

# TOGGLE

THE MICROCOMPUTER TURN (ON)

MONTHLY NEWSLETTER FOR TACOMA-SEATTLE AREA MICROCOMPUTER USERS

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### Library News

- None available at press time. Come and see what Librarian Tom Stepanek may have for us

## UPDATE

### Communications

In *Which is Fastest? DSL, Cable or Fiber?* the author gives a brief summary of the speeds and services provided by the various wire capabilities.

In *Geez G-mail* the author gives some hints on making G-Mail more "user friendly". Worth a look if you are considering switching to G-Mail.

In *Get G-Mail On Your Desktop* the author briefly discusses a couple of features of G-Mail such as its relationship to Google and Adobe Air.

In *Tips for insuring privacy on the Internet* the author warns:

"When posting information to the Internet, keep three things in mind:

1. You can't restrict where it will go;
2. You can't restrict who will see it; and
3. It will stay there forever."

... then goes on to discuss risky behavior and what to avoid. Worth a look if only to refresh your practices.

### Operating System

In *Microsoft Standalone System Sweeper (Beta)* the author says:

"A few years ago Microsoft released a series of free security applications, first as "Windows Defender" an anti-spyware application, and now a suite of applications including anti-virus under the "Security Essentials" umbrella.

The newest component is Microsoft Standalone System Sweeper, which is available as a beta release. It can find and remove root kits, malware and virus infections. This is most definitely not a replacement for anti-spyware and anti-virus packages, instead is it a tool to be used to clean a computer that has already been compromised. "

In *The Registry: What's it all about?* the author discusses how to manipulate and fix the registry if you have problems but gets into HKEY commands so you need to know what you are doing. But first, backup, backup, backup.

In *Force Video With Text Mode* the author tells us what to do when the screen goes blank and nothing seems to bring it back. You may never need this tip but it is a good one to know.

### Software

In *Reflections on Disk Imaging Software* the author after trying many other imaging programs has settled on a free edition of Macrium Reflect. Take a look.

In *How to Cheat in Photoshop CS5* the author says: "This is not a "how to cheat" book. It's a "get the look you need" book. And it's great! It's not a book for absolute beginners. You really need a basic understanding of Photoshop first. But if your day job is image composition, this book is exactly what the doctor ordered. "

### Hardware

In *Manage Hard Drive Usage* the author notes that even though hard drives are huge so are software and data files. You may be filling up those huge hard drives faster than you think. RidNacs is an elegantly simple drive space analyzer, and its free.

In *Choosing a Mouse* the author Sandy Berger discusses the computer mouse and lists advantages of an optical mouse.

In *Keyboard Without a Print Screen Key* Carl Tenning talks about a new keyboard that didn't have a Print Screen key and how he got around that short-coming.

**COMMUNICATIONS NOTES & TIPS**

**Which is Fastest? DSL, Cable or Fiber?**

by Bob Rankin, August 2001 Monitor,  
Rochester Computer Society, Inc.

DSL is the original “broadband” consumer Internet technology. It operates over the same copper wires that bring telephone service into your home. Those wires are connected to a “central office” facility. The maximum speed you can get on a DSL connection is highly dependent on how far your home is from the central office (CO). The theoretical maximum download speed of DSL is about 40 Mbps.

Cable modem technology runs over coaxial cable, the thicker, shielded wire that brings cable TV into your home. Coaxial cable may be connected to cable service provider facilities up to 100 miles from your home. The theoretical maximum speed of a cable Internet connection is 400 Mbps - ten times faster than DSL.

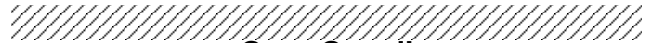
But you won’t see anywhere near the maximums from either cable or DSL. Service providers throttle download speed to each home in order to serve more customers. Additionally, the number of users in your service area will affect how much bandwidth is available to each user. You may have noticed that your Internet connection is slowest in the late afternoon and early evening, when all of your neighbors are online. Generally speaking, cable service providers deliver significantly faster download speed compared to DSL providers. Typical cable modem download speeds average around 10 Mbps, while DSL is likely to be in the 3 to 6 Mbps range. In most cases, you can pay a higher monthly subscription rate to get a faster connection.

If you live in a very rural area, you might not be able to get DSL, cable or fiber optic internet access. So for completeness, I’ll point you to my related article on Satellite Internet Service. Download speeds for satellite internet are even slower than DSL (ranging from 1-5 Mbps), and they can be impacted by the weather, so consider this option as a last resort.

**Fiber is Faster!**

Fiber optic technology replaces copper wires with glass fibers, and use light instead of electricity to carry Internet signals to the home. Fiber requires the build-out of an all-fiber network to every residence in a service area, whereas cable and DSL networks are already in place. Thus, fiber is only slowly spreading across the country. But when fiber reaches your home, it will make a big difference in your Internet experience. Because fiber is an end-to-end connection, your internet service isn’t shared with all your neighbors, and won’t bog down at peak usage time periods.

Verizon’s FIOS is a fiber optic internet offering, available in a limited but rapidly expanding number of coverage areas. Download speeds range from 15 to 150 Mbps. I’m fortunate to live in an area where FIOS has been available for several years, and I can say that it’s blazing fast, all day long. AT&T’s U-Verse is a competing fiber optic product, but they max out at 24Mbps. See the coverage maps for Verizon FIOS and AT&T U-Verse.



**Geez G-mail**

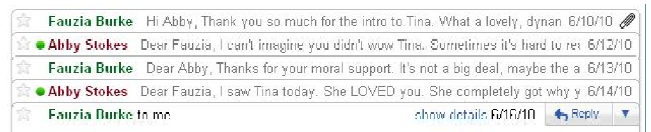
by Abby Stokes

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When I’m asked what free web-based e-mail I recommend it is NOT Gmail. I know, I know. Your kids and grand kids are all over you to use Gmail instead of AOL. I agree that AOL is inconsistent and not as compatible with many handheld devices, but Gmail’s design is not particularly “user-friendly” (a misnomer when referring to anything computer). I would suggest Yahoo over Gmail, but I understand that your family has more influence over your decisions than I do.

So, if you’re going to take the plunge and use Gmail, let’s make it as “friendly” as we can by customizing it to meet your needs.

My first criticism is that e-mails stack on top of one another:



For a newbie what you see above can be conceptually confusing and, for those that have dexterity issues, this format is difficult to manipulate - it requires very good aim.

I hear your daughter snapping back that one could click on Expand All in the right sidebar. The problem with this option is that Google then presents the oldest e-mail on top and the most recent must be scrolled down to - not an optimal choice for someone just learning to scroll or who has memory issues. Rather than debate the good, bad, and ugly of Gmail, let me offer you a way to reformat the Inbox. This stacking is referred to as “conversation view.”

To turn **conversation view off**:

- 1) Click on **Settings** (top right)
- 2) Scroll down until you see **Conversation View**:
- 3) Click in the circle (aka radio dial) to the left of **Conversation viewoff**
- 4) **MOST IMPORTANT** - Scroll all the way to the bottom and click on **Save Changes**


I am asked regularly “How can I change the font to be larger on all of my outgoing e-mails?” This is a courtesy to the reader

that most older users are more apt to opt for. It is an elusive option with Gmail, but it does exist.

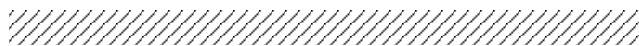
#### To enable change font style:

- 1) Click **Settings** (top right)
- 2) Click the **Labs** tab (far right)
- 3) Scroll down to **Default Text Styling**
- 4) Click in the circle to the left of **Enable**
- 5) **MOST IMPORTANT** - Scroll all the way to the bottom and click on **Save Changes**

While you're visiting Settings or the Lab tab, take a look around and see what else you might want to customize. Make a note of the original setting - in case you don't like the change you've made, you can revert back to what it was.

For those teaching Gmail to a new user, be sure to really hit home that the arrow to the right of Reply  is where the most common actions will be hidden - Forward, Print, Reply All, etc. Why did Gmail choose to hide these features? Mine is not to wonder why. Mine is just to show you how.

You're capable of learning anything - well-designed or not. Just keep in mind when you think the problem is you, it's more likely a thoughtless design choice. Take a deep breath and rise above it!



## Get Gmail (GeeMail) On Your Desktop

from Pearly Bytes

Gmail is great free email service. It has strong organizational features and a solid layout. Plus, it integrates well with other Google services.

Using it in a Web browser can be a hassle sometimes, though. You can only use it when you have Internet.

You could use a desktop-based email program like Thunderbird. But that requires learning different controls, and you can lose some functionality. That's where GeeMail saves the day. It's a lightweight email program based on Adobe Air. Essentially, it's Gmail on your desktop. It has the same layout and everything. Just sign in with your Gmail username, and you're on your way.

You can read and write email like you normally would. Plus, it imports your existing labels and folders. You don't have to do anything differently. It can also be used without Internet access. That's great if you're on a plane, for example. You can write email offline and send it later.

GeeMail does require that Adobe Air be installed. However, it's a free download from Adobe. The link is on the GeeMail download page.

Cost: Free

Systems: Windows XP, Windows Vista, and Windows 7

## Tips for ensuring privacy on the Internet

Big Bear Computer Club Bearly Bytes September, 2011

When posting information to the Internet, keep three things in mind:

1. You can't restrict where it will go;
2. You can't restrict who will see it; and
3. It will stay there forever.

If you want to keep something private, don't post it. In the old (pre-Internet) days, if something you told a friend in confidence became public, it was his word against yours. It's much harder to deny a picture of you or an e-mail with your return address. Information about you is most commonly posted on your personal Web site, on social networks, such as Facebook, and on photo sharing sites, such as Flickr. Very few people would post their social security numbers or bank passwords, but you must also be careful with other data.

Be careful about disclosing information that could be used by an identity thief; this includes your birthday, address, and phone number. Although much of this is readily available, you don't want to make a thief's job easy. Your strategy here is like that of locking your car and house; it's not difficult to break into these, but if your neighbor doesn't lock up, he provides an easier, more attractive target.

### Keep personal data private

Don't forget that many banks make available hint questions to "help" you if you forget your password, so you should not disseminate personal data used in the hint questions, such as your mother's maiden name, your high school, your pet names, etc. You should avoid taking the quizzes offered by some social websites, as they often ask the same questions about your personal life that are used in password hints.

Don't advertise when you will be away, even for a short time. The time to talk about your cruise or a concert is after you return home. You wouldn't put a note on your door saying that you will out for several hours or days, and you certainly don't want to do this on the Internet, where the information is available to many more people.

Protect your children. Don't disclose their names, ages, addresses, phone numbers, e-mail addresses, or where they attend school, especially if you show their pictures. Small children should not have a computer in their bedroom; instead it should be in a public area of the house where you can check on their on-line activities. If your children have a social Web site, insist that you be a "friend" and check it often. This has to be done carefully, especially with teens, lest you appear to be meddling. However, since they already think you are a fossil, you probably won't damage your reputation much.

Although it isn't a privacy issue, don't publicly criticize your company or boss. While we would like to think that our employers are tolerant, some aren't, and an intemperate outburst could damage your career. This is especially true if your remarks could be interpreted as racial, religious, or sexual bias, as these could expose you to legal prosecution. Indeed, you

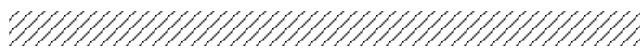
will most likely regret any public tirade. At the least, it will make your friends think less of you. This also applies to e-mail. If you are really steamed, don't mail it immediately but let it sit as a draft for a day; then read it carefully after you have calmed down.

### Don't disclose risky behavior

If you like to smoke, drink, rock climb, race cars, explore caves, or hang glide, your insurance company could decide they won't pay a future claim, because you failed to disclose the extra risks associated with such activities. As far as I know, they aren't yet doing this yet, but why take the chance they might begin, say 20 years from now,

Be very careful about posting pictures of you or your friends in compromising situations. Young people are especially likely to be trapped by this. In the recent election campaign, some candidates had to live down pictures taken at parties when they were in their teens and twenties. This is a difficult problem, since cell phone cameras are now ubiquitous and such pictures are often published by "friends." You can contact the Web site and demand that the offending material be removed, but a better strategy is to be careful in public.

Even though you never publish anything, information about you is splattered all over the Internet. For example, a search for "Dick Maybach" produces almost 600 hits, and because my name is unusual, most of the them are about me. If you have a common name, you can to some extent hide in the haystack; for example, "John Doe" produces almost 3,000,000 hits. However, even with a common name, adding a few details, such as your city (for example "John Doe" and "Middletown NJ"), will greatly improve the relevance of the results. If you find something to which you really object, you can contact the site and ask that it be removed, but success here is doubtful. Used by Permission Winners Notepad, June 2011 WINNERSWINDOWS users



## Manage Hard Drive Usage

Asseen in Big Bear Computer Club Bearly Bytes  
September 2011

Modern computer hard drives are huge. They're thousands of times larger than hard drives of a decade ago. You should never have to worry about running out of space.

Unfortunately, that is still a worry. You're storing more information than you were a decade ago. Music and movies take up a lot of space. Modern operating systems are hefty as well.

Running out of drive space isn't a good thing. You want to keep an eye on where your space is going. That's where RidNacs comes in.

RidNacs is an elegantly simple drive space analyzer. Just point it at a drive or folder. You'll get an easy-to-read analysis of your drive space usage. It will show you exactly what is

taking up space.

Files can be deleted in RidNacs. You can also tag folders to keep an eye on them. A full hard drive won't take you by surprise again.

Cost: Free Link: [www.splashsoft.de](http://www.splashsoft.de)  
System: Windows XP, Vista, 7

## OPERATING SYSTEM NOTES & TIPS

### Microsoft Standalone System Sweeper (Beta)

by Bruce Preston

Suppose for a moment that your computer has been hit by some sort of malware such that it won't even boot. This can happen, even if you have a full-time anti-virus product running, as there is zero-day exposure the interval between a malware item being released "into the wild" and it being identified and the signature being distributed to anti-virus applications.

If you call your computer manufacturer's support line, in more cases than not, the advice will be the knee-jerk reaction: "Reinstall Windows from you recovery CD" which often results in the machine being reset to factory configuration with the subsequent loss of products installed after purchase, software updates, and in the worst case scenario loss of data.

You did create the recovery CD(s) immediately after you bought the computer, didn't you? Having the image on a partition of the hard drive does you no good if the drive fails. And while I'm asking, do you have a complete, current backup of your data?

Let's assume that you didn't. What now?

A few years ago Microsoft released a series of free security applications, first as "Windows Defender" an anti-spyware application, and now a suite of applications including anti-virus under the "Security Essentials" umbrella.

The newest component is Microsoft Standalone System Sweeper, which is available as a beta release. It can find and remove root kits, malware and virus infections. This is most definitely not a replacement for anti-spyware and anti-virus packages, instead is it a tool to be used to clean a computer that has already been compromised. The word Standalone refers to the fact that it must be run from either a bootable CD/DVD or from a bootable USB flash drive. The product is a free download, and comes in either a 32-bit or 64-bit version. When you run the installation program, it asks you for either a bare USB flash drive or blank recordable CD or DVD media. The machine I used for testing does not support boot from USB, and CD media costs a lot less than dedicating a USB flash drive.

I don't have a machine that won't boot, but decided to do a test run to see how the product works. It is a good idea to be familiar with a recovery tool rather than learn its use when under duress. I used a Windows XP SP3 machine that has been kept up to date as far as critical updates. I downloaded the 32-bit version from <http://connect.microsoft.com/systemsweeper> you must go through the usual Windows Genuine Advantage test before you can download it.

Upon launching the installer, it informed me that I also needed Image Mastering API v2 (kb932716-v2) which is used to write a CD image from within an application. The link in the pop-up alert just took me back to the system requirements page at the above link, but IMAPIv2 wasn't referenced. I had to search for it, and finally found it here: <http://tinyurl.com/3h7xqm2>

Once IMAPIv2 was installed the installation proceeded with a further download that it then burned to a CD.

To run the sweeper, put the CD in your drive and then restart the computer. At the "Boot from CD" prompt press any key and your computer will boot a subset of Windows 7 and immediately launch the Standalone System Sweeper. Agree to the terms, let it update the signature database (which implies that you have an internet connection,) and then click the SWEEP item in the top bar menu.

The first thing that I noticed was the notification "This may take a few hours" That should go in the Guinness Book of World Records as an understatement. On my machine it took 9:53:41 yes, almost 10 hours! It examined 6,388,935 files (131 GB used.) It found two items one Trojan at the Severe level in a downloaded utility that purported to unlock files left in a locked state. It was several years old and I had uninstalled it but never blew away the installation package. It identified a component that appears to have targeted eBay activity. I let the program delete it. (By the way the Mozilla organization has File Assassin that performs that function well.) The second was a medium level warning about a left over component of an uninstalled copy of Partition Magic v5. I let System Sweeper delete it as well.

Since my machine was never in a won't boot state, I can't report that Standalone System Sweeper would fix that condition, but recommend that you create the appropriate 32-bit or 64-bit CD against the possibility that some day you may need it. I was very impressed that it found two things that other products had missed. I've created the 64-bit CD as well just in case.

## The Registry: What's it all about?

By Phil Sorrentino, President, Sarasota Personal Computer Users Group, FL

July 2011 issue, Sarasota PC Monitor  
[www.spcug.org](http://www.spcug.org)      [president \(at\) spcug.org](mailto:president(at)spcug.org)

The Windows Registry is a place in your computer that maintains information relating to all of the essential components of your System: the Operating System (OS), Applications (Apps), Users, and Hardware. It is a database that defines your System and how it operates. (A "database" being an organized collection of data for one or more uses, typically provided in digital form.) Entries in the Registry change whenever you make a change to any of these areas. You can think of it as a "scratch pad" that remembers all the details of how your System is setup, and how you like to use it. The Registry can be manually changed using the Registry Editor, "regedit", but this should only be undertaken with the utmost of care and caution. Before you attempt to change the Registry make sure you have detailed directions from a well-known, trusted source. Mistakes made to the Registry, at worst, could make your computer un-useable, requiring you to start all over with a fresh installation of the OS.

Most mistakes may only create a problem with a certain part of the computer's operation. In these cases, restoring the Registry can fix the mistake. So, make sure that before you attempt to change the Registry, you "backup" the Registry. This can be done by creating a Restore Point, or Exporting the Registry to a safe place on your hard drive. If you determine a mistake was made, you then could go back to the Restore Point before you made the changes to the Registry, or you could Import the old Registry from the "a priori" saved Registry. Again, don't do this unless you have very good direction and you are very convinced that you have to make the changes.

So what does The Registry look like? And how is it organized? The Registry is organized in a hierarchical fashion, just like folders on our computers. Think about "Documents". It typically contains Pictures, Music, Video, etc., and if you look into any of these, you will further find folders that are there to organize that particular type of file, pictures, music, or videos. Similarly, the Registry has basically five\* high level items; in the registry they are called "Keys", but you can still think of them as folders. (You may also see these keys referred to as "hives".)

The names will look strange to most of us, with the possible exception of those that may have developed software code sometime in the past.

These five are:

HKEY\_CLASSES\_ROOT,  
 HKEY\_USERS,  
 HKEY\_CURRENT\_USER,  
 HKEY\_LOCAL\_MACHINE, and  
 HKEY\_CURRENT\_CONFIG.

See, I told you they would look strange. Each of these “keys” contains a specific type of information shown in the following table.

KEY	Contains Information Relating To:
HKEY_CLASSES_ROOT	Computer’s User Interface
HKEY_USERS	Each User’s Account
HKEY_CURRENT_USER	The user that is currently logged in to Windows
HKEY_LOCAL_MACHINE	Hardware and Software found on this particular computer
HKEY_CURRENT_CONFIG	The machine’s current configuration

(\*There are actually other High Level Keys in the Registry, but they are not accessible with Regedit, and hence cannot be easily changed. These keys are more dynamic and contain information relating to the computer’s runtime operations.)

Regedit works very much like Windows Explorer (which has been called the keys to the kingdom, many times by yours truly). Select an object in the left pane and its contents is shown in the right pane. An example of an open Registry is shown below:

Notice the hierarchical arrangement of the folders in the HKEY\_CURRENT\_CONFIG. “Software” followed by “Microsoft” followed by “windows” followed by “CurrentVersion” and finally “Internet Settings” which is selected and the contents of which are shown in the right pane. As with folders this implies that “Internet Settings” is contained within “CurrentVersion” which is contained within “windows”, which is contained within “Microsoft” which is contained within “Software” which is contained within the HKEY\_CURRENT\_CONFIG registry key.

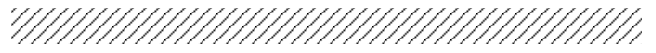
Selecting the lowest level key in the left pane displays the contents in the right pane. The contents are individual items that control some operation within the computer. Each item has a Name and a Data Type and a Data Value. Data Types can take on only certain Data Values, only those values determined by the Data Type. These again are details that, I think, will only look familiar to someone who has been involved in programming in the past. However, it is good to see these so that if you try to change the registry you will better understand the directions being given. Here are a few of the Data Types and a brief description of their Data Values.

Name	Data Type	Data Description
Binary Value	REG_BINARY	Raw Binary Data
DWord Value	REG_DWORD	Integer That is 32 bits long
String Value	REG_SZ	Fixed Length Text String
QWord	REG_QWORD	Integer that is 64 bits long

So, I guess by now I’ve lost most of the readers, but if you do want to use Regedit, the above information will be useful because the directions to change the registry look very cryptic, even after becoming familiar with the above information. A typical set of directions to change the Registry may look like the following. (This change to the Registry was made to fix a networking problem.)

Click Start, select Run, type regedit, and press Enter. Navigate your way to the following Registry key:  
**HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\NetCfg\Parameters**  
 Key: DhcpNodeType  
 Value Type: REG\_DWORD - Number  
 Valid Range: 1,2,4,8 (B -node, P-node, M-node, H-node)  
 Default: 1 or 8 based on the server configuration  
 Change value to 0.

There are times when a change to the Registry is just what the doctor ordered, but try never to get into the situation where it is necessary. A more prudent plan is to create an Image of your System when it is operating properly and go back to that whenever you get into trouble from a virus attack or a hardware failure. The Registry might be a nice place to visit (and appreciate) but you dont really want to spend very much time there.



### Force Video With Text Mode

As seen in Sept 2011 Big Bear Computer Club’s Bearly Bytes

Here’s a scenario. You’re studiously working on your laptop or desktop, when all of a sudden your screen goes blank. You can swear that the computer is still on, though! What do you do? It might be a serious video error, or perhaps your display driver decided to go on a coffee break for a bit, but no matter what you press, the video just won’t come back up! Today I’m going to teach you what to do in this situation to force an answer out of your computer. You may never actually need this tip, but for the few that might, it’s a lifesaver! So here’s what you do if your screen goes blank. There’s a little bit of magic in this technique, so have faith! Press the Windows Key+R. This will bring up the run command. Yes, I know, you won’t be able to see it if your screen is blank, but trust me, it’s still there. Type cmd. This brings up a command prompt. Now, here’s the spell. Hit Alt + Enter. This toggles full screen mode; putting your display into what is known as text only mode. If your display is only experiencing a minor glitch, this should reset your video, allowing you to go back to work. Type Exit to leave the command prompt, and you’re all set!

If it doesn’t work, try a couple more times before you go calling your guru for help!

~ Andrew @ Worldstart.com ~ <http://www.worldstart.com> ~ Free Computer Help, Shortcuts & Keyboard Tricks

## SOFTWARE NOTES & TIPS

### Reflections on Disk Imaging Software

Ottawa PC User Group

As OPCUG members will know, I'm a real fan of disk imaging software for backup purposes. I have had many successes with such programs, but I have also had my share of heartaches. In particular, I found that I really couldn't get along with the user interface in the most recent incarnation of Acronis True Image Home 2011 (<http://www.opcug.ca/public/Reviews/TrueImage2011.htm>). Consequently, I set my sights on finding (a) a suitable replacement, and (b) preferably one which could be categorized as free and/or opensource software.

My first foray, with HDClone 4 (<http://www.opcug.ca/public/Reviews/HDClone4.htm>), was pretty much a disaster. The free version of this program proved to be severely crippled and essentially useless. Then I tried Paragon Backup & Recovery 2011 (<http://www.paragon-software.com/home/br-free/>) which worked well in terms of backup, but the rescue disk had difficulty finding the resulting image on my external USB drive when it came time to test the recovery function in earnest.

Finally, I came across the free edition of Macrium Reflect (<http://www.macrium.com/reflectfree.asp>) which seems to do everything that I want. As with many such programs, the basic operations of backup and recovery are handled by means of wizards that make it very easy to run either process. But, Macrium Reflect also has a couple of unusual tricks up its sleeve that make it worthy of consideration for prime time use.

The main task any disk imaging program has to accomplish is to backup a hard drive and Macrium Reflect makes this process exceptionally easy. In the left column of the main screen is a list of frequently used tasks. The first item on this list is "Create a backup image of an entire disk or selected partition(s)". Clicking on this item brings up a wizard that guides you effortlessly through the process.

Firstly, using a series of check boxes, you select a disk or partition that is to be imaged. Next, the location for the stored image is selected. This may be a local hard disk (accessed through a drop-down menu), a network drive, a CD or DVD. By default, the program assigns a name to the image based on the partition ID; however, this is easy to override. Choosing a file name such as d\_datadrive\_07jun11 results in a file actually named d\_datadrive\_07jun11-00-00.mring (or a series of such files - 01, 02, etc. - depending on the storage medium).

The penultimate screen of the wizard provides summary information related to the specified task. An "Advanced" option let's you further customize the backup by specifying

the degree of file compression, the component file size, and allowing text entry into a comment field. By default, the backup process uses "intelligent sector copying" so that, for example, the page file and any hibernation file are not copied to the image in order to save space. This can be overridden by specifying that a clone of the disk should be made.

The final options in the backup process are to run the task immediately or to save the backup instructions as an XML backup definitions file. This latter option is one of the neat features of Macrium Reflect. It effectively provides a mechanism for running the backup at a later time or, by tweaking the XML file, running a similar task. For example, storing my initial backup set produces the XML tag:

```
<file_name>d_datadrive_07jun11 </file_name>. Clearly, editing the file and changing the date in this tag would allow me to run a backup on my data drive using my standard set of backup instructions but with a customized date being included in the image file name. Stored XML definition files are available through a tab on the main screen.
```

Selecting a given file activates a menu of icons that include options to run the file immediately, edit the file, or schedule when it should be run (e.g. daily, weekly, specified date/time).

The second major tab in the list of tasks provides access to the restore options. The basic image restoration process is more or less the reverse of the backup procedure. Once again, a wizard allows the selection of items such as the image and partition to be restored, the location to which the image is to be recovered, options for the partition type (active, primary or logical), if the image should be verified before recovery is attempted, and whether or not the master boot record for the disk should be restored.

A second option on the restore tab allows browsing through the files and folders in a disk image using Windows Explorer. Selecting a partition within a stored disk image mounts the partition in read-only mode and assigns a drive letter. The virtual disk is then available in Windows Explorer and individual files or folders may be retrieved from the image.

The final option in the list of tasks is "Other Tasks". These include checking the integrity of a disk option, creating a rescue disk (CD), and editing the program's configuration file in order to change the defaults.

The means of creating rescue disks is yet another of the interesting features of Macrium Select. By default, the system will create a Linux-based bootable CD. This worked fine with the Western Digital external USB drive that I typically use to store my disk images. However, sometimes Linux rescue disks have difficulties with external USB drives and cannot be used to retrieve stored images directly. In such cases, and for users of Windows XP and Server 2003, Macrium Reflect provides a second option. The program will create a rescue disk, using Bart PE (<http://www.nu2.nu/pebuilder/>), in the form of a Bart Preinstalled Environment bootable Windows CD-ROM. A Macrium Reflect PE-builder plug-in is included on the rescue disk such that booting the CD, uses XP's system files and

drivers, together with the Macrium Reflect software, to run the restore process. Effectively, the CD boots into a lightweight version of XP, and Macrium Reflect operates in the Windows' environment. And, external USB drives seem generally happy to perform under such conditions.

So, Macrium Reflect has all of the basic functionality to create and restore backup images of entire hard drives or of individual disk partitions. The software includes an excellent help file, with clear text and images describing all of the program's operations.

Now, the program once installed may work just fine, but getting it installed can be a bit of a problem. That was certainly my experience in Vista. [This is a problem with good old Windows Vista - a subsequent installation under Windows 7 went without a hitch.]

Firstly, it should be noted that when downloading the free edition of the software, the user is re-directed to CNet's web site. The downloaded package appears to install normally and creates an icon on the desktop. But, when the program is run from this icon, it doesn't just load, it goes into a Windows configuration mode and, in my case, stalled with a "Fatal error during installation" message.

Checking on this error for Macrium Reflect determined that the program must be run as an administrator, but there was no "Run as administrator" option in the right-click context menu. I tracked down a Windows support item (<http://support.microsoft.com/kb/922708>) that detailed a workaround for this issue. The trick is to open the folder that contains the installed program file and right click on this file to bring up the run-as-administrator option. The Windows configuration process now runs, using a built-in license key, and finally Macrium Reflect is launched.

To set up the program so that it automatically runs in administrator mode, you right-click on the program's icon, click on Properties, the Compatibility tab, "Show settings for all users", and check the box marked "Run this program as an administrator". Note that on exiting the compatibility tab, "Run this program as an administrator" is no longer checked; however, the program does actually run in this mode. Very bizarre, but it works!

Macrium Reflect clearly has some issues in terms of installation under Vista but, once it is properly installed, it is exceptionally easy to use and offers very flexible backup, restore and image browsing capabilities. The full edition of the software (US \$39.99) adds many features, including incremental and differential backups, encryption, and technical support. But, if you can live with basic backup and recovery options, Macrium Reflect Free Edition may be just what you need.

Bottom Line  
Macrium Reflect Free Edition  
Version 4.2.3584  
Macrium Software  
<http://www.macrium.com/reflectfree.asp>

## How to Cheat in Photoshop CS5

By Donna Kamper, Tucson Computer Society, AZ  
April 2001 issue, TCS eJournal [www.aztcs.org](http://www.aztcs.org)  
Donna (at) kamper.com

This is not a "how to cheat" book. It's a "get the look you need" book. And it's great! It's not a book for absolute beginners. You really need a basic understanding of Photoshop first. But if your day job is image composition, this book is exactly what the doctor ordered.

Combining elements from different sources can bring up all sorts of problems. Frequently lighting and color differences must be addressed. Issues of perspective and proportion crop up. Moving the direction in which the subject's eyes are looking can make or break the "realism" of your composition. The book has the solutions for these and more difficulties. Each section is color-coded, the divisions visible even with the book closed. Each example is complete on a two-page spread, which makes it easy to see both before and after, as well as the interim steps. Everything here is task oriented.

The driving force behind this book is "how to create realistic photomontages."

So-if you add a pair of sunglasses to a scene, how do you create and orient their shadow? That and more is covered.

Need a light source? Add a lamp to the scene. Then darken the area except where the lamp's light is being directed. Make sure the light is more intense inside the lamp. Is there a surface from which it's being reflected? Add that in, and the scene is now much more realistic.

There are fifteen sections, and each one is essentially a mini-workshop in that particular subject. The first skill to master is the art of making selections, which is precisely why Photoshop has so many selection tools. Putting two images together is easy. Making them look as though they started out together is what separates the novice from the pro. Accurate selections are the first step, so the first chapter concentrates on selection tools.

The subjects are "Natural selection" - how to capture the area you want and no more or less; "Transformation and distortion" - making elements of your composition belong together; "Hiding and showing" - working with layers and masks; "Image adjustment" - or making skin tones (and other colors) match.

"Composing the scene" and "Getting into perspective" - placing subjects appropriately in relationship to each other and the background; "Light and Shade" - deals with realistically shadowing and lighting your composition; "Heads and bodies" - looks at everything from body position to fly-away hair, including matching one person's head to another's body.

## HARDWARE NOTES & TIPS

### Choosing a Mouse

by Sandy Berger

“Shiny surfaces” - also deals with light on both reflective and transparent surfaces, and how it adds depth and realism to your composition; “Metal, wood and stone” - have hard, reflective surfaces and depth to deal with; “Paper and fabric” - can move, bend and flutter using the shading techniques taught here.

“The third dimension” - can be achieved with perspective, the vanishing point and a little Repoussi; “Hyperrealism” - in this book it isn't photographic realism, its added effects such as blurring for speed or flying glass with explosions. The next-to-last section, “Advanced techniques” - covers important tips and techniques (Bridge, ACR, natural media brushes) not directly involved in photocomposition; and the last section, “Working for print and the web” - deals with output.

The DVD included with the book has 74 movies (over three hour's total) in Quick Time format. Most of them are less than two minutes with descriptive names so it's easy to find what you want. But that's only the beginning. There's an image file for almost every example given in the book, as well as 41 PDF's, mostly 1-2 pages that were deleted from the printed book. True, some of these are from earlier versions of the book (this is its sixth edition), but that doesn't make the information less valid. There are many more images included than those needed for the lessons. A lot of bonus content is on the DVD for the reader's use, some from earlier readers of his earlier works and some from the author's own website.

One folder named “Test yourself files” has 23 images for you to work with, each labeled as to what technique it's for. The author even includes a cheat sheet with hints on how to use the indicated technique for each image.

This book is a joy to work through. It also makes a great reference when you absolutely have to get something done NOW! The two-page format is a great way to present information and an easy way to learn it. It makes a great asset for any Photoshop user working with compositions.

About: How to Cheat in Photoshop CS5: the art of creating realistic photomontages

Author: Steve Caplin

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The mouse is a useful computer tool. Here's a little history combined with information on the many different types of mice available today.

Many people seem to be curious how the mouse got its name. In the early 1960's, a man named Douglas Engelbart was fascinated with a theory he called “human augmentation technology,” an idea that the computer should be used to enhance human performance. Up to that time, computers were useful only to military and scientific communities. In 1968, Engelbart made an input device to help people interact with the computer. The original mouse was a small rectangular wooden box with a cable running to the computer. Since the cord looked like a tail and mice are known for scurrying along a surface, this new device quickly became known as a mouse. The mouse turned out to be one of Englebart's most ingenious ideas. Yet, Englebart's original ideas were rejected, only to be resurrected later by others who took both the credit and the financial rewards. Because it frees the user from having to exclusively use the keyboard, the mouse is recognized as one of the great breakthroughs in computing.

The basic functionality and size of the mouse that we use today has changed little since 1968, but there have been changes in the technology behind the mouse. Older mice worked by a tracking ball on the bottom of the device. If you are still using this type of roller ball mouse, it is time for an upgrade.

The newer type of mouse is the optical mouse. The optical mouse uses a tiny camera to take thousands of pictures every second. It employs a light-emitting diode (LED) that bounces light off the surface on to a CMOS sensor that is similar to the sensors used in some digital cameras.

Optical mice have several advantages over the traditional roller ball mice:

- ♦ They have better tracking and a smoother response.
- ♦ There are no moving parts to wear out.
- ♦ While dirt gathered inside of the ball and roller bars of traditional mice interfering with the tracking, the optical mouse is sealed and there is no way for dirt to get inside the mouse.
- ♦ They can be used on most surfaces without a mouse pad. The only exception is a mirror, glass, or extremely shiny surface.

Most optical mice have a red light that shines through the bottom of the mouse. The light can actually be any color. I have even seen a few that cycle through various colors, although I don't really see the point in that because the bottom of the mouse is usually not seen.

One of the newest types of mice is the laser mouse. This is a type of optical mouse that uses a laser beam instead of an LED light. The laser beam is invisible, or nearly invisible, to the human eye. The laser mouse is more precise and accurate, but also more expensive. It's great for professional graphic designers and some gamers might find them useful, but the average computer user won't see enough difference to warrant the increased cost.

So if you are still using a mouse with a roller ball on the bottom, you might want to upgrade to an optical mouse. Or buy a new computer, most of which now come with optical mice. You will see a difference.

Oh, and when you get to the store, be prepared to spend a little time in making a decision. You will find designer mice in red, green, blue, purple, and other colors. You will also see mice in many different sizes with a large variety of finishes. The most important thing, however, may be for you to choose a mouse that fits your hand and feels comfortable.

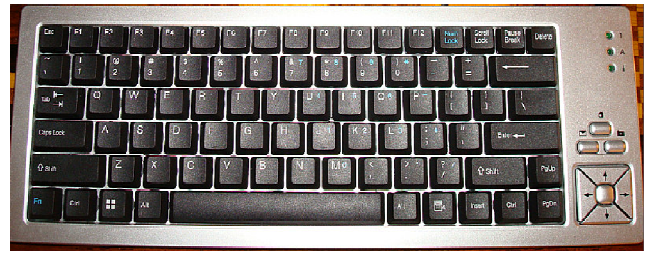
Also remember that there are other input devices that can be substituted for a mouse. There are trackballs, joy sticks, and touch pads that can be used if you don't find a mouse comfortable. There are also specialized devices that can be used for people with disabilities. Some of these devices can even adjust for shaky hands and other dexterity problems. I use a specialized mouse called an Aerobic Mouse ([www.aerobicmouse.com](http://www.aerobicmouse.com)) that is especially designed for people with arthritis and carpal tunnel syndrome. It's a big, ugly mouse, but I love it. It keeps your hand in a hand-shake position that alleviates the twist in your wrist that can cause pain if you use the computer a lot or have carpal tunnel syndrome. It also steadies the hand making using the mouse easier.

So take your time and find the mouse or input device that is right for you. Today most mice attach to your computer through the USB port. This is a nice feature since it means that if you and your honey want to use different mice, they can both be plugged in at the same time and each person can have constant access to the mouse of their choice.

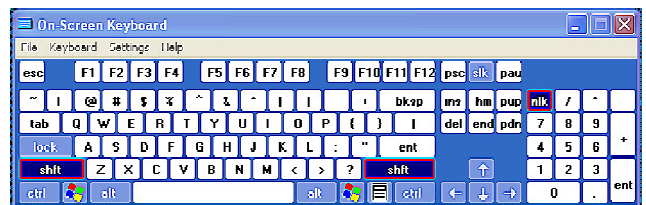
## Keyboard Without a Print Screen Key

by Carl Tenning, Tacoma Open Group For Microcomputers

I purchased a smaller keyboard for space saving. However,



I discovered later that it did not have a "Print Screen" key. I frequently use the "Print Screen" key to capture screen images for presentations. Doing a GOOGLE search, I discovered that Windows provides an on-screen keyboard. The Windows on-screen keyboard is accessed by pressing the Windows-Logo key, selecting Run, and typing in "OSK" (without the quotes). The Windows on-screen keyboard pops up looking like this:



Fortunately it displays the Print Screen key as "psc" between the F12 and Scroll Lock "slk" keys. Using that key I can still copy and paste a screen image into an image editing application like CompuPic. Alternatively you could also use the Microsoft image editing application, Paint. Just open the image editing application and press Ctrl+V keys together. This pastes the image into the image editor. Typically you would then crop the portion of the screen image you wish to use and then save it as a JPG file.

There are also several screen capture applications available: Snagit, FullShot, HyperSnap, Easy Screen Capture, Any Capture, and others. We'll be evaluating these and report later.

# Help Lines

## HARDWAREHELP

Reformat Hard Disk, FDISK	AdvisorNo.	2,4,5
Install Hard Drive, CD-ROM/RW		2,4,5
Install Video Card		7
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## SOFTWAREHELP

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Internet Explorer		2,7
RegSeeker		3,5
Instant Messaging		2
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Deleting Files; Wiping		6

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[5] Oclad Wesley 6-9P	(253)212-0352
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[7] Ray Mills 6-9P Mon-Sat	(360)692-7568



Visit the TOG Web Page at <http://toggle.org/>

### Tacoma Open Group for Microcomputers (TOG)

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For **Tacoma Open Group** annual membership, send form (if needed) & **\$25** to Bob Henkel., 10613 25th Avenue E., Tacoma, WA 98445.  
Make checks payable to TOG

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Home Phone: (\_\_\_\_) \_\_\_\_\_ Work phone: (\_\_\_\_) \_\_\_\_\_ E-Mail Address \_\_\_\_\_

**TACOMA MEETING**

When: **Mon 12 Oct 2011 -7:00 PM**  
Where: SE Tacoma Community Centre  
1614 99th Street E.  
Tacoma, Washington

From I-5 take Exit 127 (Hwy 512) to  
Portland Ave., north on Portland to 99th,  
left over tracks. Building is on south side.

Future Dates: 2nd Monday of Month

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**How To get To The Meeting**

For those readers still unfamiliar with  
how to find our meeting place we have  
reproduced the map showing its rela-  
tionship in Tacoma to Portland Ave S.  
and the 512 Freeway. The 512 Freeway  
can be entered from I-5 in Tacoma on  
the west or from Hwy 167 in Puyallup on  
the east. Proceed to Portland off-ramp  
and turn north to 99th Street. Some  
folks in the middle of Tacoma may pre-  
fer to take Portland southbound to 99th.  
At 99th turn west over the tracks and  
there you are!



**Tacoma OPEN Group for Micros**  
**1808 Lenore Drive**  
**Tacoma, WA 98406-1920**

**Change Service Requested**

**PROGRAMS**

**This Month's Meeting**

This will be a regular monthly meet-  
ing. Meeting discussions are always  
interesting and the ever-popular Q&A  
(Question & Answer) period is sure to  
pique your interest, come up to your  
expectations and tickle your fancy.  
Come and share your own experiences,  
problems and discoveries.