



DACS.doc

A Computer & Technology Newsletter

October 2017

Volume 28, Issue 10

\$2.00

Next Event: October 3

Ransomware

IT COULD HAPPEN TO YOU!

Directors' Notes

Danbury Area Computer Society Board Meeting Minutes Wednesday, September 6, 2017

The meeting was called to order at 7:03pm by the DACS President, David Green.

In attendance were Board members Richard Corzo, Dick Gingras, Bert Goff, David Green (President), and Andy Woodruff. Also present was guest: Charlie Bovaird. The minutes were taken by Richard Teasdale.

(Names in italics denote responsibilities for actions.)

- The Minutes of the 8/2/2017 Board Meeting were accepted.

Reports

- The August Treasurer's report was received from Bert.
 - o Dues receipts were \$300 (minus PayPal fees). Total Year to date (8 months) dues receipts were about the same as the first 8 months of 2016. Expenses continued to be normal and the 8-month year-to-date totals were slightly below 2016, adjusted for John Patrick's book expenses (which he covered).
 - o The Resource Center Fund continues to have a balance of \$655.
 - o Bert reported that he had spoken to Frontier about the increase in their phone charges. The company agreed to a small decrease in the monthly charge, together with a \$10 credit for past over-billing.
- The Membership report was received by e-mail from Jim Scheef.

o 88 paid-up members (including 5 new), and 14 in-grace, for a total of 102.

o 26 people attended the 9/5/2017 general meeting, including 10 visitors. Data was captured about how each visitor heard of the meeting, both through the Google Docs form at the door and verbally in the auditorium (by Andy and Charlie). The relative effectiveness of each data capture method was discussed.

o The Board concluded from the data that (1) most of the visitors knew of the meeting from Andy's marketing efforts; (2) marketing to organizations with membership likely to have an interest in the meeting topic is worthwhile; and (3) on this occasion, members of educational bodies were not interested in the topic.

- Press Coverage:

o David reported that he got some acknowledgments to the press releases that he sent out.

o David will look again for the list of SCORE contacts that was e-mailed to him, and follow up for any corrections needed to the e-mail addresses stored in CiviCRM. Bert volunteered to do the CiviCRM updates, if any are required.

o It was agreed that each month, David should make the press release available for the Board's review before it is distributed.

- Websites:

o Richard reported that September calendar entries for the Hackerspace have been added to the website calendar. The usefulness of cross-promotion with the Hackerspace was questioned and discussed. The Board agreed to continue promoting Hackerspace events and adopt a wait-and-see approach for its effectiveness. It was agreed to adjust the colors of the calendar entries to make DACS events stand out over non-DACS entries. Andy offered to assist the webmasters with keeping the calendar up-to-date.

o Richard reported that the CiviCRM problem encountered during an attempt to update the system is to be addressed by installing releases one at a time. It is hoped that this approach will bring us up-to-date without a recurrence of the problem.

o The Math CAPTCHA plug-in used to secure logins to the main DACS website has been disabled due to a problem, and may be replaced.

o It was agreed to remove the President's Column from the home page of the website.

Membership Information

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DACS, its officers and directors assume no liability for damages arising out of the publication or non-publication of any article, advertisement, or other item in this newsletter.

The editors welcome submissions from DACS members. Contact Richard Teasdale (*dacseditor@dacs.org*). Advertisers, contact Charles Bovaird at (203) 792-7881 (*aam@mags.net*)

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Apple User Group

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RESOURCE CENTER: (203) 748-4330 • **WEB SITE:** <http://www.dacs.org>

HelpLine

Our former telephone HelpLine has been replaced by our web-based DACS Community Forum at <http://forum.dacs.org>. We have topic-specific forums where DACS members can post questions. Questions may be answered by Workshop leaders or other DACS members. If none of the categories fit your question, just post it to the Ask DACS forum.

Topic

Linux

Desktop publishing and website design

Mac and iPhone/iPad/iPod touch

Online/small business

Single board computers

Smartphones & Tablets

Social media

Video capture/processing

Windows

Forum

Linux Workshop

Web Site Design Workshop

Apple Workshop

Online Business

Single Board Computers

Mobile Devices Workshop

Social Media

Video

Windows Workshop

Old Business

• Programs:

o Chris Furey will speak at the October general meeting about Ransomware.

▪ Preview: *Dick*.

▪ Review: *David* will call a DACS member who may be willing to write the review.

▪ A number of ideas for publicizing the meeting were discussed. *Dick* will contact the Danbury Chamber of Commerce and SCORE to ask for their help. *Bert* will approach the New Milford Chamber of Commerce.

At the November general meeting, Mike Kaltschnee will provide an interactive session using TinkerCAD, to teach the audience about 3D printing.

▪ Preview: *Andy*.

▪ Review: TBD.

o *Andy* will contact John Patrick in approximately two weeks, for an update about his readiness to speak to a general meeting about home automation.

o Richard and Dick both have contacted Andrew Ribeiro, a member of the Danbury AI Meetup group, who may be available to speak about Artificial Intelligence. The Danbury AI group's meeting schedule is an obstacle since it is the same as DACS general meetings. *Richard* will speak with him further.

o *Richard* will contact a potential speaker about Linux-related topics and also one for Minecraft.

• Renovation of the Resource Center (RC): The donation of used carpeting from Meadow Ridge Senior Living Community in Redding still has not taken place. *Andy* drafted a letter from the President of DACS to his contact there, for *David's* signature. *Andy* recommended that if this measure is unsuccessful, the floor of the RC should be painted instead of carpeted.

• Mike Ross's e-mailed suggestions for the weekly Upcoming DACS Meetings message were discussed. Some changes were agreed and *Andy* undertook to communicate them to Jim Scheef. He will also notify Mike Ross that the Board acted on his suggestions.

New Business

• Snacks for General Meetings:

o *Richard Teasdale* will provide snacks for October, and *David* will bring beverages.

The meeting was adjourned at 9:10 pm.

—*Richard Teasdale*

September Meeting Review

Introduction to Astrophotography

By Al Fressola

OUR GUEST SPEAKER at the September general meeting was Shannon Calvert, a professional photographer and graphic designer, having a business known as Hire Imagination (<http://www.hireimagination.com>), a full service marketing and design agency.

Shannon gave the audience a fascinating look into the world of astrophotography. His talk was directed to techniques for photographing astronomical objects, in particular, deep sky objects, such as nebulae, galaxies, and star clusters, as well as planetary and lunar photography.



Shannon gave a recounting of his own introduction to astrophotography, including his earliest days when he tried to photograph astronomical subjects with limited success. Shannon discussed how he gradually became more proficient, learning the techniques needed to generate astonishingly beautiful images of astronomical objects. He showed the audience an amazing assortment of subjects he has imaged, including the Ring Nebula, Trifid Nebula, the Triangulum Galaxy, the Dumbbell Nebula, the Owl Nebula and many other deep sky objects in the Messier catalog of objects (originally discovered by French astronomer Charles Messier).

In his talk, Shannon went over in detail the techniques for taking multiple exposures of an object of interest, such as between 30 and more than 200 exposures, each typically with a relatively short time exposure, such as 20-30 seconds. The images can be taken through a telescope such as an apochromatic refractor, on a tracking equatorial mount, (including the one he uses, which he brought to the talk) or through a telephoto lens. Shannon described how he uses a digital camera, such as the Canon 7D to record the images. He

stated that to ease the taking of such images, use is made of what is known as an intervalometer, some of which are built into modern digital cameras. An intervalometer allows the user to, in essence, program the camera to take multiple images each of a certain time duration. Shannon indicated that this greatly relieves the need for being at the telescope while these multiple images are made, other than to insure that the telescope is accurately tracking the deep sky object being photographed.

Similarly, with images taken directly through a telephoto lens, the intervalometer is used where the camera itself is attached to a tracking device, such as the Star Adventurer tracking device, which can be mounted to a tripod. The device allows the camera to accurately track an astronomical object over a period of time, thus compensating for the rotation of the earth while the multiple images are being taken.

Shannon mentioned that such images are normally recorded in the raw data format so as to obtain the maximum amount of information for each image recorded.

He also discussed the techniques for what is known as "stacking" the multiple images, so as to form a single image of the deep sky object being photographed. He demonstrated how a single image which may barely show the object of interest in the photograph is transformed into a stunning final image after the multiple images

are stacked into one. Shannon explained that stacking is more than aligning (via software) the multiple images together to form a composite image of the desired object, but also the various software techniques used to reduce the various types of noise associated with each image, including dark noise associated with the image sensor (sometimes known as dark field subtraction), as well as light pollution. He discussed various techniques for color balance, reduction of luminance noise, chrominance noise, stretching of the histogram and other processing steps which are used to enhance the resulting stacked image.

Shannon discussed the use of a Bahtinov mask, which is a device used to help focus a telescope or telephoto lens accurately. He also talked about modifying the image sensor on the camera to remove a built-in filter used on digital cameras, which blocks some of the light spectrum particularly associated with some deep sky objects and, in particular, light of wavelengths associated with hydrogen-alpha light.

Shannon indicated that although he has done some of his photography in areas with very little light pollution, many of his images have been taken either at the Westport Astronomical Society Observatory in Westport, Connecticut or in Easton, Connecticut. Thus, the image processing can clearly reduce a lot of the light pollution to acceptable levels resulting in astrophotographs of stunning detail.

Shannon stated further information about the Westport Astronomy Society can be found at <https://www.was-ct.org> and that they have public viewing on Wednesday nights, weather permitting.



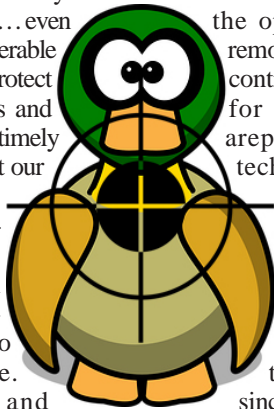
October Meeting Preview

The Ransomware Risk—Are You a Lucky Duckling or a Sitting Duck?

by Dick Gingras

A BAD ACTOR REMOTELY locks up your computer and demands a ransom (usually in bitcoins). Do you know what to do if it happens to you? Will you ever see your data again... even if you pay the ransom? How vulnerable are you and how can you best protect yourself? Get guidance to this and much more in an interactive and timely discussion led by Chris Furey at our October meeting.

It's not just consumers being attacked. Corporations, small businesses and even government agencies are having their computer files held to ransom - even local police. Cybercrime costs small and mid-sized businesses \$75 billion a year, including the loss of productivity and the cost of recovering files. 1 in 131 email messages today contain malware, and more than 400 businesses are targeted by spear phishing emails each day.



Ransomware is a type of malware that in some way restricts access to a computer system that it infects, and demands that the user pay a ransom to remove the restriction. Ransomware continues to increase in popularity for two reasons: 1. Victims are paying, and 2. Advances in technology are making attacks easier. Regardless of the type of ransomware, the overall concept remains consistent - extort the PC user by encrypting their most important data. The last twelve months have seen the most growth in ransomware since its origination in 1989.

Chris Furey is the Managing Partner and CTO of Virtual Density in Danbury CT. He is a trusted authority for objective guidance in Cyber Security and Cloud Computing. Over 37 years of client engagements, he has helped C-level executives,



CIOs & LOB managers by providing counsel wherever business and technology touch. Chris has created strategy, services and resilient information systems for consulting organizations, national brands, and hundreds of small enterprises.

DACS General Meetings begin at 7:30 pm and are free and open to the public. Members and prior attendees are encouraged to extend invitations to anyone interested in this topic. DACS holds its general meetings in the Creasy Auditorium at Danbury Hospital. There is plenty of free parking in the Rizzo guest parking garage adjacent to the auditorium. Go to dacs.org/directions/ to find directions and parking information.

Surfing Tools

Google Search Tricks

By Melanie Birnbaum

YOU USE GOOGLE Search every day, but still all you know is how to search. However, the search engine has plenty of tricks up its sleeve.

Here's an overview of some of the more useful Google search tricks:

- Use quotes to search for an exact phrase. Searching a phrase in quotes will yield only pages with the same words in the same order as what's in the quotes. It's especially useful if you're trying to find results containing a specific phrase.

- Use an asterisk within quotes to specify unknown or variable words. Here's a lesser known trick: searching a phrase in quotes with an asterisk replacing a word will search all variations of that phrase. It's helpful if you're trying to determine a song from its lyrics, but you couldn't make out the entire phrase (e.g. "imagine all the * living for today"), or if you're trying to find all forms of an expression (e.g. "* is thicker than water").

- Use the minus sign to eliminate results containing certain words. You'll want to eliminate results with certain words if

you're trying to search for a term that's generating a lot of results that aren't of interest to you. Figure out what terms you're not interested in (e.g. jaguar -car) and re-run the search.

- Search websites for keywords. Think of the "site:" function as a Google search that searches only a particular website. If you want to see every time TIME.com mentioned Google, use the search "Google site:TIME.com".

- Search news archives going back to the mid-1880s. Google News has an option to search over 100 years' worth of archived news from newspapers around the world. The address is <https://news.google.com/newspapers?hl=en>.

- Compare foods using "vs". Can't decide between a burger or pizza for dinner? Type in "rice vs. quinoa," for example, and you'll receive side-by-side comparisons of the nutritional facts.

- Filter search results for recipes. If you search your favorite food, and then click "Search Tools" right under the search bar,

you'll be able to filter recipes based on ingredients, cook time and calories. It's the perfect tool if you have certain dietary restrictions.

- Use "DEFINE:" to learn the meaning of words-slang included. Streamline the dictionary process by using, for example, "DEFINE: mortgage." For words that appear in the dictionary, you'll be able to see etymology and a graph of its use over time alongside the definition. Google will even sift the web to define slang words or acronyms. Try out "DEFINE: bae" or "DEFINE: SMH".

- Play Atari Breakout by searching it on Google Images. The legendary brick breaker game is available for easy access on Google. Just search "Atari Breakout" (without quotes) on Google Images and enjoy.

- Search images using images. Ever come across a photo that looks strangely familiar? Or if you want to know where it came from? If you save the image, and then search it on Google Images (with the camera button), you'll be able to see similar images on the web.

- Press the mic icon on Google's search bar, and say "flip a coin" Google will flip a coin for you when you don't have one on hand.

MELANIE BIRNBAUM is a member of the Century Village Computer Club, Florida (<http://www.cvcomputerclub.com/>). Her article is reprinted by permission.

Workshops

Workshop Notes: October 2017

Apple. Focuses on all aspects of the Mac and iPhone operating systems.
Contact: Richard Corzo (applesig@dacs.org).
Meets 2nd Tuesday, 7 p.m. at DACS Resource Center.
Next Meeting: Oct 10

Jobs. Networking and jobs search
Contact: Charles Bovaird, 203-792-7881 (aam@mags.net). Go to DACS Community Forum (<http://forum.dacs.org>) for job listings.

Linux. Helps in installing and maintaining the Linux operating system. Also of interest to Apple owners using OS X.
Contact: Dave Mawdsley, linuxsig@dacs.org
Meets 3rd Wednesday, 7:30 p.m. at the DACS Resource Center.
Next Meeting: Oct 18

PC Maintenance. Review of PC hardware and OpSys maintenance and use.
Contact: Charles Bovaird, 203-792-7881 (aam@mags.net). Go to DACS Community Forum (<http://forum.dacs.org>).

Online Business Workshop. Informal member gathering sharing ideas on creating an online source of income.
Contact: Steve Harkness (onlinebizsig@dacs.org)
Meets second Monday in Brookfield, or by Webinar.
Next Meeting: Check dacs.org.

Single Board Computers Workshop. Explores small cheap computers like Raspberry Pi, Arduino, Netduino, Beaglebone, and more. Meets at 7:00 p.m. on the 3rd Thursday at the DACS Resource Center.
Contact: Jim Scheef (860-355-0034)
Next Meeting: Oct 19

Video Workshop. Explores all aspects of video capture and production, including both inexpensive and professional choices for cameras and editing software.
Meets on the 3rd Thursday of certain months, typically at 7:00 pm at the Resource Center. Check the Calendar for details.
Contact: Andy Woodruff (awoodruff@dacs.org)
Next meeting: Check dacs.org

Web Development/Design Web Development/Design This workshop is looking for a new moderator. Being a workshop leader is a great way to share information, learn new techniques, promote your business, and interact with like-minded people. Extensive web knowledge is not required, but a willingness to open a topic for discussion and enjoy the contributions and feedback from the attendees. Meets every 3rd Tuesday of the month, but repeating date can be changed if needed.
Contact avanommeren@dacs.org, or webmaster@dacs.org.
Next meeting: TBA—Look for updates



Danbury Hackerspace Events



Mike Kaltschnee

The Danbury Hackerspace and DACS are beginning to cross-promote our events. In coming months, we will list their events in each dacs.doc newsletter and in the calendar on our website www.dacs.org.

Following are the Danbury Hackerspace events for October

- October 3, 7-9 pm - Danbury.AI (artificial intelligence) Meetup - Control Theory
- October 11, 6:30-9 pm - Danbury.IO (software developers) Meetup
- October 14, STEAM Fair - Danbury Library and Danbury Hackerspace, showcasing local artists and makers
- Danbury Inventors' Meetup
- every Thursday, 7-9:30 pm - Danbury Hackerspace open house

All of these events occur at Danbury Hackerspace, 158 Main Street, Danbury, CT. For details, see <https://danburyhackerspace.com/calendar>.

October 2017

Danbury Area Computer Society

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																				
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<i>8</i>	<i>9</i>	10  Apple 7:00 PM Richard Corzo <i>applesig@dacs.org</i>	11  Web & App Developer Meetup Hackerspace 7-9 PM	12  Danbury Hackerspace Open House 7:00 PM Membership Committee 7:00 PM Jim Scheef 860-355-0034	<i>13</i>																																																																																					
<i>15</i>	<i>16</i>	17  Danbury Inventors' Meetup Hackerspace	18  Linux 7:30 PM Dave Mawdsley <i>linuxsig@dacs.org</i>	19  Danbury Hackerspace Open House 7:00 PM Single Board Computers Workshop 7:00 PM Jim Scheef 860-355-0034	<i>20</i>																																																																																					
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Disaster Avoidance

Recover, restore, backup, clone, image?

By Carol Picard

Editor's note: This article is a program review of a meeting of the Midland, Missouri Computer Club in January, 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. Online/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 user ids, 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 support 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.

CAROL PICARD is editor / webmaster, Midland MI Computer Club. This article was published in the February 2017 issue Bits & Bytes <http://mcc.apcug.org>; [capmidmi \(at\) yahoo.com](mailto:capmidmi@yahoo.com)).

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"It isn't working . . . Did you activate the spell checker?"

Back to Basics

Picture Management - Something we all need

By Phil Sorrentino

WITH THE ADVENT of the smartphone, a camera is always only an arm's length away, because your smartphone is probably in your pocket or your handbag. And having the camera so available means we take, and hence have, many more pictures (and maybe even videos). With this increased number of pictures comes the problem of organizing or managing them so we can access them when they are needed. The picture may not seem so valuable if you can't find it when you want to show it to someone.

I think it was very innovative and forward thinking of Steve Jobs at Apple to include a camera in the original iPhone. Today, the camera is probably the second most important reason why you have a smartphone (the first being the fact that the smartphone can make phone calls). The cameras, built into smartphones, have really improved in the short time that smartphones have been in use. Originally the cameras might have only been a mega pixel or so in picture size (the original iPhone had a 2-mega pixel camera); now the cameras have as many pixels as some professional cameras (the iPhone 7 has a 12-mega pixel camera). And, though the quality of the pictures from the earlier smartphones may have been only acceptable, the quality of the pictures from many of today's cameras is only surpassed by pictures from very expensive professional cameras.

So, with all these pictures, we naturally look for help to organize them, and fortunately help comes in the form of digital picture management software. Photoshop Elements is a possible solution with a price tag of around \$80.

Picasa has been a very popular, free, picture editor and management software application. Unfortunately, Picasa which was available from Google since July 2004, was discontinued February 2016. Google is recommending its cloud-based "Google Photos" be used in place of Picasa.

"Google Photos" is not the same as "Photos" that you will find on a Windows 10 computer in the "All Apps" list. The Windows 10 Photos App is a photo viewer that provides minimal picture management. Google Photos is a cloud-based App that encourages you to upload your pictures from all of your devices to the cloud, where

the photos are stored and managed. Then, using the Google Photos App, you can view all of your photos from any device with an internet connection.

Google gives you 15GB of storage space (you can purchase more if needed), and then (with a setting) gives you a choice of "High Quality (free unlimited storage)", or "Original quality (full resolution that counts against your 15GB quota)". The "High Quality" selection produces "Great visual quality at reduced file size", as stated on the website. (This 15GB of storage appears to be separate from your "Google Drive", if you have one, because there is a setting to "Show Google Drive photos and videos in your Photos library".)

The photos.google.com website states "the photos are automatically organized and searchable", and "the photos can be organized by people, places, or things". The website tutorial also indicates that you can "Easily edit and share" your photos. So, it seems like once your photos are uploaded to the cloud, they can be organized by your needs, and any photo can easily be accessed.

Another free photo management application is Photo Gallery, which was available from Microsoft but unfortunately had its support ended January 10, 2017. If you have a copy of Photo Gallery you will see that it can organize your pictures, but it also has a few neat features. One of these features is "Panorama". Photo Gallery allows you to create panoramas from (overlapping) pictures that were sequentially taken of a wide scene. The picture interfaces are stitched together, resulting in a wide panorama of the original scene. If the lighting was consistent and the overlap was easy for the software to find the edges, with a little cropping the results were quite good. Panorama stitching is not that unusual a feature, but Photo Gallery also has a feature called "Photo Fuse". This feature allows you to correct many unwanted things in a picture. To use this, you have to take multiple pictures of a scene that has some unwanted movements, like people moving in the background, or children turning their heads at inconvenient times. Once you have a number of images (maybe 5 or 6) of basically the same scene, you're ready to use Photo Fuse. Photo Fuse lets

you choose which picture will be used for a given selectable rectangular area. If there is a person in the background in picture 1 but not in picture 4, then you can use picture 4 for the rectangle that shows the unwanted person. Similarly, you can customize many rectangles with sections from other pictures. When you are finished, all the unwanted people or unwanted movements may be eliminated. This type of feature is typically only found in some very expensive software packages. It reminds me of "Layers" in Photoshop Elements, but "Photo Fuse" is not nearly as powerful. Photo Gallery may still be available from the Microsoft Download site, but without support from Microsoft it may not be something you want to be dependent on. But if you have a copy, Photo Gallery certainly has a lot of really great features, and is fairly easy to use.

There still are a few free Photo Editing and Management applications available. A quick check finds Zoner Photo Studio Free, StudioLine Photo Basic Free 3, Jet Photo Studio 5, XNView MP, Faststone Image Viewer, and DigiKam, but I haven't tried any of them yet. A quick look at the features makes me wonder if there will be a replacement for Photo Gallery. If you are willing to spend a few dollars, there are a few possibilities that may be a good replacement. Photoshop Elements, Magix Photo Manager, and Acdsee come to mind.

Keep in mind that Picture Management software typically does not re-arrange or move your picture files or folders. Picture Management software just acts as a lens viewing all the pictures in the picture folders that you let it use, usually with an "Include folders" setting. So, in my opinion, the only way to really manage your photos is to create a hierarchical arrangement of folders using File Explorer and then manage that set of folders yourself, again using File Explorer. And then let your Photo Management software use all of those folders. Depending on the size of your picture collection, this may take a big effort and a firm commitment to create, organize and maintain the folders. But whatever method or software you decide on, do it quickly, because your picture collection is probably increasing, even as we speak.

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Apple Pickings

What is an iPad Widget? And How Do I Install One?

By Bill Crowe

WIDGETS ARE SMALL apps that run on a device's interface, such as a clock or a widget that tells you the current weather. While widgets have been popular on Android and Windows RT tablets for a while now, they haven't made their way to the iPad... until now. The iOS 8 update brought "Extensibility" to the iPad. Extensibility is a cool



feature that allows a snippet of an app to run within another app. This allows widgets to run on the iPad via the Notification Center. You'll be able to customize the notification center to show widgets and choose which widgets to show in the notification center. You can also choose to access the notification center while the iPad is locked, so you can see your widget without typing in your passcode.

How do I Install a Widget on My iPad?

Widgets can be installed into the Notification Center by opening notifications by sliding your finger down, careful to start at the very top of the screen, and then tapping the 'Edit' button located at the end of your active notifications. The edit screen is split into those widgets that will display in the Notification Center and those that are installed on the device but not currently showing with the other notifications. To install a widget, simply tap the green button with the plus sign next to it. To remove a widget, tap the red button with the minus sign and then tap the remove button that appears to the right of the widget. Yes, it's that simple. Once the widget is installed, it will be displayed when you open the Notification Center.

Will There Be a Separate 'Widget' Store?

The way Apple has implemented widgets is by allowing an app to display a cus-

tom interface within another app. This means a widget is just an app that allows part of itself to be shown in another app, which in this case is the notification center. Sound confusing? It's not. If you want to see sports scores in your notification center, you can simply download a sports app like ScoreCenter from the app store. The app will need to support becoming a widget in the notification center, but you don't need to install a special version of the app. Once installed, you can configure which apps to show in the notification center through the iPad's notification settings.

Can I Use a Widget to Replace the On-Screen Keyboard?

Another exciting benefit of Extensibility is the ability to use third-party keyboards. Swype has long been a popular alternative to traditional typing (or tapping, as we do on our tablets). An Android keyboard alternative, Swype lets you draw words instead of tap them out, which ultimately leads to faster and more accurate typing. (It's also amazing how quickly you can get used to the idea). For information on installing third-party keyboards, we'll have to wait until third-party keyboards arrive in the App Store. Several have already been confirmed, including Swype.

What Other Ways Can I Use a Widget?

Because extensibility is the ability for an app to run within another app, widgets can expand almost any app. For example, you can use the Pinterest app as a widget

by installing it into Safari as an additional way to share web pages. You can also use photo editing apps like Lately inside of the iPad's Photos app, which gives you a single place to edit a photo and use features from other photo-editing apps.

How to Reorder Widgets on the iPad Notification Center

Now that you have added a few widgets to the iPad's Notification Center, it might occur to you that widgets further down the page would be more useful towards the top. For example, the Yahoo Weather widget makes a great replacement for the default weather widget, but it won't do you as much good if it is at the bottom of the list. You can easily reorder widgets in the Notification Center by dragging a widget and dropping it in the order you want it to appear.

- First, you need to be in edit mode. You can enter edit mode by scrolling down to the bottom of the Notification Center and tapping the edit button.

- Next, tap the three horizontal lines next to the widget, and without removing your finger from the screen, drag it up or down the list.

This makes a great way of customizing the Notification Center and quickly getting at the information or widgets you want to see most. Unfortunately, Apple doesn't allow a widget to go above the Today Summary and Traffic Conditions or below the Tomorrow Summary.

Source and Compliments *lifewire.com*

BILL CROWE is first vice president, Sarasota Technology User's Group, FL

This article appeared in the March 2017 issue, Sarasota Monitor (www.thestug.org/vp1 (at) thestug.org), and is reprinted by permission for APCUG member groups.

Read the Blog on dacs.org

As an ongoing project, Jim Scheef has been posting to a blog on the club's website. You can read these posts at <https://dacs.org/category/news/>. We are looking for a few volunteers to help contribute to this blog. To qualify, you must be a member in good standing and be willing to post regularly, meaning one or more posts weekly. You will receive training in how to enter and format the blog posts (a little HTML can be helpful).

Content must be related to the club's mission of learning and sharing information about computers and how we use them. There is tons of interesting and valuable information to share and one person cannot find and post it all.

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