PC Basics

Instructor:

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Course Objectives

- Get a basic understanding of how a computer works
- Learn how to turn a computer on and how to power off (shut down) properly
- Resources for learning the mouse and learning the keyboard
- Working with Windows
- Brief introduction to the internet

Do I have to learn everything about a computer before I can use one?

Absolutely NOT!

Become familiar with the basics – that's what we'll do in this class – then learn only what you want to learn from here on out.

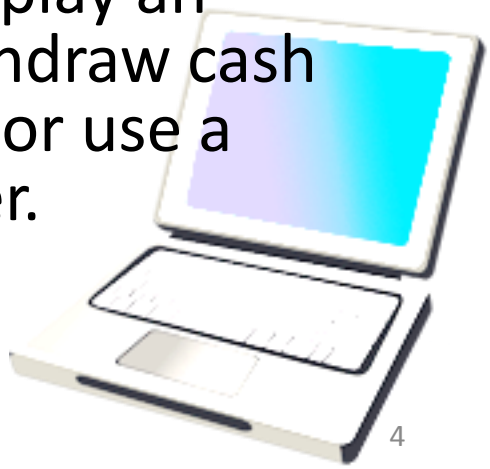
Remember – you don't need to know everything about a car before you can drive it – you just need to know the basics. A computer is very similar in that respect.

What is a computer?

- A **computer** is an electronic device that manipulates information or "data." It has the ability to **store**, **retrieve**, and **process** data. You can use a computer to type documents, send email, and surf the Internet. You can also use it to handle spreadsheets, accounting, database management, presentations, games, and more.

  Whether you realize it or not, **computers** play an important role in our lives. When you withdraw cash from an ATM, scan groceries at the store, or use a calculator, you're using a type of computer.

- From *http://www.gcflearnfree.org/computerbasics/1*



Hardware and Software

- What is hardware?
  - Hardware is all of the physical parts of the computer – keyboard, monitor, mouse, electronics on the inside, etc.
- What is software?
  - Software is the programs that are on the computer that allow you to work with the computer.

Hardware is like a TV and software is like the programs you watch on the TV.

Laptop Keyboard

Special keys:
Ctrl, Alt, Shift, arrows, Pg Up, Pg Dn, Home, End, Backspace, Del, Num Lock, Esc, Caps Lock, Enter

Turning the computer on

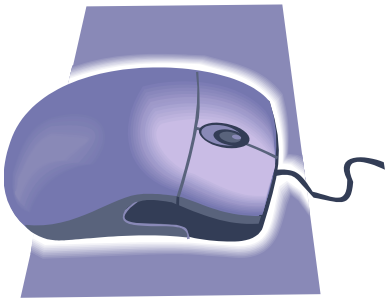
- Every computer has a power button which usually displays the universal power symbol:

- Locate the button on the computer (tower or laptop), then press and release (not necessary to press hard on this button). You should see lights turn on and the computer will begin to power up.
  - Laptop computers usually have the power button close to the monitor
  - Desktop computers usually have the power button on the front panel

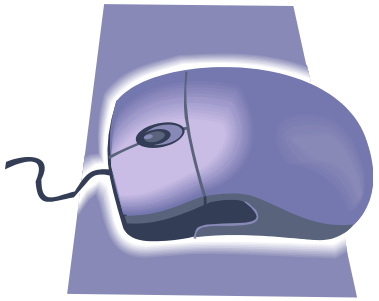
What about the monitor?

The monitor allows you to see what's on the computer.

- If you have a laptop, the monitor powers on with the laptop so there are no more buttons to press.
- If you have a desktop with a separate monitor, unless it's already on, you will need to press and release the power button on the monitor (the universal power symbol should be on/near that button). There is generally a light on the monitor to let you know whether or not it is powered on.



Using the Mouse



- The mouse is a device that allows you to interact with your computer. Learning how to use the mouse has stumped many a user. Please use the Mousing Around program on the class/lab laptops to learn more about using the mouse.
- When to click, when to double-click.
  - Double-clicking is no longer the norm when using the mouse. Almost anything can be single-clicked to access it. The major exceptions are files on the desktop or files in folders.
- When to right-click
  - A right-click of the mouse brings up a context-sensitive menu (a menu of actions you can do with that particular item). Once you've used right-click to bring up the menu, you go back to using the left mouse button to make a selection from that menu.

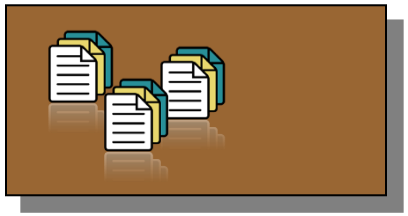
Shutting down (powering off) the computer

- Computers need to be shut down properly in order for the software to complete tasks (saving files, etc.). Powering down without doing a proper shutdown causes the computer to "crash" – something we don't want to happen.
  When your computer crashes, there's a chance it will not start up again.
- To shutdown, click the Start button (on the screen at the bottom left), then choose Shut Down. Wait for the computer lights to go out, then wait about 10 seconds more to be sure that all of the moving parts inside the computer have stopped before powering on again.

Typing and editing data

- When you type data anywhere in a computer, you'll need to be aware of where the insertion point is located. The insertion point determines where something will be inserted when you begin typing. The insertion point is either a flashing vertical line on the screen or it may be part of a selection (usually a blue color over some part of the screen).
- When typing, it is not always required that you press Enter to move on.
  In a word processor (such as Microsoft Word), Enter only needs to be pressed to begin a new paragraph.
  On a web page, pressing Enter will usually enter all of the data you typed, but you will receive an error message if there is more required data.

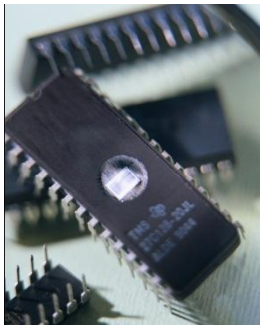
Hard Drive and RAM



- The Hard Drive is like a filing cabinet holding everything until you need it
- RAM is like a desktop where you work with the files from the filing cabinet.
- The Processor is the brain of the computer – determines how much and how quickly the computer processes information.

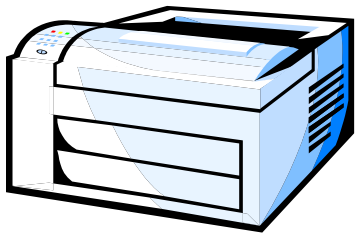
Hard drive

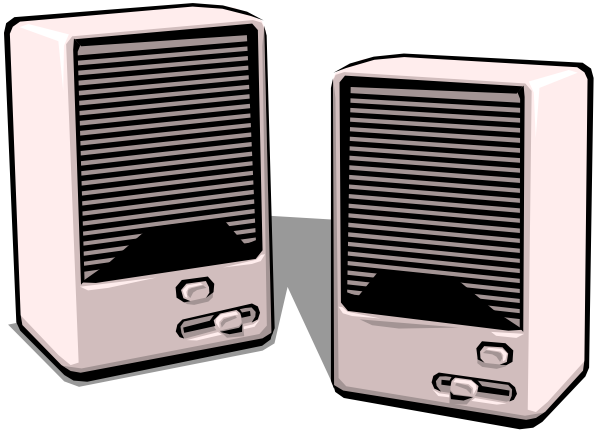
Processor

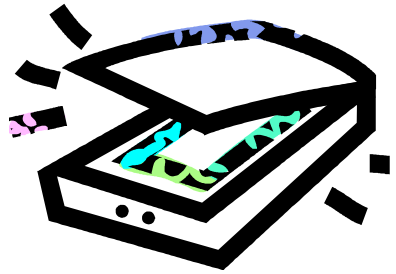


What's a peripheral?

- If anyone asks you what peripherals are connected to your computer, they want to know if you have a printer, speakers, scanner, etc. hooked up to the computer.
  A peripheral is any device connected to your computer







Storage devices

- A computer stores files in the hard drive. The hard drive is built into the computer. Although it is replaceable if needed, it's not easy to access.
- Portable storage devices allow you to bring files to other locations (library, friend's house, work, etc.)
  - Commonly used today is the USB Flash Drive (also known as thumb drive, jump drive, memory stick, etc.).

Backing up a computer

It’s inevitable that something will happen to the data on your computer.

It is recommended that you back up your data on a regular basis.

It is also recommended that the backed up data be stored off-site to ensure that it can be retrieved should anything happen to the computer. You can back up on CDs or DVDs, then store the discs at another location, or you can sign up with an online backup site. These sites are secure and will allow you to use them temporarily (or up to a certain amount of data) to try them out before you subscribe. (mozy.com, carbonite.com)

Operating System (OS)

The operating system (OS) on the computer is usually some form of Windows – the classroom computers have Windows 7 (by Microsoft Corporation).

Most home users have either Windows Vista or Windows XP. Newer computers come with Windows 7.

The OS runs your computer and determines what types of programs (software) you can run on the computer.

The OS usually comes pre-loaded on the computer.

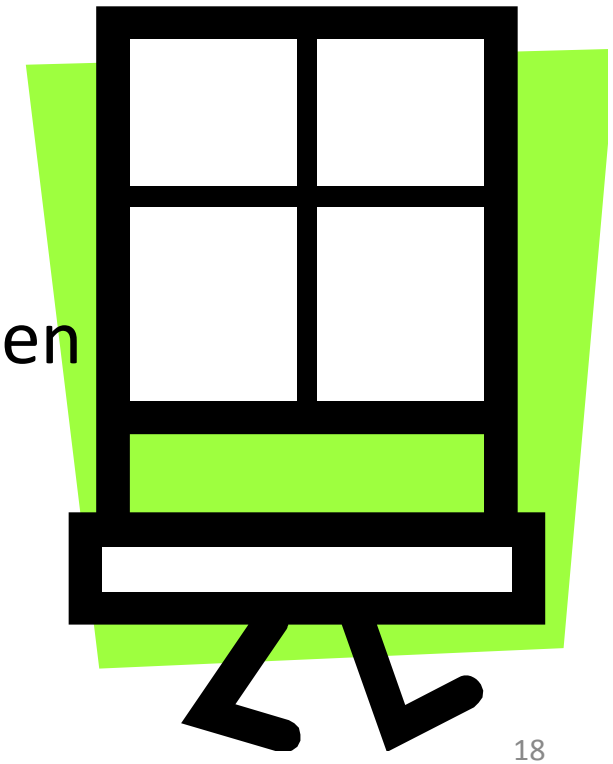
Some older computers may even have Windows 95, Windows 98 or Windows ME (all are no longer supported by Microsoft).

Software

- Software is all of the things that you want to do with the computer. When you are looking for a new computer, salespeople should ask you what you want to do with the computer (meaning what type of software you would like to run).
  You may be able to get some very useful software pre-loaded when you buy a computer, but you will have to purchase and install anything else you would like to add to your computer.
- Free software – there is plenty out in the world that is available for free. Just be aware that you may have to provide lots of information for that “free” program. Often it will only be free for a limited time, or provide limited access, but many are very useful.

Learning about Windows

- Opening windows – to start a program on the desktop or in a file folder, double-click the icon to open it up (or click once, then press Enter on the keyboard).
- Closing windows
- Scrolling in windows
- Using the taskbar to move between multiple windows
- Only one window can be “active”



How to work with Windows

- To close a window:
  click the “x” in the top right of the window
- To move a window out of the way temporarily:
  click the minimize button in the top right of the window (looks like a minus or hyphen)
- To make a window take up the whole screen:
  
  click the maximize button in the top right of the window (looks like a box – if you see a double box the window is already at maximum size)
- To scroll in a window:
  locate the scroll bar within the window (right side or bottom of a window) and use the arrows or the box to move the screen to view other parts of the window
- Using the taskbar to make a new window active:
  look at the bottom of the monitor to find the taskbar – this shows your open programs – to move to another program (window), click it once to make it active. Only one window can be active at a time, but you can have several windows open to easily switch between them

Getting on the internet - What's a browser?

- A browser allows you to view web pages – this is also known as "surfing the web". Although there are several browsers available, many people use Internet Explorer, which is usually pre-loaded on new computers along with Windows 7.

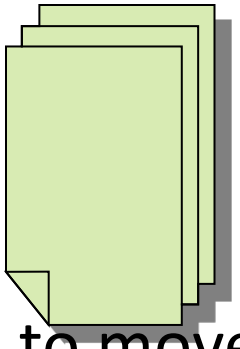
How do I Google?

To seek out information on the internet (websites for shopping, information, etc.) start at www.google.com and enter your search information. Google presents you with many results – you choose where to go from there. Be aware that there are ads on every google page. It's Ok to click them as long as you're aware that they are ads.

Basics for keeping your data safe

- Do the following on your computer:
  - Install/set up Firewall (should come with Windows 7)
  - Install/set up Anti-Virus (some very good ones are free)
  - Install/set up Backup program
  - Enable Windows Updates – install all critical and important updates (check for updates often)
- Remember – you should research programs before downloading to your computer. Do a google search on the program you're considering and look for reviews (example: in google, type in "carbonite.com review" to see what people are saying about the online backup tool – you'll find professional and real user reviews)

Cut, Copy, Paste



- Cut (Ctrl-x) allows you to move something from one place in the computer to another place
- Copy (Ctrl-c) allows you to make a copy of something and place it somewhere else
- Paste (Ctrl-v) brings in the Cut or Copied item at the insertion point.

When you Cut or Copy something it goes to a virtual area in the computer called the Clipboard. There it will stay until something else is cut or copied to replace it or until the computer is shut down or restarted. This works in virtually all programs on the PC.

Finding information on scams

- There are sites available to confirm stories that you may hear about or receive in your email:
  - Snopes.com - reference source for urban legends, folklore, myths, rumors, and misinformation
  - consumerfraudreporting.org – common scams and how to report them

  Keep in mind that if an email or Facebook post states that a dog/child/mother/father, etc. is missing, there should be “specific” information (date missing, exact location, etc.) on the missing animal or person rather than vague information.

Mouse and Keyboard resources

- Mousing Around Tutorial - http://www.pbclibrary.org/mousing/
- Mousercise - http://www.3street.org/mouse
- Mouserobics - http://www.ckls.org/~crippel/computerlab/tutorials/mouse/page1.html
- Mouse Tutor - http://tech.tln.lib.mi.us/tutor/

- Typing games, lessons, tests - http://freetypinggame.net/
- Typing lessons, games (choose Qwerty) - http://powertyping.com/
- Typing tutor (requires free registration) - http://www.typingweb.com/
- Test with real words (registration not required, but more options available if you register) - http://learn2type.com/typingtest
- Test or Practice - http://www.delicious.com/computertutorials/TypingPractice
- Online Typing Test - http://www.keyhero.com/

Resources for Learning PCs

- PC Scout by Microsoft: http://www.microsoft.com/windows/pc-scout/default.aspx
  do a google (google.com) search for PC Scout to locate this without typing it all into the address bar
- Google website - http://www.teachparentstech.org/ - has a list of items with videos that you can play on screen or email to yourself or someone else
- Library resources:
  - Books – Main floor – look for 004-006 section (against the wall)
  - Databases – through the library website

Website resources

do a google search (google.com) for “intro to computers” to find some of the following sites

- Intro to Computers (PDF file) http://www.lulu.com/items/volume_63/2230000/2230846/1/print/2230846.pdf
- Microsoft Windows Tutorial - Lesson 1: Introduction to Computers http://www.functionx.com/windows/Lesson01.htm
- Jan's Computer Basics:1-1 Introduction http://www.jegsworks.com/Lessons/lesson1-2/lesson1-1.htm
- Computer for Dummies (great basic info): http://www.dummies.com/how-to/computers-software/pcs-laptops.html

Other Website resources

- Kim Komando – news, information and downloads: http://www.komando.com/
- Cnet.com – reviews, news and downloads: http://www.cnet.com/
- PCmag.com – reviews, news and downloads: http://www.pcmag.com/
- Wikipedia – information (a study from 2005 shows that Wikipedia has slightly more inaccuracies than Encyclopedia Brittanica): http://www.wikipedia.org/
- Encyclopedia Brittanica: http://www.britannica.com/

Where to go from here

Now that you have an idea of the basics, your next step depends on what you would like to do with the computer.

If you're unsure, we recommend coming to the Computer Labs to practice what you've learned and to ask questions. This can help you determine what else you would like to learn.

If you already know that you would like to learn certain programs, look at our schedule to see what we have available. Sign up early – classes fill up fast.

Contact Information

To contact PPLD Technology Trainers in BTOP (Broadband Technology Opportunities Program):

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THANK YOU!