be a consideration. Nevertheless, it makes no sense to pay for 320 GB if your computer cannot address over 40 GB, unless you wish to use it for some additional purpose. To search the internet for one of these drives, simply Google “*manufacturer 2.5-inch USB*

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Hard Disk Drive” to get lots of options. Of course “*manufacturer*” should be “Hitachi,” “Seagate” or “Western Digital,” for instance, or simply Google “USB Hard Disk Drive.”

## Preparing your External Hard Drive

• **PLUGGING IN YOUR EXTERNAL HARD DRIVE.** Now that you have your new hard drive in hand, it’s time to plug it into your computer and back up your data.

First you must connect your new HDD system to your computer. Figure 2 shows the mini-USB connection port and both ends of the connecting cable. The lower end shown in the photo plugs into the external drive. It can only go one way. Do not force it.

The other end plugs into one of the USB ports on your computer as shown in Figure 3. Make sure you plug it in correctly, the white usually being on the bottom when you attach the cable to the computer connector. Again, do not force the connector.

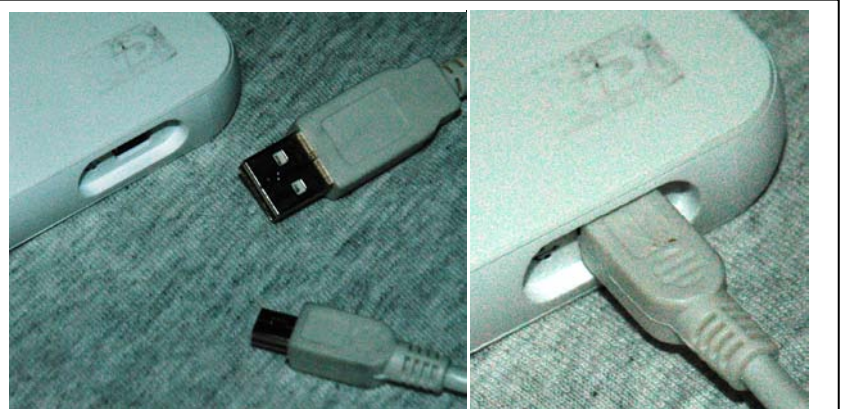


Figure 2. Disk mini USB connection port, both ends of the USB cable and the mini connector plugged into the port.

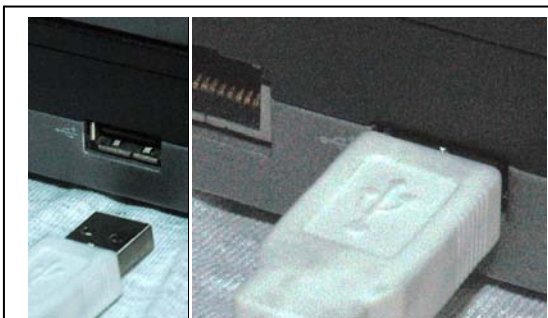


Figure 3. Standard USB connector at other end of cable shown plugged into the computer.

later addition of other hardware will not affect your back-up drive assignment.

Bring up “My Computer” (XP) or “Computer” (VISTA) as shown in Figure 4 to show what drive your laptop has chosen for your new disk drive. As long as you do not change your hardware configuration, this will be true every time you use your computer and back-up hard drive.

However, inserting or removing things such as thumb drives, flash drives, external CD ROM or DVD units, etcetera, before you plug in your back-up unit can change this configuration. The computer may then attempt to

• **CHANGING DRIVE ASSIGNMENT.** The laptop will recognize the new device (Windows XP and later systems), and undertake what is required to utilize this drive. It should show up as a new logical disk drive, usually “E:\” for those computers that have both an internal drive with single partition “C:\” and a CD/DVD drive as “D:\.” I suggest you change this configuration so that the

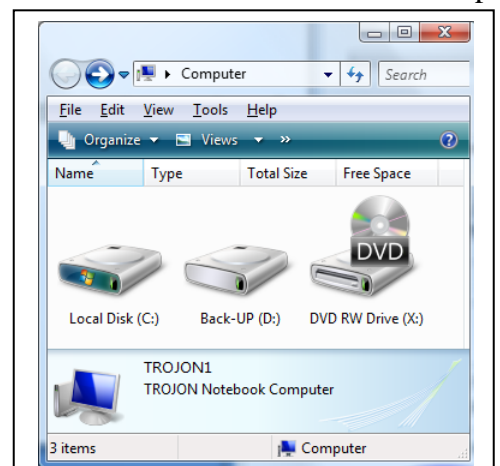


Figure 4. Disk drive configuration.

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back up files to the wrong location. So, I suggest that you take steps to keep the drive assignment for the external back-up disk fixed.

Opening “My Computer” shows at least three drives identified (Figure 4), usually as shown on the left below:

1) Local Disk (C:)	1) Local Disk (C:)
2) DVD-RW Drive (D:)	2) USB Drive (D:)
3) USB Drive (E:)	3) DVD-RW Drive (X:)

However, if you modify drive assignments, the external drive can almost always be identified as the D-drive as shown on the right above. (Note that some older machine/software combinations cannot change the CD/DVD assignments. In this case keep “D:” as is and assign the back-up drive to the E-drive as discussed below, in which case all references to “D:” should be replaced by “E:”.)

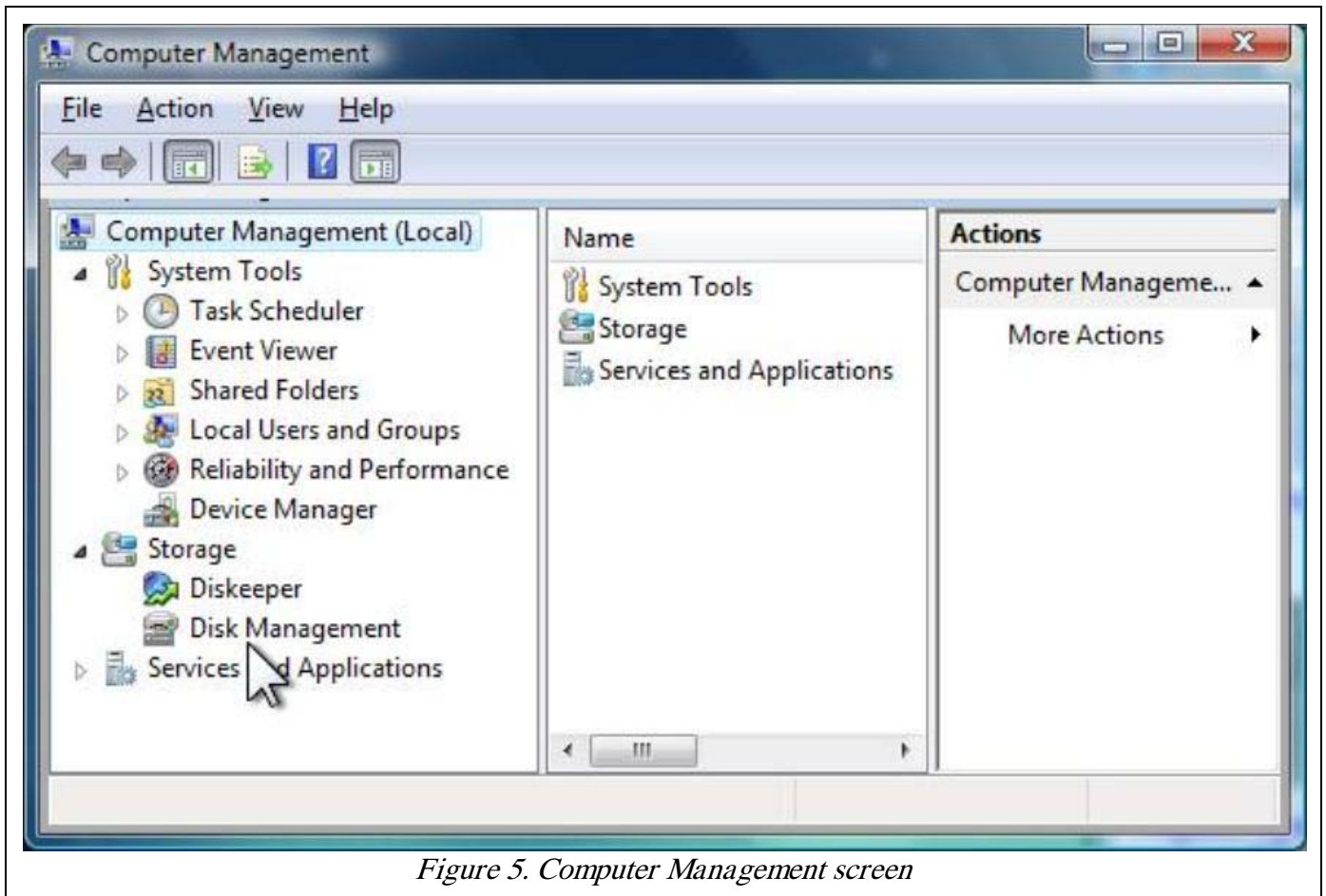


Figure 5. Computer Management screen

To make this change, right click on “My Computer” and choose the “Manage” option which results in the screen shown in Figure 5. Then select the “Disk Management” option and click on the DVD/CD drive when it appears. Right click and choose “Change drive letter and paths...” and then “change” and select the letter you wish this drive to always appear as. I use “X,” a holdover from when I had a large desktop with four internal hard drives and three CD drives. I used “X,” “Y” and “Z” for the CD units. From here on I am going to assume

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you have your drives configured in the manner shown in Figure 4 with the back-up drive called the D-drive. If not, substitute whatever drive letter you have chosen and use that in place of “D” in all that follows.

### Discussion

At this point, you are now ready to choose your method of backing up your information and perform the actual back-up operation.

The problem with using the included software generally is that the information is often stored in one great file and you are given only the directory structure for your own use in retrieval. While this provides a very easy way to get back-up protection, it does not give you the means of accessing your protected data in the same manner as you would from your internal unit and retrieval can be a bear. Specifically, whereas Vista, for instance, and the forthcoming Windows 7, allow for previewing certain files without actually opening the document, these included back-up programs do not allow this. The only thing you can do is “recover” a damaged or lost file, sometimes a lengthy process.

The methods I recommend and describe allow you to use the files on the external drive in exactly the same manner as you would those stored on your internal disk, that is, to “mirror” the data folders that exist on your internal hard drive on your external HDD. Should you choose to utilize this mirroring technique, one way to do this is to set up the batch-file command structure, or “script”, that will undertake the back-up process.

There is no need to go into detail on this method now, since you will have to purchase the necessary equipment and prepare yourself for the actual back-up process. About that time, your next issue of *Caribbean Compass* should be ready for you to read Part Two of this article, wherein the details of undertaking the actual mirroring of your computer’s information structure on the external hard drive will be outlined.

Until then!

Owen C. Jones sails, charters and teaches sailing with his wife, mate and chef Mary Trovato, aboard S/V Fidelity.