The PULP

HUGE this month:

General Meeting: April 15th

Mavericks part 2

See you there!

New Location !!!!!

Knights of Columbus 2533 Main Street, Glastonbury, CT

Q&A Session: 7:00PM–7:30PM
Meeting starts at: 7:30PM

Contents:

Member of
Association of Personal Computer User Groups
APCUG

UGC™

Apple User Group

H.U.G.E.

MEETING LOCATION
Knights of Columbus
2533 Main Street
Glastonbury, CT

Editor's Corner

Pat will be doing the meeting and continue the Mavericks demo.

If you bought a computer or other device that uses DRAM around the turn of the century, you could be eligible for a payout as part of a price fixing settlement.

The settlement (http://dramclaims.com/) is the result of class action and attorneys general lawsuits against a dozen DRAM manufacturers, including Samsung, Toshiba, Hynix and Hitachi. In total, the manufacturers have agreed to pay out $310 million in a nationwide settlement, and roughly $200 million of that money will go to consumers and businesses who were affected.

Consumers can make a claim for any purchases made between January 1, 1998 and December 31, 2002 for devices that contain dynamic random access memory, a common component in consumer electronics. The settlement covers computers, game consoles, MP3 players, printers, PDAs, graphics cards, DVRs, DVD players and servers, but does not include direct purchases of DRAM from the manufacturer.

Netflix is working on a hack as a sleep detector to pause while you snooze watching a movie.

Jumping to the top of the (Apple) App Store list of free downloads is MS Office in just the first week. The free version lets you look at files. You need to sign-up for Office 365 to do any actual work.

There seems to be a scam involving Verizon Wireless clients, they get a recorded call supposedly from " Technical Support" that claims to be Verizon Wireless. The message says they are eligible to receive a voucher for their account. You need to visit a website to claim it. The web address given contains "Verizon" and the value of the voucher. You then sign in -- giving them your credentials.

In the Annual Pwn2Own contest, all the browsers fell in the second day. Paid out $850 K

Wonder how Microsoft made 8.1 free -- it made Bing the default search engine

Microsoft will be releasing Office 2014 for Mac

Sony and Panasonic are in the process of developing a

Here is the appropriate copyright citation and a link to the full text. articles from "Tidbits"

A Little Computer Quiz

by Stuart Rabinowitz

The trivia and minutiae of the computer related world. The answers will appear next month or you can submit an answer sheet at the General Meeting. Good Luck.

1 On March 12, 1989 (just 25 years ago) the World Wide Web was proposed. What organization hosted the first site?

2 What model computer was the first web server?

3 Symbolics.com was the first domain name on the internet. In what year was it registered?

4 When did Microsoft.com get started on the web?

5 When did Apple.com get started?

Answers to March., 2014 Quiz

1 At one time, dBase III was one of the leading PC data base programs. What company sold it?
  A Ashton-Tate

2 One of the programmers went on to work on FoxPro and wrote the definitive handbook. Who was he? (as a hint, he was a child movie/tv star)
  A Tommy Rettig, best known as Lassie's first co-star

3 In 1987 the first commercial ISP started in business, what was the name of the company?
  A UUNet

4 Nextel got started in 1987, but that was not the original name of the company, what was Nextel's name back then?
  A FleetCall

5 Like many projects Bluetooth was given a codename during development, what was that codename?
  A It was Bluetooth, the companies involved could not agree on a formal name so the codename stuck.

CD-R and DVD+–R Longevity: How Long Will They Last?

By John Langill, Newsletter Editor, Southern Tier Personal Computing Club, NY
August 2013 issue, Rare Bits
jlangil1 (at) stny.rr.com

Although there are today many data storage alternatives, I'm sure that there are many such as me who in the past stored various kinds of information on optical media, CD-Rs in particular. To cite just two examples; I have scanned hundreds of family slides, organized the digital images, and saved them on CD-Rs. Similarly, I did the same with several hundred of digital photos from my two-month visit with my son and daughter-in- law in Australia in 2003. The purpose of doing so was to have a convenient form in which archive the digital images and to share them with other members of the family; while at the same time conserving space on the hard-disk—then a more precious commodity than it is today.

Thinking back 10 or more years, one may recall that a single CD-R then offered a relatively large data storage capacity in a form that could be easily and inexpensively mailed anywhere in the world—something that could not be accomplished via the Internet or with other "portable" media at the time.

While acknowledging that the images stored on these CD-Rs—and others even older—could now be transcribed to another medium, I confess that I'm reluctant to devote the time and effort to doing so at this point. Accordingly, the durability and life-expectancy of the CD-Rs that I created 10, 20, and even 30 years ago, has become an increasing concern.

In the early '90s when the first CD-R discs were introduced manufacturers said the media had a data life in excess of 40 years. In the late '90s when the first DVD-R discs appeared on the scene producers proclaimed a data life of at least 100 years. However, in the time since their introduction it has been discovered that these early discs are susceptible to media "rot" (i.e., "bit rot") that can eat your information—audio, video, or data—in as little as two years after it is written. (According to research fairly recently conducted by J. Perdereau, CD-Rs may have an average life expectancy of not more than 10 years—Journal de 20 Heures, March 2008.)

Because CD-R and DVD+–R media is used to archive nearly everything today, it does make one worry; especially if these discs are the only repository in which your precious, and irreplaceable, family memories— photos and movies—as well as vital family, personal, and company data/documents are stored.

So where does the truth lie? Somewhere across the complete spectrum.
Most people who successfully burn a disc believe they have quality media. Unfortunately that only tells you the disc will be compatible (able to be played) in the vast majority of CD or DVD players. More importantly all better quality CD and DVD burners include technology called over burn/under burn protection making "coaster production" a thing of the past. The basic construction of both disc technologies enable you to burn your data in a very precise, very controlled manner.

Test Options
There are only two foolproof ways of proving the data life of the discs you use:
1.   Write a few CD-Rs or DVD+–Rs, then wait about 25-50 years and check if they still hold the correct data.
2.   Use a CD/DVD analyzer that is

specially designed to retrieve very accurate information about your media and your data after accelerated aging in test chambers where the discs are subjected to excessive temperature and humidity tests.

The first is typically impractical. Nonetheless, from personal experience I can attest to the fact that the first CD-R I ever burned—selections from a vinyl LP album—plays just fine and the music still sounds great 25 years later. However, I have also had some CD-Rs become unplayable in just a matter of months. Fortunately, such occurrences have been few.

The second provides only theoretical limits and doesn't take into consideration how you use, handle, and store the media. However, even assuming proper handling, temperature and humidity can adversely affect the data-life of even quality media.
Between the CD-R discs produced in the early 1980s and today's double-layer DVD+-R discs there has been considerable progress in write performance, capacity, quality, and cost.

Following the test procedures of the International Standards Organization (ISO), quality media manufacturers have been able to predict data-life spans ranging from 50-200 years. But keep in mind there are wide differences between low-budget media manufacturers and quality media manufacturers. In addition variations in manufacturing methods, materials and processes/procedures can dramatically affect the data life of the media you use.

Or as auto manufacturers like to say... "Your mileage may vary."

Understanding Your Discs
It isn't vital that you understand the construction of CD-R or DVD+–R media to produce a quality disc that can be read years from now any more than you need to understand the internal combustion engine to drive a car. But understanding the difference between quality and cheap media may help you avoid losing family photos or videos later on.

Most people consider DVD+–R discs little more than overgrown CD-Rs but, while they are similar, they are also quite different. In particular, the grooves are narrower and more closely spaced and the structure (pattern) of "pits" and "lands" is very much smaller with a DVD+–R in order to enable a greater data storage capacity. Precision is very critical.

Writable CD-R and DVD+–R discs start with a piece of polycarbonate substrate into which very precise grooves are molded to guide the tracking of the laser beam. A dye layer is then precisely applied to the substrate followed by a reflective layer and one or more protective layers. A few of the leading media manufacturers have initiated the policy of applying two very resistant layers for added data protection when the discs are used, handled, and stored.

Because of the faster read/write performance users now expect, leading manufacturers have developed new stamper technology for optimum groove (storage area) shape and ultra-precise molding technology. The molding is critical when the media must withstand being rotated at extremely high speeds during the write process—up to 52x for CD-Rs, and 8x to 16x for DVD+–Rs. The engineering margin that was once reserved for manufacturing tolerance has been used for data capacity instead,

leaving no tolerance for manufacturing; for these discs to be truly compliant with the Orange Book standard, the manufacturing process must be perfect.

Media Problems
The quality of your media is directly related with the time the media will last without losing information. As you can see there are a number of areas where manufacturers can shave a few cents in the overall cost of the media and areas where production can go amiss to dramatically shorten the data life of your stored information.
There are conflicting claims and consumer beliefs on which media is best for data retention of 30, 50, 100 years—green, gold, or blue dye; and gold or silver reflective layer. It is somewhat immaterial today. Manufacturers of quality writable discs have developed significantly improved, more sensitive and more stable dyes, and better reflective materials that virtually eliminate data loss during high-speed read/write processes and enhance long-term reliability.

CD and DVD rot (i.e., bit rot) is not the problem today that it was with earlier LaserDiscs because the media use different dye technologies to store data and make it much less susceptible to that kind of degradation. The truth is that deterioration arising from delamination and oxidation is the greater problem.

Delamination and oxidation usually occur at the outer edge of the disc and are often the result of the adhesive not being properly applied and cured during the production process. This usually happens when price-oriented manufacturers use equipment that is 2 to 3 generations old and the least expensive materials possible.

When it does happen the laser is unable to read the data on the reflected layer. It is usually caused by:
•   Oxidation when air comes in contact with the reflective layer
•   Galvanic reaction between the layers and coatings

•   Chemical reaction caused by impurities in the disc's adhesive or aluminum coating.
•   Excessive heat and humidity are known to accelerate and exacerbate delamination and oxidation.

The Real Culprit
If you have purchased quality media from a quality manufacturer, you are still not assured of 50-100 years of data life! The greatest danger to the data longevity of your personal, family, and business information is you alone; that is, by the way you handle and store your discs. The environment—temperature and humidity—can stress the materials. Gravity also can bend and stress the discs. Fingerprints and smudges can do more damage than scratches.

But by following a few Do's and Don'ts you can ensure your precious family and friend pictures, movies, family records, and business files have the maximum data life.

Do not
⇨   Touch the surface of the disc.
⇨   Bend the disc... especially when removing it from its case as this can cause a fine crack to develop at the rim of the hub-hole which will render the disk useless. This is a particular problem with DVDs.
⇨   Store discs horizontally for a long time (years).
⇨   Open a recordable optical disc package if you are not ready to record.
⇨   Expose discs to extreme heat or high humidity.
⇨   Expose discs to rapid temperature

Backups and Disk Cloning
Recap of October 2013 Meeting by Anne Moss,
Secretary, Northern Neck Computer Users'
Group, NJ
October 2013 issue, The Computer Link
www.nncug.org
mcmillan (at) va.metrocast.net

Brian Riley, Vice President of the NNCUG, gave
a Membership Meeting presentation on
computer backups and cloning of hard drives.
Most of his presentation centered on what you
can do to get your computer working quickly after
a virus infestation or hard drive failure.

He explained that while backing up is necessary,
the problem is that you have to have a working
operating system and backup software to restore
the backup you made. This may entail having to
reinstall the operating system and backup
software before you can even start to get your
computer back.

He then explained the difference between
cloning a disk and making a disk image. With
cloning a disk, you get an exact copy of the disk,
that if inserted into your machine, will allow you
to resume work from the point the clone was
made. Disk imaging on the other hand, which is
how backups work, makes a copy of the contents
of the disk in some kind of compressed format
(zipped), which then has to be restored by a
program that can read that format.

Usually this is done with a "restore" disk, which is
a bootable CD or DVD that contains enough of
an operating system to run the backup software
that can restore your drive, but requires you to
make that disk ahead of time. If you haven't done
that (and most backup software, including what
comes with Windows 7, has utilities to make one
of those disks), you need to restore from the
original Operating System Install disks. This is a
time consuming process!

Brian showed us what he called a "toaster" drive,
which is a USB or ESATA device that allows you
to put a regular 3 ? " (desktop hard drive) or 2 ?"
(laptop drive) in a slot, and run your backup or
clone to it.

Tiger Direct has a listing of toaster drives here
(NewEgg and Amazon have them also)
http://www.tigerdirect.com/applications/categor
y/category_slc.asp?MfrId=0&CatId=2785

He then explained that if you have chosen a
computer that has your C: accessible from
the outside of the machine, you can take that
disk and easily and quickly replace the
damaged or infected drive with it.

Brian explained he had made a clone of the
laptop drive he was giving the presentation on
the night before, he simulated the computer
becoming infected with a virus, shut it down,
replaced the hard drive, and rebooted
continuing the demonstration, all within three
minutes.

He pointed out making a clone is not the
complete answer to backups: clones do not do
versioning of your files for example, and it is still
important to do a regular backup.
There are two key questions you have to ask
yourself in choosing a backup method:
?   How important is my data? Is merely
having a second copy of it enough, or does it
have to survive a catastrophic event like a fire? If
it is the latter, you must have an offsite backup,
if it isn't then just a backup copy will do.
?   How much important data do I generate
in what period of time? If you spend all day
working on a project, then you probably want a
backup on a daily basis. If redoing everything
you have done for a week isn't a problem, then a
weekly one will do. If all you do is play games on
your computer and answer e-mails on line, then
you probably don't need more than a clone –
your data isn't changing.

Things that cause data loss come in many
forms: from "happy clicking", where you
accidently overwrite something you have been
working on all day with an inappropriate up-
date; virus infestation that makes your machine
unusable and may scramble the contents of
your hard drive; hard drive failure (sooner or
later they all fail); or catastrophic event such as a
fire or burglary.

Even if you are using anti-virus software, your

machine can become infected by a virus that was built to get around that software. Often the first thing these viruses will do if they manage to get a foot-hold on your machine is turn off your anti-virus software.

Brian suggested a simple step: since many viruses work on the account level, you should always create a second account on your machine with administrative privileges. This may allow you to log in as that other user and run your anti-virus software that has been disabled under your main account.

He also suggested you should hover over any link with your mouse to see where it is sending you. Depending on the application, the address the link is sending you to will be displayed in a tool-tip or on the bottom of the screen. If that address goes somewhere unexpected, don't click on it!

What backup software should you use? Windows 7 ships with backup software, and allows you to make a restore disk. It doesn't do cloning, it isn't easy to tell what it is backing up, and the backup requires a disk larger, sometimes double the size, of the drive you are using as your C: In other words you would need a one terabyte drive to back up a 500 gigabyte one.

It was suggested using Macrium Reflect, which is available as either free or paid software. The major difference for the home user between the two is the free version can't do incremental backups (that is, only backup the files that have changed since your last full backup). You can read more about it on their website:
www.macrium.com/reflectfree.aspx

Along with the free version, the Standard version costs $49.99, and the Pro version costs $58.99.

There is cloning and backup software available from other vendors also.

Acronis is another backup/cloning program. Brian and Rob stated it is much more

Bloated but not as user friendly as Macrium.

If you are interested, reviews of 10 of the top contenders for 2013 can be found here: http://data-backup-softwarereview.toptenreviews.com/

Brian emphasized that if your concern is getting your computer up and operating as quickly as possible from a simple hard drive failure or virus infestation, then cloning is the way to go.

He also made the point that one does NOT have a backup UNTIL it is confirmed that the data can be RESTORED from the backup!

300GB optical discs for enterprise storage. It will have 3 layers and a 50 year life span. No prices announced.

Someone has figured a way to get money from ATMs using text messages. So far it has only appeared in Mexico on stand-alone ATM machines running Windows XP.

Apple has retired OSX 10.6 (Snow Leopard). It will still work, nut no more updates.

Lenovo is in the process of recalling some laptop batteries. Go to:
http://support.lenovo.com/en_US/detail.page?DocID=HF004122&rd=1#special

for more information.

Researchers are working on a new encryption method. Instead of not responding to an incorrect password, the new method would provide false information.

Stuart Rabinowitz
Editor

from pg. 6

or humidity changes.
⇨   Expose recordable discs to prolonged sunlight or other sources of UV light.
⇨   Write or mark in the data area of the disc (the shiny side that the laser "reads").
⇨   Clean in a circular direction around the disc.

Do
⇨   Handle discs by the outer edge or the center hole.
⇨   Use a nonsolvent-based felt-tip permanent marker to mark the label side of the disc.
⇨   Keep dirt or other foreign matter from the disc.
⇨   Store discs upright (book style) in original jewel cases that are specified for CDs and DVDs.
⇨   Return discs to their jewel cases immediately after use. Because the label side is more delicate and susceptible to damage, I recommend storing any CD or DVD disc label-side down in its jewel case.
⇨   Leave discs in their spindle or jewel case to minimize the effects of environmental changes.
⇨   Remove protective wrap only when you are ready to record data on the disc.
⇨   Store in a cool, dry, dark environment in which the air is clean—relative humidity should be in the range 20% - 50% (RH) and temperature should be in the range 4°C - 20°C (approx. 40 to 70EF).
⇨   Remove dirt, foreign material, fingerprints, smudges, and liquids by wiping with a clean cotton fabric in a straight line from the center of the disc toward the outer edge.
⇨   Dampen the cloth with a lens cleaner to clean your discs. Dry with photo lens tissue. For tough problems use Windex or a similar glass cleaner, diluted dish detergent, or rubbing alcohol. Rinse and dry thoroughly with a lint-free cloth.
⇨   Check the disc surface BEFORE recording.

Reliable Medium
There is a lot of cheap CD-R and DVD+-R media that has marginal quality. For some applications like games, quality isn't critical. For irreplaceable, vital data like family photos, special events, vacations, and family/friends memories quality does matter. If you are backing up mission-critical data on your home or business computer, quality matters. Then it is important to select a brand of media that will keep your data safe, secure and available for years to come.

Quality and low prices just don't seem to mix!

The next step to long-term data reliability is to handle and store the media with the respect your data deserves.

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April 2014

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6	7	8	9	10	11	**12** 1961 Yuri's Night -1st manned spaceflight
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