

## Useful Bits & Pieces June 2014

### How Long Do Disk Drives Last? Lorin R. Garson

The online backup company Backblaze has kept track of 25,000 hard drives for four years and has published a study of failure rates (see <http://goo.gl/ZryUuA>). So how long do normal, consumer-grade disk drives last? Disk drives show three distinct failure rates. For the first 1.5 years the annual failure rate is 5.1%, but the rate decreases as time goes on; the next 1.5 years it's 1.4% and fairly constant with time; and after 3 years it's 11.8% with an increasing failure rate with increasing age.

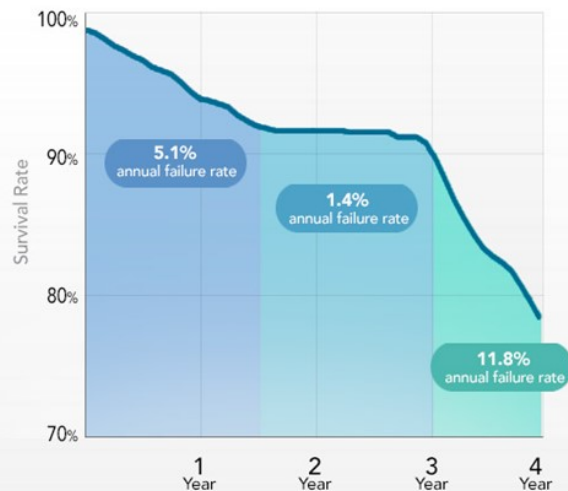
The bottom line? After three years drives start wearing out. After four years somewhat less than 80% are still running.

There is no good answer for when it is prudent to replace a disk drive. For many (most?) people, drives are retired when computers are replaced.

See <http://goo.gl/9jSJg6> for a more scholarly treatment of this topic.

### Drives Have 3 Distinct Failure Rates

Hard Drive Survival Rates - Chart 1



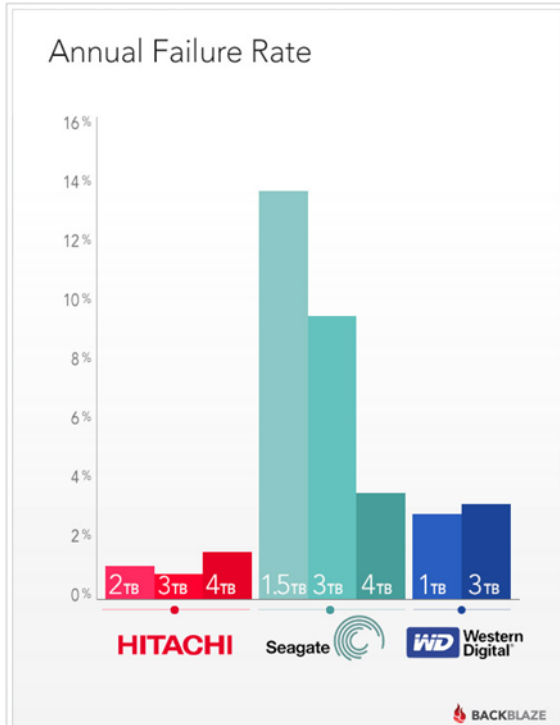
BACKBLAZE

### Which Hard Drive Should You Buy?

Backblaze also did a study of failure rates of three brands involving 27,000 consumer grade disk drives from Hitachi, Seagate and Western Digital. Hitachi had the lowest *annual* failure rate, less than 2%.



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However, some caveats are in order. The environment in your home is very different from that in a server farm. Disk drives in the latter work much harder than in your PC and are susceptible to greater wear. Thus the poorest performing drive, a 1.5 TB Seagate, may still last a long time in your PC. Based on this study I would avoid certain 1.5 TB and 3 TB Seagate models. See <http://goo.gl/lexDc7> for details of this study and note the failure rates for specific models. Considering the frustration and pain of a disk failure I would buy the drive with the lowest failure rate my wallet would allow.

### Wireless Router Alphabet Soup:

What does 802.11/a/b/g/n/ac mean as it pertains to Wi-Fi routers? In the beginning, 1997, there was an IEEE wireless standard developed called “802.11”; that peculiar name for a standard was the name of the IEEE committee that developed and published the standard. Over the years increasingly modern standards emerged to reflect advances in technology. The table below shows the progression of 802.11 standards. Most new routers are backward compatible with devices using older protocols (but 802.11a is not compatible with 802.11b or 802.11g). Now you know what 802.11/a/b/g/n/ac means.

The exact model of the drive is important. For example, there is a wide range in failure rates among 1.5 TB and 3 TB Seagate drives.

The IEEE (Institute of Electrical and Electronics Engineers) organization and their committee structures are mysterious and complex to outsiders. To quote from <http://goo.gl/V9x8ja>, “IEEE P802.11 is a standards working group on wireless local area networks. The working group is a part of IEEE LMSC (LAN MAN Standards Committee) formerly called IEEE Project 802. IEEE LMSC reports to the Standards Activity Board (SAB) of the IEEE Computer Society.” Got that?

Standard	Maximum Speed (Mbps)	“Normal” Speed (Mbps)	Frequency (GHz)	Comments
802.11	1 or 2	Who cares!	2.4	Wireless products no longer manufactured.
802.11a	1.5 to 54	6, 12 or 24	5	Business networks. Fast speed. Short range.
802.11b	11	2 to 6	2.4	Home appliances may interfere. For home use.
802.11g	54	~20	2.4	Home appliances may interfere. Good range.
802.11n	54-600	40 to 50	2.4 & 5	Widely adopted and used. Current technology
802.11ac	6,933	1,700 to 2,500	5	Just coming on the market (late 2013-2014)

## How Secure Are Your Installed Passwords?

It's one thing to determine how strong your passwords are before you use them, but what about passwords you started using long ago? NirSoft's Password Security Scanner to the rescue. This utility can be downloaded from <http://goo.gl/enP87>, and it's free. To quote from this Web site, "This utility scans the passwords stored by popular Windows applications (Microsoft Outlook, Internet Explorer, Mozilla Firefox, and more...) and displays security information about all these passwords. The security information of every stored password includes the total number of characters, number of numeric characters, number of lowercase/uppercase characters, number of repeating characters, and password strength."

Password Security Scanner is not a password recovery tool and it will not disclose users' passwords. Available for Windows only. Want to check the strength of passwords before using them? See the following:

See <http://goo.gl/pVqKc> for a unique password checker from Gibson Research Corporation.

See <http://goo.gl/wQsSy> for a checker from Microsoft.

See <http://goo.gl/VR9wI> for a tool similar to that from Microsoft.

## Ink by Subscription:

Most of us have low-cost ink jet printers for which we grudgingly buy outrageously priced ink cartridges. HP has introduced an interesting twist in this business model—ink by subscription. After you buy one of HP's three HP Instant Ink Printers, you sign up for a printing plan: (a) \$2.99/month up to 50 pages/month, (b) \$4.99/month up to 100 pages/month, and (c) \$9.99/month up to 300 pages/month.

Depending on the plan you can rollover some pages and are charged an additional fee for each 15, 20 or 25 pages, respectively, you go over your plan's limit. In summary you're paying \$0.03 to \$0.06 per page, which isn't bad. What's the rub? HP is betting you won't use up to your page limit and you can only rollover 50, 100 or 300 pages, depending on the plan you choose. See <http://goo.gl/UOA8Eh> for details.

## And the Winner is.....

### New Domain Extensions Becoming Available

By Kathy Perrin

.com .edu .net .gov .org

In past years there had been discussion of running out of domain names – much more demand than supply. Well, there has been a very interesting solution – a new selection of some most interesting choices.

If you would like a new domain name, this could be a very good time to check on the new domain extensions becoming available. There are already many two letter country codes with a choice of many new domain names arriving. You can expect competition for some of the more sought after names – with an auction with the highest bidder being declared the winner!

Consider: bike, bar, catering, cleaning, clothing, computer, construction, diamonds, expert, fishing, florist, glass, graphics, guru, horse, house, kitchen, menu, ninja, plumbing, rodeo, solutions, tattoo, technology, trade, vacations – what next???

Computer.Guru BuyYoursHere.tattoo  
ShopHere.bike Purple.expert  
Your.Florist Stained.Glass  
Excellent.Solutions

## FCC's New Rules Could Threaten Net Neutrality

By April Glaser and Corynne McSherry  
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Federal Communications Commission Chair-man Tom Wheeler is circulating a proposal for new FCC rules on the issue of network neutrality, the idea that Internet service providers (ISPs) should treat all data that travels over their networks equally. Unfortunately, early reports suggest those rules may do more harm than good.

The new rules were prompted by last January's federal court ruling rejecting the bulk of the FCC's 2010 Open Internet Order on the grounds that they exceeded the FCC's authority, sending the FCC back to the drawing board.

According to reports, Chairman Wheeler's new proposal embraces a "commercially reasonable" standard for network management. That standard could allow ISPs to charge companies for preferential treatment, such as charging web-based companies like Netflix or Amazon to reach consumers at faster speeds.

This kind of "pay to play" model would be profoundly dangerous for competition. New innovators often cannot afford to pay to reach consumers at the same speeds as well-established web companies. That means ISPs could effectively become gatekeepers to their subscribers.

The FCC issued a statement this morning that claims that the new network neutrality proposal will not allow ISPs to, "act in a commercially unreasonable manner to harm the Internet, including favoring the traffic from an affiliated entity." But we have no idea as to how "commercially reasonable"

will actually be interpreted. The devil will be in the details. While all we have now is a statement that a proposal for what the proposed rules might look like is being circulated in private within the FCC, the public should be poised to act. In an FCC rulemaking process, the commission issues what's called a Notice of Proposed Rulemaking (NPRM). After the NPRM is issued, the public is invited to comment to the FCC about how their proposal will affect the interest of the public. The FCC is required by law to respond to public comments, so it's extremely important that we let the FCC know that rules that let ISPs pick and choose how certain companies reach consumers will not be tolerated.

### April 24 FCC Establishes New Inbox for Open Internet Comments

<http://www.fcc.gov/page/fcc-establishes-new-inbox-open-internet-comments>

The Commission is considering proposed rules to protect an Open Internet. The proposed rules ask questions about how best to ensure the Internet remains an open platform for innovation and expression. Chairman Wheeler is encouraging the public to share their views now. He intends to have rules of the road in place before the end of the year to protect consumers and entrepreneurs. He will be listening, and your comments will help inform the final rules. Please send your thoughts to [openinternet@fcc.gov](mailto:openinternet@fcc.gov). **Note:** You will be filing a document into an official FCC proceeding. All information submitted, including names and addresses, will be publicly available via the web.

## Linux and Open Source News

By Geof Goodrum

*Potomac Area Technology and Computer Society*

*linux(at)patacs.org*

### Featured Open Source Software of the Month: June 2014

The software described below can be downloaded at the links provided or copied onto a USB flash drive at the PATACS Fairfax meeting. However, please check the online package management tool included with your GNU/Linux distribution first, as installation is often just a click away.

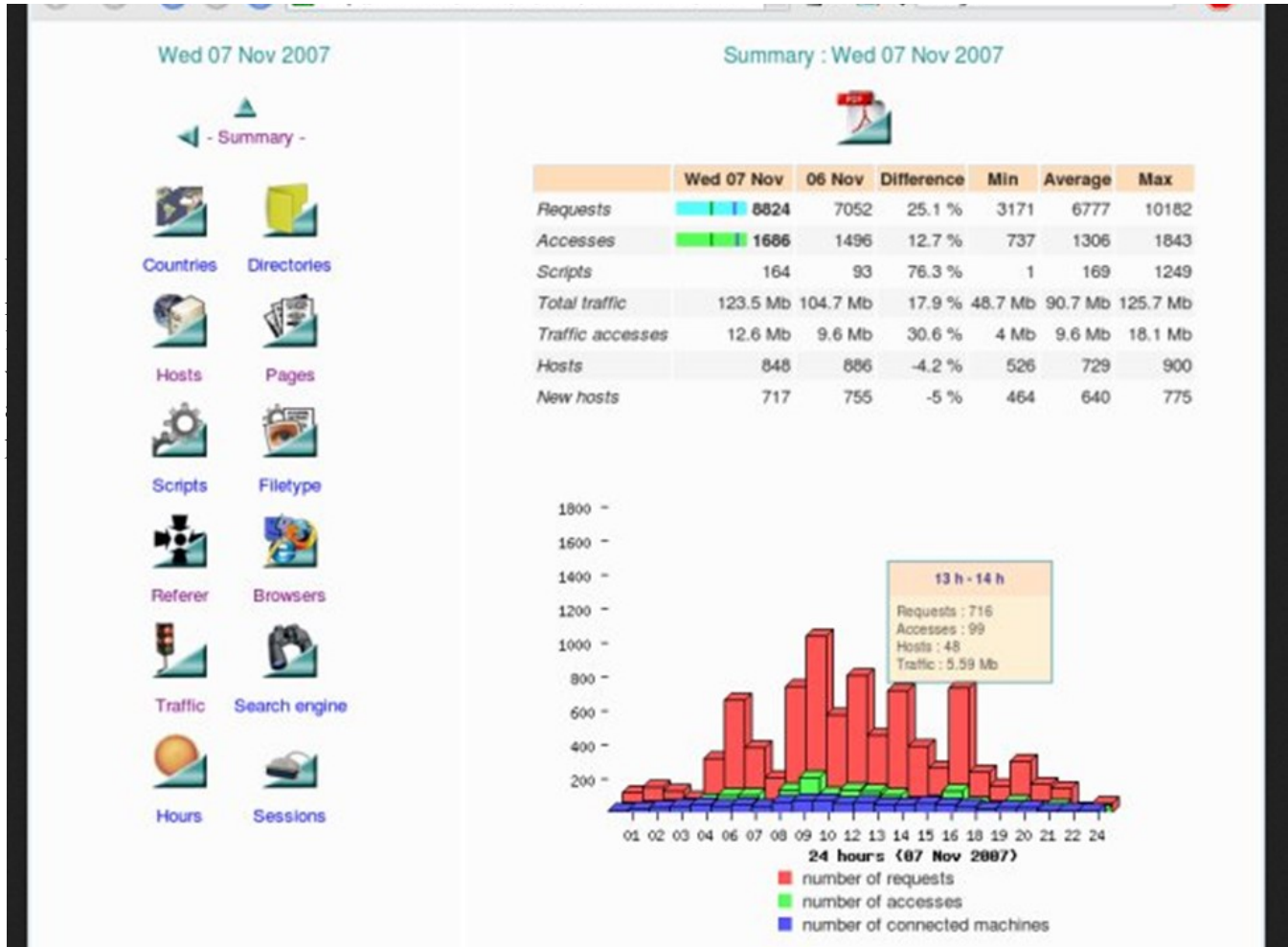


**TORCS** – v1.3.6. <http://torcs.sourceforge.net/>.

Free GNU General Public License source code by Bernhard Wymann et al. and executables for Microsoft Windows, Apple OS X, FreeBSD, Ubuntu and Debian Linux, Fedora and Mageia Linux. TORCS, The Open Racing Car Simulator, features:

- 3D Car racing simulation for gamers, researchers, engineers and teachers;
- Many tracks, opponents and cars available;
- Sophisticated physical model;
- Supports all input devices (steering wheels, joystick, game pads, ...);
- Lots of community content/add-on software available;
- Easy to modify (proven in many scientific/industrial research projects based on TORCS);
- Easy to add/create content;
- Modular architecture;
- Excellent performance and stability.

The most important changes in version 1.3.6 are new racing rules, new race manager configuration options (e.g. a fuel consumption factor from 0 to 5), better handling of penalties, more input device adjustments in the player options GUI, historic car setup adjustments based on real world data, and as usual bug fixes and code cleanups.



W3Perl – v3.184

<http://www.w3perl.com/>.

Free GNU General Public License Perl script for Linux, Unix, Apple OS X and Microsoft Windows.

W3Perl is a free logfile analyzer. It can read Web/FTP/Squid/CUPS/DHCP/SSH or mail logfiles. It allows most statistical data to be output with graphical and textual information. An administration interface is available to manage the package.

**Kernel Source** – v3.14.1\_HYPERLINK "<http://www.kernel.org/>" httpHYPERLINK "<http://www.kernel.org/>" ://HYPERLINK "<http://www.kernel.org/>" wwwHYPERLINK "<http://www.kernel.org/>" .HYPERLINK "<http://www.kernel.org/>" kernelHYPERLINK "<http://www.kernel.org/>" .HYPERLINK "<http://www.kernel.org/>" orgHYPERLINK "<http://www.kernel.org/>" /. Free GNU General Public License source code for all platforms by the

## Take Better Control of Your Computer with WinPatrol

By Ira Wilsker



### WEBSITES:

<http://www.winpatrol.com>

<http://www.winpatrol.com/compare.html>

Most PC users find that their computers tend to slow down as they age, with more programs loading at boot, toolbars spontaneously appearing on the browser, browsers running slow with too many unnecessary plug-ins, and a host of other issues. Fortunately for us, there is a great little utility that has been around for over 16 years that provides serious protection from software that tries to change your settings, install toolbars, or add other potentially unwanted content. This utility, WinPatrol, is not a traditional antivirus or anti-malware utility, but it does provide an additional layer of protection from unwanted programs or system modifications that are often installed when new or updated software is installed. The highest recommendation that I can give for WinPatrol is that several years ago, I purchased a lifetime family

license which allows the paid version of WinPatrol (WinPatrol Plus), to be installed on any and all Windows computers in my family, a fact that I rigidly enforce; all of our computers are actively running WinPatrol Plus, and will continue to do so in the future, even as new machines and operating systems replace older computers.

According to the WinPatrol website ([winpatrol.com](http://winpatrol.com)), "The popularity of WinPatrol is based on its ability to detect and prevent changes to important Windows settings. You'll be notified if unwanted programs are set to automatically run, if a toolbar has been added to Internet Explorer, if your home page, search provider or other internal configurations change. When a new Service or ActiveX component is detected it may be part of a legitimate program. WinPatrol will make sure it is and if it isn't, you can tell WinPatrol to disable it. Just adding a program won't cause a notifi-



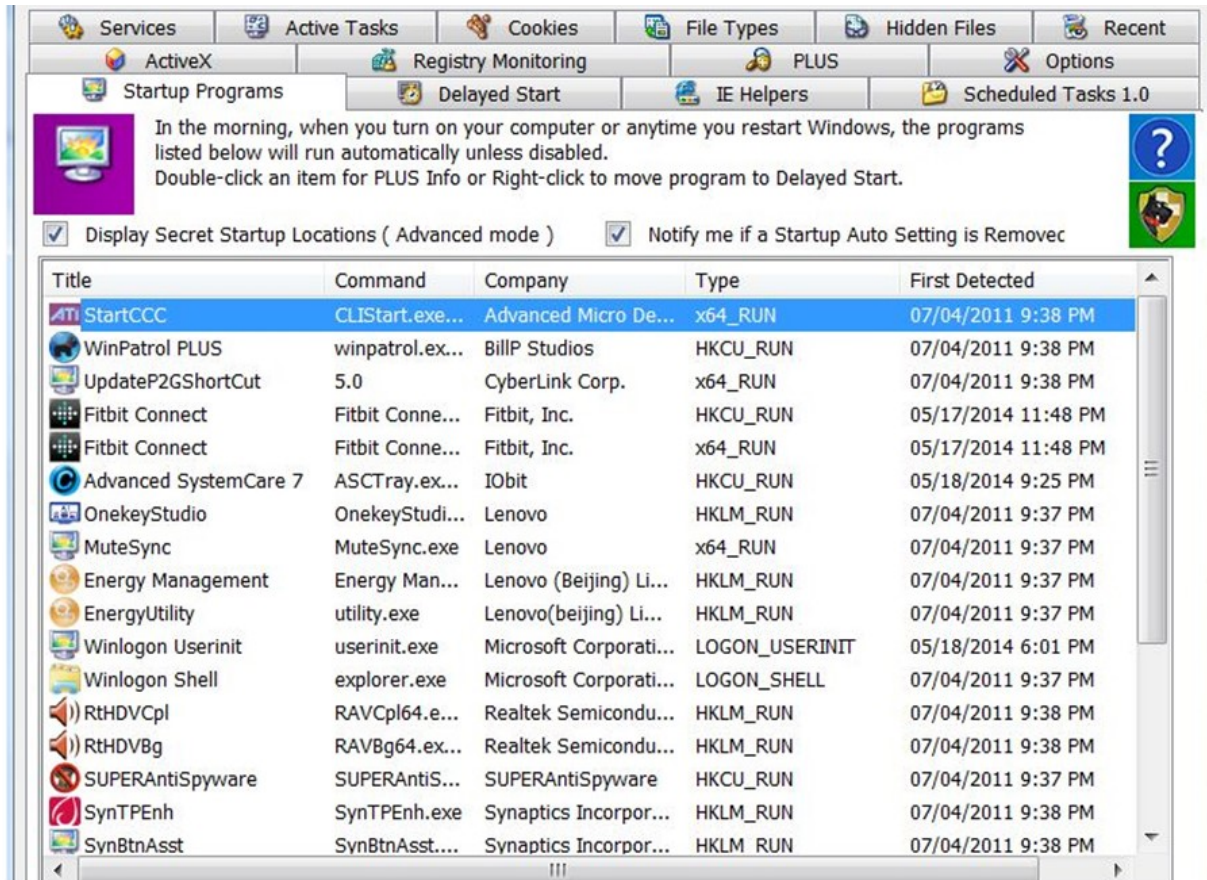
cation, but when a program is configured to run without your knowledge, WinPatrol will let you confirm that the change is expected.”

The need for a utility such as WinPatrol has increased significantly in recent years. Today, it is very common for all categories of software, including commercial (paid software), shareware, and freeware to create or enhance a revenue stream through commissions generated by installing often unrelated software and plug-ins. This unnecessary software or browser add-ons may change the user’s home page on his browser, change default search providers, redirect commercial transactions to “preferred” sellers, add revenue generating toolbars to browsers, add software monitors that track and report user activities, and other “enhancements”. Usually these unnecessary additions are installed with the nominal consent of the user, as the information about the system changes may be buried in the fine print of the license or users’ agreement displayed during the install process to which the typical user clicks “agree” without fully understanding what he is actually installing on his computer. Alternatively, many of these software vendors and authors are dependent

on the typical user clicking on the “next” button during the install process, without that user being fully cognizant about what he is putting on his machine.

As a typical example, one of my favorite cleaning and maintenance utilities displays a window during its install process that says, “By clicking “install” you accept the ... Toolbar Terms of Use and Privacy Policy”, with a hyperlink to the privacy policy. It is external revenue sources such as these that enable the software authors and publishers to continue to produce and distribute their software, which is often free or inexpensive. In my experience, most users simply click on the large blue “Install” button instead of the small, underlined “Skip” link. By clicking on “Install”, without changing any of the displayed default settings, the user consents to install the “... Toolbar & Extensions by Spigot (Slick-Savings in IE/FF/GC, Start Page in FF, Domain Error & eBay & Amazon Assistants in GC). Set Yahoo! As my default search provider, home page, & startup option in Internet Explorer/Firefox/Google Chrome).” The abbreviations used in that statement are “FF” for the Firefox browser,





“IE” for Microsoft Internet Explorer and “GC for Google Chrome. Somewhat similar changes to the browsers, search engines, and start pages are common in other software products. Some of these toolbars and related changes redirect searches and modify search results, collect referral commissions from commercial websites such as Amazon and eBay, and provide other sources of revenue to the software author. There is nothing illegal about this entire process, as the user can easily opt not to install a toolbar or change any settings, and the intended software will still install and run properly.

The reason why I mention what many popular software publishers do in order to generate the necessary revenue to continue to produce software, is that many of these add-ons, search engine changes, toolbars, Active X components, Windows Services, and other changes and add-ons may adversely impact the speed and performance of the computer, as well as possibly skew search results to supporting sponsors, and to redirect purchases to affiliated vendors. WinPatrol is explicitly designed to intercept these changes and

search results to supporting sponsors, and to redirect purchases to affiliated vendors. WinPatrol is explicitly designed to intercept these changes and notify the user, giving him the choice to allow or block such installations or changes.

### Multiple Computers?

Can I use my activation code on both my desktop and laptop?

Of course. You're the customer not your computer. You're welcome to use a single license code on any computer you personally own and use.

Purchase a WinPatrol Super Family Pack and your code is good for unlimited computers for your whole family.

WinPatrol <i>PLUS</i>			
Features		Free	<i>PLUS</i>
Access to WinPatrol <i>PLUS</i> Knowledgebase (24/7)		No	Yes
Real-time Infiltration Detection		No	Yes
Increased <i>PLUS</i> Performance		No	Yes
Automatically respond and/hide specific alerts.		No	Yes
Review and Remove ActiveX components		No	Yes
Custom Registry Monitoring and Reg Locking		No	Yes
Access to WinPatrol Cloud results		No	Yes

There is much more to WinPatrol than just protecting against potentially unwanted changes to your system; it includes 14 windows of information and data about what is running on the computer. These 14 windows, tabbed in most builds of Windows, show Startup Programs, Delayed Start, IE Helpers, Scheduled Tasks, Services, ActiveX, Registry Monitoring, *PLUS* (information on the paid version), Options, Active Tasks, Cookies, File Types, Hidden Files, and Recent (recently run programs). Most of these 14 tabs give the user an easy to understand method of controlling what is running on the computer. For example, the Startup Programs tab displays the programs that load when the computer is booted; often, many of the programs are unnecessary, and can be removed from the boot sequence, speeding computer boot times. Alternatively, convenience programs that are desired to load, but not totally necessary, can be moved to the Delayed Start list, and automatically loaded some time after boot. The Scheduled Tasks displays software that is intended to run at specific times, such as updating utilities, scanners, and other periodically run programs. Users often complain about how long it takes for a browser, such as Internet Explorer, to load; the IE Helpers tab displays those plug-ins and toolbars loaded with Internet Explorer, information on each, and the option to selectively remove them from the browser, speeding up the

the loading process. The Registry Monitoring tracks changes made to the registry and allows the user to change or remove any recent changes to the registry, and allows the user to change or remove any recent changes to the registry. Many users are concerned about the cookies stored on their computers; these little bits of data can be necessary or can be used to track the users online activities, sometimes that information being sold to third parties; the Cookies tab can display the stored cookies and give the user the opportunity to selectively delete any unwanted cookies. These are but a few of the many control functions provided to users of WinPatrol. According to the WinPatrol website, "WinPatrol works and plays well with others. WinPatrol runs on Windows XP, Vista, Windows 7, Windows 8.x, & supports Windows 64 bit features without conflicts with other programs. The addition of WinPatrol provides a layered security approach required when even legitimate programs try to install unwanted toolbars." WinPatrol is available as a fully functional free utility or as a paid "*PLUS*" version with additional functions and features. The fee for the *PLUS* version is a one-time fee which entitles the user to all future updates and upgrades at no additional charge. At present, for household use, there are two purchase options for the *PLUS* version; the *PLUS* Lifetime License is \$29.95 and covers a single user on unlimited computers,

including future computer purchases with a compatible operating system; the license is on the user, not the machine, so there is no problem if the PLUS version is used simultaneously on a desktop and laptop computer, as well as any future purchases. The Lifetime Family Pack, which is what I have, is \$49.95, and can be used by the entire family on an unlimited number of computers, including future purchases. There are other one-time license fees for bulk users, such as businesses and schools, that offer quantity discounts for the purchase of 10 or more licenses.

WinPatrol is the product of an all-American small business, headed by Bill Pytlovany, located in Scotia, New York. Bill Pytlovany releases frequent updates and upgrades in order to deal with new “zero day” exploits that may appear and attempt to hijack a computer. Bill Pytlovany says that, “WinPatrol continues to add unique features and remains the smallest, fastest system monitor of its kind.” As I type this, the latest version of WinPatrol is 30.9, dated April 22, 2014; it is likely that one of the very frequent updates will be released by the time that you read this.

If you feel that you can use an added layer of protection against hijacks and system changes, protections often not included in other security products, WinPatrol may be just the product that you are looking for.

**GoodRx** How GoodRx Works Mobile App Discount Card More - Help Register or Sign In

**Stop paying too much for your prescriptions!**  
Compare prices and find coupons to save up to 80%

30 tablets of 20mg Lipitor (atorvastatin)

Pharmacy	Avg. Cash Price	with GoodRx Coupon
Kmart	\$170.41	\$16.23
CVS Pharmacy	\$147.99	\$17.66

Drug Name (Lipitor, Ambien, etc)

Location (City, Zip Code or Address)

**FIND THE LOWEST PRICE**

Drug prices are different at every pharmacy.  
How GoodRx helps:

Get the GoodRx App

## Save Money on Prescription Costs with the GoodRX App or Website by Ira Wilsker

### WEBSITES:

<http://www.goodrx.com>

<http://www.goodrx.com/mobile>

<http://m.goodrx.com>

<http://www.goodrx.com/how-goodrx-works>

<http://www.goodrx.com/about>

<http://www.goodrx.com/faq-insurance>

<http://www.goodrx.com/faq>

<http://abcnews.go.com/Business/top-tips-save-prescription-drugs/story?id=22918556>

<http://money.usnews.com/money/blogs/my-money/2014/03/14/5-ways-to-cut-medicalcosts>

<http://www.wzzm13.com/story/local/2014/02/10/5384465/>

<http://www.thedoctorstv.com/videolib/init/10654>

<http://www.thedoctorstv.com/videolib/init/10654>

Anyone who has read or listened to the news over the past few years is well aware of the debate over healthcare costs. No surprise to anyone is the perception of the high cost of prescription drugs. Much like the popular app GasBuddy displays the current gasoline prices at nearby gas stations, GoodRX does the same with prescription prices at nearby pharmacies. While GasBuddy shows gasoline prices that may differ by a few cents per gallon, GoodRX shows that prices for the same prescriptions can vary among local pharmacies by hundreds of dollars. While many of us have health insurance that covers prescription drugs, I have found that it is sometimes cheaper to pay cash for my prescriptions, as the insurance co-pay might be higher than the cash price! GoodRX.com explains it this way, "If you have insurance, your co-pay might not be the best price. Hundreds of generic medications are available for \$4 or even free without insurance. Your \$10 co-pay doesn't sound so great when you can get the same drug for 60% less with GoodRX. Plus, many plans have high deductibles or limited formularies that don't cover the drugs you need." Unlike some of the other websites and apps that offer to save the patient money on prescriptions, GoodRX explains how it is different than most of the others, "We do not sell drugs; In fact, we don't sell anything. Right now we are focused on information only. Our primary mission is to make you a smarter consumer so you can make better choices when filling your prescriptions. We offer prices and unbiased coupon and discount information for legitimate, licensed US pharmacies that you already visit regularly." GoodRX has been reviewed and evaluated positively in several major publications, including CNN, Prevention Magazine, Forbes, ABC News, and Good Housekeeping (source: [goodrx.com/press](http://goodrx.com/press)). In a story on ABC News on March 22, 2014, "5 Tips for Saving on Your Prescription Drugs", one of the money saving tips said, "Shop Around for the Best Prices. Don't assume that your prescriptions will cost the same at every pharmacy. You can go to your local pharmacies to price compare, or use sites like GoodRX, which allows you to compare prices for all FDA-approved prescription drugs at pharmacies across the country before you buy." The March 14 issue of US News and World Report mentioned GoodRX in an article "5 Ways to Cut Medical Costs - Lower the price of

prescriptions and procedures without jeopardizing your health"; in the section "Get the best price on prescriptions" US News said, "Before filling your prescription, shop around at different pharmacies. Consider looking at prices through your insurance company's mail-order pharmacy, or use websites like [goodrx.com](http://goodrx.com) to compare prices at your local pharmacies." A TV station in Grand Rapids, Michigan, WZZM, reported in a story "13 On Your Side: RX prices vary greatly" broadcast on February 10, 2014, "The best deals, however, were found online, at the site Good RX. It offers deeply discounted coupons redeemable at most major pharmacies. Good RX brings a transparency and savings to just one part of our health care: prescription prices. To know if you're getting a good deal you need to know what your insurance will require you to pay - a set co-pay, a percent of the full price?" Profound information on prescription drug prices was given on the syndicated TV show "The Doctors" ([thedoctorstv.com/videolib/init/10654](http://thedoctorstv.com/videolib/init/10654)), shown locally at 2:00 PM weekdays on KJAC12; an internist discussing drug prices recommended GoodRX as the best way to get the lowest prescription prices at local pharmacies, even to the point of demonstrating the GoodRX website and app on the program. After downloading the app to my Android smart phone (also available for iPhones), and viewing the GoodRX.com website, I experimented by comparing the local prices for several of the best selling prescription drugs, as listed on Wikipedia ([wikipedia.org/wiki/List\\_of\\_bestselling\\_drugs](http://wikipedia.org/wiki/List_of_bestselling_drugs)), and using the zip code for The Examiner (77701) as a constant location. The results were startling! The brand name or generic for almost any prescription drug can be entered, with the option of choosing the dosage and quantity. One example was for the widely prescribed statin (cholesterol lowering drug), the generic version of Lipitor. Comparing the 40mg dose, for a 30 day supply, the cash prices varied from \$14.18 at the Kroger pharmacy with the printable coupon or the digital coupon displayed on a smart phone (\$74 was the non-discounted price), \$14.68 at Walmart and Sam's Club with coupon, \$16.00 online or by mail order, \$25.35 with coupon at CVS (\$145 non-discounted), and \$25.60 at Walgreens with coupon (\$149 non-discounted). A coupon was also available to get discounted prices at other local pharmacies.

One of the most widely prescribed diuretics, the generic version of Lasix (furosemide 40mg) also had wide variances in local prices. The lowest price for 30 tablets, 40mg furosemide was an online pharmacy at \$3.50, followed by Kroger (\$3.59 with coupon, \$4.00 without a coupon), Walmart and Sam's Club \$4.00 with coupon, Walgreens \$5.00 for its club members (\$12 without paid membership), and CVS for \$8.84 with coupon (\$12 without coupon). For the record, most of the coupon prices are less than the co-pay for generics on my health insurance plan.

Much more dramatic differences in price are apparent for popular, heavily advertised prescription drugs. I just heard a TV commercial for the diabetes drug Victoza, for which there is no generic, so that drug might be useful to compare what our local pharmacies are charging. Victoza, which will not be available as a generic before August, 2022, has a manufacturers' coupon available that can be used for up to two years that can save up to \$150 per fill, the link to which is available on the GoodRX listing for Victoza. GoodRX also reports that there is a "Manufacturer Assistance Program: Financial assistance is available for eligible patients" to provide Victoza at much lower prices; this information is also linked on GoodRX. Victoza comes as an injectable in a pen format, three pens per box; at the common daily dose of 1.8mg, the box should last 30 days. For people paying for their prescriptions, Walmart and Sam's Club came out the lowest at \$570.79 with the coupon. CVS was second lowest at \$575.41 with the coupon (\$634 cash price), Kroger Pharmacy was \$575.91 (\$675 without coupon), and Walgreens was \$588.55 with the coupon (\$618 without coupon). By contrast, the Victoza was listed at \$618 from the online source.

We should never be afraid to talk to our physicians about the medications that we take; one feature of GoodRX is that when it displays a particular drug that might have been prescribed, it also displays if there is a lower cost generic available, as well as any less expensive similar drugs. With this information, we can have a frank discussion with our physicians about our medications, and ask if any of the lower cost alternatives might be equally appropriate for us.

Since many of us go directly from the prescribing physician to the pharmacy, the free GoodRX mobile apps for Android and iPhone (or iPad) may be convenient. As an alternative, there is a web based mobile version of the GoodRX website at [m.goodrx.com](http://m.goodrx.com). With the app or mobile version, it is very easy to search for the prescribed drugs, choose a location by zip code or city, and let the app display the prices at the nearby pharmacies. If a coupon is available to lower the cost, the app will display a digital copy of the coupon that can be used at the pharmacy; alternatively, the coupons can be sent by SMS text message or by email. Each coupon that I viewed had a statement that it did not apply if used under Medicare or Medicaid. While the majority of the pharmacies displayed are the major chain, retailer, or supermarket based pharmacies, there is also an additional coupon that can be explicitly used at most other non-listed pharmacies to get prescription prices competitive to those displayed. GoodRX summarizes its service with this statement, "Use GoodRX's drug price search to compare prices (just like you do for travel or electronics on other sites) for your prescription at pharmacies near you. We don't sell the medications, we tell you where you can get the best deal on them." Now that I have downloaded the app to my smart phone, I will intelligently use the GoodRX app to find the best price for my prescriptions. Together, using the power of good information along with honest competition, we can help to bring down our costs for health care.

### 5 Ways to Cut Medical Costs

Lower the price of prescriptions and procedures without jeopardizing your health.



## PATACS—ARLINGTON

Wednesday June 4th, 7 PM

Carlin Hall Community Center,  
5711 S. 4th Street, Arlington, VA 22204

**Best Android Apps  
Gleaned From the Net**  
by Jim Rhodes  
**Get Help: Q&A Session**

**Fairfax Meeting: June 21st,  
3rd Saturday**  
**Note Special Start Time – 2 pm**

Osher Lifelong Learning Institute,  
4210 Roberts Rd.,  
Fairfax, VA 22032-1028



### PC Clinic - Computer Got the Blues?

#### PC Clinic in the Annex

Get hands-on help with your computer problems from PATACS experts. Bring in your computer, and we'll help you lose the 'blues' - system slow-downs, unwanted programs, virus and malware. We can help install new RAM, optical drives, hard disks, and software. **Be sure to read the Clinic Rules: <http://patacs.org/clinicpat.htm>**



### **Cryptography for the Rest of Us Presentation by Lorrin Garson**

In an age when governments, corporations, and thieves want to keep tabs on us, sell us goods and services or steal our identity or money—guarding one's privacy is critical. Most people have a great deal of sensitive information on their computers (and computer-based devices such as tablets and smartphones) that is ripe for the picking unless an effort is made to encrypt these data. Encryption of information has played a pivotal role throughout the millennium in warfare and diplomacy and today it is a crucial issue for individuals. The following will be discussed: (a) examples of some pivotal roles cryptography played in history, (b) how plain text is encrypted and decrypted, and (c) methods individuals can adopt with minimal effort to secure their private information.

#### Future Meeting Topics:

##### **July 19th -**

7 Steps to Better Brain Health - Susan Wranik  
Learn 30: Chromebook - Gabe Goldberg

##### **Aug 16th -**

Tips for Buying & Enjoying the Features of a New TV - Scotty Scott - Fairfax County Gov't.

##### **Sep 20th -**

The Internet of Things - Gary Arlen Learn 30:  
Overcoming the Physical Stresses of Computer Use Presented by Rolston James

# PATACS Information

PATACS, Inc. 201 S. Kensington St. Arlington VA 22204-1141

Club Information call: 703-370-7649

Web Site: [www.patacs.org](http://www.patacs.org)

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## If you are moving

Please send your change of address to the club address as soon as possible to avoid missing issues.

*Thank You!*

## Upcoming Meetings

**PATACS—Arlington June 4th, 7 PM**

**Fairfax Meeting— June 21 Note Special  
Start Time: 2 PM**

## Microcenter Clinics

See <http://microcenter.com/site/stores/instore-clinics.aspx>

**for the latest new9s on these free clinics.**

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201 S. Kensington St.  
Arlington VA 22204-1141

# First Class

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## PATACS Meeting Information

Call (703) 370-7649 for meeting announcements



Scan the QR code at left or enter

<http://www.patacs.org>

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### Arlington Meetings

Carlin Hall Community Center  
5711 S. 4th Street, Arlington, VA 22204  
<http://www.patacs.org/arlingtonmeetings.html>

### General Meeting

1st Wednesday June 4 7pm

### Technology and PC Help Desk (SIG)

4th Wednesday June 25 7 PM

### Board of Directors

3rd Monday June 16 7pm

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### Fairfax Meetings (with OLLI PC User Group)

Osher Lifelong Learning Institute (OLLI)  
4210 Roberts Road, Fairfax VA 22032  
<http://www.patacs.org/fairfaxmeetings.html>

### General Meeting

3rd Saturday June 21 **2:00pm**

### Online-Only Webinar

2nd Wednesday June 11 7-9pm  
<http://www.patacs.org/webinarpat.html>