BITS AND BYTES

Midland Computer Club
Midland Michigan

FEBRUARY 2017

http://mcc.apcug.org/

ARTICLE INDEX

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GENERAL CLUB MEETING
Midland Public Schools Administration Building
600 E Carpenter Street - Room D

**Wednesday, February 22, 2017
6:00 P.M.**

Interesting Internet Finds

Steve Costello, Boca Raton Computer Society -- editor@brcs.org -- http://ctublog.sefcug.com/

In the course of going through the more than 300 RSS feeds, I often run across things that I think might be of interest to other user group members.

The following are some items I found interesting during the month of August 2016.

6 Tips for Cleaning Up Your Podcast Feeds
http://www.pcmag.com/article/346580/6-tips-for-cleaning-up-your-podcast-feeds
If you listen to podcasts, you probably don't have great organization of them. Check out this post from PC Magazine for tips for controlling your podcasts.

3 Handy Ways To Use Android's Do Not Disturb Rules
http://www.greenbot.com/article/3103430/android/3-handy-ways-to-use-androids-do-not-disturb-rules.html
If you have an Android device, notifications can drive you crazy. If that is the case for you, this post can help you cut down on them during times you don't want to be disturbed.

Need A Locksmith?
https://www.consumer.ftc.gov/blog/need-locksmith
This FTC (Federal Trade Commission) blog post tells you how to not get ripped off by an unscrupulous locksmith.

Ad Blockers – For Better or Worse?
http://www.wonderoftech.com/ad-blockers/
A post about ad blockers. It talks about ad blockers for browsers and mobile devices. I don't use them myself, but I know those that do. If a site is too aggressive with ads, I just don't go back, otherwise I just ignore them.

7 Tech Travel Dangers You Need To Know About
http://www.techlicious.com/tip/tech-dangers-for-travelers/
If you travel with technology, you owe it to yourself to read this post. (Techlicious is a new addition to the feeds I follow.)

7 Reasons Why You Still Need a Tablet This Year
http://www.makeuseof.com/tag/7-reasons-still-need-tablet-year/
I have been hearing that people think there is no need for a tablet anymore. I disagree. I think a tablet is better to have most of the time than a laptop for most of the reasons listed in this post. Check it out yourself and I think you will find reasons to still have a tablet too.

The following are some items I found interesting during the month of September 2016.

The Flaw in Secure Logins
http://askbobrankin.com/the_flaw_in_secure_logins.html
Bob Rankin talks about some flaws in two-factor secure logins.

Top 10 Ways to Secure Your Mobile Phone
https://blog.malwarebytes.com/101/2016/09/top-10-ways-to-secure-your-mobile-phone/
Malwarebytes talks about ways to secure your mobile phone.

How To Create Strong Passwords: 6 Expert Tips For Online Safety
http://www.geekersmagazine.com/create-strong-passwords-expert-tips-online-safety/
To be secure online you need to use strong passwords. This post gives you tips about creating them.

What Is Email Spoofing & How To Protect Yourself & Stay Safe
http://www.thewindowsclub.com/email-spoofing
This post explains how an email can look like it comes from a trusted place, but is actually from somewhere quite different. It also tells you how to identify this and what to do to stay safe.

Common Questions About Two-Factor Authentication
https://www.telesign.com/blog/post/common-questions-about-two-factor-authentication-2/
This post answers some of the most common questions about two-factor authentication. If you haven't started using two-factor authentication yet, and you should be using it, check this out for answers to your questions about it.

3 Videos to Help You Be #CyberAware
https://www.consumer.ftc.gov/blog/3-videos-help-you-be-cyberaware
This post from the FTC (Federal Trade Commission) contains three videos:
  · *Protect Your Computer from Malware*
  · *Public Wi-Fi Networks*
  · *Tech Support Imposter Scams*

The following are some items I found interesting during the month of October 2016.

What Is a Solid State Drive? Should I Buy One?
https://www.maketecheasier.com/what-is-solid-state-drive/
If you keep hearing about SSDs and don't really know what they are, or if you should get one, check out this post for more information.

Disposing Of A PC? Nuke The Drive First.
http://www.techsupportalert.com/content/disposing-pc-nuke-drive-first.htm
This post talks about and links to freeware to wipe a hard drive completely.

Should You Keep Your Landline?
http://tech-moxie.com/should-you-keep-your-landline/
More and more people are going cellular. Check out this post to help you decide if you should do so too.

How to Find Free Prime Reading Eligible Kindle eBooks
http://blog.the-ebook-reader.com/2016/10/08/how-to-find-free-prime-reading-eligible-kindle-ebooks/
Amazon added the *Prime Reading* perk in early October 2016. This post tells you how to find them, if you are an Amazon Prime member.

12 Ways to Secure Your Wi-Fi Network
http://www.pcmag.com/article2/0,2817,2409751,00.asp
This PC Magazine posting provides information about securing your wi-fi network. Even if you think you are doing everything you can, you should check this out.

How to Protect Your Privacy on Public WiFi Networks
http://www.techlicious.com/tip/how-to-protect-your-privacy-on-public-wifi-networks/
Good information you should know if you must use public wi-fi.

Should You Buy a Roku Box or a New Smart TV?
http://www.guidingtech.com/61986/roku-or-smart-tv/
This post has some things to keep in mind if you are thinking of replacing your TV.
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Most Fridays, more interesting finds will be posted on the *Computers, Technology, and User Groups Blog*:
http://ctublog.sefcug.com/tag/interesting-internet-finds/
The posts are under Creative Commons licensing.

Project Management
By Dick Maybach, Member, Brookdale Computer Users' Group, NJ
October 2016 issue, BUG Bytes -- www.bcug.com -- n2nd (at) att.net

Too often, especially in volunteer organizations, projects are undertaken with no provision for their management. As a result, they can take a long time to complete and too often are abandoned. Tools are available, such as the commercial Microsoft Project and the free ProjectLibre, that make it easier to manage even complex projects. Although I use ProjectLibre (http://www.projectlibre.com/) for this example, there are dozens of such programs, both proprietary and open source; see https://en.wikipedia.org/wiki/Comparison_of_project_management_software. Regardless, of which you use, the procedures are similar. If you decide to use ProjectLibre, a manual is available from their Website, under the Community tab. You may have to create an account to access it, but this hasn't caused any problems for me. When you click the download button, you are transferred to the SourceForge site, which in 2015 began engaging in unethical practices, including bundling malware with their downloads. This caused several large projects to withdraw their products from the site. SourceForge now has new owners, and the complaints seem to have abated, but you should be wary. Linux users should be able to find the program in their distribution's repository and so avoid this risk. Acquiring a tool of course doesn't make you a project manager any more than acquiring a hammer makes you a carpenter. You should do some reading to understand the process and vocabulary before you begin your work.

A good way to see how such a tool might help is to work through a simple example. Ours will be a club that currently keeps its members informed with a newsletter, but has decided to start a Web page to supplement and perhaps replace the newsletter. The club is run by a board of directors and has an editor for the newsletter. Available to work on the project are the board, the treasurer, the editor, and a club member with Website design experience who will function as the webmaster. The board meets on the first Monday of each month, and this will quantize the schedule. The editor estimates he will be able to work four hours per week on the Website, and the webmaster can work eight hours per week on it. The tasks that have to be accomplished are the following, with the responsible person in parentheses.

- Determine the features (board)
- Select a platform (webmaster)
- Select a vendor (treasurer)
- Approve the funds (board)
- Contract the vendor (treasurer)
- Architecture design (webmaster, 8 hours total)
- Assemble the content (editor, 16 hours total)
- Detailed site design (webmaster, 24 hours total)
- Approve the site (board)
- Publish the site

Most of the tasks must be accomplished serially, that is each one starts when the one above finishes.

- The platform choice depends on the features.
- The vendor must be able to support the platform.
- The funds required depend on the vendor and the services required from him.
- However, the architecture design can begin as soon as the features and platform are known.
- The editor can begin work on the content when the project starts.
- The detailed site design can proceed while the content is developing, but can't be completed until all the content is available.
- The board wants to see a complete site before it's approved.

We how have all the data we need to organize the project.

We first enter the individual tasks as well as the tasks on which they depend into the program. You use the left portion of Screen 1 as though it were a spreadsheet. In this case, we've entered only the task names and the numbers of the tasks that precede them. The program has entered default estimates of one day for each duration. (The question mark indicates an estimate.) When we started the program, we specified that the project would begin on September 1.

The right side of Screen 1 is a Gantt chart, a graphical representation of the spreadsheet view. The black arrows show the dependencies, the red bars are tasks "on the critical path," and the blue bars are tasks that have slack time. "On the critical path" means that a delay of the task will delay the project. A task with slack time can be late (within limits) without affecting the project. At this initial stage, we've entered only the tasks and their dependencies.
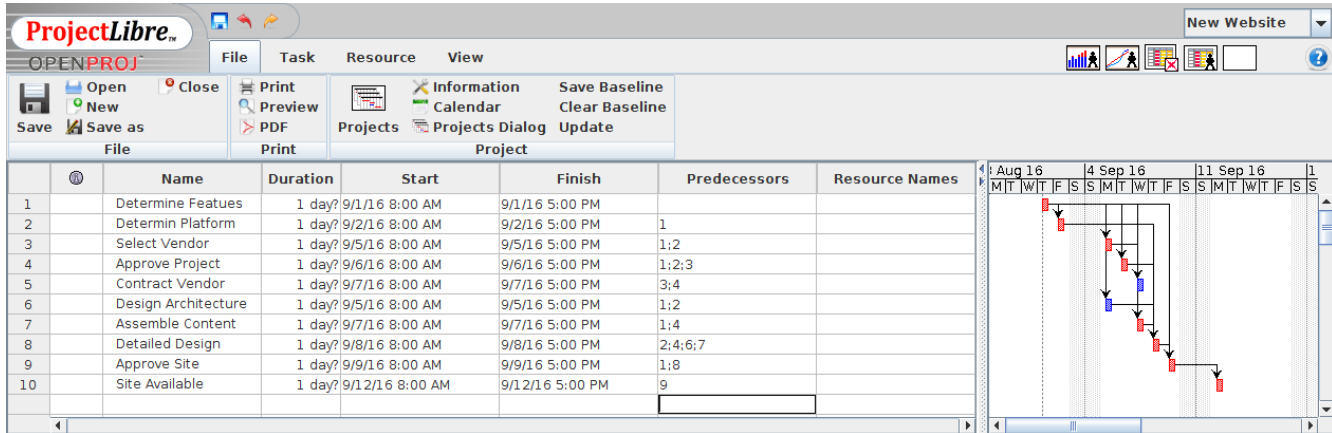

Screen 1. Initial Project Definition.

We next define our resources, which for this simple example are all people. A more complex project would also have material and tools. If our club had only one computer, which had to be shared by the editor and the webmaster, that would clearly affect the project, and we could use our tool to account for that. The program shows resources on another spreadsheet, Screen 2. Several columns aren't shown. For instance, we could assign different calendars to each person to account for their schedule. It's far simpler to use a standard 40-hour work-week calendar for everybody and if, for example someone has four hours per week available for club work, to assign ten percent of that resource to a task.
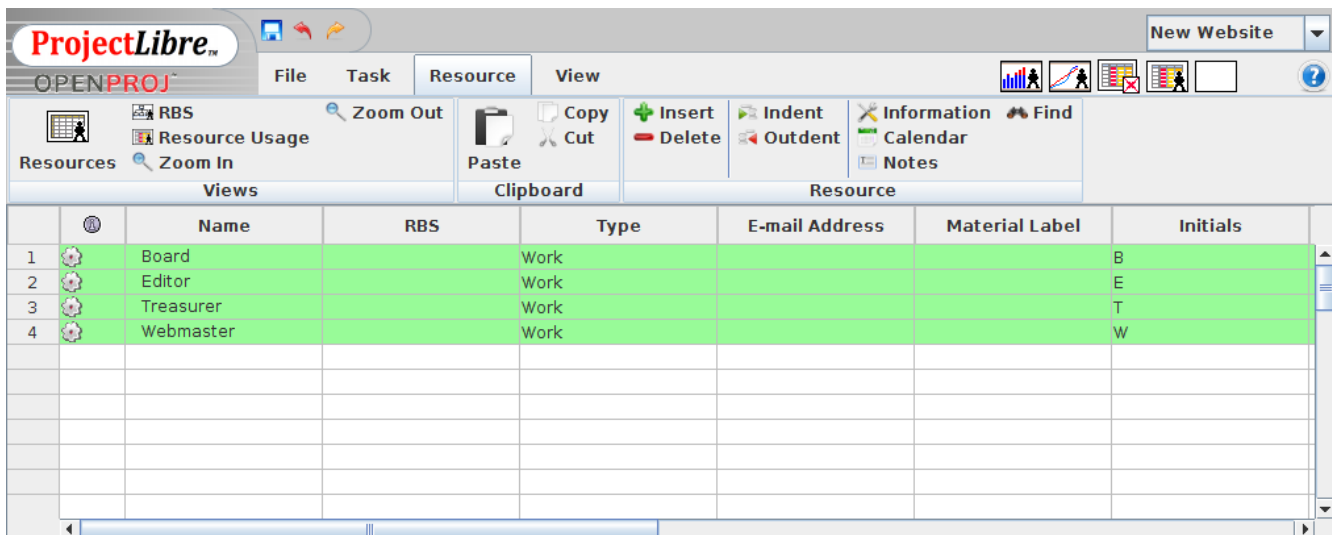
Screen 2. Define Resources.

We next open a task to add the details. In Screen 3 we've changed the amount of work for the *Determine Features* task to 4 hours (and the program changed its duration to 0.5 days) and cleared the Estimated box.
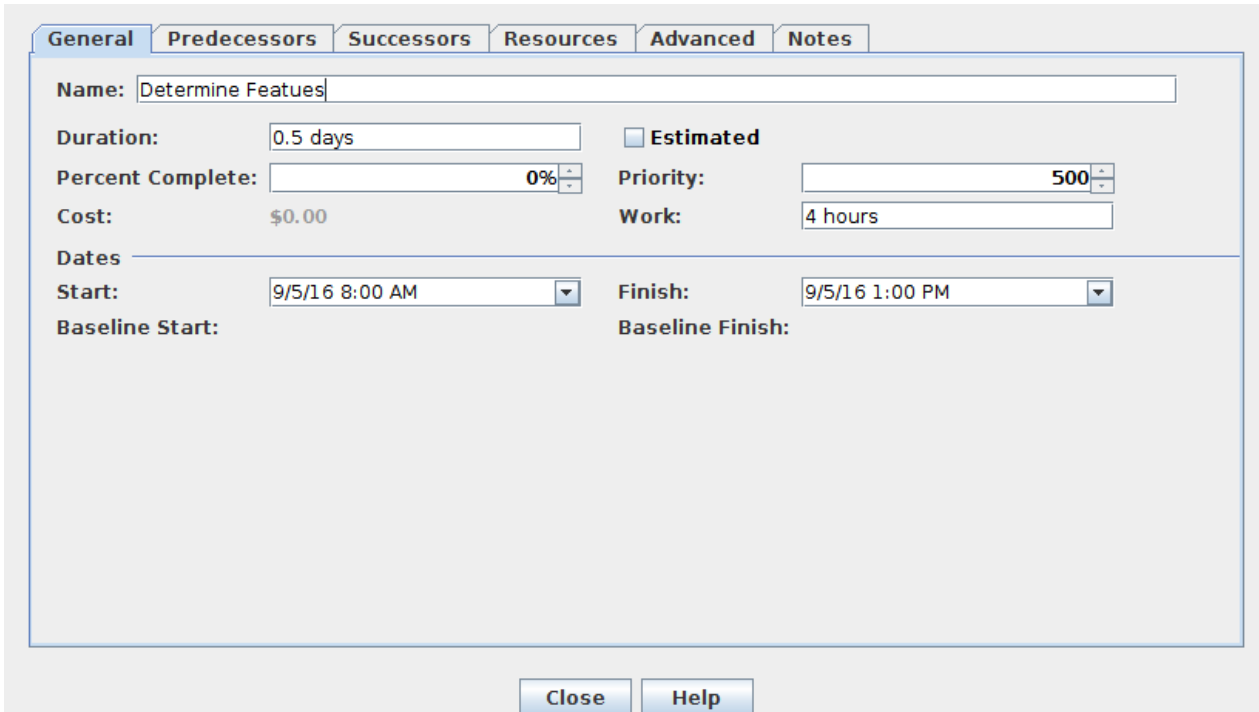
Screen 3. Enter the Work to Determine Features.

We also add the resources to each task. In Screen 4 we assign 20 per cent of the webmaster's 40-hour workweek to the task, since he can devote only eight hours per week to the project.
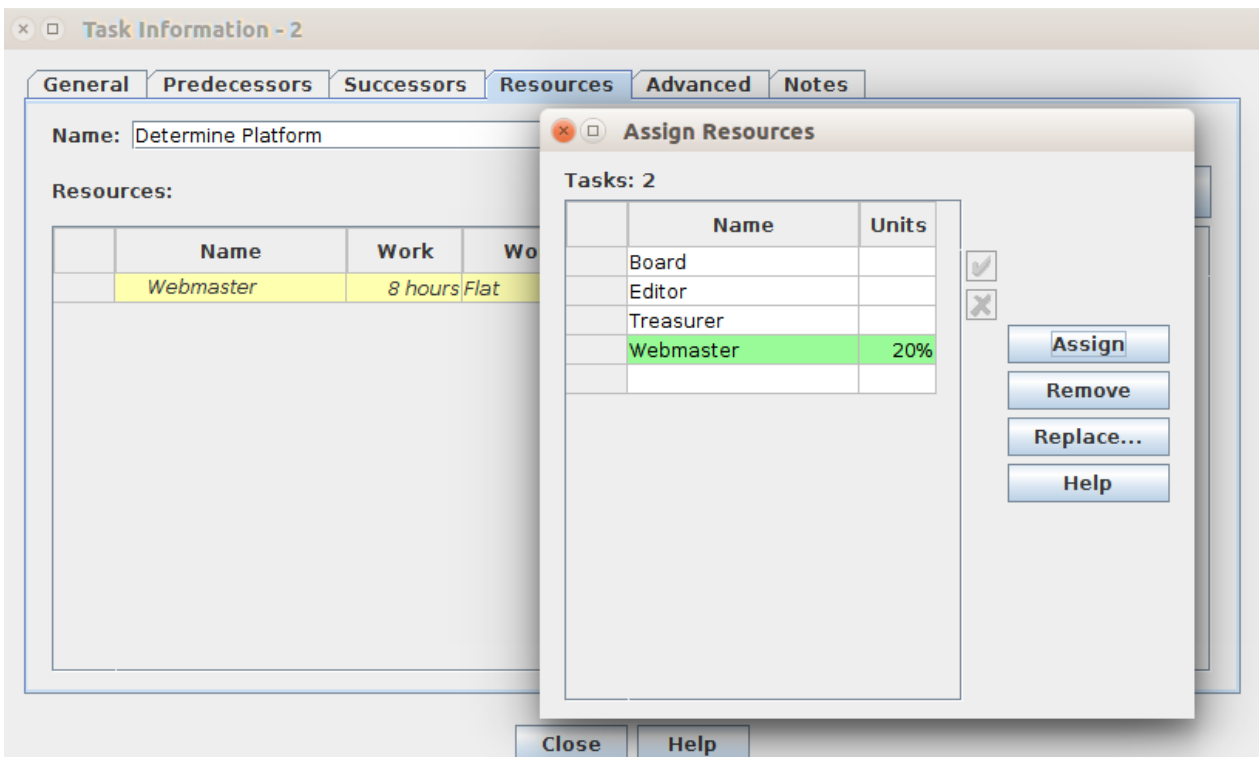
Screen 4. Assign the webmaster to the Determine Platform Task.

Another complication arises whenever the board is a resource, because they meet only on the first Monday of each month. As a result, the Determine Features task must take place on 9/5, Screen 5.

Screen 5. Set the Date for the Determine Features Task.

Finally, although the *Assemble Content* task is a predecessor for *Detailed Design*, the two can proceed in tandem. However, *Detailed Design* can't be completed until all the content is available. As a result, we change the type of this constraint to "FF" or "Finish-Finish," meaning that the second task can't finish before the first, Screen 6.

Screen 6. Set the Constraint that the Detailed Design Can't Complete Before Assemble Contents Does.

Our project view now appears as Screen 7.
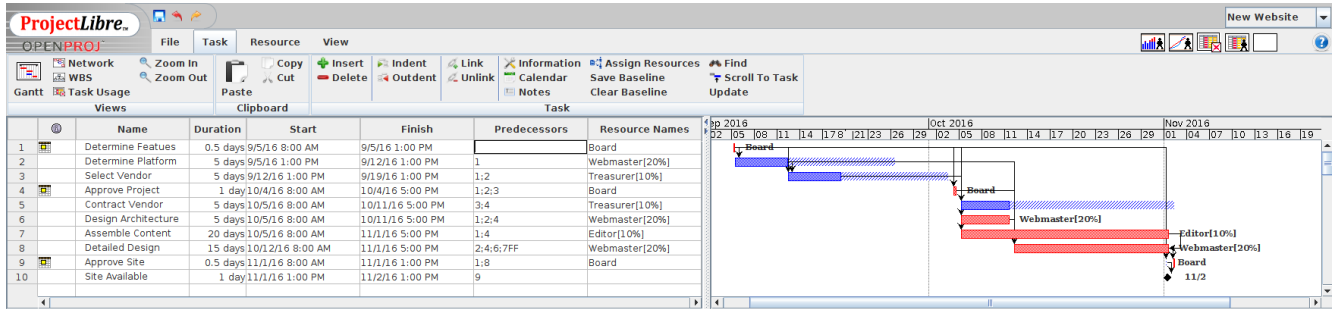
Screen 7. Completed Project.

We can see a problem. The entire design phase is on the critical path, which means that if anything takes longer than estimated, the project won't be finished in time to be approved at the November board meeting. Since the board meets only once per month, this will delay the project until December. Looking at the slack times (shown in blue crosshatch) suggests a solution. There is two weeks of slack time before the October board meeting. If the board held a special meeting in mid-September to approve the project, we could move two weeks of slack time to the design phase. Furthermore, having the team sitting around with nothing to do early in the project sends the message that the project and its schedule aren't important, which almost guarantees schedule slips.

Screen 8 shows the result of adding this board meeting. We now have a comfortable margin for our design phase and a better chance of completing the project on time.
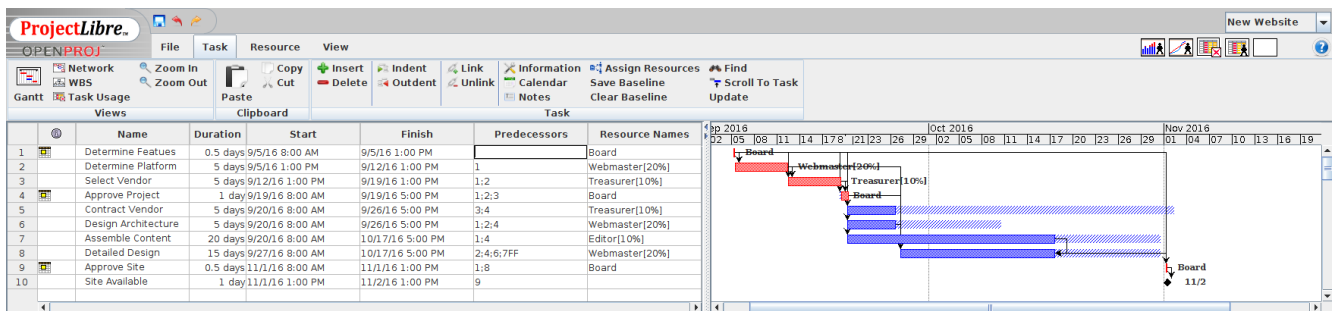
Screen 8. Project After Tuning.

I think of this and similar tools as TurboTax for projects. They do nothing you can't do with paper and pencil, and they don't relieve you of having to think, but they do remove much of the tedium from the job, especially while you make the inevitable changes. This example shows the importance of doing the planning early. If we had waited until after the project was approved at the September 5 board meeting to begin the planning, there wouldn't have been time to set up another meeting. About all the planning could then accomplish would be to explain why the project was late.

If you've never worked with a project planning tool, you'll need some time to experiment with the one you'll be using. You'll also need more time than you probably expect for your first project; expect several tries to get it right. I've found the results to be well worth the effort, as you can make clear to everyone working on the project how much time there is for each task and the consequences should one take longer than expected.

Find Your Tech Support Match
By Nancy DeMarte, 1st Vice President, Sarasota Technology User Group, FL
May 2016 issue, Sarasota Technology Monitor -- www.thestug.org -- ndemarte (at) verizon.net

We all run into occasional problems with our computers and digital devices. Finding the solution can be a nightmare, especially if the problem is unique or you are not fluent in tech terms. There is a wealth of support available, but it's a matter of finding the right kind of help to fit your kind of problem and your learning style. Let's take a look at some of the popular support options and the kind of people who might benefit most from them.

Good options for people who learn best by reading:

Website support: A visit to the website most closely related to your problem can often give you the answers you need, even if your device is past warranty. If your computer isn't working properly, for example, or you need to update drivers, you can go to the website of the computer's manufacturer and search its Support pages. If you need help understanding how to use a certain feature of your device, you can go to the manufacturer's site and download a User Manual for your model. Or you can try the Frequently Asked Questions list (FAQ). These are questions most commonly asked about the product with answers by support professionals. Most large sites also have Discussion forums where you can post a question or search through questions on your topic and find answers.

Google it: Some people say that whenever they have a tech problem, they type it into the Google search box and often find the answer. This approach is fine if you can sum up your issue accurately and choose the right website. Be aware that not all independent blogs or tech help sites have correct information. And in these dangerous times, not all are legitimate. Choose sites familiar to you, like pcmag.com or cnet.com; they are more likely to be reputable.

Good options for people who prefer to interact with a real person:

Tech phone support: This was the standard method in the early days of personal computers. It is still a viable option if you are experienced enough to be able to explain your problem and possibly make changes to your device while on the phone. The advantage is you get to speak with a real person. Disadvantages may include a long wait time before reaching the right person and being unable to understand unfamiliar accents.

Live Chat: If you don't like phone support, you can still get personal support by trying Live Chat, which is found on many website support pages. Live Chat doesn't involve talking; it's done by typing, much like a text message, but in real time. You request a chat session by clicking a link and choosing or typing your problem category. A chat window opens and a support person types you a "Hello, my name is __. What can I help you with today?" message. You type back what you know about your problem, and he or she attempts to resolve it. The big advantage is you are interacting with a real person without having to think quickly, as you might on the phone. Plus, your person will help you narrow down your issue and, if not solve it, transfer you to someone who can.

Good options for those who learn best by seeing it done:

Video Tutorials:. If you like hands-on demonstrations, a good choice is the video tutorials on tech websites (Microsoft has excellent ones) or on YouTube, where you can search for videos on practically any topic and watch it being done and explained. A lesser known, but excellent website with many instructional videos on computer topics is a North Carolina site sponsored by Goodwill. Go to www.gcflearnfree.org/technology.

Remote assistance: These days it's not uncommon for a phone support or live chat person to offer to access your computer remotely and make changes to it to resolve your problem. If you have initiated the request for help, and the support person is employed by a reputable company, you can be quite confident

that your computer will not be compromised during this process. You will be asked for permission before the person begins remote assistance. You sit in front of your computer and watch what's going on. You may be asked to participate, such as logging into your device yourself to protect your password. Be sure you have a good backup of your data prior to using this option.

If you've tried everything:

Take it to the shop: If you have what appears to be a serious hacking or malware breach or mechanical problem with a device, taking it to a reputable repair shop or having a tech person come to your home may be your best solution. Yes, it will cost you something, but if you've tried other options and still have an unworkable device, this may be the answer.

Good help is out there. Know your style and choose a support method that matches it.

Computer Attacks
By Dick Maybach, Member, Brookdale Computer Users' Group, NJ
June 2016 issue, BUG Bytes -- www.bcug.com -- n2nd (at) att.net

An important factor in defending your computer is to understand how it might be attacked. This topic fascinates many computer owners and has been the subject of many articles, books, advertisements, and discussions. One result of this is a jumble of terminology with words having meanings almost as slippery as the programs they are trying to describe. In this article I'll attempt to untie the terminology knot with brief definitions of the most common terms. You can learn (much) more with an Internet search for any of these terms, provided you read with skepticism. We'll start by using **attack** to describe any malicious act directed at a computer, the data it contains, or its user. We can classify attacks in three different ways:

        their **attack method** (how they access your PC, your data, or you),
        their **behavior** (how they get established and perhaps spread), and
        their **payload** (what they do).

To a great extent, these characteristics are independent, and we can look at each in turn. Much of the confusion about malware arises because authors don't make it clear whether what they are describing is an attack method, a behavior, or a payload.

First consider network attacks, which may not affect your computer at all. The first type, **network monitoring** is passive and is a digital version of a phone tap; everything you send and receive is recorded by a third party. This is easily done at a public hot spot, and requires only a laptop and widely-available software. It also can occur at ISPs and Internet relay points, either by the facility owner or by government agencies. A second type, the **man in the middle** attack, is active and is much more specific. Here, a computer is set up to mimic, for example, your Internet bank. If you can be fooled into logging into it, the attacker can capture your password and other account details before forwarding your traffic to the bank site you think you are using. This is more difficult to set up than simple network monitoring and is thus less common.

Let's now look at computer attack methods, which include

        physical access,
        social engineering,
        Trojan horses, and
        unethical suppliers.

Someone with **physical access** to your PC can install malicious hardware or software. Although this is sometimes called the **evil maid** attack (presumably because it's done by a hotel's housekeeping staff), it more commonly occurs when someone uses your PC with your permission and inadvertently infects it

during, for example, a careless Internet browse. You now have a compromised PC for such tasks as your Internet banking. **Social engineering** or **phishing** occurs when someone tries to convince you to disclose sensitive data or perform some action that compromises your computer. You might receive a phone call or an e-mail message claiming to be from your credit card company requesting your account information, or one from tech support offering to remove a virus they somehow have detected remotely. Many attacks occur as **Trojan horses**, where malevolent software hides inside something that appears useful, interesting, or at least harmless. Examples include e-mail (often appearing to be from somebody you know) with an attachment that installs software, Web pages that run programs on your PC, and macros embedded in office files. Finally, there are **unethical suppliers** that include software you neither need nor want with their products. Although the most common culprits are Websites, it can take the form of **shovelware**, useless and sometimes intrusive programs installed on PCs, and malicious software on supposedly blank media.

Once **malware** (which malicious software is often called) infects your PC, it can behave in four different ways:

> reside there as a normal program file,
> attempt to hide by changing its form or the operating system configuration,
> spread through your computer by attaching a portion of itself to other files, or
> send copies of itself to other computers, usually via the Internet.

Type (2) programs are called **stealth software** or **rootkits**, type (3) programs are called **viruses**, and type (4) are called **worms**. An interesting form of virus resides in office document as a **macro**, for example written in Visual Basic and included in an MS Word or Excel file. These can migrate to your master template and infect every document you compose after that. When they first appeared around 2000 macro viruses were serious problems, but office suites now have effective safeguards against most; however, you may wish to check your preferences to be sure. (Although many people use the term virus for all malware, only 17 per cent of it really behaves this way and another eight per cent acts as worms.) Combinations are also possible; for example, a virus can have stealth features. Since rootkits and viruses can affect system programs, their installation often, but not always, requires that the user grant them administrator privileges. A number of vendors offer applications to detect rootkits, but removing one sometimes requires erasing the computer's hard drive and reinstalling the operating system. Many people call type (1) programs Trojan horses, but I prefer to use that term for a malicious program's attack method rather than it's behavior after it becomes active.

Note that network attacks, social engineering, and macro viruses are operating-system agnostic. OS X and Linux users are just as vulnerable to them as are Windows users.

The object of most malware is to deliver a payload that is to perform some action to harm the computer owner or benefit the malware supplier. The payload is independent of the attack method and also of the malware's behavior. Examples are:

> ransomware,
> adware,
> spyware,
> key loggers,
> botnets, and
> hijackers.

Ransomware restricts your access to your PC and displays a message on how you can purchase instructions or software to remove the limitation. In some cases it encrypts files and demands the fee in return for the password to regain access to them. Sometimes there is just a threat, such as pay a fee within 10 days or your hard disk will be formatted. **Adware** continually displays advertising messages on your screen, although this can be legitimate (if annoying) when it's associated with trial software and seeks to sell you the paid version. **Spyware** transmits sensitive information, such as account information and passwords to an Internet location without your permission. Some people lump adware and spyware together and call both spyware, but I prefer to keep them separate, since spyware is more costly. A **key**

logger records your keystrokes and forwards them to an Internet location with the intent of capturing log-in information; it can be implemented by either hardware or software. Malware can make your PC a component of a **botnet** (also called a zombie army), a computer network sometimes used to distribute spam or to attack other Internet sites by trying to overwhelm them. Other payloads, having a variety of names that often include the term **hijack**, change the configuration of your browser by changing your home page or your search engine or by adding menu bars.

By far the best time to defend your computer is in the attack phase, where healthy suspicion is your friend. Be careful reading e-mail, surfing the Internet, and using your laptop in public places. Note that some form of social engineering is a component of most attacks. After the attack, an anti-virus program may be able to recognize the malware's behavior and prevent it from delivering its payload. Here, you depend on the malware spreading relatively slowly, so that anti-virus vendors have had time to develop a defense before you encounter it, and fortunately this is most often the case. Once the payload has been delivered, the damage has been done, and you will have to stop using the computer until it can be cleaned, change your passwords, and work with your bank, credit card vendors, and others to repair the damage.

We usually think of malware defense only for PCs, but it also infects all computer-driven devices, such as smart phones and network routers. It's important that you include these in your safe computing plan.

Your ultimate defense against all malware is a backup made before your PC became infected. Wiping and restoring your hard disk will almost always restore your system, except in the rare cases where the malware resides in your PC's BIOS firmware, in which case you probably need expert help. Unfortunately, the Unified Extensible Firmware Interface (UEFI) adds a new vulnerability as it includes a writable boot partition on your hard disk. Since the code residing here executes before your operating system; any malware installed there becomes active before any anti-virus program. Re-installing the operating system will probably leave the infected partition unchanged. So far, this is only a theoretical threat. I mention it only to make the point that threats evolve continuously, which requires that you keep all your software, not just your anti-virus programs updated, and conscientiously practice an effective back up discipline.

To summarize, we can classify computer threats according to their attack method, their behavior, and their payload. Attack methods include physical access to a computer, social engineering, Trojan horse software, and unethical suppliers. Once established, malware can behave as normal software, a rootkit, a virus, a worm, or a combination of these. Typical payloads are ransomware, spyware, key-logger, botnet, and hijacking. Network attacks are special in that they occur outside your computer.

OneNote is a perfect computer junk drawer
By John Weigle, Editor, Channel Islands PC Users Group, CA
March 2016 issue, The Outer Edge -- 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. More information about it is available at https://blogs.office.com/2014/03/17/office-lens-a-onenote-scanner-for-your-pocket.

A member of the audience 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/Download
>   For Dummies guide to OneNote:
>   http://www.dummies.com/how-to/computers-software/ms-office/OneNote-2013.html
>   OneNote 2013 Quick Start Guide:
>   https://support.office.com/en-us/article/OneNote-2013-Quick-Start-Guide-AB75BE1A-06E2-4B0F-BE5D-8652F1FAC102
>   OneNote tutorials: http://www.lynda.com/OneNote-training-tutorials/266-0.html
>   OneNote books:
>   http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=microsoft+onenote+books
>   OneNote apps: Go to any of the app stores and search for OneNote

SIDEBAR
Toby's OneNote notes
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."
(https://blogs.office.com/2014/02/21/onenote-and-onedrive-one-happy-family/)


What's New in Microsoft Office 2016
By Nancy DeMarte, 1st Vice President, Sarasota Technology User Group, FL
May 2016 issue, Sarasota Technology Monitor -- www.thestug.org -- ndemarte (at) verizon.net

Last September, Microsoft kept to its usual three-year schedule of issuing a new edition of Office when it released Office 2016. The questions always are, What is different in this edition? Is it worth upgrading? Here are a few of the features you will find in this new Office. Maybe they will answer these questions for you.

The basic commands and toolbars (ribbons) have not changed much from the last few versions. But Microsoft does often streamline and refine processes, and 2016 is no exception. The new version makes more use of One Drive, the Microsoft cloud, in order to make sharing Office files easier. Click the **Share** button on the top right of the ribbon to open the Share sidebar. If your file is not saved to OneDrive, you will be instructed to save it there. Then type an email address or choose one from your address book in the "Invite people" box and choose either "Send as attachment" or "Get a sharing link." This process is generally the same as in Office 2010 and 2013 except it is much easier to access.
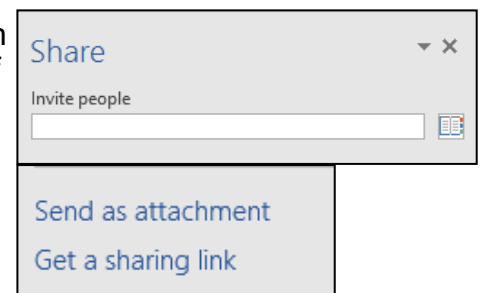
**Searching** is easier in Office 2016, too, with the new "Tell me what you want to do" box above the ribbon in all the Office programs. When you click in the box, you get suggestions for things you might want to do, based on the program you are using and what you're doing with it, or you can type in a new search topic. I think this feature needs a bit more work, but once improved, can be very useful.
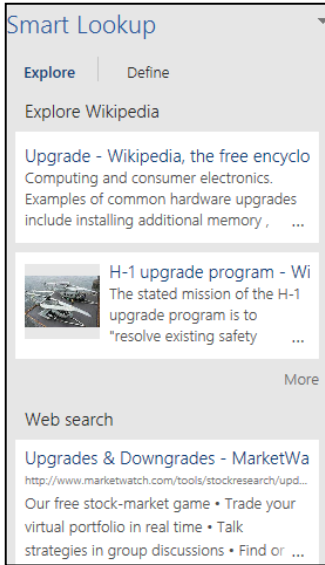
Another feature that has been improved in Office 2016 is called **Insights**, an expanded version of Smart Lookup. Right click a word or phrase in your document or presentation and choose Smart Lookup from the dropdown menu to open a sidebar which includes the definition, pronunciation (written and audio), explanations and examples from Wikipedia, and relevant results of a Bing web search. This feature is much more extensive than the earlier Smart Lookup. In the example, I right-clicked the word *Upgrade* and got these results. (This is only part of the list.) This feature is found in Word, PowerPoint, Outlook, and Excel 2016.

Individual Office programs also got a few upgrades, too. Excel got several **new chart types**, with intriguing names like Waterfall and Sunburst. The new Forecasting feature predicts trends based on the current data and displays them in a Trend chart.
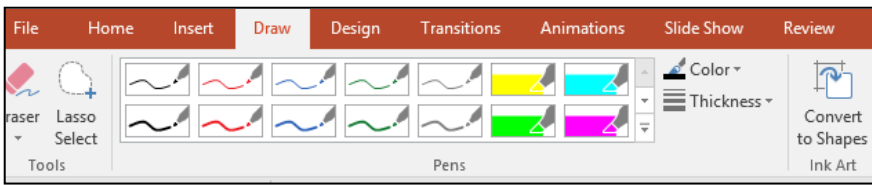
Office 2016 also offers a few brand new features. Anyone who uses a touch-enabled laptop or device with Office 2016 or Office mobile apps installed ca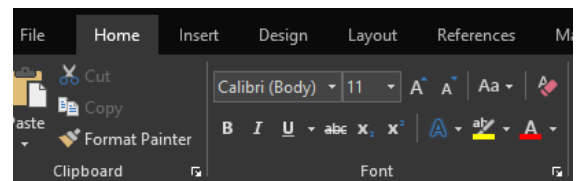n use the new **Ink Notation** feature in Word, Excel, and PowerPoint. Click or touch the new Draw tab in the ribbon; choose a color and pen size and draw on the screen. Make a mistake? Use the eraser. You can highlight words using the Ink toolbar, too. PowerPoint also allows you to convert your ink drawings into shapes.

PowerPoint and Word 2016 have a fascinating new feature, introduced in Office 2013, that allows you to remove the background of a photo. (See example.)

To remove the background, insert a photo into Word or PowerPoint, select it, and click the Picture Tools Format tab. On the left end of the Format ribbon, click **Remove Background**. If needed, you can adjust the size of the area inside the picture or mark areas to keep or discard. Then click "Keep Changes" to view a copy of the photo with the background removed, leaving the original safe in your Pictures folder.

Another new feature in 2016 is the **Black theme**: a black background with white text, which is considered easier to read by some people with vision difficulties. Office 2013 featured the Colored theme, where each Office app had its own background color: green for Excel, blue for Word, orange for PowerPoint, and so on. This is still the default color theme. The other choices are Dark Gray and White. To change the background color, open any Office 2016 program, click File – Account, click the arrow next to Office theme and make your choice. This will change the background for all Office programs.

Every year, it seems Microsoft offers new temptations for Office users to move to one of the subscription versions of Office, called Office 365. Office 2016 contains some new features which are only available to Office 365 subscription users. For example, PowerPoint has two of these features: **Morph** and **Designer**. Morph is a special kind of transition, where a shape or group of text can be set to move across the screen. Designer offers design ideas for photos which appear in slides, such as arrangement on the page or coloration. It can be found on the right end of the Design tab in PowerPoint. It does not work yet with all photos; a photo must be 200x200 or higher resolution. Only Office 365 users of Word or PowerPoint 2016 can collaborate on projects in real time. Multiple editors can edit a file and watch each other's editing changes as they happen through the new **Collaborative Editing** feature. This is a popular feature with the Business version.

A recent trend in Office improvements is that they often occur periodically through regular monthly updates if you have a subscription version. I noticed that my Office 365 Home subscription introduced some of the features of Office 2016 before my applications began being labeled Office 2016.

If you are thinking of trying Office 2016, you might wonder if it will open all those documents and spreadsheets you created in earlier Office versions. If you have files created with Office 2007, 2010, or 2013, you will find them completely compatible with 2016. If you have files created with earlier versions, you can get a free Compatibility Pack at the Microsoft website, which will make older Word, Excel, and PowerPoint files compatible with Office 2016. Searching for "Compatibility Pack for MS Office 2016" will lead you to the download page in a hurry.

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Recover, restore, backup, clone, image??
By Carol Picard, Midland Computer Club, Bits and Bytes, February 2017

At our January club meeting we discussed how to recover in case of hard drive failure, virus, or if Windows won't start.

The most important steps for recovery need to be completed before a problem occurs.

First step is to create a recovery drive. Depending on the computer, this could require a 16Gb or 32Gb flash drive. My suggestion is to use a 32 Gb flash drive. Everything on the flash drive will be deleted and you cannot use the drive for anything else. Well-known brands, 32 Gb flash drives, were recently on sale for less than $10.00.

To create a recovery drive on a Windows 10 computer, connect the flash drive to the computer, search for *recovery*, click *Create a recovery drive*. Follow the prompts to create the drive. Make sure "Back up system files to the recovery drive" is selected. The minimum size of flash drive needed will be indicated. A flash drive has less usable space than the amount of space indicated on the label, so, if it indicates 16Gb needed, you will actually need a 32Gb flash drive. It could take an hour or more to create the recovery drive. During the process, you will see a prompt to "Delete the recovery partition from your PC". Do not click that option, so you still have the ability to run recovery from the hard drive. Make sure you get the message that the recovery drive was successfully created. If not, try again. After safely removing the flash drive, label it and store it in a safe place. The flash drive is bootable. When you need to use it, insert it in the computer, turn on the computer, and it should automatically boot from the flash drive. However, depending on the computer, you may have to access startup or bios options to boot from the flash drive.

The recovery drive offers more than one recovery option. Depending on what is wrong with the computer, you may be able to save personal files, or may only be able to reinstall the Windows operating system and any programs that were installed by the manufacturer, which is why it is important to have a good backup.

The next step is to back up personal data, e.g., documents, photos, videos, etc. If you are using an email client installed on your computer, such as Outlook or Thunderbird, find out how to back up contacts and emails. Other software programs may store data in special locations, so you will need to find those as well.

Backing up personal data is not a one time event. Develop a backup plan and follow it because the time that you miss creating a couple backups is when you are going to need them. One of our members mentioned he uses five flash drives for backing up data, backing up once a week, rotating through the flash drives. Based on your use of the computer, you may decide to back up more or less often. Why have more than one or two backups? If you accidentally delete a file, you may not realize it right away and, if you only have a couple backups, by the time you realize the file is missing, you may have written over the last backup that contained that file. Store backup drives in a safe place, e.g., fireproof safe, or at least in another area in your house, away from the computer. For pictures, videos, really important documents, you might want to copy them to an additional flash drive and store that drive at another location.

Most software programs are downloaded directly to our computers so we don't have CD/DVD drives to reinstall from. Generally, if you need to reinstall the software, you can go to the vendor's website and download it again. However, there may be restrictions on downloading the software more than once, or there may be a charge to upgrade to a more current version. After downloading new software, copy the installation files to a flash drive or external hard drive. When software comes with activation codes, I print that information to a pdf file and save the pdf file on the same drive as the installation files.

You can manually back up files by copying them from your computer to your flash or external drive. Or you may decide to use a software program to manage the backup process. Both free and paid backup programs are available, although some free ones have limited functionality. When purchasing a new external hard drive it may include backup software. Backup software lets you specify what to back up and to set a schedule for automatic backups. Some have the option to schedule an initial full backup and subsequent smaller backups, called incremental backups, backing up files that have changed since the last full backup. One caution is that viruses can spread to attached drives. Instead of automatic backup, which requires the backup drive be connected at all times, you can run manual backups, connecting the drive only while running the backup.

Online backup and cloud storage are other options to consider. There is generally a charge for online backup service and may be a charge for cloud storage, depending on how much data you have. An advantage is that you can generally access your data from another device, e.g., computer, tablet, smartphone. Onliine/Cloud storage may not prevent loss of data if your computer is locked by ransomware.

With any backup solution, you should occasionally check to make sure the backups are running successfully and that you can recover files. Consider using a program that allows you to restore select files without using the software that was used to create the backup. You may find you need a file while your computer is out of commission and you want to be able to connect the backup drive to another computer and access files without having to install software on that computer. Also, if you only need one or two files, you don't want to have to restore the entire backup.

Whatever backup strategy you use, make sure it is backing up everything you need. I installed a new hard drive for someone whose hard drive had failed. He was using online backup so was confident he would recover all of his data but, the default settings for the service he was using did not include videos, so they were not being backed up and we were unable to recover the videos from the failed hard drive.

Another backup/recovery option we discussed was creating an image (also called system image) of the hard drive. If necessary to wipe/format a hard drive, an image can restore the entire contents of a hard drive; the operating system, programs, and personal files. Some backup programs also provide the option to create an image.

While the terms image and clone are often used interchangeably, the exact definition of clone is when two hard drives are installed in a computer and data is copied from old to new, which requires that the original hard drive is still working. The last time I purchased a new hard drive, it came with a version of True Image software that provided this capability and I was up and running in a short period of time with all of my userids, programs, data and settings.

When creating a system image most flash drives will be too small so you will need an external hard drive. Depending on the size of the external hard drive, multiple images can be saved to the same drive. Name the image (or the folder you save it in) so you can identify when it was created and, if you have multiple computers, which computer it was created from. The program used to create the image prompts you to create a bootable flash drive, which only has to be done once. You boot the computer from the flash drive and it contains the software to restore the image from the external drive. If you have multiple computers, you may need to create a bootable flash drive for each computer. In most cases, an image or clone can't be used to restore to a different computer, although some software may supports this.

Another term discussed was System Restore. This option usually requires being able to boot into Windows. System Restore can be used if the computer isn't working correctly and you suspect recent changes caused the problem, or as an initial troubleshooting step, before resorting to recovery.

Make sure system restore is turned on. After upgrading from Windows 7 to Windows 10, I discovered that system restore had been turned off.

Windows automatically creates restore points before performing certain actions. You can manually create a restore point, e.g., before installing new software.

To access system restore, search for *system* and click *create a restore point*. It should open System Protection under System Properties. Under Protection Settings, it will list the drives on the computer and whether protection is on or off. Normally, you just want protection on for (C:). If it is not on, click *Configure* and turn it on. Make sure the percentage of disk space available for system restore is set to something other than 0, 10% should be good in most cases.

To create a restore point, click *Create* and follow the prompts.

To revert to a previous restore point, click *System Restore…* , click *Next.* To see more restore points, click to place checkmark in box to left of "Show more restore points". Click the restore point you want to use and click *Next*. If you know when the problem started, chose the restore point just before that date/time. If you don't know which restore point to use, start with the most recent and, if that doesn't fix the problem, run System restore again and choose a different restore point. System restore is not supposed to affect your personal files, but make sure your backup is current, just in case.

In some cases system restore fails and Windows automatically returns the computer to how it was before system restore ran. There is also an option to undo a system restore.

After restoring to a date prior to a Windows update or a software installation, it may be necessary to reinstall the update or software.

If you suspect you have a virus on your computer, and don't know whether any of the images/backups contain the virus, it is probably best to use the Windows recovery drive to reinstall Windows and then manually restore personal files. If you don't have a recovery drive, but have access to another computer, you can create recovery media for Windows 10. (https://www.microsoft.com/en-us/software-download/windows10). Previous versions of Windows required entering a code to activate. However, once Windows 10 has been installed and activated, you don't need to enter a code when reinstalling Windows 10 on that computer. When restoring from a backup that may contain infected files, don't restore executable files (.exe) as they are more likely to contain viruses.

With the recovery drive and good backups, you will be prepared when a problem occurs.

Educational, Fun, and Interesting Websites
By Howard Lewis, Midland Computer Club, Bits and Bytes, February 2017

https://mynoise.net/
Some people find that background noise can sooth their nerves and calm them down. This site allows you to customize the background noise to something that will relieve your stress.

http://tinyurl.com/k54touz
Watch the earth pass by under this live feed from the International Space Station.

http://tinyurl.com/h7lchuv
You really should create a "system repair disc" for your computer. This site details how to do that for Windows 7, 8, and 10

http://brainpump.net/
Learn something new each day! Brain Pump is a site full of random, short, educational videos you can view one after another, no clicking required. You can watch the endless stream of videos, or you can choose from their list of categories that include topics such as psychology, technology, food, history, physics, space, business, math, and a catch all category of do it yourself videos called artisan.

https://www.sporcle.com/
If you've got a few minutes to waste, this site offers many different types of games and puzzles for you to tackle.