

MBTS TekJournal

Volume 4, Issue 6

August 2005

I received an email the other day asking why my web site didn't have a blog. My first thought was, "What the heck is a blog?". So I did a little surfing and found out that blog is actually short for Web Log, but the newer generation has just shortened it. The original idea was to "log the web", providing supposedly helpful links and commentaries about them. On many sites they have turned into a diary of anyone who visits, or just gets updated by the owner of the blog. Others however are full of junk and look like a breeding ground for SPAM. I still can't see a useful purpose for them, but I will keep looking. If anyone knows why blogs exist, or where a good one is, or what makes a good blog good, drop me an email and let me know.

Speaking of SPAM, has your quota gone up lately? Mine seems to have skyrocketed overnight. I now easily get 25 to 30 SPAM emails per day and that is after setting up many controls to see that nothing gets through. Right! SPAM is a disease that crawls through any tiny opening it can find and it seems it will never go away. But we can always hope to find a cure.

One cure that is making the rounds is the tax on email. However, this is just another hoax being circulated by a

few people hoping to get everyone's dander in a tizzy. Think about it logically, "How would you go about taxing email?". The notion is that your email provider would have to submit an accounting of every email that was processed exiting your email account. You would then be sent a bill and if you didn't pay it, no more email. But how about free email like Yahoo, Hotmail, AOL, etc. How many users actually supplied their real names and addresses, instead of fictional data, when they signed up? Since the people who are supposedly trying to crack down on SPAM can't find the spammers how would they ever think they could tax them? This is just another pipe dream that will eventually go away like last years snow.

Another utility that is making headlines and becoming very popular is the news feeder. These are little programs that live somewhere on your desktop and provide a ticker tape of news headlines similar to those you see when you watch CNN on television. If you see an item that interests you, click on it and a web page opens up with the complete story. It is a great little tool for those of us who don't seem to get out much and don't recognize the passing of time even though our computers are situated near a window.

But what about real computer news? Isn't that what a newsletter is supposed to provide? Here is a little update on new trends in the computer industry.

It has taken a lot longer than anyone predicted (doesn't it always) but PCI Express seems like it is here to stay. PCI (Peripheral Component Interconnect) Express is a scalable I/O (Input/Output) serial bus technology set to replace the existing parallel PCI bus which came standard on motherboards manufactured from the early 1990s through present day. In the latter part of 2004 PCI Express slots began appearing alongside standard slots, starting a gradual transition. But what does it mean to the average user?

PCI Express has been shortened to either PCI-X or PCIe
Welcome continued on page 2

INSIDE THIS ISSUE

- 1** Welcome
- 3** MS PAINT
- 3** DUST - The Silent Killer
- 4** Internet Security
- 6** Taxing Emails

depending on which site you are reading. We will use the more accepted PCIe designation to simplify things.

Everything (data) that is transferred in a computer travels along a bus that has a limited width, and as applications grow in size and we process more data this bus route is becoming clogged. To visualize this, think about rush hour in the city you live in – the roads are the bus routes and the vehicles are the data. From 7 to 9 am many people would rather be sleeping. Anyway, PCIe is a point to point connection which no longer needs to share bandwidth (the standard bus) but communicates directly from device to device. PCIe devices also consume much less power than the standard PCI or AGP cards we currently use. But the most promising feature is the fact that PCIe is scalable, meaning that by adding additional lanes for data (each lane being bi directional) we can move larger amounts of data faster. Video cards use the x16 standard meaning 16 traffic lanes for data, where each lane is the equivalent of 250MB per second or a maximum throughput of 8 GB per second. With PCIe, streaming video can finally become a true reality with more definition than you can imagine.

Another advancement that was discussed in the past but hasn't really taken hold yet is BTX or Balanced Technology Extended. Our current standard for systems is based on ATX or Advanced Technologies Extended. These are the standards and protocols that define the physical dimensions and power supply requirements of motherboards and cases. Systems today are noisy, hot, and huge and they don't have to be.

The BTX standard will balance size, performance, features and cost. It will allow for more powerful systems that are better cooled more reliable, faster, and easier to upgrade.

Microsoft is still expecting Longhorn to ship in 2006. Longhorn is the working name given to the next generation of the Windows Operating System which is based on the newest 64 bit technology. It is rumoured to be in Beta testing as of now, but I am guessing the 2006 release date is probably going to end up being really close to the 4th quarter.

Microsoft is currently working on a Beta release of

Internet Explorer 7, the new browser which will be included in Longhorn, and it is said to feature tabbed browsing and an RSS subscription service.

RSS (Rich Site Summary) is a special format used to deliver summaries of regularly changing web content. News related sites, blogs, and other on-line publishers syndicate their content as an RSS feed to whoever wants to access it.

RSS solves a problem for people who regularly use the web. It allows you to easily stay informed by retrieving summaries of the latest content from the sites you are interested in. You save time by not needing to visit each site individually.

If you haven't already, or would like to locate an RSS client, <http://blogspace.com/rss/readers> provides a fairly extensive list of products available and the platforms they operate on.

It appeared that 2004 and much of 2005 has seen the speed of processors remain constant. However, behind the scenes AMD and Intel have been hard at work on dual core processors. A dual core processor is a CPU with two separate cores on the same die, each with its own cache. It's the equivalent of getting two microprocessors in one.

Intel is offering the Pentium 4 Extreme Edition series of dual core processors, currently operating at 3.2 GHz with 1MB L2 Cache on each core. AMD provides a greater range of Athlon 64 X2 processors ranging from 2.0 to 2.4 GHz frequencies and pairing either 512k or 1MB L2 cache. Even though the frequency numbers provided by AMD make the chips appear to be slower (3.2 GHz vs. 2.4 GHz) AMD actually provides a faster processor in many cases thanks to internal architecture enhancements for HyperTransport technology and an Integrated Memory Controller. Dual core system solutions will be featured in an upcoming MBTS TekJournal.

Thanks again for reading the TekJournal. We hope you enjoy this issue.☺

MS PAINT

How many people use MS Paint on a regular basis?
How many users even know what it is, or how unfriendly it really is?

Officially "Microsoft Paint is an inexpensive painting program that can be used to teach students the basics of painting software. Many sophisticated graphics software applications (such as Paint Shop Pro or Photoshop) use the same basic principles that can be learned using MS Paint." It really is inexpensive because it is included with the Windows Operating system. If you click on start, then All Programs, and Accessories, you will see a link to Paint.

With Paint, you can open photographs and in a very limited way modify them using a very limited set of tools. No wonder it is free, it is so limiting. But wait...

There is a considerably more functional alternative available called Paint.NET. This program started as an "undergraduate senior design program at Washington State University and was mentored by Microsoft. It is currently being maintained by some of the alumni who first worked on the project and is a free replacement to the inferior MS Paint that is bundled with Windows. It is available via the Internet from the [University site](http://www.eecs.wsu.edu/paint.net/) (<http://www.eecs.wsu.edu/paint.net/>)

There is one drawback before you jump on the 'Net and go get it – it only runs on Windows 2000 and higher.

Paint.NET allows you to perform many of the tasks that high end products like Paint Shop allow including: Image Resizing; Layering; adjustment of Brightness/Contrast, Hue/Saturation, etc; change photos with special effects like Blur, Emboss, Frost, Red eye removal; and has a whole toy box full of tools.

If you have ever used MS Paint, we think you will abandon it for this product. If you have never used MS Paint, try this one first and see how the product should have worked originally.☺

DUST - The Silent Killer

Does that ever sound like an ominous title? If it gets your attention, it has served its purpose.

I can't start this article by asking if you regularly dust

your house or apartment, because if you are a single male you would probably groan "Ugh, Housework" and stop reading. So I will attack the topic by identifying what dust is and how it affects your computer. If you are squeamish, take a Gravol but keep reading.

What exactly is dust?

Dust is made of just about everything. Household dust is composed primarily of things like human skin and hair, waxes, pollen, mold, fungi, lichen, tiny particles of wood, paint, fibers from fabrics such as wool, nylon, rayon, foam rubber, sheet rock, plant and vegetable matter, insect parts, and of course every form of pollution such as auto and industrial emissions, heavy hydrocarbon waste from your oil or gas heater, even tiny bits of metal debris from door hinges or any place where metal and friction meet, lots of food waste, and loads of paper fiber and perhaps the worst of all, Dust Mites. The Dust Mite is a microscopic crab/spider critter. Approximately 42,000 live in an ounce of dust

Did you know that smoke can also be found in dust, and that cigarette smoke will make dust gummy?

What is Static Electricity?

Walk across the rug in your socks, maybe dragging your feet a little, and touch a metal object and you will probably get zapped. Take off your toque coming in from the cold and your hair may stand on end. Take off a wool sweater in a dark room and see the little light show when electrostatic discharges just between the dust particles in the threads of the wool fibers. These are just a few examples of Static Electricity at work.

What is a Silicon Chip?

A Silicon chip is defined as "electronic equipment consisting of a small crystal of a silicon semiconductor fabricated to carry out a number of electronic functions in an integrated circuit." Almost all of the circuits in a computer are based on Silicon Chips.

How does all this relate?

Silicon Chips are extremely sensitive components and do not like excessive heat or static electricity. As few as 15 volts are required to render a Silicon Chip as useless as screen doors on a submarine. However, it takes at least 1000 volts of static electricity for you to feel a tiny static spark off a doorknob. To receive a real good shock when grounding yourself after walking

DUST continued on page 4

across a carpet requires the discharge of at least 3,000 volts, and may involve as much as 10,000 volts.

Dust (thanks to protons, neutrons, and electrons which make up everything on earth), can generate its own static electricity. Remember the wool sweater? The light show is made up of static electricity transferring from a positively charged particle to a negatively charged one, because there is dust in your sweater.

How does this relate to my computer?

Let's go back to dusting the house. How often, assuming you are not a single male, do you dust your house? Once a week or, at the worst, once every two weeks, is probably the normal response. Now, how often do you take your computer apart and dust the inside of it? The most common response is **Never!**

Since most people never dust the inside of their computers what do you imagine you would find if you took the cover off? If you can imagine dust bunnies big enough to give you nightmares, you are doing a good job.

Does anything else contribute to the problem?

If you have a dog, or a cat, or some other pet, you will probably also find some of their cast offs inside your computer. Anything that can become airborne can end up in your computer. The topic of airborne particles leads right into cigarette smoke and how it affects the dust inside your computer.

There is tar in the tobacco that make up a cigarette so it only stands to reason that the smoke a cigarette generates also contains a tar residue. As the cigarette smoke adheres to the dust particles in your computer which never gets cleaned, they also become gummy. This modified dust gets into the moving parts of fans used to keep everything cool and can cause them to seize (stop turning).

How does this affect my computer?

Over the past eight years I estimate that 40 percent of all my service calls are for dead equipment due to a static chain reaction caused by a buildup of dust inside a computer.

Component failures occur when you open your case to change the video card, add more RAM, add a new optical device, or in some cases have decided to use a can of compressed air to clean it yourself. Other times

you may just walk across the room, touch the keyboard transfer an electric impulse to your system. Dust is unpredictable and is very hazardous to your computers health.

Summer Special

During the month of August 2005, all service work exceeding one hour will receive an interior system vacuuming to remove dust buildup at no additional cost. Call us at 771-8930 to arrange an appointment. ☺

An Internet Security Primer

When we were little kids the one phrase that was drilled into my head over and over was "Don't talk to strangers". Another phrase my parents liked was "If you don't know what it is, don't put it in your mouth", but they also told me to eat everything put in front of me when we went somewhere for dinner. Talk about an oxymoron.

Well, I am not a little kid anymore, but I still need to remember those lessons and apply to my daily life. On the Internet EVERYBODY IS A STRANGER. Unless you can see someone face to face, the person at the keyboard on the opposite end of your chat session could be anybody or any thing, not what they claim to be. We like to believe that everyone was raised like we were, but that is just not the way it is. If it was, we wouldn't need POLICE and PRISONS.

The question you are probably asking right now is, "Is the Internet really safe?" The straight answer is that it is only as safe as you make it. And we offer this primer to help make your decisions a little easier, so that you make the right ones.

Firewalls

Almost everyone has heard of a firewall and what it does. It is the secure wall that separates you from a fire, or in the case of the Internet it is a level of protection used to help mask your identity from others while you are on the Internet. The firewall also may be configurable to help you block where surfers can go, who or what can get back in, what programs are allowed to run. To make the decision a little harder, there are two types of Firewalls: Hardware and Software. Which firewall is better?

I personally believe that a *hardware firewall* is the best protection to keep your system safe while on the Internet. Firmware upgrades, which offer more enhancements to the protection, are free. As a user you must program it accordingly to be of major benefit, but right out of the box it starts working as it should.

Software firewalls come from many different authors and it is difficult without testing all of them to decide which one is the best. The biggest drawback in my opinion is that the software firewall must be upgraded at a cost to the user every year or they stop working, just like Anti Virus and Spyware detectors. Hardware firewalls are purchased once and so far have worked forever.

Internet Settings

No matter what browser you use, there will be an option in the Preferences or Options or Tools section that relates to Security. I will use Internet Explorer for this example since it comes with Windows and it seems to be the most popular.

Once you open Internet Explorer, click on Tools on the toolbar at the top of the screen and select Internet Options. Once the dialog box appears, click the Security tab. There are four icons dealing with security for different phases. Initially, for broad range protection, each type should be set to Default. Highlight each icon in turn, and if the "Default Level" command button is not grayed out, click it once. If your system ever gets an infection, this is one of the first areas to be affected as the infection will try to disable your defenses.

The Privacy Tab in Windows XP Service Pack 2 offers added protection of blocking pop ups. There should be a check mark in the box at the bottom of this dialog box to make it effective.

Finally, click the Advanced Tab and scroll down to the bottom of the list under the section titled Security. You are looking for the option titled "Empty Temporary Internet Files Folder when browser is closed". Make sure there is a check mark in this option as well.

Who to Trust?

Referring to the old adage of "Don't talk to strangers" you must be very careful about what you click on while you are surfing the 'Net. While it may look like fun to

have happy faces and cute cursors or little animated desktop animals on your computer, most of these options come with a hidden price tag. The best thing to remember is that NOTHING IS FREE. While there are some altruistic programmers, most of them are in it for the money. When a program like My Search Toolbar or KaZaA is created it seems that everyone wants it, mostly because it offers something special and it is free. But these products always come bundled with additional software known as adware or Spyware that allows popups to be displayed on your computer and may even track your keystrokes. Most of this software keeps track of your Internet activity and your email and bundles information to be sent to the companies that send out SPAM.

If you are trying to download something from the Internet to add to your browser which adds some unique functionality, be very careful to read all the installation screens to make sure you are not agreeing to allow other software to be added that maybe hidden in the original product. Hotbar is a good example. The software may offer a search toolbar or a weather icon or emoticons for your Instant Messaging but also adds more software that may actually hijack your browser to direct you where it wants you to go. Get enough Spyware on your system and you will no longer have Internet access.

The banner ads that state your system may be running slow or that you may experience crashes but all of which can be avoided if you just click here, always want to sell you something and in many cases will add unwanted software to your computer without your knowledge.

More Protection

Every computer that visits the Internet should have some form of Anti Virus software, and even a free one like AVG is better than nothing. Norton Anti Virus is the best in my opinion but it can be cumbersome to install or upgrade from the Internet. I suggest purchasing a new copy annually and installing it after uninstalling the older expired version.

Other products that should be considered include SPAM filters and Spyware removers. The best of these programs will stay resident in memory while you

are using your computer, won't take up much memory, and will automatically update their databases as required.

When it comes to the Internet and keeping your system and your data safe, a little common sense goes a long way.

If you would like help in setting up proper security precautions to help keep your system safe, or would like to have a router installed for added security, call us at 771-8930 to arrange an on site appointment. ☐

the best resource we have ever had available.

Even though we know that we will all continue to forward on silly emails that we receive, even the ones promising good luck, for security sake (yours and your friends) please remember to DELETE the list of previous email addresses at the top of the email to be forwarded. You never know who will turn out to be a stranger!☐

Taxing Emails

Can email actually be taxed? With the help of Internet Services Providers as well as Web Hosting companies, I guess it would be possible, but it is highly unlikely. I just did a quick search on Google for the phrase "Web Hosting" to get an idea of how many companies would have to be contacted and the results were an even 40,000,000. I did the same search for "Internet Service Provider" and the results were 6,100,000. Assuming that only 1% of the total hits returned were in fact real, this still means that the government would have to get over 450,000 companies worldwide to accept the notion of taxing email since it can only be done at the source.

Doing a Google search on "Taxing Email" in comparison only returns a whopping 378 hits, so even the Internet doesn't take this threat seriously.

The email I received this morning actually had a very well written Word attachment explaining the situation in detail and identified the bill as Bill 602P. Further searching led me to the Urban Legend Hoax site at <http://www.snopes.com/business/taxes/bill602p.asp>

Follow the link for yourself and you will find this is just another joke on all of us. However, it does give credence to the fact that the Internet and Email is being abused. Everyone gripes about the amount of junk or SPAM email they receive, but how many of us refuse to pass on junk mail from people we know? This junk mail is in the form of cute stories, cute pictures, hoaxes that we can't be bothered verifying as a hoax, etc. All this email traffic helps to slow down