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Good Enough

by Terry Currier

President, WINNERS – WINdows usERS, CA

I have an iPad and it's great to help keep the grandkids' interest when we go out to eat, or on long drives in the car. But, for long trips such as when we go to San Diego's Sea World I really did not want to take it. It is big to carry and there is the danger of breakage with such trips. So I have been looking at some of the smaller (and cheaper) tablets. I basically just wanted something I could put some movies on for them and a few games would also help. I saw what I thought would be just right from Buy.com – a 7" AGPTEK TP10A for \$84. It had the Android 4.0 operating system. The processing speed I knew would not be fast, but it could take a micro-SD card up to 32GB. With that I could put lots of movies and kids TV shows on it.

So I brought it and have been pretty happy with it so far. I made having this tablet into a show and tell by asking members to bring their tablets for the September meeting. I got to see

the Google's Nexus 7" tablet and the Asus with keyboard set up, and one other.

Some of the other things about mine - 1080P HD high definition video display, support for AVI, WMV, MP4, MKV, RM, RMVB, FLV, MOV, and 3GP. It even has HDMI output ability. I brought an HDMI mini cable, hooked it up, and son-of-a-gun it looked great on a 24" TV.

There is not a lot of volume coming from the little speaker in the back so I bought a portable speaker that plugs into the headphone port. It works well and, of course, the tablet can play the usual music formats. With one front 0.3 Mega pixel camera and MIC you can make video calls.

It's listed as having 8GB, but I did look before buying it and knew it would only have about 512MB of free space with the operating system and apps they put on it. First thing of course was to get Angry Birds on it. The grandson loves it.

There is Wi-Fi built-in it, and I've always said the iPad's Wi-Fi is not very good. I took it to a restaurant with free Wi-Fi and the iPad found three available connections. The AGPTEK found eight, including the coffee house across the street.

Remember the low cost of \$84. I brought the warranty (it will cover me when I take it on trips) for \$13, the Micro-SD card cost \$28, a holder cost \$30 (a very good padded one), the speaker \$9, and finally a HDMI cable was \$9. So I've doubled the initial cost, but it is still far cheaper than other tablets, and it suits my needs. And, most important, the grandkids love it!

From the September 2012 issue, The Notepad, courtesy of APCUG.



Are We Really Under Cyber Attack?

by Ira Wilsker

Normally I write about issues that may impact us strictly as individuals, including how to secure our personal computers, where to get good quality free software, hardware reviews, and software reviews. Many of us are blissfully unaware that our way of life is under cyberattack, which has the potential to adversely affect our quality of life. Many of us can discuss the latest sports news with vigor, debate the crazy lifestyles of our favorite celebrities, and argue the fine points of politics and public policy, but are blissfully ignorant about how our dependence on the internet has made us vulnerable to attacks that can close our banks, disrupt our communications, shut down our utilities, and otherwise lose much of what makes our life possible in the 21st century.

Buried in the news headlines over recent days are stories about how such icons as *The Wall Street Journal*, *New York Times*, *Washington Post*, and Twitter have been successfully attacked by hackers. In the recent *Wall Street Journal* hack attack, according to AFP reporter Rob Lever, writing on Friday, Feb 1, 2013, "*The Wall Street Journal* has become the second major US media organization to accuse Chinese hackers of targeting its computers in an

apparent effort to spy on journalists covering China. The announcement on Thursday came a day after *The New York Times* said hackers, possibly connected to China's military, had infiltrated its computers in response to its expose of the vast wealth amassed by a top leader's family. The Journal reported that the attacks were "for the apparent purpose of monitoring the newspaper's China coverage" and suggested that Chinese spying on US media has become a "widespread phenomenon."

Also on February 1, *Washington Post* reporters Craig Timberg and Ellen Nakashima wrote in the Post, "A sophisticated cyberattack targeted *The Washington Post* in an operation that resembled intrusions against other major American news organizations and that company officials suspect was the work of Chinese hackers, people familiar with the incident said. Post company officials confirmed the broad outlines of the infiltration, which was discovered in 2011 and first reported by an independent cybersecurity blog on Friday. But they did not elaborate on the circumstances, the duration of the intrusion or its apparent origin." Twitter, a major social media network with over 200 million current users, was also the victim of a cyber attack, according to a February 2 Associated Press story by Terry Collins and Anne D'Innocenzio. In this report, they wrote, "Twitter said in a blog post on Friday (February 1) it detected attempts to gain access to its user data earlier in the week. It shut down one attack moments after it was detected. But Twitter discovered that the attackers may have stolen user names, email addresses and encrypted passwords belonging to 250,000 users they describe as a very small percentage of our users. The company reset the pilfered passwords and sent emails advising the affected users."

In the days and few weeks prior to the high profile newspaper and Twitter attacks, there were countless attacks on major banks, financial institutions, power companies, and other components of our daily lives and critical infrastructure. In the recent "Gozi Trojan" case, a small group of eastern European cyber thieves infected over a million computers with the "Gozi Trojan Virus." This virus which started stealing online banking information in 2007, and remained almost undetectable by most security utilities until 2012, which resulted in millions of dollars in banking losses over a five year period, making it (according to a New York U.S. Attorney). "...one of the most financially destructive computer viruses in history." (Source: krebsonsecurity.com/2013/01/three-men-charged-in-connection-with-gozi-trojan). These cyber-criminals employed countless "money mules," mostly innocent and out-of-work individuals, who were recruited through work-at-home job scams. These money mules helped the cyber thieves launder stolen funds.

In addition to the more traditional cybercrooks, as in the NY Times and Washington Post cases above, cyber espionage is widely used to gather intelligence for political, industrial, and military purposes. In terms of political espionage, the recent attacks on the major newspapers may have been used to intimidate Chinese nationals who might want to talk to western media outlets. Mark Clayton, in a *Christian Science Monitor* article, February 1, 2013, "How large is China's campaign to control, intimidate?" he wrote, "China's apparent motives in infiltrating major news organizations, experts say, are to anticipate and respond to negative coverage of the country, and, perhaps no less importantly, to deter Chinese citizens from speaking openly with Western news organizations." In terms of industrial espionage, Richard Clarke, the former cybersecurity and cyberterrorism advisor for the White House, said in a March, 2012 interview in the *Smithsonian Magazine*, that, "China has hacked every major US company."

According to Clarke, every major company in the U.S. is regularly infiltrated by Chinese hackers employed by the Chinese government to steal research and development data, plans, and information. According to Clarke, “Every major company in the United States has already been penetrated by China. My greatest fear is that, rather than having a cyber-Pearl Harbor event, we will instead have this death of a thousand cuts. Where we lose our competitiveness by having all of our research and development stolen by the Chinese.” (Source: www.zdnet.com/blog/security/richard-clarke-china-has-hacked-every-major-us-company/11125).

Sadly, this cyber industrial espionage also has strong military and national security implications. According to a story in *The Wall Street Journal*, “Computer Spies Breach Fighter-Jet Project” (online.wsj.com/article/SB124027491029837401.html), U.S. officials have known at least since 2009 that Chinese cyber spies have “...broken into the Pentagon’s \$300 billion Joint Strike Fighter project – the Defense Department’s costliest weapons program ever ... Similar incidents have also breached the Air Force’s air-traffic-control system in recent months, these people say. In the case of the fighter-jet program, the intruders were able to copy and siphon off several terabytes of data related to design and electronics systems, officials say, potentially making it easier to defend against the craft.” The result of this cyber espionage on our national secrets can be seen in the newly released Chinese and Russian fighter aircraft that were explicitly designed to defeat our latest generations of fighter aircraft. According to an article in Bloomberg, “China’s new stealth fighter likely was designed to counter the U.S. F-22 and F-35 jets, according to U.S. Navy intelligence analysts.”

In the same *Wall Street Journal* story (above) about the Chinese cyber spies stealing our fighter aircraft designs is a chilling statement, “The latest intrusions provide new evidence that a battle is heating up between the U.S. and potential adversaries over the data networks that tie the world together. The revelations follow a recent *Wall Street Journal* report that computers used to control the U.S. electrical- distribution system, as well as other infrastructure, have also been infiltrated by spies abroad.” Other, more recent reports indicate that China is greatly enhancing its cyberattack abilities to launch a devastating cyber attack on an adversary (the United States?) by shutting down its infrastructure using technical “cyber” methods rather than more traditional and violent methods.

Be careful to listen to snippets in the national and global news about such things as cyber attacks on Iranian nuclear facilities, such as happened in the recent past when the Stuxnet computer worm wrecked Siemens centrifuges. Richard Clarke has written about attacks on the electric power grid, trains, and the stock exchanges; listen in the news for more stories about this continuing attack. Almost daily, there are news stories about “denial of service” attacks that can effectively shut down the internet servers used by banks, credit card payment gateways, and the name servers which direct internet traffic. In an April 2009 story, “Electricity Grid in U.S. Penetrated By Spies,” *The Wall Street Journal* reported that China and Russia had infiltrated the U.S. electrical grid and left behind software programs that could be used to disrupt the system, according to current and former national security officials (Source: online.wsj.com/article/SB123914805204099085.html). Think about this the next time you hear about a major blackout for reasons other than a major weather event such as a hurricane. Some cyberterrorism experts claim that the infamous August 2003 blackout that darkened much of Canada and the northeastern United States was due to cyberterrorism, a claim that was vehemently denied by government authorities, but still discussed in hushed

circles. Al Qaeda documents indicate that they had been seriously planning to shut down our power grids, and evidence exists that there had even been surveillance on key components of the grid (Source: www.tactical-life.com/online/news/al-qaeda-calls-for-electronic-jihad-cyberwarfare-video/).

With the microcosm of information and sources referenced above, and now being more aware of the need to listen to contemporary news stories about cyberattacks and other cyberthreats, it should be evident that we are indeed now engaged in a cyberwar, and have been for several years. Do we really have anything to worry about? Sleep well tonight.

WEBSITES:

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<http://news.yahoo.com/ny-times-says-chinese-hacked-070948978.html>

<https://krebsonsecurity.com/2013/02/source-washington-post-also-broadly-infiltrated-by-chinese-hackers-in-2012/>

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<http://www.bloomberg.com/news/2011-01-06/china-s-j-20-stealth-fighter-meant-to-counter-f-22-f-35-u-s-navy-says.html>

<http://online.wsj.com/article/SB123914805204099085.html>

<http://www.siemon.com/decade-cyberattacks/timeline/>

Exploring PC Hardware with Windows 7

by Dick Maybach

Brookdale Computer Users' Group, NJ

Windows 7 includes programs that can teach you much about your PC and its performance. Using them can help you understand what goes on inside the enclosure, guide you in deciding what components you should upgrade, and help you determine which new PC would be a good replacement for your current one.

The first tool we'll examine is the *Windows Experience Index*, which is a performance rating of your PC. The fastest way to access it is to tap the Windows key, type "index" and select *Check the Windows Experience Index* from the presented list. The first time you run this program, you won't see any scores; instead, there will be a button labeled "Rate this computer." Click on this to run the benchmarks that find the scores.

Note that lowest score is for processor speed, which means that over-clocking the CPU would be the best way to improve its performance, since replacing the CPU isn't possible. If I decided that I needed substantially better performance, I could run this same program on a netbook

or laptop on a showroom floor to see how much, if any, improvement I could expect. This test provides much better guidance than the often-used processor clock rate.

The next tool provides an overview of the hardware, and the easiest way to access it is to tap the *Windows* key, type “system” and select *System* (in the Control Panel section) from the list.

This screen shows you the basic information about your PC, the Windows version, an overview of the hardware, and its network identity. If you have run the Experience Index benchmarks, you'll also see a performance rating.

The *System Information* tool provides detailed hardware information; access it by tapping the *Windows* key, typing “system,” and selecting the *System Information* item on the displayed list

At first, the left pane will contain only three items under System Summary: Hardware Resources, Components, and Software Environment. Click on the box labeled “+” to the left of each item to expand it as shown. The right panel shows the information for the item highlighted in the left one, in the above case, System Summary.

You might be puzzled by the memory numbers. In particular, they show that Windows can use only 1.73 Gbytes of the 2 Gbytes installed. The remainder is used by the hardware, mostly by the display controller. On this machine, Windows makes 1.73 Gbytes available as swap space, which brings the total available computer memory to 3.46 Gbytes. At the time, this program was run, Windows and its applications were using 830 Mbytes of the available memory, leaving 905 Mbytes of physical RAM and 2.35 Gbytes of virtual memory still available. To understand the other items in the left pane, you will need to make Web searches or obtain a good hardware book, such as *Upgrading and Repairing PCs*, by Scott Mueller (now in its 20th edition).

The last tool we'll examine is the *Resource Monitor*, which shows how hard your PC is working and what software is using its resources. It's most easily accessed by tapping the *Windows* key, typing “resource,” and selecting *Resource Monitor* from the list.

Here, the left pane (under the *Overview* tab) shows the active processes occupying the CPU. The graphs on the far right show short performance histories of each parameter. In the case of the CPU, the green shows how hard it's working and the blue its clock frequency, as indicated on the CPU title bar in the left pane. Comparing the other title bars in the left pane with the corresponding traces in the right one will let you interpret the data. In particular, in the disk display, blue shows the per cent of the time it's busy and green its transfer rate; in the network display, the blue shows its per cent utilization and green its data transfer rate; and in the memory display, blue shows the per cent in use and green the hard-fault rate. This last item is confusing. Hard Faults are not errors; instead they show how much data swapping between RAM and the swap file is taking place. Earlier versions of Windows used the term “page faults” for this, which was somewhat less alarming. Note here that we're using only about half the physical RAM, so there really isn't a problem. If the physical RAM usage were to approach 100 per cent, the hard-fault rate would dramatically increase, and the PC would slow down just as dramatically. Thus, this is the plot you check to see if you need more RAM.

We've taken a very brief look at some useful hardware tools in Windows 7. Although making full use of them would require much study, spending just a few minutes with them will give you a better idea of what is going on inside your PC. Also, they can help you make better

choices in your next hardware upgrade or PC purchase.

October 2012 issue, BUG Bytes, Brookdale Computer Users' Group, NJ



iPhone/iPad Printing

Q. Is there some way I can print directly from my iPad or iPhone?

A. Yes, you can print from the iPad or iPhone, though I found it easiest to purchase an AirPrint compatible printer (<http://bit.ly/ruT5I4>) as recommended by Apple. AirPrint-compatible printers are wireless printers approved by Apple to work with the iPhone, iPad, etc.

I have an Epson Artisan 730 printer, which is AirPrint compatible, that I primarily use for printing photos taken with my iPad and iPhone, but it can be used for documents, email and other items. It took me about three minutes to get it up and running by simply following the instructions that came with the printer. Printing has been a breeze ever since and the quality of photo printing is outstanding.

There are also third-party apps such as Printopia (<http://ecamm.com/mac/printopia>) and PrintCentral (<http://bit.ly/ViQHr1>), or you might want to go to the Apple App Store and search for other apps that will enable printing to a non AirPrint compatible printer.

Q. I have multiple Gmail accounts that I use throughout the day on my desktop, laptop and tablet computers. When I am in a hurry, I sometimes jump up from one computer and forget to log out of Gmail. It's often several hours later that I remember, and I might not be anywhere near the computer I was using when I forgot to log out. Is there anything I can do when that happens?

A. Gmail has a little-known remote log-out feature that allows you to exit all your active Gmail sessions from just about any computer, tablet or mobile phone that has access to the Internet. To use this feature, log into Gmail using any computer and click the Details link located in the lower right-hand corner. A window will appear that contains the "Sign out of all other sessions" button.

Q. I just bought a new PC with Windows 8. I know this sounds crazy, but I can't figure out how to shut it down. Help!
A. What you're experiencing is quite common for users exposed to Windows 8 for the first time. Your old friend, the Start button, is gone (but not forgotten), so shutting down is a bit different than what you were accustomed to in the past. Here's the secret to this success: Move your mouse cursor to the bottom right-hand corner of the screen, click the Settings icon or just hold down the Windows key and press I. Click the Power button and select Shut Down. In the alternative, if you press CTRL + ALT + DEL and click the Power button in the bottom right-hand corner, you will be presented with the same Shut Down

option. For users who prefer alternatives to alternatives, if you are on the Desktop, press ALT + F4 and you will be able to choose the Shut Down, Restart, Sign Out or Switch User options.

Mr. Modem's DME (Don't Miss 'Em) Sites of the Month

WhatWasThere?

Think of this site as a virtual time machine that will enable you to see how familiar places once looked before they were ravaged by the passage of time – not unlike my high school yearbook photo. By combining Google Maps with historical photos of streets, buildings and locations, you can see how the past compares with the present. Enter a city, state or country, and a map will reveal how many photos have been uploaded for that location and nearby areas. Click a photo to display more detail and compare it to a current Google Street View. Some cities have no photos, others have photos that hardly qualify as time-capsule material. I found one photo dated 1979. I've got shoes older than that. Still, this site is interesting and as more photos are contributed, it will become even interestinger. (Don't email me.)

www.whatwasthere.com

RetailMeNot

This is one of my all-time favorite sites. Before I order anything online, I check here for applicable promo codes. If a promo code is found, type in the code when placing your order and obtain whatever discount is associated with your purchase. There are scores of coupon and promo code categories that include everything from Accessories to Zithers. Well, okay, there aren't any zithers, but the list of categories is extensive.

www.retailmenot.com

Today in Literature

For literature enthusiasts, this is a particularly fascinating site. For example, today (as I write this), in 1637, Edward King -- not to be confused with King Edward – a friend of John Milton, drowned at sea. Three months later, Milton published his commemorative poem, "Lycidas." I know what you're thinking: "Tell me something I don't already know, Mr. Modem." A two-week free trial is available, after which you can decide whether to purchase a premium membership for \$25/year, which provides access to a wealth of additional literary information.

www.todayinliterature.com

For more information about Mr. Modem's award-winning weekly computer-help newsletter, featuring personal answers to your questions by email and his Pulitzer-lacking eBooks, visit www.MrModem.com



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Introduction to Computers

by Brian Aldridge

President, Idaho PC Users Group

Computers are incredibly powerful tools in today's society. They are able to perform calculations requiring a vast amount of information in mere seconds while also being able to carry out other tasks by the user.

What is a computer?

If you look in the dictionary printed before 1940, you might be surprised to find a computer defined as a person who performs calculations. Machines also performed calculations back then, but, they were referred to as calculators, not computers. Today a computer can allow its user to complete incredible tasks and projects in a quick and efficient manner, while also making the output look professional. The computer is the 21st century's most powerful tool for both the home and the office and is becoming more and more popular as units become more and more inexpensive.

Learning to use computers is a challenging experience, but also a rewarding one. The computer is a very valuable and powerful tool that is changing in performance and usage on a daily basis. Software packages are changing and becoming more powerful to keep up with society's demands. Today, almost anything is possible to with a computer, and tomorrow brings even more promise.

When I use a computer system, what components could it include?

Monitor - The primary output device on a microcomputer. It is the screen.

Case - The box that contains the main circuit board of the computer system.

Hard Disk Drive - Stores billions of characters on a non-removable disk platter inside of the computer system.

Keyboard - The primary input device. It includes the letter and number keys as well as several additional keys to control computer-specific tasks.

Mouse - A pointing device that you use to manipulate objects on the screen.

Power Supply - Unit that provides power to the entire computer system.

Fan - Controls airflow through the case.

IDE/SATA Cable - Connects HDD, CD/DVD Drive, and similar devices to the motherboard.

CD/DVD Drive - Unit that can read and possibly write removable digital media.

Memory - Stores commands from user for immediate processor use
Motherboard - The motherboard houses all connections to all system unit parts. (i.e. HDD, Memory, CD/DVD Rom, etc.)

Sound Card - The sound card is an add-on card that when connected to the motherboard can allow a speaker, microphone, joy stick type connection to the computer.

Video Card - The video card is an essential add-on card that provides a connection between the monitor and the motherboard.

NIC - A NIC (Network Interface Card) provides a connection from the network router/hub/switch to the motherboard. This add-on card links the computer to the server by way of a network interface.

Network Cable - A cable that connects the NIC to the router/hub /switch.

Power Cable - A power cable is used to connect the power supply of the computer to an AC

outlet.

USB - USB (Universal Serial Bus) is a standardized cable that connects computer peripherals such as keyboards, pointing devices, cameras, printers, disk drives, and much more to a computer.

Why does a computer need software?

A computer without software is like a body without a brain. The body has a purpose, but has no idea what that may be. Software is a bridge between the user and the computer that allows our commands to be carried out. Without software, we would have to create a new program for each task we wished to carry out.

How is using a microcomputer different from using a mainframe?

A microcomputer is a unit built to support a single user at a time, while a mainframe is a “bank” of computers built to support the microcomputers or any other computer driven mechanical uses.

For example, a microcomputer is called a “PC” or Personal Com-puter. You can find this type of computer in a home or office environ-ment, while a mainframe is the power behind a business or government’s computer needs. “Micro or Personal means small of stature while “Main” means primary or powerful.

Help, Tutorials, and Manuals

No class can ever teach you all you could ever know about using computers or everything about one software package. Accessing the help in Microsoft Windows software will provide reference information.

You may access this by going to the menu bar and selecting help or by pressing the F1 key. Type in your question, and if it isn’t answered, select the index in the help feature. Type your question again, and scroll through the selection until you find a word that may match your question. Select this word and select “Display.” If this doesn’t meet your needs, you may find Google search as an excellent source of help.

Learning to use computers is a challenging activity, heightened by the fact that computer hardware and software change rapidly. Just when you master one software package, a new one appears. You are challenged again to learn something new. Happily, you will discover that many concepts you have learned previously carry over to new hardware and software technologies. To maintain a good attitude about computers, it is important to view the learning process itself as an interesting challenge. Approach this challenge as if you were a detective gathering information, making a hypotheses, exploring and testing your hypotheses, and when you’ve solved one case, looking forward to the challenge of the next.

From the November 2012 issue of Bits and Pieces, newsletter of the Idaho PC Users Group.

Love Your Software? Start Hoarding It Now

by Rich Menga, PC Mech – in Tugnet News in Sept. 2012

The term “hoarding” is generally considered to be a bad thing, but when it comes to the software you can’t live without, I cannot stress this enough: Save Those Installers!

This is especially true for Windows XP users. The software you love right now will not be on the internet forever so you can download and install it whenever you need to. Eventually the software will be removed so save that stuff!

Angry Birds Explained

by Sandy Berger

Compukiss

If you want to know what the *Angry Birds* game is all about, this is the article for you! I'll even give you a way to try out the game on your PC.

When talking about technology and mobile devices, one subject is bound to come up: *Angry Birds*. I've talked to many people who are addicted to this game, others who play it occasionally, and others who say they've heard of *Angry Birds*, but don't really understand what *Angry Birds* is all about. While some have tried the game and said they just didn't have time for it, not one person



I've talked to say that they didn't like the game. In November 2011, just two years after its release, the *Angry Birds* series became the first game to achieve 500 million downloads. Rovio, the games developers, claim that they have 40 million active users of Angry Birds so they must be doing something right.

The first thing that you have to understand about this game is that its popularity is based on several things. First, it is an easy game to play. You don't need any prior video game experience. Second, is that it has enough different birds and different levels to keep everyone addicted. Third, is that it is scientific in the way it handles gravity and a wide variety of materials. Finally, and perhaps most importantly, *Angry Birds* is just slightly outrageous.

Those who haven't played the game often ask why the birds are angry. Well, that's easy to answer. They are angry because the green pigs stole their eggs. The basis for the game play is that the multi-colored birds are now out to destroy those nasty green pigs. The pigs are encased in structures that are made of different materials, like wood, stone, crates, rocks, and ice. Each structure is built differently for each level. You use a slingshot to launch the birds against the pigs to destroy their enclosures and ultimately to destroy them. The objective of the game is to eliminate all the pigs on any given level so you can move on to the next level.

The slightly outrageous part comes in the actual concept of the game itself. First of all, most birds can fly, so why would you need a slingshot? Well these birds can't fly because these birds are wingless; but who ever heard of a wingless bird? You simply can't avoid the curiosity of why the pigs steal the eggs. And you can't help but notice the play on ham and eggs.

The birds are packed with clever features that draw you into the game. I'll give away a few secrets here for those of you who want to beat the kids and grandkids at this game. The small red birds are simply basic birds that can do little harm. The bigger red birds are more destructive. The blue bird divides into three separate birds when you tap the screen. Depending on when you tap the screen, they can be pretty damaging. The yellow triangular bird gets a lush of speed when you tap the screen. The black bird can explode like a bomb. The green bird acts like a boomerang when you tap the screen. That's very useful when you

overshoot your target or want to use a tricky maneuver.

Although all pigs are all green, they come in different sizes with larger pigs being stronger and those wearing helmets more resistant to damage. Watch out for pigs with crowns. They are the most damage-resistant.

There are several versions of *Angry Birds* including *Angry Birds Seasons*, *Angry Birds Rio*, and *Angry Birds Lite*. They can be played on a PC, Mac, iPhone, iPad, Android phone, and Android tablets including the Amazon Fire. Some are free but others cost up to \$5 each. The average price is \$2-\$3.

The latest version of *Angry Birds*, called *Angry Birds Space* has made a big splash. Anxious players downloaded more than 10 million copies in the first three days of its release. The *Angry Birds Space* game was created by Rovio in conjunction with NASA and *National Geographic*. NASA got involved because of the physics of gravity that the game displays. NASA has even made a YouTube video about the *Angry Birds Space* game in which Astronaut Don Pettit shows how gravity affects an object's trajectory. The video was taped on the International Space Station, complete with birds and eggs as props. *National Geographic* has developed a companion book called *Angry Birds Space* that helps kids learn about the *Angry Birds* as well as the planets, moons, stars, galaxies, and other mysteries of the universe.

So you can see that *Angry Birds* is no average game. The entire series of games is both appealing and educational. As the first birds in space, the *Angry Birds* have become the super heroes of the universe. They are already popping up in toys, apparel and even food items. Rovio is also developing a film based on the birds and a comic book series can't be far behind.

If you haven't tried *Angry Birds* yet, you are in for a treat when you do. Although you may not become as addicted as some of the kids, these unusual birds are sure to make you smile.

If you don't have a mobile device, you can play *Angry Birds* on your PC. Just follow this link: <http://chrome.angrybirds.com>.

Look Back Tech

by Greg Skalka

President, Under the Computer Hood User Group, CA

No matter how modern your technology may be, you usually can't escape your past. The introduction of the personal computer 30 years ago started a revolution in how we deal with correspondence, communications, photography and music. This revolution resulted in an evolution of capabilities over three decades, culminating in the Ultrabooks, tablet computers, personal music players and digital and video cameras we have today. In the fast-paced and ever-changing world of computers and consumer electronics, the past, as defined by different features and capabilities, can be as recent as yesterday. And unfortunately, something new and improved usually means something else just became obsolete, sometimes before its time.

Unless you just came out of a 30-year coma, you probably have computer files, media and devices that are not fully compatible with the latest in computers and electronics. For those of us that have been using computers and technology for even a short time, moving to the next, newest, latest and greatest will involve change. How do we bring along the content we have created and used in the past? How can we continue to use our favorite old devices?

Fortunately, there are a number of devices available to address these issues. They are often called translators, converters or copiers, but I like to think of them as "look back" devices. They

can help us look back to an earlier time, bridge the divide between technologies and bring our content, be it music, photos, video, documents or information, along with us as technology evolves. And boy, does it ever evolve.

Imagine archaeologists stumbling upon an undiscovered ancient library. Despite alphabet and language translation issues, they could probably eventually learn quite a lot about the time period in question, as ancient civilizations typically used information recording technologies we can still easily use today. Assuming they are in good condition, carved stone tablets are still as readable now as they were when carved thousands of years ago. Even the information in paper books preserved from a hundred years ago is still easily accessible. That may not be the case, however, with information stored from only ten or twenty years ago.

Imagine instead opening an unclaimed storage locker that has been closed for 10 to 20 years, and finding it contains lots of important and interesting information. Unfortunately, it is stored on Betamax, VHS and cassette tapes, LP records, 8 inch, 5.25 inch and 3.5 inch floppy disks, SmartMedia flash memory cards and bare Parallel ATA (PATA) hard drives. You might feel the archaeologists have an easier task in obtaining their information. Even if you could come up with functional hardware to read all these old media types, how could you provide the data to someone that wants to access it on an iPad?

Fortunately, there is look back technology available to access and translate a lot of that old media. Although current computers no longer have drives to read removable magnetic disks, and the latest Ultra-books, Chromebooks and iPads don't even have optical disc drives, there are a lot of USB external drives available for these older media types. I have not seen (at least recently) any USB external drives for reading 8" or 5.25" floppy disks, so for those you might have to rely on an old working computer. USB external drives are readily available for 3.5" disks, however, and are great when you have older equipment (like electronic test equipment) that can only store to its built-in floppy drive. There are also plenty of USB external optical drives available to read and write CD, DVD and even Blu-ray discs.

There are a number of options when it comes to getting information off of older computer hard drives. If you don't have a computer that supports the older drive, there are plenty of hard drive external enclosure kits available to interface all sizes of PATA and SATA hard drives to USB. The Apricorn DriveWire Universal Hard Drive Adapter is one of several similar products that can easily connect any size or type of bare hard drive to USB for data transfer. It is great for transferring files you forgot you needed from those old computers that won't boot anymore, or have no removable media in common with your new computer. For bare SATA drives, there are also quick-change docks available to easily access them through USB or eSATA.

A lot of laptops and tablets have slots for reading the removable flash memory cards commonly used in digital cameras, but most can only accommodate SD (Secure Digital) cards. Many of the older or less popular media formats, like CompactFlash or SmartMedia, are not supported in new devices. There are a lot of USB adapters available for almost any memory card format that has ever existed, allowing these cards to be read again. I have one USB media adapter that claims to accommodate 56 different types of memory cards.

Though almost everyone now captures and enjoys audio-visual entertainment through digital means and devices, including digital still and video cameras, personal digital music players and streaming audio and video, the all-digital era is at most only two decades old. Many of us still have music, pictures and video in an analog format, which makes them more

difficult to enjoy in our digitally-oriented world and makes the originals more vulnerable to loss or degradation over time. Fortunately, there are many look back devices available to help bring these analog items into the digital world.

For printed materials like photographic prints, a good flatbed scanner can make excellent digital scans. For less critical material, a hand-held scanner can digitize much quicker with good results. Where the original is a film negative or slide, there are a lot of reasonably priced film and slide scanners available to allow those old memories to be more easily accessed and permanently preserved in digital form. At one end of the spectrum are precision film scanners that make high-resolution scans but require more time to scan. There are also lower-cost film scanners based on digital camera sensor technology that make very fast scans of reasonable quality. These scanners, such as ones made by Wolverine Data, make it possible to convert large collections of slides or negatives to digital files in a reasonable time. There are services available to perform these conversions for you for a fee as well.

For those that have large collections of vinyl audio records, cassette tapes or even 8-tracks, there are devices that can be connected to your computer through USB to digitize from almost any audio source. These devices take in right and left channel audio inputs, and so require that you still have an appropriate and working player available. There are also USB players for vinyl records and for cassette tapes, which allow those media to be played and digitized through your current PC or laptop. These are great when your record or tape collection was preserved, but you no longer have a turntable or cassette player that works. There are also many devices available for digitizing analog video, such as from camcorders or VCRs, but these all rely on you having a working player to provide the analog electrical signals.

The look back devices so far described allow legacy data storage to be accessed by current computers and analog media sources to be digitized. But what do you do when you have legacy hardware, like a parallel port printer or a hand-held GPS receiver with serial port interface, that you still want to use? There are USB to parallel converters, so that you can electrically connect that parallel port printer to your Chromebook. There are also USB to serial converters, which provide me a way to connect my old Magellan hand-held hiking GPS to my laptop (which has no serial port) and download tracks. Computer technology seems to advance much faster than some other electronics, and it seems a waste to have to buy a new GPS simply because your new PC doesn't support the interface it uses.

The last look back application is in telecommunications. Today all computers have either a wired Ethernet connection, a Wi-Fi capability, or both. It was not too long ago, however, that the only way to get on the Internet was through a dial-up connection with a modem. Unfortunately, there are still parts of the rural U.S. where dial-up may be the most reasonable option. Since modems disappeared from new computers many years ago, the best way to connect your Ultrabook to the Internet in these locations may be through an external USB modem.

The problem with advancing technology is that it makes everything obsolete eventually. This means there will be a bright future for these "look back" devices to handle the things we expect in our current computers at some point. While USB is pretty universal, I don't expect to find a cloud with a USB port on it.

From the October 2012 issue of Drive Light the newsletter of the Under the Computer Hood Computer Users Group of San Diego, CA. Courtesy of APCUG.

Extending the Life of Your XP PC

by Dick Maybach

Brookdale Computer Users' Group, NJ

When you first got your PC with Windows XP it was blazingly fast and its hard disk was huge. But now, maybe 10 years later, it has slowed, perhaps drastically so, and its disk is nearly full. The cause of the disk-space shortage is probably obvious, you've stored thousands of photos, songs, and documents, and installed many programs. But what about the speed? Unlike you and me, electronic hardware doesn't slow down as it ages.

Hopefully, you've kept your software, especially your anti-virus program, up to date and have avoided downloading files from questionable sources. If not (or if someone who uses your PC is less careful), run a full virus and malware check and update Windows and all your applications before you try anything else.

At the time you bought your XP PC, 500 Mbytes of RAM was plenty, but the patches and enhancements you've added over the ensuing years means that the XP you now use is much different than the XP you originally bought. In particular, 500 Mbytes of RAM is now woefully inadequate. To check your RAM use, simultaneously press the *Control*, *Alt*, and *Delete* keys, select the *Task Manager* button on the Window that pops up, and then select the *Performance* tab.

I did this on my laptop and, as the screen-shot shows, found that with no applications running except for my virus checker, it was using about 814 Mbytes of RAM (see the *Commit Charge* box). Fortunately, this PC has 1 Gbyte of RAM (as shown in the *Physical Memory* box). Note also that the Commit Charge limit is nearly 2 Gbyte. The second Gbyte is provided by the swap file; when Windows needs more memory than you have physical RAM, it moves some data from RAM to a swap file on your hard disk to make room. If this happens more than occasionally, the situation is called *thrashing*, which results in Windows slowing to a crawl as it continually moves data from RAM to disk and back again. If your XP PC has only 500 Mbytes of RAM, it will begin thrashing as it boots, and will be frustratingly slow. The only fix for this is to increase RAM to at least 1 Gbyte. Removing programs, defragging, and other such measures will not improve the situation at all, despite what fraudulent TV ads say.

Instead of adding RAM, you could switch to Linux, although for an old PC you will have to use a lightweight distribution, such as Xubuntu. (Mainstream Linux distributions, such as Ubuntu, require modern display controllers.) The only difference between these and the mainstream cousins, such as Ubuntu, is that the displays are simpler; that is, you lose some of the visual bling that the software vendors think you want; both types support all the same applications. The screen-shot below shows Xubuntu's resource on the same laptop as above.

Note that only 210 Mbytes of RAM are in use, compared to XP's 814 Mbytes. Linux thus provides a way to extend the useful life of old PCs by many years. This approach is especially attractive for laptops, whose hardware is difficult to upgrade.

If you want to keep using XP, you have little choice but to increase the amount of its RAM. Beyond this there are other steps you can take, although their effects on performance will be much smaller. Before you do any of the following, *back up your entire PC*. If you haven't already, use your favorite anti-virus software to get rid of any malware, use Microsoft Update to bring the system up to date, and update the drivers. Then look at the installed programs with the sequence *Start*® *Control Panel*® *Add or Remove Programs*. Highlight each in turn

to see how much disk space it occupies, how often you use it, and the date you used it last. Ask yourself if you really need it, and if not click the *Remove* button to remove it. This will free disk space and may speed up your PC if the program has a module that resides in RAM. As the screen-shot shows, I haven't used Adobe Reader for over five years and I could recover 86 Mbytes of disk space by removing it.

You can clean up a drive with the following sequence: Double-click on *Computer* ® right-click on the desired drive ® select *Properties* ® click on the *Disk Cleanup* button.

I can recover almost 22 Mbytes of disk space by performing the checked operations.

You may gain some speed by disabling some of the visual display effects. Navigate *Start* ® *Control Panel* ® *System* ® *Advanced* tab ® in the *Performance* box click on *Settings* and uncheck everything except

- Show shadows under menus,
- Show shadows under mouse pointer,
- Show translucent selection rectangle,
- Smooth edges of screen fonts,
- Use drop shadows for icons labels on the desktop, and
- Use visual styles on windows and buttons.

The following will recover an impressive amount of disk space, but do it only if you have a recent back-up that you know to be good. Move to the directory *C:\Windows* and make the hidden items visible by clicking on *Tools* (in the menu bar), selecting *Folder Options*, selecting the *View* tab, and the selecting the *Show hidden files and folders* item. You will find a large number of directories whose names begin and end with \$ and include “Uninstall” somewhere in between. These allow you to back out of patches, but it is most unlikely you will ever have to do this, especially if your system is running well. (My laptop had 339 such folders, occupying over 250 Mbytes.) You can delete them and recover the space, but be very careful not to delete anything else, in particular, directories whose names begin and end with \$ but don't include “Uninstall.” It would be prudent not to empty the Recycle Bin for a few days, until you're sure you haven't broken anything.

CCleaner (<http://www.piriform.com/CCLEANER>) is a clean-up tool with a good reputation. It takes a more aggressive approach than does the disk cleanup procedure discussed above. There is a free version, but read the installer screens carefully as it will install a Google toolbar unless you uncheck the appropriate box. The first time you run the program, click on the *Analyze* button to see what it will do; the screen-shot below shows the effect on my laptop. (I had earlier performed the Windows Disk Cleanup described above.)

It claimed to find almost an additional 83 Mbytes of disk space that could be freed, although it removed only about 80 Mbytes. The program also includes tools to clean up the registry, uninstall programs, manage system restore points, and wipe disk drives, and will also show what programs run at startup. For more information see <http://www.howtogeek.com/113382/how-to-use-ccleaner-like-a-pro-9-tips-tricks/>. Finally, a different company has developed an add-on, CCEnhancer (<http://singularlabs.com/software/ccenhancer/>). On my laptop, this add-on allowed CCleaner to find 10.7 Mbytes of additional files. However, CCEnhancer requires .NET 3.5, which uses several hundred Mbytes; if you don't already have this installed, forget about CCEnhancer as what it can recover is only a small fraction of the space .NET will occupy.

I haven't mentioned defragging because I've never found that it improves performance by any detectable

amount. I'm not saying it's a bad idea, just that you shouldn't expect any performance change.

Also consider a hardware approach to increasing disk space. In particular, USB hard disks are inexpensive and easily installed on both desktops and laptops, and although they are much slower than internal hard drives, they are entirely satisfactory for storing data that you don't access frequently.

From the September 2012 issue of, BUG Bytes, newsletter of the Brookdale Computer Users' Group, NJ.

Society News

Help's Half Hour Notes

Led by Tony Dellelo

February 12, 2013

St. John's Meadows

Q: A member is decommissioning a computer to give away. He wants to keep the OS and the program but remove the personal data files.

A: There are some free programs that will clean your drives/files. (Heide - Eraser) Some also 'scrub' the unused space so that the files cannot be repaired and read after deletion.

A member reported that he replaced his hard drive with a 160 gb solid state drive – cost \$99. He stores his data files on a different hard drive. Now it boots really fast!

Arpad reported that Synctoy software can be used to create backups of your selected files. It will also keep your files synchronized, making updates as you save and re-save.

Q: What is the best PDF program to write?

A: CutePDF is free. Libre Office will generate PDFs. A program to read OCR is FreeOCR. Foxit Reader is a great PDF reader! Good features to zoom, making reading easier.

The Lighter Side

