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IN THIS ISSUE

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All SEMCO correspondence should be addressed to

SEMCO - P.O. Box 707 - Bloomfield Hills, MI 48303-0707
Web site: **http://www.semco.org**
E-mail: **semco@semco.org**
General information: (voice) answering device in Royal Oak **(248) 398-7560**

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Backup! Backup! Backup!
By Ira Wilsker

The Three Most Important Words in Computing: Backup! Backup! Backup!

We have all heard the common and trite clichés that the only things that are for sure are "death and taxes." For computer users, regardless of operating system or brand of computer, there is a third "truth" and that is that computer hard drives will eventually fail. Hard drives, regardless of brand and reputation, are electromechanical devices with a lot of very fast moving parts, motors, and some type of electronic controller that makes it work. Heat, physical shock (like dropping on the floor), electrical problems (power surges), and normal friction and wear can cause hard drives to deteriorate followed by a likely catastrophic failure.

Many of the more modern hard drives incorporate "SMART" technology (Self-Monitoring, Analysis and Reporting Technology) which monitors the hard drive for reliability issues, and notifies the user if it detects a pending failure. Once warned, the user should immediately verify that the drive is properly backed up, and then quickly consider replacing the drive. Many of the hard drive manufacturers provide free SMART monitoring software, or a similar utility. Seagate, for example, offers its free "SeaTools" utility that " … includes several tests that will examine the physical media on your Seagate or Maxtor disk drive and any other non-Seagate disk drive." A 17mb download, this free utility will run on almost any brand of hard drive, and display its findings such that the user can have real-time information about the condition of his hard drive. There are many other hard drive monitoring utilities available, both free and commercial. For free hard drive monitoring software, consider any of the top rated hard drive monitoring utilities listed at <http://techsupportalert.com/best-free-hd-health-monitoring-and-diagnostic-programs.htm>. I have been happy using a $15 program (sometimes offered as a free promotional download) "Ashampoo HDD Control," which provides comprehensive hard drive monitoring services, as well as drive cleaning and defragmentation functions.

One of the earliest fables (with some truism) about hard drives is a component of Murphy's laws, which says, "A properly backed up hard drive will never fail; but the first time that you do not have a current backup, it will always fail at the most inopportune time." This has evolved into the current truism that says, "The three most important words in computing are Backup! Backup! and Backup!" On my computers, I routinely copy my critical data files to USB flash drives, burn them to CDs, and use a file copy backup utility with a high capacity USB external hard drive. Actually, I use multiple backup devices for critical data files, because I like the idea of redundancy, and backup media and devices have become incredibly inexpensive. During the hurricane evacuations for Rita, Gustav, and Ike, the very first item I packed was my external hard drive with my latest backup, along with some backup CDs with additional copies of the most critical data files from my desktop computer.

There is an abundance of good quality backup software available, and

for several years I have been using NTI Shadow <http://www.nticorp.com>, a $40 product which transparently maintains backups in real-time of all of my critical data files on my external USB hard drive. When first installed, Shadow automatically copies all selected file types to the chosen backup device, and then maintains the backup set without any necessary user intervention. As soon as I save a file to my hard drive, Shadow instantly copies the file to my backup device. For sequential files, such as word processing or spreadsheet files, Shadow can selectively save each version, as it is updated or saved, preserving the older versions in case they are ever needed. I use Shadow to automatically maintain or "synchronize" data files, photos, videos, music files, e-mail, and other non-system information. Since all of the files are saved in native format, the backed up files can be read, copied, or opened, with no special or proprietary software required. Over the years, I have been very satisfied with NTI Shadow, and continue to use it.

For those who prefer free software, there are many excellent programs available, all with different feature sets and offering different types of backup <http://www.techsupportalert.com/best-free-backup-program>. <http://TechSupportAlert.com> has guidance to help the user select the type of backup program desired. A file backup program does precisely that, maintains copies of files. A full backup is a type of backup where the entire hard drive is copied, often by creating an exact digital image of the hard drive. A differential backup, after a full backup is created, only backs up new or modified files. An incremental backup is somewhat like a differential backup, but only backs up the files that were created or modified since the last full or incremental backup.

Using a free software product, Paragon Backup and Recovery (Advanced) Free edition <http://www.paragon-software.com/home/br-free> I periodically create an "image backup" which basically creates a bit-by-it digital image of my entire hard drive as it is at that instant, and writes that image to my external USB hard drive. The software provides for the creation of a bootable Linux recovery CD which contains the drivers and utilities necessary to restore the hard drive. In the event of a catastrophic hard drive failure, I can purchase a new hard drive, install it in my computer, boot the computer with the recovery CD, and using the image file on the external drive, recreate my hard drive precisely as it was at the time of the backup, with all programs and data files intact. Once the image file is installed, the computer will boot and run just as it did before the hard drive failure, but with a new hard drive. Other than the time, expense of a new hard drive, and a little aggravation, my computer will be fully functional just as it was prior to the hard drive failure. This is explicitly the primary reason for having a current image backup. This Paragon Backup and Recovery software can also create and maintain file level backups, perform other backup functions, and is a comprehensive backup utility. For most users, this Paragon software will be most adequate, as it is capable of performing all desired backup and restore functions.

Other top-rated free drive imaging programs are listed at <http://www.techsupportalert.com/best-free-drive-imaging-program.htm>. I strongly encourage all computer users to

frequently create an image backup, such that a failed hard drive can be easily replaced and all files and programs restored. Since I use multiple external USB hard drives, I sequentially create an image on one external drive, and then use a different external drive for my next image backup. By doing this I always have at least one functional image capable of being restored, just in case there is a problem on one of the external drives. If that happens, I may not have the most recent image file, but at least I can be back in service with minimal loss. Since my data files are continuously backed up by Shadow (I keep a redundant set of those files as well), between the image file and my Shadow files, it is unlikely that I would lose anything of significance.

There is no need to suffer a hard drive failure with the resultant loss of all programs and data files. With the availability of several excellent free hard drive monitoring and backup utilities, as well as several comparable commercial products, and the declining cost of high capacity storage media, lost data should be a crisis of the past, as it is easily preventable or recoverable.

WEBSITES:
<http://www.techsupportalert.com/best-free-backup-program>.
<http://www.techsupportalert.com/best-free-drive-imaging-program.htm>.
<http://www.techsupportalert.com/content/more-free-backup-software-recommendations-reviews.htm>.
<http://www.nticorp.com/en/us/product/shadow_5_windows.asp>.
<http://www.acronis.com/homecomputing>.
<http://www.ashampoo.com/en/usd/pin/0065/System_Utilities/Ashampoo-HDD-Control>.

<http://en.wikipedia.org/wiki/Self-Monitoring,_Analysis,_and_Reporting_Technology>.
<http://www.seagate.com/www/en-us/support/downloads/seatools/>.
<http://www.techsupportalert.com/best-free-hd-health-monitoring-and-diagnostic-programs.htm>.

Ira Wilsker is a Columnist, The Examiner, Beaumont TX; Program Director of Management Development at the Lamar Institute of Technology, Beaumont TX; and a radio and TV show host. Contact him at <iwilsker@sbcglobal.net>.

	Free Backup Software From EaseUS By Ira Wilsker

Last week *[Editor's Note: See previous article]* I wrote about the imperative necessity to frequently or constantly backup our hard drives. I referenced the three most important words in computing, "Backup! Backup! and Backup!" I warned about Murphy's first law of computing, "A properly backed up hard drive will never fail; but the first time that you do not have a current backup, it will always fail at the most inopportune time." Apparently some of you paid attention, because I received several e-mails and phone calls from readers asking for specific recommendations, predominantly for free backup software. I tried a few of the free backup utilities, and created a preference for EaseUS Todo Backup Free 3.0, available for download at <http://www.todo-backup.com/products/home/free-backup-software.htm>. This free backup utility will run on almost all Windows systems,

including Windows 2000, XP, Vista, Windows 7 (all 32- & 64-bit systems), with FAT or NTFS file systems, and with RAID or dynamic disks.

EaseUS Todo Backup Free 3.0 is a very complete product, offering just about every backup function in a single free utility. This utility can create a hard disk image which can be used to totally restore the contents of a dead hard drive to a new hard drive, allowing the user to be up and running in a matter of minutes. Being in a disaster prone area, subject to the whims of hurricanes, tornadoes, and brush fires, disaster recovery should be of concern to all users, and this backup software makes fast recovery possible. Viruses, worms, trojans, physical wear and tear, power surges, and accidental damage can harm or destroy a hard drive, and this software can be used to recover that data, provided that a backup had been created in a timely fashion. Unlike some other products, EaseUS Todo Backup Free can automatically create and maintain (update) the image file in real time without user intervention. Because of this beneficial feature, the user who has this feature activated, will always have a current image backup that can restore the entire hard drive in the event of a catastrophic failure. For those who prefer to schedule backups, they can be run at a predetermined time, now, daily, weekly, or monthly.

While I frequently create an image file capable of restoring an entire hard drive, including operating system and program files, I mostly create a file backup where my data files are backed up. With this feature, data files of all types, including documents, spreadsheets, images, videos, e-mail, music, and other data types can be instantly recovered or restored if necessary. If desired, entire folders, along with all of their contents, can automatically be backed up. I cannot count how many times in recent years that I have had to recover files from the backup, which is a great convenience. The EaseUS Todo Backup Free can automatically create and maintain both differential (files that have changed since last backup) and incremental (newer versions or changed files) backups, such that the user does not have to manually create and update backups unless desired.

EaseUS Todo Backup Free makes it very easy to recover from the disastrous loss of data caused by a hard drive failure, provided that a backup had been created. The software can easily create a bootable CD, DVD, or USB drive with either a Linux or WinPE operating system (included) that can boot the computer and then run EaseUS Todo Backup utility. Once booted, this utility can read the recovery media, and then recreate a hard drive, all with a single click. Typically, following a hard drive failure, the hard drive is replaced. Since the newly installed hard drive is effectively blank, it needs to have an operating system, programs, and data reinstalled in order to restore complete functionality. The previously created image file is an exact copy of what was on the original hard drive when the backup was created, so restoring the image to the new hard drive results in a fully functional hard drive complete with operating system, programs, and data files. In terms of usability, it is just as if the original hard drive was still functional, but now the computer is running with a new hard drive. If instead of just a hard drive being replaced, other

major components are replaced, or an entirely new computer is obtained, this software can install the previously created image file on the repaired or new computer, enabling rapid use of all previously installed programs and data. This same process can be followed if the user upgrades his computer with a larger hard drive, and then restores the operating system and all program and data files from the image backup. Likewise, the user who purchases a new computer can use this software to install existing programs to a new PC, a process called "Migration."

While my personal preferences are to create backups to multiple external USB hard drives, and data CD and DVD discs, EaseUS Todo Backup also supports backing up to remote off-premises backup services, network attached storage, FTP to remote servers, and almost all other forms of backup media, devices, and services. Some users prefer to use a virtual machine (memory resident), and this backup utility supports that option by being able to convert the backup image file to .VMDK (VMware virtual disk format) or .VHD (for Virtual PC) and then mount into a virtual machine directly. While most users would likely just restore the image to a new hard drive, some users may prefer the virtual machine method.

In terms of security, this software offers several options. Access to the backup, regardless of media used, may be restricted by the use of a password, giving some protection from unauthorized access. For even greater security, 256-bit AES encryption of the backup is available, making it almost impossible for unauthorized users to be able to read the backup files. Sometimes users may want to securely erase all or parts (folders and files) of a hard drive, making it nearly impossible to recover erased files; EaseUS Todo Backup offers a secure "Wipe" function that securely eliminates content from the hard drive.

In experimenting with EaseUS Todo Backup Free 3.0, I found it to be a most comprehensive and complete backup utility, that can backup and recover from and to any combination of hardware and systems. In response to my readers who asked for a recommendation for a free backup utility, this may be the one to try.

WEBSITES:

<http://www.todo-backup.com/products/home/free-backup-software.htm>
<http://www.easeus.com/disk-copy>.

Ira Wilsker is a Columnist, The Examiner, Beaumont TX; Program Director of Management Development at the Lamar Institute of Technology, Beaumont TX; and a radio and TV show host. Contact him at <iwilsker@sbcglobal.net>.

**Gizmo List Now Includes
iPad and Android
By Ira Wilsker**

"Best Free Software" Lists from Gizmo Now Include iPad and Android

I am frequently asked about information and sources of free software, and my most frequent response has had something to do with Gizmo, and his comprehensive website techsupportalert.com. Gizmo, also known as Gizmo Richards, is really Ian Richards, an Australian, who has been active in the hardware and software industries for many years, and

has developed an enviable reputation as the senior editor of a major computer publication. Gizmo compiled a list of 46 free software programs as a lark, and intended it for internal use, but when his list went viral, Gizmo attained celebrity status.

Now, Gizmo's <http://TechSupportAlert.com> lists over 200 categories of free software, each product rated by his sizeable community of volunteers. According to Gizmo on <http://techsupportalert.com/about-this-site>, "Gizmo's Freeware is a non-commercial community website staffed entirely by volunteers. Our primary function is to help you select the best freeware product for your particular needs. The best freeware programs are as good as or better than their commercial counterparts, but finding the most appropriate program can be challenging. Sure, there are dozens of freeware download sites on the web, but few of these actually help you select the best program for your needs. That's what we do here. No downloads, just honest advice and useful guidance. It's honest because this is a community-based site staffed by volunteers and we have no commercial affiliations."

TechSupportAlert.com is continuously revised, with new and updated categories of software appearing on a daily basis. I personally use Gizmo regularly to locate software for my own use, as well as make recommendations to others seeking free software solutions. One section that I visit several times a week is Gizmo's "The Editors' Choice List: Our Selection of the Best PC Freeware" at <http://www.techsupportalert.com/content/top-freeware-picks-category-editors.htm>. According to Gizmo, "This really is a "best of the best" list. Most of the products in this list have been awarded the coveted "Gizmo's Top" pick award signifying they are the best free product in their class." The top pick awards are decided not by Gizmo personally, but the sizable community of volunteers who evaluate the software. On this page is a searchable menu, sorted by type of software, which makes it easy to locate the best of any category. Several of the categories not only list the top picks along with links to the latest review, but sometimes also discusses close finishers that have some substantial benefits or advantages. Gizmo is not a download site, but has the links to the software publishers' websites where the software can be safely downloaded. This listing of "best" free software may be a wise choice to peruse prior to purchasing any commercial software, as many of the free products are very competitive (and sometimes superior) to their commercial counterparts.

With the expanding of popularity of Apple iPads and Google Android devices, Gizmo has expanded its ratings to cover those platforms. The Gizmo " Best Free iPad Apps" list at <http://www.techsupportalert.com/best-free-ipad-apps.htm> offers the user a wide selection of top-rated apps, along with instructions for downloading and installation. Similar to the PC directory of top rated free software, this "Best" list is both menu driven and searchable. According to Gizmo, " … here at Gizmo's Freeware, we only select the best from the free ones that work best on your iPad." The menu for the free iPad apps is divided into 10 broad categories, with each category divided into a more detailed directory of the best apps. Each of these apps in the "Best" category have

been tested and evaluated by Gizmo's iPad community, and rated as the best app in their respective categories.

While the iPad apps listed were explicitly tested and rated for iPads, many of the listed have a blue plus sign on the bottom-right corner of their icon or logo, which means that that particular app is " … designed for or compatible with not only iPad, but also iPhone and iPod touch." I just checked, and the Apple App Store currently lists nearly 400,000 available apps, but by utilizing the Gizmo " Best Free iPad Apps" list, the user is likely to find the best free apps for his purposes.

Google's Android operating system is showing up on smart phones, tablets, and other mobile devices. Google currently lists over 200,000 Android apps in its Android Market, but many of them are not free. Gizmo says, "To help you get the best of the free ones, we have selected some gems in each category and added them here in a single convenient list with clear and brief descriptions of each application item." The Gizmo "Best Free Android Apps" is online at <http://www.techsupportalert.com/best-free-android-apps.htm>. The searchable menu is divided into 11 categories, with each category having a list of sub-categories, making the best apps easy to find.

To download and install one of the listed "Best" Android Apps, "Move your mouse over the program icons and scan the QR Code images on this page with your device's barcode scanner; or click the program titles below in your PC's browser or tap them in Android's browser, then install the apps from the Android Market." Using a browser on my desktop computer, when moving my mouse over the logo or icon for a selected Android App, a large QR (Quick Response) code appears on the screen, which can be read by the camera in the Android device, which connects directly to the site to download the app. It sounds complicated, but is actually very fast and easy, and makes downloading the "Best" free Android apps an effortless activity. For those who may not be comfortable with using optically scanned QR codes, simply clicking on the selected program icon will take the user directly to Google's Android Market where the "Install" button will start the installation process.

I have found Gizmo's TechSupportAlert.com to be an invaluable resource, and can strongly recommend it not just for PCs, but for iPad and Android devices as well.

WEBSITES:
<http://www.techsupportalert.com/content/top-freeware-picks-category-editors.htm>.
<http://www.techsupportalert.com/best-free-ipad-apps.htm>.
<http://www.techsupportalert.com/best-free-android-apps.htm>.

Ira Wilsker is a Columnist, The Examiner, Beaumont TX; Program Director of Management Development at the Lamar Institute of Technology, Beaumont TX; and a radio and TV show host. Contact him at <iwilsker@sbcglobal.net>.

**Testing Memory
By Vinny La Bash**

From a strictly technical perspective, memory is any form of electronic storage. You probably know the computer you use every day has memory. Other everyday devices also use similar types of electronic memory. Your TV, car radio, washing machine, wrist watch, and cell phone are a few examples. Physical memory is both a necessary and useful component of modern computers. If your computer's CPU were compelled to access the hard drive for every piece of data it wanted, its speed would be glacial. Memory is so useful that when something happens to affect it we notice it immediately. It's a little like atmospheric oxygen, unobtrusive and invisible. Take it away and we know instantly that something has gone horribly wrong.

Memory failures can be among the most difficult hardware problems to diagnose because so many other things can act like memory malfunctions. If your system was put together with a motherboard populated with less than first-class components like low quality liquid fueled capacitors, they might swell and burst even under normal usage. Lockups, USB ports which refuse to work for no apparent reason, blue screens of death, and error messages pointing to memory failures are among some of the breakdowns that can occur. Video pauses and application crashes are additional symptoms that can afflict your PC, and their cause may not have anything to do with a memory crash.

Excess heat can cause the CPU to malfunction in ways that generate error messages flatly stating that memory is the culprit. The CPU will inexplicably drop pages from memory after the CPU just asked for those pages. The CPU gets confused and produces an error message accusing the memory chips of causing a "Fatal Exception." If that's not misleading enough, messages stating that certain memory pages were never received can appear on the screen.

Strange behavior alone is not proof of a memory problem, but don't be hasty to dismiss the possibility. Memory problems do cause lockups and blue screens of death for no apparent reason. How can one differentiate between a memory crash and something doing a plausible imitation?

Sometimes the BIOS can help. Your BIOS should tell you how much memory you have installed. Many memory failures show up in the BIOS as a loss of installed memory. A high-quality motherboard will have a BIOS that will report the amount of memory in each slot. With some careful sleuthing you can easily calculate how much memory should be in each slot, and use that information to find the memory module that's causing the problem.

There is a free advanced memory test available based on the original Memtest86. Download it from <http://www.memtest86.org>. This is probably the best memory testing tool you could hope to find, free or otherwise, but with all things that seem too good to be true, there are trade-offs. Some of your computer's memory must be accessed by the utility while the tool is running and that range of memory can't be tested. Another downside is that the tool requires you to shut down the computer and run the test from a boot disk. Don't let that stop you from using Memtest86.

Use it according to directions and you will resolve problems that would otherwise be beyond the capabilities of ordinary mortals.

Memory failures can prevent the system from starting up completely. Your machine may attempt to help you by issuing a series of diagnostic beeps on attempted startup. There is no standard for diagnostic beeps so they vary with each manufacturer. You will have to access the manufacturer's web site to translate the series of beeps to meaningful information. It's essential to read the documentation for the motherboard and the BIOS. Some machines don't beep at all; with others a single beep indicates a memory refresh failure.

In a surprising number of cases a memory module has merely worked its way loose over time and is no longer seated properly in its slot. It takes only a few minutes to reseat the memory. If that doesn't help, remove one of the memory modules and turn the machine back on. If the problem persists, replace the module, remove a different module, and repeat until the system starts again. The module most recently removed is the guilty party. You may not be able to use this method if your machine insists that the modules be installed in pairs.

Lastly, don't over-clock your PC without proper ventilation or a reliable method to keep your vital components cool.

Vinny LaBash is a Regular Columnist for the Sarasota PCUG, Florida. Column appeared in the July 2011 issue, Sarasota Monitor. Web: <http://www.spcug.org>. E-mail: <labash (at) spcug.org>.

Of Interest Links (OIL)
Fred Acerri

Report: iOS 5 Will Get Speech-to-Text Controls
<http://www.pcmag.com/article2/0,2817,2390586,00.asp>.

New hacker ring claims attack on cop sites>
<http://tinyurl.com/454herm>.

Experimental Error: The Gray Pride Parade
<http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2011_07_29/caredit.a1100071>.

Jonathan Lunine on Missions to Saturn & Jupiter
<http://sciencewatch.com/ana/st/planet/11augPlanetLuni>.

First observational test of the 'multiverse'
<http://www.ucl.ac.uk/news/news-articles/1108/110802-first-test-of-multiverse>.

What is war good for? Sparking civilization, suggest UCLA archaeology findings from Peru
<http://www.eurekalert.org/pub_releases/2011-07/uoc--wiw072511.php>.

Slide Scanning 2011
By Greg Skalka

On the morning of October 22, 2007, my family, like many others in northern San Diego County, awoke to the threat of wildfires moving into urban areas. Though we were under mandatory evacuation orders, the need to leave was not urgent, so we were able to pack up our four cars over several hours. All the irreplaceable and important items we could fit were loaded, including photo albums, computer cases, external hard drives and my collection of 35 mm slides. We headed up to Orange County to stay for a few days, and fortunately had a house to return to.

Though our neighborhood was never really threatened, the experience left an impression on me. I've owned a digital camera for 11 years, and all of the 40,000 digital photos I had taken in that time were easily transported with us on a single external hard drive. Because I also kept a backup of these files in another geographic location, I was even less concerned about their safety. My collection of 7300 slides taken over 32 years was a big concern, however, since they occupied two large boxes and were the only copies I had.

Though I already owned three film scanners at the time, I had never gotten around to starting the scanning process, as I was still searching for that elusive perfect scanning method. I spent more time researching scanning options after the fires, bought a fourth scanner (a PrimeFilm 3600u film scanner) and outlined my new scanning plan in the film scanning presentation I gave to our group in 2008 (which can be viewed at <http://www.uchug.org/Presentations/Slide%20Scanning.pdf>).

Three years have passed since then, and I've only scanned a few slides. Unfortunately, I've found dealing with these thousands of slides is a daunting task. I'd found a scanner that provided good results, but with a scan time of 1 to 4 minutes each, I'd need to spend the equivalent of 3 to 12 work weeks (of 40 hours each) to complete the task. I could hire out the job, but even Costco's photo services would charge $2100 to scan all my slides. Faced with a large cost in either time or money, I wound up doing nothing, and so my slides still sit in film form, vulnerable and degrading over time.

Fortunately my procrastination has managed to be beneficial, as there are now new film scanning devices available with much shorter scan times. One of these is the Wolverine Data F2D300 35mm film to digital converter <http://www.wolverinedata.com>. It appears to contain the guts of a digital camera, so it captures the image quickly all at once, rather than in a slow scan. It does not even require a computer, storing the photo files in a small internal memory or a removable SD memory card.

The unit is powered from an AC adapter and cable. The cable has a small connector on one end (for the scanner) and a USB connector on the other. The scanner can be powered from AC by plugging the cable USB end into the power adapter, or the unit can be powered from any USB port by using only the cable.

Operation is simple, with only four buttons on the top of the unit. The control menus and the image to be scanned are displayed on a 2.4" LCD display on the

front of the device. The scanner can be set to scan slides, negatives and black & white (negatives, I presume).

Two plastic scanning trays are provided. One tray holds up to four slides in their card stock or plastic mounts; the other holds strip negatives (up to six 35 mm images). The trays have a hinged cover with magnetic latches to hold it closed. The slide tray is easy to load; the negative tray requires more effort to align the film's notches with pegs on the tray's base. A loaded tray is inserted into an opening on the right side on the scanner near the base and then protrudes out the other side. The tray is shifted to allow each slide to be scanned. Detents in the tray help index the tray for each slide or negative, but you can also use the display to make sure the tray is lined up in the scanner correctly.

It is best to place the slide or negative in the tray so that the image in the display has the correct orientation, but there is also a menu selection to flip or mirror the image before scanning. The brightness of the image can be adjusted to some degree before scanning through an adjustment to the internal LED backlight. The brightness can be set to one of seven levels from -3 to +3 (+3 being the brightest, and 0 assumed to be nominal). By some degree, I mean that the "camera" inside the device also appears to have an automatic exposure feature that compensates for the brightness adjustment at times. This means that a change in the brightness setting does not always result in a visible change to the resulting image.

To scan, the OK/COPY button is pressed once; the scan takes only a couple of seconds. The unit then displays a save/edit menu. A second button press saves the captured image to either the internal 25 MB memory or a memory card in the external SD memory card slot. I have only tried a 2 GB SD card in the slot, though the product's box says it is also compatible with SDHC (though this is the only documentation that indicates SDHC capability). The save/edit menu also allows the image to be rotated 90 degrees in either direction (for portrait vs. landscape orientation), though it appears it only changes to portrait mode on the scanner's display. All of my saved images remained in landscape orientation.

The scanner claims a 7.3 megapixel image, which was confirmed by the 3312 x 2208 (nominal) image files I captured. The files are saved in JPEG format with fairly strong compression; the typical image file size is 1.4 to 1.8 MB. The scans I made were of good resolution, with no noticeable compression artifacts. The unit I tested appeared to crop the slide slightly, so the slide mount was not at all visible. I made scans of slides and color negatives and both came out well.

To copy the photo files to a computer, you can simply remove the SD card. The unit must be connected to a USB port on a computer (through the power/data cable) to copy any files stored in internal memory. The scanner can be set to provide a slide show of stored images on its LCD screen. The unit can also display on a TV with a display cable (which is not included), per the documentation.

Overall, I found the unit I tested worked well, providing a reasonable image very quickly. Even allowing an average of 10 seconds per slide to scan (to allow for tray loading), I could scan my entire slide collection

in only 20 hours. This would give me a good quality copy of all my slides in a short period of time. I could then use my high-resolution PrimeFilm scanner on only the select few slides where a better quality scan might be needed in the future.

The only suggestions for changes or improvements to the Wolverine Data F2D300 I found are:

* Provide a JPEG compression adjustment, so that images can be saved at higher quality. The high JPEG compression is my main gripe about the unit.

* Provide a way to disable the automatic exposure feature, so the brightness adjustment works better.

* Provide a way to set the date and time in the JPEG file, so it can be set to reflect when the original photo was taken. The unit currently saves the JPEG files with a timestamp from an internal clock that starts from 1/1/2008 at 12:00 PM each time the device is powered on.

Overall, I found the Wolverine Data F2D300 to be a good value. While I'd prefer it saved images with a lower compression, or ideally with a lossless compression like PNG, its ability to scan so quickly makes it useful when there are a lot of slides or negatives to scan. It may not scan with the highest resolution, but it is definitely among the fastest.

Chapter 2 - When Two is not Better Than One

The Wolverine Data F2D300 unit I used for this review was loaned to me by a member of my user group who won it at the 2011 Southwest Computer Conference (it was donated to the conference by Wolverine Data). After seeing how well it worked and how quickly it could scan slides, I purchased one for myself.

Unfortunately, my unit did not work quite as well as the borrowed one. Instead of cropping the slide image slightly, my scanner had a slightly wider view, so that the rounded inside corners of the slide mount are barely visible. This is not a problem in my estimation; I actually prefer this, so I can crop it myself later if desired. Unfortunately, the images captured are also slightly out of focus. The problem cannot be seen on the scanner display, but is apparent when viewing the images full-screen on a computer display. The files captured by the borrowed scanner are noticeably clearer by comparison.

I called the support number provided with the product (Irvine, CA area code) and was quickly connected to tech support. The person I spoke with confirmed that the focus problem could not be corrected by any adjustment, and that they would provide me with an RMA number to return it. Since I purchased it from Costco (online), I elected to save the return postage that I presumed I would need to pay, and instead returned it to Costco (at a store). I then ordered another F2D300 scanner.

My second slide scanner was a keeper. The image was slightly clearer than even the borrowed scanner. Like the borrowed scanner, the image was slightly cropped, but this new one also had the image shifted down slightly. I am dismayed that this product does not appear to be very consistent between units in image quality, but at least I got one that I am happy with on the second try. I'm not interested in rolling the dice again. Now I can get my slides digitized before the fire season this fall.

Greg Skalka is President of UCHUG (Under the Computer Hood UG), California. From the July 2011 issue of "DriveLight." Web: <http://www.uchug.org>. E-mail: <president (at) uchug.org>

Should You Worry About Image Retention on an LCD Monitor? By Linda Gonse

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I just bought a brand new HP ZR22w LCD flat screen monitor. My understanding always has been that burn-in (also called image retention or image persistence) does not occur on LCD screens. But, an HP help file that came with my monitor dispelled that notion.

"Image retention occurs when the monitor is left ON while displaying the same image for an extended period of time, leaving a 'shadow' of this image on the screen."

I researched the burn-in problem further and About.com, <http://bit.ly/k05clD>, said "Image retention can be corrected in most cases and is easily prevented." That statement was a relief!

The article went on to list methods that could be used to prevent image retention/persistence.

1. "Set the screen to turn off after a few minutes of screen idle time under the Power functions in Windows. Turning the monitor display off will prevent an image from being displayed on the screen for extended periods of time. Of course, this could be annoying to some people as the screen may go off more than they wish."

2. "Use a screen saver that either rotates, has moving graphic images or is blank. This also prevents an image for being displayed in screen for too long."

3. "Rotate any background images on the desktop. Background images are one of the most common causes for image persistence. By switching backgrounds every day or few days, it should reduce the change of persistence."

4. "Turn off the monitor when the system is not in use. This will prevent any problems where the screen saver or power function fails to turn off the screen and result in an image sitting on the screen for long times."

The bottom line is not to be too worried about image burn-in, but keep it in mind when using your LCD monitor and you can easily prevent it from happening.

If somehow it does happen, see <http://bit.ly/k05clD> for instructions on how to correct existing image retention on LCD monitors.

Finally, the HP text helpfully revealed another problem not known to all LCD monitor users, "the fluorescent lights inside the display have a limited lifetime and will gradually degrade." This is reason enough not to leave a monitor on 24/7, even with a screensaver enabled. Use the timed Energy/Power setting to automatically turn the monitor off when your system is idle for a while.

Linda Gonse is Editor/Webmaster, of ORCOPUG (Orange County PCUG), California. From July 2011 issue of "Nibbles 'n Bits." Web: <http://www.orcopug.org>. E-mail: <editor (at) orcopug.org>.

(Above): Gus Issa of GHI Electronics talks about programming for embedded devices. (Below) Tom Callow discusses special features available from Google.

SEMCO Meeting Pictures

(Above): Members get refreshments during break. (Below) Discussions during the break.

BOARD MEETING
8/14/2011
Carol Sanzi

Board Members Present

President Mike Bader, Vice President Richard Jackson, Treasurer Bette Gay, Secretary Carol Sanzi, SIG-IBM Chairman Tom Callow, SIG-Advanced Chairman Franz Breidenich, Publications Committee Chairman Warner Mach, Members-at-Large Bob Clyne and Brian Brodsky and member Chuck Moery. The board meeting was called to order at 12:10 p.m. Arriving late was SIG-Linux Chairman Michael Rudas.

Old Business

Bette Gay reported that the current treasury amount equaled a total of $9,672.60 with $4,921.58 in the checking account and $4,751.02 invested in three Certificates of Deposit. The membership currently is 76. It is time for Gerry Delong and Linda Swita to renew their memberships.

Tom Callow moved to reimburse Carol Sanzi $15.54 for refreshment supplies. Richard Jackson seconded the motion and it was carried.

Bob Clyne reported on the FACUG/APCUG Conference Cruise to the Bahamas January 23 through 27, 2012. There will be numerous conference sessions aboard the Norwegian Sky, a Norwegian Cruise Line ship, leaving from Miami, FL. For further information see <http://www.facug.org/Conference/2012/2012conference-Reg2.asp>. Bob Clyne plans to drive to Florida (2-day trip) and could take passengers, but, of course, it is faster and possibly cheaper to fly.

New Business

A discussion took place questioning the possibility of spending $10 a month to supplement the refreshment table. Bob Clyne stated that the donation amounts should be compared to the cost of refreshment supplies to see if there is a $10 surplus to cover this expenditure. Warner Mach moved for Carol Sanzi to spend $10 a month to enhance the refreshment table. Richard Jackson seconded the motion. A vote of 7 to 2 approved the motion and it was carried.

Richard Jackson gave a summary of the Evaluation Results. He referenced suggestions requesting sessions on computer backups. Tom Callow stated that Gene Barlow gives a remote presentation of Acronis True Image. Mike Rudas offered to present a session on backups as he has one prepared for the Sterling Heights Computer Club.

Warner Mach suggested SEMCO join Focal Press User Group Program. Benefits include two free books each month to be used as giveaways at meetings, a 30% discount plus free shipping, books for review, and possible guest speakers. In exchange the program expects to be mentioned at user group meetings, to either be listed on the user group website or to include their banner ad, and to post an unbiased book review when books for review are requested. A discussion took place questioning the requirements of Focal Press. Warner Mach moved that if we are satisfied with the requirements of Focal Press, then SEMCO would join. Richard seconded the motion. The vote carried the motion with 6 in favor, 0 opposed, with 2 abstaining.

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SPECIAL INTEREST GROUPS (SIGS)

SIG-IBM
Tom Callow

Sept. 11: 1:45 p.m. Backup: Mike Rudas will discuss Data Management in the Terabyte Age: Toward a Philosophy of Backup; including the use of the free discs "Parted Magic" and "Clonezilla Live" to make it easier to backup and maintain a working Windows installation.

SIG-TECHNIQUES
Warner Mach

Sept. 11: 3:45 p.m. Addictive Web Sites: SIG-IBM Chairman Tom Callow will display some of the most addictive Websites on the Internet …if he can tear himself away from them in time for the meeting. Bring your own nominations for the Internet's most addictive Websites."

SIG-LINUX
Michael Rudas
Mike Bader

Sept. 27 (Tues): 6:45 p.m.: At Motor City Free Geek, 1511 Jarvis St. Suite #10, Ferndale, MI 48220. The building is on the Northwest corner of Wanda and Jarvis - The first traffic light south of 9 Mile, on Wanda. Topic: **Fixing Windows With Linux:** How to use the "System Rescue CD" and the "Ultimate Boot CD", along with the "Avira Rescue System CD" to maintain and/or repair a Windows installation.

SIG-ADVICE
Franz Breidenich

Sept. 20 (Tues): 5:30 p.m.: At the Madison Heights Library located at 240 West 13 Mile Rd. one block West of John R. The parking lot entrance is off Brush St. The lot and entrance to the library is located in the back of the library. Topic: General discussion.

Oct. 2011 DATA BUS DEADLINE (7th day after 2nd Sunday in month)
SEMCO Input and Members' Ads—Deadline: Sun., Sept. 18, 11:59 p.m.
Members' personal ads are free. To mail, use Editor address on Page 2; e-mail address: <warnermach@gmail.com>. PLEASE send to arrive sooner than deadline.
Business Ads - Deadline: Second Friday monthly. Contact Editor (address Page 2).

Warner Mach
warnermach@gmail.com
(to post monthly computer group info)

**CALENDAR-OF-EVENTS
OTHER GROUPS**

COMP (Computer Operators of Marysville & Port Huron

Sept. 7, 7 p.m., (1st Wednesday) Jane Wheatly 810-982-1187 or Pam Raisanen E-mail info: <compinfo@greatlakes.net>. Web: <http://www.bwcomp.org>.

Focus: Hope IT User Group

1400 Oakman, Detroit, MI. 48238. Web info <http://www.fhitug.org/>. See web site for details. Pre-registration required.

HUG (Holly User Group)

Sept. 10, 9 a.m.-noon (2nd Saturday) Groveland Twp. Fire Hall, 3085 Grange Hall Rd. & Dixie Hwy., Holly, MI. 48442. Ron McCauley 810-629-9683. Topic: TBA.

MacGroup-Detroit

Sept. 18, 3:00 p.m., Birmingham Temple, 28611 West 12 Mile Rd., Farmington Hills. Info: Terry White, <terry@macgroup.org> or 248-569-4933. <http://www.macgroup.org>. Topic: "Mac OSX 10.7 Lion." Special Guest Dave Mirra from Apple, Inc. SIGs: 2:00 PM.

MacTechnics, (MAC User Group)

Sept. 17, (3rd Saturday); See web site for meeting time and location. <http://www.mactechnics.org>). JoAnn Olson at 248-478-4300. Topic: "Running a Paperless House.".

MDLUG (Metro Detroit Linux User Group)

Sept. 10, 12:30–2:30 p.m., (2nd Saturday); MDLUG meetings will be at The Gaudior Academy located at 27100 Avondale Avenue in Inkster. Web: <http://www.mdlug.org>. Topic: TBA.

Motor City Free Geek

Every Saturday 1 p.m. to 5 p.m. 1511 Jarvis St. Suite #10, Ferndale, MI 48220. <http://www.motorcityfreegeek.net>. E-mail: <MotorCityFreeGeek@gmail.com>. Recycling & Open Source.

MUG (Michigan User Group)

Sept. 13, 6:00 p.m., (2nd Tuesday): Engineering Society of Detroit. 20700 Civic Center Drive, Suite 450, Southfield, MI 48076 . <http://www.mug.org>. Topic: TBA.

Oak Park Computer Club

Every Fri., 10:15 a.m. at Oak Park Library, Oak Park Blvd. west of Coolidge.

Royal Oak Computer Club

Every Wed., 12:30 to 2:30 PM at Mahany/Meininger Senior Community Center, 3500 Marais Ave., Royal Oak, 48073. Near Crooks & 13 Mile. Guest speakers & regular monthly speakers. <http://tinyurl.com/royaloakcc>.

SHCC (Sterling Heights Computer Club)

Sept. 6, 7:30 p.m.(1st Tues); Macomb Community College South Campus, Bldg. K, 14500 E. 12 Mile Rd. Don VanSyckel <Don@VanSyckel.net>, 586-731-9232; Web: <http://www.SterlingHeightsComputerClub.org>. Topic: "Data Management in the Terabyte Age. File management, Partitions, and Backups for Modern PCs" Presented by Michael Rudas.

Mike Bader has been helping the Oakland Shelter develop their computer lab. He just finished getting the network running. They are asking for volunteers to teach. Mike Rudas offered to help. Silicon Alley is also donating equipment.

Bob Clyne moved to adjourn at 12:58. Carol Sanzi seconded the motion and it was carried.

AUGUST REFRESHMENTS

Coordinator: Richard Jackson
Donors:
Brian Brodsky
Warner Mach
Ken Phillips
Carol Sanzi

Pictures: Recent SEMCO Meetings: <http://www.tinyurl.com/y8cm99e>
Video: Recent SEMCO Meeting: <http://www.tinyurl.com/363vnbd>

Podcasts: Podcasts of SEMCO meetings can be found at: <http://www.semco.org/podcasts.htm>.

COMPUTER RESOURCE PEOPLE

This is a list of members willing to be resources for other members to call when they have hardware or software questions.
Are you willing to help members learn?
Which software programs are you familiar enough with?
It is not necessary to be an expert, but just have some familiarity with the program and be willing to help someone starting to learn it. Please give this some thought and volunteer at the next group meeting.

Almost Anything: Vander-Schrier	**MS Office for Windows:** Callow
AutoCAD: Comptois	**MS Word:** Clyne
Genealogy: Cook	**Networking:** Callow
IBM PC Hardware Issues: Clyne, Yuhasz	**Novell Netware:** Yuhasz
Operating Systems: Callow, Clyne, Yuhasz	**Quicken:** Clyne
MAC Hardware and OS Issues: Yuhasz	**Geocaching:** Cook
Security: Bader	**Relational Database Programming**: Lis

Bader, Mike—586-573-7330, 9am–8pm................... mdbader@flash.net
Callow, Tom—248-642-5770, 9am–5pm................. tcallow@monaghanpc.com
Clyne, Bob—810-387-3101, 9am–10pm................. clyne@mich.com
Comptois, Jerry—248-651-2504, anytime
Cook, Stephen—313-272-7594, eves....................... scook48227@ameritech.net
Lis, Bernie—248-669-0101, 10am-8pm .... BerlLis@comcast.net
Vander-Schrier, Jack—586-739-7720,12–8pm .... jvanders@comcast.net
Yuhasz, Steve...Help@yuhasz.org

SOUTHEASTERN MICHIGAN COMPUTER ORGANIZATION, INC.

SEMCO CALENDAR

Engineering Society of Detroit
20700 Civic Center Dr., Suite 450, 4th Floor
Southfield, MI. 48076
42°29'7" N by 83°14'29" W

Sept. 11—SUNDAY (Meet 2nd Sunday)

SEMCO Board Meeting at 12:00 noon. For Officers and SIG Chairpersons. Other members are invited to attend.

SEMCO General Meeting at 1:30 p.m.

Special Interest Groups (SIGs)

SIG-IBM, 1:45 p.m., Backup: Mike Rudas will discuss Data Management in the Terabyte Age: Toward a Philosophy of Backup, including the use of the free discs "Parted Magic" and "Clonezilla Live" to make it easier to backup and maintain a working Windows installation.

SOCIAL PERIOD 3:15 p.m., Refreshments! (Reminder: We must continue to maintain a neat environment.)

SIG-TECHNIQUES, 3:45 p.m., Addictive Web Sites: SIG-IBM Chairman Tom Callow will display some of the most addictive Websites on the Internet …if he can tear himself away from them in time for the meeting. Bring your own nominations for the Internet's most addictive Websites.

SIG-ADVICE, Sept. 20 (Tues): 5:30 p.m.: At the Madison Heights Library located at 240 West 13 Mile Rd. one block West of John R. The parking lot entrance is off Brush St. The lot and entrance to the library is located in the back of the library. Topic: General discussion.

SIG-LINUX , Sept. 27 (Tues): 6:45 p.m.: At Motor City Free Geek, 1511 Jarvis St. Suite #10, Ferndale, MI 48220. **Topic: Fixing Windows With Linux:** How to use the "System Rescue CD" and the "Ultimate Boot CD", along with the "Avira Rescue System CD" to maintain and/or repair a Windows installation. .
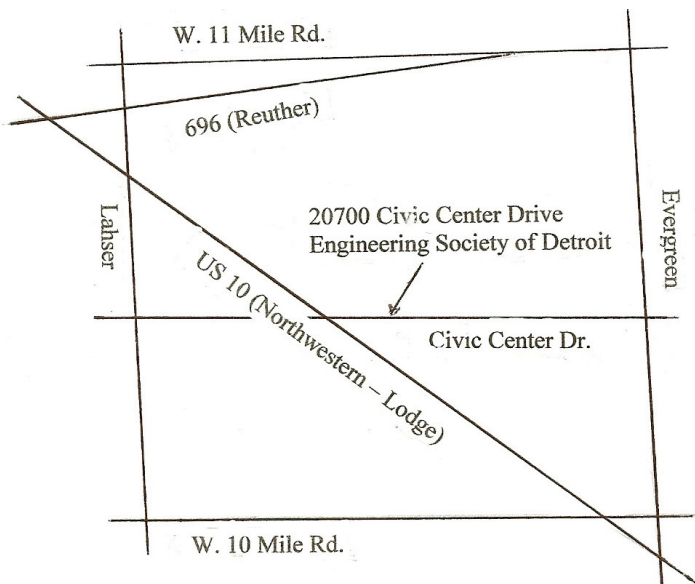
Oct. 9–SEMCO Sunday

http://www.semco.org
PUBLIC INVITED

(Please copy this and the next page to post on your bulletin board)

SEMCO Meetings at [Engineering Society of Detroit](#)
20700 Civic Center Drive, Suite 450, 4th Floor
Southfield MI 48076.
42°29'7" N by 83°14'29" W

From I-696 exit at Evergreen. Take Evergreen south to Civic Center Drive. Civic Center Drive is about halfway between I-696/Eleven Mile Rd. and 10 Mile Rd. Turn west, right if you are coming from the north, onto Civic Center Drive. Follow Civic Center Drive, watching the number signs on the right. When you get to the 20700 sign turn right, north, and follow the drive until you arrive at the southwest corner of the brown building with the Engineering Society of Detroit sign near the top. Turn right, east, and go past the front of the building. When you reach the end of the building, turn left, north and go to the back of the building and turn left, west, again. The parking lot will be on your right. The entrance is in the center of the building. Park in back of building. Enter the rear door. The ESD office is on the fourth floor.

SouthEastern Michigan
Computer Organization, Inc.
P.O. Box 707
Bloomfield Hills, MI 48303-0707

SEMCO (future meetings)
September 11
October 9

SEMCO: A Community Organization
Helping People for the 21st Century