



# THE WYSIWYG



\$3.00

NOVEMBER 2016

Volume 28, Issue 9

**STERLING HEIGHTS COMPUTER CLUB**

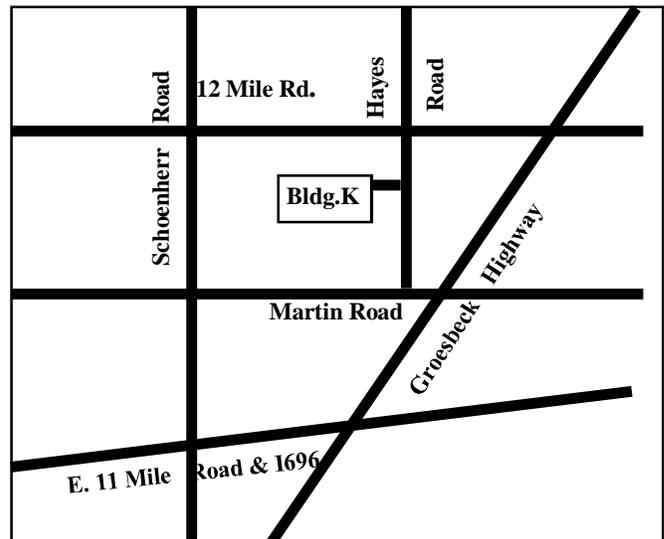
PO Box 385

Sterling Heights, MI 48311-0385

## MAIN MEETING: TUESDAY NOV 1

**6:30 PM**

Macomb Community College  
 South Campus  
 14500 E 12 Mile Road, Warren  
 John Lewis Community Center  
 (Building K)



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## This Month's Main Meeting Topic:

**“What's Hot For The Holidays”  
 by Richard Tapaninen of  
 Micro Center**

**PC SIG Meeting:  
 Tuesday, November 15  
 starting at 6:45 at the  
 Sterling Heights  
 Public Library  
 (Meet in the second  
 floor conference  
 room)**

The SIG will plan to meet every other

## **Sterling Heights Public Library**

The Sterling Heights Public Library, at 40255 Dodge Park Road, is located just south of Utica Road. A large sign reading "City Center" marks the driveway to the library and parking. The Programming Center, where the meeting is held, is just inside the front door of the library.



Guests and visitors are welcome. People can attend any SHCC meetings during two consecutive months before deciding to become a member or not. Meetings include the main meeting and SIG. July and August don't count since there is no main meeting. Membership includes admission to all SHCC functions and the newsletter. Membership is open to anyone. It is not limited to the residents of Sterling Heights.

**DUES: \$25/YEAR**

**CLUB ADDRESS:** PO Box 385, Sterling Heights, MI 48311-0385  
**CLUB E-MAIL ADDRESS:** Info@SterlingHeightsComputerClub.org  
**CLUB WEB PAGE:** http://www.SterlingHeightsComputerClub.org

**Resource People:**

Family Tree	Rick Schummer
Firefox	Don VanSyckel
FoxPro	Rick Schummer
General Computer Questions	Jack Vander-Schrier
Hardware	John Rady
MS Publisher	Rick Kucejko
MS Word	Rick Schummer
Spreadsheets	Rick Schummer

**SHCC Coordinators:**

Associate Editor	Rick Schummer
Door prizes	Don VanSyckel
Greeter for visitors	Jim Waldrop
Newsletter publisher	Rick Kucejko
Program Coordinator	Mike Bader
Publicity	Patrick Little
Resource People	open
PC SIG	Jack Vander-Shrier
Welcome & check-in desk.	Jim Waldrop
Web Site	Don VanSyckel
Web Watch column	Paul Baecker

**2016 SHCC Officers**

President: Don VanSyckel  
 V. President: Mike Bader  
 Secretary: Rick Kucejko  
 Treasurer: Paul Baecker

**Four Month Meeting Schedule:**

**NOVEMBER 2016**

- 1 - SHCC – “What’s Hot For The Holidays” by Richard Tapaninen of Micro Center
- 2 - COMP meeting
- 13- SEMCO meeting
- 15 - PC SIG

**JANUARY 2017**

- 3 - SHCC – Main Meeting
- 4 - COMP meeting
- 8 - SEMCO meeting
- ? - PC SIG

**DECEMBER 2016**

- 6 - SHCC – "How To Choose Replacement Batteries And Bulbs For My Devices" by Greg Beltowski, Franchise Owner Of Batteries Plus
- 7 - COMP meeting
- 11- SEMCO meeting

**FEBRUARY 2017**

- 7 - SHCC – Main Meeting
- 8 - COMP meeting
- 12 - SEMCO meeting

**Other Computer Clubs:**

As a member of SHCC, you can attend meetings of other clubs where we have reciprocating membership agreements, at no charge.

**Computer Club of Marysville and Port Huron (COMP)**

Time: 1st Wednesday, 7:00PM  
 Place: Mackenzie Bldg, Room 201, St Clair Community College, Clara E McKenzie Library-Science Building, 323 Erie St.  
 Port Huron, MI (810) 982-1187  
 Web Page: http://www.bwcomp.org  
 Reciprocating: Yes

**South Eastern Michigan Computer Organization (SEMCO)**

Time: 2nd Sunday at 1:30PM  
 Place: Altair, 1820 E Big Beaver Road, Troy, MI 48083  
 (248) 840-2400  
 Web page: http://www.semco.org  
 Reciprocating: Yes

**Royal Oak Computer Club**

Time: Every Wednesday at 12:30  
 Place: Mahany/Meiniger Senior Community Center 3500 Marais Ave. Royal Oak, MI 48073  
 248-246-3900  
 Reciprocating: No

**Contact Information:**

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Don VanSyckel	586-731-9232	don@vansyckel.net
Jack Vander-Schrier	586-739-5952	jvanders@comcast.net

(Call Jack after noon)

Newsletter submissions are due 10 days before the club meeting, but the earlier the better. They should be sent to :

WYSIWYG Publisher  
 5069 Fedora, Troy, MI 48098  
 OR at the e-mail addresses: newslet-

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## The President's Pen

by Don VanSyckel



November already, and next month Christmas. This month several things are going on. I want to remind everyone that we have officers' elections this month. Currently no one has been nominated for treasurer and one person has been nominated for each of the other three offices. We need a treasurer, consider it or any of the other offices.

This month we are pleased to welcome back Mr. Richard Tapaninen of Micro Center. Mr. Tapaninen will be presenting to SHCC for the twelfth time. It's always interesting to hear about all the new items on the market and what's really hot this year. This year promises to be just as interesting.

December will also be appropriate for the season. It's the season of new gadgets, many of which require batteries. Next month Mr. Greg Beltowski from Batteries Plus Bulbs in Roseville will tell us how to choose the correct batteries for all those new items.

So plan to attend the next two meetings and bring your wish list with you to jot down the hot items you want and the best batteries to power them.

For those of you interested in quad-copters, there's a group in the area working on building one to include a Beagle-Bone single board computer running Linux. While not the same size the Beagle-Bone is in the class with Raspberry Pi which you might remember was demonstrated at SHCC. The presenter has made the offer to help anyone interested in building a quad-copter like the group is building to make a kit of some of the parts, available at the SHCC meeting. At this point I don't know how many of the parts will be in the kit or the cost. You need to order the kit before the meeting and pay for it at the March meeting when you get the kit. Currently the deadline for ordering is the February SHCC meeting. The presenter is doing this to promote building quad-copters and needs time to pull together the parts for the kits. Don't wait until the last minute. Contact me about the kit and I'll put you in touch with the presenter.

If you're interested in quad-copters you might be interested in attending the meet-up group. Contact me for details.

Usually at this point I make a comment or two about the presentations coming up but I've already done that so I guess I can just end it here.



## Last Month's Meeting

Mr. Jason Groth of the Sterling Heights Public Library did a great presentation about computer cleanup. If you don't know what this is or think you don't need it, you should have been there.



## Attend The SIG

If you do not attend SIG meetings, you are missing out on important club benefits available to you. These small group get into more detail and more question and answer sessions than is possible at the main meeting.



## Door Prizes

Door prize drawings are held at regular club meetings. The winner's circle for October included:

**Ken Belbot** won a multipurpose tool

**Bill Appleberry** won a HDMI cable

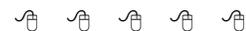
**Mike Bader** won AVG software

**Warner Mach** won a CD holder

**Tom Miller** won a pack of 3 1/4 discs

**Ralph Osinski** won a SCSI drive

**Don Vansyckel** won a power strip



**If your e-mail or mail address changes, please e-mail: [secretary@SterlingHeightsComputerClub.org](mailto:secretary@SterlingHeightsComputerClub.org)**

## Club Membership Drive

All Sterling Heights Computer Club members,

**The club is holding a membership drive through January.** Not that you have to stop bringing in new members after January, they just won't be a part of this membership drive.

The rules are simple:

- 1) Bring in new people to SHCC and have them list you on the sign in form as the reason they came in.
- 2) You get credit for each person that joins SHCC from now until the time of the drawing early in the January meeting.
- 3) In January, whoever has the most new members to their credit will be in a drawing for the prize. (Could be a drawing of one.)
- 4) Previous SHCC members who rejoin do not count.
- 5) People who visited the club previously but never joined count if they join this time.
- 6) New associate members also count. They can be an associate of an existing member or a new member as long as the associate has never been a member before.
- 7) Prize is a \$25 gift card and a one year extension of your SHCC membership.



## Club Officer Election Announcement

**I**t is time to elect our officers. Here is the process, the positions, and responsibilities:

The nomination process is simple. Any member is eligible to run for any office. You can nominate yourself or have another member nominate you for one or more of the offices. All the offices (president, vice-president, secretary, and treasurer) are elected in November for a one year term, January through December. Nominations are taken in September, October, and November before the elections. The elections are held at the regular November main meeting.

Only SHCC members can vote. The elections are held during the business portion of the meeting. The person with the majority of the votes for an office is the winner for that office. A person can only hold one office at a time.

The jobs of each office are flexible. Some are defined, some change from office to office depending on the officers' capabilities and availability.

The president is ultimately responsible for everything but being responsible doesn't mean the president has to do it all or even should. Delegation and management is all a part of the president's duties. The president makes sure the meeting topics are set, the speakers are prepared, runs the regular club and officer meetings, audits the monthly treasurer report and membership databases, tracks door prizes, and monitors most of the club's activities. It is not as busy as it sounds. The WYSIWYG column is optional, but a great forum to pass along information to the members. The president also makes sure that the different coordinators are appointed and do their jobs. The president enforces the constitution and club's policies. The president does whatever things cannot be done by anyone else.

The vice president has the catch all job. So far to date the vice-president has not had to step in for the president, and there have not been any state weddings or funerals that they have had to

attend. The person must be flexible and be prepared to run the main and officer meetings if the president cannot. This officer usually picks up a project or two during the year to lift the burden from other officers. The vice president arranges for meeting speakers, but help is available as needed.

The secretary maintains the membership database which is tracked in an Access database (SHCC owned). The secretary audits the treasurer report to make sure that the membership money collected matches the membership counts in the database, print the mailing labels for WYSIWYG mailing, prints a report for member check in at the main meeting, and maintains several reports such as a membership list. The secretary makes sure that sign-in table materials needed at each regular meeting are there early before people start showing up.

The treasurer maintains records for all the money taken in and paid out from the club's checking account. The

SHCC currently uses Quicken (SHCC owned) to track the funds and generate reports for the officers. The treasurer also audits the secretary's membership counts. The treasurer makes reports to the officers at the officers meeting and four times a year to the club's membership. The treasurer is responsible to get all SHCC funds into the checking account and responsible to generate checks for all expenses.

All the officers attend the officer meeting that takes place during the week after the main club meeting. The date, time, and location are flexible to the agreement of all officers. Historically these meetings have been at 7:30PM on the Monday or Tuesday after the regular meeting.

We hope everyone considers this invitation; this call to service. It does involve some work but can be a lot of fun. Normally it takes a few hours a month beyond the main and officers meetings. The president's job takes more, and how much more depends on delegation. If you have any questions concerning the duties, feel free to contact any of the officers.



## Online Shopping - Just How Safe Is It?

*From the Ask Leo Newsletter  
<https://askleo.com>*

**O**nline shopping is ubiquitous, and yet some avoid it completely. Why are some people afraid to shop online when it's arguably safer than offline?

As you might expect, I get many questions from computer users concerned about their security. With regular news of identity theft, credit card fraud, and database hacking, many people are understandably concerned about the security of their own information online, particularly when it comes to online shopping ...

... so much so, that some actively avoid online shopping for fear of having their payment information stolen.

In my opinion, they should be more concerned about the security of their information *off*-line.

### Online shopping is ubiquitous

Most of us now take online shopping for granted. I suspect some may even wonder that this article is needed at all.

The fact is, there are still many people who are afraid to shop at online merchants – even well-known, reputable ones.

Why? They're convinced that the internet is full of hackers just waiting to steal their credit card information as it goes by. They're quite willing to give that same payment information – along with an image of their signature, no less – to a stranger at a restaurant or a grumpy clerk in a retail store.

### Risk versus risk

As I wrote in another article, “most people have an over-inflated sense of

risk when it comes to threats they don't understand".

On top of that, we're most comfortable with black and white absolutes: *yes* or *no*, *safe* or *not safe*. Unfortunately, the world isn't black or white.



It's very important to realize that there are risks either way, online or off.

#### Unique risks online are few

There are very few risks that are truly unique to using your credit card online.

Yes, online shopping security issues exist. Your device could have malware in the form of a keylogger, which records everything you type. And yes, it's extremely rare, but your connection to an online merchant could be intercepted by someone watching and recording your payment information.<sup>1</sup>

Much more common, however, are things that apply regardless of how you use your credit card. The news reports we hear are major breaches at retailers and banks, where it doesn't matter if you used your card online or off. In fact, most of those break-ins are caught and dealt with so quickly that if you or I are affected, it's only to the extent that we might unexpectedly get a replacement credit card.

#### Offline risk is more common

I believe individual theft occurs more frequently off-line.

- A clerk might make a copy of your card and signature.
- A dumpster diver could grab your

bank statements out of your trash.

- Someone might steal your new credit card out of your mail box.
- You use your card at a cash machine, but a thief has hidden a "card skimmer" on the reader that steals the information on your card as you use it.

These off-line methods are all much more common than individual online theft.

And even though we seem to hear about online theft on a semi-regular basis, there's a strong argument that says they're still fairly rare occurrences, compared to the millions of cardholders and millions of transactions that happen every day.

#### Good sense implies good security

The fact is, regardless of how you use it, using your credit card represents risk. But then, so does getting out of bed in the morning.

Online or off:

- Shop with merchants you know and trust.
- Watch for things out of place, be it something odd about the card reader in a store, or a missing https padlock on a web site.
- Beware of phishing and other attempts to fool you into giving your personal information to those who would abuse it.
- Contact your credit card company whenever you think something may have happened.

My take is simple: shop online. I believe it to be generally safer than many physical in-person transactions. Online or offline, the risks are generally lower than you might believe.

Don't let unfounded fear stop you from enjoying the convenience. I know I don't.

*This article is republished, with permission, from the Ask Leo! Newsletter.*



## OneNote Is A Perfect Computer Junk Drawer

by John Weigle, Editor, Channel Islands PC Users Group, CA  
www.cipcug.org jweigle@vcnet.com

Microsoft's OneNote is a fantastic tool to save and recover information, Toby Scott said as he introduced a program on the software. Simply put, he said, it's "a retrieval system for a pile of garbage that you didn't know whether you needed it or not, but you're a collector of garbage, and you threw it up there, and it's there."

The free Microsoft program, formerly part of the Microsoft Office suite, doesn't immediately show its value because it's fairly easy to remember something for a few days, he said. But the longer someone uses the program, the more it shows its value. Remembering something from a year ago or longer — Scott has been using

the program since 2008 — is much harder, but OneNote's search program makes it easy to find such information.

People have to understand what OneNote is — and is not — to use it effectively, he said. It is not a backup program or an organizer. It is a place to put free form data in all kinds of formats, it's a note taker, and it's a note clipper. He also described it as a junk drawer that's easy to find things in.

OneNote works somewhat like a file cabinet that contains notebooks, tabbed subject files and pages, all of which can be easily searched. Scott has notebooks for CIPCUG, Lions Club, and Ventura County Computers, among others, but he tends to put

things he's saving in whatever folder is open because the program's search function makes it so easy to find documents, he said. That means he doesn't have to spend lots of time moving files around.

Every time he goes to the doctor and gets any papers, such as blood test results, he said, he stores them in OneNote. He can use his phone as a scanner, take a picture of the document and send it to OneNote, which can read text in graphics formats. OneNote's tabs and pages can be password-protected, but notebooks can't be. At least with OneNote 2013, you cannot password protect entire files — only tabs. "It's not perfect encryption, but it's pretty good encryption," he said.

To demonstrate how OneNote saves things, Scott took a picture of the audience with his Windows phone before the presentation started and sent it to OneNote, where it was easy to find. He also photographed a Sudoku puzzle from a newspaper page and did the same thing.

"The only advantage to OneNote is if you use it," he emphasized. After a few years of regular use, your whole life is on it. All his passwords are in an encrypted OneNote file, for example.

Another advantage of OneNote, he said, is that if a user downloads material from a website, OneNote includes the URL so it's easy to find the site again. That feature was useful when the family was planning a trip to Utah. Scott copied lots of Web pages to OneNote, but if he didn't copy enough of the page — like whether a hotel or motel had a swimming pool — finding the answer by going back to the site was simple.

OneNote is similar to Evernote (<https://evernote.com/>), Scott said. Evernote has better organizational skills, but OneNote has better capturing tools. Users can embed all kinds of things. It can handle PowerPoint presentations, but Scott prefers to save those separately, with just a link in OneNote if he's going to make a presentation.

Outlook users can save email conversations and threads in OneNote, he

added, making it easier to find the messages than searching through hundreds of emails.

Scott said that, although he was aware of OneNote, he didn't grasp its value until he attended a technical conference with 200 others to learn about the newest Intel chip. The speaker was asked about some aspect of the chip and said he didn't remember the answer but could find out quickly. He used OneNote to find the information and realized that everyone in the audience was amazed by the program. He switched his discussion to OneNote, saying, "It's way more important to your lives than the latest Intel chip."

Apps for OneNote are available for tablets and smartphones, and the full program is available for desktop and laptop computers. OneNote stores files on the user's computer and in the cloud. Smartphones and tablets with more limited storage space will get pointers to all files but can download only the ones they want to use at the moment, he said.

Files can be moved to OneNote by dragging and dropping, copying and pasting and "throwing" them with some other tools. Scott uses Office Lens, an app that turns a smartphone into a scanner and can send photos to OneNote.

It was asked if business cards placed in OneNote could easily be transferred to Outlook, and Scott said OCR (optical character recognition) software would be needed to do that. Users can, however, tell OneNote to pull the text from a picture when they put it in OneNote, but that doesn't always work.

OneNote adds two icons to the taskbar, but one of them shouldn't be placed there, Scott said in answer to a question. The icon is for a program that sends things to OneNote, but there's no user interface for it, so there's no reason to put it on the taskbar. Well-behaved programs don't automatically put their icons on the taskbar or start menu, but it's easy to add them manually. Users can add OneNote to the "send to" menu.

OneNote's search function looks at titles and pages and can handle AND/OR Boolean searches. Using the Windows search engine to find such material is "an exercise in growing old fast" in comparison, Scott said. OneNote can't handle wild cards.

Some text-manipulation tools and other add-ins are available to use in OneNote, and Scott now generally writes things in OneNote and copies and pastes them into Word documents to send them to someone. If the recipient asks him much later about what he wrote, he can find it easily in OneNote.

OneNote does not work on XP machines (the version included in Office 2003 will work) but does on every version of Windows after that.

Asked about OneNote use on smartphones, Scott said that most people run out of random access memory, not storage space, unless they have lots of music, videos and pictures. Lots of apps running in the background can complicate the use of OneNote. He suggested downloading an app that closes all running apps for whatever phone you use to solve that problem. People using a phone or tablet don't have to show everything, he said.

On the Web:

- Download OneNote at <http://www.onenote.com/>
- OneNote tutorials: <http://www.lynda.com/OneNote-training-tutorials/266-0.html>
- OneNote apps: Go to any of the app stores and search for OneNote

## **SIDEBAR**

First Impressions:

- What isn't OneNote? It isn't an organizer or backup program.
- What is OneNote? It's a place to store random bits of data so you can find it at a later date. It doesn't seem too useful. It isn't useful

until you have been using it for months. You can remember data from yesterday, but need a program to find data from last year.

Where can I get my data to insert into OneNote?

- Type it in.
- Import files (Word, Excel, PowerPoint, websites, pictures, etc.). PowerPoint isn't all that great in OneNote. I just put a link in OneNote and leave the PDF outside. Alternatively, you can open the PDF, select all, copy the contents of the file and then paste into OneNote. Basically, any way you enter data into Word, Excel, email, etc. you can use to enter data into OneNote.
- Send from phone camera or email directly to OneNote. Office Lens will take pictures from your smart phone and paste them into a page on OneNote. This way you can use your phone as a mobile document scanner. Also, you can send one or more email messages to OneNote for documentation and retrieval.

How do I find my data?

- Organized like tabbed notebooks. The file is the book, the tabs across the top are the section dividers and the lists along the side are individual pages.
- Search tool. Search in the upper-right will find any word or combination of words. "cipcug AND program" will find any page that has both the word cipcug (upper, lower or mixed case) and the word program. The AND has to be in capitals so search knows it is an operator and not one of the words to search for.
- Data is available everywhere you want.
- Sync to desktop, notebook, tablet, phone: I like to use my desktop computers to do any serious data creation, but it is nice to be able to

bring up OneNote on my phone to make minor changes to a page while visiting customers. When I get back to the office, my changes are on my computer.

- Recover data from Recycle Bin (in OneNote).

## SECOND SIDEBAR

OneNote and OneDrive

- Microsoft's continued use of similar names for different products continues with these two products.
- OneDrive was formerly called SkyDrive, but the name was changed because of a lawsuit in England.
- OneNote is the program into which you store data. OneDrive (or Google Drive, Dropbox or other) is a cloud storage program. Things that you create (like OneNote files) and that are stored in our local computer's OneDrive folder are automatically synchronized with the version of the file

in the cloud. This way, you can create documents on your desktop and then access them with your smartphone while on the road — and even make minor changes, which will be there when you get back home. OneDrive is the glue that allows you to work on the same document from multiple computers, tablets and phones A 2014 blog post puts it this way:

- "SkyDrive recently announced a name change to OneDrive. We're excited that OneNote and OneDrive now share a similar name since we also share a similar promise. OneDrive is the one place for all your most important stuff, including photos, videos, and documents, and OneNote is the one place for all your notes. Together, OneNote and OneDrive enable you to access your notes on all your devices."

*This article has been obtained from APCUG with the author's permission for publication by APCUG member groups.*



## What's The Difference Between "Image" And "Clone?"

*From the Ask Leo Newsletter  
<https://askleo.com>*

**T**he difference between image and clone is both simple and confusing, because the terms are used interchangeably to mean different things.

Image and clone are two *very* confusing backup terms.

One reason is a deep, dark, dirty little secret of the industry: *we don't all agree on what these two terms mean.* Quite literally, one person's clone is another person's image, and vice versa.

It gets confusing, and if you're hearing different things from different people, that's why.

I'll provide what I believe are the most accurate and common definitions. Hopefully, that means you're more likely to hear people agree than disagree with what I'm saying.

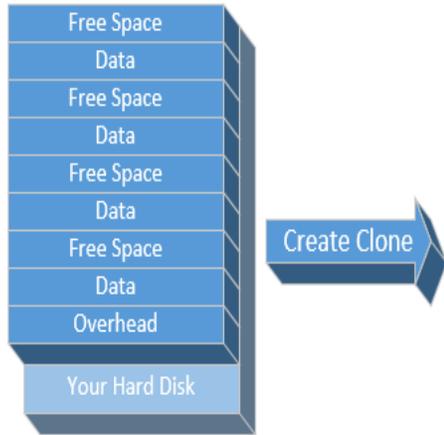
### Clone

A *clone* is a bit-for-bit identical copy of a drive<sup>1</sup>.

To understand what that means, we need to review what's typically on your computer's hard disk drive. Content falls into three broad categories.

- Overhead: boot information, partition information, the contents of recovery partitions, and so on.

- Data: all of the files and folders on the hard disk, and the information that allows the operating system to locate and manage them.
- Free space: areas of the disk that are currently unused.



CLONE

Another important thing to know is that data isn't kept together on a hard drive. Particularly as you use it over time, data gets spread out over the disk, and when you delete a file, the area it occupied is marked as available (or free, or empty). The net result is that over time, portions (or "fragments") of files are spread out over the entire hard disk, with free space in between.

A clone is an *exact* duplicate of the original. Not only is all the overhead and data copied, but the content on the disk marked as free space is also copied. The exact layout and organization of all the data and free space is preserved.

The most common application of cloning is to make an identical copy of a physical hard drive and put it on a different physical hard drive. An application of this might be to have two drives in one machine. In fact, some people use this as a backup strategy; they have two identical drives in their machine, and periodically clone the drive they use to the backup drive. Essentially, they take a snapshot of

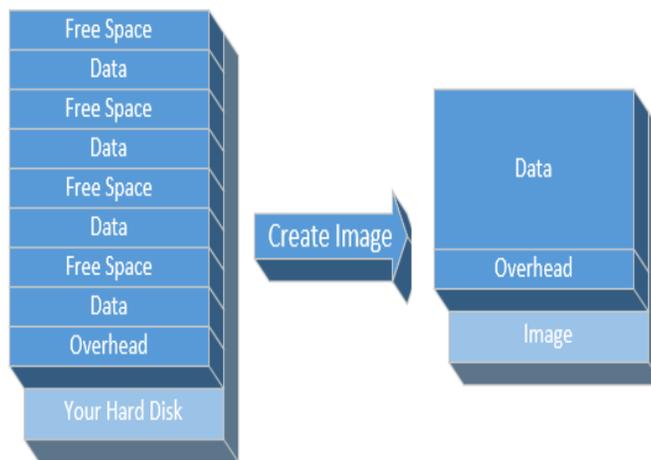
their working drive. If they ever need to restore or replace the primary drive, they simply switch the cables so the backup drive becomes their working drive.

It is possible to clone a disk to a file. That file can then be used to restore that disk to its bit-for-bit identical state. A file containing a clone will generally be proportional in size to the original hard disk size (not accounting for any possible compression used to create the file).

### Image

An *image* is a copy of all the *information* on a drive.

Like a clone, an image copies all of the overhead and data stored on a drive. Unlike a clone, an image does *not* copy free space, and it makes no attempt to preserve the physical layout. This doesn't affect what you see in terms of where and how files appear as you use a drive; it only affects the physical location of the files on the disk media.



IMAGE

An image is typically made to a file, rather than to another drive, so it's often called an image file. A complete image of a hard drive still includes boot and partition information. In fact, when you fire up a tool like Macrium Reflect, one of the first things it does is display all the partitions on the hard drive. There are several of them, and if you say, "Back up all the partitions required for reinstalling Windows", it selects several of them for you. That's the partition information that gets stored in the resulting image file.

But this time, data – and only data – gets placed into the image. It includes all of the boot information, partition information, and overhead information, with your files and folders, and compiles it all into an image file. Since it doesn't contain any of the drive marked as free space, an image is typically much smaller than the actual size of the drive you're backing up; it's proportional to how much disk space has actually been used.

A full-image backup has two main differences from a clone:

- Free space is completely ignored.
- The layout of the files on the disk is completely ignored.

Typically, an imaging program copies one file at a time. It looks for a file on C:, copies it to the image file, and moves on to the next file. That process removes any fragmentation present on the original drive. The net result is that the back-up file represents a completely defragmented image. In other words, all of the files are sitting next to each other, perfectly contiguous. When you restore an image file to an empty hard drive, all the

files come back perfectly defragmented (in fact, that is one way to defragment a drive completely: back it up to an image and immediately restore it).

### Image and clone: which do you want?

Now that we understand the difference, which one do you want to use?

My position is that for *backing up* your computer, you want an image.

There's no real added value from taking the extra time, space, and resources to create a clone. An image file ends up being smaller and significantly faster to create – and to restore, when the time comes.

When in doubt, choose image.

*This article is republished, with permission, from the [Ask Leo! Newsletter](#).*



## Safeguarding Windows 10

by Dick Maybach, Brookdale Computer Users' Group, NJ  
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If you've taken advantage of the free upgrade to Windows 10 from Windows 7, 8, or 8.1, you're vulnerable to losing it as well as your data if you don't make some preparations. Your old system installation disk or the recovery CD and backups you created will allow you to restore only your old Windows system. **[Ed. Note: This may only be possible the first month after you install Windows 10. TBD.]**

If you have a serious crash after July 29, 2016, when the free upgrade period expired, you would then either have to live with your old version or purchase a retail copy of Windows 10. Fortunately, Windows 10 includes utilities to avoid this, but only if you know about and use them. They are buried deep enough in menus that a casual Windows user may not find them.

Your first task is to create a Windows Recovery Environment on an 8-Gbyte (or larger) USB memory stick with the following procedure.

- Tap the Windows key, type "recovery", and select "Create a recovery drive".
- Select "create recovery drive". Be sure the box "Backup systems files to the recovery drive" is selected.

- Click "continue". This is a slow process; don't get impatient.
- Create a Recovery Drive

This plus a system image (see below) substitute for an installation disk, and they will let you repair Windows and restore your software and data from your backups. Label the memory stick clearly, but before you store it in a safe place, be sure your PC can boot from it. You can also create a recovery environment on a separate hard disk partition, but this is less safe, since a hard disk failure will destroy it.

You may prefer to create a system repair CD (or make one in addition to a Recovery Environment), a legacy feature from Windows 7 that has fewer features but still allows you to recover your system after serious trouble. Follow these steps to create the disk.

- Tap the Windows key and type "control"
- Select "Backup and Restore (Windows 7)".
- Select "Create a system repair disc" (you may be asked for a password) and follow the instructions.

- Backup and Restore (Windows 7).

When you boot using a recovery drive memory stick, you are in the Windows Recovery Environment, where you can perform the following tasks:

- Perform a system reset.
- Use a saved system image to overwrite your entire disk
- Repair the startup files.
- Enable safe mode.
- Troubleshoot your PC (although this requires some expertise).

Although a Recovery Environment memory stick is essential, by itself it won't let you restore Windows 10. For that, you also need a system image, which is a copy of all the software and data on your hard disk. Portable USB-3, 2-Tbyte drives are now available for less than \$100, and these are adequate for most of us. You might prefer an internal drive, especially if you need more capacity, but an external unit does provide the extra protection of being completely separate from your PC.

To create a system image follow this procedure.

- Tap the Windows key, type "control", select "Control Panel" and under "System and Security, select "Save backup copies of your files with File History".
- Select "System Image Backup" (at the bottom left. You may have to enter your password).
- Select "Create a system image".
- Select "On a hard disk". There are options to use a network drive or DVDs, but the limited capacities of the latter make the procedure tedious indeed

Because creating a system image is time-consuming, and restoring one replaces the entire contents of your hard disk with the image, you will probably do this infrequently. The Windows 10 backup is called "file history", and by

default it runs every hour while your backup drive is connected. It's important to remember that file history saves only your data; you must use a system image to restore software. As a result, you will want to store a system image every month or so (depending on how often you install or update your software), although you probably want to save file history much more frequently.

Use this procedure.

- Tap the Windows key, type "settings", select "Settings", then select "Update & security"
- Select "Backup"
- If your backup disk is not always connected, select "More options", then select "Back up now"

The first time through this you have to specify where the histories will be stored. After that, you can just connect the backup drive and Windows will automatically perform the action. You will have to select "Back up now" only if the drive is connected for just a short time.

Do the following to restore a file from your file history. (If your history is stored on a removable drive, be sure it's connected).

- Tap the Windows key and type "control".

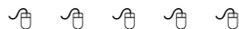
- Select "Control Panel".
- Select "Save backup copies of your files with File History" (under System and Security).
- Select "Restore personal files."

The files and folders shown are for the date shown. To see earlier version click on the arrow to the left of the green button. To see later ones click on the right arrow. Selecting an item and clicking on the green button will restore it.

However, there is a quicker way to access file history. When you are using the file browser, expand the ribbon (if it's been minimized) by clicking the small down-arrow just to the left of the help button (a blue circle with a question mark). Then click on "History" to see the file history screen for an item you've selected.

Using file history can be much more convenient than the older backup and restore technique, especially if you keep your history disk connected to your PC. The particular scheme with which you back up your files isn't important, as long as it's effective, but be sure you have one and test it to be sure it works.

*This article has been obtained from APCUG with the author's permission for publication by APCUG member groups.*



improvements, but I also want to be able to easily do today in the new version what I did yesterday in the old. So, as we all should do, I asked Google about the problems I was experiencing and found much help and equally discouraging comments on the internet from others. I don't need to see videos of all the new wonderful features, I first need to see videos and learn how I can do what I have always done in the past on the new version or upgrade.

My recommendation would be to continue using your current web browser on Windows 10 until Microsoft improves Edge, which will probably take some time. Here are a few areas that were difficult for me in Edge:

**FAVORITES** (also known as "bookmarks" in some internet browsers) – I am a big fan of using favorites on my web browser. I have hundreds of them. If you upgrade to Win10 on your existing computer, most likely Edge will easily import your favorites from your previous browser program, such as from Internet Explorer, and that's fine. But if you want to import your favorites yourself (by exporting a file from your old browser such as from another computer as I did) you will find that Edge does not accept or import favorites from an exported file. The only solution I found for this was to actually install my existing browser program on my new computer, import the favorites to it, then have Edge get the favorites from that old browser program. But if I install my old browser and I am ready to go, why should I trouble myself to convert to Edge at all?

Also be aware that Edge may already have many "favorites" installed, so you should delete those that you do not want before you have Edge install your list. Once you have your favorites in Edge, sorted into folders, of course, I find that you cannot drag a favorite from one folder into another. You can only drag them out of the source folder into just "favorites" and then you have to go back and drag them from there into your destination folder. Another confusing change is to have two different icons for favorites – one to go to a favorite (an icon of lines) but another (star) if you want to create a new favorite or try to reorganize your favorites. In Internet Explorer you had one icon for favorites

## Microsoft Edge - The New Web Browser With Windows 10

by Jim Cerny, Sarasota Technology UG, Florida  
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One of the apps (programs) that come free with Windows 10 is their new web browser called Edge, which is supposed to replace Microsoft Internet Explorer. The icon for Edge is still a white or blue letter "e" but with a cut instead of a yellow sash. Although Microsoft claims several improvements or better web interactions with their new browser, my experience with Edge has made me decide to continue using Internet Explorer or Firefox.



In Microsoft's enthusiasm to upgrade and provide some new cool features, it seems they once again failed in the area of making it easy for users to convert to their new version. They have moved things around, re-configured the appearance, and confused the icons and tools. I give Edge, as it exists today, a grade of D-minus. I am all in favor of

and the “organize favorites” option appeared right at the top.

**MISSING HOME BUTTON** – The home button is not on the tool bar by default. You must go to the “settings” and then to the “advanced settings” list to turn it on. I like having the home button to start over. They should have kept it. Of course when you do this and it appears, it is located in a different place than where it appeared in Internet Explorer.

**ASK GOOGLE** – Fortunately, you can “Ask Google” anything about Edge and get some answers and help. You will also find that you are not the first person to ask your question or

experience your problem. Without Google’s on-line help, my difficulties would be, well, much more difficult. By asking Google I can find a way to do what I did before on the old version, or I will find out that it can’t be done it at all.

**[ED. COMMENT Some of these deficiencies may have been corrected with recent Windows 10 updates.]**

*This article has been obtained from APCUG with the author’s permission for publication by APCUG member groups.*



## How To Take Better Photos With Your Smart Phone

by Stu Gershon, Sun City Summerlin Computer Club, Nevada  
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**T**aking better pictures:

1. Hold camera HORIZONTALLY (Landscape). If you take a photo horizontally, you get a wider field of view. This “fills the screen”. When you see cell phone photos on TV, they have large blank bars on the side because a phone photo has a different aspect ratio than your TV (or computer screen). If you take a landscape photo, you can always zoom in or crop to make the picture vertical and closer. You cannot do that if you’ve taken the photo vertically.

2. Hold the camera firmly which will keep the photo steady. Most pictures are blurry because people naturally seem to push downward when they press the shutter button, and this movement causes blur. Also, just lightly tap the shutter button - the less the movement the steadier the shot and the clearer the final photo.

3. Light - the natural light (outdoors) should always be behind or to the side of the photographer. This will eliminate “backlight” which often causes your subject to be in silhouette or look like little black stick figures.

4. Rule of thirds - if you imagine a tic-tac-toe board (with nine boxes), try to

keep your subject at one of the corners of the center box, NOT IN THE CENTER BOX. This gives the picture some “movement” with either more foreground (what’s in front), or more background (what’s behind).

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## Selling Your Used Computer Equipment or Software

**I**f you have some computer equipment or software to sell, you can either place a free ad in the WYSIWYG, or bring the article to the club meeting. You can set up at the back of the room before the meeting, and sell your items to people at the meeting interested in buying them. Members are responsible for any damage, so bring a pad to prevent damage.



## Presenters Wanted

**T**he officers invite any member to make a presentation at the main meeting.

If there is some software you have been using and think others may be interested as well, or there is a computer topic you would like to present to other members, please call or e-mail Don VanSyckel. Making presentations is not that difficult. The hour goes by before you know it and there is always enough material to cover in a software package so that the hour is easy to fill.

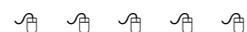
If there is a topic you are interested in or something you would like demonstrated, please see any of the officers. They are always interested in what the members would like to see.



**If your dues are paid in the month they are due, as shown on the invoice the club sends, you automatically get an extra month of membership. This policy has been in effect for many years but newer members may not be aware of this “free month” policy.**

## SHCC Emergency Cancellation

**S**terling Heights Computer Club meets at Macomb Community College (MCC). We will meet if MCC is open and will not if MCC is closed. MCC closure is announced with other school closings on many local TV and radio stations and on their web site. All members of SHCC have an email address. One of the SHCC officers will send an email to the addresses SHCC has on file alerting members to the event cancellation. If your email is broken, call an officer; don’t leave a message, call another officer if you don’t talk to someone live. It is your responsibility to keep the email address you have listed with SHCC current.



## Open Source Software

by Geof Goodrum, Potomac Area Technology and Computer Society  
[www.patacs.org](http://www.patacs.org) [linux@patacs.org](mailto:linux@patacs.org)

**Gramps** – v4.2.1. <https://gramps-project.org/>. Free GNU General Public License source code and executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by Don Allingham and the Gramps Team.

Gramps is a genealogy program for Linux, Windows, Mac, and FreeBSD that allows you to easily build and keep track of your family tree. It supports the GEDCOM standard, allows fine grained privacy controls and can generate many different types of reports (descendant trees, graphs, connection diagrams, ...).

Features include:

- Gramplets - A dashboard to help you monitor the progress of your research. A variety of widgets provide quick analysis of your data and more.
- People - A list of every individual in your records featuring birth/ death dates and more.
- Relationships - A summary of the active person's parents, siblings, spouses and children.
- Families - A list of every family group featuring parent names, relationship status and, if applicable, marriage dates.
- Ancestry - A graphic representation of the active person's ancestry featuring photos and birth/death dates.
- Events - A list of every event in your records featuring descriptions, event types, dates and places.
- Places - A list of every place in your records featuring place names and location details.
- Geography - An interactive map view highlighting places associated with one person, a group of people or all people in your records.
- Sources - A list of all sources referenced in your records featuring authors and publication details.
- Citations - A list of all citations referenced in your records featuring quality, date, volume and page.
- Repositories - A list of source repositories referenced in your records featuring web addresses,

physical addresses and email contact information.

- Media - A list of all photos, videos and other media referenced in your records featuring thumbnail preview, media type and more.
- Notes - A list of all text notes included in your records featuring note type and preview.

[Screenshots at <https://gramps-project.org/wiki/index.php?title=Features>]

**Kernel Source** – v4.3.3. <http://www.kernel.org/>. Free GNU General Public License source code for GNU/Linux by Linus Torvalds et al.

**LenMus** – v5.4.1. <http://lenmus.sourceforge.net/mws/noticias>. Free GNU General Public License source code and executables for Microsoft® Windows® and GNU/Linux® by Cecilio Salmerón. LenMus is a free program for learning music. It allows you to focus on specific skills and exercises, on both theory and aural training. The different activities can be customized to meet your needs. It includes an score editor.

[Screenshot at <http://a.fsdn.com/con/app/proj/lenmus/screenshots/201363.jpg>]

**NetHack** – v3.6.0. <http://www.nethack.org/>. Free NetHack General Public License source code and executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by the NetHack DevTeam. First released in 1987, NetHack is a single player dungeon exploration game that runs on a wide variety of computer systems, with a variety of graphical and text interfaces all using the same game engine. Unlike many other Dungeons & Dragons-inspired games, the emphasis in NetHack is on discovering the detail of the dungeon and not simply killing everything in sight - in fact, killing everything in sight is a good way to die quickly. Each game presents a different land-

scape - the random number generator provides an essentially unlimited number of variations of the dungeon and its denizens to be discovered by the player in one of a number of characters: you can pick your race, your role, and your gender. This is the first official update of NetHack in twelve years, and features a number of "foundational changes" to support future development.

[Screenshot at <http://www.nethack.org/common/scrn3b.gif>]

**SMPlayer** – v15.11.0. <http://smplayer.sourceforge.net/>. Free GNU General Public License source code and executables for Microsoft® Windows® and GNU/Linux® by Ricardo Villalba and redxii. SMPlayer is a free media player for Windows and Linux with built-in codecs that can play virtually all video and audio formats. It doesn't need any external codecs. Just install SMPlayer and you'll be able to play all formats without the hassle to find and install codec packs.

One of the most interesting features of SMPlayer: it remembers the settings of all files you play. So you start to watch a movie but you have to leave... don't worry, when you open that movie again it will be resumed at the same point you left it, and with the same settings: audio track, subtitles, volume...

Other features include:

- Support for YouTube.
- Many video and audio filters are available.
- Complete preferences dialog.
- Possibility to search and download subtitles from [opensubtitles.org](http://opensubtitles.org).
- Thumbnail generator.
- Video equalizer.
- Skins.
- Seeking by mouse wheel.
- Multiple speed playback.
- Audio and subtitles delay adjustment.
- New! Now it supports mpv as well.

[Screenshots at <http://smplayer.sourceforge.net/en/screenshots>]

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## WYSIWYG WEB WATCH (www)

by Paul Baecker [webwatch@sterlingheightscomputerclub.org](mailto:webwatch@sterlingheightscomputerclub.org)



This column attempts to locate sites containing valuable, amusing, and free content, with no overbearing pressure to purchase anything. Club members are encouraged to submit favorite sites (a description is optional) to the e-address noted above, for inclusion in a future WYSIWYG issue. Also check the SHCC web site ("Web Page Reviews") for previous gems.

Caution! -- Microsoft resurrects Telemetry updates KB2952664 and KB2976978. (October 2016).  
<http://www.ghacks.net/2016/10/05/microsoft-resurrects-telemetry-updates-kb2952664-kb2976978>

How to back up and restore the registry in Windows.  
<https://support.microsoft.com/en-us/kb/322756>

Slow computer? Check those start-up programs.  
<https://davescomputertips.com/slow-computer-check-those-start-up-programs>

Even though very highly recommended, backups may not be enough protection from ransomware.  
<http://www.nextgov.com/cybersecurity/2016/09/crowdstrike-report-ransomware/131216/>

Downloadable infographic of the Navy's new combat ship *U.S.S. Detroit*.  
<http://content-static.detroitnews.com/projects/uss-detroit/ship-specs.html>

Display the disk activity of any process in Windows.  
<http://www.ghacks.net/2016/09/26/display-the-disk-activity-in-bytes-of-any-process-in-windows>

Hundreds of words to avoid using online if you don't want the government spying on you.  
<http://www.dailymail.co.uk/news/article-2150281/REVEALED-Hundreds-words-avoid-using-online-dont-want-government-spying-you.html>

Five Windows 10 registry hacks to optimize your Windows 10 experience.  
<https://www.maketecheasier.com/windows-10-registry-hacks/>

Overclocking: How breaking your computer makes it faster.  
<https://www.cnet.com/news/overclocking-faq>

Free tool that simplifies settings of 283 configuration items across all versions of Windows, PowerShell, Outlook, Server

Administration, Google Chrome, Firefox and Internet Explorer.

<http://www.ultimatesettingspanel.co.uk>

Collection of photos on the subject of railroads.  
<http://www.lostracksoftime.com>

Most useful Mozilla Firefox about:config tweaks.  
<http://www.thewindowsclub.com/mozilla-firefox-about-config-tweaks>

10 Firefox tips and tricks for Windows users.  
<http://www.thewindowsclub.com/firefox-tips-tricks-for-windows>

Collection of on-line IP Tools that can be used to quickly get information about IP Addresses, web pages, and DNS records  
<https://hackertarget.com/ip-tools/>

Green Landscapes --- large collection of landscape photography.  
<http://green-landscape.com>

Some US Presidential history quizzes.  
<http://history.howstuffworks.com/historical-figures/presidential-history-quiz.htm>

Don't allow the computer to get five in a row.  
<http://www.steffengerlach.de/xo5k/index.html>

A list of 50 weirdest movies ever made. (Some can be found in your statewide library system.)  
<http://flavorwire.com/476770/the-50-weirdest-movies-ever-made/view-all>

A frustratingly addictive game of choosing "higher" or "lower" using Google searches. If you guess right, you keep playing.  
<http://www.higherlowergame.com>

*Gimp* is a free open-source alternative to high priced, professional graphics editing programs such as Photoshop. Learn about creating abstracts, animation, using brushes, coloring effects, and more.  
<http://www.tutorialized.com/tutorials/Gimp/1>

Windows 10 GodMode: What it is and how to enable it.  
<http://www.techtimes.com/articles/73887/20150803/windows-10-godmode-what-is-it-and-how-to-enable-it.htm>

What goes on inside the CPU.

<http://www.pcauthority.com.au/Feature/290164,what-goes-on-inside-the-cpu.aspx>

Free Wi-Fi and the dangers of mobile Man-in-the-Middle attacks.

<http://betanews.com/2016/10/08/free-wi-fi-mobile-man-in-the-middle-attacks/>

View a daily quote, or search among authors or in over 50 categories.

<http://www.quoteopia.com>

Hang-man game, with three difficulty levels.

<http://www.madglibs.com/games/madmen.php>

How to enable a virtual WiFi in Windows.

<http://www.wikihow.com/Enable-a-Virtual-WiFi-in-Windows>

A brief lesson on color theory. (2-min. video)

<https://vimeo.com/114900089>

"Adrift" --- Arial view of rough seashores. (3-min. video)

<https://vimeo.com/138496479>

How to change the default printer in Windows 10.

<http://www.intowindows.com/how-to-change-the-default-printer-in-windows-10/>

How to install Linux on a computer without a DVD drive.

<http://www.ghacks.net/2014/08/16/how-to-install-linux-on-a-computer-without-dvd-drive>

Linux Mint window customization options.

<http://www.ghacks.net/2015/06/06/linux-mint-window-customization-options-outshine-windows>

Useful tips you need to know to extend the life of your USB drive.

<https://www.maketecheasier.com/extend-life-of-usb-drive>

Why and how to calibrate a monitor in Windows.

<http://www.digitalcitizen.life/why-how-calibrate-monitor-windows-7>

Is there a way to know where a URL-shortened URL is going to take me?

<http://askleo.com/is-there-a-way-to-know-where-a-url-shortened-url-is-going-to-take-me>

Collection of puzzles, games, brain teasers, and optical illusions suitable for all ages and levels of proficiency.

<http://www.puzzleprime.com>

How to customize the desktop background in Windows.

<http://www.digitalcitizen.life/how-customize-your-desktop-background>

How to use the free "WinPatrol" tool to monitor your Windows PC for changes.

<http://www.howtogeek.com/212494/how-to-use-winpatrol-to-monitor-your-system-for-any-changes/>

Protect your computer with this free WinPatrol security utility by monitoring changes made to your files and folders.

<https://www.winpatrol.com/mydownloads/>

Site "helps consumers find, submit claims for, and receive compensation for every class action settlement they qualify to participate in".

<https://topclassactions.com>

Disable automatic reboot after Windows Updates in Windows 10.

<http://www.ghacks.net/2016/09/20/disable-reboot-after-automatic-windows-updates>

Tech support pricing structure --- Regular (as it were) prices for technical support/system administration services (set by irritated support folks). (This is meant to be humorous.)

<http://www.erenkrantz.com/Humor/TechnicalSupportPriceGuide.shtml>

How to remote control your Windows PC from an Android device using Unified Remote.

<http://www.digitalcitizen.life/how-remote-control-your-windows-pc-android-device-using-unified-remote>

The humor of John Pinette. (Video collection)

[https://www.youtube.com/results?search\\_query=john+pinette](https://www.youtube.com/results?search_query=john+pinette)

Five issues that make Microsoft Edge a worse web browser than others.

<http://www.digitalcitizen.life/7-things-make-microsoft-edge-worse-browser-others>

**NOTE: Many of the links in the digital newsletter connect to the Internet if clicked. For those that do not, copy and past the link into your Internet browser.**

## World Wide Web Column on the Club Web Site

Check out the WebPageReviews section on the club's web site. You can see past web sites reviewed in this column on our club web page. They are arranged into various key word categories to help locate a specific site.

