The Voice of FCUG

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Contents

Meeting 7.30 pm 7th at New Canaan Historical Society
13 Oenoke Ridge Road

BOILERPLATE

"The Voice of FCUG" is the monthly newsletter of the Fairfield County Computer Users Group, Inc., a registered non-profit organization dedicated to helping members use their PC computers. Non-commercial and non-profit users are free to copy or quote material herein; proper credit and sending a copy of the publication to the Editor would be appreciated.

Members can exchange ideas and opinions through this newsletter, at a monthly meeting held the first Tuesday of most months, at occasional SIG programs, and on a bulletin board reached from the Club Internet Web-site at **www.fcug.org**.

Meetings and SIG groups are open to the public. Membership costs $30/Yr, prorated. For information and payment contact

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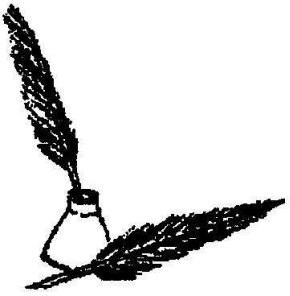
To submit articles or letters for The Voice send an e-mail message to **thevoice@fcug.org**, hopefully with article attached -- or mail paper, or even a diskette in ASCII, Word, or WordPerfect format to:

The Voice, 280 Main Street, Westport, CT 06880

From The Editor's Desk



This has been a rough month at the Editorial Office. Printing was delayed to wait for the finalization of the program for March; and then, when things seemed to be settled and the saved copy was opened to print the master for the printers, it was found to have been damaged beyond repair!

When my hard disk failed a few months back I lost all the computer copies of the Voice for which I have been the editor. So I have started trying to rebuild them from the paper, to provide PDFs for the club web site. Monday (President's Day) I was typing the May 2005 copy when I realized I had lost the page numbering. As a quick way of recovering it I used the current March 2006 copy as a template – and it seems an auto-save may have kicked in before the revised copy had been saved under a new name. Anyway, it is entirely my own stupid fault. At least I have had backups for some of the articles – but others have had to be replaced since I could not remember what they were.

Yes – Backup . . . Backup . . . I know now!

---o-oOo-o---

Program for 7th March 2006

Call to order. . . . . .Fearless Leader – Dick Booth 7:30

Q and A: . . . . . Guide – Stan Stanziale 7:40

Main topic: The Board discuss their Web Site Favorites 8:20
Learn where your Board Members hang out in their spare time. . . .

This will be interrupted temporarily by an
Epicurean Break . . .Chef du Soir – Ed Deadrick 8:50

Adjournment. 10:00

LOOKIN' FOR A RIDE?

If anybody who wants to attend meetings has a transport problem, please mention it and together we will look for a solution. You can also contact Membership Chairman Lynn Bloom (lennyb2@optonline.net, or 203-380-9306). She can tell you who lives near you, or might pass by on their way.

NETWORKING: FUN(damentals)

Part 2 of 4 – Network Interface Cards

Bruce Preston
West Mountain Systems, Ridgefield CT

Last time I described CAT-5 cables, hubs, switches and routers. As promised, this segment will talk about Network Interface cards, and how to configure and test your client machine's connection.

The network interface card (or NIC) and its associated software (drivers and protocol stack) perform several functions:

1. It takes digital data in your computer and converts it to an electronic signal suitable for placing on the cable or the reverse process.
2. It wraps the data in a 'packet' which includes addressing and error correction information.

NICs come in several physical forms. With the greatly reduced cost of chipsets, they are often integral to the motherboards of desktop machines or notebooks. For older desktop machines they may be an adapter board (PCI card). Notebook machines often make use of PCMCIA (or PCcard) adapters. Wireless NICs are also available but will be discussed in a separate column.

Protocols

We live with many protocols and don't think about them. For example, when you answer the telephone, you typically say "Hello.". A business will usually identify itself. It is generally considered good form for the caller to identify him/herself as well. In the same way, there are protocols or conventions established for computer-to-computer communications. Computer communications have several transport protocols, the most common of which is Ethernet. Other, less-often seen protocols are Local Talk, Token Ring, FDDI, ATM, and ARCnet. Ethernet supports multiple topologies and media – the way to physically interconnect the devices. For wired media, the Cat-5 cable discussed in part 1 - 10base-T and 100base-T is the most commonly seen, but occasionally you might see an installation that makes use of coaxial cable. Ethernet makes use of an access method called CSMA/CD (Carrier Sense Multiple Access/Collision Detection). With this access method, each network card listens for packets addressed to it, and if it needs to send, waits for a quiet interval before it transmits. However, there will always be situations when two devices try to begin transmission at the same instant. In this case, they detect the collision, and each wait a small, random delay before trying to transmit again. Since they delay different amounts one or the other will get a clear transmission and the other will

wait. This is all handled by the processor on the NIC.

The data that is moved across an Ethernet connection also follows a protocol – the most common of which is TCP/IP (Transmission Control Protocol / Internet Protocol) – the standard protocol of the Internet. TCP/IP is primarily a point-to-point protocol – geared for connecting two specific devices, rather than broadcasting from one device to many. It works with 'packets' – strings of information, each of which have identifying information in headers containing addressing information and data content identifiers as well as trailers which contain error detection information.

TCP/IP requires that each device have an absolutely unique identifying address, known as an Internet Protocol (or IP) address. Currently an IP address is 32 bits long (combination of 1's and 0's) which is much easier to describe by breaking into 4 sets of 8 bits, which in turn can be represented by numbers in the range of 0 to 255. These 4 sets of numbers are traditionally written in what is known as dotted decimal. Thus the 32-bit IP address associated with the DACS web site is written as 66.181.192.63

Those 32 bits of the address are not just randomly selected. There is a structure much like that of a phone number. If you look at a phone number such as (555) 321-9876 you recognize the digits 555 as an area code. You might even recognize 321 as an exchange, and 9876 as a subscriber within the exchange. With an IP address, the left-most bits of the address identify a network, and the right-most bits identify a computer ("host") within that network. Unlike the phone number structure, however, the number of bits used to define the network identifier and the number of bits used to define the host identifier varies. This allows for a few networks to have a very large number of hosts, and a large number of networks have a relatively small number of hosts.

When an IP address is assigned to a host, such as 66.181.192.163, it is necessary to also provide a "subnet mask". A typical subnet mask is 255.255.255.0. If you convert the decimal number 255 to bits, it would be 8 bits of 1's. So 255.255.255.0 is 24 consecutive 1 bits, followed by 8 consecutive 0's.
When a computer puts a packet on the network, the TCP/IP packet has both the IP address of the sender and the receiver. Every other network card on the network segment typically 'sees' the packet (remember, they are listening for packets addressed to them, as well as for a quiet interval to see if they may transmit). When a card sees a packet, it examines the address packet to see if the packet is addressed to it. If it isn't, it ignores it. If it is, it accepts the packet and acknowledges it.

How does a packet destined for a distant host get there? The sending computer can determine that an address is 'local' or 'remote' by comparing its own address and the target address for the length of the subnet mask. If they match, it is local and it puts the packet on the local network cable where it will be picked up by the local device. However if it isn't local, it wraps the packet in another packet that it addresses to a 'gateway' device and hands the packet to the

gateway with the implied request that it be delivered. If you have a broadband connection, your gateway is your Cable or DSL modem, or your Cable/DSL Router. The gateway accepts the data packet from the sender and using its tables forwards the data packet towards the destination. Note that the router need not know exactly where the destination is, it just needs a table that tells it in which direction to send it. For a home network with a broadband connection (or even a dial-up connection) the router table is very simple – send it to the device at the other end of the connection. If that device is your ISP, they have a router sitting there with a much more complex routing table.

Configuring Your Network Adapter

There are two ways to configure your network card. The original method required (and still does) that you manually enter an IP address and subnet mask to be used by your network card. This is called "static IP addressing" – the number is entered and it stays the same. As it happens, it turns out that there are a lot more computers and other devices than there are available IP addresses, and most of the time they aren't in use. When most people accessed the Internet via dial-up connections, it would not have made sense to assign an IP address to each device that might connect to the Internet, so a mechanism called DHCP was developed. DHCP provides an IP address upon demand which is used for the duration of the connection, and then released to be used by another. So the other option for configuring a network card is DHCP – to 'obtain an IP address automatically'. Of course, this implies that there is a DHCP server out there waiting for a request for an IP address lease. When you establish your account, your provider will tell you whether you have a static IP address (and tell you your subnet mask) or to use dynamic IP assignment.

Within Windows, you set the IP address different ways depending upon which release of Windows you are using. For early Windows (95, 98, etc. "old Windows") you right-click Network Neighborhood and select the Properties page. On that page will be a list of networking components, such as Clients, Services, Adapters and Protocols. One of your protocols (often the only protocol) will be TCP/IP – if you select it and press the associated Properties button you will get to a page where you may set the IP address mechanism (static or dynamic) and if static, set the IP address, subnet and gateway.

For newer versions of Windows (2000, XP – "new Windows") it can vary depending upon your 'theme' – but you are usually safe by starting in Control Panel and then opening Network Connections. You will see one or more connections – the one you want is probably either a Dial-up or Local Area Connection. Right click and select Properties and proceed as above.

Name Resolution

Quick – what's the IP address for the DACS web site? You read it just a few minutes ago, but you probably don't remember it, do you? We much prefer working with names rather than numbers. There are servers on the Internet

whose sole purpose is to convert a request for a named entity, such as www.dacs.org to an IP address. These are called DNS (Domain Name Server) machines. When you sign up with an ISP, in addition to telling you whether you have a static or dynamic IP address, they will provide you with one or more IP addresses for DNS. These numbers are entered into the property page(s) in similar fashion to specifying your IP address.

Checking Things

There are several utilities available for checking that your settings are correctly established. Again, how you get to them varies depending upon your Windows release.

For "old Windows" there is a GUI program named WINIPCFG. The easiest way to get to it is to click START then RUN, then type WINIPCFG and click OK. It will show you your IP address (note: there is a drop down field, it may point to a PPP adapter which is used for dial-up networking. If you are looking for your LAN NIC, adjust the drop down field to point to your network adapter.) It will show your IP address, subnet mask, gateway and (via another button) your DNS settings.

For "new Windows" click START / RUN / type CMD and press Enter. In the command window type IPCONFIG /ALL and you will get the same information as above.

Options on these programs may be used to release or renew a dynamically assigned IP address.

Once you have confirmed that you have an IP address, the next thing to check is to see if you have a connection. This is done with the PING utility. PING sends out a very small probe to a remote site and asks that the probe be 'echoed' back. PING is accessed only from a command line prompt. To get to a command prompt:

Old Windows: START then RUN then COMMAND then OK

New Windows: START then RUN then CMD then OK

Once you have a command prompt, type PING followed by the IP address that you want. You might start by pinging your gateway.

You should get responses immediately. If you do, it is very likely that your computer's network settings are correct. Next ping some site just beyond your gateway, such as a DNS server. Again, you should get a response immediately. HOWEVER, be aware that many sites do not respond to pings, so you may have to try several addresses. The good news is that in the next step we will use a method that doesn't require that you remember an IP address.

Test your DNS

Open a command window as above and then type

ping host.domain

Where host.domain is some system that will respond to a ping request. For example, while writing this I tested ping yahoo.com and got responses from a site

at IP address 66.94.234.13. Where did that come from? Well, ping made a request to my DNS for a name resolution, and my DNS returned the address of yahoo.com back to ping, which then converted the request to be ping 66.94.234.13 for me. So this test not only tested the network connection, but also confirmed that my DNS is working.

If you got this far you are in excellent shape – all of your low level networking components are working properly and you have a foundation upon which you can run browsers, ftp, e-mail, etc.

Let's put one more utility in our toolbox. Open a command window as above, and then type

TRACERT host.domain

TRACERT (Trace Route) is a utility which displays to you the various legs of the journey (hops) between you and the remote site. For example, when writing this I did a tracert to yahoo.com and got the identifiers of the 16 locations that I passed through to get to Yahoo! With practice you can recognize carriers and locations – for example from here in western Connecticut my path went to Boston first, then to New York, and then to San Jose. As an aside, nodes are often given names that match airport abbreviations – JFK, EWR for Newark, ORD for Chicago, LAX for Los Angeles, etc. In addition to the routing, you will see how long it took for the message to get to a particular node (in milliseconds.) If you see a high number in the milliseconds column then you have identified a network bottleneck.

---ooOoo---

Next time: More about the functions of your Cable/DSL Router such as NAT, Firewall, Virtual Server, etc.

Bruce Preston is president of West Mountain Systems, a consultancy in Ridgefield, CT specializing in database applications. A DACS director, Bruce also leads the Access SIG. Members may send tech queries to Bruce at askdacs@dacs.org.

---ooOoo---

Questions and Answers

Chuck Davis

From the August 2005 issue of "Bits, PCs and Macs", the journal of the Sun City Anthem Computer Club of Henderson, NV

Question: I need to stretch the height of some text by about 50% without any change in width. How can this be done in Word 2003?
Answer: It will take a couple of steps to accomplish what you want to do. In the illustration below, I started with a few well-known words that were entered in 12pt

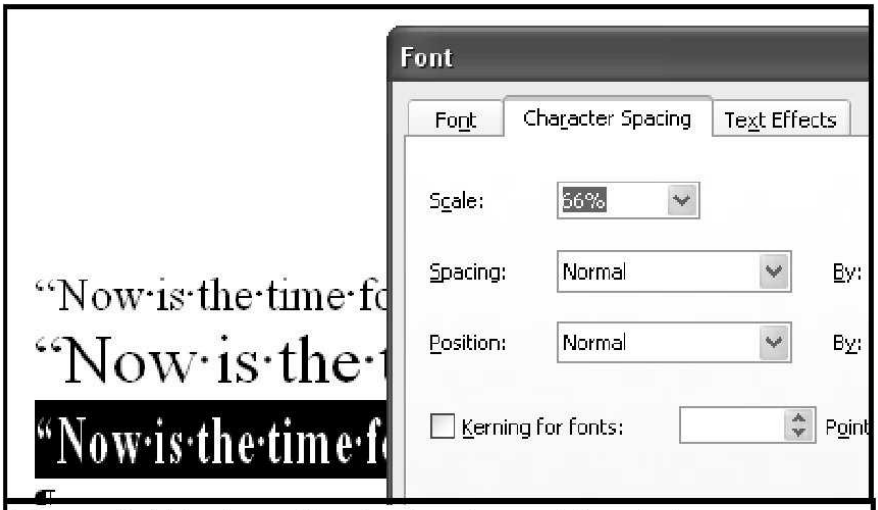


Figure 1. This shows the step by step revisions to increase height but not the width of text in MS Word.

Times New Roman font size (first row). I then increase the font size 50% (from 12pt to 18pt as shown in the second row). Finally, I chose Font from the Format drop-down menu, clicked on the Character Spacing tab and selected Scale to 66%. The results are in the third row. You may wish to make further adjustments.

Question: A couple of weeks ago when Windows offered to remember a password for me, I accidentally checked the "Don't ask me again" box. Being very obedient, it hasn't. How can I get this back?
Answer: Open Internet Explorer and choose Internet Options from the Tools drop-down menu. Click on the Content tab. Now click on the AutoComplete button and change the settings in the dialog box that opens.

Question: I use Word from MS Works Suite 2004 and would like to have the text converted to speech. How can I do this?
Answer: I'm not writing from experience with the functions you will require. Many Word users will be delighted to have Word read out the text. However, you are faced with a couple of problems. The first hurdle involves the inability of Word alone to do the speech. Word uses the speech functions of Excel. You will either have to buy Excel, or buy MS Office, which includes Word, Excel, PowerPoint and others depending on the package.

Before you run out to the store, be aware you will also have to install some macros.

Graham Mayer, a <Microsoft Word MVP, prepared a detailed article and placed it on his web site at

http://www.gmayor.com/word_text_to_speech.htm

Question: I am using Windows XP and would like to see the contents of the Windows clip-board. Can I set this up?
Answer: You will have to set up a shortcut on your desk top to accomplish the task. Perform the following process:

1. Right-click on any open area of your Desktop and then choose New> Shortcut.
2. In the Create Shortcut dialog box that opens, type in CLIPBRD.EXE and then click the "Next" button.
3. In the next window, type in ClipBoard Viewer, and then click the "Finish" button.

The shortcut icon will now appear on your Desktop. Except the [dark] background, it will appear as at the right.

Question: I have both of these programs on my computer, but don't know which is the better. I am told that I can use either for my e-mail. So, what is the difference between Outlook Express and Outlook 2003?
Answer: This will be a fairly long discussion. Identical twins they are not! Basically, some folks will want a fast mean at the drive-thru window and some will want a full dinner menu. Also consider that Outlook Express was developed to provide the masses the ability to send and receive e-mail; Outlook was developed to satisfy the needs of business users in an office setting. I personally use both for reasons that I will explain later.

The functions and features addressed in my comparisons are:

1. Comparing Costs
2. Send & receive e-mail
3. Address Book and Contacts folder
4. Fully-integrated Calendar
5. Notes Folder
6. Attachments
7. Signatures & Stationery
8. Secure Messaging via E-mail

9. Multiple Address Books
10. Junk Mail Filter

Comparing Costs

Outlook Express is "free." I use the word "free" rather loosely, because it is included as a part of Internet Explorer, which in turn is a part of Windows. You paid for Windows either as a stand-alone program, or it was included in the price of your computer.

Outlook can be purchased as a stand-alone product for about $109, or as part of Microsoft's Office.

Send & receive e-mail

Both of these programs do an outstanding job of this function.

Address Book and Contacts folder

Both programs have these folders to save your e-mail addresses.

Fully-integrated Calendar

This is not available in Outlook Express. Outlook 2003 has an extensive calendaring function that includes meetings and event scheduling, appointments, tasks to be performed, etc. Categories can be used to color the background of different appointments.

Notes Folder

Not available in Outlook Express. In Outlook, the notes look like and serve a similar purpose to the yellow PostIts that many of us use.

Attachments

Both programs provide for attachments. Because Outlook Express was not intended for the business user, inbound images will open in the message. In Outlook, they remain as attachments that must be dealt with as a security measure for business users.

Signatures & Stationery

Both programs provide similar functions here. On a personal notes, I detest stationery with dark backgrounds due to reduced legibility. If you choose a stationery, consider the needs of the recipient.

Secure Messaging via E-mail

Both provide encryption of messages. Outlook Help provides the following:

> Encrypting a message protects the privacy of the message by converting it from plain, readable text into cypher (scrambled) text. Only the recipient who has the private key (private key: the secret key kept on the sender's computer that the sender uses to digitally sign messages to recipients and to decrypt (unlock) messages from recipients. Private keys should be password-protected.) that matches the public key you used to encrypt the

message can decipher the message.

Multiple Address Books

Outlook Express – No.
Outlook 2003 – Yes.

Junk Mail Filter

Outlook Express – No.

Outlook 2003 – Yes. Office Update can notify you of updates to the filter definitions.

I'm sitting here contemplating the next question and it occurred to me that Cox Communications (my Internet Service Provider) also provides a Junk Mail Filter. With both filters in place, I only receive about fifteen a day that end up in the Junk Mail Folder. Four or five arrive in the inbox regardless. I often wonder how many are filtered? Must be hundreds.

My Use of these programs

I use Outlook Express solely for viewing Newsgroups. Newsgroups are forums where program users may post questions and receive answers from volunteers.

I use Outlook to keep track of the many messages that I send and receive daily. I have 2,742 Contacts in the Address Book. My calendar averages three meetings a week. In addition there are entries for the various classes that I conduct. And a myriad of personal items.

Outlook back up

To back up this data so that it can be recovered in the event of a catastrophic system failure you may download the Outlook Personal Folders Backup feature from Microsoft:

http://www.microsoft.com/downloads/details.aspx?FamilyID=8b081f3a-b7d 0-4b16-b8af-5a6322f4fd01&DisplayLang=en

Microsoft says: "Backing up your Microsoft Outlook information is quicker and easier with the Personal Folders Backup feature. Personal Folders Backup creates backup copies of your .PST files at regular intervals, in Outlook 2000 and later versions, making it easy to keep all of your Outlook folders safely backed up."

I had bought a program called OutBack Plus long before this Add-in was available.

With either backup program you should sleep better.

Question: I recently heard that I should change my passwords associated with various confidential documents on a regular basis. I did. Then we went on an extended vacation oversea. I forgot the new password. How can I find where the passwords are located?

Answer: You didn't tell what kinds of files that you had password-protected. Nevertheless, there are a flock of small downloadable programs on this site:

http://lostpassword.com/

You will find a search box on the home page. Enter the program or file extension. The results will contain links to download a program that will help you out. It's certainly not free, but may be better than not5 being able ever to access your files again.

Question: Help! I have lost all of my Bookmarks! Last week, when opening Firefox 1.0.4, I received a message that the Default Profile was in use. I would have to choose another. After several times of attempting to open Firefox, I create a new profile and was able to continue.

Later, I discovered that all of my Bookmarks were missing. How can i recover my Bookmarks?

Answer: You didn't really lose them. They are still associated with the Default profile. I installed your Firefox program a few months ago, so I know it was installed using the installer. To recover your Default Profile, close Firefox and go to Start > Run and type

firefox.exe -p

The Profile Manager will appear. Simply select the Default profile and click OK. Open Firefox. Your Bookmarks should be found as you expected.

For the reader who didn't install the program using the installer, or is using MAC OS X, or Linux, there are alternative methods in the Firefox Knowledge Base article at

http://kb.mozillazine.org/Profile_manager

---ooOoo---

FCUG MEETING 7TH FEBRUARY 2006

The night was cold and it was thought that not too many would turn out for the meeting, but when Fearless Leader Dick Booth called the group to order a couple of dozen were there, and as things progressed the assembly grew to about thirty. Those who did not come missed something. . .

Dick's first announcement was that the club Forum on the web site is now open, not only to members of FCUG, but also to members of both CTPC and the TPCUG, otherwise known as the Trumbull club. When asked if he had anything to announce, Ed Congleton made one of the shortest answers on record: "No!"

For Novices, Ed Congleton talked about the Start Button – about as good a place to begin discussing computers as one could find, it seemed. His computer screen was singularly bare, and carried a picture of Stonehenge and a single icon, for the Recycle Bin. He pointed to it and said "this is the Desktop"; since Stonehenge seemed a trifle large, it was surmised he was

talking about the screen itself. He showed, though, how this picture could be quickly changed by right-clicking on any unused spot on the screen and adjusting the settings. Stonehenge yielded to a poppy in short order.

Across the bottom on the screen lies a bar, hidden in Ed's case, which meant he had to move the mouse over to the bottom of the screen to have it pop up. This is known as the Task Bar, and contains the Start Button itself on the left. Next to its right usually comes the QuickLaunch bar, where those items you use often and want to find quickly can have their icons placed. Then the Task Tray, where any tasks currently running can be seen each to have a button, and on the right lies the clock. Actually, the QuickLaunch bar is movable and can be hidden. Ed showed how this was done and that he in fact hides his across the top of the screen.

Windows XP allows one to choose either the "Classic" or the newer, XP, layout. The Classic Start Button, when pressed, reveals a single column of buttons; the newer format has them arranged in two columns. A program called menuwrite can be obtained to edit the Start Menu if you wish. You can also stop displaying the Run and Search buttons, so that casual users of your machine cannot easily change things.

Each user has a folder under Documents & Settings, with the user's own controls. One user cannot adjust another's settings; only the Administrator can do that.

The description Ed gave was full and easy to follow; unfortunately, your reporter's notes were hard to read a week or so later, so this report does not do him justice. He received a well-deserved round of applause.

Walt Graham said the program for CTPC was still under development; the meeting would be in three weeks, on 28th February. Advance notice was given, also, that the July meeting will be a joint one, with both clubs involved, and possibly on WiFi.

Bill Zieman led the Q&A session. Despite the passing years, your reporter's pen still gets into trouble, but these were gleaned.

Q: Can I run Borland C++ for Windows 3.1 on my Windows 98 system?
A: Probably; a number of other 3.1 programs run quite well on later systems.

Q: Using Thunderbird on Optonline I cannot connect to my mail server unless I restart my computer.
A: Check for spyware. Try connecting running in Safe Mode.

Q: I want to place a number of files into a folder while burning them to a CD.
A: Why not construct the folder first, then burn the whole thing.

Q: What are updates?
A: Ed Congleton described the use of updates to correct weaknesses in installed programs, and showed on his computer where the update files from Microsoft were placed.

We then broke for refreshments. Otis Green had provided so many cookies and cakes, and so much juice, that at the end of the meeting spare victuals were being offered to any takers. Many thanks, Otis, for a real feast.

The Main Talk was given by Laura Steward, the founder and leader of Guardian Angel Computer Services LLC in Norwalk, who also writes articles for the local papers. Although the title in the Voice had been given as "2006 and Beyond", she actually talked about the Top Twenty Resolutions To Make to keep one's computer operations smooth and trouble-free. Dick was so pleased at introducing a fellow ex-Pitney Bowes person that, thumbing through his sheaf of article cuttings for quotes, he fumbled them and they turned into a form of large confetti as they fell to the floor. Confetti and plaudits were very appropriate, as the talk proceeded.

Laura suggested, as a start, that you should make sure you have your machinery covered by accidental damage warranties before drop-kicking it across the room. Not sure if twenty resolutions follow; these were noted:

I will make daily backups and keep one copy offsite. [Ed.Note: Yeah...]

I will secure my network with a firewall, anti-virus and anti-spyware.

I will NEVER open any e-mails from strangers. The FBI will come knocking on your door, not e-mailing you to ask you to do something. If you get an urgent message from your bank, do not reply by e-mail, or visit any site they mention; telephone them to confirm the request first. Spam writers with vicious intent know that salacious messages attract more victims; one of the most "successful" viruses at present is called "Kama Sutra"!

I will update my Window 98 system to XP to get the better security.

No kids on any business computer.

No visits to questionable websites. Also be careful spelling site names; some places are now taking advantage of this and have sites with names closely similar to regular ones. One wrong letter, or a 'com' instead of an 'org' can put you on a site where any single keystroke could alter your browser settings and start an infection.

I will get a domain name for my business. Nothing impresses a prospective client more, of course, than having an e-mail address like 'mybusiness@aol.net'. Www.godaddy.com can offer domain names for $1.99.

I will update my Norton 2001 to 2006. Getting regular updates to the virus identification files is not enough.

Running anti-virus and anti-spyware programs in Safe Mode may catch more invaders. Press F8 fast and often during bootup to get the chance to

enter Safe Mode. Trend Micro, Symantec, AdAware, Spybot are suppliers of this sort of software. Www.majorgeeks.com is a site with many spyware utilities.

I will use a separate e-mail address with no personal name in it for buying materials online.

I will write a Disaster Recovery Plan to cover cases of fire, theft, power failure, flood, system failure, and so on.

I will update my website!

I will institute regular routine maintenance and even hire someone to do it for me if necessary.

I will check and recharge my u.p.s. battery at least once a year.

I will buy new backup media (tapes or CDs). They do wear out. Even disks can deteriorate in sunlight. Tapes are better than disks and last longer.

I will make copies of all critical papers (birth certificates, deeds, . . .) and put them and any mementos in safe keeping (even safe deposit?)

I will delete all temporary folder files.

I will delete all cookies. Yes, you may have to sign on again at some sites, but it is worth it.

NT4 and Novell 4.11 servers are out of date.

I will call the telephone company to discuss my bill and see if there is any better payment plan. One can save a bunch of money by negotiating a new deal.

I will purge electronic files as well as those on paper.

I will write an Acceptable Use Policy for technology in my office.

I will remember that technology should HELP me, not hinder.

There was some discussion after the talk had finished and some points were noted. Linda expects Vista, when it arrives to be in both 64- and 128-bit versions. But wait at least six months after the first release, to get some of the bugs out of the way before you plunge!

She runs four firewalls at once, both hardware and software, at her office, and three at home.

And an interesting observation: the fact that Linus is open source means that crackers can, with a bit of study, work out exactly how to attack. Guess the Editor will have to watch out now, as well. . .

---ooOoo---

THE WAY WE WERE – MARCH 1986

PRESIDENT: Robert Jackson
VICE PRESIDENT: Herman Parks
SECRETARY: Patricia Brinson
TREASURER: Aaron Bisberg
EDITOR: Alan Abrahamson
This Newsletter printed by Technical Reproductions Inc. Norwalk CT.

More Balls of String – George Saladino. Two pages on the INSTR function in Basic.

Bill's Bumblings No.2 – Bill Hart. Four pages on Turbo Pascal and its similarity to Basic.

TBBS Tid Bits – John Krause. Four pages of hints and tips.

The Magic of 1047 – Lucien R. Greif. Two pages on Mod III POKEs.

Ask Alan – Alan Abrahamson. One question, and answer including code, on a file with a blank in its name.

Roger's Rumblings # 11 – Roger Giler. Three pages on the MS-DOS PATH statement, chaos from a CPU boost (from 8088 to V20) and Tax Time.

Real Engineers .... -- Rick Stevens. Reprinted from Text File, May 1985.

"Real Engineers consider themselves well dressed if their socks match.

Real Engineers buy their spouses a set of matched screwdrivers for their birthday.

Real Engineers wear moustaches or beards for efficiency. It's not because they're lazy.

Real Engineers have a non-technical vocabulary of 800 words.

Real Engineers think a biting wit is their Fox Terrier.

Real Engineers know the second law of thermodynamics – but not their own shirt size.

Real Engineers repair their own cameras, telephones, televisions, watches and automatic transmissions.

Real Engineers say "It's 70 degrees Fahrenheit, 25 degrees Celsius and 298 degrees Kelvin" and all you said is "Isn't it a nice day?"

Real Engineers give you the feeling you're having a conversation with a dial tone or a busy signal.

Real Engineers wear badges so they don't forget who they are. Sometimes a note is attached saying "Don't offer me a ride today; I drove my own car."

Real Engineers' politics run towards acquiring a parking space with their name on it and an office with a window.

Real Engineers rotate their tires for laughs.

Real Engineers will make four sets of drawings (with seven revisions) before making a bird bath.

Real Engineers' briefcases contain a Phillips screwdriver, a copy of Quantum Physics and half of a peanut butter sandwich."

The President's Page.

"Fractals will be the subject of a talk and demonstration by Herman Parks. . . [who] will give a non-theoretical talk on fractals and demonstrate several programs, one of which he has written. . . .Our club treasurer, Aaron Bisberg, will captivate the TRS-80 Model 1/3/4 lovers among us with a demonstration of . . . DOSPLUS . . . After Aaron and Herman are all through . . . and if time permits, we will have a keyboard "Showdown at the PC Corral". Aaron, a long-time TRS-80 user and proponent of the BASIC line editor, will take on Bob Jackson, president and MS-DOS screen editor user. . . . Good luck, and may the best method win."

---ooOoo---

Windows: Better Safe (Mode) than Sorry

Gabe Goldberg

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Copied from the August 2005 issue of PPCUG News, the journal of the Princeton NJ PC Users' Group.

Though the Windows operating system isn't usually dangerous, it includes a special 'Safe Mode'. This is a handy way to boot a PC to investigate and fix problems. You may read advice about when to use this, and even how to run it. But scarce and fragmented Safe Mode information can make it sound more exotic than it is.

Windows XP books' indexes provided surprisingly few entries for "Safe Mode". I found the best coverage in two O'Reilly books, "Windows XP Pro: The Missing Manual" and "Windows XP Home Edition: The Missing Manual". Naturally, Google found a gazillion hits. But they're mostly "just the facts" write-ups targeting people who already know "what" and "why" and just need "how"

information. So this article provides background for this built-in Windows facility.

Over the years, as it became more powerful and reliable, Windows grew significantly from its slender 1992-era Version 3.1 self. There's no free lunch; learning new tricks required more software. But that complexity gets in the way when problems occur. Just as doctors rarely diagnose patients through heavy winter coats, Windows needs to shed layers to expose problems' causes.

Safe Mode slims Windows down, only loading and running specific pieces needed for basic operation. So your video display looks strange in Safe Mode because Windows doesn't load the monitor's specific driver program. This lets you recover from problems caused by buggy drivers you may have just installed. There are other restrictions: you likely can't get online and may not be able to print. But Safe Mode lets you perform tests, fix problems and install or uninstall programs.

If you think your PC may have a virus or spyware, it's worth installing the antidote in Safe Mode, since some malware prevents installing anti-virus software. If installed anti-virus software can't remove a virus, Safe Mode may let it succeed. (Some experts recommend always running virus and spyware scans under Windows in Safe Mode.) If defragmenting your hard drive **[www.aarp.org/learntech/computers/howto/Articles/a2004-06-16-defrag.html]** never finishes, Safe Mode may remove programs that keep interrupting it. And it lets you erase files that Windows normally says are in use (though only do this when you're sure what you're doing).

Windows XP defines two kinds of user accounts: "administrator" and "limited". An administrator can install or remove software, change settings, etc., while a limited user can only run programs and use facilities. Even if only one account is defined, a secret companion called Administrator is available. Booting in Safe Mode lets you access this account, handy when normal accounts won't work – for example, when uninstalling software that doesn't want to leave.

Enter Safe Mode by repeatedly pressing F8 as your PC boots, just after the BIOS information displays; then select Safe Mode from the options list. Leaving Safe Mode is simple – just reboot via the Start button and your usual procedure; Windows will return looking normal again, not holding a grudge for being run in diagnostic Mode.

Here's an important point: it's worth practicing booting into Safe Mode when you're relaxed and your PC is working properly. Consider running a PC in Safe Mode to be like starting your car's engine with the hood up at a service station. It's routine; there's nothing alarming about it. But, just as you wouldn't want to open the hood for the first time ("Where **is** that latch release?") when something is wrong with your car, you shouldn't first use Safe Mode when you're already worried about a PC problem.

And a PS: it's sometimes hard picking between a dozen competing books on a topic. A helpful technique for evaluating choices is searching for a few topics – like Safe Mode – in the books' indexes and judging them on coverage.

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VoIP (Voice over Internet Protocol)

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Copied from the May issue of PPCUG News, the journal of the Princeton NJ Personal Computer Users' Group.

Are you using the Internet for your local and/or long distance service? If not, then maybe you need to read this article to find out how some computer users are saving "mucho dinero" on their telephone calls.

VoIP stands for Voice over Internet Protocol. There are ways to use the Internet for free phone calls, low-cost phone calls (2¢ per minute), or a monthly fixed rate for both local and long-distance calls. So how is it possible to transmit your voice over your Internet connection? We'll look at some of the technical aspects first. Then I can discuss some of the services that are available for you to check out further.

When you use your telephone your voice is converted into electrical impulses and transmitted over copper wires to another phone. There it is converted back to sound waves. These impulses are transmitted via several switches in the telephone network. This system is referred to as the Public Switched Telephone Network (PSTN). As long as you are talking on the phone you have a constant circuit connection between the two phones. In the original PSTN system, all calls required a dedicated wire for each call. For the period of time you were on the phone you "owned" a copper wire connection between your phone and the other party. In today's PSTN, all calls are digitalized and can be combined with thousands of others running over fiber optic cable between central stations. However, the connection between the two phones must remain open for the length of the call.

When computer data is transmitted over phone lines or cable, it is also in digital form. However, the data is sent in packets and does not require a dedicated pathway to reach its destination. In fact, when a computer sends a stream of data packets, they may all arrive at their destination after traveling different routes. There are thousands of possible paths between any origin and any destination. In addition, packets from other origins can use any time spaces between your4 packets. This is a more efficient system, as a circuit does not need to be kept open. This system is referred to as packet switching.

So, if your e-mail is being chopped up into small packets, how does the system know what to do with them? Each packet contains an address that tells the router what its final destination is. The sending computer sends the packet off to a router and then goes on to its next operation. The router selects a path to another router and sends the packet off. This process continues to the destination contained in each packet.

So what does this have to do with Internet phones? Very simple. VoIP uses the packet-switching technology to transmit your call. The digitization of your voice occurs either through your sound card or a device known as an analog telephone adapter (ATA). There are also Internet phones which connect directly to a network router and handle the conversion process. The voice packets that result from these various adapters are routed over the Internet in the same way as data packets. When you make a phone call, there is always dead space when no one is talking. With the packet system other data packets from other sources are being transmitted over the Internet making maximum use of its capacity.

In the early days of VoIP sound quality was poor and the method of operation more like using a walkie-talkie. Today's equipment is vastly improved. Sound quality on many VoIP systems is the equivalent of that found in the PSTN. Depending on the system you are using, you can dial any number and your call will be routed over the Internet. In such a system, you and the party you called won't see any difference in operation or sound from that of the PSTN.

So why would you be interested in using an Internet phone instead of your current local/long-distance PSTN service? One big factor for many people is cost. The cost of Internet service ranges from free to $25/month (more in some cases) for unlimited calls. In addition, many of the VoIP services offer features that cost you extra through your local phone company. It is not unusual for a VoIP provider to include Caller ID, Call Waiting, Call Transfer, Call Forwarding, VoiceMail and three-way calling as part of the basic price.

Now let's look at some of the providers and their services. Skype (**www.skype.com**) offers a free service that allows you to connect to other Skype users. The software for this can be downloaded from their website. It took just a few minutes to install it on my computer. Once you have installed it, you need to set up a call list of other users. So you have to contact people you call frequently and have them install the Skype software. From that point on, it becomes much like instant messaging. If the person you are calling is on-line, you can connect and talk to them. Otherwise, they have no way to know that you are calling. The reverse is also true if they want to call you. The minimum hardware you need for this are speakers connected to your sound card and a microphone. You can also use a headset with a built-in microphone. It is also advisable that you have a broadband connection, either cable or DSL. In my testing of it, once I had a connection, the call was quite clear with no background static or other problems.

So what do you do if you have Skype and want to call someone who doesn't have Skype? You can get SkypeOut, that allows you to call any phone

number anywhere in the world for about 2¢/minute. After you install the SkypeOut software you buy credit on their Internet site which you can then use for your calls. Some reviewers have had sound problems with SkypeOut. I have not tested it.

There are other free services available as well. One is Free World Dialup (**www.freeworldialup.com**). This is a quote from their website: "FWD allows you to make free phone calls using any broadband connection using devices that follow Internet standards. This can be a 'regular' telephone connected to a packetizer, an IP Phone or any number of free soft-phones (software for your PC or PDA)." In order to use the system you need to download and install the software. Then you obtain a phone number from FWD. The hardware you need is a SIP-compatible ATA adapter that you connect to a network router that connects to your modem. You can then connect any telephone to the jack in the ATA adapter. Now you're ready to dial any FWD user anywhere in the world. However, you can not dial a regular PSTN phone from this system without purchasing time from another VoIP provider. The advantage of FWD over Skype is that your computer doesn't have to be on to receive calls. Your phone will ring just as it did when connected to the PSTN phone system.

There is another advantage to FWD. This system uses the Session Initiation Protocol (SIP) standard. This allows FWD users to call others who are not members of FWD but are connected by a different SIP-compatible service. Other free services currently using the SIP standard are IPTEL.org and SIP-Phone.com. Skype does not adhere to the SIP standard.

Now we get to the services that charge a monthly fee. These providers furnish an SIP-compatible ATA adapter and in some instances the router for your telephone connection. This list includes companies like AT&T (CallVantage), Verizon (VoiceWing), Packet8, VoicePulse and Vonage. Of these, AT&T and Verizon are the most expensive. Several of these providers are preparing wireless units that will allow you to connect through any WiFi hotspot. Vonage has announced that they expect to have a wireless unit available by mid-summer 2005. That means you could make and receive calls while you are on the road. Also, by taking your ATA adapter with you when you travel, connections can be made through broadband data ports in many hotels and motels.

Of these providers, Vonage has been in the game longer than the others and has a strong reputation as to their quality. They have two basic plans:

1. $24.99 for unlimited calling in the U.S. And Canada;
2. $14.99 for 500 long-distance minutes.

They also offer virtual phone numbers with any area code you prefer. Dialing other numbers in your area code requires just seven digits. You can add a fax line for $10 per month, or toll-free numbers for $5 per month. With Vonage and these other providers, you can call any PSTN number or numbers on the FWD network. For more details n the specific services provided by these companies I would suggest you check their web sites.

So what are the drawbacks to VoIP services? First, if your Internet provider has a service outage, then your phone service is also down. Second, if there is a power outage you lose your phone service unless your system has a battery backup to keep it running. Another disadvantage is that most of these services can't connect to 911. In some cases, you can call 911 after you have provided the service with location information for their files. They need this information so the system will know where to direct the call. However, the 911 operator can't see your name or address and you have to provide that information when you make the call.

In spite of these disadvantages, VoIP usage is rapidly increasing. If you are interest in testing VoIP, I suggest you start with one of the free services. Try it – you may like it.

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Yes, the car on Page 3 is electric. The latest energy-saver. . .

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