Bits of Blue

October in Tampa

A Monthly Publication of the Tampa PC Users Group, Inc.

Vol. 18 No. 10   October 2005

Meeting

**Steve Singer
From RDI @ TampaBay, Inc.**

**Wednesday, October 12, 2005
6:30 PM
Art Pepin Hospitality Room
Pepin Distributing Co.
4121 N 50th St
Tampa, Florida**

INSIDE THIS ISSUE

Meeting Preview: Our old friend Steve Singer from RDI @ TampaBay, Inc., a computing supplier, will tell us what's new in computing hardware. We will also have the usual half-hour Windows SIG.

Editor's Comments

By William LaMartin, Editor, Tampa PC Users Group
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Wireless Camera Those who attended our last meeting, which was our first meeting at the new Pepin location, saw my new Motorola Home Monitoring wireless camera at work. It allowed me to view on my laptop the entrance to the building, which was a little over 120 feet away with an office and lobby area in between it and our meeting room. This was desired since, being after hours, the doors either needed to be locked or someone would have to stay at them to give late arrivals entry. The system worked fine. I think we only had two late arrivals, and the rest of the activity was the cleaning crew working around the entrance.

The setup consisted of a wireless camera positioned on a stool

November Meeting: To be announced

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We acknowledge the following for their support

Marshall & Stevens
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Minutes of the September Meeting

By Doug Mullis, Secretary, Tampa PC Users Group
dmullis@tampabay.rr.com

Vice President John Witmer started our meeting at about 6:55 pm. We did not have the usual SIG portion of our meeting as we were setting up our new location, including a wireless closed circuit monitor at the front door.

John described the Pepin layout and where the restrooms and break room are. We plan a tour at our next meeting as construction is still in progress. We expressed our appreciation to Pepin for the fine facilities with a heartfelt round of applause.

John Witmer introduced our presenters for the evening, Phil Owens and Dave Bove of Sunbelt Software with US offices in Clearwater, Florida. Their parent company is France-based Sunbelt International Group, a leading provider of enterprise system infrastructure software, including anti-spyware, security, anti-spam and systems management tools.

Phil started with, "Tonight we are going to talk about spyware" and then asked ,"Is your computer spying on you?" If your computer is slowing down, crashes frequently, you're getting more popups when you go from site to site and you suddenly have a new browser home page, then you're probably suffering from spyware. Spyware is installed for commercial gain and to learn your interests.

To protect yourself, you first need a good firewall. Zone Alarm and Microsoft SP 2 were recommended. Next you need to install reputable anti-spyware. Sunbelt offers Counter Spy for detecting and eliminating spyware at a modest price of $19.95 for the first year and then for $9.00 a year you can keep it current. You can install multiple anti-spyware programs if

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New Trends in PCs

By Merle Nicholson, Tampa PC Users Group
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The latest kinds of PCs aren't made by HP and Dell. If you want to really find out what's going on you can look at Alienware and VoodooPC, smaller computer makers that do direct internet sales. Here's what's going on in the PC industry. All I describe is commonly available, but just not necessarily mainstream.

Dual-Core Processors: Both AMD and Intel are producing CPUs with two processors. Intel's workstation CPUs are not available yet, but will be soon. I'm much more familiar with the AMD product, but suffice it to say that Intel's claims are just as emphatic as AMD's that their design is best. Of course, you can go to various - usually gamers' - websites and read extensive performance comparison tests. The gamers tend toward the AMD products because they are fairly easy to "overclock" - that is, run at higher speeds than they were designed for. The ultimate gamers' CPUs, however, seem to be the AMD 64 FX single core CPUs. There are two available; the most powerful (FX57) runs at 2.8GHz, has 2x64 and 1x1MB cache at $1,100 or so, including just CPU and fan. Games are rarely multi-tasking just yet, and gamers tend to do only one thing at a time.

Dual-Core processors seem mostly to have an advantage in multi-tasking environments where other things are going on in the background. You know how it is. You get something started on the computer and then just relax and fold your hands because trying to do anything else is useless or will even jeopardize your project. With dual processors, well, you have another processor! Go ahead, do more stuff. AMD's processor is called Athlon 64 X2 Dual-Core, and ranges in performance ratings from 3800+ to 4800+. The prices range from about $430 to $1100. That's processor and fan only. Intel's prices are supposed to be lower when they're available. Offsetting some of the processor cost for AMD is built-in support for common and cheaper DDR 400 memory. The on-chip memory cache on X2 processors is very large. L1 Cache on some models is 128KB, L2 is

1MB, but then multiply those times two!

PCI-E (PCI Express): This is a new version of PCI device expansion slots that greatly improves on the standard old PCI expansion slots. They come in flavors of PCI-E x1, PCI-E x2, PCI-E x4, PCI-E x8, and PCI-E x16, with bandwidths of 512MB/s to 8GB/s. The PCI-E x16 is used for video cards and is now common enough that the price differential over AGP is negligible. This interface provides 3-1/2 to 4 times the speed of AGP. In addition to that, many boards have SLI support that takes two PCI-E x16 slots for two video cards sharing the graphics load at a ludicrous graphics speed. So this is the latest in fast 3D video. ATI and NVIDIA are the major players here so far. Many of the GPU (Graphics Processors) on these cards are overclocked, so all of them have fans and large fan shrouds on the card. You should research these thoroughly to make sure the fan noise is acceptable. Some expensive notebooks are using PCI Express graphics. There are a few add-on cards, drive controllers, network interface cards and firewire cards using PCI Express.

Serial ATA (SATA I & II): This is a method of connecting hard drives to your system. The past method (now called PATA-Parallel ATA) is limited to 133Gb/s burst rate. This is the highest momentary burst it will take and in reality is not achieved very often. The sustained rate is more important, but the burst rate is an indication of the ultimate transfer rate. SATA-I will do 150Gb/s, comparable to SCSI, and the SATA-II specification provides for 300Gb/s. Many older PATA systems are 33Gb/s and 66 and 100 are most common.

SATA drives are common enough now that there is little or no price differential. They are physically distinguished by the small diameter red data cable that replaces the wide flat cable. Most new ones also use a different power cable. Many SATA drives on the market are just PATA drives with some conversion interface to SATA built in. One indication of that is that many will also have a 4-pin power connector. The best drives are those designed as SATA from the start. The most famous and the oldest is the Western Digital 36GB, 10,000RPM Raptor, but its newer 74GB counterpart is the fastest of all SATA drives. They're both relatively expensive on a dollar per byte basis.

(Trends..........Continued from page 3)

Maxtor has two new drives designed from the ground up, called MaxLine III, in 250 and 300GB, 7200RPM, but with 16MB cache. They have NCQ (Native Command Queuing) capability. And Hitachi is doing new things using SATA-II.

NCQ: Native Command Queuing is simply the capability of a disk storage system to re-order each request for efficiency, instead of supplying data in the order requested. The idea is to minimize the disk head movement, saving time. In a single-user, single-threaded environment, NCQ doesn't supply too much advantage because the requests for data are mostly sequential. But with servers – and multiple core processors, there's a very real advantage. The hard drive controller must be designed for NCQ as well, and so far that's harder to find. Look for NVIDIA motherboard chipsets using RAID that may have support for NCQ. Also some hard drive controller cards have it.

RAID: RAID has been around in the SCSI world forever, nothing new here. But RAID has finally made it mainstream because of the availability of SATA on common motherboards. So you can expect many new motherboards to have SATA RAID support in RAID configurations of 0-Striping, 1-Mirroring, 0+1-Striping+Mirroring and JOBD (Just a bunch of disks). Some new motherboards provide RAID support for PATA.

For pure speed, RAID 0 is used with two new identical hard drives. The two drives become one logical drive, and the files (and the load) are divided between the two. It's very fast. RAID 1 mirrors all the data on one to the other also, providing redundancy. And that's not fast – or slow for that matter. But for pure speed, RAID 0 uses two separate cables and doubles the bandwidth to the drives.

Dual Channel Architecture Memory: This speeds up data flow in and out of memory. The motherboard will have two independent channels to memory in hardware. This is the format of NVIDIA's nForce chipsets for AMD Athlon XP systems and Intel's i850E, where each memory bank has its own memory channel and an arbiter distributes the load between them and plays traffic cop for incoming

data. You must have two compatible (identical) memory sticks. It's best to buy them packaged as a pair. The memory controller recognizes them on boot-up.

Motherboards: There are a surprising number of motherboard manufacturers that are trying to supply the needs of hobbyists and of computer companies like Alienware and VoodooPC. Many appeal to gamers, who apparently are willing to spend the extra to have leading-edge fast computers. There are four or five chipset makers for these; ATI and NVIDIA seem to have gotten the jump on everyone. VIA and SIS are there too. ATI and NVIDIA are of interest to gamers because they're familiar with the brands through their leading-edge video cards, and the hope that some compatibility will exist between the motherboard and video card. So the things to look for are the subjects in this article: Dual-Core, SATA, NCQ, RAID, PCI-E and SLI.

Cooling Systems: The new larger processors do generate more heat. AMD and Intel both are developing manufacturing methods to reduce the thickness of the wafer (the new ones are 90 nanometers), which reduces heat requirements. And you may have noticed that notebooks get special attention with slower processors (less computing power) and sophisticated CPU speed controls.

The idea in cooling systems is three-fold. One, it's a good goal to reduce the fan noise as much as possible; two, some people overclock their systems to the point where ordinary fans can't keep up with the increased heat and risk burnout; three, it's neat and clever.

The high capacity cooling systems center around liquid cooling, where, in the places you would have fans and/or heat sinks, you mount a "water block" - just a little box the right size clamped down with two pipes to attach plumbing. They don't really use water but instead use some kind of coolant whose heat retention properties exceed that of water. In any case, these water blocks are interconnected with plastic pipes and finally wind up connected to some radiator device that also contains a pump.

(Trends……….Continued from page 4)

The radiators are mostly external to the PC. Not all though. One mounts inside, where the normal air exhaust fan would be. Most radiators have a large diameter fan that moves slowly with as little noise as possible. And, of course, it can get more sophisticated, with temperature controls, readouts and variable fan speeds, depending on how much cooling is actually required.

There are other things in the cooling arena. The most interesting is CPU cooling, where the radiator can be of immense size, accommodating a large slower-moving fan. Also of interest is the use of "heat pipes," which are liquid-filled metal piping that moves the heat out to larger-finned radiator devices. These work well and are in the neighborhood of $50-$70. There are case fans designed to be quieter.

Building your own system: You need to do quite a bit of research. Start with the processor and then the motherboard to support it, then look at the features you want on the motherboard. Then go to the motherboard website and research the compatibility lists. You'll want to select the video cards and memory from their approved compatibility lists. They're available on the manufacturers' websites. Mostly. If you deviate, there's some risk that it won't work, or worse yet, have problems where you can't identify the source.

The major manufacturers maintain extensive documentation, FAQs, and even model-specific forums for users to exchange information. ◆

Internet Picture of the Month

Other Evacuees from New Orleans
Photo by Susan Poag

From page B4 of the September 30, 2005, New Orleans *Times-Picayune's* online version at http://www.nola.com/.   If you are interested in the story of the "Big Flood," then go there and read all the archived editions of the paper. The story is far from over, and many of the articles are quite detailed with good photographs.

October's Interesting World Wide Web Locations

Tampa PC Users Group (That's us)   http://www.tpcug.org/
RDI @ TampaBay, Inc. - Our Presenter   http://morevalu.net/
Newseum - Interactive Museum of News   http://www.newseum.org/
Polk County Historical Association   http://www.polkha.org/
Verizon Online Speed Test   http://infospeed.verizon.net/speedtest/speedtest750k.asp
Net Stumbler - Wi-Fi information   http://www.netstumbler.com/
I, Cringely PBS   http://www.pbs.org/cringely/

Some of these links will join the many already on the Links page at our web site, where you need only click on the name.

near the entrance. It was provided electricity by plug-
ging its transformer into a nearby outlet.   However, it
could also have been run off batteries. The base sta-
tion was connected to my laptop by a short USB ca-
ble. I emphasize short USB cable since at home I had
tried to use a USB extension cable to move the base
station to a location further from my laptop, but I lost
the camera's image. I know there is a limit on how
long USB cables can be, so perhaps this was past the
distance for this particular application. Anyway, eve-
rything worked fine with the USB cable provided by
Motorola. The base unit and wireless camera are pic-
tured on the right. The base station looks a lot like a
cable modem.

To set things up, you first install the monitoring soft-
ware and USB driver. You then connect the base sta-
tion to your computer. Finally, you activate your re-
mote camera. The camera has an infrared motion sen-
sor that you can set to save the current color image to
a file.   This feature can be adjusted so that it will then
wait a specified number of seconds before a motion
will again cause it to save an image. One limitation I
found is that the motion sensor will not work through
glass due to its being infrared. However, at any time
while you are monitoring the action, you can click the
mouse on a button to save the current image. Suppos-
edly, you can also capture short color videos with
sound, but I haven't tried that. Another yet untested
feature is an email notification of an event, which, of
course, requires that your computer be connected to
the Internet and be able to connect to your email
server.

What I purchased from CompUSA was called the
Motorola Easy Start Kit Home Monitoring and Con-
trol System, Model HMEZ1000, consisting of the
base station and one wireless camera for $149. The
system supports up to six wireless cameras, three
wired cameras and eight sensors (wireless door/
window, wireless temperature and wireless water).

Now to the odd thing about all this - it is not easy to
purchase the starter kit or an additional wireless cam-
era, which I think I might want. There is no longer
any in the two local CompUSA stores I use, Ama-
zon.com has only one available, and so on. Possibly

this is because they have a new version out, the
HMEZ2000. And the prices really vary - all well in
excess of $200 when I paid only $149.

Speaking of new versions, I went to the Motorola site
and downloaded a new version of the software, which
is nicer and I think is really the software that ships
with the newer hardware since the software is now
called Motorola Homesight software.

The Motolola site for all of this is
http://broadband.motorola.com/consumers/
home_monitoring.asp.

For those of you who want a standalone wireless cam-
era and are not interested in all the monitoring stuff,
you can purchase just a camera that has its own server
and will appear as another object on your wireless net-
work with its own IP address and which can then be
accessed via a browser. Linksys makes one for $180,
and there are other brands for around $100.

Network Stumbler In setting up the above wireless
home monitoring, you need to know what wireless
channel your home wireless network is operating on.
There are 12 channels, 1 - 12. However, I believe that
for wireless-g there are actually only three that don't

Special Interest Groups

Microsoft Access SIG

This SIG meets the **first Tuesday** of the month at 6:30 PM. The meeting location varies. For information contact William LaMartin at *lamartin@tampabay.rr.com,* or Merle Nicholson at *merlenic@tampabay.rr.com.*

Digital Imaging SIG

This SIG meets the **fourth Monday** of the month at Pepin Distributors at 6:30 PM. For information contact Mary Sheridan at *mcpease@mindspring.com.*

Visual Basic for Applications SIG

This SIG meets the **third Wednesday** of the month at 6:30 PM. The meeting location varies. For information contact William LaMartin at *lamartin@tampabay.rr.com.*

Windows SIG

This SIG occupies the first 30 minutes of our monthly, regular meeting and is devoted to a general Windows and computing discussion. Mary Sheridan moderates the discussion.

(Comments..........Continued from page 6)

overlap: 1, 6 and 11. You can get that information from the configuration setup for your wireless router, or you can download the shareware program, Network Stumbler, that will tell you about all the wireless networks available. Once you know the channel your wireless network is using (6 is the default for most home routers), then you can put this into the configuration of the Motorola Home Monitoring setup and it will choose a different channel for itself. I had to use this program to find out what channel was being used at Pepin. You may obtain the program from http://www.netstumbler.com/.

The image below right is what Network Stumbler is currently showing for the wireless networks available near my home. I have selected the Encryption On filter (none are broadcasting without encryption). As you can see, there are three wireless networks available--one mine and the two others apparently from neighbors.

There is also a Pocket PC version of Net Stumbler that you can download for your mobile device.

I will have the Motorola Home Monitoring camera at the next meeting if you missed seeing it last meeting. ◆

Household Chemical & Electronics Collection

Saturday, Oct 29, 2005, 9AM to 2PM

City of Tampa Solid Waste Department
4010 West Spruce Street

Only Residential Waste will be accepted

Chemicals, paints and solvents, automotive products, household cleaners, pool chemicals, mercury thermometers, fluorescent bulbs, lawn and garden supplies and electronics, including computer equipment, televisions and VCRs. Call the City of Tampa Solid Waste Department at (813) 348-1111 for more information.
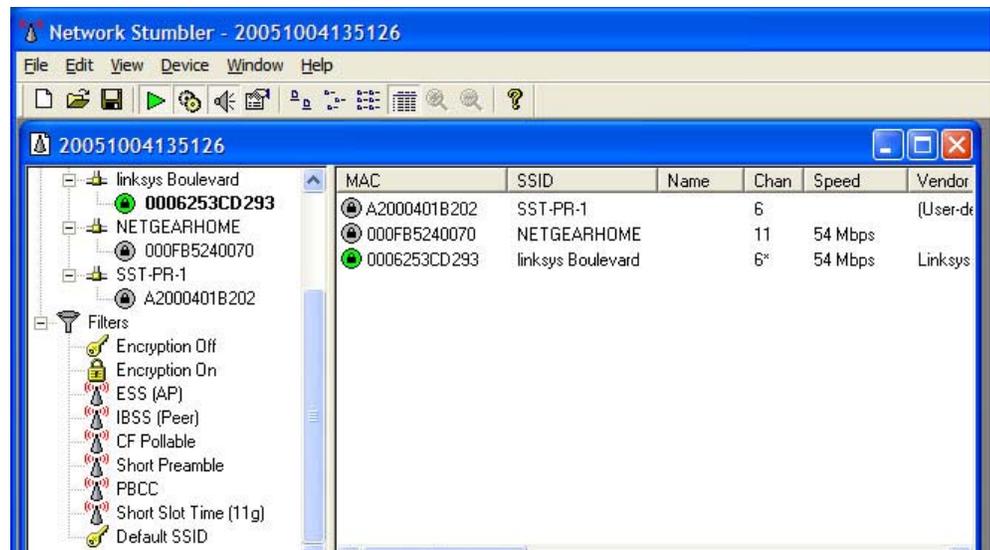
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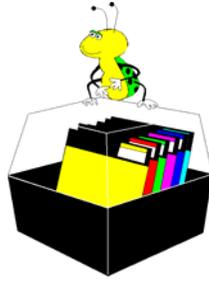
☐ *Member: Your membership is up for renewal*
☐ *Vendor: Your product was reviewed on page ___*

(Minutes………Continued from page 2)

you wish in the hope that what one misses, another will detect.

Phil and Dave told of their many successes in dealing with spyware installers and answered many questions on how they develop and keep their anti-spyware effective. They suggest you read EULA's closely when you install any "free" software. We were also invited to visit http://www.sunbeltblog.com for some interesting reading.

Sunbelt Software donated three copies of Counter Spy as door prizes. After a short break, numbers were drawn for the prizes. The lucky winners were Linda Neal, Kevan Sheridan and Bruce Register.

The meeting concluded about 8:45pm. ◆

to I-275

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56th Street

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4121 N 50th Street

Harney Road

I-4

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