

# PC Post



Official Newsletter of the  
Modesto PC User Group.  
Modesto, California

## 25 YEARS OF USER HELPING USER

JULY 2007 – VOLUME 25.07

### INSIDE THIS ISSUE:

President's Report	2
Membership Report	
SIG's meetings list	
Claude's Bytes	3
Exploring Windows Explorer	4
How I Find My "Deleted" Emails ....	5
What is PCI Express?	7
Fix That Fan	9
Got E-Waste?	10

## OUR NEXT MEETING

### The new 'Publisher' – creating slick publications ....

Jim Goodman, the Modesto PC User Group's longtime web master, will tell members what Publisher 2007 can do for them, when the group meets on Thursday, July 26.

This is the newest version of Microsoft's publication design software, and, according to Goodman, can do more than most people can dream up. Aided by one of Microsoft's "presentations in a box," Goodman will use the big screen to show how the program will customize templates then change from one type of publication to another by a mere click of a single button.

The program is as useful to beginners as it is to businesses seeking to create professional looking brochures and newsletters, says Goodman.

The meeting will begin at 6:30 p.m. with the Random Access Special Interest Group, where members can get their most pressing computer questions answered. After refreshments at 7:30 p.m., Goodman will present his program.

The meeting, as usual, will take place at Destiny Christian Center on Carver Road just south of Roseburg Avenue. Members and friends should park on the south side of the building.

**For directions to  
Destiny Christian  
Center  
see page 11**

### IMPORTANT MEETING DATES

**General Meeting — July 26 — Destiny Christian Center**  
**Photo SIG Meeting — August 7 — Denny's Restaurant**  
**Board Meeting — August 1 — Ridgeway's Restaurant**  
**Beginner's SIG Meeting — August 13 — Denny's Restaurant**



## President's Report . . . . Mike Kumler

Well, we have another year (and election) under our belt. I am again proud to serve as President of MPCUG. As an organization, we are holding our own. Our membership is holding its own (although we could use some younger souls) and we are in great shape financially (primarily thanks to the electronic distribution of the "Post.")

What do you think about the future? With the introduction of the I-Phone, it seems to me that true portable computing may well be in playing card size devices that will do more than the original "main frame" computers did—only faster, better and easier!! What a time to be involved in technology. The next few years should be very exciting in that regard.

That's about it for this month. Remember, if you have a request for a program subject or know of a presentation that would interest the group, please contact Liz or me with the information. This is one challenge that never ceases. Happy Computing!

## Membership Report . . . . Hank Mudge

### Members renewing - Thank you for your support:

Nick & Lorna Crooker 7/8	Terrance Fix 6/8	Bee Hagens 5/8	Dan Hunt 8/8
Jerry Jackman 2/8	Jerry Pack 5/8	Skip Pringle 3/8	

### Members dues expiring in May:

Tony Parisi

### Members dues expiring in July:

Gene Richards	Allan Romander	Robert and Barbara Meyer
Paul Martelli	Richard Hitchcock	

### Members dues expiring in August:

Joyce Frost

### Members dues expiring in September:

Sheryl Powell

### Members dues expiring in October:

John Schmidt	Nancy Hanline	Johnny Jones	Robert Richart
--------------	---------------	--------------	----------------

## Special Interest Group Meeting and Times . . . .

SIG Name	Leaders	Phone	Date / Time / Note
Beginners' SIG .....	Bud Bondietti .....	667-1980 .....	6:30 p.m., 2nd Monday, Denny's 1525 McHenry Ave.
Board Meeting .....	Mike Kumler .....	531-2262 .....	7 p.m., 1st Wed. of the month.
Digital Photography .....	Jim Goodman .....	579-0122 .....	6:30 p.m. 1st Tuesday, Denny's 1525 McHenry Ave.
Random Access Q&A .....	6:30 p.m. before general meeting		
<b>ALL meetings are subject to last minute changes. Please check the Website before each meeting.</b>			

# Claude's Bytes . . . .

By Claude Delphia, Editor Emeritus, Modesto PC User Group

**An admission** — I have to admit, that of late, I've been reading an occasional latest versions of the Nigerian email scams. These are the emails that ask you participate in helping some Nigerian official who needs to transfer millions of dollars out of his country. The variations are becoming more creative, and now come from many different foreign countries. Some now play on your religious beliefs. Each now has a unique twist to try to get you suckered into their scam, which is essentially an effort to get your identification and scam you out of your money while you think you are helping them and going to become rich.

The most disgusting I've seen so far, is the one that uses a Vet of the Iraq campaign to scam money from relatives and friends. Anyone who falls for that scam deserves all the trouble. That's probably too harsh as the people who fall for these scams have their own reasons for allowing themselves to be suckered into the scam. As surely some of you already know, at least one "investor" was just barely saved from being killed when he went to Nigeria as part of a scam setup.

Read the scams for entertainment, but don't even remotely consider doing what the letter suggests. **DO NOT CLICK ON ANY ATTACHMENTS.** Don't reply which by doing so, confirms your email address.

**Virus attacks go on and on** — I fell for opening an email and clicking on something in it, and immediately my virus program, McAfee which is free if you are on Comcast, stopped it from loading a Trojan virus called Capture. The email purported to be an email postcard from a family member, and that was my rationale for opening it. Of course it was just one of the latest efforts to spread a virus.

One warning sign about this email was that it was from an address from some foreign country such as [ecard@cards.ik](mailto:ecard@cards.ik). That last part of the address is a giveaway that this isn't coming from somewhere you want to have anything to do with.

So just after writing the above, I get an email appearing to come from a company called postcards.com. Of course this is a deliberate fake. Once you open the email, which I did carefully and with full protection in place, it was easy to see that after opening it, it no longer had any links to postcards.com. I then checked to see what postcards.com does. It is a legit business but doesn't offer an ecard service. Just one more example of efforts to deceive via email and the Web.

**E-mail oddness** — I have several friends, fortunately relatively few, maybe less than .02 percent, who when they reply to email, put the answer at the bottom of the "quoted" section of the email. I suppose they have some logic to the idea, such as putting answer below what you wrote, which might be logical in other circumstances. However, most people put the answer at the top, and, in fact, if you look down an email and you try to follow the chain back and forth, you must go somewhat backwards as the oldest portion of the email will be at the bottom. If you want to start at the beginning, you must read upwards through the various quoted emails to follow the sequence.

Another equally disturbing email exchange practice involves an answer to an email which doesn't show the original email. This is somewhat more disconcerting since you have to guess what the person is referring to. And sometimes in email shorthand, you have to go back and read the original message in order to understand what they are referring to.

If you hit reply, the original message is always going to be below. That's the way most email programs are designed to work, thus the norm. It actually takes extra effort to eliminate the email text you are responding to.

Of course email communication really falls apart when the answer seems not to refer to the original senders email. Sometimes there's just no agreement as to what is being discussed. Also some very intelligent emailers

*(Claude Continued on page 4)*

*(Claude's Bytes - Continued from page 3)*

don't realize that some of the rest of us can't understand their references or very inside jokes. I tend to use big words on occasion, and I KNOW that annoys some of my email recipients, but at least they can look up the word, if I've spelled it right.

Clearly, the best form of communication is directly talking to someone. But even then each person can be talking about two different subjects and not realize it right away. Sometimes it takes a lot of paragraphs, whether written or spoken, to be clear in your communications. I suppose war and disputes leading to violence and death are the ultimate results of failure to communicate. Most emails don't rise to those dire levels.

---

## Exploring Windows Explorer . . . .

By Jim Sanders, Editor, The Orange Bytes, North Orange County Computer Club, California

[www.noccc.org](http://www.noccc.org)

[editor\(at\)noccc.org](mailto:editor(at)noccc.org)

**Obtained from APCUG with the author's permission for publication by APCUG member groups.**

Everyone using Windows XP uses Windows Explorer all the time. Some use it in what I consider the true form. Some, because you use it under the title of My Computer. And all of us when we are using Internet Explorer, because Windows Explorer is an integral part of Internet Explorer. I continue to be surprised at how many people do not know that you can right click on the start button and go directly to Windows Explorer. I prefer that to the My Computer path because it brings up Windows Explorer with the left hand pane of the window displaying the tree structure of the files. It surprises me that many people who use the My Computer path don't know that they can bring up the tree pane by clicking on the folder button in the taskbar.

Something that is almost sad, is how many people live with the default settings of Windows Explorer. One of the first things that I do with a new installation of Windows XP, is to open Windows Explorer, go to the view menu and click on details. The next step is to open the tools menu, and click on folder options. When the folder options window opens, but what had a slump and wrong that a mile and the click on the view tab. Then click on display the full path in the title bar to place a checkmark in the box, click on show hidden files and folders to put the bullet on that line, click on a hide extensions for known file types to remove the checkmark. Personally, I think Microsoft did new users in particular, a major disservice by having the last item set to by default. The resulting confusion of having two or more files with the same name, and not differentiated by the file extension, causes a fair amount of distress in users that are not sure which file to choose. I like to see the protected operating system files but you may be more comfortable leaving them hidden. The last item is to check is show control panel in my computer. Then click on apply, wait for it to finish, then click on apply to all holders, then click on OK and you're done.

As a result of the above actions the right hand window pane will now have four columns, name, size, height, and date modified. The sort will be set to alphabetical by name, numbers and special characters first, then A to Z. If you want the sort to be Z to A, click on name at the top of the name column. If you want the sort to be by size, click on size at the top of the size column and Windows Explorer will sort the folder by file size, smallest file first. To reverse the order, and place the largest file at the top of the list, click on size again. The same procedure works with the type column and the date modified column. There is a faint divider bar between each of the columns located in the horizontal bar where the names of the columns are located. One of the easiest ones to find is one space to the right of the column heading Size. If you move the mouse cursor to that area you should see a double headed arrow appear. If you then click and hold the left mouse button, you can adjust the width of the edge of the columns. The width of the name column is often too narrow to show the complete file name. Having the complete path displayed in the address bar, is often useful when you need to copy and paste that path into other applications.

*(Continued on page 5)*

When you have a lot of files in a folder, there is a navigation shortcut in the name column that too few people seem to know about. When you first open a folder, the display will show any other folders (or what should really be called subdirectories) within that folder followed by files, starting with the letter A. If you need to get to a file that starts with a letter T, you might have to scroll through several hundred files to get there. There is a faster way. Click on the first file in the folder to highlight it, then type the first letter of the file that you wish to find. In this example the display would immediately jump to the first file that starts with the letter T. If you know what you are searching for, and can type quickly, you can follow the first letter with the second letter of the name and it will take you to that point instead.

I think initially setting all folders on a hard disk to the detail view is the best starting point and is best suited for the majority of folders. Windows XP allows you to customize the view of each and every folder and will remember what settings you assigned to a given folder. For instance, for folders that contain photos it is often more useful if the thumbnail view, or the film strip view, is chosen so that you can see what each picture actually is. The advantage of the thumbnail view is that you can find images quicker than in the filmstrip view. The advantage of the filmstrip view is that you get a line of thumbnails across the bottom of the pane and a larger view of which ever thumbnail is highlighted. There are also mouse click arrow's that allow you to view the next or previous image. Don't forget that you can right click on any of the thumbnails and bring up a whole new menu of things that you can do with the image.

Everybody should learn how to do file housekeeping on their computer disk. Being able to move files from one folder to another, to copy files from one folder to another, to create new folders, and several other functions along those lines can help you keep your data organized. It should be noted that most of these functions can be accomplished in more than one fashion. For instance, if you wished to copy a file from folder A to folder B, you would first select the file by left clicking on it which will cause it to be highlighted. You could then open the edit menu by clicking on edit, then click on copy, then click on the destination folder, then click on paste in the edit menu, a copy of the file will appear in that folder. Alternately, you could use some of the keyboard shortcuts. You could highlight the file, press and hold down the Ctrl key and then tap the C. key. This will copy the file to the temporary holding bin called clipboard. You would then highlight the destination folder, press and hold down the control key, then tap the V. key which will paste the file from the clipboard to the folder you highlighted. Another method is called drag and drop. In this method you move the mouse cursor over the file you wish to copy, left click and hold the mouse button, move the mouse to drag a ghost image of the file over the top of the destination folder and then release the left mouse button. There are many more features to cover but this is all the room I have for now. We will do more later.

**This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).**

---

## How I Find My “Deleted” Emails . . . .

by **Tom Thiel, President, Lake-Sumter Computer Society**

[www.lscs.us](http://www.lscs.us)

[tthiel5\(at\)Comcast.net](mailto:tthiel5(at)Comcast.net)

Obtained from APCUG with the author's permission for publication by APCUG member groups.

Old Emails are one of my most frequent retrievals from my backed-up files.

My current rate of email accumulation is about 20-30 a day. I've forced myself to maintain my accumulated emails in my Inbox and Sent Emails folders to a maximum of not more than 1,000 each. So periodically I just arbitrarily “lope off” the oldest one-half to one month or so of emails. I try to manage some of these by placing them into other folders but that isn't very effective for me.

*(Continued on page 6)*

*(Deleted emails - continued from page 5)*

What this procedure means is that frequently I find myself wishing I still had that old “deleted” email. (The latest one was the Acoustica email sending us Spin it Again software.)

How do I retrieve that email after I’ve “deleted” it from my Inbox or Sent Items? Here is how I do it with Internet Explorer 6.

Sometime ago I found out where IE stores my emails. What I did then was to move the place where my emails are stored by default to a folder named “Toms emails” in my “My Documents” folder. (How to do this is briefly outlined in the addendum at the end of this article.)

My basic backup procedure is to frequently, at least once a week but usually more frequently, and usually daily with very active folders, copy the contents of my My Documents folder to an external USB connected 300 GB Maxtor drive and to other similar portable USB drives (a 100 GB SimpleTec, and a 40 GB Pocketec hard drive) that are stored away from my computer.

When I do this of course I am backing up the current contents of all my emails at the moment the My Documents backup is performed. (Actually, any true backup procedure will work.)

So, when I want one of those old emails that had been arbitrarily “loped” off the tail end, I do the following:

1. Open Outlook Express and set it to Work Offline so that new emails are not loaded in with old ones (only needed if you are continuously on-line). You may set IE to Work Offline as follows: With IE open select File, and then check Work Offline. No new emails can come in under this mode.
  2. Now close OE.
  3. With Windows Explorer I find the folder “Toms emails” in My Documents and rename it to “Toms emails Today”
  4. Then I try to guess what backup might have the particular email I’m looking for from among the various backups I have on the external USB drives.
  5. With Windows Explorer I find the folder “Toms emails” on that external backup copy.
  6. Then I Copy that folder and Paste it into my current My Documents folder.
  7. I now see two email folders in My Documents; “Toms emails” which just was Pasted from the backup copy and the folder “Toms emails Today” which had been renamed earlier.
  8. Next I open IE again.
  9. It asks me “Do you want to work online?”
  10. Be sure to say NO!
  11. I then try to locate the desired email; sometimes I use IE’s Find capability to do this. Hopefully, I have guessed correctly and I find the desired email the first guess.
  12. I open it and then copy it to my Desktop by choosing File and then Save As and Save To Desktop.
  13. Now I close IE and with Windows Explorer find the folder “Toms emails”, the one I just loaded from the backup, and from which I retrieved the desired email, and I delete it.
  14. Next I rename “Toms emails Today” back to “Toms emails”
  15. Then I open IE and say Yes I want to Work Online.
- I find the email that I had copied to my desktop and double-click on it to open in IE. I can then save it back into my current emails and do whatever I wanted to do with it.

And that what I do to find that old “deleted” email! Of course it only works for so long as you maintain those backup copies – in my case about six months.

**Addendum:** How you may change the default location where your e-mails are stored in Outlook Express.

*(Continued on page 7)*

In OE, first select the Tools menu, and then Options tab. On the pop-up screen, click the Maintenance tab, then click the Store Folder button.

Outlook Express will show you where it is currently keeping your e-mail files.

You may then select Change and a Browse window will appear where you may chose to indicate the new place you wish to store your emails.

**This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).**

---

## What is PCI Express? . . . .

By **Brian K. Lewis, PhD, Regular Columnist, The Sarasota PC Monitor, Sarasota PCUG, Florida**

[www.spcug.org](http://www.spcug.org)

bwsail at yahoo dot com

Obtained from APCUG with the author's permission for publication by APCUG member groups.

Let's start this off with an explanation of PCI (Peripheral Component Interconnect). These are the slots in the motherboard of your computer used for connecting peripheral devices directly to computer bus. Now you're asking what is the computer bus? Essentially, the bus is the electrical means for a peripheral device to connect to the computers chipset. The chipset is the interconnection between the peripherals, the main processor and system memory. (Got all that?)

The original PCI bus released in 1992 had a maximum communication rate of 33 MHz. This allows data transmission at a maximum rate of 133 megabytes per second (MB/sec.). The bus is used by such things as the sound system, video card, network adapters, parallel and serial ports.

In the PCI system all data are transmitted in parallel. In parallel transmission many "wires" or connections are required for each PCI slot or integrated device. For example, if you have a 32 bit data transmission path from the PCI slot to the chipset, this requires 32 connecting wires just for data. Additional wires are required for control signals. With six PCI slots you can have more than 1,000 wires required for the connections. Each wire should be exactly the same length so that all the data arrive simultaneously. However, in a computer it is impossible for each wire to be exactly the same length. So as the speed of devices increased, data started arriving out of order. Therefore, the receiver had to delay until all the data were available before it could be processed. Another aspect of PCI is that all the devices share the bus at the same time so the actual data rate per device will be significantly less than the maximum rate. It's like having a speed limit of 65 miles per hour on a multi-lane highway. When all the traffic lanes are full, everything slows down. Think Chicago or Atlanta in rush hour!

Shortly after PCI was introduced, the arrival of 3-D video cards made PCI obsolete for graphics purposes. That resulted in the development of the AGP slot in the motherboard for AGP video cards. AGP uses a separate bus and this freed up bandwidth on the PCI bus for other peripherals. The AGP-8X system can transmit data at the rate of 2.134 gigabytes per second (GB/sec.). In spite of the removal of the data intensive video card transmissions, the number of high-speed peripherals being added to computers quickly saturated the PCI bus and it remained a data transport bottleneck. Additional problems arise as communication can only be

*(Continued on page 8)*

*(PCI Express—continued from page 7)*

made in one direction at a time. Today, many communications networks utilize bidirectional traffic.

In 2004 the PCI Express (PCIe) bus started showing up on computer motherboards. This is quite different from the original PCI bus and in the strictest definition is not a true bus. It is described as a high performance, scalable, point to point serial bus. Now, that statement requires some further explanation as I'm sure it is not immediately clear to all of you. It certainly wasn't to me the first time I read it.

First, consider the “serial” relationship. In a serial device the data is transmitted in a single stream rather than in several parallel streams. This is like reducing a multi-lane highway to one lane in each direction. That should slow things down instead of speeding it up! But in PCIe the clue is that you now have a point to point relationship. That means the device is connected directly to the chipset and does not have to share bandwidth with other devices. It is like having a high speed commuter corridor that bypasses all the slow traffic on the rest of the multi-lane highway. You may have multiple PCIe connections to the chipset. To prevent problems the connections occur through a system similar to a router. This router passes the data packets from each device in an ordered manner with a minimum of delay and contributes to the speed and accuracy of the transmission. Because this is a point to point connection with each device having its own pathway, this is not a bus under the strict definition of a computer bus. It is also important to note that PCIe transmission occurs in data packets.

The connections are in dual pairs so there is a possibility of a simultaneous bidirectional transmission. One pair is used for transmission and the other for receiving. As mentioned above, data is transmitted in packets, rather than in a continuous stream. Each packet contains an identifier so the data can be reassembled at the receiving end. This allows the receiver to work with multiple inputs. The data is encoded in what is called 8b/10b. This means that eight data bits are packaged with two information bits in a ten-bit package. (See how much simpler it is to call this 8b/10b?) Also consider that this is the method used for data and voice transmission on the Internet. Hard drives have moved to an SATA interface that is a serial connection instead of the parallel IDE connection. Gigabit ethernet cards are also designed with a serial connection. More devices are moving to serial connectivity to gain additional speed and reliability.

The scalable part of the PCIe bus is in its ability to work with more than one pair of connections. These are called x1 (or times 1), x4, x8 or x16. The x1 version (two data pairs) can transmit the encoded data at a bidirectional rate of 500 MB/s or 250 MB/s in each direction. The x16 version (32 data pairs) can transmit at a rate of 8 GB/s. This is the combined bidirectional rate. The rate in one direction is half this figure. There is a second version of PCIe in the works, PCIe 2.0. This is expected to double the current transmission speeds and provide other benefits.

PCIe slots in the motherboard come in various sizes depending on the number of lanes they use for connection. These vary from the smallest connector for the x1 version to the largest for x16. It is the 16x version that is currently found on new motherboards which supports the latest graphics (video) cards. Unlike the AGP slots, the x16 slot can be used for peripherals other than the video card.

Another interesting aspect of PCIe is one means by which it achieves its high data rates. It is called “low-voltage differential signaling”. Another phrase that I had better explain a little more. As I mentioned earlier, connections occur in a pair of “lanes” in each direction. One of the lanes carries a “positive” image of the data and the other carries a “negative” or “inverted” image. The transmission of the data follows strict rules such that any noise that occurs will affect both lines. When the data is reassembled at the destination, the receiver collects both signals, inverts the negative back to positive and sums both signals. This effectively removes the noise from the signal.

PCIe is also backward compatible with PCI devices and software that uses PCI devices. The configuration space and programmability of PCI Express devices are unchanged from traditional PCI. In fact, all operating systems can boot without modification on a PCI Express architecture. Programs originally written for PCI de-

*(Continued on page 9)*



vices can run unchanged on PCI Express devices because the PCIe layer is transparent to the application software. This provides benefits to users who don't have to upgrade software applications to work with newer hardware.

PCIe has another characteristic that greatly improves on PCI. It has an active power management (APM) system. When a PCIe link is not in use it does require that the link remain active so that the transmitter and receiver remain synchronized. It is the role of the APM to reduce the power level whenever the link is inactive. The catch is that when data needs to be transmitted there is a recovery time to allow full activation of the transmitter/receiver. The longer the recovery time, the lower the power usage. Overall, the systems are designed for the lowest power usage with the shortest recovery time.

There is a gradual transition from the motherboard with combined PCIe/PCI slots to those that will have only PCIe slots as more PCIe plug-in cards become available. This will also affect the size of the motherboard and the ultimate size of the computer. The specification for the PCIe mini-card allows for a card half the size of a standard PCI mini-card. Most of these mini-cards may be destined for laptop computers. However, some desktop designs that take advantage of all PCIe input are far smaller than the standard desktop computer. Some of the new small box computers utilize these smaller motherboards.

So when you get your next computer you should now have a better understanding of the role of the PCIe slots it contains.

Dr. Lewis is a former university & medical school professor. He has been working with personal computers for more than thirty years.

This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).

---

## Fix That Fan . . . .

By Jim Sanders, Editor, The Orange Bytes, North Orange County Computer Club, California

www.noccc.org

jsanders-that-ligasmicro.com

Obtained from APCUG with the author's permission for publication by APCUG member groups.

Cheap (Sleeve Bearing) fans die young. Bet on it. The cheaper the system, power supply, cooler, etc., the cheaper the fan. A cheap ball bearing fan may be just as bad. When you hear that sleeve bearing fan (or a ball bearing fan for that matter) rattle, notice a fan is barely turning, or not turning at all, fix it!



As shown in photo #1 of a fan out of a power supply, get the fan out where you can work on it. On the side where the wires go into the middle, carefully peel back the label/sticker that covers the shaft area. The round item in the middle of the sticker in photo



#2 is a metal hole plug. The rubber plug that seals well ble at times. The really cheap plug over the shaft area. If the may make it well again. Ap- as, 3in1, Singer sewing ma- engine, in the shaft hole. get any oil on the surface

fan still turns without much effort, just oiling it ply a few drops of a good light machine oil such chine, even ATF, but not the 30wt for your car Sewing machine oil works well. Be careful not to where the label/sticker needs to be re-applied. This has to be put back in place to cover the opening and keep the oil in place.

(Continued on page 10)

(Fix That Fan—Continued from page 9)

If you get oil on the fan surface, it can be removed with acetone or MEK. If the label gets wrecked, I have found that on a clean surface a piece of black electrical tape works well. If you don't have a good applicator, see [photo #3](#), use a toothpick.

Spin the fan have a fan to move the shaft. This both can be fore oiling. I tone or MEK. A pipe cleaner works well for cleaning the inside of the bearing, pecially on the smaller fans.



some to work the oil onto the shaft. Re-assemble and you are likely to that quietly moves air again. If the fan is so gummed up that it is hard blades, you will need to remove the retaining ring (C-ring) on the allows the shaft to be pulled out of the bearing, see [photo #4](#), so that cleaned with a good strong solvent

like the effectiveness of Methyl Ethyl

tone or MEK. A pipe cleaner works well for cleaning the inside of the bearing,



be-  
Ke-  
es-  
re-  
to  
ser-  
of

Arguably, this is more work than it is worth, but it is not always easy to find a placement fan.

The video card fans and the motherboard chipset fans can be near impossible locate. Even if you find a replacement fan, oiling the fan before putting it into vice maybe a good idea as manufacturers seem to be chintzy about the amount oil in new fans.

PS - Clean the crud off the fan before you replace it. In fact, if you have access to an air compressor regulated at about 90 PSI, it is a great idea to take a blow gun attachment on the end of an air hose and blow out the entire system keeping the tip about six inches away from parts. The little duster cans are better than nothing, but really don't have the horse power to do a good job.

This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).

## Got E-Waste?

Recycle unwanted tv's, monitors, computers and other electronic equipment at a **FREE** e-waste recycling event happening at

**John Thurman Field**  
**Neece Parking Lot at 601 Neece Drive in Modesto**  
**on Friday, August 10<sup>th</sup>**  
**from 12 Noon until 5PM, and**  
**Saturday, August 11<sup>th</sup> from 9:00AM until 3:00PM.**

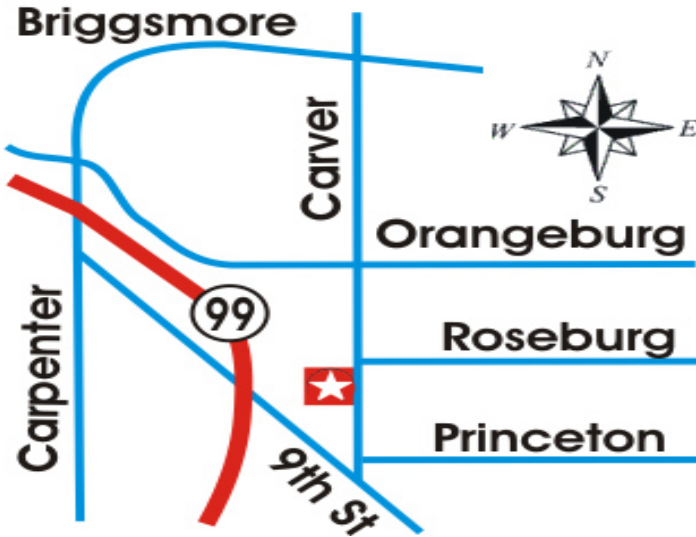
Any California resident, business, school, etc. is welcome to bring their e-waste. Drop off is **FREE** and all items will be recycled. Visit [www.noewaste.com](http://www.noewaste.com) or call toll free, **(866) 335-3373** for electronic items accepted and event info. Sponsored by Electronic Waste Management, a state-approved e-waste collector.

For the latest information about the MPCUG — Check our website at

[WWW.MPCUG.NET](http://WWW.MPCUG.NET)

## The Club's Meeting Place

Our general meeting and the Random Access Special Interest Group are held at the Destiny Christian Center, 1161 Carver Road on the west side of Carver across from Sam's Food City. Parking is available both in front of and behind the Center. No parking along side of the Center, please.



Free classifieds for members. Email the text to the editor at [editor@mpcug.net](mailto:editor@mpcug.net)



### Hot Spots...

Go Wireless-  
Your Personal  
Connection  
to the World.



For Information about our website host and how you can get on board:

Click on this link [info@fire2wire.com](mailto:info@fire2wire.com)

### Cyrano Writing & Editing

When you need help putting it in words, call Cyrano.

(209) 523-4218; 499-5401

*Resumes, letters, applications,  
articles, newsletters,  
press releases, theses*

Elizabeth Leedom

Need help hooking up  
that new PC,  
or installing DSL-Cable?  
Call Jim Goodman, \$60.00 for as  
long as it takes. 579-0122  
[jgood99@sbcglobal.net](mailto:jgood99@sbcglobal.net)  
Modesto, Ceres Area

**Modesto Find-HG.Info**

sources  
for area  
home &  
garden

**home & garden**

artsandhome.com

Claude Delphia, publisher

**Websites, Photo Editing & Graphics**  
209-402-1936

Be sure and check our web site at least once a week at [www.mpcug.net](http://www.mpcug.net)

# Modesto PC User Group Officers

..... President..... Mike Kumler ..... 531-2262 .....  
.....  
..... [president@mpcug.net](mailto:president@mpcug.net)  
..... Program VP ..... Elizabeth Leedom ..... 523-4218 .....  
..... [gramvp@mpcug.net](mailto:gramvp@mpcug.net)  
..... Secretary..... Terry Fix ..... 524-8062 ....  
[secretary@mpcug.net](mailto:secretary@mpcug.net)  
Treasurer..... Barbara Cameron ..... 522-1389 ..... [treasurer@mpcug.net](mailto:treasurer@mpcug.net)  
Director At Large ..... Hank Mudge ..... 529-1936 ..... [membership@mpcug.net](mailto:membership@mpcug.net)

## Appointed positions:

**SIG Coordinator** ..... Jim Goodman ..... 579-0122 ..... [sig@mpcug.net](mailto:sig@mpcug.net)  
**Press Relations** ..... Elizabeth Leedom ... 523-4218 ..... [programvp@mpcug.net](mailto:programvp@mpcug.net)  
**Membership** ..... Hank Mudge ..... 529-1936 ..... [membership@mpcug.net](mailto:membership@mpcug.net)  
**Web Master** ..... Jim Goodman ..... 579-0122..... [webmaster@mpcug.net](mailto:webmaster@mpcug.net)  
**Editor**..... Bud Bondietti ..... 667-1980 ..... [editor@mpcug.net](mailto:editor@mpcug.net)

## PC Post

**Editor: Bud Bondietti**

Editor Emeritus: William "Doc" Holloway — 1920 -- 1996  
Claude Delphia, Editor Emeritus  
Bud Bondietti and Elizabeth Leedom, Presidents Emeritus  
Barbara Cameron, Member Emeritus

## Join The Modesto PC User Group

Web site: [www.mpcug.net](http://www.mpcug.net)

## The PC Post and Editorial Policy

The PC Post is published online 12 times per year and is available to all group members as a membership benefit. Annual group membership dues are \$24.00.

For information write: Modesto PCUG PO Box 5122, Modesto, CA 95352-5122

Opinions expressed in the PC Post do not necessarily reflect the opinions or views of the members as a group or the Board of Directors.

The PC Post encourages group members to submit articles for publication. We would like to have articles which deal with the writer's experience with computer hardware and software or digital photography.

An article may deal with any computer-related subject provided it contains no libelous or offensive material. We can't use information copied from other publications without written permission except for quotes.

Articles should be submitted in MS Word text. Do not spend time formatting your article such as indents or centering. Please use only one space between sentences. and do not use bold, italicize or otherwise format the submission as we can't guarantee results in translation to Publisher. Proof read and run your spelling checker. Watch for special upper and lower case in brand names. Do not tab or indent to layout text.

If you want to include a graphic, please contact the editor for instructions.

We reserve the right to edit articles, for length or to improve readability. Longer articles may be published in several parts. We will not knowingly promote unlicensed businesses.

Letters to the editor are encouraged. All articles and letters to the editor should be submitted to the editor via email as an attached file. Call him at (209) 667-1980 before submission. Please include your name, day and evening phone numbers, and email address for contact.

The MPCUG exchanges some articles with other user groups around the country via the Association of PC User Groups (APCUG). If for any reason you object to having your article distributed to APCUG member organizations for reprinting, please notify the editor at the time you submit the article. Your wish will in no way affect publication of your article in the Post. Production notes: Prepared using **Microsoft Publisher 2007**, **MS Office 2007**, **pdfFactory** and a Minolta laser color printer in addition to a lot of sweat and a few tears.