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HARDWARE REVIEW

For your
information



LET'S TAKE A NEW LOOK AT MULTIFUNCTION PRINTERS (MFP)

Not so very long ago, multifunction inkjet printers were considered to be very expensive and they were not as reliable as products dedicated for a single function. That has changed dramatically. Prices have dropped (some as low as \$50) and the quality of MFPs has climbed. Multifunction printers combine the functions of a printer, copier, scanner, and sometimes a fax, all rolled into one convenient product.

SAVE SPACE

I believe the primary appeals of multifunction printers are that it takes up little space on your desktop, it is extremely convenient, and it saves over buying separate hardware for each of those functions.

EASE OF USE

On top of that, it is extremely easy to use. Many MFPs offer push-button simplicity. Push one button to copy a document in color, another if you want to copy in black and white. Press another button to scan a document. That beats making a series of software choices with menus.

Open the lid and insert the document that you want to copy just as you would with any office copier. Press the copy button (color or black and white), select the number of copies and away it goes. Scan a document the same way, but push the scan button instead of the copy button. What could be any easier than that?

The MF printer prints text and graphics, and does a reasonably good job with photographs.

EASY TO INSTALL

Connect the MF printer's USB cable to your computer, the power cord to an AC outlet, and start enjoying the convenience of a printer, copier, and a scanner.

WHY ARE THE PRICES FOR HOME MFP UNITS SO CHEAP?

Okay, depending on their feature sets and speed per page, MFPs vary greatly in price. Still, they are bargains compared to printers made just a couple of years ago. Printer manufacturers have finally come to realize that they make their big money by selling consumables and not by trying to make a killing on the sale of their printers. They want you to buy their brands of print cartridges.

Premium printers offer premium features . . . but features that you probably don't need and can live without.

- ! Do you need the ability to print, automatically, on both sides of a page (duplex printing)?
- ! Do you want your MFP to act as a copier without turning on your computer? That is an extra cost option, but it is very convenient.
- ! Do you need the ability to scan at 9600 dpi when your primary use is to send low resolution pictures by e-mail?
- ! Do you need a duty cycle of 50,000 pages per month when you will print at most 1,000 pages a month, if that? I don't think so, unless you are running a business.
- ! Do you want a digital film reader built-in, or the ability to scan negatives?
- ! How many pages per minute (in normal mode or best mode) are acceptable to you? The speed trade off is price. Ignore the inflated draft mode speed.
- ! What maximum media size must your printer accommodate? (8.5x11, 11x14, or 11x17 inches)
- ! Do you want and need fax capability because you use dial-up? (A fax does not work with cable. It isn't needed since it is easy to send documents via Internet cable, and there are no associated telephone charges.)

Are you In the market for a new printer?

Even if you plan to purchase locally, use the power of the

Internet to comparison shop by features and price for the MFP(s) or printers that you are considering. Search for reviews to get a feeling for comparison ink usage and costs per page, ease of use, reliability, and the feature sets you want . . . at a price that you are willing to pay. Consider any negatives disclosed by the reviewers. You may be able to live with the cited negatives.

Check out www.pcmag.com, www.pcworld.com, http://.reviews-zdnet.com.com/4502-3181_16-0.html, www.cnet.com, www.dealtime.com, www.shopping.hp.com, www.usa.canon.com, www.epson.com, www.lexmark.com, www.bizrate.com, www.tigerdirect.com and read *Consumers Report* for their testing results. Be aware that *Consumers Report* tests a limited number of printers from various manufacturers.

Narrow your choice down to the manufacturer and model that you want and look for the best price (including shipping costs if you are ordering online.) Check the manufacturer's web site for the latest information and specification.

Consider the **Total Ownership Cost (TOC)** of owning and operating your printer, not just the cost of initially buying it. Base your calculations upon your estimate of the average number of pages that you will print each month, and the type of documents that you generally print (mainly text, text with

some graphics, text with lots of graphics, some photos, or lots of photos). The calculation is based upon the cost for ink cartridges, the number of pages you can reasonably expect from each cartridge with its ink coverage, and the initial cost of the printer spread over the number of years you expect to keep your printer. Figure on three, four, or five years.

If possible, determine the per-page-costs for the printers you are considering. Remember this fact. The cost of the consumables will be many times the cost of your printer over the life of the printer. In the long run a more expensive printer may cost much less than a seemingly cheap printer, because it uses separate color and black and white cartridges with greater ink capacity and much lower ink costs per page.

For example, according to www.ConsumerReport.org, a Canon F20 or F30 multifunction printer costs 3.6 cents per text page and 80 cents per 8x10 photo. Compare those costs with the Lexmark X75 at 5.9 cents and \$1.40, or the HP PSC 2210 printer at 6.1 cents and \$1.10. Comparing the Canon and the Lexmark printers, the total cost for the Lexmark passes the Canon at 115 photos. Canon consistently has the lowest consumable costs among MF printers reviewed by *Consumers Report*. (Cartridges: \$7.00 for B&W, \$18.50 for color).

SOFTWARE REVIEW: ADOBE READER 6.0

DOWNLOAD THE LATEST VERSION - 6.0



Adobe Reader is a free file viewer designed to display and print files saved in the *Portable Document Format* (PDF), such as Bug-Bytes. Documents saved in the PDF format are machine independent and display with all of the formatting of the application that generated the document. Version 6.0 is the latest version of the reader. It adds the following new features:

- Play back QuickTime (Macintosh and Windows®) as well as Macromedia® Flash™, Real, and Windows Media-formatted content (Windows only) that is embedded in an Adobe PDF file
- Extract photos from Adobe Photoshop Album slide shows and electronic cards, and send them to online photo services for ordering prints, photo albums, greeting cards, and more (online services vary regionally)

- View documents layered in Adobe PDF files created with layers preserved
- Receive product updates using the enhanced Adobe Product Updater

PDF files are prepared using either Adobe Acrobat or one of a number of third-party products designed for that purpose. The files are created using a PDF print driver. WordPerfect includes an option to publish documents to either HTML or to the PDF format.

Download version 6.0 (free—15.3 MB) from <http://www.adobe.com/products/acrobat/readstep2.html>. Warning. So if you have a dial-up connection, plan accordingly.

Uncheck the Fast Page Option.

SOFTWARE REVIEW: FREE HARDWARE ANALYSIS SOFTWARE



Sandra Max 3! From [www. SiSoftware.net](http://www.SiSoftware.net)

The standard version of *SANDRA*, by SiSoftware, is free for personal and educational use and it is highly recommended by major PC publications as a hardware diagnostic, reporting, and benchmark tool. *SANDRA* stands for **S**ystem **A**nalyser, **D**iagnostic and **R**eporting **A**ssistant

So, why would you want to use diagnostic software? Sandra enables you to uncover details about your system that are normally hidden from you—information that may be hard to discover without such a tool. For example, it has information on your BIOSs that may zip by too fast for you to read as your computer starts up. When you are considering updating your BIOS, you need to know who made it, and what version you are currently using.

The software is an excellent way to benchmark your hardware to verify that you got what you paid for, and it helps you to fine tune some of your settings with its Wizard Tools. Go to their site and then to the download page. Download the version of Sandra for your computer system. For most of you that will be the English version for Windows98/ME/NT/2000/XP/2003. Take it for a spin. Note that some advanced features are functional only in the Professional version. If you need those additional tests (and few of you will), buy the professional downloaded version for \$36.99, or add \$12.00 to get the programs sent to you on CD.

The standard version of the software includes these modules:

- Wizards
- Information
- Benchmarking
- Testing
- Listing



The performance tune-up module can be especially helpful as is the Combined Performance Index module. The latter compares your system versus any other system you choose.

New computer users, and even some advanced users, may find that the amount of information that is available is overwhelming. However, if you need particular information, it is there and easy to get at it. You can display the information on your screen, or save it to your hard disk.

Q AND A TIME

ARE ALL DIGITAL FILM MEDIA CREATED EQUAL?



In a word, the answer is **no**. Digital film chips are sold in different speed versions. There are significant differences between manufacturers of the same style of film (Compact Flash, SmartMedia, etc.) Think of the chips as slow, medium, fast, and very fast (a professional version).



They are typically sold in increments of X, as in 1X, 4X, 12X, 32X, and 40X speeds. Depending on your camera and the film you purchased, ideally, your camera will write (save) data to the chip at a rate of about 150KB/second for each value of X.

It is not clear in such ratings what you can expect as the difference between reading and writing figures. You can get a general idea of how this all works at www.dpreview.com/articles/mediacompare/default.asp. Remember that it takes more time to save pictures to your

camera's digital film with a slow chip than a faster one. If you only take a few pictures at time, you might not notice the delay at all. If you take lots of pictures, and want to take a series of pictures very quickly, with little delay between pictures, then the speed rating of your digital film may become very important to you.

A good source for comparison prices for digital media is www.dpreview.com. As you will note, the cost/megabyte varies widely from manufacturer to manufacturer. Do your research before you buy additional film capacity. That way, you can make the best choice from among alternatives. **Be aware that some premium-priced cards perform no better than standard cards.** If possible, go with cards that have been reviewed and which appear to perform as you want them to.

Remember this. It is better to have too much film capacity than too little capacity. Digital film, as with computer memory in general, is a bargain. Take advantage of it. Another good source of pricing information, and information

about different media, is www.tigerdirect.com. If you purchase online versus locally, be sure to include the cost of shipping in your decision process. Shipping costs may not be a big deal if you're ordering other items at the same time.

A WEB SITE OF THE MONTH - [HTTP://BABELFISH.ALTAVISTA.COM/BABELFISH/TR](http://BABELFISH.ALTAVISTA.COM/BABELFISH/TR)

Vous Parlez Français? Sprechen Sie Deutches? Usted habla español? Translate to or from English

Stumped by a foreign language citation, or by something you saw in a photo? Want to translate a block of text from English into another language? Click on the URL above and let *Babelfish* do the work for you. It is educational and fun.

DISCOVER THE MSCONFIG PROGRAM

THE MICROSOFT CONFIGURATION UTILITY



For Advanced Users: Windows 98 to XP include a special configuration tool. It is msconfig.exe. The tool gives users of those operating systems a tool with which to control which programs immediately load upon startup. Many software publishers attempt to give their products a leg up on the competition by loading parts of their programs when your computer starts. Very few of those programs need to stay resident and to use up valuable memory resources. Msconfig includes a startup tab. Click on the startup tab and you will discover a long list of programs—unnecessary programs. If normal startup is selected, uncheck the “normal” box and select the box that says “Selective Startup, and check each of the four boxes listed there (Process system.ini, Win.ini, Load System Services, and

Load Startup Items).

If you leave the Normal box checked, Windows loads everything but the kitchen sink. If Selective Startup is checked, you decide which if any programs Windows should load as part of the setup. You will be amazed at the length of the list of programs that are competing for memory. For example, I unchecked everything except for the two programs by Symantec that related to their virus checker, a Dell file that controls their extended keyboard, files for AdSubtract and SpamSubtract, and a file for my firewall, Zone Alarm Pro. That's it.

What happens when you uncheck files in the list? Most of the programs will work in a manual mode rather than an automatic mode. If you really need a

program to run as part of Setup, you might get an error message, or that program doesn't work. If that is the case, just start Msconfig again (Start, Run, Msconfig), click on the Startup tab and add check marks for any programs you now want included in startup. Your computer should take less time to boot and be more stable than it is trying to load programs that are not needed at startup.

Be aware that some programs are included only in the Startup folder on your computer. If you don't want one or more of those programs to load, search (Start, Find or Search for Startup) for the startup folder and drag the files you don't want there to your desktop. If you discover that you changed your mind, drag the file or files back to the startup folder.

A LOOK AT THE “ESC” AND “PRINT SCREEN” KEYS

WHAT DO THEY DO?

E P

The **ESC key** is called the “escape” key. It cancels the current task. Think of it as escaping, or backing up one

step. Perhaps you discover that you pushed a key by mistake and want to back up to where you were just before

that, or you don't like the results of something you just tried. Press the ESC key.

The **Print Screen** key is somewhat of a misnomer. The key should probably say “Clip Board” on two lines instead of Print Scrn or Print Screen. The key is a holdover from the old DOS days.

In DOS, when you pressed that key, what was on your screen printed on your dot matrix printer. Today, If you press that key, a copy of your desktop is saved to a temporary space called “The Clipboard.” The clipboard is a Windows program. In earlier versions of the operating system, you will find it

in Start, All Programs, Accessories, Clipbord (spelled that way to conform to the eight-letter DOS convention for filenames). The application is hidden in Windows XP.

You can paste (Ctrl-V) whatever you copy to the clipboard into any document that handles graphics files. As you probably know, you use the clipboard whenever you cut and paste text into your documents. The Print Screen key is a special case. Your whole

screen is copied as a graphic to that work space.

Third-party programs offer much more useful print screen routines. For example, with Gadwin Systems’ Freeware, *Print Screen*, you pick all or any part of what is shown on your screen via hot keys and print it, e-mail it, insert the image into a document, or save it to a graphics file for editing and later use. Try it. You’ll like it. Get it at <http://www.gadwin.com/printscreens/>

E-MAIL TIPS

CUSTOM SORT YOUR E-MAIL and USE ARROW KEYS



SORT TIPS: Do you know that you can sort your e-mail by Priority, Attachment, Flag, From, Received, and Size (in ascending or descending order)? Why would you want to do that? Because, sorting gives you a way to aggregate your messages according to one of those criteria. For example, a sort by From pulls all your messages together by sender. That makes it easy to delete all or some messages from particular senders, or to find everything that was sent to you by some particular sender— messages that are still on your machine.

Sort by Received (my default) and then by descending order will sort your messages so that the most current messages are right at the top. Sort ascending and the oldest messages will be at the top. Remember that you can double-click on the heading of any column to toggle that view from ascending to descending.

Sort by Attachment if you are doing some cleanup and you want to start with files with attachments, or by Size if you want to review the largest files.

DRAFT-PRINT TO SAVE INK

Set your printer for draft mode when you print e-mail. You don’t need high quality print as you would for external communications.

You can select the draft mode a couple of different ways. In Outlook Express, one way to print in draft mode is to click on File, Print, Preferences, Paper/Quality and select draft, black and white.

Alternatively, you can create a duplicate printer definition, and save it with the draft mode selected. Open the Printer/Fax dialog in your Control Panel (Start, Control Panel), click Add Printer and select the driver for your

printer from the list that is shown. If your printer is not shown, you will need to insert the CD that came with your printer.

Rename the resulting printer definition so you know that it is the draft version. Then, you can alternate between your printer definitions based upon what you are going to print. Use this same procedure to create a definition to be used only for high quality color photo output.

Figure out which printer definition you use the most and make that your default printer.

Remember. If you click on the print icon in Outlook Express, it will automatically use your default printer. To select something else, click on File, Print, and select from the printer definitions that you created, or modify one of them using Preferences in the Printer dialog.

