

Access

Newsletter of the Louisville Computer Society
Kentuckiana's Macintosh Users Group

October 2003

Achieving professional Scanning Results from Negatives and Prints Jerry Freeman

What does it all mean? A flat-bed scanner is advertised as 3200x6400, 3200 dpi resolution, 3.4 Dynamic Range, and 48 bit. The smaller number—3200, is the optical resolution of the CCD. This CCD captures 3200 samples per inch, and that folks, is the '**true resolution**' for this scanner! The larger number—6400, informs us the scanner stepping motor theoretically moves at 1/6400 inch increments. Measure it for yourself. Resolutions advertised at higher than the CCD's capabilities are misleading references to 'interpolated' resolution—the equivalent of the useless digital zoom. Further, Nyquist sampling theory suggest that less than 1/2 of the detail captured can actually be resolved.

Dynamic Range is the range of tonal difference between the lightest light and darkest dark of an image. The higher the dynamic range, the more potential shades can be represented, although it does not automatically correlate to the number of tones reproduced. Increased DR may add more detail in the shadow tones of slide scans, or to the highlights of negative film scans. DR is not a major consideration for the limited range of photo prints. Lastly an honest DR around 3 is desirable—higher claims are entirely theoretical.

Bit Depth is determined by the number of bits used to define each pixel. The greater the bit depth, the greater the number of tones that can be represented. **24 bit** captures 8 bits on each RGB pixel. **48 bit** captures 16 bits on each RGB pixel. 48 bit is superior, but be aware that even Photoshop can only handle global edits—levels curves etc. in 48 bit. At some point the file may require conversion to 24 bit to complete the edit. The benefit of 48 bit is there are plenty of pixels to select from. A levels edit in 48 bit will yield a full histogram while a levels edit in 24 bit will yield an interpolated histogram indicated by vertical lines. Verify this by reopening the levels command immediately after an edit and look at the resultant histogram. Some software scans at 48 bit, but convert to 24 bit to reduce digital noise.

Sweetspot. To find a flatbed scanner's sweet spot, get a large piece of heavy white paper and trim it to completely cover the scanning bed. Scan the paper at high resolution, open the file in an image editor, and use the levels sliders to increase the contrast until you notice a strong pattern of dots developing. The dots represent a fall off in scan quality that is most noticeable towards the ends and sides. The sweet spot is where the largest area of pure white space occurs. Print the test image full size, mount it on heavy card and trim out the sweet spot to make a template for positioning smaller pieces on the scanning bed.

Software. Learn your scanning software thoroughly, and make as many pre-scan corrections as possible. Select the scan area, then zoom to the largest view possible, crop, set the required output size and resolution, correct brightness and colorcast, and allow a little sharpening 'before' scanning the image. The largest resolution scan is not always necessary unless you like watching progress bars! Remember inkjet drivers detrimentally discard full size resolutions much above 300 dpi. Perform global edits—those which effect the entire image—'once', and once only. Continuous tweaking is highly destructive, and remember to save sharpening as the 'last' edit.

Wayne Fulton's scantips.com is a favorite scanning site—offering a very complete self published scanning manual for purchase, inkjetart.com, and the scanning discussions at photo.net.

In this my last column of this year, I reflect back on what I have assimilated over just a few short years and thank LCS members Tom Guenther, Bill King and Lee Larson for patiently taking the time to show me which end to plug in first. Good Snaps.

Panther (Mac OS X 10.3) is coming. Friday October 24, 8 PM

Louisville Computer Society, Inc.
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Access is a service mark of the Louisville Computer Society, Inc. Our newsletter is published monthly as a service to Macintosh users. We are dedicated to the education and benefit of Louisville and southern Indiana computer-oriented communities.

Subscription rate is \$26 a year; it is mailed free with your membership in LCS, a Macintosh Users Group (MUG).

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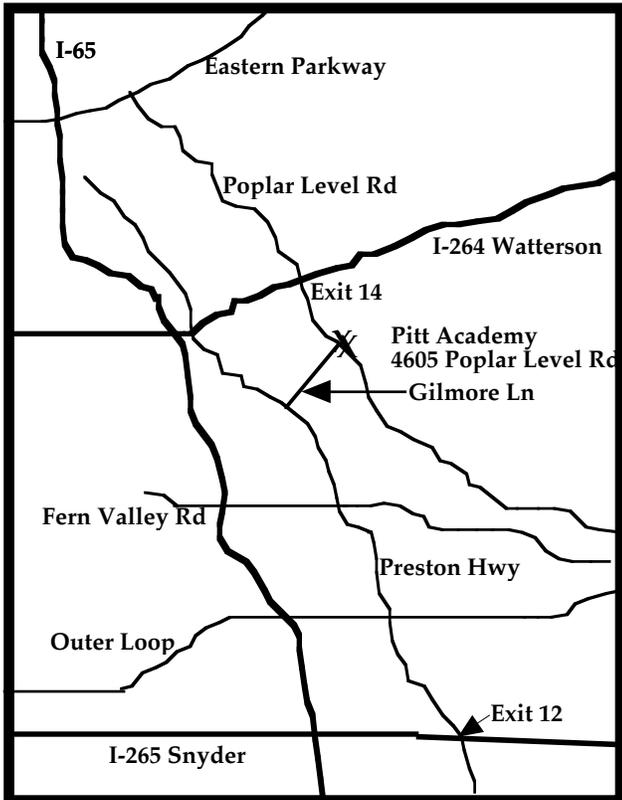
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Come to our monthly meetings

The Louisville Computer Society meets the 4th Tuesday of each month, 7-9 P.M. (except December) at Pitt Academy, 4605 Poplar Level Rd. (Poplar Level Rd. at Gilmore Lane), Louisville KY 40213 (see map below).

Pitt Academy is 1 mile south of the Watterson on Poplar Level Rd. If coming from the Snyder Freeway, Gilmore Ln is 5 miles north of I-265 on Preston Hwy. Turn right and when you get to the end (Poplar Level Rd), Pitt Academy is directly across the intersection.



Lottery!!! Con't on Page 2

iDisk

If you have a .Mac account, you can use iDisk to transfer data. Since the iDisk is used through an Internet connection, using this method for large data files without a high-speed Internet connection takes a long time. You can also purchase various amounts of drive space on a yearly basis, which provides additional data storage flexibility.

OSX to OSX

Carbon Copy is a great utility to duplicate existing OS X volumes. Carbon Copy Cloner will retain file permissions and copy all of the hidden files. Carbon copy can be downloaded from the web at: <http://software.bombich.com/cc.html>

PC to Mac Transfer:

Apple has made it really easy for PC users to switch to Macintosh. Move2Mac is a kit that includes software and a USB cable to connect from the PC's USB port to the USB port on your new Mac. Detto technologies estimates that it will take approximately 15 Minutes to move 500 MB of data. The software allows you to select what folders and files to move. Move2Mac does not translate files or translate PC applications into Mac Applications. For instance, if you wanted to run Microsoft Office, you would need to get the Mac Compatible version. Most files will not require any conversion to operate in the Mac environment. The one major exception to this is Quicken. Quicken files need to be reformatted to be used on the Mac.

When transferring data, most of the information that you have created is stored in your home directory. This is in the Users directory at the root level of your hard drive. There are some files in your Library that will not transfer by hand. The files that you will want to get for sure from your (the tilde ~ character is a UNIX symbol for the home directory) ~/Library are Addresses, Application Support, Favorites, Fonts, iTunes, Mail (if you are using OS X Mail), Preferences, and Safari. There are other files in the Library folder at the root of your hard drive that you may want to move depending on your configuration.

Tips and Hints

Only copy files, not applications. You'll want to install applications to ensure that they install correctly. If you are using OS X, copying each of the Users' folders over to the new computer will grab just about everything.

Setting your old computer aside for a few days until you are 100% sure that you have everything that you want, is much less stress than finding out AFTER you have reformatted your hard drive!

(To read the whole article go to http://www.smalldog.com/subscribemain_n.html and click on Kibbles&Bytes Archives, Scroll down to 9/26/2003, #334. To subscribe to **Kibbles&Bytes**, a weekly email newsletter, from Small Dog Electronics, go to http://www.smalldog.com/subscribemain_n.html.



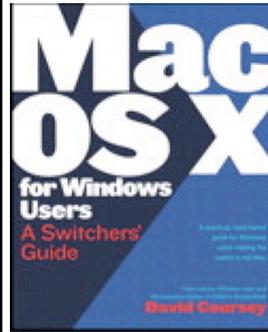
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Switchers

The mention of PC to Mac Transfer above, reminded me of a new book out. *Mac OS X for Windows Users: A Switchers' Guide* by David Coursey (Peachpit Press, 2003; \$17.99 (free shipping) at <http://www.peachpit.com>; \$13.99 at <http://www.amazon.com> (It is also available at the Library (005.4469/M189co, free).



I found it useful in that it showed me some of the differences between Windows and Mac so I can better communicate with my sister, a Windows user on a Dell PC, when she is using my Mac. Command Key versus Control Key, Option Key versus Alt key, etc.

Throughout the book you'll find interviews with Switchers (some of the Celebrities from the ads as well as others) These interviews should provide information for anyone thinking about switching. Also ammunition for anyone trying to convert a Wintel user or trying to survive in a Wintel environment at work.

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Upcoming Programs 7 P. M. at Pitt Academy (see map on page 2)

- October 28** Harry Jacobson-Beyer will present Graphic Converter & iPod and iTunes
- November 25** A Q&A session. Bring all your questions and there should be one or more knowledgeable persons present to provide answers.
- December** No meeting in December

Please, we need suggestions for the new year. Let us know what you want. Contact Harry Jacobson-Beyer (harryjb@bellsouth.net) for programs. Suggestions for the newsletter? Contact Anne Cartwright (cartwrig@aye.net).

**Louisville Computer Society
Macintosh Users Group
Membership Application**

Please send your \$26 check for a year's membership, made out to Louisville Computer Society to:

Louisville Computer Society
P.O.Box 9021
Louisville, KY 40209-9021.

Thanks! See you at the next meeting.

Fill out the following ; clip on the dotted line (or copy to another piece of paper) and send in with your check .

New or Renewal Membership

Name: _____

Home Address: _____

City: _____ State: _____ Zip+4: _____

Home Phone: () _____ Your E-Mail: _____ Your Home Page: _____

How did you hear about LCS? _____

You Won the Lottery!!!

You lucky so-and-so. You won the lottery and I assume your first expenditure will be for the new Dual 2GHz Power Mac G5, the world's fastest personal computer and the first with a 64-bit processor. Great for everything. There's only one rub. Setting up a new computer. Remember how difficult and time consuming moving all your data from one computer to another can be?

Well thanks to Dawn D'Angelillo and Pat O'Rourke of **Kibbles&Bytes** (#334) for the following guides to speed you on your way.

These steps will walk you through some of the basic ways to get your "old stuff" loaded happily on your new Mac (whether it's a G5 or not)!

Mac to Mac Only Transfer:

FireWire Target Disk Mode

FireWire target mode is by far the fastest (and easiest) way to transfer data from one Mac to another. Both computers, host and target computer, need to have FireWire. Although any FireWire compatible computer can be the host, the target computer needs to be manufactured in mid-2000 or later (Visit Apple's support website for more specifics).

1. Make sure that the target computer is turned off. If you are using a PowerBook computer or iBook computer as the target computer, you should also plug in its AC power adapter.
2. Use a FireWire cable (6-pin to 6-pin) to connect the target computer to a host computer. The host computer does not need to be turned off.

3. Start up the target computer and immediately press and hold down the T key until the FireWire icon appears. The hard disk of the target computer should become available to the host computer, and it will likely appear on the desktop.

4. When you are finished copying files, drag the target computer's hard disk icon to the Trash, or select Put Away from the File menu (Mac OS 9), or Eject from the File menu (Mac OS X).

5. Press the target computer's power button to turn it off. Unplug the FireWire cable.

Mac to Mac, or PC to Mac Transfer: Direct Ethernet Connection

If you have both computers in the same location, you may be able to use an Ethernet cable to connect both computers together and copy files between them. You may need an Ethernet crossover cable depending on which model Macintosh you own. This method has the advantage of being fast and being able to transfer any amount of data. Once connected by Ethernet, turn File Sharing on (Control Panel in OS 9, System Preferences in OS X). Once file sharing is active, share the contents of one of the hard drives. You'll then need to connect to the shared drive as you would connect to a server.

Portable Hard Drive or Storage Device

If your computer has either FireWire or USB, you can use a portable drive to transfer data. Portable FireWire drives provide the fastest transfer rate, and are widely available. However, unless the computer has a FireWire port, which is not as common

on PC computers, you will not be able to use a portable FireWire hard drive. A portable USB hard drive can be used, but USB transfers can be slow.

Note: While the faster USB 2.0 standard is available on some PC computers, some Macintosh computers only work with USB 1.1.

CD Burner or Other Portable Media

Creating a CD of the files on your computer is one of the easiest methods you can use to transfer any amount of data. This method provides the added benefit of creating a backup of your data.

Using portable ZIP, Jaz, magnetic optical (MO), or other forms of portable media, is similar to burning a CD. Also, as long as the media device can be used on both computers, this method provides an excellent way to transfer any amount of data.

Email

For small amounts of data, such as word processing documents, pictures, or small application data files, using email to send data to yourself as an attachment is another option. However, if the data files are over 1MB in size, or if you do not have a high-speed Internet connection, you should try other methods before using this one.

Note: Some Internet service providers (ISPs) place restrictions on how large email attachments can be, so you may not be able to use this method with large data files, even if you have a fast Internet connection.

Lottery!!! Con't on Page 2



Demos of the
new cat and
the G5

Night of the Panther (Mac OS X 10.3)

Friday October 24, 8 PM-Midnight

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