INSIDE THIS ISSUE:

Next Meeting
NO LCG MEETING DUE TO SENIORS' WEEK

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Viney.

OPEN NEWSLETTER — October 2012

FROM THE ASSISTANT EDITOR

Seniors Week is almost upon us and I have re-printed the timetable over in right-hand column just in case you have mislaid the September newsletter.

One point to note is that the Tuesday morning session on Android computers has been **cancelled** because our presenter is unavailable to attend due to illness.

Rob Tierney mentioned to me recently that he is still in need of a few volunteers to serve as 'hosts' for some of the sessions so please check with Rob if you are able to donate an hour or two of your time.

The release of Windows 8 is drawing closer (*October 26 is the mooted date*) and in view of this there will be two sessions covering the new operating system during Seniors Week.

One thing I would recommend to people who are thinking of upgrading to '8' is to check the compatibility of your existing computer. I have been running the Consumer Preview edition on an 8-year old tower at OPEN without too much difficulty but have had no end of trouble trying to get it to run a slightly newer lap-top.

Some people who use the AVG Free anti-virus program may have noticed that there is a new screen interface on the 2013 update—the 'tiles' are similar to Windows 8's Metro screen—although Microsoft is now suggesting that the Metro name will not be used in the final release of '8'.

And just when you were thinking you had finally become proficient with the Ribbon interface of Office 2007 and 2010 now Microsoft is about to drop **Office 2013** in your lap. This is expected to be released as part of the 'touch' version of Windows 8 that will be used on tablets and similar devices and will feature a 'tiled interface' to fit in with the design of the (former???) Metro screen.

Office 2013 is not expected to be available until some time after the release of Windows 8.

Dennis

OCTOBER MEETINGS???

No meetings this month

OPEN's MONTHLY MEETING was held on September 26th due to Seniors Week being on from October 1st to 5th

and …

No LCG Meeting in October

NEXT OPEN and LCG MEETINGs on Wednesday, November 7th.

VICTOR PHONE NUMBER 0408 174 235

Contact the Coordinator Rob Tierney for assistance with computer problems at home (Bookings are subject to availability of tutors.)

VENUE TELEPHONE NUMBER

Don't forget that the club telephone is available during class hours**.**

***** 6343 4928 *****

Members and tutors can be contacted at the clubrooms **during class hours** by telephoning the number shown above.

Monday to Friday 10am – 3pm

Tuesday evenings 7pm—9 pm

SENIORS WEEK TIMETABLE

Date	Time	Subject
Monday 1st October	10am-12 noon	How to buy a computer
	1 pm—3 pm	The Coming of Windows 8
Tuesday 2nd October	**10am-12 noon**	**Cancelled due to presenter's illness**
	1 pm—3 pm	Apple Mac Demonstration
Wednesday 3rd October	10am-12 noon	"Come and See" Members at Work
	1 pm—3 pm	"Come and See" Members at Work
Thursday 4th October	10am-12 noon	The Coming of Windows 8
	1 pm—3 pm	Internet and You
Friday 5th October	10am-12 noon	Mobile Phones for Beginners
	1 pm—3 pm	11th Birthday Afternoon Tea
PLEASE NOTE THAT THERE WON'T BE ANY CHARGES FOR THESE SESSIONS		

OPEN NEWSLETTER – October 2012

RIDING THE "ROLLER-COASTER"

I would like to start this month's article by thanking those members who have been kind enough to provide feedback about the newsletter. It is heartening to know that there are some people who are taking the time to read the information and advice that the various contributors are endeavouring to pass on.

However, one of the down-sides of the editorial process is that some of the content is based on the unfortunate experiences of some club members and other computer users. We print such 'case studies' in the hope that somebody else will be spared the same unpleasant encounters by being fore-warned of potential problems.

For example, the **'Your Computer Is About To Crash'** phone scam has probably been doing the rounds for 4 or 5 years now but people are still succumbing to it. I'll repeat a comment I made in an article some years ago— **"The people ringing to tell you this alleged bad news have no more idea of whether your computer is going to crash, than I have of knowing whether that pot of soup on your stove is about to boil over!"**

How did I know you had a pot of soup on the stove? Well if I ring enough people I will eventually find somebody who does. And that's exactly what the scammers do ...

Many new members who come through the door at OPEN lament the fact that their new computer has next to nothing in the way of an instruction manual.

That's where OPEN comes in— for 11 years 'we' have been **your walking, talking, living, breathing instruction manual.** Our 'pages' contain a wealth of skills, knowledge and experience amassed by scores of volunteers who have provided their time to help you utilise the facilities of the computer to provide the benefits that you had in mind when you first bought it.

Oh, you'd better check the soup ...

Dennis

PLEASE NOTE THAT IN 2012 ALL OF JUDY'S MORNING CLASSES WILL START AT 10 AM AND NOT 9 AM AS IN PREVIOUS YEARS

FAMILY HISTORY ON-LINE

October 10 — 1 pm to 3:00 pm

October 24 — 10 am to noon

Judy is on leave in October but Margaret Gilpin and the team will be on hand to guide you through the processes required to research your ancestry.

New information is being added to our resources on an on-going basis to help you trace your family's origins. Contact the club for more information. **Classes limited to 8 people.**

SPECIAL CLASS WEDNESDAY OCTOBER 17TH

Judy Hall will be conducting another of the popular

Converting Music from LP records and Cassette Tapes to Digital Format sessions.

To enable all those attending to get some 'hands-on' experience this session **start at 9.30 am and go through until 12.30 pm.**

Please bring along one of your own vinyl records or music cassettes to use for the tutorial.

Thanks to all those members who turned up for the **Portable Devices Forum** on September 19 — it was pleasing to see so much interest in this rapidly developing area of computing. Hopefully the discussions de-mystified some of the new terminology that has evolved with the arrival of tablets, e-readers, net-books and ultra-books.

BASIC GRAPHICS

Please check the registration sheets at the club to find out if there are places available.

The dates for the next classes are :

Graphics Workshop October 10

10 am to 12 noon

Graphics Workshop October 31

10 am to 12 noon

The aim of the Basic Graphics course is to equip participants with the skills required to enhance photos and includes transferring the images to a computer through scanning and from portable media devices.

The Paint Shop Pro 7 and 8 programs are then used to restore the images to 'as new' condition.

LEVEL 2 & 3 GRAPHICS

With Paint Shop Pro 7 and 8

Wednesday October 17 1:00 to 3.30 pm

With Paint Shop Pro XI

Wednesday October 17 1:00 to 3.30 pm

Paint Shop Pro XI Advanced Class

Wednesday October 31 1:00 to 3.15 pm

These classes are designed for people who have completed the Basic Graphics classes, and involves more advanced features of the Paint Shop Pro graphics programs.

OPEN Session Times

At Studioworks, 1 Pipeworks Rd, L'ton

Standard Sessions $5.00

[Some special tutorial materials may incur additional charges]

Monday	10 am –12	General & Beginners
	1 pm – 3 pm	**Basics and Beyond**
Tuesday	10 am –12	O-Learn & Beginners [all day]
	1 pm – 3 pm	**Mac [all day]**
	7 pm—9 pm	Basics (Night Class)
Wednesday		Special sessions or Meetings
		As for mornings (see rosters)
Thursday	10 am –12	General & Beginners
	1 pm – 3 pm	General & Beginners
Friday	10 am –12	General & Beginners
Additional afternoon sessions as shown at right ———>		

SPECIAL WEDNESDAY SESSIONS

Please register on the sheets – numbers may be limited

Date	Time	Topic	Details
October 3	10 am—12 noon	Seniors' Week	'Come and See' Morning Session
	1 pm onwards	**Seniors' Week**	**'Come and See' Afternoon Session including a short presentation of Irfanview free graphics program**
			NO LCG MEETING THIS MONTH
October 10	10 am—12 noon	Basic Graphics	A class for members learning Basic Graphics techniques to enhance photos.
	1 pm—3.30 pm	**Family History**	**With Margaret G and the team. On-line assistance from Ancestry.com is available for a small fee.**
October 17	**9.30 am—12.30 pm Note the early start**	Convert LP and Cassette Music to CD format	Judy Hall will be coming in to conduct this special class. Please bring your own LP record or tape.
	1 pm—3.30 pm	**Level 2 and 3 Graphics Class**	**Use Paint Shop Pro versions 7 and 8 to perform advanced graphics tasks.**
October 24	10 am—12 noon	Family History	Use our the considerable range of resources to trace your ancestors.
	1 pm—3.30 pm	**Level 2 and 3 Graphics Class**	**Advanced topics using Paint Shop Pro XI**
October 31	10 am—12 noon	Basic Graphics	A class for members learning Basic Graphics techniques to enhance photos.
	1 pm—3.15 pm	**Level 3 Advanced Graphics**	Eleanor will be conducting this class in Judy's absence.

OPEN NEWSLETTER — OCTOBER 2012

UNDERSTANDING THE WINDOWS VISTA AND '7' FOLDER STRUCTURE

In my opinion file and folder management is probably one of the least understood aspects of what should be basic learning in dealing with computing.

It doesn't seem so long ago that dealing with 'drives' on a typical computer was fairly simple.

- 'A' for your floppy disk drive
- 'C' for your internal hard drive
- 'D' for a CD-ROM

Now we may encounter a plethora of 'removable' devices such as flash-drives, external hard-drives, digital camera card slots and even a 'U' drive *(Sorry, that one's my fault!)*

But no matter how many 'drives' you may have attached to a computer the principles are similar—if you can drag-and-drop files from a floppy disk to the hard-drive, you are capable of dragging-and-dropping between **almost any** two removable devices. The exception of course is that there is only one-way traffic between CD/DVDs and other devices.

And now to that folder structure.

The first point I will stress is that until you insert a removable device **every folder and every file lives on your hard drive, which in most cases will be the C: drive.**

Figure 1, to the right shows clearly that all the 'My' folders are sub-folders of the **Users>Dennis** major folder.

Did you notice that there are also folders named AppData, Contacts, Desktop, Downloads and Favorites?

Yes, they are the same Contacts that hold your address book details, and the same Favorites that direct you to your favourite web-pages etc etc etc.

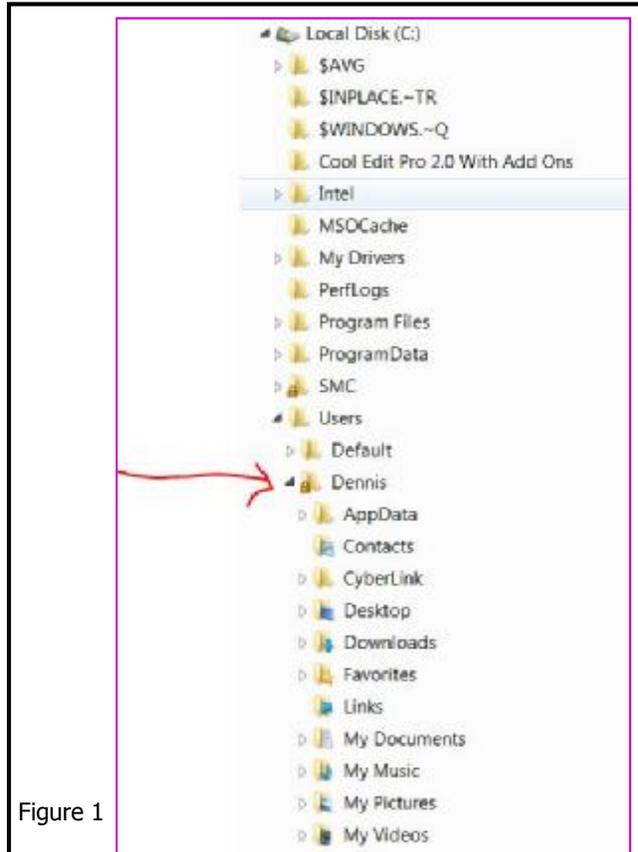***continued in columns 2 and 3***

Figure 1

"But Hang On", I hear you saying, "aren't all the Documents and Pictures etc. located up above the C: drive as shown in **Figure 2**, over in the next column".

In fact the area I have surrounded with my artistic scrawl is a series of **complex shortcuts** that allow you to access your '**Libraries'** without having to open up the multi-layer folder structure shown above in Figure 1.
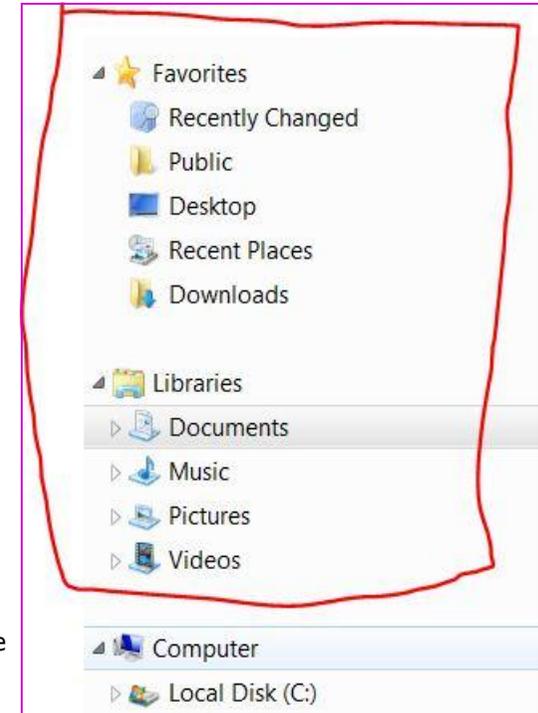

Figure 2

It is important to understand the **inter-dependence** between these two areas because deleting the files in one area will delete them from the other.

Just as a certain often-maligned photo organiser program obtains its information from files on the hard-drive, so too do your Libraries grab their files from the hard-drive.

Do not assume that if you were to accidentally delete folders from your User account (*e.g. Dennis, in this case*) that there are copies of those folders in the Libraries area.

One of our members can tell your from painful, personal experience that it ain't true.

Dennis Murray

USB FLASH DRIVES [NEW PROBLEMS]

USB Flash Drives have become a common part of everyday computing with their price declining and capacity increasing. The first USB flash drives were all similar in construction, 60-70mm long, with a silver metal male USB socket and a plastic or metal body. Unfortunately with progress we have seen diversity in construction methods and unfortunately a decline in manufacturing standards.

With cheap imports from China nearly every store that sells any type of computing or office equipment sells USB Flash Drives. But there are good and poor quality ones on the market. The ones that are made by the companies that also produce computer RAM [Corsair, Kingston etc..] are usually better quality.

I have divided them into 4 different categories by construction — *see the photos to the right >>>>*

Type 1 Fixed metal connector with cap.

Type 2 Metal connector with sliding USB connector.

Type 3 All-in-one with plastic connector [with or without cap].

Type 4 All-in-one with plastic U shape connector.

The problem I have discovered in the **Type 1 USB flash Drive** :

The metal connector which is joined inside to the circuit board can become separated. This usually happens when the USB socket is tight and you have to use a little force to remove it. *New laptops have tight USB sockets.*
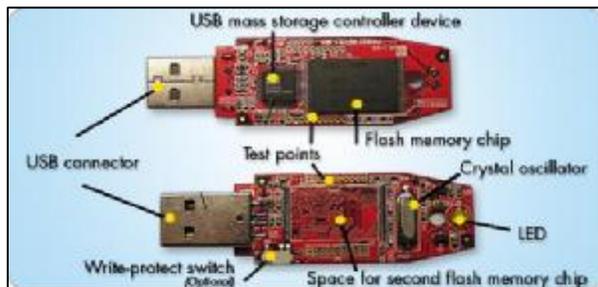
Type 1

Type 2

Type 3

Type 4

Once the metal connector has pulled away from the circuit board the device becomes U/S—unserviceable. I have lost 2 in the last few weeks while removing them from tight USB sockets.

The only way I have found to solve this problem is to squeeze the USB Flash drive a bit so as to tighten the connection around the USB connector. This is not a recommended method but is does work and will save your USB flash drive.

Type 2

I have not had any problems with this type but as the metal connector is also soldered on to the circuit-board it could suffer the same fate. They are also a bit more difficult to insert as the slider will retract if not held firmly.

Type 3

Although this seems to be the cheapest type around, I have also found it to be the best type of construction. The plastic body is all one piece and less likely to become detached. One other plus for this type is that they are generally shorter in length thus making then better for use in Tablets and other smaller portable devices as they are less likely to be knocked out.

Type 4

I consider this to be the worst type USB flash drive. They are usually ill-fitting and easily dislodged during use. The U shape connector is not as good as the standard connector.

These are my personal findings. Since I purchased a Tablet PC, I have preferred to use shorter USB Flash Drives for ease of use. The best drives will always be the ones manufactured by the big RAM companies as they are usually better constructed but unfortunately usually a bit more expensive.

Bruce Dineen

OPEN NEWSLETTER — October 2012

YOUR INTERNET CONNECTION

I have been asked many times lately about the different type of internet available for your home and this is a simple explanation of what is available to you.

OPTION 1. CONNECTED TO YOUR PHONE LINE with a current Home Phone Plan

(A) Single connection modem—to connect only 1 PC with Ethernet cable.

1-port ADSL Modem

You can extend the capacity of this type of modem by adding a wireless router [*similar to the one used at OPEN*]

Wireless Router [no phone connection]

(B) Wireless Router Modem [to connect up to 5 PC's with Ethernet cable and numerous wireless devices such as Laptops, Tablets, Mobile Phones, Media Players etc..

[Combination of the 2 in column 1]

If purchasing a new modem, you should purchase for the future and make sure it has a connection for the NBN.

Older modems cannot connect to the NBN and will have to be replaced if you ever upgrade to an NBN Internet Service. Cost of modem is $200-plus

New Modems include:-

WAN Port [Wide Area Network] for connection to the NBN. USB ports for

connecting devices such as portable hard drives and printers so they can be shared on the network.

OPTION 2

CONNECTED TO YOUR PHONE LINE but without a current Home Phone Plan [it's called **Naked DSL**]

The same type of modems can be used to connect this way as above but generally this type of plan is more expensive and not all Internet Service Providers have a Naked DSL Plan.

OPTION 3

3G-4G WIRELESS MODEM

Mobile wireless plans are made to run over the 3-4G network, the same as your mobile phones. These plans are small in download capacity and are the most expensive way of connecting to the internet.   *Bruce Dineen*

OPTION 4 PREPAID WIRELESS BROADBAND

These 'plans' are even more expensive than OPTION 3 but may suit some people who have very low Internet usage. There is no requirement to commit to long-term contracts and the initial equipment cost is relatively cheap.

One new piece of equipment the **Telstra Elite MF60** functions as 'wireless hotspot' - it allows up to 5 wireless devices to connect simultaneously without being connected to any of them. It is similar in size to a mobile phone and is supplied with cables that allow it to be recharged from a USB port on a computer or from a 240-volt power-point.

This is a very simple way to share an Internet connection and if you wanted your 'tower' to be able to access it you would need to purchase a cheap USB wireless adapter.

I have seen this type of device used in both prepaid and subscription (*i.e. on a plan*) situations.

Dennis Murray

If you use IE, *don't* — at least not for now

By Susan Bradley

A serious vulnerability in Internet Explorer 6 through 9 has come to light, and there's no patch at this time.

If you must use Internet Explorer for specific applications, use another browser as much as possible and remove or disable Java.

Yet another zero-day exploit targets IE

Microsoft Security Advisory 2757760, dated Sept. 17, warns of a newly disclosed IE vulnerability that could allow remote-code execution — which means an attacker could take over a targeted PC with the same rights as the current user. (This type of threat is why we recommend setting up a non-admin account on the PC you use most of the time.)

According to the advisory, Internet Explorer 10 (included with Windows 8) is not threatened. But that caveat is irrelevant because few Windows users are running Win8 for any purpose other than testing the new OS.

▶ **What to do:** Here, in a nutshell, are your options:

1) **Use another browser.** Until Microsoft releases a patch for this new threat, simply do all your Web browsing with Firefox or Chrome — and make sure they're fully updated.

2) **Remove Java.** If you must use IE, ensure that Java is fully disabled or not installed. I discussed this in my Sept. 6 Patch Watch column.

3) **Use the Enhanced Mitigation Experience Toolkit.** If you can't operate without IE and Java, Microsoft's EMET software can help. A RationallyPARANOID blog has a helpful how-to guide for installing EMET. Brian Krebs also has an excellent post on using the toolkit to protect IE.

Look for more on EMET — what it is and how it protects you — in next week's regularly scheduled Patch Watch. And if Microsoft releases an out-of-cycle IE update before then, I'll let you know. In the meantime, keep an eye out for a soon-to-be-released Microsoft fixit for Internet Explorer; it should provide protection until a patch is ready. I'll post an update in the lounge when it's released.

Rethinking the process of hard-drive sanitizing

By Fred Langa

Standard drive- and file-wiping tools are no longer adequate for completely removing data — especially when used with the newest hard drives.

But researchers have identified new procedures that reliably make old data virtually unrecoverable on any drive, whether magnetic or solid-state.

Leftover data is an obvious security risk when you sell, give away, or otherwise dispose of any computer storage device. Any data — old documents, files, financial records, passwords, photos, whatever — left behind on a hard drive can come back to haunt you, should they fall into the wrong hands.

Most Windows Secrets readers already know that simply erasing files or reformatting a drive doesn't mean your data is safely removed. There are plenty of *undelete* and *unformat* tools (many free) readily available that require no special skills to use.

That's why, for years, the common advice has been to *sanitize* or *wipe* a hard drive before it leaves your possession. The process most often used is **overwriting,** which typically replaces all existing data with meaningless patterns of ones and zeros.

That's the theory, at least.

(Continued from page 9)

Erasing everything is actually *not* all that easy

It's been known for some time that even a multi-pass (so-called "government") wipe of traditional magnetic drives leaves behind some data — information that might be recoverable by someone with enough access, time, and forensic technology to analyze the drive's platters.

For example, powerful signal-processing software can unravel many layers of over-writes to reconstruct the original data. And specialized equipment can easily read *between the tracks* of a magnetic platter's normal data-recording zones to recover information recorded in nearby magnetic-field spillover areas.

Solid-state drives (SSDs) are even harder to fully erase. To prevent their memory cells from suffering premature wear and failure, most SSDs have hardware-level protections that prevent data from being written to the same area again and again. These internal protections might not allow a standard overwrite. Without special software, overwrite data might actually be written to a *new area* — which obviously defeats the whole point of overwriting!

For that reason, some SSD vendors provide special sanitizing software for their drives. Recently, however, researchers at the University of California, San Diego, Non-Volatile Systems Laboratory found that those tools (and similar tools for flash-based devices such as thumb-drives) often *did not work.*

Their report, "Reliably erasing data from flash-based solid state drives" (free PDF download), matches similar studies in Europe and elsewhere which found that some vendor-supplied, secure-erasure tools often leave as much as 10 percent of a hard drive's data still recoverable!

The ugly truth: software-driven wipes or overwrites simply can't be counted on to erase 100 percent of your data — no matter what kind of drive you have.

In fact, the National Institute of Standards Technology, in its "Guidelines for Media Sanitization" (free PDF download), recommends overwrite-based data-wiping only for the most basic level of data sanitizing (see Table 2-1, "Clearing").

If you need to securely erase a drive, an overwrite wipe simply isn't enough anymore.

Introducing the *SAFE* drive-sanitizing process

After the UCSD researchers identified the difficulties of sanitizing SSDs, another UCSD group developed a solution to the problem. And it turns out that their method works on *all* types of drives.

Called **Scramble and Finally Erase** (SAFE), the process is beautifully simple in its essence. First, encrypt your sensitive data; then, use a proven disk-erasure tool (not necessarily one supplied by the drive vendor). For more on SAFE, see the free PDF download, "SAFE: Fast, verifiable sanitization for SSDs."

This two-step process is safer and more reliable than either encryption or drive-wiping alone. A good wiping tool will ensure that very little original data is left behind; encryption ensures that anything left behind will be incomprehensible gibberish.

Let's take a look at the two components of SAFE drive-sanitizing.

SAFE, step one: Encrypting all sensitive data

A quick Web search will turn up dozens of tools that can encrypt your most sensitive files — or an entire hard drive.

Your needs might be different, but file-level encryption is sufficient for me because most of the files on my hard drive don't contain any particularly sensitive information.

Although Windows offers built-in encryption services (I'll come back to this in a mo-

(Continued from page 10)

ment), my tool of choice for file-level encryption is the free, open-source **7-Zip** (site). It not only compresses files and folders to a fraction of their original size, it can also apply strong AES-256 encryption (Wikipedia explanation) to those files or folders. 7-Zip is free, fast, and easy to use. I routinely employ it to compress and encrypt financial, tax, and other sensitive files.

If you need or prefer whole-disk encryption, the free, open-source TrueCrypt (site) is an excellent choice. It runs on all versions of Windows (plus Mac and Linux, too). Once set up, it offers automatic, transparent, real-time (on-the-fly) encryption of everything on your hard drive.

Of course, any encryption scheme needs a strong password, or there's no point to it. I use RoboForm (free and paid; site), which stores all my passwords in its own, separate, AES-256 encrypted database. I need only generate and remember one password — my master password to RoboForm itself — and the app remembers all the rest. This lets me use long and complex (thus, extremely safe) passwords that I don't have to memorize.

RoboForm can keep one copy of your encrypted passwords on whatever device you're using (PC, phone, tablet, etc.) and another encrypted copy in the company's online database. (RoboForm never stores or transmits passwords in plaintext.) The centralized database synchronizes passwords across all your devices; it also ensures that, even if you lose access to your local copy — say, through a hard-drive crash — your encrypted passwords still are safely backed up and recoverable.

The free version of RoboForm is trialware, allowing you to store only a handful of passwords. The paid **RoboForm Everywhere** version that I use is currently offered at only U.S. $9.95 per year. But there are other, well-regarded password managers that are completely free, such as the open-source **KeePass Password Safe** (site) and **LastPass** (site; paid version adds smartphone support and removes ads).

And again, you can find plenty of other encryption tools with a Web search.

Windows' built-in encryption-tool limitations

Since Windows 2000, Microsoft has offered the Encrypting File Service (EFS) as an option with the NTFS file system. Although EFS works, it has some serious drawbacks.

For example, it's fully supported only in the business-oriented editions of Windows — it's not available in the Starter, Home Basic, and Home Premium editions of Windows 7 and Vista. (The third-party encryption tools mentioned earlier can work on all versions of Windows.)

Another drawback: EFS depends on the presence of a kind of key file — an encryption certificate — that must be available on your hard drive in order to decrypt EFS-scrambled files. If the encryption certificate is damaged, corrupted, or lost and you don't have a backup (more on that below), you won't be able to decrypt your files.

If that's not a problem for you (and you have a business edition of Windows), it's easy to encrypt any file or folder. Simply right-click it, select Properties, click the Advanced button near the bottom of the General tab, and then select **Encrypt contents to secure data,** as highlighted in Figure 1. Click OK to finish.

Th[...] to back up the

encryption certificate, as shown in Figure 2.

Figure 2. Follow the on-screen instructions to create a password-protected backup copy of the file-encryption certificate.

Making a complete backup of the certificate is a two-step process. Once you've created a local backup file (by default, it's placed in your Documents folder), put a copy of that file in a safe, off-system location such as an external hard drive or a CD — anywhere but the drive where the encrypted files are stored.

Remember: You must always have a working copy of the certificate available, or your files will be forever encrypted and unrecoverable.

Yes, this is kind of a pain— and it's one of the reasons I find EFS to be overkill for my modest encryption needs. If you want to delve further into EFS, there's plenty of additional information online from Microsoft. For example, see the TechNet article, "The Encrypting File System."

Windows' BitLocker offers whole-disk encryption

The Enterprise and Ultimate versions of Vista and Win7 also offer an enhancement to EFS — BitLocker Drive Encryption — which encrypts entire drives.

It works fine and has its place, but it has even more drawbacks than does EFS. In addition to BitLocker's limited availability and encryption-certificate maintenance requirements, your PC must have special **Trusted Platform Module** (TPM) circuitry. Check that your system supports TPM before considering BitLocker.

I think these drawbacks make BitLocker unsuitable for general use, but if you want more information, see the Microsoft article, "Hardware requirements for BitLocker Drive Encryption," and the BitLocker FAQs for Windows 7 or Vista.

The MS article, "What's the difference between BitLocker Drive Encryption and Encrypting File System?," is also useful.

SAFE, step two: Use known-good data-erasure tools

Properly encrypting sensitive files is essential for hard-drive data security throughout a hard drive's life. But when it's time to sell, pass on, or scrap the drive, combining encryption with a properly implemented, whole-disk erasure tool will remove all traces of useful data.

Although vendor-supplied tools might not work, there are tools that do an acceptable job of wiping an entire drive.

(Continued from page 12)

Secure Erase, developed at UC San Diego's Center for Magnetic Recording Research, is one example. A free download (site), it's designed to securely erase magnetic media of all types — and it works with SSDs as well.

Secure Erase is pretty straightforward to use, but if you need more detail, Kingston Technology (a maker of SSDs) offers complete how-to instructions online. The only drawback to Secure Erase: it's a DOS-level tool, so you have to boot from a floppy, optical disc, external flash drive, etc., to run the software and wipe the target drive.

Another good option is the free (donationware) **Parted Magic** tool (site). Its Erase Disk menu offers a feature (also called Secure Erase) with two options specifically for flash-based drives. **Internal** erases internal SSDs; **External** erases external, USB-based flash drives. (These function much like SSDs, making them almost as hard to sanitize.)

Parted Magic is well documented, but if you need detailed instructions, CNET has a how-to article.

Bottom line: Foolproof hard-drive sanitizing

SAFE really is that simple — just two steps:

- **1.** Routinely use encryption to protect at least your most sensitive files (if not the whole drive).

- **2.** Wipe the whole disk with a known-good tool when it's time to sell, scrap, or pass along your device.

With SAFE, you'll have a high level of confidence (especially if you use whole-disk en-cryption) that none of your data can be extracted from your retired drives without an extraordinary amount of time, effort, and cost.

And remember: The SAFE approach works for any kind of drive — thumb, SSD, or mag-netic!

FIVE RULES TO REMEMBER IN LIFE:

1. Money cannot buy happiness, but its more comfortable to cry in a Mercedes than on a bicycle.

2. Forgive your enemy but remember the bastard's name.

3. Help someone when they are in trouble, and they will remember you when they're in trouble again.

4. Many people are alive only because it's illegal to shoot them.

5. Alcohol does not solve any problems, but then again, neither does milk.

ADULT ... A person who has stopped growing at both ends and is now growing in the middle.

BEAUTY PARLOUR ... A place where women curl up and dye.

CHICKENS ... The only animals you eat before they are born and after they are dead.

COMMITTEE ... A body that keeps minutes and wastes hours.

DUST ... Mud with the juice squeezed out.

EGOTIST ... Someone who is usually me-deep in conversation.

HANDKERCHIEF ... Cold Storage.

INFLATION ... Cutting money in half without damaging the paper.

SENIORS' HUMOUR

Couple in their nineties are both having problems remembering things. During a check-up, the doctor tells them that they're physically okay, but they might want to start writing things down to help them remember ..

Later that night, while watching TV, the old man gets up from his chair. 'Want anything while I'm in the kitchen?' he asks.

'Will you get me a bowl of ice cream?'

'Sure.'

'Don't you think you should write it down so you can remember it?' she asks.

'No, I can remember it.'

'Well, I'd like some strawberries on top, too. Maybe you should write it down, so as not to forget it?'

He says, 'I can remember that. You want a bowl of ice cream with strawberries.'

'I'd also like whipped cream. I'm certain you'll forget that, write it down?' she asks.

Irritated, he says, 'I don't need to write it down, I can remember it! Ice cream with strawberries and whipped cream - I got it, for goodness sake!'

Then he toddles into the kitchen. After about 20 minutes, the old man returns from the kitchen and hands his wife a plate of bacon and eggs. She stares at the plate for a moment.

'Where's my toast?'

An elderly couple had dinner at another couple's house, and after eating, the wives left the table and went into the kitchen.

The two gentlemen were talking, and one said, 'Last night we went out to a new restaurant and it was really great. I would recommend it very highly.'

The other man said, 'What is the name of the restaurant?'

The first man thought and thought and finally said, 'What's the name of that flower you give to someone you love? You know, the one that's red and has thorns.'

'Do you mean a rose?'

'Yes, that's the one,' replied the man. He then turned towards the kitchen and yelled, 'Rose, what's the name of that restaurant we went to last night?'

Hospital regulations require a wheel chair for patients being discharged. However, while working as a student nurse, I found one elderly gentleman already dressed and sitting on the bed with a suitcase at his feet, who insisted he didn't need my help to leave the hospital.

After a chat about rules being rules, he reluctantly let me wheel him to the elevator.

On the way down I asked him if his wife was meeting him.

'I don't know,' he said. 'She's still upstairs in the bathroom changing out of her hospital gown.'

A senior citizen said to his eighty-year old buddy:

'So I hear you're getting married?'

'Yep!'

'Do I know her?'

'Nope!'

'This woman, is she good looking?'

'Not really.'

'Is she a good cook?'

'Naw, she can't cook too well.'

'Does she have lots of money?'

'Nope! Poor as a church mouse.'

'Well, then, is she good in bed?'

'I don't know.'

'Why in the world do you want to marry her then?'

'Because she can still drive!'

A man was telling his neighbour, 'I just bought a new hearing aid. It cost me four thousand dollars, but it's state of the art. It's perfect.'

'Really,' answered the neighbour. 'What kind is it?'

'Twelve thirty.'

Morris, an 82 year-old man, went to the doctor to get a physical.

A few days later, the doctor saw Morris walking down the street with a gorgeous young woman on his arm.

A couple of days later, the doctor spoke to Morris and said, 'You're really doing great, aren't you?'

Morris replied, 'Just doing what you said, Doc: 'Get a hot mamma and be cheerful."

The doctor said, 'I didn't say that.. I said, 'You've got a heart murmur; be careful.'

One more. . .!

A little old man shuffled slowly into an ice cream parlour and pulled himself slowly, painfully, up onto a stool... After catching his breath, he ordered a banana split.

The waitress asked kindly, 'Crushed nuts?'

'No,' he replied, 'Arthritis.'

Now, before you 'forget', send them on to some other folks you know who could use a good laugh!!