BACKUP STRATEGIES

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The Problem

Are you prepared to lose your e-mail address book and all your important email messages? What would you do if your entire collection of digital photos and digital music albums disappeared? Do you have backup copies of your electronically-filed tax returns or your crucial correspondence? And what about all those Web favorites that you have been collecting…and your personal finance records that you have stored on using Quicken or MS Money?

Fortunately, backing up your essential files is neither difficult nor time-consuming. In fact, the whole process can take as little as 5 minutes a week, and you can let Windows do most of the work.

Backup: Wikipedia defines backup as follows: http://en.wikipedia.org/wiki/Backup

Types of backups:

1. **Disk imaging** or **disk cloning:** to create an exact copy of a computer's hard drive. The copy includes all the partition information, boot sectors, the file allocation table, operating system installation and application software. Disk images are used to transfer a hard drive's entire contents to another hard drive so that the contents of the entire hard drive can be restored during a disaster recovery. The process of creating a disk image is called disk imaging or disk cloning. Typically, special disk imaging software (for example, Acronis True Image) is required.

2. **Backing up data files only:** copying your personal data only, not programs or Windows Operating System.

Why do you need to copy your important personal data to another location?

It's easy to fall into the mindset of thinking of your computer as a "TV" set of sorts. Turn it on, watch what's on the screen and turn it off. However, in reality, we know that your computer is a collection of hardware and software that is susceptible to a wide variety of calamities. Viruses, power surges, general hardware failures which render your computer "dead" and hard drive failures—each of these situations can

spell disaster for your PC's data. Rest assured that it's not a matter of **if** you'll need to restore files; it's a matter of **when** you'll need to restore them.

The best way to recover quickly from loss of your personal data is to have a recent full backup or clone of your entire system. This falls into the category of #1, above.

#2, above, involves an informal **copy and paste plan** that is not difficult to implement. The plan to be presented here is easy and requires no knowledge of a sophisticated backup/cloning utility. If you know the basics of **copying and pasting** from one location to another, you will be able to implement this plan and be ready to restore your valuable data files when your hard drive dies. You only need to decide what backup medium is suitable for your needs and what personal data files are truly critical.

> **Disclaimer: The very best way to protect EVERYTHING on your hard drive is to do a full backup or clone of the entire contents of your drive to another drive – i.e. #1, above. But the approach presented during this seminar is a reasonable alternative that is easily understood and managed—and requires no special software. Then if your hard drive does go "belly-up", you will have safely copied all your irreplaceable personal data files to another location. You will still need to reinstall Windows and all software programs.**

How often should you copy your data to another location?
This is an individual decision. If you use your computer to create irreplaceable data files (such as lengthy word processing documents or personal financial data), you may want daily backups of these important files. If you use your PC primarily for surfing the Internet or sending email, or if you use it on an infrequent basis, a weekly (or even monthly) backup may be sufficient.

What data files should you copy to another medium for safe keeping?
Even the most casual PC user should back up his/her most cherished data files, for example: important word processing documents, personal finance data, income tax records, downloaded music, photos from your digital camera, Internet Favorites, email folders, and your Address Book**.**

Where should you backup your data?
The medium you choose for your backups will depend on your storage needs, your personal preferences, and your budget. Removable and permanent hard drives, optical drives (CD and DVD), flash (thumb) drives, and remote servers are all reasonable options. Each of these is appropriate for specific backup strategies.

> **Thumb Drives:** For the average user, Flash (Thumb) Drives are good for small to medium-sized data backups; however, they are too small to hold full

system backups unless you span several Thumb Drives. Reasonably priced Thumb Drives now hold up to 16 gigabytes of data.

Optical drives. For the average user, the choice in optical drives is CDs (up to 650 MB) or DVDs (up to 4.7 GB). CDs are good for small-sized data backups. If you require more backup space, consider using a DVD (must be used with a DVD writer.)

External Hard Drives. These drives are ideal for backing up your important data files. They are fast, hold a lot of data, and the prices have dropped dramatically. If you are really dedicated to having backups to your irreplaceable information, this medium is the one you should consider.

Other Options:

1. Open a free web-based email account (for example, Gmail, Yahoo mail, Windows Live (aka Hotmail), and send the files as attachments to yourself. **Space limitations apply to most web-based email providers**.

2. Copy your data to another computer on your home network.

3. Upload your files to a free web space (search Google for "free web data storage" for possible sites).

Where do you start?

A basic principle of Windows file management is to store all of your data files in subfolders under the **My Documents** folder. By doing this, all one has to do is copy the My Documents folder and all of its subfolders to another location on one of the external media choices described above.

For Novices: Here are the steps necessary to create subfolders (also called nested folders) within the My Documents folder.

1. **Open Windows Explorer by pressing the Windows key together with the E key.**
2. **In the left pane, click directly on top of the My Documents folder.**
3. **The right pane shows the contents of the My Documents folder.**
4. **Note that you already may have nested folders called: My Music, My Pictures and My Videos.**
5. **To add a new nested folder, right-click on any blank space in the right pane.**
6. **Move down to New then over to and click on Folder.**
7. **Rename the folder to suit your personal needs. Some possibilities are: Medical Correspondence, Income Tax Records, Personal Finance Records (for example, your data files from Quicken or MS Money),**

Commercial Program Downloads, All Email, Selected Email, Web Favorites, Desktop Items and Address Book. Note that certain programs will require setting changes to store (and therefore to access) data files in a folder other than the program's default.

8. Repeat steps 5, 6, and 7 until you have created all the nested folders that you want. More can be added later as the need arises.

9. Note that as you add nested folders in the right pane, those same nested folders appear in the left pane.

To Move Your Important Data Files (such as Documents, Photos, Music, Downloads, Financial, and Taxes) to Your New Nested Folders within My Documents, follow these steps:

1. From the Windows Explorer's (Windows key + E) left pane, browse through your other folders to locate any appropriate data files that you wish to copy to My Documents. When you click on a folder or nested folder in the left pane, its contents can be viewed in the right pane.

2. When you find data files of a certain group that you want to move for safe keeping, select them either individually or collectively, right-click on any one of them and select cut. This action will send the file(s) to the clipboard. Don't overlook the folders that you have created and any of your data files that are stored on your Desktop. You should copy and paste them, as well.

3. Move over to the left pane and locate the appropriate nested folder that you created in step 7 above. Right-click on the target folder and then select Paste. This action will move the data file(s) that you selected from the right pane and place it in the appropriate nested folder that appears in the left pane. To verify that this action took place, click on the nested folder in the left pane and view its contents in the right pane.

4. Repeat this process until you have moved all relevant documents. (The first time you open a moved document, you may have to help your program locate it.) From now on when you save a document, make sure you navigate to the appropriate nested folder within My Documents. Check the preferences or settings of your favorite programs (MS Money or Quicken, for example) because you may also be able to choose which folder is the default for saving files.

<u>If you are using an alternative browser (e.g. Firefox, Opera), please disregard the following. These instructions are only for Internet Explorer users.</u> To copy all your Internet Explorer Favorites to My Documents, follow these steps:

1. Open Internet Explorer.
2. From the Menu Bar, click on File.
3. Click on Import/Export, then Next.
4. Select Export Favorites, then Next.
5. In the Export Favorites Source Folder, confirm that Favorites is highlighted, then Next.
6. Select Browse and find your My Documents folder. If you created a nested folder (perhaps called Web Favorites), you will want to select it.
7. By default the file name is Bookmark. Click Finish.
8. If, in the future, you make any additions or deletions to your Favorites, you will want to perform steps 1-7 so that the information that is housed in your My Documents/Web Favorites is up-to-date.

To move __all__ of your OUTLOOK EXPRESS EMAIL FILES to a new nested folder within My Documents, follow these steps:

1. While in Outlook Express, select **Options** on the **Tools** menu.
2. Click the **Maintenance** tab.
3. Click the **Store Folder** button and navigate (click **Change**) to the new nested folder (you probably called it All Email) within **My Documents**.
4. The next time you open Outlook Express, it will move ALL of your email messages (including deleted messages) to the new location and continue storing them there.

To move __selected__ OUTLOOK EXPRESS EMAIL FILES (both received and sent messages) to a new nested folder within My Documents, follow these steps:

1. Open Outlook Express.
2. Navigate to the folder that contains the message that you wish to save.
3. Highlight the target message.
4. From the Menu bar, go to **File** and click on **Save As**.
5. When the **Save Messages As** dialogue box appears, navigate to the appropriate nested folder that you have created for your Selected Outlook Express Email (perhaps you called it **Selected Email**.)
6. Note that the file name is the same as the message's subject. You can change the file name to be more descriptive in identifying the message's contents and author.

To move your OUTLOOK EXPRESS ADDRESS BOOK to a new nested folder within My Documents, follow these steps:

1. Open Outlook Express.
2. Open your Address Book.

3. On the Address Book's Menu bar, click on **File**, then **Export >> Address Book.**
4. At the **Select Address Book File to Export to**, select **My Documents.**
5. Now select the appropriate nested folder (probably **Address Book**).
6. Name the file **Address Book.**
7. Click **Save.**
8. **If in the future you make any additions or deletions to your Address Book, you will want to perform steps 1-7 so that the Address Book file that is housed in your My Documents is up-to-date.**

To determine the size of your My Documents folder, follow these steps:

1. Open Windows Explorer (Windows key + E key).
2. Right click on the My Documents folder.
3. Select **Properties**.
4. Select the **General** tab if it is not already selected.
5. The total size of the My Documents folder, plus the total number of files and the number of nested folders will be given.
6. This information will be useful as you determine the medium to use for storing your backup data files.

(During this presentation, we will demonstrate how to copy (burn) your my Documents folder to a blank CD, using the "plain vanilla" burning program that comes with the Windows XP operating system. In addition, we will demonstrate how to copy your My Documents folder to a thumb drive AND to an external hard drive.)

Follow these steps to copy the contents of your My Documents folder to an External Hard Drive:

1. Plug in your External Hard Drive to an available USB port on your computer.
2. Open Windows Explorer (Windows key + E key)
3. Click on the My Documents folder.
4. From the right pane, select **all** the folders and files contained in the My Documents folder.
5. Right-click on any one of the selected items, then move down to "Send to" and over to "External Drive" (or whatever name you have assigned to it).
6. Sit back and watch the contents of the My Documents folder being copied to the External Drive.
7. When the process is completed, remove the hard drive from the USB port (remembering to first right click the USB icon in the system tray and then clicking Stop or Close) and store it in a safe place away from your computer.

8.   When you repeat the process at a later date, you will be able to keep the data files that have not been changed and copy only those files that have changed or that are new, by answering "Yes to All" when queried.

Follow these steps to copy the contents of your My Documents folder to a thumb drive: Be sure to check the storage capacity of your thumb drive and compare it to the total size of your My Documents folder.

1.   Plug in your thumb drive to an available USB port on your computer.
2.   Open Windows Explorer (Windows key + E key)
3.   Click on the My Documents folder.
4.   From the right pane, select **all** the folders and files contained in the My Documents folder.
5.   Right-click on any one of the selected items, then move down to "Send to" and over to "thumb drive" (or whatever name you have assigned to it).
6.   Sit back and watch the contents of the My Documents folder being copied to the thumb drive.
7.   When the process is completed, remove the thumb drive from the USB port (remembering to first right click the USB icon in the system tray and then clicking Stop or Close) and store it in a safe place away from your computer.
8.   When you repeat the process at a later date, you will be able to keep the data files that have not been changed and copy only those files that have changed or that are new, by answering "Yes to All" when queried.

Follow these steps to copy the contents of your My Documents folder to a CD or DVD Disc: Be sure to check the storage capacity of your CD or DVD and compare it to the total size of your My Documents folder.

1.   Insert a blank CD or DVD into the disk tray of your computer.
2.   Open Windows Explorer (Windows key + E key)
3.   Click on the My Documents folder.
4.   From the right pane, select **all** the folders and files contained in the My Documents folder.
5.   Right-click on any one of the selected items, then move down to "Send to" and over to "CD/DVD."
6.   From the taskbar area near the lower right corner of the desktop, click on the message "You have files waiting to be written…"
7.   When the window opens, go to File on the Menu bar and click on "Write these files to CD."
8.   Follow the CD Writing Wizard.

9.   Sit back and watch the contents of the My Documents folder being copied to the thumb drive.
10.   When the process is completed, the CD will eject from the drive tray.
11.   Store the CD in a safe place away from your computer.