

IT'S TIME TO DUST OFF THAT OLD TURNTABLE, WIRE-UP
THOSE WOOFERS AND TWEAK THOSE TWEETERS.

Meeting
Change

Tuesday,
July 10



AT OUR NEXT MEETING, BRUCE PRESTON, WILL SHOW
HOW ANALOG TO DIGITAL CONVERSION CAN TURN THAT
SCREECHY OLD VINYL AND MOLDY MYLAR INTO SHINY NEW
CDs. THAT'S NOT JUST GROOVY — IT'S THE CAT'S MEOW.

President's File



Last month, I thought summer was around the corner. Now, we're moving into July. Is summer here yet? It's been hard to tell. One thing I've noticed is that all the 'Global Warming' news seemed to stop when the thermometers quit rising. Of course, that was around the same time we were told how much Al Gore spends on his utility bills in a house for two. Are these related? No matter... I still think mowing grass beats shoveling snow!

Please wait...

During the time I had my machine out on the floor waiting for the cards to arrive, I decided to go through and clean up some cabling. Since my last doing this, I've added another monitor, a new location to fix systems, and a Mac.

The first item to tackle was my video issue. My secondary display is connected to a Keyboard-Video-Mouse (KVM) switching device. This display had been plagued by a minor blurring of pixels caused by a video extension cable that didn't have adequate shielding. Replacing the cord fixed that problem.

My Mac G3 is connected via the KVM to my secondary monitor. I preferred to have something better than the built-in speaker for sound, so I spun an audio extension cord across my desk to the repair area speakers. It made no sense to leave the cord out like that. My Mac's audio output now feeds into one of the auxiliary inputs on my main workstation. One cord out of the way!

Finally, it was time to clean up my system repair area. The 'silly string' of KVM, network and audio cords to reach whatever machine was 'on deck' needed to go. Those cords, as well as the second set of speakers needed to go. A power bar and spare router were installed on the wall for easy-to-reach power and network connections.

Let there be pixels!

My replacement video cards arrived shortly after last month's newsletter went to press. A reboot was necessary for the old drivers to finish setting back up, and all was well. Naturally, I proceeded to install the newest software and video support applications. That was a mistake!

The new ATI software installs "Eazylook" and "Eazyshare". These apps are used to stream video and pausing 'live TV'. I removed everything and then installed just the raw video drivers. The Catalyst 8.6 install CD from a previous ATI capture card gave me the basic TV application without the overhead.

A friendly reminder...

Our July General Meeting will be held July 10th at the Danbury Hospital. Our new meeting format is as follows:

6:30pm - 7:00pm = Casual Networking
 7:00pm - 7:15pm = What's News
 7:15pm - 7:40pm = Ask DACS
 7:40pm - 7:50pm = Announcements
 7:50pm - 8:00pm = Break
 8:00pm - 9:30pm = Featured Presentation

Making it easy...

Keep in mind that you can now join DACS or renew your membership on-line using PayPal.

Well, that's all for now. It's a nice day out and time to go make the most of it!

—ROB LIMBAUGH
 RELIMBAUGH@DACS.ORG

Membership Information

dacs.doc, ISSN 1084-6573, is published monthly by the Danbury Area Computer Society, 4 Gregory Street, Danbury, CT 06810-4430. Annual subscription rates: \$30 to regular members, \$20 electronic access (included in dues).

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Send address changes to Danbury Area Computer Society, Inc., 4 Gregory Street, Danbury, CT 06810-4430.

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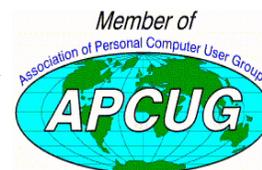
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Applications & Hardware to enhance *dacs.doc* are welcome.



Patrick Libert
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HelpLine

Volunteers have offered to field member questions by phone. Please limit calls to the hours indicated below. Days means 9 a.m. to 5 p.m.; evening means 6 to 9:30 p.m. Please be considerate of the volunteer you are calling. HelpLine is a free service. If you are asked to pay for help or are solicited for sales, please contact the dacs.doc editor; the person requesting payment will be deleted from the listing. Can we add your name to the volunteer listing?

Program	Name	Phone #	
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VB.Net, Visual Basic	Chuck Fizer	(203) 798-9996	(d)

A regular meeting of your Board of Directors was held on Monday, June 11, 2007. Present were Howard Berger, Charles Bovaird, Richard Corzo, Sean Henderson, John Lansdale, Lisa Leifels, Patrick Libert, Rob Limbaugh, Chris Novell, Jeff Setaro and Jamie Yates. President Rob Limbaugh presided and secretary Lisa Leifels kept the record. Minutes of the last meeting held May 7, 2007 were corrected and approved as corrected.

Treasurer Charles Bovaird reported current cash assets of \$9,788.45, consisting of total bank and postal accounts in the amount of \$9,729.14 plus postage on hand of \$59.31. Subtracting a liability of prepaid dues in the amount of \$5,599.00 left a net equity of \$4,189.45. He also reported that the current membership increased to 275, 70 of which are electronic.

First considered was the subject of programs for General Meetings, confirming the program on converting LP's to CD's by Bruce Preston for July. Christine is working on setting up a presentation by someone from EasyTech, a company that offers technical support at Staples. Rob suggested we may be able to get a speaker from Cisco, since their certification process requires a candidate to do a presentation. A presentation on VOIP or home networking were a few of the topics Cisco could cover at the meeting.

Rob decided we should renew our clip art subscription since it is used to create the covers on the DACS newsletter, the cost is \$165 per year.

Patrick will include a box in the newsletter to let members know that they can join or renew their membership via Pay Pal.

Howie plans to set up a meeting with someone from the volunteer center of Danbury and investigate ways that DACS can extend its reach to the community.

Richard was given a copy of Dreamweaver 8, since he will be filling in as the webmaster.

Rob found a free calendar program called VCalendar that Anna is currently testing to see if it will work on the DACS website. This will give SIG leaders the ability to make their own changes to the calendar.

—LISA LEIFELS

Meeting Preview

Audio Restoration: Clean up and convert LPs or tapes to CD or MP3

by Bruce Preston

DIGITAL TECHNOLOGIES in the form of CDs and mobile devices such as iPods, MP3 players, etc. have made it easy to take the music that you like with you wherever you go. Home computers are also part of digital convergence where the computer acts as a media center – a repository for music and video that may feed various devices around the house.

But, what do you do if you have a collection of music in analog format such as LPs, 45s, tape cassette, reel-to-reel, or even 8-track? You'd be hard-pressed to include of these formats in a mobile life style. Further, the quality of magnetic recordings (tape) is known to deteriorate over time, and both tape and disk are subject to physical damage or deterioration with age.

Take heart – there is *free* software available that, when used with the addition of an inexpensive cable or two, will let you transfer your analog music collection to digital format, CD or MP3, and thus into today's devices.

At the July 10th meeting (note that due to the July 4th holiday it is one week later in the month than usual) DACS member Bruce Preston will present the multi-platform program Audacity. Yes, it is available for Windows, Mac, as well as Linux.



Bruce will:

- Briefly describe the difference between analog and digital recordings, and how being in digital format permits sophisticated editing and restoration.

- Very briefly discuss the legal ramifications – hint: it's legal for personal use.

- Demonstrate how to identify the appropriate connections on your audio source device such as turntable, compact stereo, receiver, pre-amplifier/amplifier, tape recorder, tape player, boom box, etc.

- Show how to select the appropriate cable for connecting the audio source device to your computer (typically available at RadioShack for under \$10).

- Download and install Audacity and plug-ins.

- Rip recordings from the source to the hard disk. This is the analog-to-digital conversion. You will see how to set the record level, and *see and hear* the effects of having the setting too high or too low.

- Edit the digital sound cuts – using such tasks as breaking an album side into individual cuts, trimming lead-in and lead-out, applying fade-in and/or fade-out, and most importantly, audio restoration - the sophisticated clean up of such common problems as surface noise, pops, snaps,

tape hiss, etc, using various plug-ins or wizards which make the task simple. The demonstration will include ripping a cut from a 1938 Carnegie Hall jazz concert recording that has extensive surface noise. You will see the restoration process and hear the final result.

- Continue with the conversion of the restored sound clip to CD audio which can then be burned to a CD for use in any CD player, such as in a car, or converted and loaded into MP3 format for use in an MP3 device such as an iPod.

There will be a brief demonstration of Apple's iTunes – a free, downloadable music cataloging program that you may use to organize your digital music collection. Note: You do not need to have an iPod to use iTunes, nor do you have to purchase music from the Apple music store to use iTunes.

This meeting is a must for all of those who have been holding on to those precious recordings in the hope of converting them easily to digital audio.

DACS meetings are held at the Danbury Hospital auditorium. Activities begin at 6:30 p.m. with registration and casual networking. The meeting starts at 7:00 p.m. with a discussion of what's new in technology (What's News) followed by a general question and answer period (Ask DACS), announcements and a short break. The featured evening presentation begins at 8:00.

As a reminder, our General Meetings are free and open to the public so invite anyone you know who would be interested in this topic.

BRUCE PRESTON is president of West Mountain Systems, a consultancy in Ridgefield, CT specializing in database applications, and a long-time DACS member and officer.

Meeting Review

Radio Frequency Identification (RFID)

By Chris Novell

DR. PAUL Moskowitz, Research Staff Member at IBM and holder of many U.S. patents pertaining to RFID, told the audience that by the end of the presentation they would all be experts in the field. He delivered on that promise.

The first RFID tags described were the passive ones. In its simplest form, RFID technology consists of a semiconductor chip and an antenna with no battery or transmitter. These tags are readable at a distance of up to 30 feet. Some passive tags are battery assisted and can be read at a distance

of 100 feet. Active tags, which include batteries and transmitters, have a range of up to 300 feet. From a practical standpoint, someone considering an application of the technology would want to select the least expensive version that reliably provides the desired identification capability.

Advantages offered by RFID over bar codes include a unique identification code for each tag, the ability to read many tags almost simultaneously, and that the reader and tag do not need to be in direct alignment.

Among Dr. Moskowitz's contributions to RFID technology is the "Clipped Tag," a refinement of the design of a tag for consumer goods so that it could be useful, say, to clothing retailers for inventory and checkout, but give consumers the option to remove most of the antenna for privacy. The customer can, upon purchasing a garment, remove a portion of the tag, thereby shrinking the reading distance from 30 feet to 2 inches, still allowing the option for easy product return.

Dr. Moskowitz pointed out that the technology needs to match up with the proper business issue. "RFID is not suitable as an anti-theft mechanism for retailing."

Several questions surfaced about personal privacy. Dr. Moskowitz observed that industry needs to make use of the technol-

ogy in ways that do not alienate people and that businesses are likely to be motivated to use RFID tags in ways that work for their customers. He further pointed out that “there are other technologies that are much better for surreptitious surveillance.”

One niche for RFID is computer security: for the person whose desktop work includes restricted data and yet needs to be freely mobile around the office, an RFID device can be installed so that the computer only works for the badge equipped person.

One thing that is interesting, among many, about RFID is that it has applications that are remote from most people’s lives (tracking of raw inventory for manufacturing), and it has applications that they could encounter on a daily basis (E-ZPass, Speedpass). As the presentation took place and the audience was informed of the types and characteristics of RFID technology, it was stimulated into increased curiosity. By the end of the evening it seemed like everyone in the audience had asked a question!

Dr. Moskowitz brought with him an equal abundance of both information and humor. He described his personal experience with an RFID application. With his cats being equipped with RFID tags, most other prospective small visitors are prevented from entering through the cat door. However, he noted, “It doesn’t keep the dead animals out.”

Which RFID applications are likely to happen in the near future?

High on the list is the management of airline luggage. Anyone who has ever been deprived of a timely reunion with one’s luggage at the end of a flight is likely to welcome this.

Something people would most likely welcome, though it may not so readily come to their realization, the use of RFID tags to keep track of costly specialized medical equipment in hospitals. Rather than just a handful of staff knowing the location of the equipment is when it is needed, the knowledge of its whereabouts could be almost universal. Having handy knowledge of location could possibly enable a hospital to stock fewer units of the equipment.

Grocery checkout, where not only would a customer be able to leave their items in the cart during the process but every item in the cart could be read almost in the blink of an eye, is currently technically possible but not economically viable, but it was certainly fun to see Dr. Moskowitz demonstrate this!

No doubt the audience left the meeting filled with thoughts about new applications for RFID.

Circuit Rider

Version 4.12

RFID and you

Were you at the June general meeting to hear Dr. Paul Moskowitz? As a real live researcher in RFID, he presented the here and now without giving away any secrets. I felt he was quite realistic about practical applications and areas that should be avoided (like “chipping” people). It was a very interesting meeting, and this is a topic we need to follow in the months and years ahead.

Fathers of Computing

Ok, I’m writing this the day before Fathers Day and I found a “Fathers of Computing” slideshow on: [eWeek.com \(tinyurl.com/23922x\)](http://eWeek.com/tinyurl.com/23922x). Here’s their list:

1. Father of Computer Science: Alan Turing
2. Father of the Microprocessor: Ted Hoff
3. Father of the modern PC: Steve Wozniak
4. Father of ASCII: Bob Bemer
5. Father of the Relational Database: Edgar F. Codd
6. Father of the Mouse: Douglas Engelbart
7. Fathers of Silicon Valley: Bill Hewlett and Dave Packard
8. Father of DOS: Gary Kildall
9. Fathers of the Computer Modem: Dennis Hayes and Dale Heatherington
10. Father of E-Mail: Raymond Tomlinson
11. Father of the Laser Printer: Gary Starkweather
12. Father of the Internet: Vint Cerf
13. Father of Internet Search: Alan Emtage
14. Father of the LAN: Bob Metcalfe
15. Father of Networking: Ray Noorda
16. Father of the Web: Tim Berners-Lee
17. Father of the Spreadsheet: Dan Bricklin
18. Father of Open Source: Richard Stallman
19. Father of Java: James Gosling
20. Father of Computer Collaboration: Ray Ozzie
21. Father of the Graphical Web Browser: Marc Andreessen
22. Father of the Wiki: Ward Cunningham
23. Father of Global Philanthropy Via Success in Technology: Bill Gates

Watch the slide show and see if you agree with their choices. If you have never heard of these people, you’re excused, in a few cases. However, I think they missed a few really key people. Here are my additions:

1. Father of the General Purpose Computer: Charles Babbage – First used the punch card in computing and invented the programmable central processor. While it is not clear if those who followed like Hollerith, Eckert and Mauchly knew about Babbage, he was first by decades.

2. Mother of Computer Languages: Grace Murray Hopper – Her first compiler, A-0 developed in 1951, evolved into Flow-Matic. She believed that computers should be programmed in a language as close to English as possible (inventing the high-level computer language). Her work led to the development and standardization of COBOL. She documented the first computer bug, a moth removed from a relay in the Harvard Mark II.

3. Father of Reliable File Transfer: Ward Christensen – Early microcomputer users would not have been able to share software and ideas without a reliable way to transfer files by modem. The XMODEM protocol, invented in 1977, was the first easy-to-implement method of reliable file transfer. And Ward did not try to keep it proprietary so XMODEM quickly became a standard.

4. Father of the Mini-Computer: Kenneth H. Olsen – Thru the 1950’s computers were large, heavy beasts. Before the personal computer Digital Computer produced machines that were small, affordable, and fun. Ask any collector today.

If you have names you would like to add, send me an email at jscheef@dacs.org.

The Saga of Julie Amero

Sanity has finally come to the Julie Amero case. On June 6th, New London Superior Court dismissed the conviction and granted Ms. Amero a new trial. Apparently some “newly discovered” evidence contradicts testimony from the state’s expert witness. Hopefully, this nightmare is almost over for Ms. Amero and her family.

Jim Scheef is past president of DACS

Commentary

Hash Totals

by John Lansdale

A HASH ALGORITHM (one doesn't call something like this a program) will read a string of characters and

sourceforge.net/. When it installs it creates a link in your send-to folder. I right clicked on the downloaded file took SendTo and winMd5Sum. After a couple of minutes (it had to read the whole 500 meg file) a box popped up with the computed Md5 sum. I just copied and pasted the number I got from the MD5SUM file and clicked compare, the numbers were the same so I'm sure I got the correct file see at left).

turn it into a 32-character string so unique that, with the MD5 algorithm I'm talking about here, there's only a 1 in a giant number (~3.4 x e38) chance of two strings coming up with the same hash. Hashes have several practical uses.

Cryptography is one. Instead of storing passwords in a database, where anyone can read them, they can be hashed first. No one can read them, but they can still be used for verification. All a program has to do is recalculate the hash for a challenging password being challenged compare to the stored value. The hash algorithm calculates the same hash for the same input string every time.

I came across another use of hashes today while preparing for this month's Server SIG (Jim's out, I'm substituting). Rob and I are going to try to install the very newest Ubuntu 7.04 server edition. I downloaded the .iso file from <http://mirror.cc.columbia.edu/pub/Linux/Ubuntu/releases/7.04/> (which I found on the Ubuntu site (<http://www.ubuntu.com/getubuntu/download>)). Last time I downloaded an Ubuntu file it didn't work correctly so this time I read their advice about checking the MD5 hash total.

Computing the hash total for the original file and comparing it to the hash computed on the copy is a very good way of verifying that the copy worked. In the mirror directory I used there's a text file named MD5SUM. It contains a list of hashes for the files in that directory. For the file I wanted to check it had:

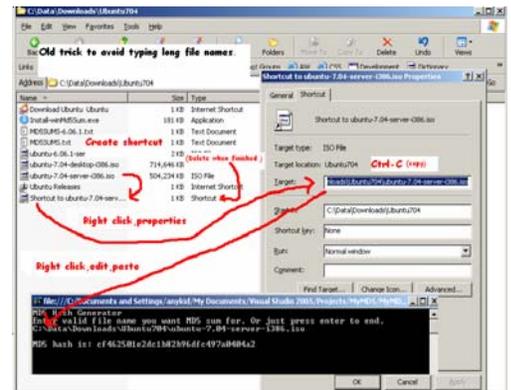
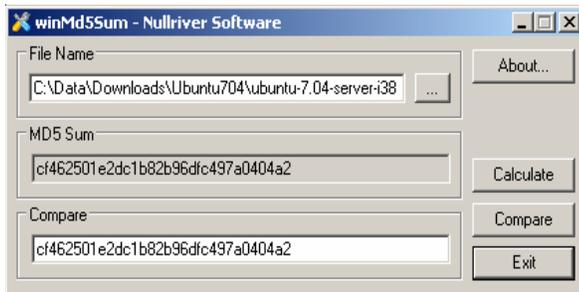
cf462501e2dc1b82b96dfc497a0404a2
*Ubuntu-7.04-server-i386.iso

I'm doing this in Windows XP. So to recompute I downloaded the Windows MD5 hash calculator program (free, open source) they recommended at <http://infrarecorder.com/>.

write this same program in Java, but after this experiment I'll guess the results will be the same.

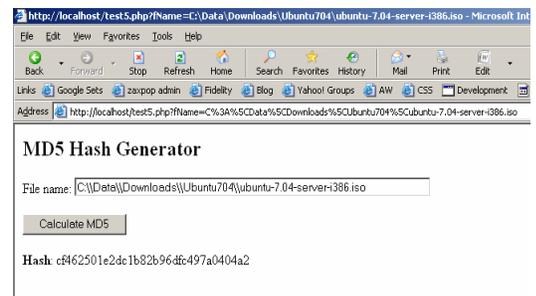
Come to the Linux SIG to find out what happened with Ubuntu. I think it's got a cool new feature for making thin clients easy.

JOHN LANSDALE is an active DACS member and director, and head of the Opensource Web Programming SIG and Linux SIG.



But this piqued my curiosity. I wondered if MD5 really is the same MD5 no matter in what platform it's calculated on. I had just been reading about cryptography in my C# Microsoft certification test book so I figured it would be good practice and not too hard to write a similar program on my own. I also know PHP5 and figured it should work there too. So I tried and it worked.

You can't learn Java faster.) I'm now going to try to learn how to



Here's the C# program. It's a not very object oriented console program that calculates the MD5 hash for a given file name. Note you need the name spaces for Cryptography and IO.

```
using System;
using System.Collections.Generic;
using System.Text;
using System.Security.Cryptography;
using System.IO;

namespace MyMD5
{
    class Program
    {
        //
        // Command line program to calculate MD5 hash.
        //
        static void Main(string[] args)
        {
            Console.WriteLine("MD5 Hash Generator");
            // Get a valid file name and turn it into a
            Stream

            string fName = "";
            bool validatedFile = false;
            if (args.Length == 1) fName = args[0] ;
            try
            {
                while (validatedFile == false)
                {
                    if (fName == "")
                    {
                        Console.WriteLine("Enter valid file name.
                        just press enter to end.");
                    }
                }
            }
        }
    }
}
```

Or

ASP.Net. Focuses on Web site/server application development using Microsoft Visual Studio, C#, VB, Javascript and SQL Server programming tools. Session starts with a Random Access, followed by a programming discussion with examples.

Contact: Chuck Fizer *cfizer@snet.net*.

Meets 1st Wednesday, 4-6 p.m., at the DACS Resource Center.

Next Meeting: July 11.

Digital Imaging. All about digital cameras, retouching and printing.

Contact: Ken Graff at 203 775-6667 *graffic@bigfoot.com*.

Meets last Wednesday, 7 p.m. at the DACS Resource Center.

Next Meeting: July 25.

Investment Strategies. Discusses various investment strategies to maximize profits and limit risk.

Contact: Paul Gehrett, 203 426-8436, *pgehr4402@aol.com*.

Meets 3rd Thursday, 7:30 p.m., Edmond Town Hall, Newtown.

Next Meeting: July 19.

Jobs. Networking and discussion of the jobs search environment.

Contact: Charles Bovaird, 203-792-7881 *aam@mags.net*.

Meets by e-mail.

Next meeting: TBA

Macintosh. Focuses on all aspects of the Mac operating system.

Contact: Richard Corzo *macsig@dacs.org*.

Meets 1st Thursday at DACS Resource Center at 7 p.m.

Next Meeting: Aug 2.

Open Source Web Programming. Focuses on open source tools for Windows and Linux.

Contact: John Lansdale, 914-533-2002.

Meets 3rd Monday, 7 p.m. at the DACS Resource Center.

Next Meeting: July 16.

PC Maintenance. Review of PC hardware and OpSys maintenance and use.

Contact: Charles Bovaird, 203-792-7881 *aam@mags.net*.

Meets on 4th Thursday, 7 p.m. at the DACS Resource Center.

Next meeting: July 19

Server. Explores Back Office server and client applications, including Win NT Servers and MS Outlook.

Contact: Jim Scheef *jscheef@telemarksys.com*

Meets 2nd Thursday, 7 p.m., at the DACS Resource Center.

Next meeting: July 12

VB.Net, Visual Basic-6. Focuses on Smart Client Windows application development using Visual Studio, VB, C# and SQL Server programming tools. Starts with a Random Access session followed by Object Oriented discussions and programming with examples.

Contact: Chuck Fizer, 203 798-9996 *cfizer@snet.net* or

Greg Austin, 845 494-5095 *greg.austin@ryebrookpba.org*.

Meets 1st Wednesday, 7p.m., at the DACS Resource Center, preceded 1 hour with a shared cost pizza snack.

Next Meeting: July 11.

Virtual Computing. This SIG will explore virtual computing technologies and how to leverage them as additional system resources. Our main focus will be on the free VMWare products, but we will also take a look at other technologies and tools.

Meets 4th Tuesday, 7 p.m. at the DACS Resource Center

Contact: Rob Limbaugh *relimbaugh@dacs.org*, 203 826-8196.

Next Meeting: July 24.

Web Design. Explores Applications for designing and creating Web sites.

Contact: Anna Collens *avo555@earthlink.net*.

Meets 3rd Tuesday, 7-9 p.m. at the DACS Resource Center.

Next Meeting: July 17.

SIG News & Events

dotNet. Although there are four basic characteristics to Object Oriented Programming (OOP), we started our discussion in the context of abstraction. But of course we need to know, what is an object? This question intrigued us, but with special reference to Object-Oriented Programming Systems. We dug into the notion of abstraction as central to this context of talking to machines to develop code to operate them. The basic four characteristics of OOP are abstraction, inheritance, polymorphism and encapsulation.

When framed specifically for this context of coding, we were able to determine that abstraction is a way to collect several classes of implementation in the form of methods. An abstract class is an entity serving only a base from which characteristics of several classes of implementation are inherited. It does not stand for a particular implementation itself. Therefore, abstraction in OOPS has to be understood as having its meaning only in a special language for talking to machines. Much was revealed in our spirited discussion.

The C#VB SIG was continued by John Lansdale. In that session, they continued on the OOP theme, developing code that more clearly illustrated OOP.

The next regular meeting was scheduled for July 4th, but has since been rescheduled for July 11th. We will continue with our discussions and code example of OOP with more insight using examples from James Cooper's book *C# Design Patterns*. We want to explore the concept of using classes in a multi-record database application.

Mac. In June, we covered several topics that came up while working on the PowerMac G4 we use in the Macintosh SIG.

When the machine started up and we logged on, the software firewall Little Snitch notified us that MediaCentral, an alternative to the Front Row media viewing application on newer Macs, was trying to establish an outgoing Internet connection. I demonstrated MediaCentral more than a year ago, and no longer had any need to have it installed on the SIG machine. I found the original disk image containing the installer file and started the installer. After going through several steps I found that there was only an option to (re)install the program, but not to uninstall it. We consulted the Support section of the vendor's Web site (<http://www.equinux.com/>) and found a FAQ that referred us to

SIG News and events, cont. on page 13

July 2007

Danbury Area Computer Society

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What's News

June, 2007

by Jamie Yates

Description:

Has many free downloads.

Also provides a function that scans your PC and alerts you to updates.

This new function is currently in beta .
<http://www.filehippo.com/>
<http://www.filehippo.com/updatechecker/>

Description:

Black Viper is back after two years.

Lists and describes services in XP and Vista.

Gives recommendations as to whether you can stop them.

Write ups are good but could be better.

Has a few Vista tweaks and archived XP tweaks.

<http://www.blackviper.com/>

Description:

Microsoft is at it again.

If you can't beat them scare the customer exec.

Claims 235 open source (OS-Linux) Microsoft patent violations. Not that they are suing.

Most people think it's a bluff and probably not defensible.

http://money.cnn.com/magazines/fortune/fortune_archive/2007/05/28/100033867/index.htm?postversion=2007051409

Description:

Novel airline fare site.

You give it flight requirements and it gives lowest current fare based on departure date.

It also gives you forecast based on history if prices are rising or falling if you want to wait to book.

And even gives you different return dates with additional price points.

<http://www.farecast.com/>

Description:

PCDecrapifier - great name, great function.

All PCs come loaded with additional software from other vendors.

They take up disk space and may slow your machine down.

This little program gives you the option to remove many of these applications automatically.

It's free for personal use.

<http://pcdecrapifier.com/home>
<http://pcdecrapifier.com/removes>

Description:

What's in a name? - Zonbu.

A computer with no hard drive.

One-tenth the electricity and no noise, Automatically updates itself.

User data stored on servers.

6 USB ports.

You supply peripherals.

Starting at \$99 and \$12.95 a month.

<http://www.zonbu.com/home/>

<http://www.zonbu.com/code/learn.htm>

Description:

What is Popfly from Microsoft?

Online visual tools for creating mashups.

Builds using customizable blocks, similar to pipes.

Create web pages without writing code.

Fully customizable HTML.

<http://www.popfly.ms/Overview/Default.aspx>

Description:

What do you do with an empty Scotch bottle?

Why make a computer.

http://www.metku.net/index.html?path=mods/whiskypc/index_eng4

Description:

Microsoft Surface.

A multi-touch high resolution, intelligent display.

Can recognize objects such as cameras and cell phones.

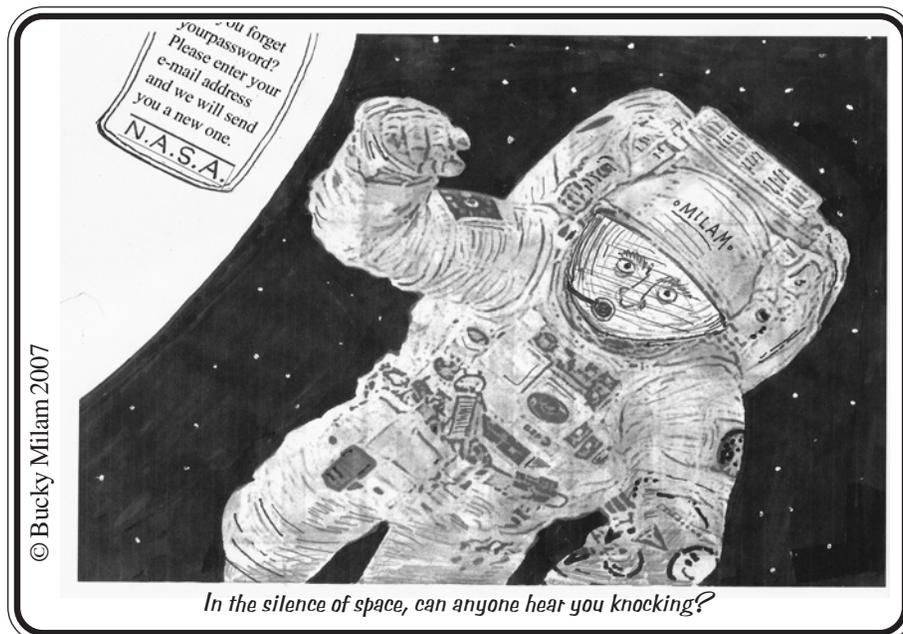
Coming to a hotel, casino or bar or other commercial business near you.

Eventually you will have one.

Only the video will do it justice.

<http://www.microsoft.com/surface/>
http://youtube.com/watch?v=-9j_tYP-kzc

JAMIE YATES is former director of programs, and member of the board.



Please note our new General Meeting Schedule

- 6:30 - 7:00 pm = Casual Networking
- 7:00 - 7:15 pm = What's News
- 7:15 - 7:40 pm = Ask DACS
- 7:40 - 7:50 pm = Announcements
- 7:50 - 8:00 pm = Break
- 8:00 - 9:30 pm = Featured Presentation

Lost and Found

How I Find My "Deleted" Emails

by Tom Thiel

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.

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 capabil-

ity 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.

16. 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.

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

TOM THIEL is president of the Lake-Sumter Computer Society (thiel5@Comcast.net). This article has been provided the editorial committee of the Association of PC User Groups (APCUG) of which DACS is a member.

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Psychology of Computer Geekery

Fundamental Attribution Error

by John Lansdale

I LEARNED ABOUT the *fundamental attribution error* (FAE) a few years ago from a Book On Tape. (Who says all that time driving to clients' offices is wasted?) It resonated with something I knew from my many years of experience in computer technology.

Part of it was those meetings at which some new technology I hadn't yet studied was being discussed. It was alphabet soup. I felt so dumb, the speakers so smart. Why was I even in this profession? Upon reflection, I realized there was another part. When I was on the other end. For example thinking about how the "users" would be understanding the genius of my latest changes to the Order Entry System. They just didn't get it.

Both times I was under sway of the attribution error. Any time someone knew some detail I didn't, I would attribute it not to the person's particular experience, but to their innate intelligence, and, to my private embarrassment, vice versa. All this

time I thought I was a computer genius, it was just that I had studied something someone else had not.

People in "normal" professions might just learn about the FAE and adjust. But in ours, the volume of rapidly changing, highly idiomatic information makes this very hard. The spread in ages at DACS makes it even harder because there's an even broader range of specialties in which we can be geniuses and idiots.

My answer has been to learn at least a decent amount of EVERYTHING. That way I'll always be aware when someone is really brilliant (it is possible) or just knows something new. I've learned to completely ignore genius - including any I may have - and look only for situational explanations.

I highly recommend any DACS member who feels embarrassed to attend a SIG in which he or she is interested but not familiar to start first by studying, not the subject, but the FAE. At the same time, some of you know-it-alls, and I mean you, had bet-

ter take a look too. We're all in the same boat. Wikipedia is a good place to start.

From Wikipedia, the free encyclopedia: In attribution theory, the **fundamental attribution error** (also known as **correspondence bias** or **overattribution effect**) is the tendency for people to over-emphasize dispositional, or personality-based, explanations for behaviors observed in others while under-emphasizing situational explanations. In other words, people have an unjustified tendency to assume that a person's actions depend on what "kind" of person that person is rather than on the social and environmental forces that influence the person. Overattribution is less likely, perhaps even inverted, when people explain their *own* behavior; this discrepancy is called the actor-observer bias.

JOHN LANSDALE is an active DACS member and director, and head of the Opensource Web Programming SIG and Linux SIG.

Significant Bits

Tips And Tricks For Working At The Shell

By Sean N. Henderson

THE LAST COUPLE articles I mentioned the email program 'pine' and also a to-do list program called 'todo' (packaged under 'devtodo'). Let's explore a little bit about how to put these together, and also explore the power of the command-line.

To list out our todo list, merely type 'todo' at the shell. (The 'shell' is what UNIX users call the command prompt.) If your list has nothing, you can add some items by typing in 'todo —add', then answering the request for a description and priority. You could do it on one line also like 'todo -p 3 —add Wash car'.

So, after about a dozen or so entries, you decide that you'd like to send your wife the list and see if there's anything she'd like to add. This is simple

- type 'todo | pine dearwife@yahoo.com'. Fill in the subject, write a little introductory note, then send.

Your boss wants to know what you're working on. While while your boss is not on your UNIX system, you keep your todo there anyway, slyly using the 'alias' command to ask 'todo' to look at another list. Let's say 'csh' is

your shell of choice (there are many). In your C-shell startup file '~/.cshrc', you put the line "alias todow 'todo — database ~/.todo_work'". Your boss wants to see it on the web, so you change the path from '~/.todo_work' to your webpage directory - something like '~/public-html/.todo_work'. And here's a little CGI wrapper to put around it.

Excellent! Depending on your tastes for HTML, you can dress the above however you'd like using a CSS file or more detailed tags. Also, the line with 'todo' can be modified to include more verbose output about when tasks were completed and so on.

Sean N. Henderson is a member of the board of directors. On top of that he leads a dual life as a computer-guy and musician. His devices also contribute to his music life as well.

```
#!/bin/ksh
# comment: filename is 'work_todo.cgi' or similar.
ptitle="TO-DO List" #var

cat <<!                #here-doc
Content-type: text/html
<HTML><HEAD><TITLE>${ptitle}</TITLE>
</HEAD><BODY><H1>${ptitle}</H1><PRE>
!
todo --database ~/.todo_work      #actual program
cat <<!                #here-doc
</PRE> </BODY> </HTML>
!
exit
```

the manual which we downloaded. Therein was described a manual uninstall process.

There were several steps to uninstalling MediaCentral, one of which was "Move the MediaCentral system preference pane located in ~/Library/PreferencePanes into the trash." I explained that the ~ symbol in the path referred to the home folder. If you are logged on to the Mac as yourusername, then the path would be /Users/yourusername/Library/PreferencePanes. Of course there is a shortcut to your home folder in the left side of any Finder window.

Another thing we wanted to take care of is to run the Apple Hardware Test, which is on the Mac install disc that comes with newer Macs, to verify the updated memory we installed last month. The Apple Hardware Test is in a hidden session on the disc, so if you insert the disc into your Mac and it mounts on the desktop, you will only see the Mac OS X install disc. Therefore, to run the Apple Hardware Test you can't just restart and hold down the C key like you normally would to boot from a CD or DVD.

If your disc contains the Apple Hardware Test, the front of the disc will say something like "To use Apple Hardware Test hold down the Options key as the computer starts up." We did this and it showed us different choices to boot from, including the Apple Hardware Test. However, since I didn't have the install disc from the PowerMac G4 and had brought one from my iMac G5 at home, it informed us that we wouldn't be able to run the Apple Hardware Test. If we could, it would have given us a choice between a short or longer test, but there's no way to choose to test individual hardware components.

We also talked about the new iTunes Plus feature of the iTunes Store, where starting with music from major label EMI you have a choice of downloading a higher quality (256 kbps instead 128 kbps) song file that is free from the DRM (digital rights management) protection that ordinarily limits you to a fixed number of computers and iPods. With iTunes Plus songs, which cost \$1.29 instead of 99 cents, this restriction is removed.

Next month (July) we will take a break and there will be no Mac SIG. We'll start up again in August.

Open Source. In our SIG we're learning the difference between Web sites and Web applications. We've reviewed a number of Open Source Web apps like Drupal, Joomla/Mambo, WordPress, OSCommerce, TikiWiki and we've learned the basics of LAMP, including some decent PHP and MySQL programming, we even did a little Perl. Now we're learning one of the original tools, Java. Our Java lessons are hands on. In lesson one we got IBM's Eclipse (www.eclipse.org) working on our PC's, made sure we had recent Java Runtime Environments (JRE's) and wrote Hello Java code. Lesson two, we wrote Java Applets, a little robot program. Not too useful, but we got the idea.

Our first program worked with stdout or what we call in Microsoft terms, console mode. The second, applets ran in the Web browser like JavaScript. (JavaScript is not Java) Now, we've started writing programs that run on Web servers; they're called Java Server Pages (JSP). They work the same as PHP and C#. You just embed your java code between special escape characters in HTML (<% // java code here %>). Whatever the Java code prints shows up in the HTML at that spot. Simple but powerful. Unlike pure HTML, Java has access to databases and can make decisions. We want to set it up so we can run our JSP on our own PC's. Later we could copy(deploy) the code to a pub-

lic Web server. Our first task has been to set up Apache Tomcat (tomcat.apache.org) and the latest Java Development Kit (JDK) (developers.sun.com/downloads/top.jsp).. We'll do our development in Eclipse so we had (have?) to set it up too. It's a question because that's where we ended the SIG this month.

Come next month to find out more. We can get you up to speed fast on your own development machine, or just watch.

There are a number of good tutorials on the Web for servlets and for setting up Tomcat and Eclipse. Google "tomcat eclipse plugin." You should find www.eclipsetotale.com/tomcatPlugin.html. For just a tutorial on Java servlets, see "A Tutorial on Java Servlets and Java Server Pages (JSP)" www.apl.jhu.edu/~hall/java/Servlet-Tutorial.

Virtual computing. In our last meeting, we hit our top three bullet points, noted a few interesting problems from our attempts at acquiring Virtual Machines pre-made online, and had a chance to see "VMWare Fusion" installed on an Intel based Mac. Here's a little recap:

- The appliance we picked to install was 'JanusVM', mainly because it is only 32MB. It can be found at <http://www.vmware.com/vmtn/appliances/directory/392>. We downloaded and extracted the files into a new directory under 'C:\VirtualMachines', then opened up VMX Builder and clicked 'Edit existing virtual machine'. Just browse to the where the files were extracted and select the 'JanusVM.vmx' file and click 'Open'. We noticed that a different icon showed in the VMX Builder for the 'JanusVM' machine. Upon further investigation (post-SIG), the reason for this is because the 'Host Product' settings need to have 'Target Platform' and 'Version' set to the appropriate VMWare host application you are using—e.g. "Player" and "1.x", for example. It is also a good idea to set the Guest OS information properly (for JanusVM it should be 'Linux' and 'Linux' or 'Other Linux').

- We visited EasyVMX <http://www.easymvm.com> and created a virtual machine for download. The download is quick because EasyVMX creates and defines the virtual hard drives as multiple expanding disk files.

- During the SIG, we observed a 'logging' issue with the pre-made VM from EasyVMX. The error stated that the log files in 'c:\temp' were locked. Current versions (as of 06/2007) of VMWare Player and VMX Builder seem to fix this issue. The problem can be fixed without upgrading your environment by editing the Virtual Machine (in VMX Builder) and clicking 'Advanced' in the 'Options' menu and just remove the text in the 'Log Files Location' field, then save the new configuration.

- The install of VMWare Server on XP didn't go exactly as planned because I forgot to bring my XP install CD, which is needed to install services not installed by default on XP. We installed VMWare Server anyway (lacking the features that need the special XP components) just to show that not all the features are required to have a functioning environment. Next month, we'll do it the 'right way'.

- Barbara graciously brought her Mac in so we could see VMWare Fusion on the Mac, as well as the install process. The install was straightforward and simple. Poking around in the Fusion GUI revealed that VMWare did a good job of adding the tools needed to create virtual machines without needing extra software, as we have been accustomed to with VMWare Player.

In our next meeting, we'll take a look at Microsoft Virtual Server and Microsoft Virtual PC.

Back to Basics

What is PCI Express?

By Brian K. Lewis, PhD,

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 computer's 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 obso-

lete 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 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 devices 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 regular columnist with *The Sarasota PC Monitor*, *Sarasota PCUG*, *Florida* and a former university & medical school professor. He has been working with personal computers for more than thirty years. www.spcug.org. This article was provided by the Editorial Committee of APCUG, of which this group is a member.

Ask DACS

June 2007

Jim Scheef, Moderator
Lisa Leifels, Reporter

WE WELCOME QUESTIONS FROM the floor at the start of our General Meetings. In addition, members who are not able to attend the General Meeting may submit questions to askdacs@dacs.org. We will ask the question for you and post the reply in *DACS.ORG*. Please provide as much information as possible since we can't probe during the session.

Q. A question was emailed from someone who is preparing a text file of data that is to be entered into a database and would like to know which column they are on when they are editing the file.

A. Text editing software will usually show you what column and row you are on. TextPad, Notepad++ and K-edit were three different programs that were recommended at the meeting. Another solution is to switch to a monospace font such as Courier or LetterGothic, so that the data in each row will line up correctly. Then create a file with one row containing the set of numbers 1234567890 repeating across as many times as you need. Copy the row of numbers into your data file and you will have instant column markers that you can remove once you're done editing the file.

Q. There have been a few times when a person who is typing an email message in Yahoo! mail gets disconnected from the Internet and the email message is lost. Is there a way to get the email message back?

A. Unfortunately, the email message is most likely gone. One suggestion was to save long or important email messages in a Microsoft Word file and then paste the text into the body of a Yahoo! mail message. Someone brought up the point that Gmail saves your composed mail to a drafts folder after a period of time, which may mean that this feature could be added to Yahoo! Mail in the future.

Q. I can no longer see the names of the files in my recycle bin, how can I fix this?

A. One solution that may resolve this problem is to right click on the Recycle Bin and select Properties. Check the box next to "Do not move files to the recycle bin. Remove files immediately when deleted". Next delete a file you really don't want. Right click on the Recycle Bin again and select Properties and this time uncheck the

box next to "Do not move files to the recycle bin. Remove files immediately when deleted". Try deleting another file you don't want to see if you are able to see it when viewing the files in your recycle bin.

Q. Charter cable is my ISP and I am having trouble resolving domain names on my router.

A. The purpose of the Domain Name System (DNS) is to translate IP numbers into alphanumeric names that are easier to remember. This translation is performed by special computers on the Internet called DNS Servers. Each ISP provides its own DNS Servers to its customers. Lately there have been an increasing number of attacks against local ISP's and their DNS Servers.

The first step is to make your ISP aware of the problem so it can be fixed. Another approach is to use the DNS Server of a different ISP. Just ask someone you know for the DNS Server they are using and see if it works for you. You can also use the DNS Servers from OpenDNS.com. If you don't mind competing with the thousands of DNS Servers, you could even use the Internet's root DNS Servers directly. Another option with which people have had success is using the "unofficial" Open Root confederation DNS Servers.

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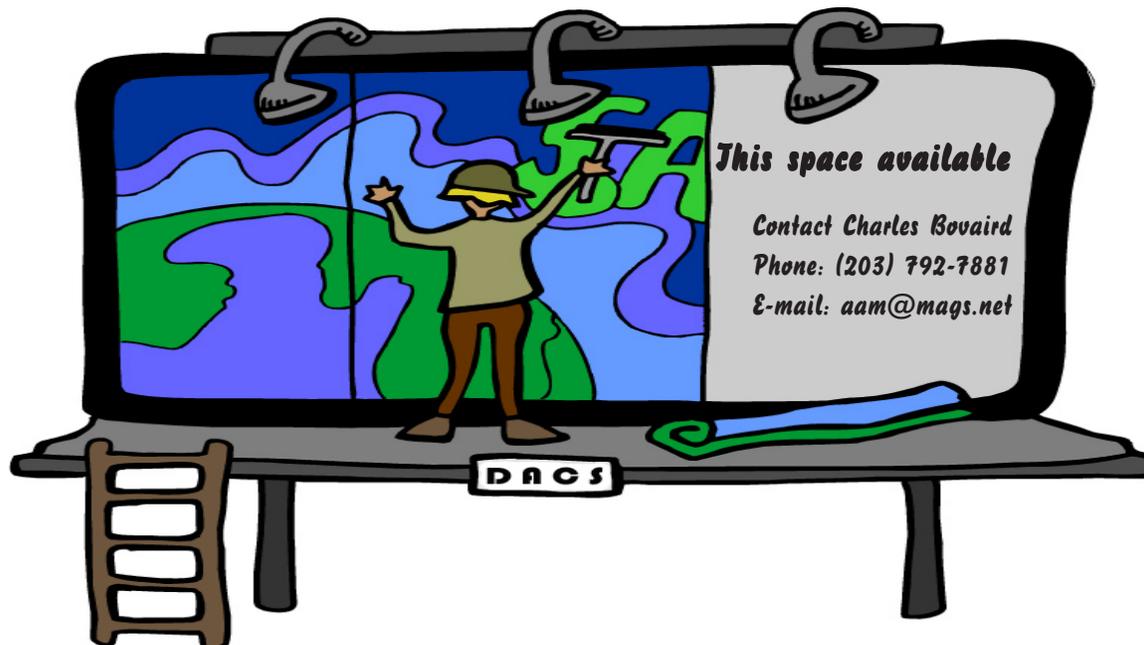
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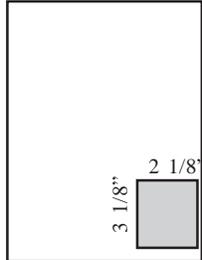
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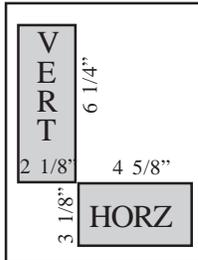
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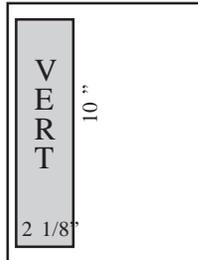
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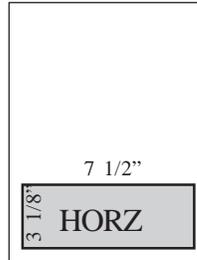
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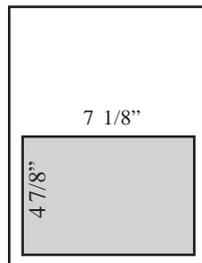
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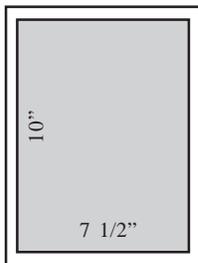
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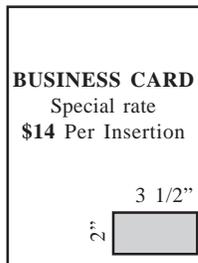
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We sponsor or participate in community support projects by collecting, repairing, and redistributing used computer equipment and software to community service providers such as schools, libraries, and patient/client support groups. DACS members provide pickup, refurbishing, installation, and training assistance as needed. Firms or individuals with equipment to donate should leave a message on the DACS Infoline (203-748-4330). or send an email to recycling@dacs.org.

The Voice for Joanie program was created in 1992 through the initiative of DACS member, Shirley Fredlund. This program provides computer-assisted speech for victims of amyotrophic lateral sclerosis ("Lou Gehrig's Disease"). DACS members have contributed volunteer time and technical assistance since the program began. Voice for Joanie and DACS have earned national computer industry recognition and financial assistance for this vital collaboration.

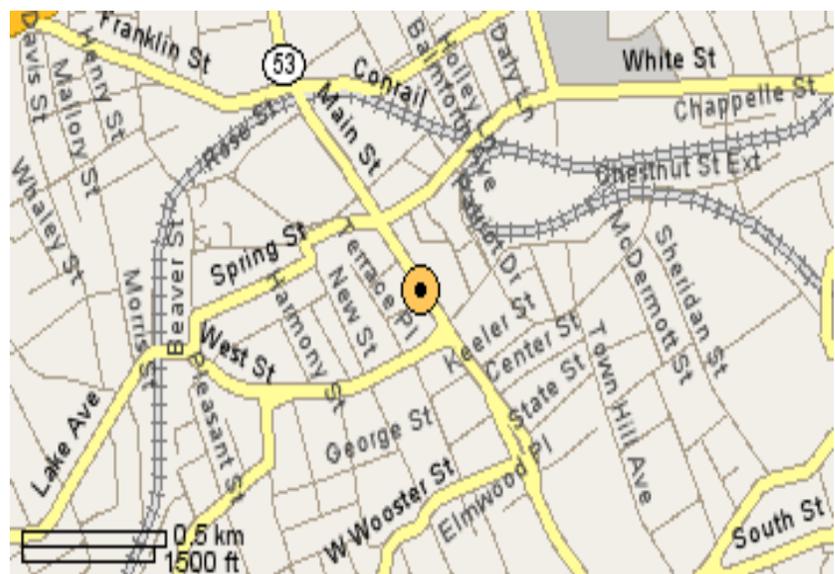
Our general meetings are held on the first Tuesday of each month in the Danbury Hospital Auditorium at 7 p.m. These meetings are open to the public. The main presentation is scheduled from 8-9:30, preceded by casual networking, announcements and Random Access, an informal question and answer session. A free product raffle is often held at the conclusion of the main presentation.

In addition to the general meeting, DACS sponsors many special interest groups (SIGs) where members can learn and share information about a specific topic. Each SIG plans its own meeting schedule and program topics.

Our newsletter, *dacs.doc* is published monthly for our members, and mailed to arrive before the general meeting. It features articles written by members and others on timely topics including product and software reviews, issues and trends in personal computing and "how-to" articles on sound, video, digital photography, etc. In addition, each issues includes the calendar of meetings, announcements on SIGs and other DACS events. *dacs.doc* has won numerous prizes over the years for its design and content.

Through its activities, DACS offers numerous opportunities to network both professionals and computer hobbyists. Our Special Interest Groups are an excellent way for members to both learn and share application or hardware knowledge. Any DACS member can form a special interest group on any topic where there is interest. Most SIGs meet in our Resource Center in downtown Danbury.

If you have concerns, requests, or suggestions regarding DACS or its programs, please contact dacsprez@dacs.org. DACS officers and board members' phone numbers are listed on page 3 of *dacs.doc*.



The DACS Resource Center is in Ives Manor, Lower Level, 198 Main Street, Danbury, CT 06810 (203-748-4330).



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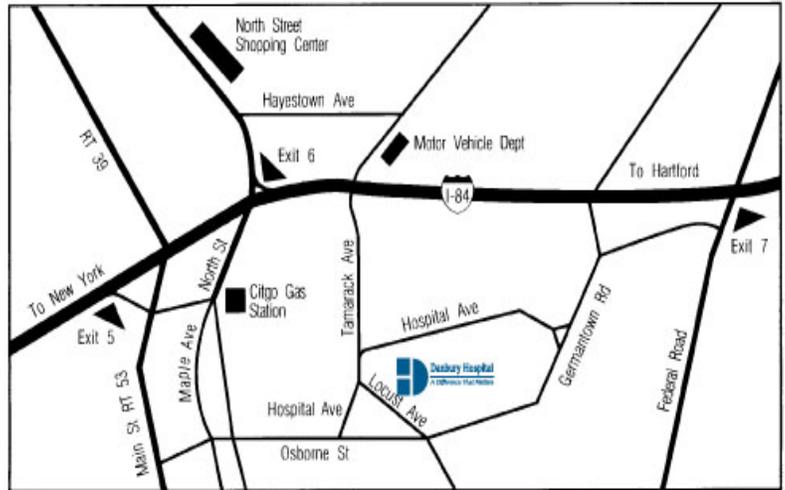
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