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## PRESIDENT'S CORNER

The May flowers are certainly in bloom! But before we run away for the summer, we have two blockbuster meetings coming up.

### May 10 – General Meeting

At our May 10 meeting, we have a special presentation. A representative from MAC Business Solutions will present some of the latest printer and camera offerings from Epson and Canon. This meeting will truly be the highlight of our meeting calendar. In addition to demonstrating this equipment, one lucky member will be the owner of a brand new, high-end, Epson R800 Photo printer!



- Epson 8-Color UltraChrome™ Hi-Gloss pigment ink for archival quality glossy and matte photos lasting over 100 years
- Eight individual cartridges, including matte black ink and gloss optimizer
- World's first 1.5-picoliter droplets and up to 5760 x 1440 optimized dpi for unsurpassed clarity and detail
- Prints a 5" x 7" color photo in as fast as 45 seconds and black text at up to 17 ppm<sup>1</sup>
- True BorderFree™ photo printing in popular photo sizes (4" x 6", 5" x 7" and 8" x 10")
- Print directly on ink jet printable CD/DVDs
- Fast connectivity w/ built-in Hi-Speed USB 2.0 and FireWire® (IEEE 1394) *cont'd on Page 2*

## Buying Guide for Digital SLR Cameras

### Megapixels and More

Most entry-level D-SLRs are either 6 or 8 megapixels, but there has been a steady increase in megapixels, with mid range D-SLRs, now delivering 10- to 12MP images. This means you'll get images with more data for larger prints, or maybe for more radical cropping in your image-editing program. Keep in mind that a 6MP D-SLR will give you more than enough data for a great 8 x 10 print. If you're interested in fine-art, large-size prints, you might want a 10, 12 or 16MP D-SLR.

Here are some other things to think about when getting a D-SLR: Do you want a pop-up flash on your camera? Professional D-SLRs don't have them, but entry-level models generally do. What type of memory card does your camera take? Some entry-level models use SD or xD cards, but most still take CompactFlash cards or microdrives. Right now, xD cards are limited to a 2GB capacity, making CompactFlash better for avid photographers. Look to see what file formats are available on your camera: Most shoot RAW and JPEG, and not as many support TIFF anymore. Like RAW, TIFF is a lossless format, but it lets the camera handle some image settings, like white balance and sharpness. Also, some higher-end D-SLRs enable you to shoot in varying combinations of RAW and JPEG files so that you get two files with each picture you take.

How big does your LCD need to be? Many D-SLRs now have 2.5-inch screens. Do you care if your D-SLR is powered by a rechargeable proprietary lithium ion battery, or do you want to

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## PRESIDENT'S CORNER - cont'd

This would be a great time to get the word out about the meetings and bring a guest or two with you to the meeting.

### June 7 – General Meeting

Due to the school calendar, the June meeting will take place on the first Wednesday of June, the 7<sup>th</sup>. We will have a guest presenter at this meeting also, local digital photography guru, Mike Alloy. Mike Alloy will discuss how to take advantage of the features of your digital camera while on summer vacation. And for the second month in a row, a very special door prize will be given away to a member of the attending members.

### More of you out there...

I recently received an update of the membership list and we are now well over 100 members in good standing. I would like to welcome the new members of the users group, and thank those members who have been with us for years.

If you are a recent member of the users group, I would encourage you to attend an upcoming meeting, in addition to the door prizes; I think you will learn a couple new features of using your PC.

*See You Soon*

*Michael*

## How to Buy a Desktop PC-cont'd

buying a nonbundled display, make sure it will work with the system you want-or that you at least have a money-back guarantee.

• **Upgrade at the time of purchase.** Often, you can get a better deal on a larger hard drive or a better monitor when you first order your computer. Even doubling the size of a hard drive may add very little to the cost, and upgrading to a higher-quality monitor may add only \$100.

• **Avoid gimmicky keyboards to save money.** Many vendors tout fancy keyboards with extra buttons for launching apps. Save some money by choosing the cheapest option unless you have a specific need for the fancier one.

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## Digital SLR - cont'd

use double-A batteries? How fast a shutter speed do you need? Are there any special features you're looking for? Konica Minolta puts its vibration reduction technology into its camera bodies instead of its lenses (which is what most others do). Olympus has a special feature that knocks dust off the image sensor when the camera is turned on.

We also suggest trying out the camera in a store to get a hands-on feel for it. Try the burst modes on the model you're interested in to see whether it's quick enough and steady enough. How many frames per second (fps) do you want to shoot? Is the camera too heavy? Too bulky? Maybe you have large hands and don't like the feel of some of the more entry-level, compact D-SLRs. Check out the camera's menus, dials, buttons, multi-controllers, and so on. Is there anything you find awkward or annoying? Does the camera offer any help features? Ask to see the manual. Is it helpful, or just a jumble of jargon, acronyms, and meaningless charts? We cover most of these factors in our reviews, but there is no substitute for hands-on testing.

### Extras That Count

While we have made much of the D-SLR camera body, a very powerful part of the D-SLR experience is the fact that it's part of a system that includes a variety of accessories. Aside from lenses, there are external flashes, wireless adapters, focusing screens, power packs, teleconverters (for extended telephoto ranges), and much more. We can't emphasize enough the importance of being able to choose from a variety of accessories, which really enables you to personalize your system.

Last, when you actually want to purchase a digital camera, make sure you purchase from a trustworthy vendor. Watch out for products sold via gray markets or unauthorized channels. Often a product that was purchased overseas is resold here below list price. That may sound appealing, but gray market cameras will not be covered by any warranties.

## Microsoft support for Windows 98, ME to end in July 2006

*Circle July 11 on the calendar; after that, you're on your own*

Windows 98, Windows 98 Second Edition (SE) and Windows Millennium Edition (ME) are nearing the end of their support from Microsoft Corp.

The software vendor will stop supporting these operating system editions on July 11, according to information [<http://support.microsoft.com/gp/lifean18>] on its Web site.

On that date, all public and technical support for the products will be suspended, and Microsoft also will stop security updates for the operating systems, the company said. However, online self-help support will be available on Microsoft's support Web site until at least July 11, 2007. Microsoft says the operating systems are "outdated" and pose security risks to customers, which is why it is ending support for them, according to its Web site. Microsoft recommends that customers still running them upgrade to newer versions of Windows, such as Windows XP, as soon as possible.

Microsoft originally planned to end support for Windows 98 and ME in January 2004, but extended that to June 30, 2006. It announced in January that final support would come on July 11 to allow for some last security patches.

Windows 98 and ME are less likely to be found in businesses than they are on home machines. According to a December 2005 JupiterResearch survey of nearly 2,300 PC customers, 16% were running Windows 98 or 98 SE in their homes, and 6% were running Windows ME.

Microsoft recently pushed back the consumer release of the next major update to Windows, Windows Vista, until January 2007. Jupitermedia analyst Joe Wilcox said that means customers still running Windows 98 or ME that must upgrade by July most likely will move to Windows XP and forgo upgrading to Vista upon its release in January. This poses a concern for Microsoft, which "still is not getting people to upgrade as quickly as they would like," he said.

Since Microsoft originally expected Vista would be released a lot sooner than it will be, it's possible that the company thought it would be available when it decided to end support for 98, 98 SE and ME in July, Wilcox added.

# How to Buy a Printer

## Introduction

No matter how digital-savvy we think we are, most of us need to put ink to paper from time to time. It may not be as glamorous as the latest tiny gadget, but that trusty, dust-covered printer in the corner is the workhorse many people depend on. *PC World* tests and reviews three different types of printers—inkjets, monochrome lasers, and color lasers—on an ongoing basis, and also regularly tests multifunction devices that use each of those printing methods. No matter which kind of printer you're looking for, here's the information you need to make a well-informed purchase.

## The Big Picture

From inexpensive inkjets to monochrome and color lasers, different printers are designed to do different jobs. Here's how they stack up, feature by feature. For most people, choosing a printer entails balancing price, speed, and print quality. But as models improve, manufacturers differentiate them in other ways. Inkjet printers, along with digital cameras, are changing the way we print photographs. When loaded with special photo inks and paper, inkjet printers are one of the best options for transforming a digital image into a photograph.

For monochrome lasers—whose text quality is so good and uniform that models' output samples are almost indistinguishable from each other—breadth of features is a major selling point. This is good news for busy offices: For example, thanks to extra paper trays and more memory, lasers can print more efficiently; they also come with more-capable drivers, and permit easier remote management. And as color lasers drop in price, more users can afford to add color to their workplace documents. The least-expensive color lasers we've seen so far, now cost about \$400.

## Key Features

**Speed:** The marketing war among printer vendors has escalated so much that it has yielded utterly

meaningless print-speed ratings. Vendors frequently cite ratings based on printing only the simplest text documents, or printing in draft mode, and some don't include the time it takes for the PC to send a job to the printer. In any case, claimed speeds are frequently two, three, or more times faster than the speeds you'll see in real-world printing.

In our most recent Top 10 roundup of inkjet printers, the rated text speeds ranged from 5 to 30 pages per minute (ppm)—but in our tests, the actual text speeds ranged from just 3.8 to 6.9 ppm. Similarly, vendors claimed graphics speeds ranging from 2 to 24 ppm, while our tested speeds ranged from 0.8 to 2.6 ppm. Though you'll get similarly misleading promises from monochrome and color laser vendors, you will find faster speeds. In our most recent tests, monochrome lasers printed text at 15.0 to 25.1 ppm; color lasers printed text somewhat slower, at 6.8 to 18.7 ppm. For graphics, color lasers' printing speeds ranged from 1.1 to 5.6 ppm—much slower than advertised.

**Print quality:** Most monochrome and color lasers print razor-sharp text. Color lasers print color charts and other two-dimensional graphics well, but they can't match inkjets in handling photographs. On the other hand, while inkjet photos can be beautiful, especially on glossy paper, most inkjet printers produce somewhat fuzzy, jagged text and can't reproduce fine detail in line art or graphics.

**Resolution:** Inkjet printers generally have a maximum color resolution of 4800 by 1200 dots per inch (dpi). Many printers also use software to interpolate an image and to smooth out patches of color, fill in gaps, and sharpen more-detailed sections. Such enhancements can affect print quality as much as the printer's resolution. The best way to determine print quality is not to look at the resolution specs but to print out a sample and judge for yourself.

Monochrome lasers usually have a maximum resolution of either 1200 by 1200 or 600 by 600

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# How to Buy a Printer - cont'd

*cont'd from Page 4*

dpi, and color lasers usually offer a maximum color resolution of either 2400 by 1200 dpi or 2400 by 600 dpi. Even these fairly modest resolutions for lasers suffice for printing sharp text and simple graphics.

**Cost per page:** For inkjets, the cost of ink has the biggest impact on the overall cost of the printer over time. Vendors generally charge \$20 to \$40 for a three-color cartridge and \$10 to \$35 for a separate black cartridge. Usually, the cheaper a cartridge is, the less ink it holds; yields range from about 300 to 800 pages per cartridge.

In tests of inkjet printers conducted by the Rochester Institute of Technology on behalf of *PC World*, the cost per text page ranged from 2.1 to 7.7 cents per page. The cost per color graphics page ranged from 7.7 to 15.8 cents per page. For full-size photo printers, the total cost (including paper) per 4-by-6-inch photo ranged from 46 to 97 cents. For compact snapshot printers, the range was 23 to 81 cents.

Many vendors offer higher-capacity cartridges; though more expensive, they contain more ink, so they cost less per page. Most vendors also sell printers with individual cartridges for each color instead of one cartridge for all three colors. These are worth a look, because in our experience printers using multiink cartridges have a higher cost per page on average.

**Features:** In the past, almost all inkjets offered the same features: one paper tray for 100 or 150 sheets and 10 envelopes, minimal buffer memory, and no networking option. However, these days vendors are increasingly using features such as increased paper management options and 802.11b/g wireless networking to differentiate their products. Makers of business-oriented inkjets are also offering higher capacities, optional paper trays, ethernet network connectivity, and more memory.

Laser printers generally have more features and options than inkjets do. Monochrome lasers hold from 150 to 850 sheets, with corporate models frequently holding at least 600 sheets as standard;

color lasers hold from 200 to 1200 sheets. You can also add trays that hold as much as 5000 sheets. Most high-end lasers include at least 16MB of RAM, with expansion options permitting a few hundred megabytes of memory for queuing multiple print jobs at once (for a busy office, equip your laser with at least 32MB); some offer optional hard drives that you can use to save complex forms and other preprocessed images or to store passwords for confidential print jobs, and they all have standard or optional ethernet adapters. Some more recent lasers also have new features such as the ability to print directly from a USB flash drive.

**Photo printing:** Many mainstream photo-oriented inkjets include a feature called PictBridge, which is a dedicated USB port for connecting your digital camera directly to the printer. Most also have built-in media card slots that let you plug in a storage card and press a button for instant prints, as well as an LCD menu for selecting prints; each of these options means you don't have to go through a PC to output images. These printers can produce beautiful color photographs. If you change the settings in the driver to "Best" or "Photo" mode and use premium photo paper, many inexpensive, sub-\$100 printers can generate high-quality photo prints.

## The Specs Explained

Given the wide variety of printers available on the market, we've made a specific chart for each of the three most popular types of printers; Inkjet printers, monochrome (black-and-white) laser printers, and color laser printers.

## Inkjet Printers

The slowest, but most affordable type of printers, inkjets, shoot tiny sprays of colored ink through microscopic holes in a printhead onto a page, one printhead-height row at a time. Most inkjet printers offer resolutions of up to 4800 by 1200 dots per inch, which makes them suitable for printing high-quality graphics and photos, though typically more

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slowly than a monochrome or color laser printer would.

Inkjet printers are inexpensive printers for the masses, designed for home users, students, or anyone who isn't concerned about the highest text quality. However, a high price does not necessarily indicate excellent graphics or photo prints. The real cost of an inkjet printer comes not from the price of the unit itself, but from the ongoing cost of replacing ink cartridges. Printer manufacturers use a business model similar to that of razor makers: You can buy a great razor for very little money, but you spend a lot replacing the blades.

**Print quality** Fair to Very Good  
Good to Very Good

**An important consideration.** While price doesn't always indicate the print quality of an inkjet printer, there is some correlation. Before deciding on a specific model, check our Top Inkjet Printers chart to see how it did in our print-quality tests.

### Maximum print resolution

1200 by 1200 to 4800 by 1200

1200 by 1200 to 9600 by 2400

**Somewhat important.** Resolution is the number of dots in a square inch that a printer can spit out onto a sheet of paper. More dots give you a finer level of detail, which is especially important with graphics but negligible with text.

### Paper tray & ink cartridge capacity

50 to 300 sheets 100 to 300 sheets

**Somewhat important.** Expect to add paper frequently if you use the printer regularly, as most home-oriented models come with only one paper tray. Many inexpensive printers require costly cartridge replacements every 50 to 100 pages, which is usually about the maximum capacity of one paper tray. If you print lots of photos or graphics, you may have to replace ink cartridges even more often.

### Typical cost of cartridge replacement

\$10 to \$25

\$15 to \$35

**Somewhat important.** The printer may be cheap, but the price and capacity of inkjet consumables will determine the lifetime cost of a particular printer. Before plunking down your cash, ask how much the replacement ink cartridges cost and how many pages each cartridge can print.

## Monochrome Laser Printers

From home offices to businesses, monochrome laser printers offer the best balance among price, print quality, and speed. They're almost ubiquitous in the business world, as any office with a PC almost always has a monochrome laser printer as well. Home users might choose a laser printer over an inkjet model if they print a lot of text documents. Prices for monochrome lasers have dropped to a low of around \$150 for a personal printer, making them a viable alternative to inkjets: For almost the same price as an inkjet, some monochrome laser printers are faster, produce much better text quality, and are less expensive to maintain because laser toner cartridges are much less costly than inkjet cartridges.

### Print speed for text

12 to 20 ppm (tested speed)

18 to 25 ppm (tested speed)

**An important consideration.** This is the speed at which the printer can output full pages of text, which is the primary use for monochrome laser printers. Corporate lasers can print text at nearly twice the speed of home models.

### Maximum print resolution

600 by 600 to 1200 by 1200

600 by 600 to 1200 by 1200

**Somewhat important.** Resolution refers to the number of dots in a square inch that the printer can output. More dots provide a finer level of detail, which is especially important with graphics.

**Memory** 2MB to 32MB of built-in RAM  
16MB to 128MB of built-in RAM

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# from the Secretary's Desk

## Minutes of CHPCUG Board meeting on January 18, 2006

**Attendees:** Mike Young, Karl Richmond, Mike Regimenti, Mike DeLucia, Lee Wickline, and Kris Johnson

### Discussion about future programs for the general meetings:

**May** - "Canon Digital Cameras, Epson Photo Printers & Gretag Color Calibration Software" by MAC Business Solutions. The Board authorized Mike Regimenti to procure an Epson R-800 printer to be used as a door prize for members.

**June** - "The Latest & Greatest in Digital Cameras" by Mike Alloy

**September** - Video Animation (Tentative)

### NEW BUSINESS

1. It was decided that the club would buy another Adobe Creative Suite 2 for Mike Delucia to be used for the website.

2. Mike Young said that the application for the grant from HP has been applied for and Karl is finalizing the application for the grant from the government under the Combined Federal Campaign list of organizations.

3. Publicity - Kris reported that flyers had been left in at least 8 public places in and around Arnold and 6 publications were notified about our May meeting.

Mike Regimenti to make new flyers to include phone number and website. The decision was to use all of the free advertising opportunities open to the group.

### TREASURER'S REPORT

Karl gave his monthly report and indicated that we are solvent. A credit card has been obtained for the CRSIG and the Treasurer.

## The SIGS

### Technology SIG

Next Technology SIG meeting will concern Microsoft Security updates and what happens when they don't work.

### CRSIG

Fran Damratowski was out of town - Kris reported that they had delivered approximately 1250 computers.

### MSCUG SIG

Lee Wickline reported that their group would follow the same "school year" schedule as the main group.

### Some Final Comments:

Mike Young thanked everyone all of their hard work and hanging in there and increasing our groups visibility and increasing the groups membership.

This is the last board meeting for the season.

Meeting adjourned at 8:00 PM.

*Kris Johnson*  
*Secretary*

# How to Buy a Printer - cont'd

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**Somewhat important.** Printers queue documents in memory and store TrueType fonts locally to produce the best output. More memory lets you print more documents more quickly, or upload more fonts for higher-quality text. Most printers let you upgrade RAM as needed without shipping the unit back to the factory.

**Connections** Parallel, USB, ethernet, Wi-Fi, infrared

**A minor consideration.** A USB or parallel port is all that home users need to connect a printer to a single PC. Business users or those with home networks will want an ethernet port so more than one user can share the printer. Some models now also have 802.11b/g wireless networking or even an infrared (IrDA) port, either standard or as an option. This is great for notebook or PDA users who want to print without the cable clutter.

## **Paper tray capacity**

150 to 300 sheets

300 to 850 sheets

**A minor consideration.** Corporate lasers, designed for large offices where many employees share the printer, have two to three times the paper capacity of home models.

## **Color Laser Printers**

Designed for offices where color brochures, photographs, or graphics are paramount, color laser printers are rapidly dropping in price. If you need color, you'll probably want an inkjet printer, but color laser printers are becoming increasingly more affordable. Even though color lasers use toner cartridges bearing a higher initial investment cost, you'll get striking color prints on plain paper at less cost per page. Some new color lasers are also capable of printing glossy photos, though their results usually can't match the quality of an inkjet in this area.

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## **Print speed in color (full-page graphics)**

Less than 1.6 to 5.6 ppm (tested color graphics speed)

**An important consideration.** This is why you might spend the extra money: High-end color laser printers have increased paper handling options, and sometimes also better speeds and print quality. If you print a lot of color graphics, speed will be the most important factor in your decision. Note, however, that when we test printers we often find that vendor-stated speeds are higher than actual tested speeds; see our Top Color Laser Printers chart.

**Print quality** Fair to Very Good  
Very Good to Superior

**An important consideration.** Crisp graphics are the most important factor in deciding which color laser printer to buy. Our Top Color Laser Printers chart describes the results we get when printing standardized test patterns and full-page graphics. Some low-end models aside, both color and monochrome lasers generally print text extremely well.

## **Maximum print resolution**

600 by 600 to 2400 by 1200

600 by 600 to 9600 by 600

**An important consideration.** Resolution means the number of dots in a square inch that the laser can output. More dots provide a finer level of detail, which is especially important with graphics but negligible with text.

## **Print speed in monochrome (text)**

12.8 to 18.7 ppm (tested speed)

**Somewhat important.** In general, color laser printers print text documents at similar or slightly slower speeds than monochrome lasers.

# How to Buy a Desktop PC - Part Deux

**Sound:** In the office, the basics should suffice; integrated sound in your PC is more than adequate for most work. At home, though, you'll probably want surround sound. If your PC doesn't already support surround sound, for \$100 or more you can buy an upgraded sound card with Dolby 5.1 support, plus a decent set of speakers that includes a subwoofer.

**Design:** A good case can make your everyday work easier and can simplify the task of upgrading or servicing components—an especially valuable perk in offices with multiple systems. A well-designed case will offer tool-less access to the interior, hard drives mounted on easy slide-out trays, and color-coded cables for internal and external parts.

At home, look for at least two USB ports in front so that you can easily hook up peripherals. If you have a digital video camcorder, get a PC with a FireWire (IEEE 1394) port.

If you plan to keep the system for a while, make sure you have some room for expansion. You'll want at least a couple of open drive bays and probably a free PCI slot as well.

**Software:** Most home and office PC users should find Windows XP Home a perfectly acceptable operating system. You should buy Windows XP Professional only if you want to take advantage of its management features, such as Remote Desktop, which lets users control the computer remotely over the Internet. Most vendors offer XP Home, XP Pro, and the increasingly popular Windows XP Media Center Edition.

**Warranty and tech support:** Because most PC problems tend to crop up in the first year, a one-year warranty should be fine. A two- or three-year warranty will add about \$150 to \$200 to your cost. Businesses can get options like 24-hour on-site response, but they must pay dearly for it.

**Keyboard and mouse:** Almost all systems include these commodity components, usually a Windows-compatible 102-key keyboard and a two-button mouse with a scroll wheel. Many vendors are switching from PS/2-connected devices to USB models that offer more features, such as additional programmable keys that can launch favorite

applications or Web sites. Wireless keyboards and mice are especially useful for Media Center PCs. Optical mice, which use a small camera to detect motion, provide smoother, more precise control over mouse movement. They also eliminate the need for you to remove and clean a coated ball, as with older mice.

## The Specs Explained

The vast majority of people buy a PC to browse the Web, check and send e-mail, and perform word processing or spreadsheet work. Today, even the least-expensive, lowest-of-the-low-end PC can perform any of those jobs admirably. You'll want a little extra performance if you use peripherals such as a printer or scanner. You'll want even more performance if you're a gamer, if you're interested in digital video, if you perform other processor-intensive tasks, or if you simply need to have the latest and greatest.

Most vendors let you customize and upgrade their base-model PCs with a mind-boggling selection of features. Need extra storage? Pick a larger hard drive. Ready to burn DVD movies? Choose a multiformat optical drive. Take your time and pick only what you need. And be sure to check our various Top 10 PCs charts before making your purchase. Below is a rough breakdown of some of your configuration options.

<b>Installed memory (RAM)</b>	512MB
	512MB to 1GB
	1GB and up

**An important consideration.** The more installed memory your PC has, the more applications you can run at once, and the better the system will perform. Upgrading memory in a desktop is a snap. (Compare PCs with recommended amounts of RAM.)

<b>Processor (CPU)</b>	2.4-GHz Athlon 64 4000+ or	
	2.8-GHz Pentium 4	2.6-GHz Athlon 64 FX-55
	or 3.8-GHz Pentium 4	2.4-GHz Athlon 64 X2 or
	3.2-GHz Pentium D	

**An important consideration** The processor determines how quickly the PC runs applications

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# How to Buy a Desktop PC - Part Deux

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and performs many tasks, with speed measured in billions of operations (GHz) per second. AMD Athlon processors perform some tasks faster than Intel Pentium 4's running at the same clock speed.

**Warranty and service plan** 90-day parts and labor warranty, phone support during business hours One-year parts and labor warranty, 24-hour phone support Two- to three-year (or longer) parts warranty and one-year (or longer) labor warranty, 24-hour phone support and on-site service

**An important consideration.** A service plan provides a valuable lifeline for busy professionals or novice users who may not be able to repair difficult problems themselves. Check *PC World's* annual Reliability & Service survey, where readers collectively determine which PC makers provide the best and worst technical support and warranty service.

## Graphics board and graphics RAM

Integrated (onboard) graphics chip  
128MB nVidia GeForce 6600-based or ATI Radeon card Dual SLI nVidia GeForce 7800-based or ATI Radeon X850 XT card

**Somewhat important.** The graphics board or integrated graphics chip generates all images on the PC. Graphics boards come with variable amounts of on-board memory; only hardcore gamers need the speediest, most advanced models.

**Monitor** 17-inch LCD 17-inch LCD-19-inch or larger LCD

**Somewhat important.** Many people can get by just fine with a 17-inch LCD monitor, but the prices of larger screens are dropping. Once-expensive, 17-inch LCD displays are the sweet spot, while larger LCDs are well within reach for people who like (or need) to work at the highest resolution.

**Hard drive size** 40GB to 80GB  
80GB to 160GB 160GB and up

**Somewhat important.** The larger the hard drive, the more data you can store. Most business users don't need a hard drive larger than 40GB, but for mixed use, you'll need at least 80GB. People who work with big databases; spreadsheets; or digital

photo, music, or video files should think larger, and consider RAID for increased security and performance.

**Optical (CD or DVD) drive** DVD-ROM/CD-RW combo drive Rewritable DVD combo drive Rewritable dual-layer DVD drive and DVD-ROM drive

**Somewhat important.** All PCs need an optical drive to read CDs and DVDs. More-advanced drives also let you back up files onto disc (with a CD-RW or writable-DVD drive) or watch movies (with a DVD-ROM drive). Top-of-the-line drives write on double- or dual-layer discs.

**Removable storage and ports** One or two USB ports on the front of the case More than two USB and FireWire ports in the front USB, FireWire, and audio/video ports in front

**Somewhat important.** Using a thumb drive is more common and convenient than carrying a floppy disk. You also want to make sure your PC has at least one or two USB ports on the front of the system, to plug in your iPod or other device, as well as more in back. High-end or Media Center machines should also have audio/video and FireWire ports within easy reach.

**Peripherals** 102-key PS/2 keyboard & USB mouse 102-key USB keyboard & USB mouse or trackball USB multimedia-enhanced keyboard & USB optical mouse or trackball

**A minor consideration.** Some users prefer newer keyboards with programmable buttons, and optical mice that don't require cleaning; these items, however, aren't essential. Media Center PCs offer wireless.

## PC Shopping Tips

Ready to buy a desktop? Here are some recommendations for the average user's minimum requirements:

• **A 3-GHz Pentium 4 or 2.4-GHz Athlon XP 4000+ processor.** For everyday work, word processing, spreadsheets, and e-mail, you don't need the latest, greatest, and most expensive

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## How to Buy a Desktop PC - Part Deux cont'd from Page 10

processor. Current AMD processors of the same clock speed perform some tasks faster than Intel processors.

- **At least 512MB memory.** Anything less will slow your work, especially if you plan to run several applications under Windows XP. Buy as much as you can afford, up to 1GB.

- **Be careful when you buy integrated graphics.** If you buy a computer with integrated graphics, ask if it has a PCI Express slot. If it doesn't, you won't be able to upgrade your graphics chip.

- **Subwoofers improve sound.** Adding a sound system with a subwoofer (a large speaker that produces very low bass tones) can dramatically improve the sound quality of a home system, even if the speaker set is inexpensive. In the office, however, a booming subwoofer may trigger an uprising among your co-workers.

- **A 17-inch flat-panel LCD monitor.** CRTs are dead. Unless you're really pinching pennies, a 17-inch LCD will let you see your documents with greater definition (or at a higher resolution) than smaller displays would.

- **A rewritable DVD drive.** Floppy drives have faded away. CD-RW-only drives are on the way out. Though your computer might still include a CD-RW drive, many users find that thumb drives, CD-RW/DVD-ROM combination drives, and recordable DVD drives are better options for data storage and transfer. They allow you to back up important documents (up to 1GB on a thumb drive, 700MB on a CD, and 4.7GB on a standard DVD), share files with colleagues, and create custom audio or video discs. A CD-RW may be all you need, but a DVD recorder lets you back up larger amounts of data.

- **A 60GB or larger hard drive.** A 40GB hard drive is fine for simple word processing or Web browsing tasks, but you'll likely fill that hard drive pretty quickly. In the long run it's best to buy more hard drive than you think you'll need. Today's largest hard drives reach 500GB, but unless you're planning to use your PC as a mini server for your office database or for electronic entertainment, a smaller drive may be more cost-effective.

- **Connectivity up front.** Many PCs now offer a pair of USB ports on the front of the case, so you can connect multiple peripherals without having to fumble around in back. If this is important to you, look for PCs with up-front FireWire (IEEE 1394) ports, audio and video connectors, and USB 2.0 ports.

- **Graphics cards for novice gamers.** If you want to do some gaming and you're keeping an eye on the future, get a mainstream graphics board, which can be about \$200. You'll need a card with a built-in TV tuner if you plan to record video from your TV.

### Other Shopping Tips

In addition to choosing a PC with the above specifications, PC shoppers can save money and avoid unnecessary hassle by following these tips:

- **Don't buy additional software unless you really need it.** Purchase an operating system, an office suite, and an antivirus package. But if you need more, look for vendors' software bundles to upgrade your software. For as little as \$100, you can often upgrade from Microsoft Works Suite or a similar package to a full office suite like Microsoft Office XP Small Business Edition—a great value considering Office XP runs more than \$300 off the shelf.

- **Don't get caught up surfing price reductions.** If you need a new PC now, don't wait a few months to see whether prices will drop further and upper-end performance will improve. Some readers find themselves stuck in an endless price-drop waiting game. Instead, decide when you need the system, and go for it.

- **Buy above minimum specs for the longest useful life span.** If longevity is a priority (and if you can afford it), get something closer to, but below, the current top of the line. This will extend the useful life of your PC.

- **Check an LCD monitor's interface.** Depending on the brand or model of LCD monitor, it could have one of several interface connectors—the part that plugs into the PC. These include the well-known VGA and the superior DVI connectors. If you're

*cont'd on page 2*

**The Next Regular Meeting will be at  
The Severn River Middle School**

**Wednesday,  
May 10<sup>th</sup>, 2006**

**Meeting will be held in the large meeting  
room.**

**It starts at 7:00 PM with club business  
and a short discussion period.**

**There will be Presentations on  
Canon Digital Cameras, Ep-  
son Photo Printers, Gretag  
Color Calibration Software**

**by**

**MAC Business Solutions**

**Members and their friends are welcome to  
come, ask questions and become enlightened.**

## **How to Find: Severn River Middle School**

SRMS is close to the Arnold, MD campus of the Anne Arundel Community College. From Annapolis and parts south, take Rte 2 (Ritchie Highway) north about 3 miles from the intersection of Rt. 50, **turn right on College Parkway**. At the first light, turn left on Peninsula Farm Road. (Of course, if you are coming from points North, you would turn left on to College Parkway) about a half-mile down the road the large SRMS school building, set back off a large two level parking lot, will be visible on your right. Park here and go to the main entrance. Signs will be posted to direct you to the **Large Group Room** where we will be meeting.

**How to find: The Technology SIG, A ChPCUG Special Interest Group\*\***

*Meets the 1<sup>st</sup> Wednesday of each month at 7:00 PM*

**The meetings are held at the SRMS in the Library.**



**Chesapeake PC Users Group**

1783 Forest Drive #285  
Annapolis, MD 21401

**FIRST CLASS**

## **INSIDE THIS VERY ISSUE!**

**President's Corner  
Digital SLR Guide  
How to Buy Printer  
Microsoft Ends Support!  
How To Buy A Desktop PC-Part Deux  
from the Secretary's Desk  
... and a little more!**

**Note:** *The date above your name on the mailing label is the expiration date of your membership. Contact the Membership Chairman (page 2, column 2) to update.*

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