

Ron Matteson: The Magic of OCR

- ! **What is OCR (Optical Character Recognition)?**
- ! **Why is it important?**
- ! **How does it do its magic?**
- ! **How can we run it on our computer?**



Ron Matteson

Optical character recognition (OCR) translates images of text—such as scanned documents—into actual text characters.

Also known as text recognition, OCR makes it possible to edit and reuse the text that is normally locked inside scanned images.

OCR works using a form of artificial intelligence—known as pattern recognition—to identify individual text characters on a page, including punctuation marks, spaces, and ends of lines.

Dr. Matteson has been an author in the field of document image processing, a professor of computer engineering at the Rochester Institute of Technology, an inventor of document scanning systems, a professional engineer in the State of New York, a past president of the Rochester Computer Society, Inc., and a practicing electrical engineer. He is a Senior Life member of the Institute of Electrical and Electronic Engineers.

He received BEE and PhD-EE degrees at Syracuse University, and an MS-EE degree at the University of Rochester. He currently advises individuals and businesses on the use of scanners, digital photography and image editing in the small office and home office.

His book, *Scanning for the SOHO (Small Office and Home Office)* was published by Virtualbookworm.com Publishing Inc. in 2004. ISBN 1-58939-554-9, \$14.95. It contains 286 pages, 121 figures, and 21 tables. Its topics include how to print, fax, copy, email, and save to web pages. You'll also learn how to use OCR to save file space and email faster. Especially useful are the criteria for when and how to use the correct file format: JPEG, TIFF, GIF, PSD, BMP, etc.

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Tuesday, October 5 - 6:00PM - Whitesboro High School - Marcy NY



explorer

The MVPCUG *EXPLORER* is published monthly from September through June by the Mohawk Valley Personal Computer User Group, Inc., PO Box 586, Marcy NY 13403-0586.

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The Mohawk Valley PC User Group, Inc. (MVPCUG) was founded in 1981 by individuals interested in IBM compatible computers. This non-profit organization consists of volunteers whose expertise range from novice to professional.

Regular meetings are held on the first Tuesday of the month at 6pm, usually at the Whitesboro High School, Route 291, Marcy NY. A typical agenda consists of discussion of business affairs and a demonstration of computer related products. Meetings are open to the public.

Initial membership fee for an individual is \$25. Annual renewal dues are \$20.

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The *Explorer* is printed by

The Gallery

4780 Commercial Drive - New Hartford

315-768-7851

Our Internet presence is at
<http://www.mvpcug.com>

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Minutes of Sept 7, 2004

— Marsha Thayer, Secretary

The MVPCUG general meeting was held at the Maennerchor. President Jerry Finkelstein called the meeting to order at 6:07 PM.

Future Programs

October - OCR (Optical Character Recognition) program presented by a Syracuse club person.

November - PowerPoint presentation made by a Syracuse club person.

Business Meeting

Jerry Finkelstein suggested that at the beginning of each meeting we discuss digital camera issues.

The Treasurer's Report for June, July, and August shows \$597.94 in income and \$577.39 in expenses with a balance of \$4649.76.

We are now paying \$100 for 170 copies of the Newsletter. We are mailing 146 copies @ \$0.37 per copy. We are no longer using the bulk mailing permit. Some requested that the Newsletter be emailed; others want hard copy. Donna Gorrell asked if folks would agree to having some long articles published only on-line and referenced in the Newsletter. Everyone seemed to agree with that.

Anyone wishing a copy of the current Utility CD may order it from Donna. Later, Tim made the current and past CDs available for \$3.00 each.

We are approved for our meetings at the Whitesboro Cafeteria for the remainder of our meeting year.

Bob Schaffer mentioned that we get five books from Que/Sams Publishing every month. People are encouraged to read/review the books. Also, Peachpit Press sends us one book a month.

Program

At 6:40 the main program began. *Ask the Guru.*

Q: I have a digital video camera, how do I get videos into a computer file?

A: Roxio 6.0, Final Cut Pro, JVCs download software from their website

Q: Where can I borrow/lease a computer projector?

A: Try Big Apple.

Q: After rebooting computer the screen goes black.

A: A virus probably does it. Trend Micro will analyze/fix this on-line. Norton website gave instructions for fixing a similar virus. Also try booting in safe mode

and then going to Norton web site.

Q: I want an update to XP (Service Pack 2). How do I get it?

A: Microsoft has an upgrade web site. You can order a disk from Microsoft. Lisa Britt suggests that we wait before using Service Pack 2. May have issues with wireless networks, etc.

O: On boot up, get the following message... 'FB direct.exe - unable to locate component'. I ignore the message and it does not appear to harm anything.

A: Try typing in error message in Google.

Q: What is the safest way to transfer data from an old OS/computer to XP.

A: Burn a CD of existing data.

Q: What is needed to make CDs from old records?

A: Put 'audacity' into Google. 'Audacity' will let you feed audio into computer and digitize it.

Q: Mouse has a mind of its own. Works when it feels like it.

A: May be a connector or port problem.

Q: We have a DSL system which has a Westell 2200 modem/router. If you chose to use a separate router on a 2-computer net, would that be considered a 'bridge' between the above modem and the net?

A: ????

Q: Using Outlook Express - I named a group and added email addresses to the group. Now can't find group. What is wrong?

A: We tried doing it on our computer. It worked OK. Don't know why it did not work on '98.

Q: How do I change speed on the modem? Recently had trouble with Dreamscape but now it connects at 37.5. How can I change to a higher level?

A: The speed is defined in the modem device manager in the control panel.

Q: When shutting down, it stops at 'computer shutting down' message.

A: Turn power off. Try updating to Service Pack 1.

Q: Using Norton Disk Doctor, can't obtain physical disk characteristics for disk 2. Why?

A: ?????

Q: When I start to use WordPerfect for letter writing, it starts on page 1 then rolls to 2, 3, 4, etc.

A: Go to full column menu and select 'Newspaper'.

Q: The computer restarts when someone calls on the phone. How do I keep it this from happening?

A: It may be set up for a fax or autoanswer.

(Please continue on Page 4)

(Minutes . . . continued from Page 3)

- Q: When I click on Juno, it runs up to e-mail and hangs up. Computer restart does not help.
 - A: One person solved the problem with a new modem. Another person switched to Netscape. Also, try uninstalling Juno and reinstalling it.
 - Q: I have Blue Light dial up internet service. It used to open at home page. Now it opens to a different page.
 - A: You can set your home page or 'use current'.
 - Q: How do I print out my Favorites list.
 - A: file - import/export - export favorites - then save it to a file. Then print the file.
 - Q: How to alphabetize favorites?
 - A: Right click and select 'Sort by name'.
 - Q: How do I send a fax of a form?
 - A: Scan into file. Call fax software and identify that file to send.
 - Q: I get an extra sheet at the end of my printed material. How do I get rid of it?
 - A: Set it in printer properties.
 - Q: Can I use the same software license on two computers.
 - A: No. Need separate licenses.
- At 8:05 we drew door prizes.

Door Prize Drawing Winners

(The following prize furnished with club funds)

Notebook computer light **John Neustadter**

(The following prizes furnished by Que/Sam Publishing)

Book: E-bay in a Snap **Loralee Whitlock**

Book: Easy Digital Cameras **Fred Schmandt**

Book: Flash Mx 2004 **Dick Hillenbrand**

(The following prize furnished by Mindshare)

T-shirt **Ed Hinge**

(The following prize furnished by FlipAlbum)

FlipAlbum 4.0 **Fred Cole**

(The following prize furnished by Jerry Finkelstein)

Computer paper **Jim Pease**

The meeting was adjourned at 8:15 p.m.

Respectfully submitted,

Marsha Thayer, secretary



Word Processing Tips
— by Bob Schaffer

WORD — Keep words together with nonbreaking spaces and hyphens (97/2000/2001/2002/2003)

When you type information like dates, company names, or people names in your document, you may want to prevent Word from wrapping a line in the middle of the date or name. Similarly, you may want to prevent Word from breaking certain hyphenated words and telephone numbers across lines. Fortunately, you can easily do both using nonbreaking spaces and nonbreaking hyphens.

To insert a nonbreaking space, press [Ctrl][Shift][Spacebar]. The text on either side of the nonbreaking space will always stay together on the same line. When the Show/Hide ¶ button on the Standard toolbar is turned on, nonbreaking spaces are designated by a display character resembling the degree symbol (°) (the tilde (~) in Word 2001). However, this display character is hidden when you print your document or view it in Print Preview mode.

To insert a nonbreaking hyphen, press [Ctrl][Shift][-] ([command][shift][-] in Word 2001) using the standard keyboard. (Using the [-] key on the numeric keypad inserts an en dash instead.) The text on either side of the nonbreaking hyphen will always stay together on the same line. When you're viewing your document onscreen, nonbreaking hyphens are designated by a display character that resembles an en dash (-). However, this display character looks just like a standard hyphen when you print your document or view it in Print Preview mode.

WORDPERFECT — Converting parallel columns to a table in WordPerfect (10/11/12)

- * Select Parallel Columns.
- * Click Table/Convert.
- * In the Text delimiters area, enable the Parallel column option.
- * In the Format area, enable one of the following options:
- * Size column to fit — lets you automatically format the column width to fit the text
- * Equal column widths — lets you create a table with equal column widths



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WordProcessing Tips
to be emailed to you.

Send your request to rdschaffer@adelphia.net.

Did You Know . . .

— Donna Gorrell

. . . that if you are attempting to install SP2 for Windows XP you should disable any and all anti-virus programs you have running, and make sure you have no spyware by running a program such as Ad-aware or Spybot. And, of course, back up your files. If you find you cannot boot after installing SP2, follow these instructions from Microsoft's webpage: To recover your computer to a bootable state and remove Windows XP SP2, follow these steps:

1. Start your computer by using the Windows XP Recovery Console or by using the Microsoft Windows Preinstallation Environment (WinPE), depending on your situation. To start your computer by using the Recovery Console, follow these steps:
 - A. Insert the original release version of the Microsoft Windows XP CD in your computer's CD drive or DVD drive, and then restart your computer.
 [Note: Your computer must be configured to start from the CD drive or DVD drive. For more information about how to do this, see your computer's documentation or contact your computer manufacturer.]
 - B. When the "Press any key to boot from CD" message appears, press a key to start your computer from the Windows XP CD.
 - C. When the "Welcome to Setup" screen is displayed, press R to start the Recovery Console.
 - D. When you are prompted, type the number that corresponds to the installation of Windows that you want to access from the Recovery Console, and then press ENTER. For example, if you have one installation of Windows on your computer, type 1. Then press ENTER.
 - E. When you are prompted, type the Administrator password, and then press ENTER.
2. At the command prompt in Recovery Console, type the following lines. Press ENTER after each line:


```
cd %$NtServicePackUninstall%\Spuninst
batch spuninst.txt
exit
```
3. Remove the Windows XP CD from your computer's CD drive or DVD drive, and then restart your computer.

4. Run the Windows XP SP2 Removal Wizard to remove Windows XP SP2. To do this:
 - A. Click Start, click Run, type cmd, then click OK
 - B. At the command prompt, type the following lines. Press ENTER after each line.


```
cd %Windir%\$NtServicePackUninstall%\Spuninst
spuninst.exe
```
 - C. Follow the instructions to remove Windows XP SP2.

These instructions and more information can be found at: <http://tinyurl.com/6wkq4>

* * *

. . . that you can expand IE to full view simply by using F11 as a toggle switch? To make the browser full screen, press F11, to return to normal view, press F11 once again. This does not work with Netscape.

* * *

. . . that you could get free clip art and templates for Microsoft's Word [all versions from 97 and up]? Microsoft Office free Clip Art and Media Home Page: <http://office.microsoft.com/clipart/default.aspx>
 Microsoft Office free Templates Home Page: <http://office.microsoft.com/templates/default.aspx>. ❖

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Sites to Visit on the 'Net

— by John Hunter

“You’re a Geek. I’m a Geek. Everyone’s a Geek, Geek,” I mused as I arrived at the homepage of www.ThinkGeek.com. I suppose all of us are geeks to some degree or we wouldn’t be members of the MVPCUG. The ThinkGeek site glorifies geekiness and technical expertise and people who like technical stuff. Featured on the day I stopped in was a t-shirt with the question, “Have You Grokked Your Sysadmin Today? Mail Server Gimp, Script Monkey, IT Ninja, Random PC Guru, Spamslayer . . .” In case you didn’t know, grok is a Martian word from a Robert Heinlein novel “Stranger in a Strange Land” and means “to be one with” or that the knowledge you have learned has “become one with [you]” or that you have entered deeply into whatever technical programming principal is uppermost in your mind at the moment. [The site provides such definitions with helpful links.]

But the main purpose of the site is to sell stuff, and you can buy lots of stuff there. If you spend at least \$50, you get the aforementioned t-shirt free. Otherwise it costs a very reasonable \$14.99–16.99 depending on the size. My own personal favorites are the t-shirt with the caffeine molecule and the shirt with PEBKAC (an acronym for Problem Exists Between Keyboard And Chair). In addition to PEBKAC the shirt pictures “an iconic person being strangled by a red telephone line” (as in “among the clueless, there are individuals with a phenomenal lack of brain cells as well as an inability to listen and follow directions”).

In addition to t-shirts you can buy hoodies and fleece, work and golf shirts, ties, hats, mugs and glasses, lights and clocks, blankets and inspiring posters such as “Hard work often pays off after time, but laziness always pays off now.” You can also buy computer items such as mini PCs and handhelds, input devices, sound and video cards, and . . . you get the picture. Try this site, especially if you need a present for a friend. The prices are reasonable, at least for the clothing.

The next site may appeal to lovers of the novel “The Little Prince” by Antoine de Saint-Exupery and the widely traveled garden gnome in the Travelocity commercials. This whimsical site, www.himonkey.net.

I’m not sure just how to describe this web site experience. When you type in the URL, up pops a picture of a white-cloth-fuzzy monkey. What follows is a list of links to pictures of the little-stuffed primate with his friends like Tibetan monks, and recipes for Brie on a baguette and croissant French toast, plus other links.

I clicked on the question, what do you know about the brown reclusive spider? The question link then supplies answers to this question. I found that the spider is indigenous to the United States, has six eyes and small hairs on its body, and knows nothing about music. Why this information is on the site, I don’t know. But you can feel free to visit the site with your children and grandchildren.

If your thoughts turn to natural occurrences, and particularly for those addicted to the Weather Channel, www.planetdiary.com is a web site you should visit.

The Prentice-Hall division of Pearson Education operates this site. As an educational publisher, the site contains many topics that key to the various textbooks the company publishes. That said, the site is still fascinating and child-friendly. The homepage features a world map with a series of phenomena such as Current Phenomena and Phenomena Backgrounders. Click on Current Phenomena and another world map presents itself covered with icons. Click on the legend and a screen full of icons appears. These icons include: volcano, fire, severe storm, hurricane, drought, flood, earthquake, and so on. If you click on the map icon for volcanoes located in the Pacific Ocean, up pops a picture of Kilauea lava flows with a short discussion of the characteristics of volcanoes and a note that Kilauea has begun flowing again after a six-month hiatus. The description also defines relevant terms such as caldera, with a link to a more complete definition with accompanying photos of calderas.

You can also visit drought sites, specifically in Southern Africa or in the United States where drought conditions have existed for the past seven years in many of the western states. For the science-minded, this is a great site to visit. Also, the site is safe for children to visit unattended. *(Continued on page 7)*

A special article appears in the online version of the MVPCUG October newsletter. Look for The Perfect Backup Approach by Gene Barlow.

(Sites . . . continued from page 6)

The next site appeals to the more sardonic among us. www.asininepoetry.com offers many examples of contemporary writing. A sample haiku is “THONGED, hairy fat man, / I am too young to see this. / Field 6 is not safe.” by Lisa Smith. Another example is the unforgettable, “I Will Live At The Learning Annex,” by B.A. It reads, “I will change my thinking, change my life. / Soon, I will receive a six-figure book advance. / I will learn to give a great massage and master money. / I will improve the sound and quality of my voice. / This will lead to my hosting my own radio show. / I will master PowerPoint XP, Mega-Speed Reading, and cold calling without fear. / My parents will love me again. / Maybe then I can move back home.” The best (worst) poem listed on the site when I visited was “Fly Larvae” by V.S. Frimmit. I’ll spare you the poem—it is forgettable and childishly gross.

If you click on a Google list of related sites, you will find www.thecaperock.com. This site promises that “Truth may be stranger than fiction, but fake news is much more fun to write.” The homepage describes itself as “a low budget online publication providing news, humor, commentary, and general information about Cape Girardeau, Missouri and the surrounding region.” The lead article is THREAT OF FLYING PIGS DIMINISHES . . . The site also provides the answer to the question regarding the difference between the major political parties. The short answer is that “a Republican offers his principles for sale. A Democrat doesn’t have any.”

Until next time . . . ❖

CD COLLECTION

Each month freeware and shareware programs are gathered and a CD is produced. The content changes each month and a list of what is available can be found on our website.

Go to www.mvpcug.com/index1.htm and choose **CD info** from the list which appears on the left side of the screen.

If you wish to order any of these CDs contact Jerry Finkelstein at demetrius28@adelphia.net. The current CD will be available at the meeting. Each CD is \$3.00, tax included. ❖

Byting Remarks — Jerry Finkelstein

The national conventions have come and gone. The country is still here. As election day approaches, I’ve been getting loads of email bashing both Bush and his Democratic contender, Kerry. Lots of jokes are being passed around, cartoons, clever slogans fit for the rear bumper of your car. I get alerts about Hillary being the greatest threat our country has ever known. Apparently, the Civil War, the Depression, WW II, Hitler were all warm-ups for the Evita wannabe’s big act.

In order to keep my head straight in the midst of all these attack ads, in order to keep up some semblance of objectivity, if not truth, in the face of these dirty-nasty sound bites, I turn to the Internet, the websites and, yes, the bloggers. I get my fix from the alternative internet information sources, a relief from Murdoch’s Fox News and the embedded reporters at CNN. (According to the movie, *The Day After Tomorrow*, Fox News is the only news channel and the whole world watches it). Yes, you do get the likes of Matt Drudge, well known as “the toxic dumpster.” But you also get a community of bloggers that want you to think for yourself about the news of the day.

Checking out these blogger websites is akin to checking out the accuracy of the mainstream media. Their aim is to keep journalists and politicians from misleading the public. One way they do this is to link you to the articles they write about; you can easily check their assumptions directly against their sources. Yes, these websites are perspective-driven, and you get the tabloid sort in the mix. However, you do gain a sharp perspective on the mainstream media. The sites are noted for exposing deception, debunking falsehoods.

You don’t need the latest and best PC to get to any of the sites and blogs. All you need to do is get access to the Net. As a member of the club you might want to exchange favorite sites with other members. You can do this at our main meeting. Or email me and we’ll publish them in this newsletter. ❖

Lutz Lehmann

MVPCUG treasurer from March 1998 to March 2000, passed away in Mercy of Northern New York, Watertown, on Sept 7.

THE PERFECT BACKUP APPROACH

By Gene Barlow
User Group Relations
Copyrighted August 2004

Backing up your hard drive is the most important thing you should do to protect your computer system. Yet, I am constantly surprised to find that as few as 10% of my smart user group audiences have a good backup procedure in place. Hard drive crashes are quite common and it is very painful to rebuild a computer system after a hard drive crash. Anti-virus software may offer some protection, but fast moving viruses can get through this protection and crash your hard drive. It may take you days or weeks to recover from a hard drive failure and your important data files are gone forever. So, protect your computer by backing up your hard drive on a regular basis and avoid the pain of a hard drive failure.

For the past few years I have recommended a sophisticated backup process that would adequately backup all aspects of your computer system. Using a file backup utility, I suggested you backup your important data files at the end of each day. Then, to protect your full system, I suggested you should backup your entire hard drive using a full system backup utility each month. I also suggested that you separate out your data files into a different partition on your hard drive to further protect these important files. This approach is outlined in an article that I wrote titled, "Backing Up your Hard Drive". You can read it on my web site at www.ugr.com/nl0102.html.

While many of you followed my suggestions on backing up your hard drive, many of you are still not doing anything to protect your hard drive from failure. Perhaps my backup approach was too complex to understand or too difficult to follow. Fortunately for you, technology has made some dramatic advances in the past couple of years and now there is a better and easier way of doing your backups. This article will show you the best way to backing up your hard drive and tell you what hardware and software products to use to follow this approach. It is so easy that everybody should start to backup their hard drive. All you have to know is the secret of how to do it, and your computer can be safe and secure.

Backup Hardware: The first step to having a successful backup procedure is choosing the right backup hardware to use to save your backups to. For years, users have been burning CDs for their backups. This approach was full of frustrations and problems. No wonder folks hated to do backups. First, it seems that creating a backup and then burning it to many CDs could overtax many computer systems. If anything went wrong, the entire backup process could cancel, leaving you with several burnt CDs, but not the complete backup you needed. Worst than that, the backup might appear to be complete, but the CDs were corrupt and would not restore properly. Thank goodness, CDs have been replaced with a much more reliable backup media.

A couple of years ago, external hard drives entered the computer marketplace in large numbers. Today, an external hard drive is the ideal backup media to use. Instead of sitting by your computer for hours to feed it another blank CD, all you need to do is to attach your external hard drive and forget about it. Your backup will be taken automatically without your being involved. No more drudgery of making backups to CDs.

Why are external hard drives the ideal backup media? First, they are large enough to backup your main hard drive on one device. You do not need to backup to multiple CDs, so the whole process can be done without your involvement. Second, backing up to an external hard drive is many times faster than burning CDs. An external hard drive is almost as fast as the internal hard drives on your computer. Third, external hard drives are much more reliable at saving your important files. CDs can easily become scratched or flawed and not protect your important backups. Finally, external hard drives are relatively inexpensive to buy and use. You may actually save money over the cost of burning a lot of CDs.

What should you look for when buying an external hard drive for backup purposes? External hard drives come in two basic flavors—USB2 and Firewire. One is just as fast as the other and both will do an excellent job of backing up your main hard drive. You will need to attach the external hard drive to your computer using either a USB2 port or a Firewire port on your computer. Most computer today come with a USB port on them, so these are the more popular type of external hard drives. Just be sure your computer doesn't have one of the older

USB1 ports on it instead of the faster USB2 ports. If you have an older USB1 port, you can still attach and run your USB2 external hard drive, but it will run at the slower USB1 speed. In this situation, you can add a USB2 port to your computer for a small additional price.

The external hard drives come in a couple of sizes—miniature and standard drives. The miniature external hard drives have a 2.5 inch laptop computer hard drive inside a small case. These drives are small enough to fit in your pocket and are very light to carry. They do have a couple of disadvantages to them that you should be aware of. First, they only hold 20GB, 40GB, or 80GB of backup files. This may not be big enough to backup your 300GB main hard drive. Second, you will pay quite a bit for the small size of these miniature drives. The 20GB drives cost about \$160, the 40GB drives are about \$200 and the 80GB drives are over \$300. So, you end up paying a lot for the small size.

If you don't mind having a slightly larger external hard drive, you can get one with much more capacity and for less money. These larger external hard drives contain standard 3.5 inch hard drives inside the case and are available in capacities starting at about 80GB and go up to 300GB and larger. An 80GB or 120GB external hard drive is an excellent size for most backup needs. If you watch for sales on these drives, you may find an 80GB hard drive for under \$100. I have seen them as low as \$69. The 120GB external hard drives will be more expensive, but can be found for as low as \$99. So, check the ads in your local paper and you may find a great deal on external USB2 hard drives.

Backup Software: The second part of having the perfect backup approach is using the right backup software product. There are two basic types of backup software available—file backup utilities and full system image backup utilities. Older file backup utilities would backup individual files. These utilities were slow since they had to use the operating system to find and retrieve each file separately. We have hundreds of thousands of files on our hard drive and so working on individual files, one at a time, is very slow. A better backup utility will backup your entire hard drive (a partition at a time) and does this at the hard drive sector level. These types of backup utilities create backup images of your hard drive that you can save to your external hard drive. To conserve space, these images are compressed to about half their normal size which permits you to keep many backup images on your external hard drive. So, the first think to look for in your backup software is the ability to create compressed images of your entire hard drive.

While an image backup utility is a major step in the right direction, it is not the ultimate solution. With full backup images, you still end up backing up your entire hard drive each time, even if only a small portion of the drive has changed since the last backup. So, the images contain a lot of unchanged files that do not need to be backed up again. So, the secret is to find an image backup utility that can do incremental backup images. With the incremental backup image approach, only the changed sectors on a hard drive are backed up and not those parts of the hard drive that have not changed since the last backup. Incremental backup images are much smaller in size and complete much quicker than a full backup image.

A little calculation at this point may help you understand another reason why the incremental backup image feature is so important. Let's say you have a 120GB main hard drive that is a third full. That means it has about 40GB of files on it. A full condensed image of this hard drive would be about 20GB in size (with a compression of about 50%). That means that you could store four separate full backup images on an 80GB external hard drive. Using the incremental backup image approach, you may be able to store 30 or 40 separate backups on the same 80GB external hard drive. Because you can keep more incremental images on your external hard drive, you can make your backups more frequently than if you were limited to only four full backups. Hence, your backups would be more current with the incremental image approach versus the full backup approach. This means less lost files since the last backup. This is of major importance when considering a backup approach.

So, the secret to choosing the best backup software is to look for a full system backup utility that can do incremental backup images. There have been a couple of expensive enterprise software products that offer the incremental backup image feature (for example, Symantec's V2i Protector Desktop Edition v2), but there is only one consumer backup utility that I am aware of that offers the incremental backup image feature and that is the Acronis True Image 8.0 product. This excellent backup utility was awarded PC Magazine's Editors Choice award as the best backup imaging utility on the market. PC World calls True Image the leader in the field of incremental backup images. Using this excellent backup utility with an external hard drive will provide you with

the most perfect backup approach available today.

How to Backup your Hard Drive: To complete this article, let me suggest how you would do your backups using an external hard drive and an incremental backup image utility. I would suggest that you set up a regular schedule to make your backup images. For the average user, I would make a full backup of your hard drive at the beginning of the month and then an incremental backup image at the end of each week that follows. So, you would have one full backup image and 3-4 much smaller incremental backup images each month. At the beginning of the next month, make another full backup image and follow this again with weekly incremental images. Save all of these images on your external hard drive and don't delete any of the older images until you start to run out of space on the drive. If you have a very active computer system, you could make a full backup at the beginning of the week and incremental backup images at the end of each day. Most users will not need to do the backups this frequently, but some may want the extra protection of more frequent backups. Either way, the approach is the same, just the frequency is changed. With True Image 8.0 you can set up the software to make these backups automatically. So, set it up and forget it. Your backups will occur as scheduled.

If at any time, you need to restore one or a few of your files, you can simply copy these files out of your compressed image files using a facility in True Image. If you need to restore your full hard drive, you can do this also, even if the main hard drive is empty and not bootable. True Image will boot from a special CD to permit you to quickly restore the entire hard drive from the image files. So, you can quickly restore a few files or your entire hard drive using Acronis True Image 8.0.

Finally, you may be wondering why I recommend keeping all of your full and incremental backup images on your external hard drive and not deleting them after you make a new image. You need to understand that the full image you make at the beginning of the month and the incremental images that follow it each week go together in a set. True Image needs all of them to restore your hard drive to the way it was when you made the last incremental image. During the restore, it will combine the beginning full image with each of the incremental images to recreate the hard drive. It does this very quickly whether you are retrieving a few individual files from the image set or recreating the entire hard drive. Now, let's suppose that a stealth virus got on your hard drive and was captured in the last incremental image you made. You certainly do not want to restore your hard drive with this virus on it. So, instead, you indicate to True Image to restore your hard drive from the incremental image you made just before the image containing the stealth virus. That restores your system to a point in the past when it was still clean of the virus.

Over time, you will build up a collection of backup images on your external hard drive that will let you see what files were on the drive at any point of time in the past few months. If you deleted a file some months ago and now want to get it back, you can indicate to True Image to look in a backup image before you deleted the file and you can copy it back to your hard drive from the image files. Having a history of all of the files that have been on your hard drive is a very powerful and useful function. Only with an incremental backup image software product could you afford to keep all of this history on a modest external hard drive. Acronis True Image 8.0 with an external hard drive is the perfect way to backup your main hard drive.

How to Order Acronis True Image 8.0: Acronis is offering this excellent product to user group members and their friends at a special discount price of just \$34. To take advantage of this special price, you need to go to <http://www.usergroupstore.com> and click on any of the yellow "Buy Now" buttons. This will take you to the secure web order form where you can order your copy of Acronis True Image 8.0 at the user group discount. Complete the form including the special order code of UGNL0804 and submit the form. Your product will be processed in a few hours and will be delivered in 2-3 days.

If you have any questions about this article or how to backup your hard drive, please contact me at barlow@ugr.com. I will get back to you shortly with the answers to your questions. I would like to see everyone's computer protected with a good backup approach. The method outlined in this article should do exactly that for your computer. Don't be sorry. Backup your computer today.

explorer

Ron Matteson: The Magic of OCR
Tuesday * Oct 5, 2004 * 6:00 PM * Whitesboro High School

what's.com/ing				October 2004		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Remember to set your clocks back before you go Trick 'n Treating!					1	2
3	4	5 Monthly General Meeting 6:00 PM	6	7	8	9
10	11	12 Board of Director's Mtg 6:30 PM St. John's	13	14	15	16
17	18	19	20	21	22	23
24 	25	26	27	28	29	30 
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