



Bits of Blue



November in Tampa

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

Vol. 11 No. 11

November 1998

Meeting

BCD Computers

November 11, 1998
6:00 PM
Museum of Science
and Industry
4801 E Fowler Ave.

Meeting Preview: At the November meeting, Robert Armstrong from BCD, a local computer store, will be doing the presentation. He will demonstrate the latest in hardware. Come out and see what to put on your Christmas wish list. Mary Sheridan, as usual, will conduct a 30 minute Windows discussion at the beginning of the meeting. Come and bring your questions.

Cheap Computers, Cookies & Internet Banking

By William LaMartin, Editor, Tampa PC Users Group

Assembling your own Machine

In this issue of the newsletter Ford Bond and Brian Lantz write about their experiences building a computer from scratch. In Ford's case he put together his machine from mostly spare parts along with the WinChip and motherboard supplied to members of our group by IDT/Centaur. Brian it appears is using mostly new components. His articles (this is the second of three) are more general in that they provide details of things you might encounter in any PC assembly and not just the particular one he is describing. But if assembling your computer yourself is not your thing, read on.

Cheap Computers

Those computer prices just keep going down, and the power of the stuff inside them just keeps going up. Last week my sister ordered a Gateway 350 configured as follows for \$1698 plus tax and shipping.

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December 9: El Shaddai Edwards from Jasc Software (Paint Shop Pro)

January 13: Rod Stebbins—how to run a home based business with the help of a computer and the Internet.

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However, for business concerning this newsletter, Bits of Blue, please contact the Editor, William LaMartin, at 821 S. Boulevard, Tampa, FL 33606-2904; 813-251-3817; lamartin@ix.netcom.com.

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All advertisements must be prepaid by check payable to TPCUG, be in camera ready format (actual size, black ink on white paper), and be submitted on or before the 20th of the month preceding the month of publication. Commercial advertising is usually limited to 25% of the total space of an issue. The Editor reserves the right to hold ads if the total space for ads exceeds this limit or if they are not received on time.

Members may insert non-commercial ads at no charge with the following limitations: no more than 4 ads per member per year; no more than 40 words (240 bytes including spaces); must be camera ready copy or an ASCII file on diskette or as an attachment to an email message to the Editor. Those wishing to place ads are to contact the Editor, William LaMartin, at (813) 251-3817 for space availability and for further information.



President's Message

By Merle Nicholson, President, Tampa PC users Group

Last reminder, everyone. The election of officers is close at hand. Won't you step up and volunteer for a job? Contact Bruce Register at bregis@gte.net.

Talk to any officer about this. Find out what the jobs entail. Come to a board meeting to look it over and see if there's anything of interest for you.

Do you know anyone who'd like to come to a meeting to look our club over? You're a member, so you believe the club is worthwhile, and if you know anyone, friend, neighbor, spouse or family, invite them and help the club grow.

Our Visual Basic SIG is going just great. The interest in the group is as strong as ever. There is room for a few more, so if you'd like to look it over to see what we're doing, send me an email; I'll send the meeting times and a reminder to you.

You may be thinking of Christmas presents to yourself. I've been using my scanner to reproduce photos quite a lot. We've also been creating our own greeting cards and placing family photos on them. The results are just spectacular. If you're thinking of getting a scanner, you couldn't pick a better time, price-wise. Look for a SCSI or USB model if you can afford the \$50 higher cost. Also, as I found out the hard way, it takes a pretty decent PC with plenty of memory. I'm thinking of increasing mine to 128MB, when I can get some loose money. 32MB was inadequate, so I upgraded to 64MB when I built my current PC. When I pull up a large photo scanned at 600x600, my PC does the job, but very, very slowly.

A true photo-quality printer is still a \$300 item, although if you are willing to accept somewhat reduced quality, you can save quite a lot. Look at the current PC magazine for a complete review of printers. Hewlett-Packard and Epson are still the front runners in inkjet models. They also give the Alps printer good marks.

Thanks. See you on the 11th. ♦

Minutes of the October Meeting

There were no minutes available at press time for the October meeting. ♦

Building a Computer with the WinChip CPU

*By Ford Bond, MOSI Liaison,
Tampa PC Users Group*

“Sure I have the parts. I can build a computer with spare parts”.

Wishful, but, after all, with 15 years of computers and 10 years of upgrading computers, I have boxes of parts. XT parts, 286 parts, 386's, 486's, 586's, Pentiums, etc. There is one box dedicated to abandoned motherboards, another to hard drives. What do I do with an XT hard drive? Well, so much for organization; the other boxes are a jumble of parts. Tens of thousands of dollars invested in parts that are now rendered obsolete. Passed by with cheaper parts and faster parts and tens of thousands of dollars of newer parts. I cringe when I think how much that obsolete memory cost.

Oh well, now is not the time to bemoan the cost of my addictions, but to create a computer. The problem is the word abandoned. Why did I abandon this part or that? They may be dusty, but they look good. Only a few still smell smoky. After all, I now remember which way the cable goes. Why did I put all the parts, including those which were fried, broken and otherwise inoperable into the same boxes. I could have put notes on them even if I couldn't bear to throw them away. That would be like giving up on children. There must be some future value to these parts. I couldn't throw them away, not yet anyway. No, not I. Nevertheless, such nostalgia is not getting the computer built.

Oh well, time to assemble parts. I have a motherboard and a WinChip. Great start, but it will only fit into the cases I have with a hammer and drill. Off to the store and \$90 dollars for a new case. Oops, I think I better look further. After much searching Jim at MB's says “We have one for \$39.”

Great! Now for memory; after some looking through the boxes I have two matched 8MB SIMMs, two unmatched 8MB SIMMs and two 4MB SIMMs. If I put the unmatched SIMMs away, I have 24MB. Things are going better. There was reason to keep parts. Small ones anyway; maybe the cases are going to have to go. I'll think about that tomorrow.

Video cards. OK, what's that funny slot? Looks like a PCI turned backwards. AG what? Oh! AGP? Now I remember, had one in the Pentium II I built last year. Last year when they were \$150. I can hear the sucking sound now. Wonder what they cost now. Oh boy, I can get one for \$35 and that includes video out, as well. Now I can bemoan the cost of TruVision and Matrox cards that cost thousands of dollars just to get video out. They now sit lonely and abandoned on

shelves in boxes (out of reverence to their cost) because they didn't like the new chipsets. Maybe one of these days I will rebuild a 386 so that they will work again.

Sound card. Shuffle through the boxes again, and here is a sound blaster and another and another. OK which one of them works? Where oh where have the drivers gone? So many thousands of disks; so little time. OK, drivers located and boards working. Why are they all working? Dim memory says that they worked but were a problem to configure. There must have been some reason for abandoning them. Could it be one set of drivers for three boards? Mysteries will never cease. Chalk it up to middle age dyslexia or early signs of senility.

Hard drives. Now which one shall I choose? Here I have a great selection: MFMs, SCSIs, IGI's— no, that's genealogy IDEs? Finally, there are two 1.2 GB IDE that look good. Wonder why they are here? I'll check them out later.

The pile of parts is getting bigger. Is everything here? Time to check it out: case, motherboard, CPU, memory, storage, sound card, and hard drive. Oops, where is the CD, and how can I boot without a floppy drive? Back to the storeroom. Found the 3-1/2 drive and CD but no drivers. Well thank goodness for the Internet. Some time passes, and futile search follows futile search. Why do they make it so hard to find drivers? Is it really a conspiracy to get one to buy new parts rather than find drivers for older CD's? There are drivers for 12X's and up but no drivers for my poor little 8X drive. I guess it will remain lonely and abandoned. Back to the shelf and back to the store where I find that CD's are now only \$35 for a 24X. Whoop de do. Why did I spend so much time on the Internet; this is easier than finding a driver.

Back to the pile of parts. Now there are enough parts, and it's time to check out the motherboard and CPU. Experience tells me that rather than put it together and turn on the power, it's time to read the manual. At least when no one is looking I can read the manual. Chip in place. Time to check the jumpers. Where is the magnifying glass? Bus settings OK. CPU multiplier setting's OK; CMOS, OK; CPU voltage OK, SIMMS voltage is set for 5 volts instead of 3.3 volt. Back to the manual. No explanation of SIMMS voltage. OK, call a teckie. SIMMS voltages usually have a default setting of 3.3 volts. So I change the voltage setting. Now that the board setup is confirmed, it's time to put the parts together and turn it on.

Screen comes on, video card checks out. Memory checks out. Hit the delete button for setup. On to BIOS. Hmm, let's check out the hard drive with IDE detection. Oh well, nothing is there. Try another hard drive and repeat process. Success!! Second hard drive checks out OK. BIOS features OK. Turn off power management (personal thing). Save settings. We're

(WinChip.....Continued on page 5)

MicroLogic's DiskMapper Version 2

By Don Patzsch, Tampa PC Users Group

Here is a real neat program. It comes on a single 3.5 inch disk. It is very simple to install, but it has many advantages. The one I like most is that the screen that resembles Windows Explorer has the size of the folder or the file right after the entry.

For example, C:\folder 900MB. Just below that is Windows 240MB Program Files 175MB and so on; each folder is listed and followed by the number of bytes or MB's it contains. After the folders come the files, again listed by the number of bytes in each entry. See the graphic below to get the view of the screen.

This sounds innocent at first, but think for a minute. If you had a listing of all the folders and files on your C: drive, starting at the top with the largest entry, you could quickly see where you could go to remove some unused or seldom used folders or files and thereby get that space you need for the latest and greatest program you want to add.

Now click on Windows and then FONTS and notice that your fonts are all listed with the largest entry first. You can run down and see all the fonts that your computer is loaded with, and right here you can save a lot of space by removing a few dozen fonts you never use. My FONTS folder has 21.1MB of FONTS and I use maybe four or five. This DiskMapper feature is worth having.

If you want to see the files you have installed but never used, simply click on "Never Used After Creation". The files or folders you have installed but never used are then highlighted. You can get an idea of how they are spread out on the disk representation, and also you can get an idea of how many such entries are on your hard disk.

Put the mouse cursor on any file and get a description of the file, its size, the date you entered it and the quantity at the bottom of the screen. Double click on the file, and it will come up in a viewer, your browser or a text editor, or whatever you have set up.

When DiskMapper comes up, the view (like Explorer) that you see

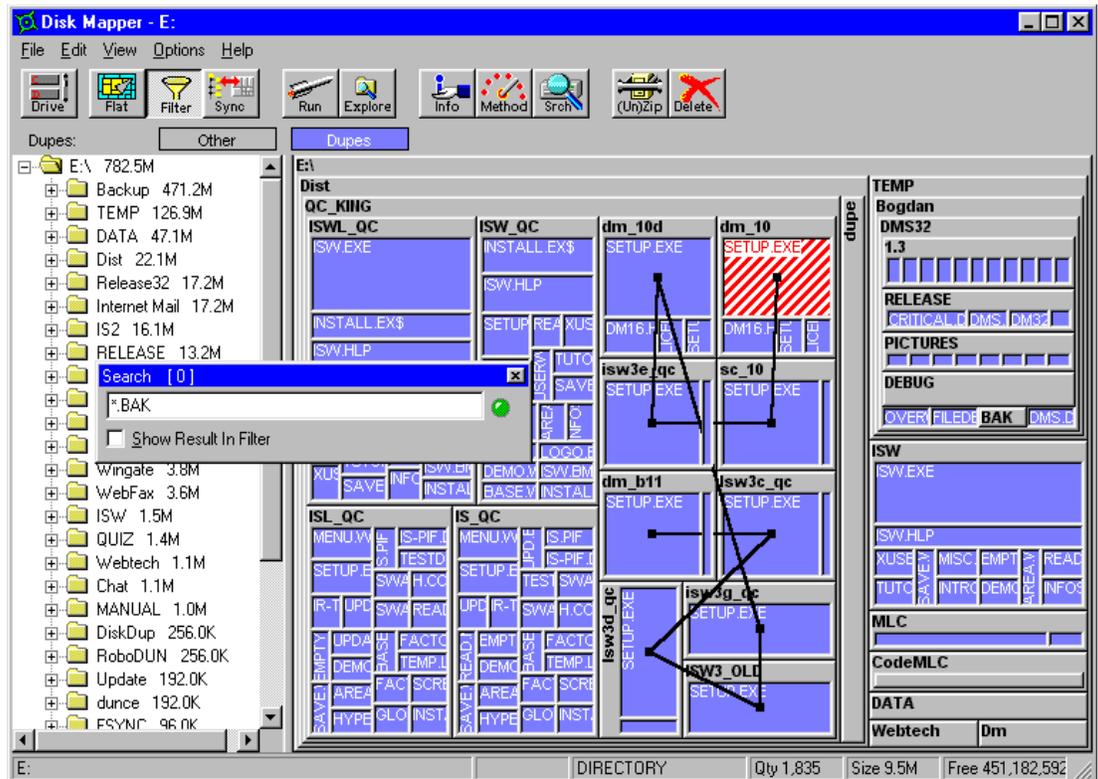
is a color coded map. On the left is the familiar folder and file list similar to Explorer, on the right is a map consisting of rectangles; the size of each represents the relative size of the file or folder. You can easily see where the large files that take up the bulk of your disk space are.

If you bring up Windows Explorer, you can right click on any folder and access DiskMapper by clicking on DiskMapper. You can find duplicate files by simply clicking on the Duplicate File button. The duplicate files show up in colors on the graphic side of the DiskMapper screen. Click on one file and a line forms to the duplicate file. You can then easily see where they are located on the hard disk. Look at the black connecting lines on the graphic to see this.

In a similar fashion you can see all the .GIF (or any other extension) files on the graphic representation by clicking on the ext button. This is really a neat representation.

A special feature for users of Office 97 helps you see how much space Office 97 consumes and shows you which files are optional. You'll see how much space Office 97 takes up and see files classified into four types.

DiskMapper by Micro-Logic, \$49.95 list price. <http://www.miclog.com>. Recommended. Street price will be much lower, I believe. ◆



(WinChip.....Continued from page 3)

on our way. Let's see what 95 does. Time to reboot and re-boot and reboot. Isn't 95 fun? Finally, 95 is happy with the computer. Nuf work for the day.

Back in the salt mines it's now time to try again. Power on. The screen is black. Where's the video? Last thing I need is a hardware failure? Pull the AGP card and plug in a new video card. Thankfully, a PCI video card was lurking in the stack of spare parts, proud to show that it worked when a new fangled AGP Card didn't. Now the video works. Back to the computer store. Hope it's still under warranty. Looks like it's time to replace the video card. Thankfully, it doesn't work on their computer either and they replace the board. Once again I fulfill my role as quality control for the import market. Back to the motherboard (drawing board or future). Plug in the video card and every thing works including Windows95.

That was too easy. The hard drive already had Windows95 installed and some people had problems loading Windows95. OK, now, let's start over and load Windows95 from the beginning. Let's make sure that we have all the software, drivers and tools. First create a boot disk in Windows Explorer. Next, copy FDISK.exe, Format.com, Edit.com, edit.hlp, mscdex.exe, sys.com, autoexec.bat, and config.sys files to this floppy disk. Edit the autoexec.bat and config.sys files so that the CD ROM Drivers are directed to the A:\ drive. Make sure we have a Windows95 disk, CD ROM Drivers and boot disk. Now we are ready to start. Boot the computer. Now there are two choices: 1. Boot as normal and begin pressing the F8 key until you are given the choice of ways to start the computer, then choose command prompt; or, alternately, 2. Boot from the floppy. From the a:\ prompt, type FDISK. Choose "delete

(WinChip.....Continued on page 6)

Internet picture of the month



Space Shuttle Discovery lifts off successfully

From NASA's Space Shuttle site, <http://shuttle.nasa.gov/demos/>, where you can track the current shuttle, read about the shuttle, and, as we did, view photos of the current mission.

November's Interesting World Wide Web Locations

| | |
|--|---|
| Tampa PC Users Group (that's us) | http://www.tpcug.org/ |
| Newsweek.com | http://www.newsweek.com/ |
| iDOT.com - Buy computers over the web | http://www.idot.com/ |
| WK's Midi Collection - The One Stop Pop Rock MIDI | http://ue3.ee.nus.edu.sg/midi.html |
| AltaVista Translations - translate any text | http://babelfish.altavista.digital.com/cgi-bin/translate |
| Armchair Millionaire Tax Center | http://www.armchairmillionaire.com/tax/ |
| Quicken.com Tax Estimator | http://www.intuit.com/turbotax/taxcenter/estimator/start.htm |
| ONSALE - online auctions | http://www.onsale.com/ |
| Internet Movie Database - more than 160,000 titles | http://www.imdb.com/ |
| SlashdotNews for Nerds. Stuff that Matters. | http://www.slashdot.org/ |
| Gamelan - The Official Java Directory | http://www.gamelan.com/ |



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.



Vinnie Barber of ALPS Printers giving the presentation at the September Meeting

(WinChip.....Continued from page 5)

partitions” and wipe out the existing partitions. Reboot the computer with the floppy and type FDISK again; now, go to the command “create a new DOS partition” and create a new dos primary partition. Next, format the hard drive, remembering not to put a system on the hard drive or the OEM Windows95 will not load. Reload the CD ROM drivers. Start Windows95.

After reloading Windows95, everything seems OK. Computer is spunky and has not crashed. Install clean and easy. Only glitch was the SIMMs voltage jumpers and it would have worked either way. Hardest thing was to find parts that worked and the appropriate drivers for them. As a bonus, now the parts are better organized, and best of all the computer works smoothly. Now to load Office 97 and test the program. Oops, Windows Office 97 is an upgrade and will not install. Time to find the Office 95 disks. As usual, Microsoft is providing entertainment and pain in installing programs.

Programs load smoothly. Time to run benchmarks. Then I can test my patience by putting both a network card and a modem in the computer. Finally, I will turn it over to Bambi and James to see if they can confuse it.

That it set up simply is a tribute to the WinChip CPU and the Trinity ATX with AGP motherboard by Tyan. Having worked with Tyan boards in the past, this was not a surprise. It is pleasant that the CPU followed suit. Once the parts were

assembled and tested, this combination of chip and motherboard has been the easiest to set up in the last 100 plus computers I have built or supervised building. Also, a tribute to all those spare parts which contributed to the project, well sort of. Spare parts and \$100 plus motherboard and CPU isn't bad for a 200 MHz computer. Using current wholesale prices the computer could be built for under \$400 plus software. Probably cost more in time to find and check out all the spare parts but it does appeal to my Scottish ancestors, or were they my wife's ancestors. Have to load the genealogy program and check it out. ♦

(Comments.....Continued from page 1)

Intel 350MHz Pentium® II Processor w/ 512K Cache
 64MB 100MHZ SDRAM expandable to 256MB
 EV700 (17inch Monitor, 15.9inch viewable area)
 Integrated nVidia 8MB AGP Graphics Accelerator
 10.0GB Ultra ATA hard drive
 DVD II ROM Drive & 3.5" Diskette Drive
 Integrated Sound Blaster AudioPCI 64D
 Boston Acoustics BA635 Speakers
 U.S. Robotics 56K Voice Winmodem
 Micro-Tower Case
 Multi-function Keyboard & MS IntelliMouse
 McAfee Anti-Virus Software
 Microsoft Windows 98 & Microsoft Office97 Small Business Edition and Quicken Basic 98
 Gateway GoldSM Service for PCs

Actually, she exchanged the 17" monitor for a 15" one due to space limitations on her desktop, and, per my suggestion, upgraded the Winmodem to a standard modem. I think the final price with tax and shipping was a little over \$1,800. And if one is willing to forgo some of the above features like the large hard drive, the large monitor, the DVD instead of a CD, 32 MB RAM instead of 64 MB, you can get the price down closer to \$1,200 without tax and shipping. Sales tax is one of the drawbacks with Gateway for Florida residents. Local stores mean sales tax on ordered items. Quite possibly if you buy from Dell or Micron you will not have to pay a sales tax.

As we all know from the ads in the newspaper, computers well below \$1,000 are out there--and from name brand companies. So why spend \$1,800 when \$999 will get you a better computer than you could have bought a couple of years back? I suppose the main reason is that one wants the features of the more expensive computer--but not the much more expensive one priced at close to \$3,000. And I recommend Gateway

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since they have served me so well in the past. I bought a Gateway 386 in 1991 for \$2,490 (no tax back then). I think it had a 125 MB hard drive and 4 MB RAM. The hard drive was eventually upgraded to 1.1 GB, and the memory to 16 MB--at prices of \$75/MB to \$45/MB. Boy how those memory prices have come down. Of course, the 386 had only a 14" monitor and no modem or sound card--both items purchased within a few months.

Then there was a no name 386 that we had which I upgraded to a 486 80 Mhz. I forget the price of all that. The next Gateway was bought in 1996 for \$3,347 including tax and shipping. It was a P-166 with 32 MB RAM and a 2.5 GB hard drive, 17" monitor, 28,800 modem, sound card & 12 speed CD, and Microsoft Office Professional. That is the computer I am using to write this on. I have added a second 5 plus MB hard drive, and I do need to get around to adding another 32 MB of RAM. It is interesting to compare my sister's computer above to this one. Two years and five months get you more computer for just over half the price.

There are, however, still some expensive computers out there if you want to buy on the bleeding edge. To thank our son for getting through college in record time, thus saving us many thousands of dollars in tuition and expenses, as a graduation present last June we gave him the best Gateway had to offer at the time. It was a system with a 450 MHz processor, 19" monitor, 128 MB RAM, 14 GB hard drive, etc. coming in just under \$4,000. I would never buy such a system for myself. I believe in dropping back at least one step from the bleeding edge machine, which, then, would probably have been around \$2,800. You pay a big premium to have the latest technology.

So, I have purchased three Gateways, and advised others to do the same when asked for a recommendation (which most of the time is not followed since they can not stand to wait the 10 - 14 days from placing the order to receiving the machine. They opt for the instant gratification gotten from going to CompUSA and purchasing a Compaq or HP off the shelf). I have done it because of my belief that Gateway gives good value for the price you pay--if you don't buy on the bleeding edge. Others feel the same about buying a Dell or a Micron.

When it comes to laptops, however, I started with and have remained with IBM. In laptops, I feel that the ability to get parts for or get the machine repaired is more important than the absolute lowest price. And IBM provides that; plus in the current 385 series there is a good cost to value ratio. I bought two ThinkPads (the less expensive versions) for my son while he was in college. And now that he is out earning his own living, he just purchased a new one for himself. Each time he gets a new one, he always passes along the old one to me. The latest one he purchased, a ThinkPad 385XD-LEU, features a 233MHz Intel Pentium Processor with MMX, a 12.1" TFT

Active Matrix Display, 32MB EDO memory, 3.2GB² Hard Drive 24X Max CD-ROM, and a 56K PCMCIA Modem with X-Jack Sound Blaster Pro-Stereo. That has more power than my current P-166 desktop, and it cost about \$1,000 less than did the P-166 in 1996. Perhaps he will tire of it soon and pass it on to me.

Grocery Shopping List Update

Last month I wrote about the grocery shopping list compiler I had created at <http://www.lamartin.com>. Recall that if you didn't shop at one of the four stores in South Tampa for which I had a walking order, your list of selections would have to be printed in alphabetical order. I mentioned that I would work on a method of allowing you to order by food category the store at which you usually shopped.

Well, I have now done that. If you now visit the site, at the bottom of the page where you select the items you wish to purchase, you will see an 18 x 18 matrix of radio buttons which allow you to indicate the order in which the 18 food categories appear in your particular store. For example: Produce, Dairy, Meat, Canned, etc. You only have to make the ordering once, since when you set the radio buttons for your ordering, select the order by food category option, then click the submit button, a cookie will be written to your hard drive storing this information. On a subsequent visit, the cookie will be read and the radio buttons will be set the way you selected them the previous visit.

Cookies

Some people fear cookies, and a lot of fuss is made over them in the media and by certain individuals. It is like they are some sort of invasion of privacy. I don't see it that way at all. They basically store information about the settings you use when you last visited a site, e. g., a user name and password necessary to visit the site, or certain preferences you have about the way the site displays information or what information it displays. This is all to the user's advantage.

Now, of course, if some devious programmer creates a site that asks you for your social security number, your credit card number, etc., and you are foolish enough to enter this information, then cookies don't even need to enter the picture for him to grab this information. I can think of nothing of importance that a cookie can record that you don't explicitly give it by entering information that is requested.

Internet Banking

You simply can't depend on banks to not hit you with a fee if they think they can get away with it. I am sure you have noticed all the ads this year touting **free** Internet banking to ac-

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The Do's and Don'ts of PC Assembly Part Two: Installation

By Brian Lance, Tampa PC Users Group

Before we throw it all into a box and hit the switch, let's review Part One of this article, which appeared in the September newsletter:

Bring your tools, hardware, software and miscellaneous items to a handy work surface. Familiarize yourself with the case and layout of the cards. A good example is an Enlight case (on a computer I recently built). The diagram shows arrows parallel to the case, so I pulled on it until I thought I was going to break something (hopefully, not a finger!). There are six little bud-like snap-onto connectors on the inside of the front panel, which was removed easily when I noticed there was a handle of sorts on the underside. Had I looked the case over a little more carefully, I could have avoided that scene. The rest of the case comes apart easily, and without tools. Lesson learned.

Some tips: Remember to always handle processors, memory modules and cards without touching pins or circuit traces. Check your cables and other parts for damage. Write down the model number and common name of your peripherals and cards. This will help when locating new drivers and updates. The FCC ID, which will appear on modems and other devices, may be useful as well.

Check your jumpers again and set according to the configuration you need. Definitely mark the location of ones you may have to change later in your manual. Some on-board devices (video, sound) may appear to disable themselves after installation of a like card, but if there is a conflict or the on-board device appears in Windows, you may need to manually disable it via jumpers.

If you don't have a grounding leash, touch a grounded metal surface on the case before you begin. This should drain any residual static charge. If you're worried about static building up due to carpeting (you should be!), get off the carpet, get a leash and come back here when you're done.

Now, let's start with the on-board components. Locate your memory DIMMs or SIMMs (Dual- and Single Memory Modules) and install them according to the directions in the manual. SIMMs have to be installed at a 45° angle and pushed to vertical to install. Note the direction that they will have to angle from. If the chips have to be pushed to the right, start installing the chips from the rightmost slot in that bank. DIMMs install straight down. Open the retaining clips so they are laid back from the slot, align the chip, push down evenly, and the clips will close automatically. Check all

memory to ensure proper contact.

I've noticed that certain motherboards advertise a maximum amount of RAM that can be installed. Say 1024MB. When looking in the manual, you might see a warning not to populate the board with both SIMMs and DIMMs, therefore making it impossible to attain the maximum memory. You can ask, "Why would I need a Gigabyte of memory?" You probably don't - yet. Memory will, in all likelihood, get cheaper per unit and the memory needs of applications will grow accordingly. How much memory was in a standard PC five years ago? The point is that if you do happen to need the advertised capacity, ask if can be reached without going against the manufacturer's recommendations. This is also true for bus or clock speeds - you can go past the recommendations, but you may not get support.

If your case has a removeable mounting plate, take it out of the case. Otherwise, your plate is part of the case and cannot be removed, so ignore references to the plate, substituting the case itself. Line up the motherboard with the plate, keeping in mind the card slots face the rear of the case. There should be at least four mounting holes that line up through both motherboard and plate. Note the location of these on the plate and set the motherboard aside. Find your standoffs. These may be little doohickeys with a hexagonal internally threaded head and a screw base or (the cheaper and much less desirable) tiny plastic christmas trees. Screw the standoffs into the plate. If these leave an uneven plane to put the motherboard onto, you may have to make do with one or more of the trees. These go into slots on the plate with a hole at one end and are to be pushed to the other end of the slot until they lock in place. The motherboard will then be secured to the standoffs by machine screws - and insulating rigs, if you have them. The trees will just push up through the motherboard and clip onto the holes.

Installing the CPU is a snap with a ZIF socket, which the Socket 7 CPUs are. Raise the lever on the side of the socket. Line up the corner of the CPU that is not square with pin 1 - this should be indicated on the chip as well as the socket. The CPU should drop right in. Slowly lower the lever (you may hear a squeak). That puppy is seated! The new Intel chips (Pentium II) are Slot 1 and install similar to a memory module.

Before you affix your heat sink (and possible fan), lay it on the CPU to see just how they will bond. This is usually done via a clip of some sort. Determine if you need anything special to help dissipate the heat, such as thermal grease or silicone. If so, apply this in a thin layer to the CPU and heat sink. The CPU and heat sink meet as flat planes, so if too much is applied, it may ooze out. This is not good. Go clean it up and continue. Now mate the heat sink with the CPU.

(PC Assembly.....Continued on page 9)

(PC Assembly.....Continued from page 8)

There's a good chance the first time will be problematic, and you may need an extra hand to help out. On Socket 7 systems, there will be little tabs the heat sink will latch onto.

Next, let's attach any onboard cables, such as IDE, floppy drive, sound, video and USB (Universal Serial Bus). If you have an ATX case with predefined panels (there will be several), choose the one you are going to use and screw this into the case. If it does not have the panels, decide whether to use ports behind the cards - which will block external access to that card - or knock-outs built into the case (recommended). For instance, the TX Pro motherboard in my Enlight with case has built-in sound and video. I used the video through a case knock-out until I bought a card to replace it. So there are now two video ports, but the onboard is disabled. If I had a 'knock-out pop-in', I'd remove the cable and port and plug the hole.

Note how many slots you have open and what type they are. Current systems may have a combination of ISA, PCI and AGP slots. The AGP slot is for an AGP video card only. Check to see if any of the cards have connectors that need cables attached. Sometimes the cables will prevent cards being adjacent to each other, so you will need some idea of what will go where. On a new system, you may have cabling from the modem or CD-ROM (to sound card), from a video card to a 3D accelerator or cards dedicated to I/O, such as a SCSI.

Next, install your storage (floppy drive, hard drive, Zip drive, CD-ROM, DVD, tape drive, etc...). These will all have bays designed for them, in 3.5" or 5.25" form factors, and will be outlined in the documentation for your case. Cases will vary, but most hard drives will be mounted internally, vs. the "external" bays for floppy drives. There should be four screw holes visible through the sides of the bay for each device. The sides of the bay are slotted and sometimes more holes are on the devices; these are to accommodate a wide variety of device/bay combinations. Make sure the external drives are mounted flush with the face of the case, or, for cases where the face covers the floppy (or Zip), just behind the case's face. All storage devices are designed to be mounted horizontally. Most can also be on edge (rolled 90 °) as well. The documentation I have here mentions that a hard drive should not be more than 5° off from horizontal, so don't put a phone book under one corner!

After a final check, put the plate with the motherboard into the case and secure it. Plug in the power connections from the power supply to the various components. If there is a separate plug by itself (not chained to another plug), use it for the CPU's fan. Most components, except for a 3.5" floppy, will use the larger 4-pin connector. The power for the motherboard is two separate plugs for a non-ATX power supply. These are white rectangles with 6 wires each. These snap onto the motherboard with the black wires in the middle. An ATX connector is one plug with two rows of ten.

Next time: Part Three: Everything Else. ♦



**President Merle Nicholson at the
September meeting**

(Comments.....Continued from page 7)

access your account information and transfer funds between accounts over the Internet. Now if you want to pay your bills via the Internet, then there would be a fee, but no fee for just looking at transactions. I jumped at the chance to Internet enable an account at Huntington and one at Nations. Well, as of December 1, Huntington says they will no longer provide the service free--even though, in my opinion, it saves them money over other ways I can use to get account information. However, they are still pushing it as a free service at their Internet site.

Should I simply move the Huntington Account to Nations to get the free service. I just might; however, I purchased 1000 computer checks from Quicken for this account. They would be no good at Nations, and I have only used a little over 100 of them. Additionally, once Nations sees that Huntington--and many other banks--are charging for Internet access, they will probably keep their Internet access free just long enough to snare people like me, then impose the fee. ♦

Special Interest Groups

Internet SIG

This SIG meets the first Monday of the month at 6 PM at the Reflectone Building, off West Waters Ave. You must sign up to get on the list and to get by security. Contact Mike Hodges at hodges@reflectone.com. For directions, see the map at our web site or contact Mike Hodges.

At last month's meeting, we discussed Active Server Pages at William LaMartin's site, lamartin.com.

Genealogy SIG

This SIG meets the second Monday of the month at 7:00 PM at the Museum of Science and Industry. Contact Jenny Lind Olin at 960-5723 or Ford Bond at 987-6309.

Last month the interest seemed to return to questions about

scanning and scanners. Ford demonstrated scanning a member's large photo of a family reunion. The second part of the demonstration was to cut and enlarge one person's face from the large photo. The discussion resulting from the demonstration was about the different features to look for when selecting a scanner.

Visual Basic SIG

This SIG meets the third Tuesday of the month, at the Gateway 2000 Store on North Dale Mabry (just south of Columbus Drive) at 6 PM. For information, contact Merle Nicholson at merlenic@tampabay.rr.com.

Last month we learned how to create a VB program to calculate fixed mortgage payments for a loan and display the portion of each month's payment that goes to principal and to interest and the remaining balance.

Fall FACUG Meeting

By Don Patzsch, Tampa PC Users Group

The Fall Florida Association of Computer User Groups (FACUG) meeting was held in West Palm Beach.

One of the things I noticed was that several of the User Groups have been giving real service to their communities. And they have found out that public schools cannot refuse to let them hold their meetings in the schools in Florida. Federal and state buildings are also open according to law. Several of the groups told of their experiences with school people.

We met in the Palm Beach Lakes High School Media Center. The West Palm Beach User Group met with the evening school principal and they talked about how the school could benefit from allowing the user group to meet there. After a while, both the principal and the user group became enthusiastic about the idea. At the present time, the school allows the group to set up auctions to make money for the group. These are held in the school cafeteria to provide enough room for the tables. Other rooms are available for SIGs. All this is free to the WPBUG, and no insurance has been required of the user group. The same is true for other groups in the FACUG.

Several User Groups have now purchased projectors, mostly by getting a grant. Another interesting thing that you notice is that both Mac groups and PC groups are represented in the FACUG meetings.

The Orlando group now has about 850 members and sends out 5,000 newsletters each month. Each group told a little of how their group is set up and what they do.

We broke into small groups and discussed a subject in each of the groups. The Internet is well known now, and so the discussion there became quite technical, each person describing how his group obtained an individual domain address. The fun comes in listening to the different ways in which each group goes about its objective.

We broke for lunch at a unique place. The cost of the meeting is \$8 per person and these folks made arrangements with a Chinese buffet, and we carpoled and went to the buffet which was included as part of the \$8 entrance fee! Carpooling and all of us having lunch in the same place allowed us to talk about other experiences besides those in the User Group meeting. This was one of the better FACUG Fall meetings as I see it. Of course there are prizes at the conclusion of the day.

Another thing that was brought up at the meeting was how to teach the elderly or "senior citizen". When people call me and say they are disgusted because the grandkids can use the computer but they can't and they don't have the money to take any courses, this is what I do. First, talk to them a little to ensure that they are rational and really want to learn. Then remind them that free training is available at ANY library. Just call and set up an appointment, and a volunteer will sit with

(FACUG.....Continued on page 12)

Friends of the User Group

We acknowledge the following firms for their support

Gateway 2000
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And these software and hardware vendors for their demonstrations and review software

| | |
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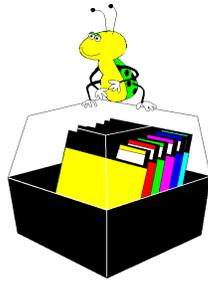
MEMBERS' HELP LINE

| Program | Code | Name | Time | Phone | Codes |
|---------------------------|---------|------------------|-------------------------------------|----------|---|
| Adobe Acrobat | AA | Larry Anders | Mon - Sun 6:00pm - 10:00pm | 989-9119 | AOL, ME, MW, FP, PSP |
| Alpha4 | A4 | | | | |
| AOL | AOL | Tom Cone | Mon - Sun 7:00pm - 9:00pm | 949-3716 | A4,VdB |
| Computer General | CG | | | | |
| Delphi | DE | Warren Fuss | 10am - 9:30pm | 949-6844 | CG, WNT, N |
| DOS | DOS | | | | |
| Family Tree Maker | FTM | Connie Kincaid | evenings & weekends | 661-8185 | DOS, MA, MOS,Q |
| Hardware General | HG | | | | |
| Hardware Modem | HM | William LaMartin | Mon - Fri 9:00am - 9:00pm | 251-3817 | AA, FTM, HTM, IG, MOS, MP, VB, W95, MGS |
| Hardware Printer | HP | | | | |
| HTML coding | HTM | Merle Nicholson | Mon - Fri 7:30pm - 9:30pm; weekends | 879-3602 | CG, DE, DOS, HG, HM, HP, W3, VB |
| Internet General | IG | | | | |
| Micrografx Graphics Suite | MGS | Jenny Lind Olin | Mon - Sun 8:00am - 10:00pm | 960-5723 | ME, MW, PAF, Q, WP |
| Microsoft Access | MA | | | | |
| Microsoft Excel | ME | Don Patzsch | Before 8:00pm | 689-8662 | CG |
| Microsoft FrontPage | FP | | | | |
| Microsoft Office Suite | MOS | Mary Sheridan | 9:30am - 9:00pm | 988-6480 | AOL, CG, DOS, HG, IG, MW, Q, W95, W98 |
| Microsoft Publisher | MP | | | | |
| Microsoft Visual Basic | VB | | | | |
| Microsoft Word | MW | | | | |
| Networking | N | | | | |
| PAF | PAF | | | | |
| PaintShop PRO | PSP | | | | |
| Quicken | Q | | | | |
| Visual dBase | VdB | | | | |
| Windows 3.1 | W3 | | | | |
| Windows 95/98 | W95/W98 | | | | |
| | 8 | | | | |
| Windows NT | WNT | | | | |
| WordPerfect | WP | | | | |

We encourage other members to add their names to the list of those willing to assist fellow members with their computer problems. Contact William LaMartin to add your name to the list.

Tampa PC Users Group, Inc.

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(FACUG.....Continued from page 10)

you and show you email, how to get civic info, and how to use the Internet. In Hillsborough County, the Library has NETSCAPE available and also Time Warner cable connections (free to the library). That is one way to learn at no cost, and you don't need a computer. Just go to each library, a different one each week is what I tell them.

I took several Bits of Blue along to the meeting to hand out. These are placed on a side table along with those from other computer groups. This is an excellent source of information on how the other groups accomplish their objectives. ◆

