My Computer

Buying a computer

So you're buying a new computer? Well, you're in luck, because there's never been a better time -- they're faster, smaller, and more powerful than ever before, and they don't necessarily have to cost you an arm and a leg. But should you get a Mac or a PC? Laptop or desktop ? what difference does having an AMD or Intel processor make? And if you're planning on getting a laptop, how do you make sense of the alphabet soup that is Wi-Fi (802.11a, b, g, n)?
Let's try to choose the best computer for our needs. So that we have to compare several computers and their tech specs.

Laptop or Desktop?

When shopping for a computer, you need to decide whether you want a laptop or a desktop. If you need to work from anywhere except the computer desk in your home, a laptop is clearly the way to go -- many portables are as or more powerful than their bulky, stationery desktop cousins.
That said, desktops usually offer more bang for the buck -- $1,000 can buy you a pretty powerful desktop with most of the fixin's you need to live a productive and fun computing life, but the same money will only get you a so-so laptop.
Also, if you plan on using your computer as the central hub for all your music, movies, and online entertainment, then getting a souped-up media-centric PC or Mac that plugs into your TV and home theater system is the way to go. Otherwise, top-of-the-line desktops are useful only for hardcore gamers and video editors -- if you don't fall into either of those categories, then don't spend much money for a desktop.

Laptop Types:

Most often, laptops are divided up into four general size categories: ultra-portable, thin-and-light, mainstream, and desktop replacement, each with its own particular pros and cons. But, that list has now been complicated by the emergence of the Netbook, a very small, low-power laptop aimed at basic tasks like Web browsing.

Ultra-portables are for those who want to carry their laptops everywhere everyday. They weigh less than 4-pounds and have long-lasting batteries (four hours or more on a single charge), but also have tiny screens (12-inches or less) and slightly sluggish processors. Ultra-portables sometimes also lack bulky extras such as DVD drives and extra inputs, which make them ideal for business users who need to have a computer with them at all times for work, but do not care about entertainment, gaming or editing their videos or pictures.

If performance and screen real estate are important, but you still plan to carry your laptop around much of the time, then make the jump to a **thin-and-light notebook**. Models in this category generally weigh in at about 5-pounds and pack in beefier processors, as well as 13- or 14-inch wide screens. This size category is popular with business users or students who need to carry their computers with them always, but want more power for fun tasks like watching movies or downloading and listening to music. Thin-and-light notebooks also have regular-sized keyboards, which will be a relief to anyone who has to write TPS reports and/or term papers

So-called **mainstream** laptops are, more often than not, cheaper and less svelte versions of their thin-and-light cousins. 15-inch wide screens are the norm, as are weights of about 6-pounds. These specs make them portable, but they're a bit big to stick in many backpacks and can be tiring to carry around with you every day. Still, you won't get more bang for your buck in another category, which makes mainstream laptops an ideal choice for those on a budget.

At the top of the heap are **desktop replacements**. These over-sized monstrosities are good if you want top performance, but are tight on space or want to be able to compute from various locations in your home (since they can be easily moved from room to room). 17-inch screens are the standard, but 19-inchers are available as well. The models in this category contain top-of-the-line components that are far better at handling video editing and gaming than the other types of laptops. They also weigh anywhere from 7-pounds to 10-pounds. But with such big screens and powerful innards, desktop replacements only have an average battery life of about two hours, so don't expect them to last for too long away from an outlet.

Netbooks are the latest fad from the computing industry. Companies desperate to make a little extra cash have created a whole new category of computer designed to be sold as a second, cheaper PC. Though small and cute, netbooks aren't really ideal as your main computer since the keyboards are just too small for long typing sessions and some won't even let you install any software. If you're just looking for something light to lug around with you to check e-mail and browse the Internet when you're out of the house, but don't need "real" computing power, then look into one of these little guys. They usually come with Linux or XP (never Vista) and usually have 7-inch to 10-inch screens -- not really great for watching a movie, but fine for some quick correspondence or reading the news.

Desktop Types:

If you're getting a desktop PC, then size makes less of a difference. Most desktops are roughly the same size and shape (a blocky desktop tower that fits under your desk), but increasingly popular are all-in-one and small form factor (SFF) computers.

Small form factor (SFF) computers -- the HP Pavilion Slimline, Dell Hybrid, the Mac Mini and anything from Shuttle -- cram everything (computer, DVD or Blu-ray drive) into a small-cake-sized unit that literally will fit on your desktop. SFFs typically don't come with a monitor, but they're also only around $500 and tend to be optimized to plug right into an HDTV, if you're planning on using it as your entertainment player as well as a computer (in fact, they can make a nice alternative to buying pricey Blu-ray players and Tivo/DVRs, since they can handle the tasks of both of those components). SFFs often use laptop components to cram as much power in as little space. As a result they also use less energy than a standard desktop. And in this economy keeping your electricity bill as low as possible is always a good thing.

All-in-ones -- the iMac, Dell XPS One, and Gateway One, among others -- are also useful for saving space. By hiding all of the PCs components behind an LCD screen, all-in-ones cram as much computer as possible into something that looks just like a flat-panel television. Besides reducing desktop clutter, the generally stylishly-designed all-in-ones look nice on the media credenza in the living room.

Standard mid-towers -- which look just like every desktop you've seen for the past 15 years -- are still the most popular style of desktops, however, and tend to offer the most bang for your buck. They require no specially-designed compact parts, which keeps cost down, and their larger size allows for more airflow, which is necessary for keeping higher performance components cool. High-end gaming PCs that feature Intel's Core 2 Extreme processors and dual-graphics cards usually fall into this category. Again, only hardcore gamers need consider a gaming PC.

Tech specifications and other features

This is the really techy stuff. AMD or Intel processors? What speed? How much RAM (random access memory)? The most important thing to look for is RAM, which has the most impact on the speed of your computer. Accept no less than 2-gigabytes (GB), but if you've got the cash, spring for 3- or 4-gigabytes (GB), just to be safe, especially if you intend to run the resource-hungry Vista. If you're determined to save some money on RAM, then buy the standard 1-gigabyte (GB) and get your technologically-inclined nephew to upgrade it for you after the fact. (Hint: Shopping at Newegg.com could save you up to $100 over the Apple memory upgrade in particular.)

When choosing a processor, the decision between AMD and Intel is

pretty simple: Unless you plan on only e-mailing or word processing, or if price is a concern, you should go with an Intel processor -- they just tend to be faster and more efficient, which means fewer mysterious freeze-ups during computing and longer battery life if you opt for a laptop. Any Core 2 Duo will do -- and aim for the 2-gigahertz (GHz) and higher models if you plan to do any gaming. If the computer you like only offers AMD processors, then go with AMD's top-of-the-line Phenom X4 or Turion 64 X2 mobile processor in a notebook.

Intel's standard Pentium line (not Pentium M or Pentium 4, just plain Pentium) is fine for those with only basic computing needs and tight budgets, but avoid anything that has the word Sempron in it. Sempron is the bottom of the barrel, bargain processors from AMD, and it's only single-core, under-powered, and outdated by the time you get it home. We'd also recommend holding-off on Celeron processors until the end of 2008, when the more affordable processor brand from Intel will get a dual-core upgrade. While both Sempron and Celeron processors may do the job for a brief period of time, you'll be wishing you dropped the extra $50 on a processor upgrade when it takes a full three minutes to launch the next version of Internet Explorer or Firefox.

Make sure to get the latest processors from Intel, which are built on the chipmaker's new(ish) 45nm process. The technology leads to faster and cooler processors that wont burn your lap or your wallet. The latest from Intel are still called Core 2, but can be distinguished by their processor numbers that start with "8" or "9" (i.e. E9500 or P8600). When shopping for a laptop you can make your life a little easier by searching for a Centrino 2 sticker, which ensures you've bought the right chip.

When it comes to optical drives, a DVD +/- writer is the standard, and is good enough in most instances since it'll handle the most common disc formats. If you plan to watch HD movies, look for a Blu-ray drive -- it's pricey but worth it if you're a high-def movie buff (and if you plan to watch video content on your TV, look for an HDMI output on the computer). Be warned, though, that many ultra-portables, such as the MacBook Air and the Lenovo X200, shed an optical drive to save size and weight, which means an external drive will be needed to watch DVDs, rip and burn CDs, or, in most cases, install software from a CD or DVD.

The last thing to look at is a graphics card. Many cheaper computers and laptops use "integrated" graphics, which means they're built into the system and borrow RAM to operate. These graphics chips are good enough for most everyday tasks, but if you plan to do any gaming beyond playing 'Minesweeper' and/or run Vista, then look for a "discrete" graphics solution from either ATI or Nvidia that has its own memory. In a laptop look for either an ATI HD 3xxx or an Nvidia GeForce 9xxx series with at least 128-megabytes of memory. If you're going the desktop route and plan on doing any serious gaming or video editing, then spring for the top of the line GeForce 280 or ATI's HD 4800 series with at least 512-megabytes of dedicated memory. Or, even better, spring for two!

Extras

If only you were done with your computer-shopping considerations, but there's more to a computer than simply the computer. How will you get online? What's WAN? And what kinds of extra hardware or

peripherals -- monitors, printers, keyboards, speakers, and more -- will you need?

Wireless: The wireless mess of 802.11a, b, g, n -- that mysterious set of letters and numbers you see on computer wireless spec lists -- is actually much simpler than it would appear. "802.11n" is the latest and greatest, "802.11g" is the standard and "802.11b" is the original standard. "802.11a" is the red-headed step child that never quite took off, and you probably won't miss it if your wireless card won't support it. We strongly recommend making sure your laptop has "n" installed and it couldn't hurt on a desktop either (who wants to run messy cables all around the house?). It's twice as fast as 802.11g -- ideal for streaming or downloading even HD-quality video over Wi-Fi -- but will still work on "g" networks. If a laptop doesn't have Wi-Fi capability, then don't buy it.

There are other connectivity options to consider when shopping as well. Bluetooth will allow you to use a headset with your PC for placing voice calls over applications like Skype, Google Talk, or Gizmo. It will also allow you to sync your smart phone or use your mobile handset as a modem with a laptop for getting online when Wi-Fi isn't an option. Some keyboards, printers, and mice connect to your computer wirelessly via Bluetooth as well.

If you plan on being out and about with a notebook, but always need to be able to get online, then think about adding a built in 3G cellular WAN (Wide Area Network) connection for broadband speeds from just about anywhere there's a cell phone signal (many ultraportable and thin-and-light notebooks offer this option). You can also get add-on cards for WAN access on laptops that don't have the feature built-in. You'll need a PC card slot or a USB port for these add-on cards to work. Sprint and Verizon offer 3G EVDO mobile broadband cards, while AT&T Wireless offers 3G HSDPA cards, which will work overseas if you plan on traveling internationally.

Ports: As far as ports (a.k.a. inputs on your computer) go, make sure your computer has at least 2 USB ports, but the more the merrier. (Most desktops have plenty of USB ports, so this is an issue that mostly affects laptop buyers.) If you plan on watching HD movies (from Blu-ray or downloaded files) on a TV, consider getting a computer with an HDMI output, which is the standard Hi-Def connection.

Keyboard and mouse: Desktops always come with a keyboard and a mouse, but if you're picky or want a bigger keyboard for your laptop, then don't be afraid to upgrade to something a little more durable or comfortable. Wireless keyboards and mice are recommended if you want to have a clean desk or feel like working from the couch -- we prefer keyboards that use tried-and-tested 2.4GHz or IR for wireless connections rather than unreliable Bluetooth, which can be unreliable. For our picks of excellent keyboards for every need and budget, check out our computer keyboard roundup.

Monitors: Most desktops also include a monitor as part of the price, but on less expensive systems, companies skimp here to keep the price as low as possible. Definitely upgrade to at least a 19-inch widescreen monitor, though 20- or 21-inches is even better if you plan on playing games or watching any video or slideshows. A good quality monitor should have a resolution of at least 1440x900 (higher on larger monitors) and a response time of 8ms. If you're going to be doing any gaming, get a monitor with the quickest response time you can find (5ms or less or fast-paced games may look blurry).

Printers: Printers are usually the last thing shoppers think about when picking up a computer. But instead of settling for whatever aging model is on sale, spring for a quality device. If you print a lot of text documents (teachers and English majors,we're looking at you), you'll want to drop a little extra cash on a laser printer, which is fast and offers slightly more affordable "ink." Prices have come down and decent models can be had for $200, and you'll thank us when you have to print out 30 copies of your manuscript and it doesn't take all week.

For those with less demanding needs, go for an inkjet device. Inkjets are great for printing photos or color documents and much cheaper than a Color laser printer. A decent inkjet printer can be had for under $100. And a few extra bucks will snag you an all-in-one device that also faxes, scans, and copies. When picking an inkjet printer, make sure that color images print at a high resolution (4800 x 1200 at least) and that it will accept smaller glossy paper for borderless, professional quality photo printing.

When you buy a computer you have to compare every tech spec, and choose every component according to your needs.

Input Devices

In computing, an input device is any peripheral (piece of computer hardware equipment) used to provide data and control signals to an information processing system such as a computer or other information appliance. Input and output devices make up the hardware interface between a computer and a scanner or 6DOF controller.
Many input devices can be classified according to:

- modality of input (e.g. mechanical motion, audio, visual, etc.)
- the input is discrete (e.g. key presses) or continuous (e.g. a mouse's position, though digitized into a discrete quantity, is fast enough to be considered continuous)
- the number of degrees of freedom involved (e.g. two-dimensional traditional mice, or three-dimensional navigators designed for CAD applications)

Pointing devices, which are input devices used to specify a position in space, can further be classified according to:

- Whether the input is direct or indirect. With direct input, the input space coincides with the display space, i.e. pointing is done in the space where visual feedback or the pointer appears. Touchscreens and light pens involve direct input. Examples involving indirect input include the mouse and trackball.

- Whether the positional information is absolute (e.g. on a touch screen) or relative (e.g. with a mouse that can be lifted and repositioned)

Direct input is almost necessarily absolute, but indirect input may be either absolute or relative. For example, digitizing graphics tablets that do not have an embedded screen involve indirect input and sense absolute positions and are often run in an absolute input mode, but they may also be set up to simulate a relative input mode where the stylus or puck can be lifted and repositioned.

Keyboard

In computing, a keyboard is a typewriter-style keyboard, which uses an arrangement of buttons or keys, to act as mechanical levers or electronic switches. Following the decline of punch cards and paper tape, interaction via teleprinter-style keyboards became the main input device for computers.

Despite the development of alternative input devices, such as the mouse, touchscreen, pen devices, character recognition and voice recognition, the keyboard remains the most commonly used and most versatile device used for direct (human) input into computers.

A keyboard typically has characters engraved or printed on the keys and each press of a key typically corresponds to a single written symbol. However, to produce some symbols requires pressing and holding several keys simultaneously or in sequence. While most keyboard keys produce letters, numbers or signs (characters), other keys or simultaneous key presses can produce actions or computer commands.

In normal usage, the keyboard is used to type text and numbers into a word processor, text editor or other program. In a modern computer, the interpretation of key presses is generally left to the software. A computer keyboard distinguishes each physical key from every other and reports all key presses to the controlling software. Keyboards are also used for computer gaming, either with regular keyboards or by using keyboards with special gaming features, which can expedite frequently used keystroke combinations. A keyboard is also used to give commands to the operating system of a computer, such as Windows' Control-Alt-Delete combination, which

brings up a task window or shuts down the machine. Keyboards are the only way to enter commands on a command-line interface.

Alt (alternate key)

a special key which can open toolbar windows, assist other commands, or change the accent over a letter.

On Macintosh computer the Alt key is called the Option key.

arrow keys

a set of four input buttons on a keypad or keyboard often used for navigation in interfaces or applications.

The girl used the arrow keys to move the space ship in the video game.

caps lock key

a key which toggles letters between upper and lower case

Hapless users leaving caps lock key on is a frequent problem when logging into secure systems.

^ (caret key)

often used to denote rising another number to a power; also used in regular expressions to denote the starting point

2 ^ 3 = 8.

Ctrl (control key)

a computer key often used in shortcuts or to initiate some action with the help of another key

A popular shortcut in Microsoft Word is to hit ctrl-s to save a document.

Del (delete key)

a key which moves the cursor one space to the right deleting any character which might be there

Jeremy accidentally fell asleep at his computer, his nose hitting the delete key, and his term paper was completely erased.

Esc (escape key)

a key normally in the upper left corner of a keyboard labeled with program specific functions such as backing out of a menu

The student had never used the escape key before he started programming the Unix shell.

function key

any one of several "F" keys on the keyboard that performs a programmable input

Most people have function keys on their keyboards, but only advanced users ever use them for anything.

 # (hash key)

this key is often used to comment out code or signify a number; in the US this known as a pound sign or a number key

Often you must press the hash key on a telephone when entering information into a telephone.

Pgdn (page down key)

a key which jumps the cursor a preset amount of distance towards the bottom of a document

Because of varying concepts of a 'page', many programs react differently to the page down key.

Pgup (page up key)

a key which jumps the cursor a preset amount of distance towards the top of a document

The teacher told the students to hit the page up key several times to get to the top of the document.

Pr Scr (print screen key)

a key which normally captures the current screen to the clipboard to be pasted into an imaging program

Many graphic designers use the print screen key to take screen shots of applications to be used in tutorials or brochures

scroll lock key

a legacy key, normally with a corresponding LED light, which often has no assigned usage

The computer operator suddenly realized after 10 years he had never used the Scroll Lock key for anything.
tab key

a key that, when pressed, moves the insertion point to the next preset marker.

The usability expert showed the office workers how to save time by using tab instead of the mouse.

& (ampersand)

a key which is used in many languages to mean 'and'

In SQL queries, it is best practice to spell out 'AND' and must not use the ampersand (&) key as a shortcut.

*** (asterisk)**

the character which often means "multiply" in a math equation or "match all" in a RegEx wildcard

The programmer could not remember whether to use an asterisk (*) or percent sign (%) as a wildcard in his SQL regular expression.

@ (at sign)

the sign often used in email addresses to separate usernames from domain names

The at key is often in very different locations on many international keyboards

\ (back slash)

a key used for separating files and folders, normally in a Windows file system.

The users files were located in 'C:\documents and settings\gregbrady\my documents'

brackets

the punctuation marks '{' and '}' used in pairs to set apart or interject text within other text

In programming languages, brackets are often used to denote executable code in a FOR/NEXT loop.
case

in typography, this is the distinction between capital (big) and lower (small) letters

In order to change case on a computer, the user typically presses the "Shift" key

/ (forward slash)

a key used to separate folders and files, often used in Unix file systems

the user's php binary was located in /usr/local/php

> (greater than sign)

the sign which means that the value on the right is less than the value on the left

5 > 3

< (less than sign)

the sign which means that the value on the left is smaller than the value on the right

3 < 5

- (minus sign)

The operator sign often indicating the process of subtraction or difference

The program did not output the expected result because the programmer forgot a minus sign.
parentheses

the punctuation marks '(' and ')'used in pairs to group values or sets of values.

Parentheses are often used to show which mathematical values are calculated first in an equation.

% (percent sign)

the sign meant to show a common measurement based on a fraction of 100

The CEO reported that sales we up 75% over last quarter.

+ (plus sign)

the operator sign normally indicating the operation of addition

The elementary school teacher told the students that 2 plus 2 equals 4.

square brackets

the punctuation marks '[' and ']' used in pairs to set apart or interject text within other text

In programming languages, the use of square brackets are sometimes used to show elements of arrays.

~ (tilde)

this key normally means "approximately" in mathematics; in Unix systems this character is used to represent a home directory

The student learned that his home directory was 'home/~johndoe' ans his web directory was at 'http://www.university.co.uk/~johndoe'

_ (underscore)

a character often used in file names to join words without using a space; originally used on typewriters to make underlined text

The long file name "hippy_dippy_string_concatenation.pl" contained many underscores because spaces aren't advised in Unix file names.

Actividad de Espacios en Blanco

Put the name of the following keys:

-

#

%

&

( )

*

/ f

@

\

_

Mouse

Something went wrong :(

Ruffle failed to load the Flash SWF file.

The most likely reason is that the file no longer exists, so there is nothing for Ruffle to load.

Try contacting the website administrator for help.

View Error Details

Fill in the gaps

Read the paragraph below and fill in the missing words.

A mouse allows you to control the an move around the screen very quickly.

As you move the mouse on your desk, the usually on the screen moves in the same direction.

If you want to choose a menu option, you have to on the mouse button.

The mouse is also used to text and items on the screen, and then that text you can be deleted, copied or edited.

To move an object with the mouse, you have to put the pointer on it, press the button and the object to a new location on the screen.

Webcam

A webcam is a video camera that feeds its images in real time to a computer or computer network, often via USB, ethernet, or Wi-Fi.

Their most popular use is the establishment of video links, permitting computers to act as videophones or videoconference stations. The common use as a video camera for the World Wide Web gave the webcam its name. Other popular uses include security surveillance, computer vision, video broadcasting and for recording social videos .

Webcams are known for their low manufacturing cost and flexibility,making them the lowest cost form of videotelephony. They have also become a source of security and privacy issues, as some built-in webcams can be remotely activated via spyware.

Uses

Childcare webcast video monitoring

Childcare webcams can offer improved security, communication, and increased service value in daycare facilities. According to researchers and industry leaders, as many as 100 childcare facilities add Internet viewing systems each month, and the total number of centers with some form of Internet monitoring runs into the thousands. In the United States, private services have been offering dedicated webcasting systems to centers nationwide for several years as of 2010.

Videocalling and videoconferencing

As webcam capabilities have been added to instant messaging, text chat services such as AOL Instant Messenger, and VoIP services such as Skype, one-to-one live video communication over the Internet has now reached millions of mainstream PC users worldwide. Improved video quality has helped webcams encroach on traditional video conferencing systems. New features such as automatic lighting controls, real-time enhancements (retouching, wrinkle smoothing and vertical stretch), automatic face tracking and autofocus, assist users by providing substantial ease-of-use, further increasing the popularity of webcams.

Webcam features and performance can vary by program, computer operating system, and also by the computer's processor capabilities. For example, 'high-quality video' is principally available to users of certain Logitech webcams if their computers have dual-core processors meeting certain specifications. Video calling support has also been added to several popular instant messaging programs.

Video security

Webcams are also used as security cameras. Software is available to allow PC-connected cameras to watch for movement and sound, [9] recording both when they are detected. These recordings can then be saved to the computer, e-mailed, or uploaded to the Internet. In one well-publicised case,[10] a computer e-mailed images of the burglar during the theft of the computer, enabling the owner to give police a clear picture of the burglar's face even after the computer had been stolen.

Recently webcam privacy software has been introduced by such companies such as Stop Being Watched. The software exposes access to a webcam and prompts the user to allow or deny access by showing what program is trying to access the webcam. Allowing the user to accept a trusted program the user recognizes or terminate the attempt immediately. Other companies on the market manufacture and sell sliding lens covers that allow users to retrofit the computer and close access to the camera lens.

In December 2011 Russia announced that 290,000 Webcams would be installed in 90,000 polling stations to monitor the Russian presidential election, 2012.[11]

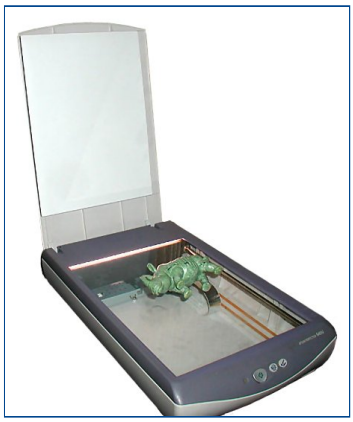
Video clips and stills

Webcams can be used to take video clips and still pictures. Various software tools in wide use can be employed for this, such as PicMaster (for use with Windows operating systems), Photo Booth (Mac), or Cheese (with Unix systems).

Input control devices

Special software can use the video stream from a webcam to assist or enhance a user's control of applications and games. Video features, including faces, shapes, models and colors can be observed and tracked to produce a corresponding form of control. For example, the position of a single light source can be tracked and used to emulate a mouse pointer, a head mounted light would enable hands-free computing and would greatly improve computer accessibility. This can be applied to games, providing additional control, improved interactivity.

Scanner



In computing, an image scanner-often abbreviated to just scanner-is a device that optically scans images, printed text, handwriting, or an object, and converts it to a digital image. Common examples found in offices are variations of the desktop (or flatbed) scanner where the document is placed on a glass window for scanning. Hand-held scanners, where the device is moved by hand, have evolved from text scanning "wands" to 3D scanners used for industrial design, reverse engineering, test and measurement, orthotics, gaming and other applications. Mechanically driven scanners that move the document are typically used for large-format documents, where a flatbed design would be impractical.

Modern scanners typically use a charge-coupled device (CCD) or a Contact Image Sensor (CIS) as the image sensor, whereas older drum scanners use a photomultiplier tube as the image sensor. A rotary scanner, used for high-speed document scanning, is another type of drum scanner, using a CCD array instead of a photomultiplier. Other types of scanners are planetary scanners, which take photographs of books and documents, and 3D scanners, for producing three-dimensional models of objects.

To Know more...

Types of Scanners

Output Devices

An output device is any piece of computer hardware equipment used to communicate the results of data processing carried out by an information processing system (such as a computer) to the outside world.

In computing, input/output, or I/O, refers to the communication between an information processing system (such as a computer), and the outside world. Inputs are the signals or data sent to the system, and outputs are the signals or data sent by the system to the outside.

Printer

In computing, a printer is a peripheral which produces a text or graphics of documents stored in electronic form, usually on physical print media such as paper or transparencies. Many printers are primarily used as local peripherals, and are attached by a printer cable or, in most new printers, a USB cable to a computer which serves as a document source. Some printers, commonly known as network printers, have built-in network interfaces, typically wireless or Ethernet based, and can serve as a hard copy device for any user on the network. Individual printers are often designed to support both local and network connected users at the same time. In addition, a few modern printers can directly interface to electronic media such as memory cards, or to image capture devices such as digital cameras and scanners; some printers are combined with scanners or fax machines in a single unit, and can function as photocopiers. Printers that include non-printing features are sometimes called multifunction printers (MFP), multi-function

devices (MFD), or all-in-one (AIO) printers. Most MFPs include printing, scanning, and copying among their many features.

To Know more...

Printing Technology

Plotter

Compare two devices using the adjective given:

1. Laser printer/inkjet printer. Quiet.
2. Multifunction printer/conventional printer. Expensive.
3. Dot-matrix printer/laser printer. Noisy.

Computer monitor

A monitor or display (also called screen or visual display unit) is an electronic visual display for computers. The monitor comprises the display device, circuitry, and an enclosure. The display device in modern monitors is typically a thin film transistor liquid crystal display (TFT-LCD) thin panel, while older monitors use a cathode ray tube about as deep as the screen size.

Originally, computer monitors were used for data processing while television receivers were used for entertainment. From the 1980s onwards, computers (and their monitors) have been used for both data processing and entertainment, while televisions have implemented some computer functionality. The common aspect ratio of televisions, and then computer monitors, has also changed from 4:3 to 16:9.

Technologies

Different image techniques have been used for Computer monitors. Until the 21st century most monitors were CRT but they have been phased out for LCD monitors.

Cathode ray tube

The first computer monitors used cathode ray tubes (CRT). Until the early 1980s, they were known as video display terminals and were physically attached to the computer and keyboard. The monitors were monochrome, flickered and the image quality was poor[citation needed]. In 1981, IBM introduced the Color Graphics Adapter, which could display four colors with a resolution of 320 by 200 pixels. In 1984 IBM introduced the Enhanced Graphics Adapter which was capable of producing 16 colors and had a resolution of 640 by 350.

CRT remained the standard for computer monitors through the 1990s. CRT technology remained dominant in the PC monitor market into the new millennium partly because it was cheaper to produce and offered viewing angles close to 180 degrees.

Liquid Crystal

There are multiple technologies that have been used to implement Liquid Crystal Displays (LCDs). Throughout the 1990s the primary use of LCD technology as computer monitors was in laptops where the lower power consumption, lighter weight, and smaller physical size of LCDs justified the higher price versus a CRT. Commonly, the same laptop would be offered with an assortment of display options at increasing price points (active or passive) monochrome, passive color, active matrix color (TFT). As volume and manufacturing capability have improved the monochrome and passive color technologies were dropped from most product lines.

TFT is a variant of liquid crystal display (LCD) which is now the dominant technology used for computer monitors.

The first standalone LCD displays appeared in the mid 1990s selling for high prices. As prices declined over a period of years they became more popular. During the 2000s TFT LCDs gradually displaced CRTs, eventually becoming the primary technology used for computer monitors. The main advantages of LCDs over CRT displays are that LCDs consume less power, take up much less space, and are considerably lighter. The now common active matrix TFT-LCD technology also has less flickering than CRTs, which reduces eye strain. On the other hand, CRT monitors have superior contrast, have superior response time, are able to use multiple screen resolutions natively, and there is no discernible flicker if the refresh rate is set to a sufficiently high value.

Organic light-emitting diode

Organic light-emitting diode (OLED) monitors provide higher contrast and better viewing angles than LCDs, and are predicted to replace them. In 2011 a 25 inch OLED monitor costs $6000[citation needed], but the prices are expected to drop.

Speaker

Computer speakers, or multimedia speakers, are speakers external to a computer, that disable the lower fidelity built-in speaker. They often have a low-power internal amplifier. The standard audio connection is a 3.5 mm (approximately 1/8 inch) stereo jack plug often color-coded lime green (following the PC 99 standard) for computer sound cards. A plug and socket for a two-wire (signal and ground) coaxial cable is widely used to connect analog audio and video components. Rows of RCA sockets are found on the backs of stereo amplifier and numerous A/V products. The prong is 1/8" thick by 5/16" long. A few use an RCA connector for input. There are also USB speakers which are powered from the 5 volts at 500 milliamps provided by the USB port, allowing about 2.5 watts of output power.

Computer speakers range widely in quality and in price. The computer speakers typically packaged with computer systems are small, plastic, and have mediocre sound quality. Some computer speakers have equalization features such as bass and treble controls.

The internal amplifiers require an external power source, usually an AC adapter. More sophisticated computer speakers can have a subwoofer unit, to enhance bass output, and these units usually include the power amplifiers both for the bass speaker, and the small satellite speakers.

Some computer displays have rather basic speakers built-in. Laptops come with integrated speakers. Restricted space available in laptops means these speakers usually produce low-quality sound.

For some users, a lead connecting computer sound output to an existing stereo system is practical. This normally yields much better results than small low-cost computer speakers. Computer speakers

can also serve as an economy amplifier for MP3 player use for those who wish to not use headphones, although some models of computer speakers have headphone jacks of their own.

I/O Devices

In computing, input/output, or I/O, refers to the communication between an information processing system (such as a computer), and the outside world. Inputs are the signals or data sent to the system, and outputs are the signals or data sent by the system to the outside.

Write the name and the description of three I/O devices, and send it to the teacher.

Storage Devices

A data storage device is a device for recording (storing) information (data). Recording can be done using virtually any form of energy, spanning from manual muscle power in handwriting, to acoustic vibrations in phonographic recording, to electromagnetic energy modulating magnetic tape and optical discs.

A storage device may hold information, process information, or both. A device that only holds information is a recording medium. Devices that process information (data storage equipment) may either access a separate portable (removable) recording medium or a permanent component to store and retrieve information.

Electronic data storage is storage which requires electrical power to store and retrieve that data. Most storage devices that do not require vision and a brain to read data fall into

this category. Electromagnetic data may be stored in either an analog or digital format on a variety of media. This type of data is considered tbe electronically encoded data, whether or not it is electronically stored in a semiconductor device, for it is certain that a semiconductor device was used to record it on its medium. Most electronically processed data storage media (including some forms of computer data storage) are considered permanent (non-volatile) storage, that is, the data will remain stored when power is removed from the device. In contrast, most electronically stored information within most types of semiconductor (computer chips) microcircuits are volatile memory, for it vanishes if power is removed.

Computer – units of measurement

Computers – Bits & Bytes		
bit	BIT	0 or 1
byte	B	8 bits
kilobyte (decimal)	KB	1000 bytes
megabyte (decimal)	MB	1000 kilobytes
gigabyte (decimal)	GB	1000 megabytes
terabyte (decimal)	TB	1000 gigabytes
petabyte (decimal)	PB	1000 terabytes
exabyte (decimal)	EB	1000 petabytes

Fill in the gaps

Read the paragraph below and fill in the missing words.

1 TB is 1 GB

1 KB is 1 MB

1 GB is 1024 MB