Is a New PC on your Holiday Wish List?

(Part Two)

By Bruce A. Love

Last week we examined some basic considerations to keep in mind while preparing a wish list to send a certain bearded fellow up at the North Pole. We described how to specify the right processor, hard drive, and memory for a new computer, in case any elves are listening for hints about what you would like to find underneath the Christmas tree this year. This week, we add a few more details to ensure that you are overjoyed with the new addition to your family.

Computers usually have a number of "bays" in the front of the computer. These are mostly used for removable storage media such as diskettes, CD-ROMs, and DVDs. Unused bays are hidden behind bay covers. It is nice to have several extra bays available for future use. Portable storage devices have undergone significant changes in recent years. The floppy disk, which has been used to transport files for the last 15 years is nearly extinct. It is being replaced by various forms of CD-ROM and DVD technologies. Floppy diskettes, which hold just 1.44MB and susceptible to damage from dirt, dust, and magnetic sources, are dwarfed by the 700MB capacity of the CD-ROM, and the 4.7 GB capacity of the most common DVDs. Still, the convenience of transporting smaller files is a great feature of floppies. I like having a CD-ROM drive with rewrite capabilities (a CD-RW) and a DVD drive. Another option to consider is one of the new combination drives which allow you to burn (copy) to CDs and also play DVDs.

Your choice of monitor and graphics interface is another important consideration. The traditional CRT monitor (cathode ray tube) has two major specs to consider: dot pitch, and maximum resolution. Dot pitch refers to how closely packed the pixels (dots) are on your screen. These measurements average about .27mm. The smaller the number, the easier on your eyes, and the harder it is on your bank account. Maximum Resolution is specified with a particular screen size at a specified refresh rate (i.e. 1024x768 pixels at 85 Hz). The higher the numbers here, the better.

The traditional CRT monitor is beginning to be phased out by the more expensive flat panel screen. Flat panel proponents justify the higher costs citing that they last longer, take up less room on the desk, and produce less eyestrain. While flat panel specs also list pitch, I have found that the "Prime Mode" listed by some manufacturers is the best indication of the quality of the monitor. Bigger Prime Mode numbers are better, but most flat panels produce a very acceptable output.

A great monitor cannot perform well unless you have a good video card in your computer. For anyone NOT interested in video editing or computer gaming (the 3-D variety that many younger people enjoy), a standard video card (graphic adapter) or even an integrated video configuration can be quite adequate. However, if you are interested in pushing your monitor to the limit and seeing faster screen load times, consider a high-end video card. For gaming enthusiasts and video producers, consider a video card with at least 128MB memory with controller speeds of at least 300Mhz, controller widths of at least 128 MB, and on-board memory data width of at least 64 bits (but preferably 256 bits). Between the larger memory requirements, the high-end graphics card, and the higher resolution monitor needed, getting a computer to play games can be many hundreds more than would be necessary for most other uses.

Some computer manufacturers are offering some awesome deals on their computers this holiday season. Dell, for instance, is advertising free shipping, a free printer, and free upgrade to a flat panel monitor with the purchase of many of their computers! Whether you buy a Dell or not, visit their site and try customizing a computer to meet your needs. You will discover that Dell provides a lot of online information about each computer part which will help you decide which configuration is best for you.

If you missed Part One of this series and have Internet access, visit www.loveconsulting.com and click on the link under our logo. You can also access any previously printed column by clicking on the "Articles" link.

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(Part One)

By Bruce A. Love

As we enter the holiday season, I know that some "kids" are hoping they'll find shiny new computers underneath their trees on Christmas morning. Unfortunately, Santa is not the most technologically savvy elf. If you have been dreaming about a computer that will satisfy all your cyber desires, you may want to be specific when writing your holiday wish list this year to help Santa find the perfect one for you.

I have received several inquiries regarding computer purchases. It would be nice if there were one computer that was right for everyone, but buying the "right" computer depends on two factors: intended use and budget. If you are in the market for a new PC, you are in luck. Prices are down, and companies are offering some nice incentive with the purchase of a new PC (such as a free printer, scanner, or shipping). Still, the purchase of a computer is a sizable investment. Before you start shopping for one, determine how much you are willing to spend.

One of your first decisions you should make will be what processor you would like inside your machine. The processor is the brain of the computer. When buying a "home computer," you want a processor that will meet the needs of those who will be using the computer. If family needs are limited to being able to compose documents, exchange e-mails, surf the Web, run some educational software, or play some basic games, your needs may be satisfied by the less expensive computers. These will have processors with names such as AMD Duron, Sempron, or Intel Celeron.

If anyone in the family intends to use the computer to create Websites, compose music, edit videos, or play high-end virtual reality games, you should build your system around either a Pentium 4, or an Athlon XP processor. These will cost a bit more, but they will give you the processing power necessary to tackle complex tasks. Processors are rated by speed. When buying a computer, I usually go for one that has a processor that is a step or two below the best (fastest) processor available. This way I avoid paying a premium for the "latest and greatest," and I can also count on having the computer for a while before it becomes obsolete.

Memory is another very important consideration. Memory is located on RAM modules, or sticks, inside the PC. Memory is used to temporarily hold the file and application (program) while you are using them. These days, low-end computers usually come with 128 MB of RAM. This is sufficient for light use in word processing and web surfing, however, 256MB to 512MB is preferable (but will add $50 to $100 to the total cost of the PC). Increased memory size can have a significant impact on the speed of a PC – particularly if you like to have multiple programs opened simultaneously. If you are trying to keep initial costs down, you can start with 128MB of RAM and add more memory if you see a need for it. Adding RAM is a relatively simple operation.

When you finish working on a file, such as a Word document, you will want to save your work to the computer's hard disk. The hard disk is a permanent storage device that will hold your file even after a computer is turned off. Hard disks spin at very high speeds. Faster disks are better. If you have it in your budget, choose a hard disk rated at 7200 rpm. While 5400 rpm is often acceptable, you will appreciate the performance of a higher-end drive. Disk capacities have increased dramatically in recent years and prices have plummeted. Because of these enormous disk sizes, most people, particularly novices, will never come close to reaching the full capacity of these new drives. Even so, you might want to request a hard disk one step larger than the smallest one (i.e. 40 to 60 GB should be fine for most of us).

By specifying processor type, memory, hard disk size, and price range, you will be taking some significant steps toward ensuring that Santa will bring your family the computer of your dreams. Next week we will complete our list with a few more computer shopping considerations.

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