



OTTAWA

PC NEWS

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ARTICLE

Codecs *by Jocelyn Doire*

I wanted to experiment a little with videos, so I opened an AVI file, but all I got were error messages. So I started to look around on the internet to find out why, but very quickly I began to discover that the world of videos on computer is an incredibly complex subject; just to give you an idea take a look at the ACE Mega CoDecS pack at:

http://www.free-codecs.com/download/ACE_Mega_CoDecS_Pack.htm

One of the things that makes the world of videos so vast is that it encompasses so many things, including players, codecs, encoders, decoders, filters, ripping, editing, streaming, and many, many more terms that I'm far from having fully explored. Here is a little guide that I hope will help you view your video files. I'm no expert in the field, so I hope you will forgive me if I say things that are a little inexact (and if I say something that is plainly wrong, please let me know).

Right out of the box, for many years, Windows has included the video player called Windows Media Player, but there are many others including Apple's QuickTime (plays .MOV files), Real's RealPlayer (plays .RM files) or Irfan-View (plays MPEG files). Note that many players come with different forms of malware and/or ask you for money to get all the features, but often there are alternatives that will do as good job for free.

Behind the players you will find the Windows infrastructure called DirectShow that processes the multimedia data in the background. Normally, us-

ers don't see anything of DirectShow, but often the name comes up when searching for codecs, and you may also need to download the latest version from Microsoft (download the DirectX end-user runtime at <http://www.microsoft.com/windows/directx/default.aspx>). A couple of places where you can find more information about DirectShow include <http://www.gdcl.co.uk/dshow.htm> or <http://en.wikipedia.org/wiki/DirectShow>.

At one level further down in the hierarchy you will find the "codecs", which stand for coder/decoder (or compressor/decompressor). Basically, these are programs that decode the data from the source file and process it to extract the video and audio (or the reverse if "coding" a movie), which is then displayed by the player. Check <http://en.wikipedia.org/wiki/Codec> for more details.

That's where it gets really complicated. There are a ton of codecs out there, some to process the video stream, and some to process the audio. Often you cannot tell which codecs are needed by just looking at the file type (for example .AVI), because it's up to the creator of the file to decide what codecs he wants to use. So, if you click on a movie and you get an error message that says a codec is missing, you will need to find it, download it and install it on your machine before you can play the movie. Following are three utilities that can truly help find what codec you need and what codecs are installed on your machine.

GSpot, available at <http://www.headbands.com/gspot/>, can tell you what codecs are needed to play a file and check if they are installed on your machine. To use it, simply load the movie file (file>load), and then read the displayed information to find out what it needs and what you have. (see *GSpot* figure, p.6)

Another interesting feature of GSpot is the "render" (click on the "render" button), which will use the actual codecs on your computer and check if the file can actually be played, and provide some details on what codecs will be used to play it.

Finally, you can also find what codecs are installed on your machine and what codecs are available from a very extensive database from the "view" menu.

One of the difficulties in troubleshooting video and audio problems is knowing what codec is loaded on your

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Next Meeting: **Wednesday, March 9th, 2005**

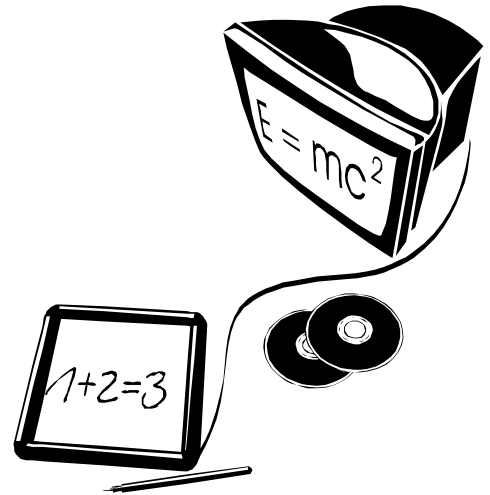
March Raffle

Thanks to the folks at Microsoft MindShare – the area within Microsoft that officially supports user groups – we have a second copy of Encarta 2005 Reference Library Premium (the first copy was raffled in January). It includes an encyclopaedia, atlas, dictionary, thesaurus, translation dictionaries, literature guides, “Encarta Africana”, and homework starters. New to this version is an encyclopaedia for kids and an online math tutor.

The package comes on 5 CDs and has over 68,000 articles and 1.8 million map locations. There are also 24,000 photos and illustrations, over 300 videos and animations, and over 2,500 sound and music clips.

More information about Encarta may be found at <http://www.microsoft.com/encarta>

As always, raffle tickets at \$1 for one, \$2 for three, or \$5 for ten.



Coming Up...

Date: March 9, 2005

Speaker: Don Chiasson (Don C++), former OPCUG member

Topic: Emulators

Abstract:

The digital computers we know are universal computing machines: any machine can do any computation. Usually this means numbers, text or graphics, but it also means one computer can act as another, often called emulation. Emulation may be hardware or software, though we focus on hardware; it may be done for research, for historical reasons, to replace legacy systems, for cross compiling, or just for fun. This talk covers a number of emulators that model minicomputers, mainframes and games.

To provide details on the challenges of emulators, details are given on two systems: a Honeywell H316 minicomputer and a 36 bit mainframe, the DECsystem-20. For those who are interested, references are provided to resources available on the internet.

CALENDAR

Meetings	Date	Time and Venue
OPCUG General Meeting	Wednesday, March 9 th	7:30 p.m. Auditorium of the Canada Museum of Science and Technology , 1867 St. Laurent Blvd. http://www.science-tech.nmstc.ca/english/index.cfm
Internet SIG (I-SIG)	Wednesday, March 9 th	Immediately following the OPCUG General Meeting. Come and join our discussions!
Developers' SIG	TBA	TBA
Windows SIG	Wednesday, March 9 th	Immediately following the OPCUG General Meeting.
Digital Imaging SIG	Wednesday, March 9 th	Immediately following the OPCUG General Meeting.
IT Pro SIG	Wednesday, March 9 th	Immediately following the OPCUG General Meeting.
Delphi User Group	TBA	TBA
PIG SIG (Wing SIG)	Wednesday, March 9 th	10:00 p.m. (after all other SIGs) at Chances “R” restaurant, Baseline Rd. at Woodroffe Ave. (formerly Shoppers' City West)

Please note that unless otherwise noted, SIGs meet at 9:00 p.m. (immediately following the OPCUG General Meeting).

PRODUCT REVIEW

FileZilla—Open Source FTP *by Alan German*

There's lots of buzz these days about open source software. The story goes that large numbers of dedicated programmers collaborate on a project and develop a robust, multi-featured application, which is made available for use by anyone at no charge. Because the underlying code is available for close scrutiny by so many knowledgeable individuals, any bugs are fixed in record time, and additional features are frequently added. This seems to be true for FileZilla, an open source FTP utility. The program appears to be bug free, has superb functionality, and has been updated within the last couple of months.

Having downloaded the distribution file (<http://sourceforge.net/projects/filezilla/>), installation was simply a case of following a few prompts, including acceptance of the GNU general public license agreement. There are several options presented along the way, but the defaults seemed perfect for my needs so I just accepted all the installer's suggestions, including that of creating a desktop icon. Double clicking the latter launched FileZilla and it was now time to see how this software package worked.

The program has a standard Windows' menu bar that includes expected menu items such as File, Edit, Transfer and Help. By default, the program displays windows to the file systems on both the local and target machines, but also features two unlabelled windows. Running the program, and transferring a few files, showed these to be a log of the program's activities, and an active queue giving information on the files being transferred. (see screenshot next page)

The Help menu has a "Quick Guide to Using FileZilla", which is an excellent starting point, but there are also more fully featured instructions on the various aspects of the program's controls and display windows. The instruction manual is a great reference tool al-

though, for the most part, using FileZilla is very intuitive. One minor thing to watch out for is that the main tool bar has a number of useful graphic icons that are not labeled, and do not seem to pop-up an explanatory text box when the mouse hovers over any of them. In fact, the text is shown on a status bar at the bottom of the program window so, while the information is available, it may not be immediately obvious.

Perhaps one of the most useful features of FileZilla is accessed through one of these icons, the R button, which stands for reconnect. Pressing the R button reestablishes a connection with the last server to which you were connected, and automatically switches to the last used folder on this server. The help file indicates that this is useful when you've lost the connection. In my case (and I suspect for most users) this is a far more useful function, since most of my FTP transfers are to a specific directory on my ISP's web server. Thus, hitting the R button instantly connects me to where I normally want to be.

However, FileZilla has lots of ways of doing things. In addition to reconnecting to an FTP server, the program has a Server Manager where, as with most FTP utilities, one can set up and store parameters used to access a number of different FTP hosts. There is also a QuickConnect bar where basic connection parameters can be entered. A QuickConnect drop down menu can be used to access the ten most recent server connections. So, if you use several FTP servers on a regular basis, they are all easily available in this manner.

The program's display windows are extremely flexible with just about everything being capable of being turned on or off and resized. The View menu is extremely powerful for setting up the various display windows precisely how you wish to have them configured. If the default screen layout, with its multi-

ple windows, is too busy for you, just turn some of the windows off. There are also several ways in which the file lists for both the local and remote directories can be displayed. While I couldn't seem to avoid the relatively large number of sub-directories being displayed for the target directory on my local machine, I could minimize their impact on the display by setting View - Local List View to "List" rather than "Details". This eliminated the display of parameters such as the size, type, and date last modified of each file, and squeezed more file names into the window. This is my preference since I'm only interested in transferring a number of specific files from the particular target directory, and generally don't need to know details about the individual files to be transferred.

The transfer process itself can also be initiated in several ways. Perhaps the most intuitive method is to select files on the local machine and then drag these to the remote machine's directory window. The reverse process works if you wish to download files from a remote machine. Right clicking on a file pops-up an upload/download menu. Double clicking on a file adds it to the transfer queue and starts the transfer process automatically. Alternatively, individual files can be added to the queue and files in the queue transferred at the press of an icon.

FileZilla is an FTP utility that is very powerful and yet very easy to use. Best of all, being open source software, it's freely available for your use.

Bottom Line

FileZilla, Version 2.2.9 (26-Oct-04)

Freeware (open source)

Tim Kosse et al., Open Source Technology Group

<http://sourceforge.net/projects/filezilla/>

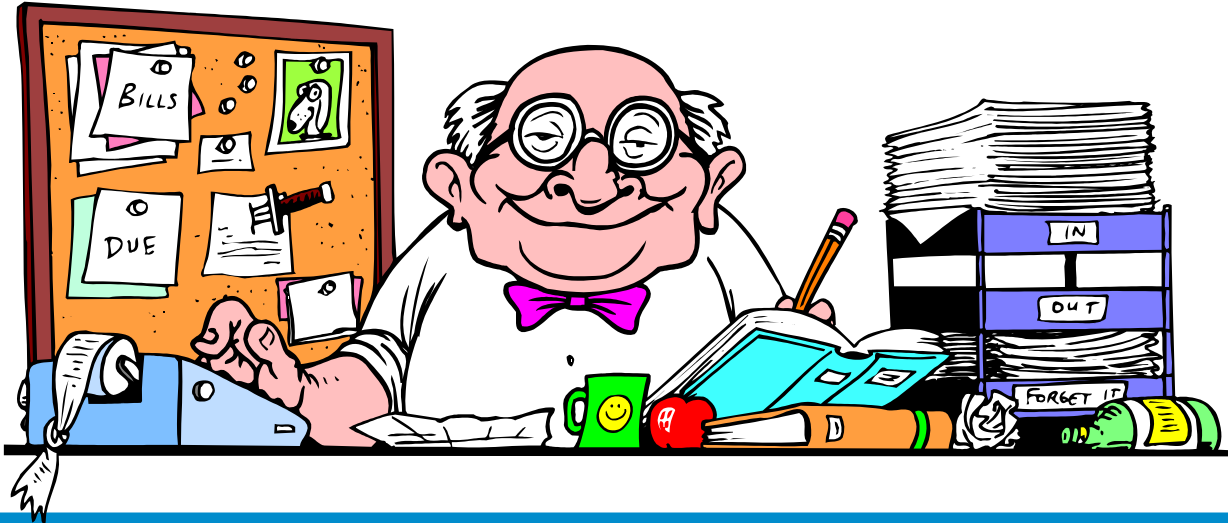
(screenshot next page)

Calendar Year 2004 Accounts—Audit of OPCUG Operations *by John Archibald*

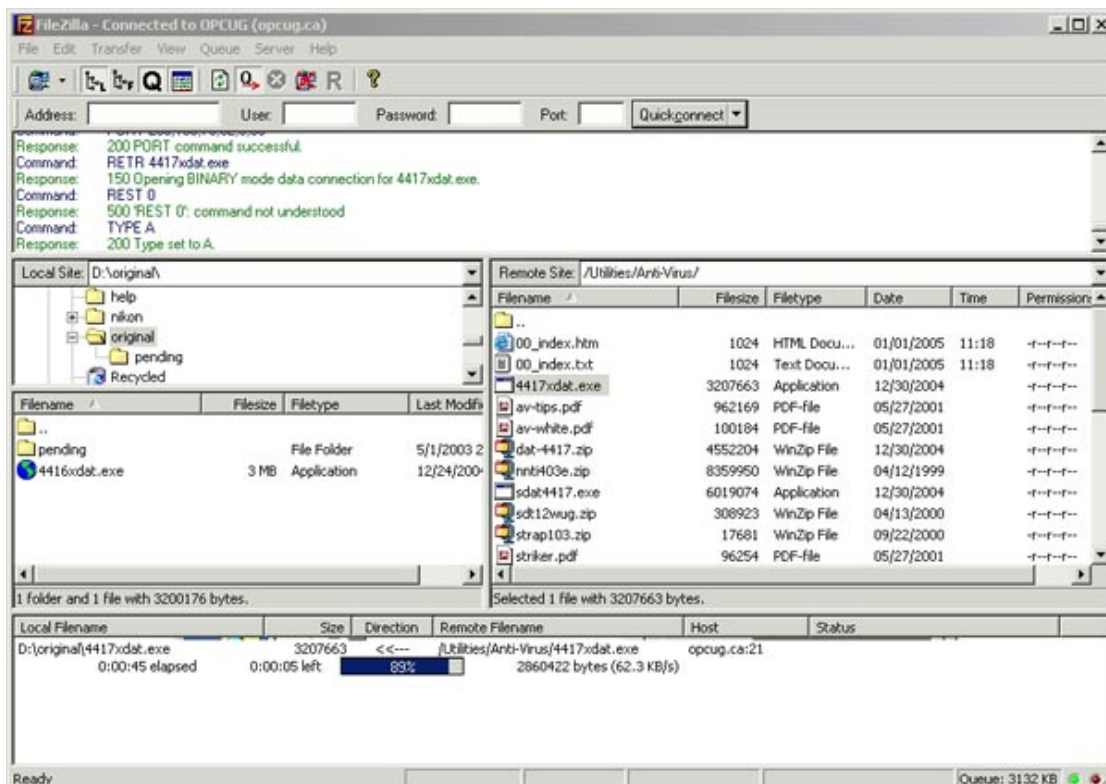
I have examined the records of the OPCUG accounts for the calendar year. My conclusions are that the OPCUG is in good financial health and has been well managed by the Board of Directors.

Report Dated 15 Feb, 2005 and
certified by:

John Archibald, Member, OPCUG



FileZilla (Continued from page 3)



Using FileZilla to download an updated virus signature file from PUB II

End of article

ARTICLE

Which one should I buy? *by Vince Pizzamiglio*

That question is repeated numerous times in many stores, from Future Shop to the small home based PC builder. The typical answer is another question. What will you be using it for? People rely on salespersons, acquaintances or tech savvy young relatives to whittle down their options to balance cost vs. wants.

PCs are now a part of North American society as much as cars are and offer just as big a choice in price, power, options, colour, cool looks, size and all-weather 4WD. ☺

We all know that a PC will be obsolete as soon as we buy it, but we can future proof its real obsolescence, (when we HAVE to replace it), by making educated decisions.

The transition from 32 to 64bit hardware is now occurring with AMD and Intel clearing out old style processors (32bit only) and releasing 32/64 capable processors in all market segments. Although 64bit software is not widely available now, the change will happen shortly. 64bit Linux is out and Microsoft will release Windows XP64 in the near future and soon new software will only be developed in 64bit. Due to their backward compatibility a PC purchase should incorporate an AMD or Intel

32/64bit capable CPU.

Data storage is now a cornucopia of options that offer huge hard disk drives, (250GB will hold 125,000 2MB pictures from a 4 mega pixel camera), that can be used internally or externally, (with USB housing), to provide almost unlimited capacity, to fast spinning (10k RPM) and large cache (8-16MB) disks for top performance.

Optical disks are now the removable storage of choice and a CD-RW (re-writable) drive able to play DVD is a must. The option of a single (4.7GB) or dual-layer (9GB) capacity re-writable DVD drive is more expensive and recommended only if you find the CD capacity of 650 MB limiting. The current DVD format war will continue in the future with manufacturers developing competing standards such as Blu-ray and HD DVD. Beware of compatibility.

The sneaker net king is now the USB flash key. With 256 MB going for \$35 and capacities up to 2GB the small and versatile gadget is easily recognized by Windows (98SE and later) and offers (with v.2) surprisingly fast data transfer rates. USB ports at the front of the PC housing are now a standard offering with easy access for camera, flash,

printer or other peripherals. More USB ports are available at the back of the PC with the standard input/output ports.

Unless games with 3D requirements are played the PC does not need a graphic card with dedicated fast memory on board. Most PCs have motherboard mounted (on board) graphic chipsets that rely on the main PC memory to render the image. Although the majority of PCs with on board graphics are competent for 2D work ATI and Nvidia are by far the current leaders in quality graphics from phone displays to PC video cards to TV tuner chips to gaming consoles. A worthwhile option is an unused graphic slot (the current AGP is being replaced by PCI express) on the motherboard for future use with a dedicated video card.

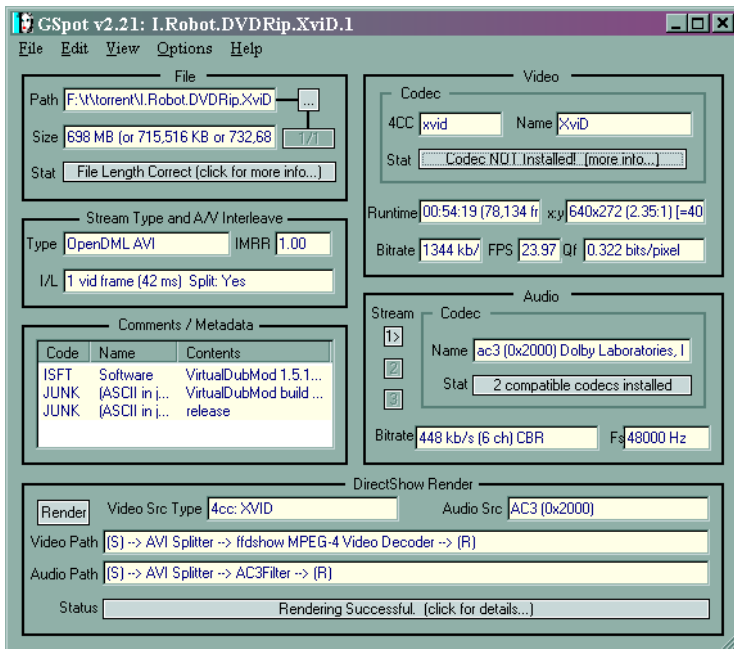
Home PCs are required to satisfy basic needs, (internet browsing, word processing, financial record keeping), that are easily handled by the technology trailing edge, (well known computer store connection completely unintentional). When buying, cost must be considered, but so is the lifespan of the purchase, options required and the quality of the components.

You get what you pay for.

Vince Pizzamiglio

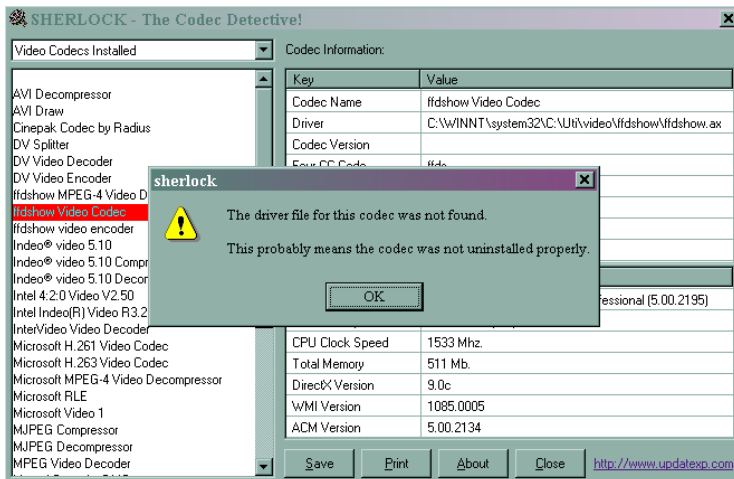


Codecs (Continued from page 1)



GSpot

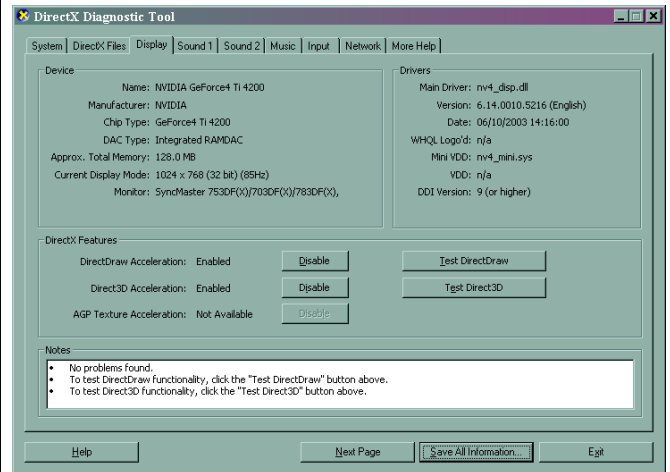
machine, and that's why one of the Microsoft digital Media MVP's wrote a utility called **Sherlock** that lists all the codecs that you have, and indicates in red which one(s) has a problem. For example, the path on my machine for the "ffdshow Video Codec" driver is made of two paths concatenated together, probably due to a bug somewhere (if you know how to fix that, please let me know!). <http://www.updatexp.com/sherlock-codec-detective.html>



Sherlock

Finally, the third utility, **DirectX Diagnostic Tool**, comes with Windows and is meant to diagnose Direct X problems, but it can be used to fix many other types of problems. To start it click on Start>Run and type dxdiag. The program has multiple tabs that give details on various aspects of the video and audio system, and on some of them, to do tests of various parts of your systems. The button "Save All Information..." at the bottom will save an exhaus-

tive list of all the hardware and software components on your system, which can be very useful when exchanging information electronically.



DirectX Diagnostic Tool

Once the missing codec is identified, there are a lot of places where you can find them by searching for the missing codec's name, but read carefully all the instructions, because they could easily make your machine unstable (making a backup is always a good idea before installing them). Another way to find a codec is to go to the site <http://www.fourcc.org> and use the "4CC" code (see GSpot screenshot, above left) to find the required codec.

After many hours of research, I was finally able to play the video of the AVI file by installing ffdshow, which was available at <http://sourceforge.net/projects/ffdshow>, but still I had no sound, so after some more searching, I found that I also had to install the AC3 audio codec available at <http://ac3filter.sourceforge.net/>. Now I had video and audio, but the volume remained very low even after changing all the usual volume controls. To fix that I had to open the configuration panel of the AC3 codec and change the "master gain" to the maximum setting, and select the speaker configuration that I have on my machine (I had to run mplayer2 to change the settings from the advanced menu; for some reason they were locked for the WMP9. It's truly amazing the number of settings you can change inside those codecs).

After all that, I finally got to enjoy my movie! I hope you will too.

Other useful links include:

<http://www.fourcc.org>

<http://www.xvidmovies.com/info/>

<http://www.doom9.org/index.html?xvid.htm>

<http://www.xvid.org>

<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/directshow/htm/howtoplayfile.asp>



WORLD AT LARGE

Protecting Your Computer During the “Flu and Virus” Season

by Joe Shipley, Phoenix PC Users Group NEWS, <http://www.phoenixpcug.org>

With all the viruses and other malware around, I have accumulated a group of software that I consider to be necessary ‘protection’ for any computer that connects to the Internet.

The software I recommend consists of:

Ad-Aware <http://www.lavasoft.com/>

Spybot Search & Destroy

<http://www.safer-networking.org/en/mirrors/index.html>

CWShredder

http://www.intermute.com/spysubtract/cwshredder_download.html

Zone Alarm

http://www.zonelabs.com/store/content/catalog/products/sku_list_zs.jsp

AVG Antivirus

<http://free.grisoft.com/freeweb.php/doc/2/lng/us/tpl/v5>

(OPCUG editor’s note: this link will bring you to the current version 7)

Pop-Up Stopper

http://www.panicware.com/product_psfree_download.html

All of these programs are FREE. Millions of people are using them. For Ad-aware alone, there have been more than 90 million downloads just from Download.com.

Once these programs are on your system, you need to make sure they are updated. AVG and Zone Alarm have automatic updating; the others need to be updated by clicking a button.

Ad-Aware and **Spybot** specialize in removing spies and malware from your system. They each will remove some bad things the other does not, so I use them both.

When running Ad-Aware, first do an update to check for the newest definition files. After updating, run the program. If the program finds items which need to be removed, you’ll see a display of the items suggested for removal. If there are no check marks in the boxes to the left of the item name, right-click in the frame and choose the “Select All” option. This will check all the items for you. Click on “Next” to move the items to a quarantine area. Once quarantined, the items are removed and will refrain from causing you any problems. If you remove something you really need, you can go to the quarantine area and recover the item to have it restored.

Upon installation of Spybot, the program will search for updates and give you the opportunity to download them. Do so. Updates are good. After updating, run the Immunizer to make sure you block about 2,000+ bad sites. Once updated, go to “Search & Destroy” to begin searching for more than 24,000 (as of this writing) spies, malware, Trojans and other bad things, which if found, will be removed from your system.

One of the features included with Spybot that I recommend is called “Tea Timer.” This feature advises you every time a change is proposed for your startup files. Viruses, worms and Trojans will often insert instructions into the startup files. By utilizing Tea Timer, you can determine if a change to these files should be permitted or not. The logic of whether or not to allow a change is simple: if you just installed some software and you’re prompted for a change, it’s probably ok. But if

you’re prompted for a change and you did not just install new software, just click NO. When in doubt, keep it out. You can always add it in later.

CWShredder can be used to remove a specific group of web search files that can hijack your browser to take you to certain websites and use specific search engines, whether you want to or not. The shredder removes those web search hijackers.

Zone Alarm is a terrific firewall that advises you of every attempt made by your computer to access the Internet, and of each attempt by the Internet to access your computer. At first it may seem like an annoyance, but once you catch on to the rhythm of how it works, it will greatly reduce the number of unauthorized Internet accesses without your consent. The program runs in the background, and gives you the chance to let it learn which Internet sites are acceptable and which aren’t. For example, the first time you go to do online banking, you may see a message asking you if you want to go to a specific site. If you say “NO,” you won’t be able to reach your bank’s web site. Don’t be alarmed. Try your bank again, and when you’re prompted to see if you really want to go to the bank’s site, then check the box “Remember this site” and click on the “Allow” button. The next time you want to go to the bank’s site you’ll get right in.

AVG Antivirus is a good antivirus program, self-updating, and will scan email as well as perform a regular antivirus scan. You can even setup automatic virus checking to have your system scanned when it’s convenient for you. With AVG you can, as Ron Popeil says, “Set it and Forget it!”

The last component of my protection package is Panicware’s **Popup Stopper**. This handy Popup blocker actually works. And if your bank’s web site uses popups which are being stopped, you can hold down the control key to temporarily disable the stopper to let you receive popups you actually want. You can also open the control center and disable the stopper at any time if the handy control key feature doesn’t do the job for you.

So this flu season you can get added protection by using the software described above, and minimize your downtime.

There is no restriction against any non-profit group using this article as long as it is kept in context with proper credit given the author. The Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which this group is a member, brings this article to you.

OTTAWA PC NEWS

Ottawa PC News is the newsletter of the Ottawa PC Users' Group (OPCUG), and is published monthly except in July and August. The opinions expressed in this newsletter may not necessarily represent the views of the club or its members.

Member participation is encouraged. If you would like to contribute an article to Ottawa PC News, please submit it to the newsletter editor (contact info below). Deadline for submissions is three Saturdays before the next General Meeting.

Group Meetings

OPCUG meets on the second Wednesday in the month, except July and August, at the Canada Museum of Science and Technology, 1867 St. Laurent Blvd, Ottawa. Meetings are 7:30–9:00 p.m. and Special Interest Groups go until 10 p.m.

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subscribe announcements

Within a couple of minutes you will receive a confirmation message from the listserver.

“Announcements” is a low volume list that the Board of Directors can use to get in touch with the membership. Subscribers can expect at least one message per month – the meeting reminder that goes out a few days in advance of the general meeting. Other than that, the only time it is used is when the Board feels there is some important news that should be brought to the attention of all members.