



The PULP

HUGE this month:

General Meeting: April 20th

Surprise!

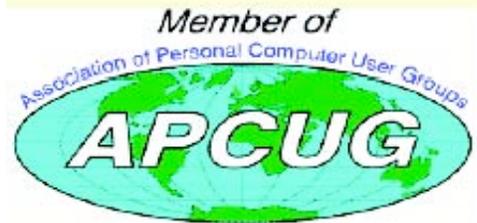
See you there!

East Hartford Public Library
Main St. & Central Ave., East Hartford, CT.

Q&A Session: 7:00PM–7:30PM
Meeting starts at: 7:30PM

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MEETING LOCATIONS
East Hartford Public
Library
Main & Central Avenue
in the Lion's Room
(downstairs)

Editors Corner

We finally solved the problem of getting everyone connected at the meetings to the club's Airport. **We turned off the security.** Please don't do this at home.

A belated Happy Anniversary to 'BOB' who turned 15 on March 31.

Microsoft began 'fuzzing' testing of Office 2010 and found 1800 bugs and/or security leaks.

The recent CanSecWest conference hosted Pwn2Own security contest (sponsored by 3Com's TippingPoint security unit). This year pitted researchers against IE8, Firefox 3.6 (both running on 64 bit Windows 7), Safari (running on Snow Leopard), Google Chrome, & an iPhone. IE8 was hacked in 2 minutes, Firefox took a little longer and the iPhone was hacked in 5 minutes and Safari was the first to fall (in 10 seconds). Chrome was the only browser left standing. Opera was not tested.

This month's topic is sort of in limbo at the moment, but it will be related to computer (in)security.

BTW-- regarding recovering deleted files from a memory card, I've used 'Exif Untrasher' with success.

Stuart Rabinowitz
Editor-in-Chief

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Please note that the clubs PO Box has been closed. When membership renewals go out in the fall the return address will be that of our Membership person Richard Sztaba.



A Little Computer Quiz

by Stuart Rabinowitz

The trivia and minutiae of the computer related world. The answers will appear next month or you can submit an answer sheet at the General Meeting. Good Luck.

During the mid-1940's (1943-46) there were a series of magazine ads (I have copies if you don't believe) which depicted some future events. Here is a description of 4 of them, can you identify the company whose ad it was?

1 In Feb. 1943 an ad titled "Perfected Television and radio telephone combined", it showed a man in Chicago video-conferencing with someone in London.

2 In Oct. 1944 an ad titled "Today's weapon, tomorrow's convenience!", the copy stated that the wireless phone was already in use by the armed forces, and showed a fisherman phoning his wife from the stream

3 In Feb. 1946 an ad entitled "Communications of Tomorrow" showed a man dictating into a voice recognition printer

4 In April, 1946 an ad entitled "Top Stories & News Events as You Dine" showed a bar with giant flat screen TVs

5 I'm sure many of you early Mac users remember 'HyperCard' (which may have given (partial) birth to the World Wide Web) and all the wonderful stacks you could create. But, did you know that one automaker used it as a basis for their inventory system. Which one?

Answers to March, 2010 Quiz

1 What company introduced 'The Drayton Computing Scale' in 1885?

A Drayton Computing Scale Company. They went on to become part of IBM

2 What company's first product was the 'Turbo PC' introduced in 1985?

A Dell

3 What company introduced the 'The Schottky bipolar RAM in 1969?

A Intel

4 In 1979 Relational Software sold its first product. What was it and what is the company called today?

A It was the Oracle 2 database and the company is now called Oracle

5 EMC is well known for providing a number of technology related products (network storage) and consulting services, but what was their first product in 1979?

A They started in business selling used office furniture



Networking For Dummies (Part 1 of 2)

Written by Ron Hirsch, Member & Contributing Editor,
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This article has been obtained from APCUG with the author's permission for publication by APCUG member groups; all other uses require the permission of the author (see e-mail address above).

Introduction

This is part one of a two part article on this topic. Now, before anyone feels that I'm out of line for referring to someone as a dummy, I want to make it clear that I was the networking dummy in question, for many years.

While I build and repair my own computers, and have written considerable software, I was always very weak on networking. However, lately I've graduated from dummy school, thanks to some good hardware and software, and more experiences with my home network.

I thought I'd share my old, and new experiences, with you, as they have come from many years of frustrating activities, associated with my home wireless network.

This article will not go into the complete aspect of all types of networks, but is limited to home networks, which are what many of you already have, or are possibly contemplating having in the near future.

HOME NETWORK PURPOSES

Allowing multiple computers to share the internet, is the usual purpose of a home network. My Internet Service Provider (ISP) is Comcast.

Most homes use either the local cable company, which is Comcast here in Boca Raton, or a DSL (digital subscriber line) from the landline phone company (AT&T here in Boca).

A secondary purpose can be accessing stored files on other computers on the network, or sharing devices such as printers installed on other computers.

WIRELESS ROUTERS

Most home networks use a wireless router. This is a unit which allows multiple devices (usually computers) to be plugged into it, and also provides a wireless signal which broadcasts in all directions, so that computers which have a wireless adapter (either via an internal card, or a USB plug-in wireless adapter) can connect to the Internet. My Networking Task & Troubles Back In 2002

First, here's a commentary of what occurred, some years back, in my first brush with home networking.

I decided that I wanted a wireless network, as I had two computers, and I wanted both to have access to the Internet. Since it would have been very inconvenient to run an ethernet cable from my main computer's router to the second computer, I opted for a router with wireless capability.

MAIN COMPUTER SET UP

I purchased a Linksys wireless router, since Linksys was one of the biggest names in this product area, then I installed the router, and connected my main computer via an ethernet cable, which uses RJ-45 connectors. These connectors look like the connectors on telephones, but they are larger. I connected my Adelphia computer modem to my new router, and just assumed that all would work right away. Of course, nothing worked to start off.

There was no installation CD disc, but there were many pages of manual instructions on what one had to do to set things up. The complexity of the instructions was mind boggling, so I called Linksys support - which was in the Philippines.

Tech support worked by rote. They followed various sets of instructions, and most of the support staff really was not that capable. I also called Adelphia tech support, finding someone "network knowledgeable" there was also quite difficult.

After several days of back and forth calls,



and speaking to quite a number of different persons, I finally got my main computer (which was hard wired to the router) online and working properly with my Internet connection.

SECOND COMPUTER SET UP

Next came getting my #2 computer connected to the router, via the wireless capability. I had bought a Linksys USB wireless adapter. It also had nothing much in the way of information on how to use it, and no install CD.

I connected the wireless adapter to machine #2, and guess what - nothing happened. So, it was back onto Linksys tech support. I must have spent eight to ten hours fumbling around, while talking to Linksys support. We tried everything, but we could not get the second computer to connect to the Internet.

Finally, the Linksys tech support person advised me that he could only suggest one final step. There was a free program available on the Internet, called "Boingo" - some name! He gave me the URL to that page, which was not a Linksys page. He suggested that I download and install it, and it would get my wireless adapter connected up, so I did, and amazingly 5 minutes later, I realized success.

So why couldn't Linksys have some similar software included with the wireless adapter?

TASK NOT QUITE FINISHED YET

I noted that when my #2 computer finally made it on line, that the received wireless signal was quite weak. Out of a possible 5 bars of signal strength, it hopped back and forth between one and none, so I did some investigating, and learned that the large distance between my wireless router, and the #2 computer was right at the max usable distance. Checking around, I found, on the Linksys site, a "booster amp", that was designed to work with my router. There were even four recessed holes on the top of my router, to hold the four feet of the booster amp.

So I bought this amp, and finally the install went smoothly. Since it was nothing but an amplifier, there were no settings or

adjustments. It did improve the signal strength slightly, and I now had a solid one bar reading. This was good enough to maintain Internet connectivity, but did give me a very slow connection.

So after about 10 days of stumbling around, I finally got my system working.

This picture is what the router and booster look like. The picture is actually the new router, with the old booster on top of it. The new and old routers are virtually identical in size.



Moving Ahead In Time

In mid April 2009, I suddenly started having problems with my main computer's Internet access, and then my wireless computers' access.

After reviewing the symptoms, and running a few checks, I became convinced that my Linksys router had developed a problem. Because of its age (7 years), and the fact that it was an older 802.11b model, I decided that the simplest approach was just to get a new router. And, if I stayed with the Linksys WRT54GL, which was an 802.11G unit, I

cont. on pg. 9





NETWORKING FOR DUMMIES (Part 2 of 2)

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This article has been obtained from APCUG with the author's permission for publication by APCUG member groups; all other uses require the permission of the author (see e-mail address above).

In part 1, I reviewed the history of my first network installation about 7 years ago, and the difficulties I encountered. Part 2 will cover all the work I did to essentially replace the old network, since the main wireless router had failed. For all practical purposes, the work involved now would have been the same as if this were a new network installation, starting from scratch.

THE PURPOSE OF A HOME NETWORK

The main purpose of most home networks is to share an internet connection among several computers. Using a wireless router typically provides 4 plug in ports for hard wired cable connections, and a receiver/transmitter which broadcasts the connection wirelessly, with a typical range of up to 300 feet, depending upon the router, the surroundings, walls, etc. You can of course share files, printers, et al, should you wish to do so, but configuring this is done after the initial setup.

YOU WILL NEED THE FOLLOWING

First you will need a wireless router. The two current main varieties of routers are the "G" and "N" series. The "G" series wireless capability can handle up to 54 Mbps (megabits per second), and the "N" series is roughly twice as fast. But for home use, the "G" series hardware is more than fast enough for any high speed cable modem connection. And the "G" series runs at 2.4 Ghz, as opposed to a much higher frequency for the "N" series. Considering all the spec variables between "G" and "N", I would recommend the "G" series, since it is also more readily compatible with earlier hardware types, especially "B". I used a Linksys WRT54GL for this new install. The price range for this is in the \$70 region, depending upon your choice of vendors.

This router comes with an installation CD. Just run the CD, and follow the instructions which are plainly and clearly presented. In the areas of security, I would accept the suggestions made along the way. You will have to establish some passwords et al, and connect things up as directed. From what I've seen, most routers today come with a good install CD. Before you buy your router, check to make sure that is the case for the unit you choose.

There may be one window which comes up along the way, where there are fields to be filled in re IP addresses, gateways, etc. But the one key item to be selected is the choice of static or dynamic IP addresses. In most instances, such as Comcast, dynamic IP addresses are used, and when that choice is made in the window, all the other fields disappear, making life that much easier. Locate the router as high up as possible.

A computer cable modem is required. But if you already have an Internet service provider, you already have the necessary modem in place and working. For a number of years, I rented the cable modem, for \$5 per month on my Comcast cable bill. You are allowed to purchase your own modem, which I did, and save the monthly charge. A suitable Motorola cable modem will cost in the \$40-\$55 region, and will quickly pay for itself. Of course, if you own it, you are responsible for it. Cable modems seem to have very long life however.

Several lengths of Ethernet Cat-5 cable with RJ-45 connectors You will need one length to connect the cable modem to the wireless router, and then another length to connect the router to your computer. You can of course have all your computers run via a wireless adapter. But it is usually better to have your "main" computer hard wired to the router. However, if your cable modem is in a location which is not convenient for this, all computers can run in the wireless mode. Most routers come with one length of cable. If you need more, CompUSA is as good place as any to go. Even Office Depot may carry the needed cables.

**Recover Erased Photos from a Memory Card**

by Jeff Carlson <jeffc@tidbits.com> article link:
<<http://db.tidbits.com/article/10320>>

Yes, I did that bone-headed memory card thing: I erased one of my camera's SD cards before I transferred the photos to my Mac. After performing the requisite forehead slapping, I went in search of software that would get my pictures back.

Notice that I didn't panic. When a camera or computer typically erases a memory card, the images aren't actually deleted. The blocks on the memory are marked as recordable, so new data writes over the old. In this case, I was confident I could get the photos, since I hadn't shot any new images since erasing the card. Some cameras can optionally perform a low-level format of a card, which overwrites all the card's data. Camera manufacturers don't make the distinction easier, since some models, such as my Nikon D90, refer to erasing the card as "formatting," but the photos are still recoverable.

If you're reading this article because you just accidentally erased a card and searched the Web for a solution, take a breath and know that it's highly likely you'll get your photos back. Remove the card from the camera so you don't shoot any more pictures that could overwrite your "erased" ones, and read on.

****Data Rescue II**** -- First, I checked to see if I already owned something that could do the job. Prosoft Engineering's Data Rescue II is designed to search through hard disks and recover their data. Using the program's Assistant mode, I performed a Thorough Scan, which looked at every block on the card. Scanning the 8 GB card took about 15 minutes on my 2.33 GHz MacBook Pro.

<http://prosoftengineering.com/products/data_rescue.php>

<http://www.tidbits.com/resources/2009-06/data_rescue_ii.png>

The downside to using Data Rescue for this purpose is that it assumes you're searching for file names, not images. I could see that the file T4352x2868-00387.nef could be recovered, but I didn't know what image the file contained. The scan revealed every file it could, which included photos I'd already imported into Aperture.

At the time, I wasn't choosy (so I may have panicked a little when I saw that my photos were gone), so I was happy to recover all 5 GB worth of them. I would have to sort through them later, but at least the images were safe.

Data Rescue II costs \$99 and requires Mac OS X 10.2.4 or later. A demo version is available as a 14.2 MB download.

****Klix**** -- I imagine someone at Prosoft Engineering must have erased a media card at some point and run into the same issues I did, because the company's JoeSoft division offers Klix, a \$29.95 utility specifically designed to grab erased media.

<<http://www.joesoft.com/products/klix.php>>

The Klix interface is simple: one window where you select your media card and start scanning, and an Image Recovery window where you preview the images Klix locates.

The software first copies the entire contents of a card to your hard disk for backup (an option that can be turned off in the program's preferences). Depending on the card's capacity, expect to wait several minutes and watch a progress bar creep across the screen. This temporary duplicate is deleted when you quit the program.

After copying, Klix scans the card for media (more waiting, about 20 minutes for my 8 GB card), and then displays the images in the Image Recovery window. I could select all images or just the ones I was missing, then click the Recover button to copy them to a folder of my choosing on my hard disk.

<http://www.tidbits.com/resources/2009-06/klix_recovery_window.png>

Having thumbnails of the card's images, which Data Rescue doesn't offer, makes a huge difference. I was able to choose just the missing shots and recover them. That said, the thumbnails are small and are just one size; you can't zoom in to see more detail. And, for some reason, the Image Recovery window can be expanded in height, but the width is limited to five pictures across.

I want to also mention an annoyance. When



the application first launches, it asks if you'd like to check for updates - a completely reasonable feature. You can click Yes or No to perform the check, but there's also a box marked "Check for updates on launch." Clicking Yes to check for the update opens another modal dialog that notes you have the latest version; you must click OK to get rid of it. The problem is that it's not an automatic option: the same dialog appears every time you open the program. Just let me authorize a quick online check at startup once, make it happen in the background, and bother me only if there's an actual update.

Those quibbles aside, the end result is that I was able to recover just the photos I wanted (about 1 GB worth) instead of everything on the card thanks to Klix's image previews.

Klix costs \$29.95. A free demo version can scan and locate images on a card, but is limited to recovering one file of any size. The software is a 2 MB download and requires Mac OS X 10.2.4 or later.

****Photo Recovery for Mac 3.5**** -- Another utility, AppleXsoft's Photo Recovery for Mac, offers more granularity for locating erased images. While Klix locates all media files, Photo Recovery for Mac can search for just the file types you know (or suspect) are on the card. Choosing Nikon from the Search pop-up menu selected JPG Image, TIFF Image, and NEF Image (the latter being Nikon's raw file format). In fact, Photo Recovery doesn't limit itself to just photos and videos; there are options to locate Excel and PowerPoint files, Zip archives, audio formats, and more.

<<http://www.applexsoft.com/mac-photo-recovery-for-digital-media.html>>

<http://www.tidbits.com/resources/2009-06/photo_recovery.png>

What also impressed me, at first, was the capability to start previewing photos while Photo Recovery performed its scan, displaying a selected file in a large preview area that scales with the application's window. This feature let me start looking for the batch of missing pics right away.

However, that turned out to be something of a trick: I wasn't actually previewing and selecting photos, because Photo Recovery was _performing the recovery_ during the scan, copying all the files it found to my hard disk. That did allow me to

open a file and edit it if I wanted, but I didn't need to wait for the time Photo Recovery took to retrieve those I didn't want.

I should point out something important, but not thoroughly tested. I discovered that none of my applications - including Adobe Photoshop CS4 and Nikon Capture NX 2 - could open the NEF images Photo Recovery created. The AppleXsoft Web site notes that the "saving option" is disabled in the evaluation version, so I'm assuming that Photo Recovery may be deliberately mangling file data in the demo version, which is what I was using.

The free demo is available as a 4.8 MB download. Photo Recovery for Mac costs \$49.99 and requires Mac OS X 10.3 or later.

****Image Rescue 3**** -- I remembered that a Lexar memory card I bought at one point included a free version of Lexar Image Rescue, but the software had long ago been sacrificed to the evil mound that is the cluttered top of my desk; also, I think it was distributed on a mini CD, which can't be used with any of my slot-loading Macs. The company's Image Rescue 3.0 came highly recommended from some of my contacts, however, and I can see why.

<http://en.wikipedia.org/wiki/Mini_CD>

<<http://store.lexar.com/?category=25&subcategory=46>>

Image Rescue 3 boasts the friendliest interface of the lot, with step-by-step sections that explain what is happening and what will happen next. Like Photo Recovery, Image Rescue can narrow the list of file types to search, with camera presets to search for compatible formats. It also allowed me to preview the images before copying them to my hard disk.

<http://www.tidbits.com/resources/2009-06/image_rescue_types.png>

Image Rescue 3 costs \$28.99, and Lexar does not offer a demo version. If you've purchased a Lexar card, look for a URL in the card's documentation that points to a free download on the Lexar Web site.

cont. on pg. 9



from pg. 5

could have the faster speed of the G series. And, the new router would accommodate my old booster, since it had the same mating holes to mount the booster.

EXTENDED NETWORK

By this point in time, I had my main desktop computer hard wired to the router, and two other desktops and a laptop wirelessly connected to the router. And yes, as I added computers 3 and 4 some years back, all things did not go smoothly. My laptop was the easiest. When I got it in 2004, it already had a wireless adapter built in. When I turned it on, it immediately found the wireless network, and was connected.

The #3 desktop also had a built in wireless card, but getting it online was a struggle, similar to the first wireless connection. Finally, I did get it working, without having to resort to BOINGO.

Coming in Part 2

In part 2 of "Networking for Dummies", I'll relate my experiences in installing the new Linksys router, and then getting all four machines running smoothly there. I was dreading going through what I'd been through in the past.

This was a night and day difference from my first experiences in 2002. The router came with an installation CD. And it installed the router and my main computer, "as smooth as silk".

When I started on the installs of the three wireless computers, there were a few hiccups. But I then went on line, to check out a program called "Network Magic". It was touted as being the way to go when installing and configuring networks. They offered a free 7 day trial, which allows the user to install the software on up to eight computers, and let Network Magic do all the work for you.

Since Network Magic was created by Cisco, and Cisco now owns Linksys, if you were using a Linksys router, most of the important software features would continue working forever, at no cost to the user.

If you did not have a Linksys router, you could buy the lesser standard (up to 3 computers), or the Pro version (up to 8 computers), for \$29.99 and \$39.99 respectively.

Conclusion

This is the end of part 1 of "Networking for Dummies". Next month, the second part of this will cover installing my new router, and getting all 4 computers online, and talking to each other. This was indeed a real eye-opener for me. I was most happy to see that the setup and configuration had gone from a terrifying experience to a "walk-in-the-park".



from pg. 8

****Putting a Price on Memory**** -- Each application I've mentioned here also includes features for erasing memory cards, including low-level formats that can help remove drive corruption issues. Image Rescue 3 can also test a card to help identify potential problems, and it can burn images to a CD or DVD.

I'd like to think that I've learned my lesson and this will be the last time I use any of these utilities. That's why I initially thought the programs were priced too high; why pay \$30 or \$50 for an application you're going to use infrequently? But the answer came off the card in the form of the photos, digital captures of moments that can't be repeated. And honestly, I can't rule out future bone-headed memory card moments in my future.



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Editor	Stuart Rabinowitz
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Membership: Anyone may become a member. Dues are \$12 per year and include a one-year subscription to The Pulp as well as access to the HUGE Public Domain disk libraries and BBS. Meeting topics, times and places can be found on page 1 of this issue.

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April 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
					1943 John Mcuchley submits proposal for ENIAC	
4	5	6	7	8	9	10
					1927 NY Times article describes CRT	
11	12	13	14	15	16	17
					1968 Data General founded	
18	19	20	21	22	23	24
		General Meeting 7 PM				
25	26	27	28	29	30	
			1970 Z-80 chip introduced by Zilog			