Windows

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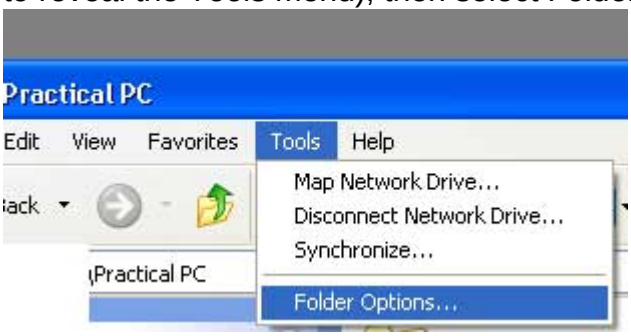
Controlling File Names

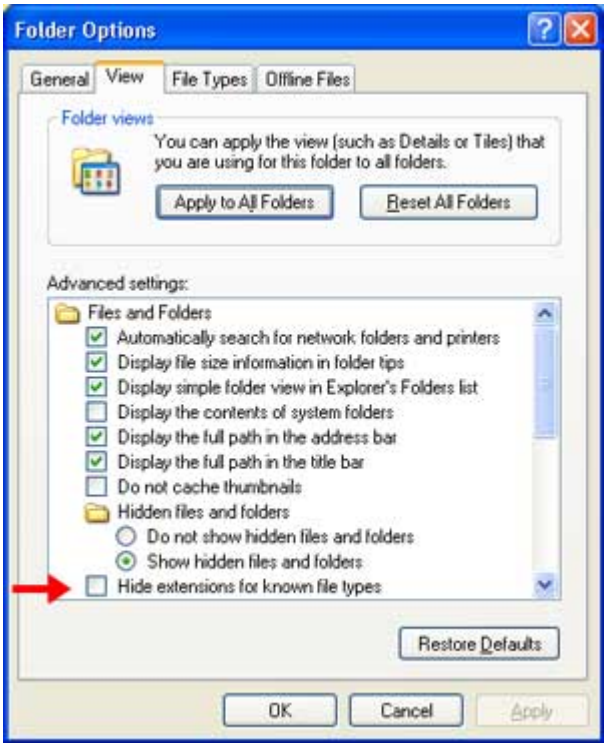
Check out class website for Windows Crash course, and more info on Windows

Many Windows computers are set up to hide known file extensions; this can be very confusing for computer students. To set your computer to display the entire file name:

- Open My Computer or Windows Explorer
- Choose Tools\Folder Options... (for Vista or Windows 7 users, press the [Alt] key to reveal the Tools menu), then select Folder Options)

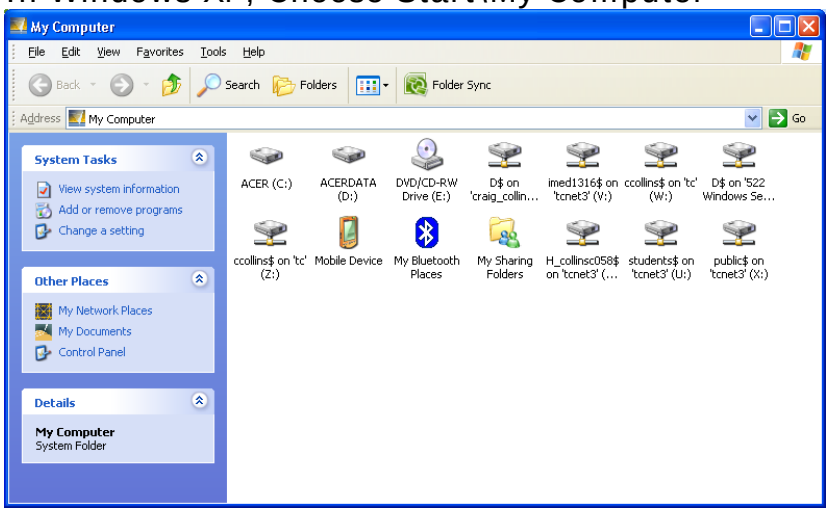


- Choose the View tab
- Click **off** the check mark next to 'Hide extensions for known file types'
    - Click OK

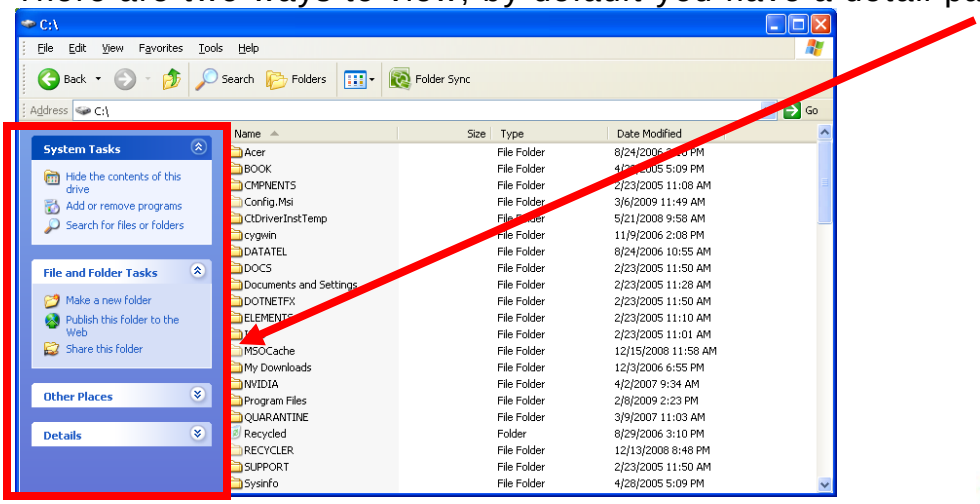


Navigating Windows (Quick Start, more details in Unit C)

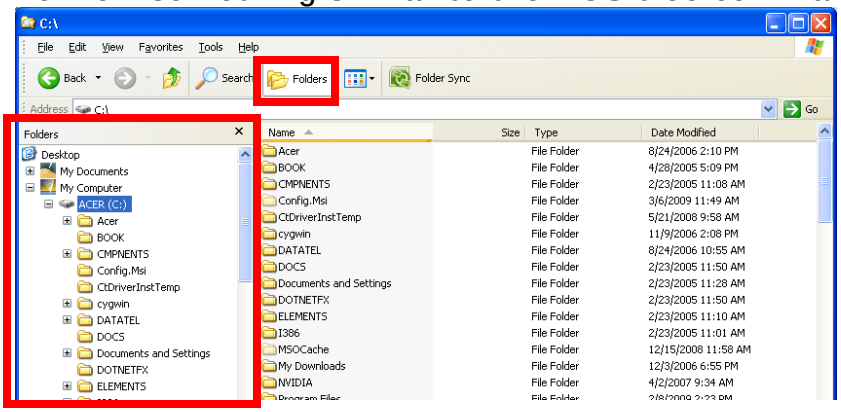
In Windows XP, Choose Start\My Computer



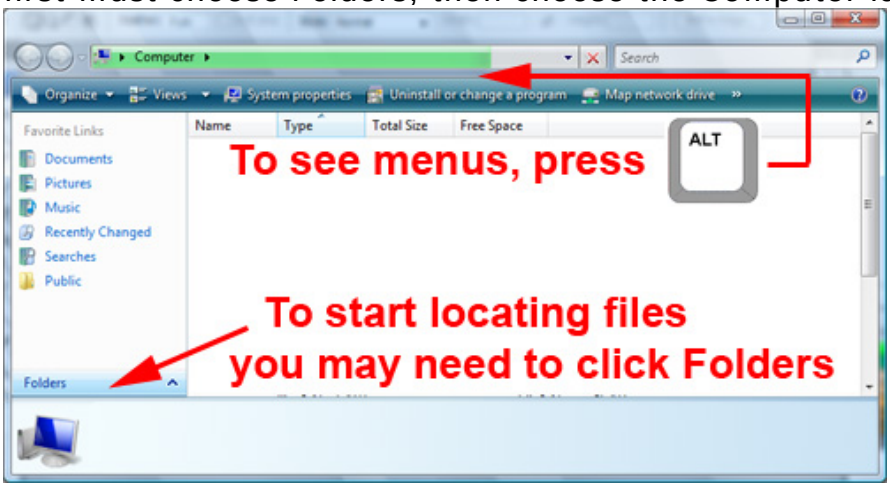
There are two ways to view, by default you have a detail pane on the left



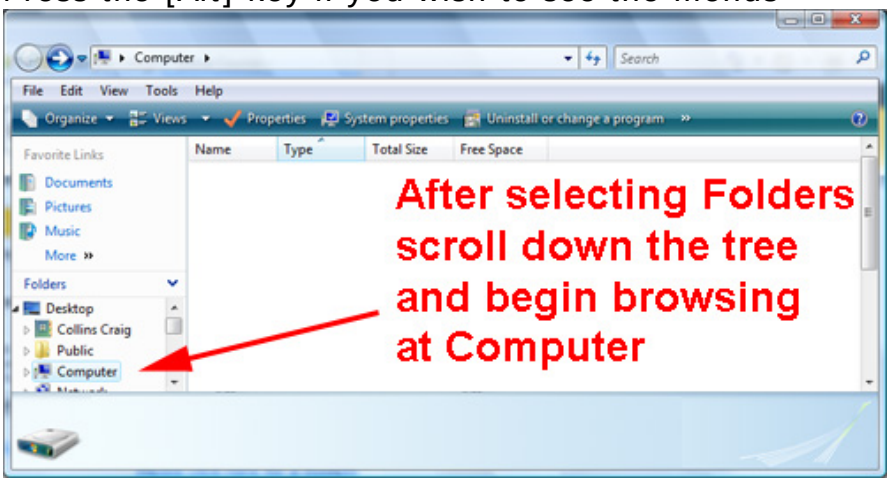
To view something similar to the DOS tree command, click



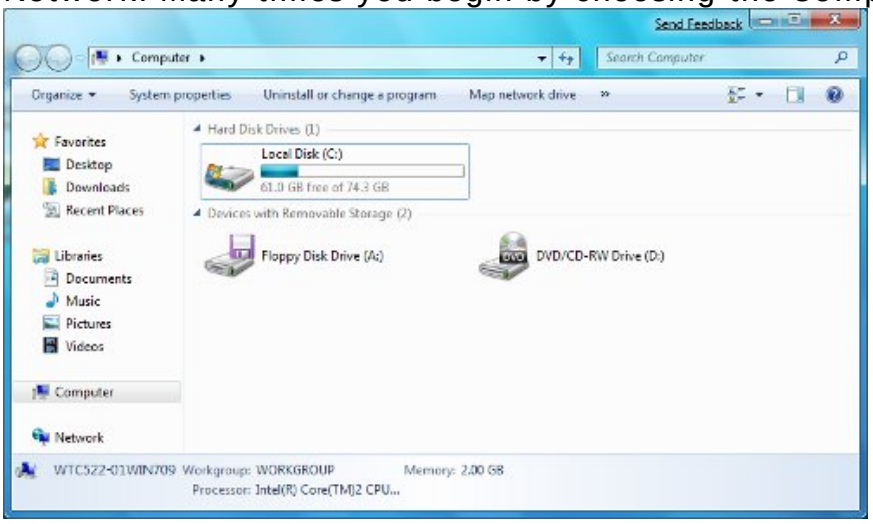
In Windows Vista, choose Start\Computer…many times to locate files you first must choose Folders, then choose the Computer icon.



Press the [Alt] key if you wish to see the menus



In Windows 7, the side bar contains Favorites, Desktop, Computer, and Network. Many times you begin by choosing the Computer icon



Windows A

Booting and the Interface

- Extending DOS
  - DIR to (My) Computer, (My) Documents & (My) Network (Places)
  - autoexec.bat and config.sys to Control Panel
  - Menus
- Logging In
- Desktop
- Mouse
- Manage Windows\Menus
- Objects
- Dialog Boxes
- Help
- Shutdown, Log Off, Sleep

Extending DOS to Windows, or, extending the command line to the GUI, the Graphical User Interface

All operating systems do basically the same thing, manage resources. To that end, all operating systems use basically the same kinds of tools… tools to select storage devices; tools to browse folders; tools to copy, paste, move, or rename files; tools to manage the computer; and tools to start and interface with programs. This section begins to bridge the command line of DOS or Windows to the graphical interface.

DIR was used to display the contents of an individual computer…
In Windows, we now use the Start button to open the Start Menu, and from the Start menu we can use:

- "My Computer" (XP) or "Computer" (Vista, Windows 7) is used to locate storage devices accessible from the local machine, including hard drives, removable storage devices, and mapped network drives (Windows chapters J-K).
  As this tool works the same regardless of version, I will refer to the tool as *(My) Computer.*
- "My Documents" (XP) or "Documents" (Vista, Windows 7) is the default folder (directory) where files are saved, unless another location is specified. In a class or work environment, a mapped network drive is a better choice, as it is available to users regardless of which computer they are using.
  As this tool works the same regardless of version, I will refer to the tool as *(My) Documents.*
- "My Network Places" (XP) or "Network" (Vista, Windows 7) is used to locate resources saved on other computers within your domain.
  As this tool works the same regardless of version, I will refer to the tool as *(My) Network (Places).*
- Control Panel is used to modify the computer settings, giving Windows a graphical tool to upgrade **`config.sys`** and **`autoexec.bat`**, in order to inspect and modify the System, and regulate the computer and how it interacts with the mouse, cameras, network cards, USB devices, etc.
- All Programs gives user the ability to browse for an installed program, then select and execute (start the program.) A command line required you to name the program to select it, then hit the enter key to execute. While this functionality is still present in the Command Prompt and Search/Run, we can also use the mouse.
  A double click is actually the same as select (1st click) and execute (2nd click).

Once a program has been started, we now have icons and buttons, in addition to menus. Recall in DOS HELP and EDIT, we first chose [Alt] to access a menu. In Vista/Windows 7, press [Alt] to expose hidden menus.

Logging In

Note: Arrows or Chevrons or Triangles, such as → or ›› or v or ► or ▼ normally mean **more options** are available.

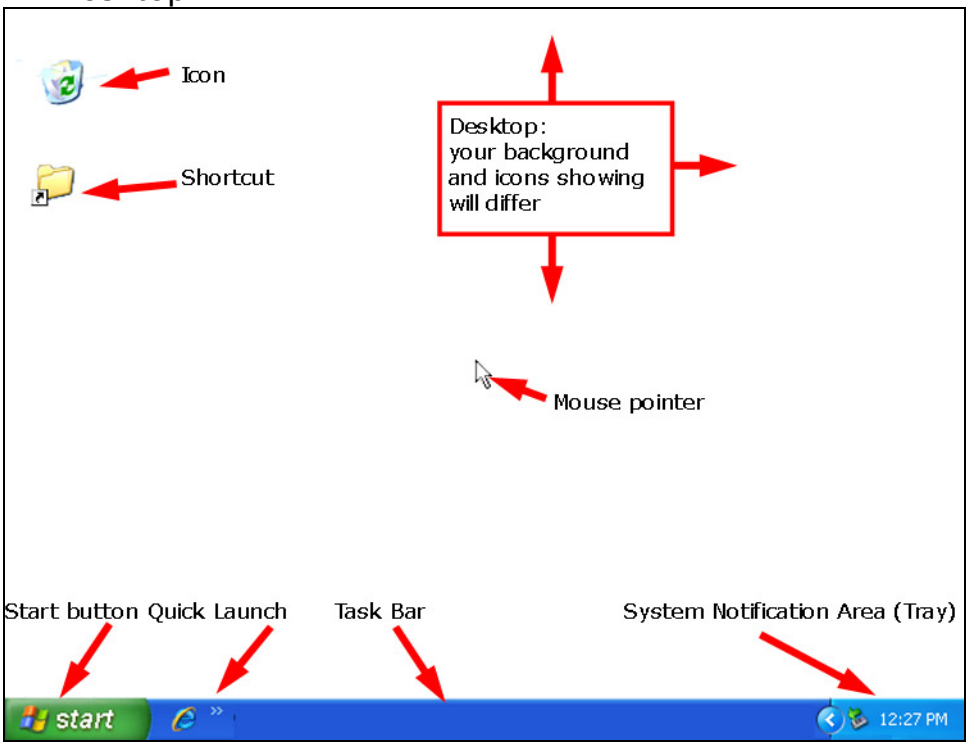
XP Single User Login
Click arrow for options

XP Network Login
Click v for options

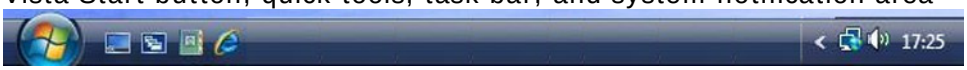
Windows 7 Login
Click arrow for options

Note: … after a menu item such as Print**…**, indicates a dialog box will open when the menu item is selected in order to pass the parameters needed to complete the command.

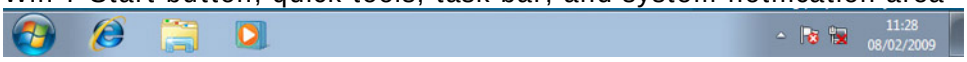
XP Desktop



Vista Start button, quick tools, task bar, and system notification area



Win 7 Start button, quick tools, task bar, and system notification area



The desktop is your access point to all the computer can do.

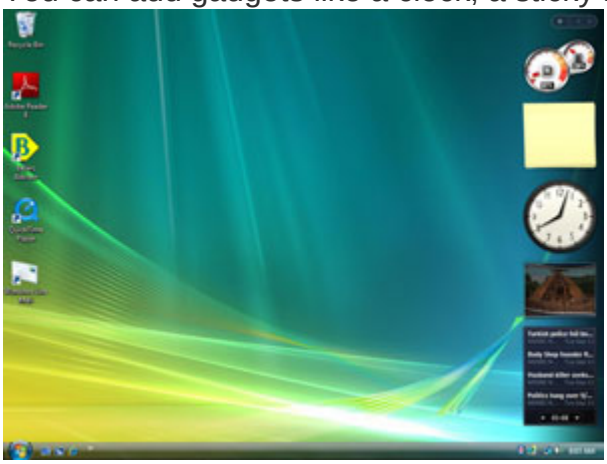
- An icon represents an object, that is, a file, a folder, a device, or anything the computer can manipulate.
- A shortcut is a path to an object, a pointer. You may safely delete shortcuts without removing files or devices from your computer
- Start button opens the start menu, to browse your computer
- Quick Launch allows you to start frequently used programs from the task bar
- Task bar show programs started by the user
- System notification area shows the clock, and programs started by Windows

While Windows XP, Vista, and Windows 7 may look a bit different, much like driving someone else's car… you probably can handle the minor differences.

Minor differences in the newer Windows interface

While Microsoft Windows 7 and Vista ® are both more robust and secure than Windows XP ®, the way the user interacts with the Operating system is not very different… but there are 6 items worth pointing out.

1. Gadgets
You can add gadgets like a clock, a sticky note, performance monitor on the desktop



2. Start button
The Start button look has changed from a rectangle with the Windows icon and the word 'start' to a circular Windows icon the will pop up the word 'Start' if you point your mouse at it. Vista has a new show desktop button, and perhaps a Switch windows button available in the quick launch area.

Remember, ›› means more options are available if you click on the arrows

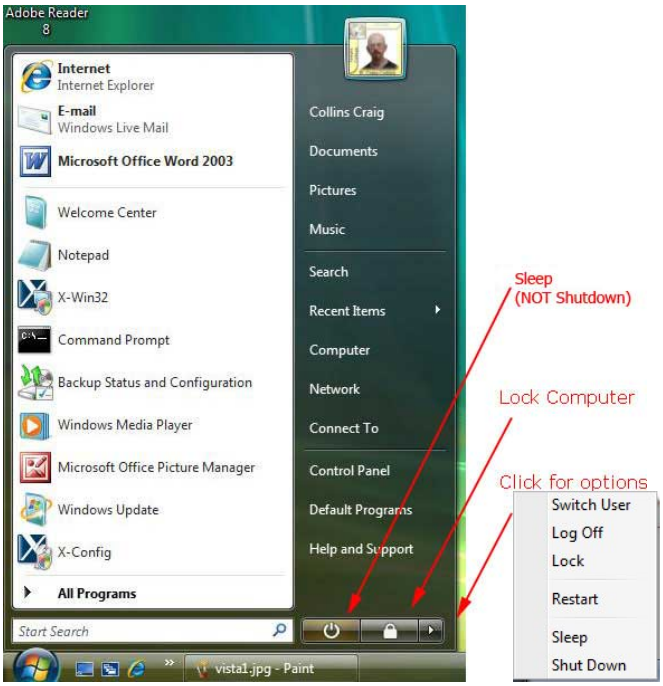
3. Start menu

The ‘Start’ menu does not ‘spill out’ as before… if you click an item, the new menu replaces the old item. Note also, ‘My Computer’ is just called ‘Computer’ now; ‘My Documents’ is now just called ‘Documents’.

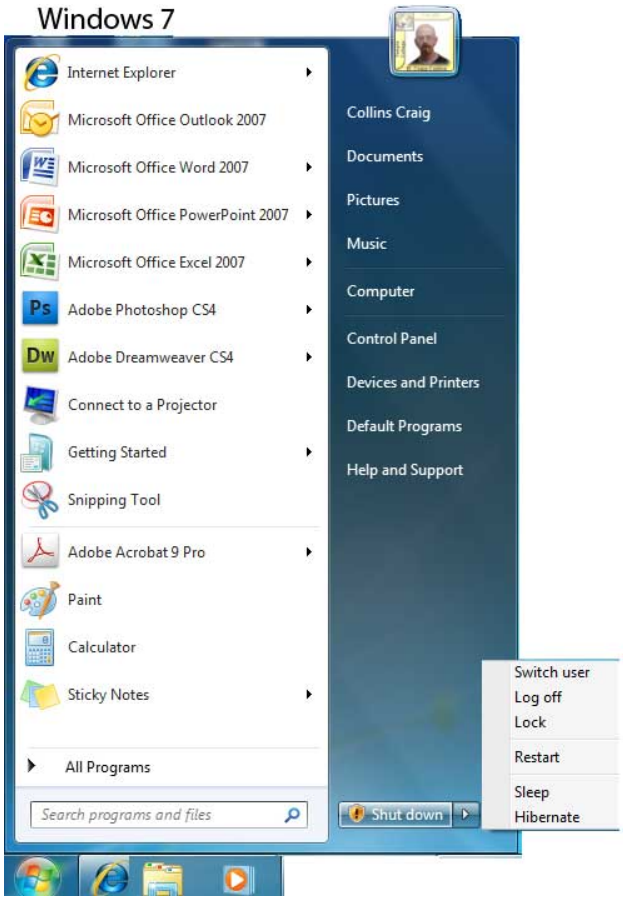
A minor difference: the Shut Down options:

- XP you choose Start\Shut Down
- Vista you should choose Start then click the ►to the lower right to select Shut Down
- Windows 7 you choose Start\Shut down.

Windows Vista

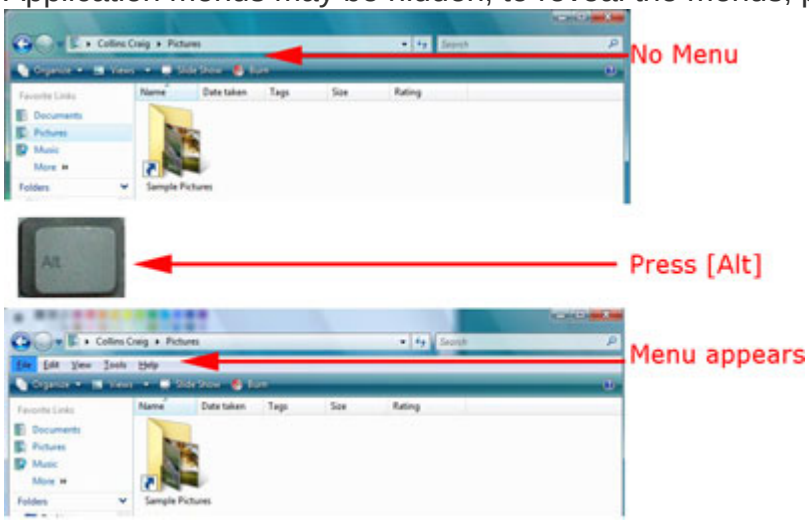


Windows 7



4. Menus

Application menus may be hidden; to reveal the menus, press the [Alt] key

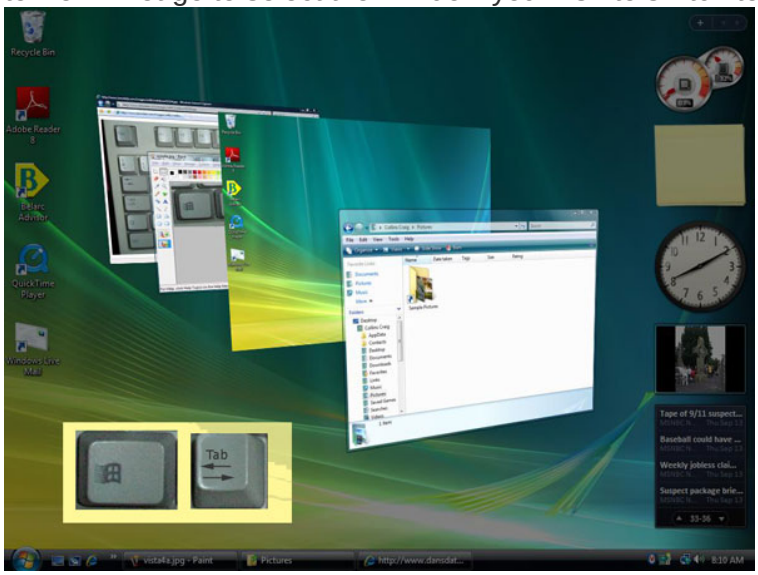


5. Taskbar, [Alt]+[Tab] and [Start]+[Tab]

In Windows XP, pointing your mouse cursor at an item on the task bar generated a small text box describing the program; in Vista, you now get a fairly large thumbnail of the program window.

In Windows XP, you could press and hold the [Alt] key, then press [Tab] to scroll through available programs…in Vista, this action give you large thumbnails of the program windows to view… let go to select the Window you wish to switch to.

Add to that the [Start]+[Tab] sequence to get a large Rolodex style view of program windows to view… let go to select the Window you wish to switch to.

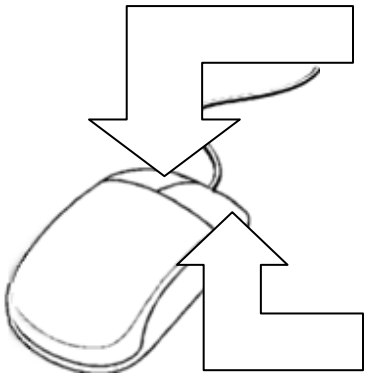
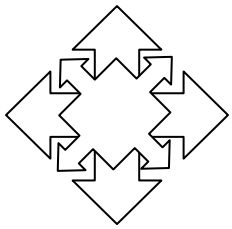


6. Run

For power users who liked being able to start a program using the Run tool, it no longer is on the main Start Menu… BUT, now there is a **Search** box instead that can work just like Run used to: if you search for a program it will execute the program.

Mouse

Aside from using the mouse to simply point, use the buttons to choose, move, or manipulate objects on the monitor.

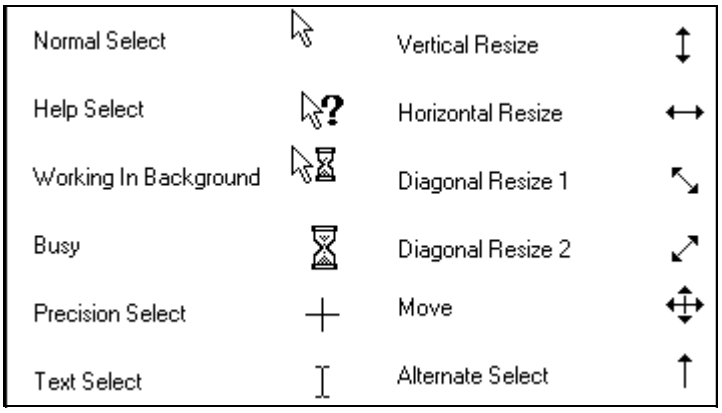
	**Left mouse, single click** •select **Left mouse, press and hold** •to drag object to new location **Left mouse, double click** •select + execute **Right mouse, single click** •open property inspector to reveal a short cut menu **Right mouse, press and hold** •to drag with option to copy, move, or “make shortcut”	Mouse movements 

Example of a right click to reveal shortcut menu, then use the left mouse button to select a choice…

… or choose [Esc] to close shortcut menu.

To change the way the mouse works, choose Start/Control Panel/Mouse, then select the tab you wish to use.

Mouse pointer shapes indicate what tasks can be performed.



Manage Windows\Menus

The taskbar acts as a quick launch tool, but it's primary job is to show programs that are running. Programs the user has started show in the middle portion of the taskbar, while programs Windows has started display in the System Notification Area, also called the Tray. Programs that are running, but not currently needed, can be minimized to the taskbar; that is, shrunk to just an icon that represents the running task.

Choose the Start button, then choose the Control Panel.
Recall, the control panel is used to modify the computer settings.

Minimize the Control Panel window. Double Click the Recycle Bin.
You should now have two icons on the task bar.

Minimize; shrink a program window to the task bar

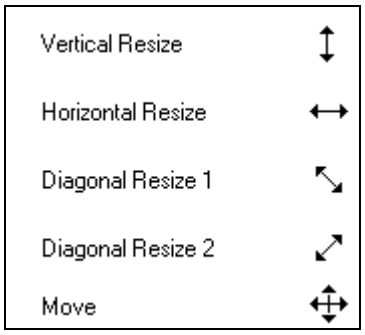
Restore Down; not full screen, the window can be moved/sized*

Close ([Alt]+[F4]); closes the windows and ends the program

Maximize; make the window full screen*

*Maximize and Restore Down share the same spot, if the window is currently maximized, the Restore Down button shows. If the window is currently not full screen, the Maximize tool shows.

Maximize the Control Panel. Now, restore down the Control Panel.



While in restore down mode, move to one of the edges of the window. Resize the window.

Click in the title bar and move the window.

Click on the Recycle Bin icon on the task bar to un-minimize it. Close the Recycle Bin.

Now, using the Control Panel, choose the Mouse control panel, and explore the different settings in the Mouse control panel. You may wish to select 'Classic View' to change the way the Control Panel organizes items.

See also Dialog Boxes, page 16, for help with the control features.

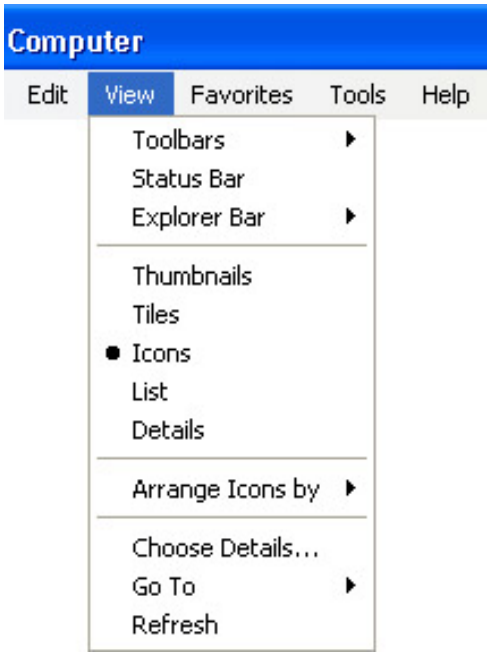
Menus

Choose Start/(My) Computer

If your menus are hidden, press the [Alt] key, then choose View,
or press [Alt] and then type the letter 'v.'
(When you use the [Alt] key and the underlined letter, or mnemonic, you are using a keyboard shortcut. More on keyboard shortcuts on page 15.)

Note: Arrows or Chevrons or Triangles, such as → or ›› or v or ► or ▼ normally mean **more options** are available.

Note: … after a menu item such as Choose Details**…** indicates a dialog box will open when the menu item is selected in order to pass the parameters needed to complete the command.



Explore different settings for the display.

Thumbnails display the image if the item is a image file

Details is like dir, you may scroll up/down using scroll bar to the right

List is like dir /w

(You may be able to choose various icon sizes, depending on your version)

See pages Windows -3- and Windows -4- for more options on the left side pane of (My) Computer.

On the tool bar, search for a button similar to

Note: Arrows or Chevrons or Triangles, such as → or ›› or v or ► or ▼ normally mean **more options** are available. Point at the icon to get 'bubble help,' which indicates what the tool is. Choose the ▼ to the right of the icon to display a similar menu to the View menu. There are often many different ways to do the same task in Windows.

Keyboard shortcuts

Below is a short list of keyboard shortcuts, additional shortcuts are listed on the class website.

Windows

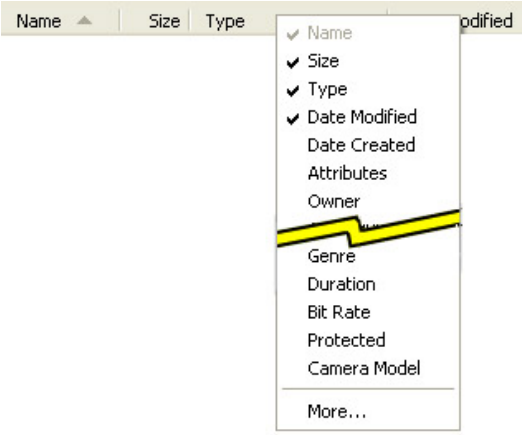
`[Alt]` Open the menu if hidden, or to use a mnemonic
`[Alt] [Tab]` Go to next window, or switch between active windows
`[⊞] [Tab]` Switch between active windows, Rolodex style (Vista Win 7)
`[Alt] [F4]` Close active window.
`[Alt] [F4]` If no window is active, this will shut down Windows.
`[Ctl] [Z]` Undo
`[Ctl] [x]` cut selected item (copies into memory, called the clipboard)
`[Ctl] [c]` copy selected item (into memory, called the clipboard)
`[Ctl] [v]` paste an item in memory, called the clipboard, into document

Word processing

`[Ctl] [s]` save
`[Ctl] [b]` bold
`[Ctl] [i]` italic
`[Ctl] [u]` underline
`Single click text` Select word
`Double click text` Select sentence
`Triple click text` Select paragraph
`[Shift] [End]` select from insertion to end of line
`[Ctl] [Shift] [End]` select from insertion to end of document
`[Shift] [Home]` select from insertion to beginning of line
`[Ctl] [Shift] [Home]` select from insertion to beginning of document

Other tips

If a button is highlighted, pressing the [Enter] key is the same as clicking the button.
Pressing the [Esc] key is the same as choosing [Cancel].
You may move the highlight to other buttons by pressing the [Tab] key.



If viewing (My) Computer in Details view, you may **right-click** the gray column heading, then select or remove additional detail items.

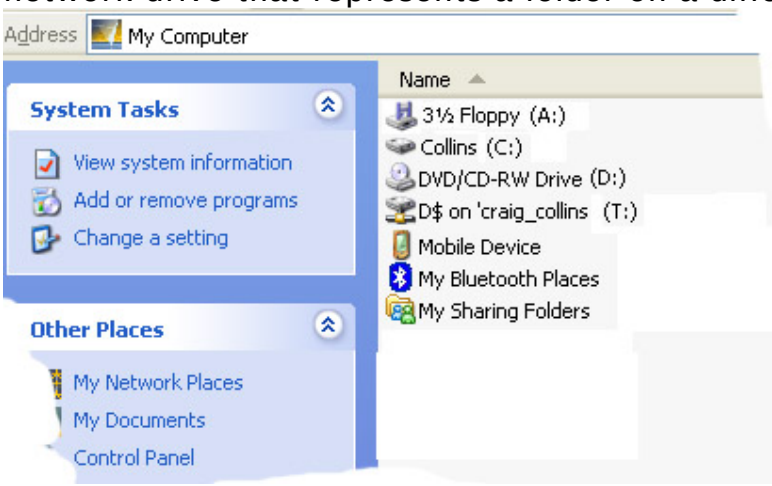
If a column heading is too narrow, place your cursor between the columns. When the cursor looks like ↔ , hold down the left mouse button and drag the column to the left or right to resize.

Click a column heading to sort by that item. Click the ▼ or ▲ to reverse the sort.

Objects

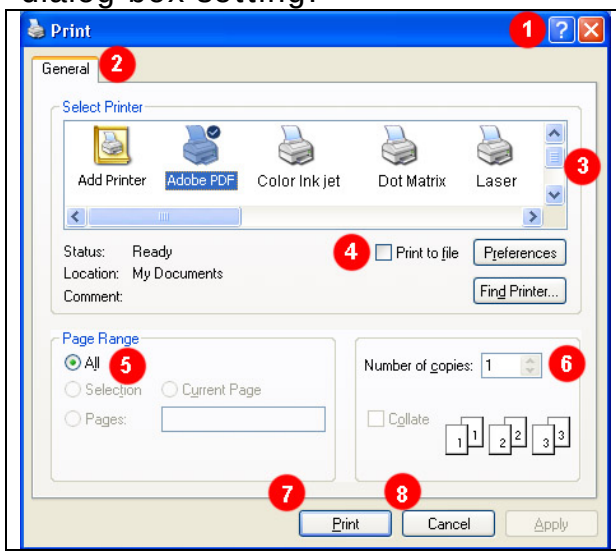
As mentioned earlier, an icon on your desktop may represents an object; that is, a file, a folder, a device, or anything the computer can manipulate. As we move forward, we will stress the 'anything the computer can manipulate' aspect. Understand that an object might be a snippet of a text that has been copied into memory (called the clipboard), an image that could be pasted into a different document, a chart created by a spreadsheet application, or an object may even be another computer.

When you first choose (My) Computer, you may be looking at icons for your hard drive, floppy drive, removable storage devices, or a mapped network drive that represents a folder on a different computer, etc.



Dialog Boxes

As mentioned earlier, a dialog box opens anytime Windows needs additional information before carrying out a command, or to change a dialog box setting.



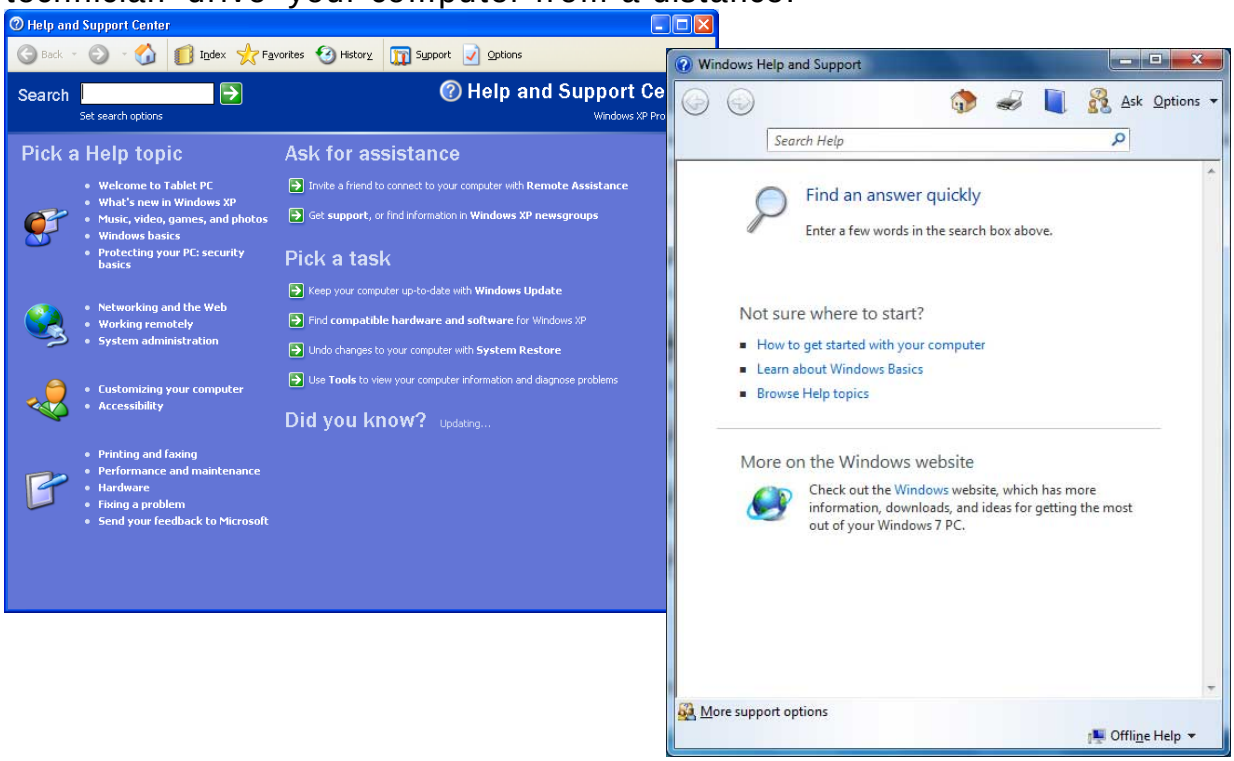
1. Help [?] on this dialog box
2. A tab, there may be multiple
3. Scroll bars to view choices
4. A checkbox
☐ and/or ☐:
multiple items can be selected
5. A radio button
⦿ or ○:
only one of group can be selected
6. A dropdown list
7. Default option (or press enter)
8. Cancel (may press [Esc]

Help

There are several kinds of Help in Windows.
The DOS command **Help** listed all the commands you could get help on…

The Windows Start/**Help and Support** option lists topics to get help on, plus has a searchable help tool.

You may also get **online help** to get more up to date, and even let a technician 'drive' your computer from a distance.



The DOS **command /?** Feature allowed you to get help on a specific command. Many dialog boxes have a [?] button to get help on just that dialog box. This [?] is a form of **context sensitive** help.

Individual Windows applications also have help files on using that application, called **Program Help**. This is opened by choosing the Help menu if available, or clicking the (?) button.

Whatever window is active, by pressing the **F1 key** on your keyboard, you can get help on that activity. If no window is active, F1 will start Windows Help and support.

Shutdown, Log Off, Sleep
Depending on your version of Windows, there are slight differences in shutting down your computer. However they all start by choosing the Start button.

Windows XP: Start/Shut Down
Windows Vista: Start then choose ► and select Shut Down
Windows 7: Start/[Shut Down]

With DOS, you could simply power down the computer. In Windows, don't just power off, as the programs that are running will not have a chance to appropriately save and close… you may not think any programs are running but don't forget those programs Windows itself started that are running in the system notification area, also called the tray. The only way to give all the Windows programs a chance to appropriately close is to use Shut Down.

If you computer freezes, press [Ctrl]+[Alt]+[Delete] to open the task manager… you may close the unresponsive program there, or choose Shut Down.

When can you choose something besides Shut Down?
If you are leaving a network computer and someone is about to sit down, you should choose Log Off.

If you are leaving your computer, and don't want anyone else to use the computer, you may choose to Lock the computer. Don't lock the computer if it is a public computer that others may wish to use.

Finally, you may wish to put your computer in Sleep mode if you won't be using it for a few moment, but don't want to shut it down. Sleep is a low power mode that keeps the computer on and items available in memory, without using excess electricity.

Don't choose 'Sleep mode' or 'Hibernate' if you are not going to be using the computer for several hours… go ahead and shut it down and be a green computer user.

Finally, to answer the question: does it hurt to leave the computer on? While this wastes electricity, it doesn't really hurt the computer; however, only the shut down process completely clears the RAM; eventually a computer left on too long will slow down as poorly written applications clog memory.

Windows B

File/Folder Creation

- Executable Files
- Directories → Folders
- Edit → Notepad → Wordpad
- Create, Edit, Format
- Graphics and Paint
- Print Screen
- Copy Source Destination → GUI
- Printing

Executable Files

While *Operating System* software is a subset of *system software*, Windows includes a fair number of *system software utilities* (see unit F) and a few *application* programs also, most notably a text editor and a simple word processing application, and even a simple drawing program.

As mentioned earlier, programs and applications are executable files such as the DOS Edit program, a simple text editor that saved plain text files. Files created by an application or program are called data files. The computer can tell the difference between the types of files by examining the extension.

Programs often end in (.exe), while you may recall a text data file often ends in (.txt) or (.doc).

Windows goes one step beyond DOS by also assigning an icon to each extension.

The icon on the left is the Microsoft Word program. Again, the files created by an application are called data files; the file on the right is a data file created by Microsoft Word. Often data file icons resemble the program icon.

Note: Windows is not limited to eight character file names or three character extensions.

Common Windows applications, and the file types they create

Notepad, the Windows version of EDIT, creates (.txt) files

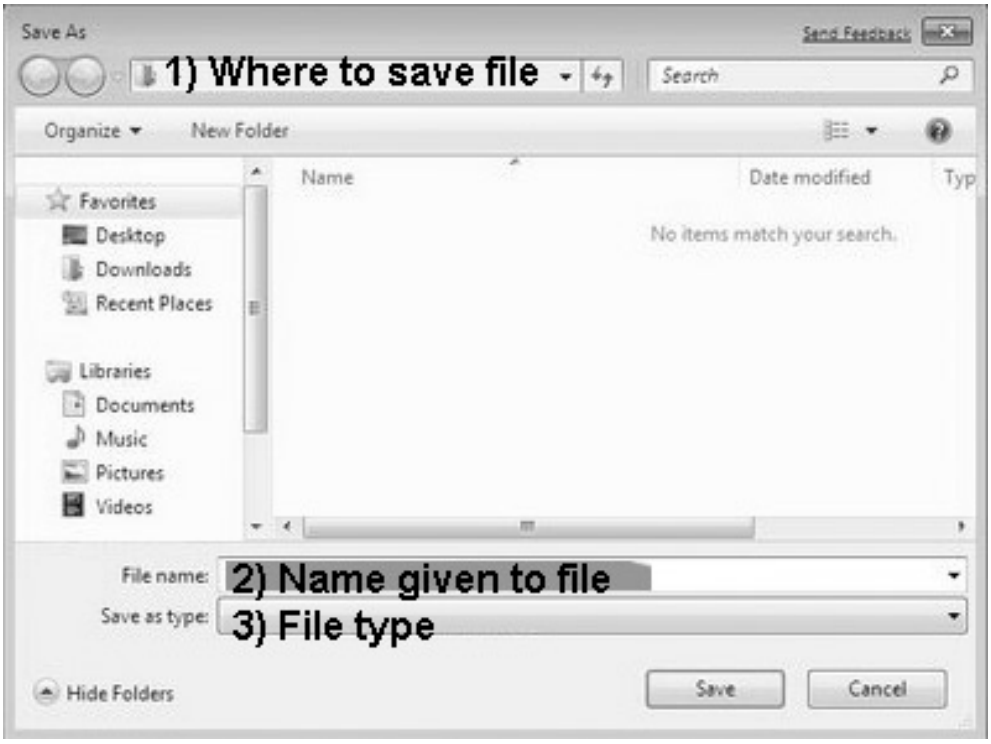
WordPad, a simple word processor, creates (.rtf) files

Paint, a simple drawing/painting program, creates (.bmp) files.

Note: If your computer has Microsoft Word on it, the icon for (.rtf) files will change to the Word icon. This is why it is important to NOT hide file extensions, as you cannot rely on the icon to know the file type. (See page Windows -2-) You can still tell Windows to open the file with WordPad, by right-clicking the icon, and choose Open with…

Directories → Folders
In DOS, we used the term directory to indicate an organizational tool used to allow the user to group files together. In Windows, a directory is now called a folder, but they behave exactly the same.

Save, vs. Save As
Save replaces an old file with a new version. The first time a file is saved, you must go through the Save As process, where you tell Windows
1) where to save the file,
2) what you wish to name the file, and
3) what type of file it should be saved as.
Typically, you do not need to change the file type; instead you usually accept the file type offered, such as Paint offering (.bmp) or WordPad offering (.rtf).



In DOS we had the ability to work our way up a directory using **`cd ..`**
In Windows XP we could choose the Up button when browsing.
This functionality is missing in Vista and Windows 7.

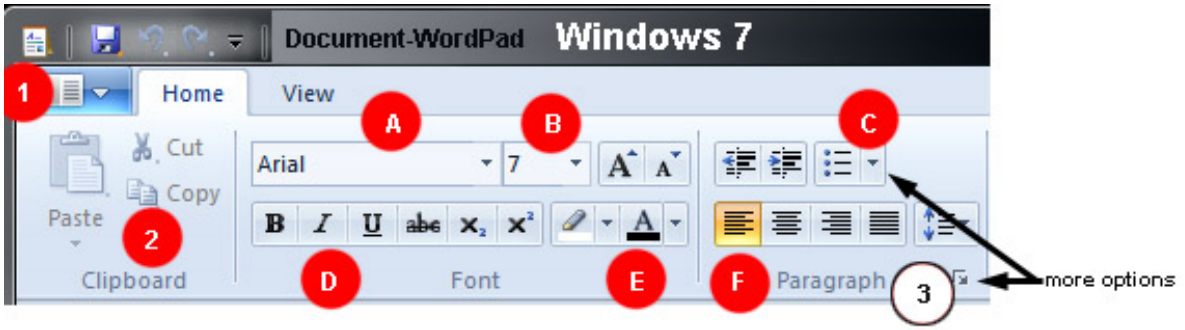
To be able to navigate and locate a file, you may need to choose ▼Show Folders to reveal a browsing pane on the left, as shown above.

You then select the location you wish to use. I suggest scrolling to locate 'My Computer' or 'Computer' and then browse from there to locate your network drive, removable storage device, etc.

Edit → Notepad → WordPad

While EDIT and Notepad have a place, many times you may wish to format your document, that is, change the shape, size or color of the text, or perhaps add a list, or double space paragraphs. Old typewriters and text editors did not have this support. Starting with Windows 3.1, WordPad could *format* text, making Windows a very appealing option to home computer owners. Find WordPad at Start/All Programs/Accessories

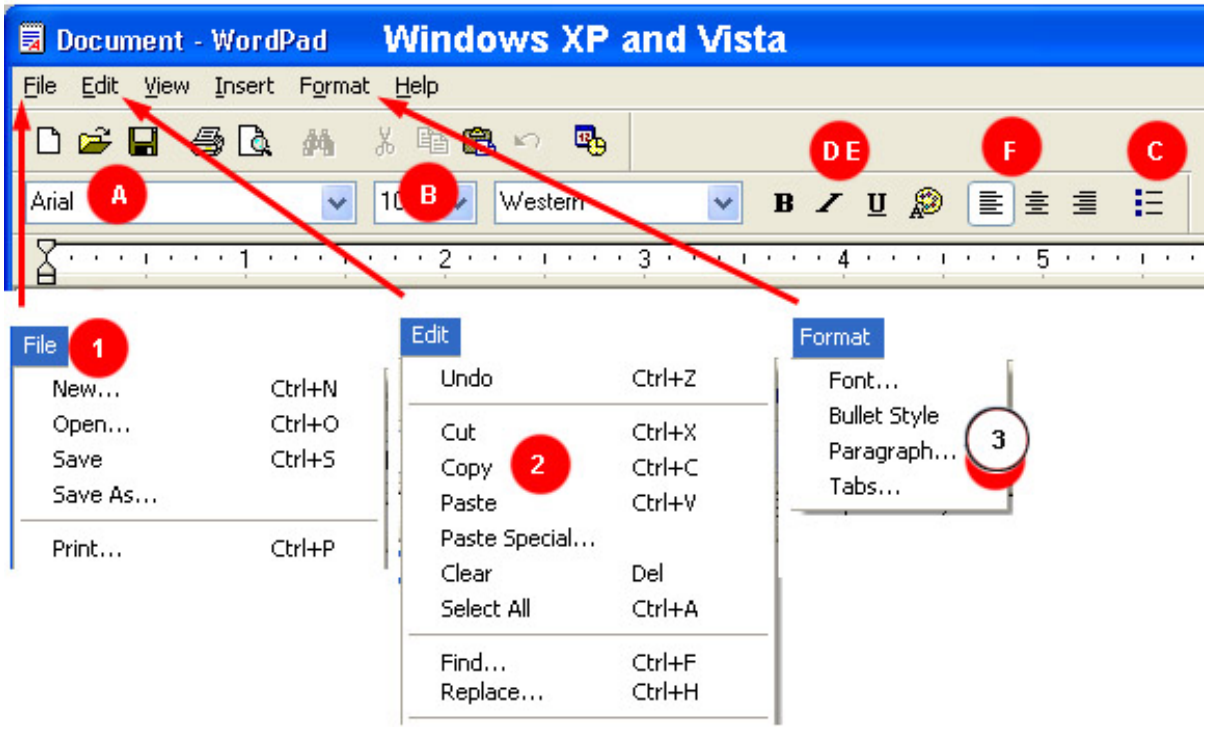
Below is a chart of where formatting tools in the XP/Vista and Windows 7 versions of WordPad are.



1) File menu, access to open, save, save as
2) Cut, copy, and paste
3) Format paragraphs

A) Font face
B) Font size
C) Lists

D) Attributes: bold, italic, underline
E) Font color
F) Alignment: left, center, right



Create, Edit, Format

Creating a text file was fairly easy to do in DOS, you would type in COPY CON *filename* and simply type to create your file.

The big difference between using COPY CON *filename* and using EDIT was obviously the fact that EDIT would allow you to change text several lines up; that is, move your cursor off the last line and retype. WordPad can go quite a bit beyond this. While we learned in DOS that you can copy and move files, in Windows we can actually apply this sort of housekeeping to parts of a file.

If you have several lines of text already typed in WordPad, you can cut, copy, paste, and move text around your screen, or even undo the last action you performed, using the Edit/Undo menu, `[Ctl] [Z]`, or button.

Recall in Windows we have to select, then execute. To cut, copy, paste, or move text, you first need to highlight it by dragging your mouse across the text.

Cut removes the selected object from the current document and places it in the clipboard. You can cut using Edit\Cut, right click\cut, or `[Ctl] [x]`

Copy duplicates the selected object from the current document and places it in the clipboard. You can copy using Edit\Copy, right click\copy, or `[Ctl] [c]`

Paste duplicates an object from the clipboard and places it in the current document at the point of the cursor. You can paste using Edit\paste, right click\paste, or `[Ctl] [v]`

To move text, highlight it and then drag it to a different location in WordPad by keeping the left mouse button held down. Anther useful keyboard shortcut is `[Ctl] [s]` to save.

Once you have edited your text, you may wish to change the appearance of the text, or format. You can change the font face (or shape of the letters), the font size, or the font color. You can also make text bold `[Ctl] [b]`, italic `[Ctl] [i], or` underline `[Ctl] [u]`.

Graphics and Paint
How Monitors Create Text and Images

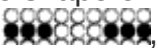
There are two real concepts in computer graphics, and they both deal with how a computer represents a line that used to be drawn on paper.

The earliest attempt at this concept is how a TV screen ‘draws’ pictures. If you look carefully at a TV, you see the image is actually made up of tiny dots of color, called pixels. The proximity of certain dots of light are then interpreted by our eyes as lines and solid shapes.

The term for this simple collection of dots is bitmapped. Originally computer screens were very much like typewriters, and could only create predetermined shaped like letters on the screen.

But as the technology improved, it was decided to mimic TV and represent letter shapes by a series of dots, and if you could represent a letter, you could also represent other kinds of shapes and computer graphics were born.

You could now display a picture, or print out a picture, instead of just words.

Bitmapped means that each pixel has a value assigned to it, which is translated by us as the shape or color. So 111000111 might darken some pixels on the monitor like this  , or from a distance it might look like - -.

Raster images are where the shades of an image are converted to 1s and 0s at the place where the shapes covers a particular pixel.

But the problem with this is when you try to magnify the image. A diagonal line like \ may look fine, until it is 10 times larger, and suddenly looks like a staircase.

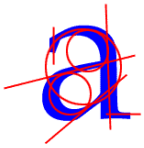
It was never really smooth, so magnifying it makes things worse.

The solution for this is was to stop describing a line with dots, and instead describe a line with a line, or at least a formula that was understood by the computer to represent a line. That is tell the computer a line starts at the second pixel on the first row, and runs at a 35° angle to a particular pixel on the 68th line.

What was nice about this is that formulas can be manipulated to magnify the line without jagged edges.

And since a letter of text on a screen could be described with formulas for circles and lines, we could now have scalable text, as with Windows True Type Text.

Typed Characters (Fonts)



A little bit about text shapes on computers, usually called fonts. A font is actually a collection of information, such as the shape of the letter, the thickness of the letter, the attribute of the letter, and the size of the letter. So Times New Roman, Bold, Italic, Black, and 10 pt. describes most Microsoft word characters.

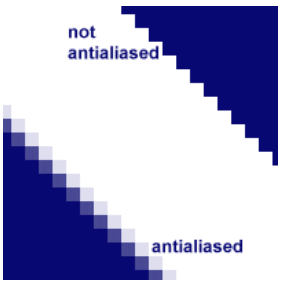
(There are 72 points to an inch; so 12 pt is 1/6 of an inch high letters, measured from the highest point that any letter reaches, to the lowest possible point.

Some letters have extra doodads called serifs, which give a letter more shape, making it easier to read. A serif ‘g’ is a lot less likely to be read as a ‘q’ that the san serif version of a ‘g’.

serif	san serif	monospace	proportional
g	g	ill	ill
1 (one) l (L)	I (one) I (L)	WOW	WOW

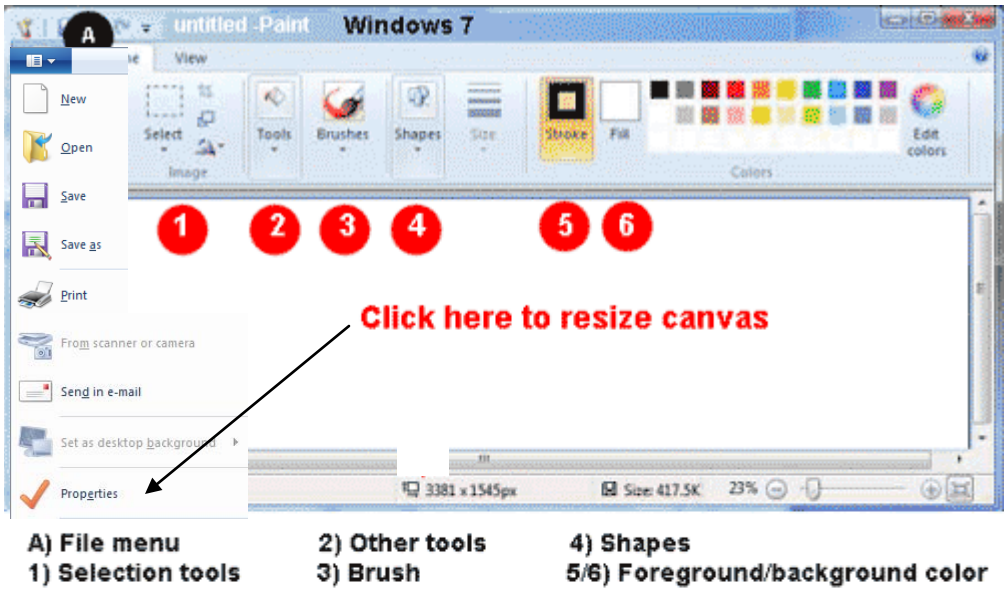
Originally computers used seven 1s and 0’s to represent about 128 different shapes, or letters to display on the screen.
Example: ‘A’ was 100001 and ‘a’ was 110001.
Today, the Open True Type fonts use Unicode, sixteen 1s and 0s, which can represent tens of thousands of different shapes, to include not only English, but Russian, Japanese, Arabic, etc.

A final note, while True Type fonts improve scaling and display, the monitor is still a series of dots… limiting the ability to display smooth curves. This can be overcome to an extent, using partial shading of pixels to simulate smooth lines and curves… this is called anti-aliasing.

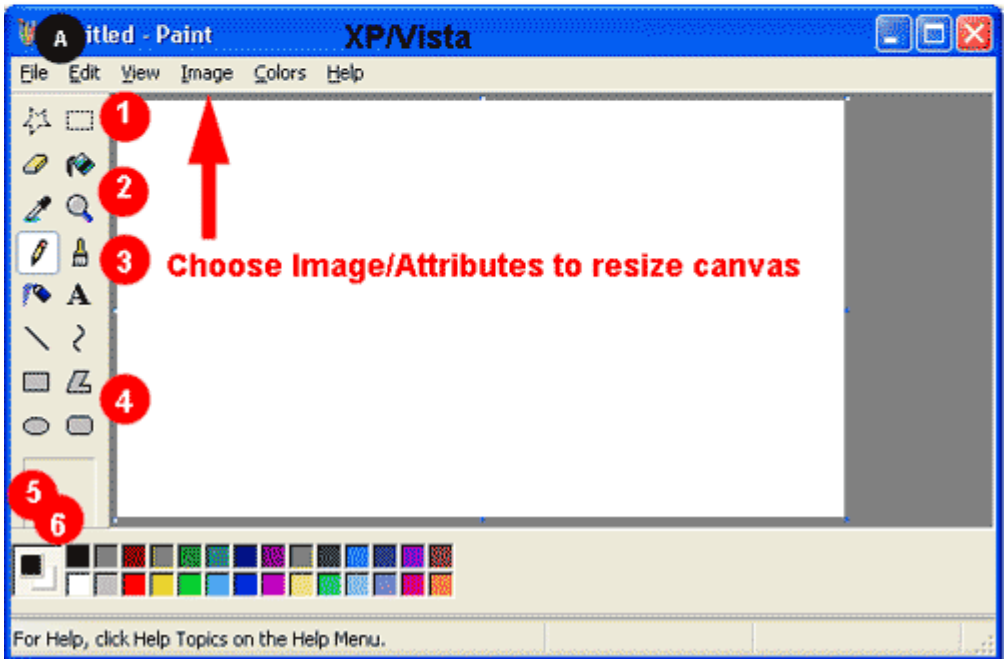


Finally, for the words and images to be printed, a ink jet printer sprays ink onto paper, using magnets to guide the ink. Laser printers use a laser to change the magnetic properties of a rolling drum where words are to appear; the magnetic toner sticks to the drum until paper passes under it, where the toner is transfer to the paper, and set with heat by a fuser.

Paint



A) File menu
1) Selection tools
2) Other tools
3) Brush
4) Shapes
5/6) Foreground/background color

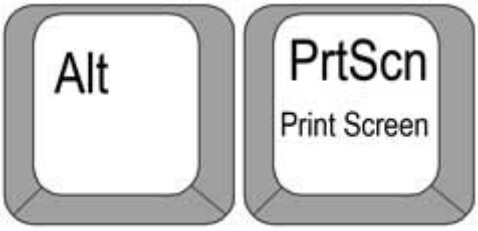


Feel free to experiment with Paint. Perhaps set your canvas size to be 72 pixels high by 72 pixels wide to keep the file size down. You may save your file, preferably on your network drive or removable storage device is available; the default file type for Paint is 24 bit bitmap, or (.bmp).

Print Screen

From time to time, there will be something **on your screen** that you will wish to save. If you choose the [Print Screen] key, whatever is displaying will be copied to the clipboard. From there it can be pasted into Paint, or other program, and saved.

To save just the active window, press and hold the [Alt] key, then press [Print Screen] and let go of both keys. The active window will be copied to the clipboard. From there it can be pasted into Paint, or other program, and saved.



Copy Source Destination → GUI

While we have already covered copying just part of the text in a WordPad document, Windows offers us much more granular control of what can be copied… we can also copy ***part*** of an image.

Using your selection tool in Paint, select just part of your image, then choose Copy. Open WordPad, and choose Paste, as WordPad can also deal with text and graphics.

What we are doing in Windows is exactly what we would do in DOS, in order to copy or move, we first must specify a source, and then we must specify a destination.

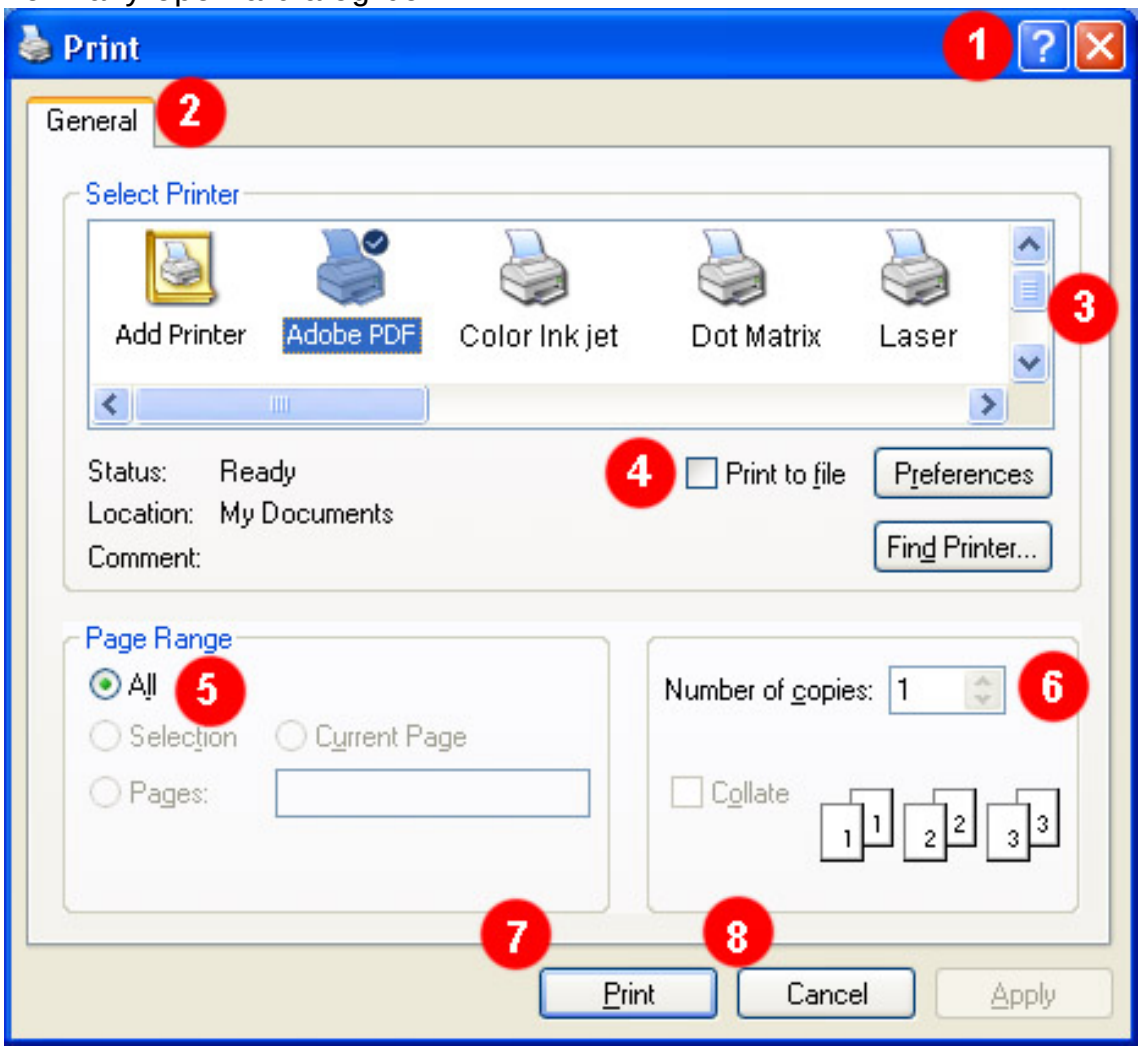
In Windows, we select some text or part of a graphic, and then choose copy in order to call the copy command and specify the source. Then we choose a different location in the same file, or a different file, and choose to Paste… delivering to Windows the destination for the copy or move command. It is the same functionality, just implemented by using the mouse or a highlight to indicate the source, and later the destination.

Further, obviously we can cut, copy, paste, and move files, too. Open (My) Computer, select a file, then choose Copy. Browse to a different folder or device to select a new location, choose paste.
(See page unit C, starting Windows -29-, for more on managing files.)

The easiest way to copy, move, or paste is to use the right mouse button. To me, the answer to most questions in Windows is ‘right-click.’

Printing

As we saw earlier on page Windows -16-, when it is time to print we normally open a dialog box.



To print a document first select the printer you would like to use, if there are multiple printers available (item 3). Choose which pages you would like to print (All, the current page, or a range of pages, item 5). Then choose how many copies of those pages you would like printed on the specified printer (item 6).

To issue the now fully formed Print command, press [Print] or the [Enter] key. If you do not wish to print, choose [Cancel] or the [Esc] key. Either will execute your intention, and close the dialog box.

Note: If you press the [Apply] key, this will execute the command indicated in the dialog box, but instead of closing the dialog box, [Apply] will leave the dialog box open for further implementations of the command.

Windows C

File Management

- dir → tree → (My) Computer and [Folders]
- dir /w /p → View options
- ren → rename
- move or copy
- undelete → recycle bin
- paths → shortcuts

dir → tree → (My) Computer and [Folders]

File management is about organizing files and folders in a hierarchy so that information is easy to locate.

In order to manage file then, you need to be able to:
create and name/rename folders to organize your storage devices
create and save files by choosing a file name files and storage folder
delete, or rename, copy, or move files to other named folders

You should also be able to browse your storage devices and folder to locate files.

We could do that in DOS with DIR or TREE.

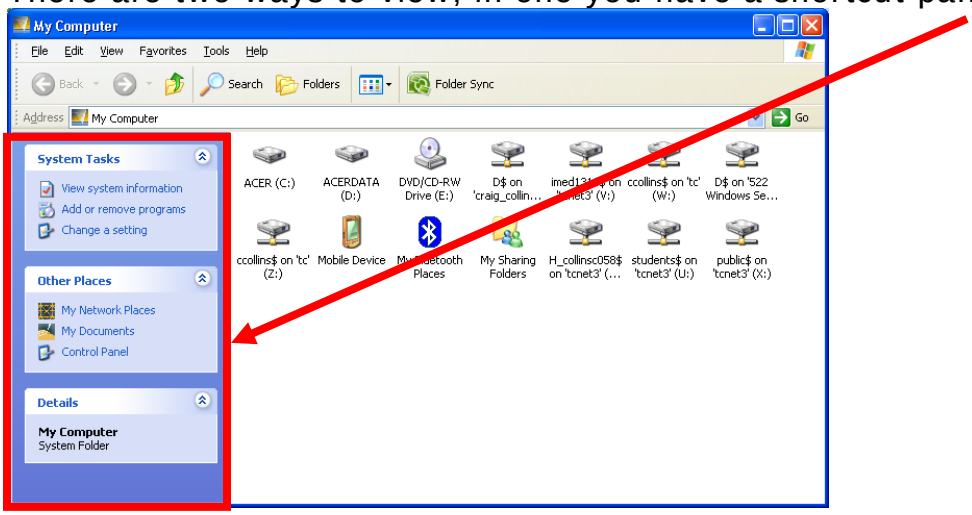
Windows also lets us search for files, or create a shortcut (path) to a file, a folder, or any other object.

Note: DOS, Windows XP, and Windows Vista used directories (folders) to physically organize files on a drive. Windows 7 also uses libraries and favorites to help you logically organize files, regardless of where they are physically stored.

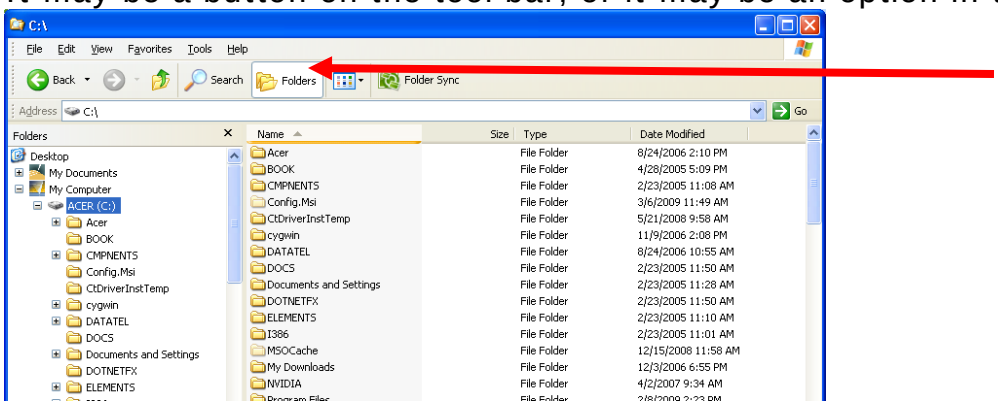
Open (My) Computer

At the beginning of the Windows section, there was a quick start guide to navigating Windows using (My) Computer. This section will cover using (My) Computer in a bit more detail, including Menus, buttons, and the side Pane.

Start\My Computer or Computer
The side Pane delivers shortcuts to activities often performed
There are two ways to view, in one you have a shortcut pane on the left



To view something similar to the DOS tree command, click [Folders]
It may be a button on the tool bar, or it may be an option in the pane.

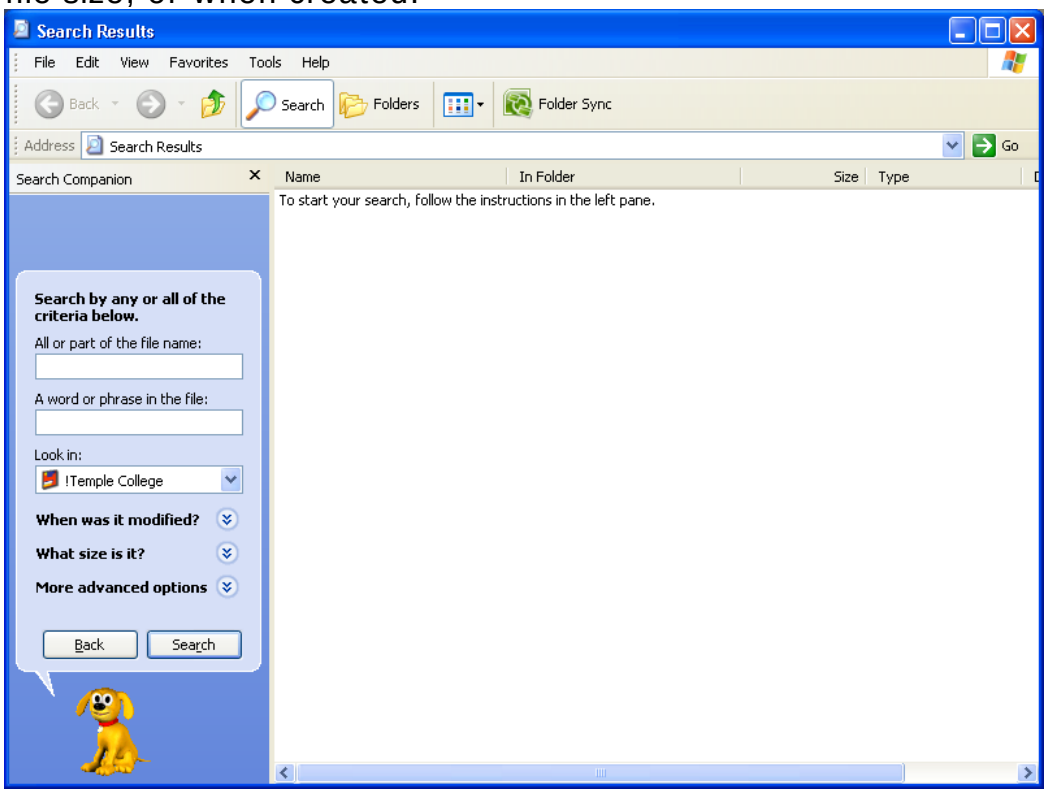


The other buttons available in Windows XP are

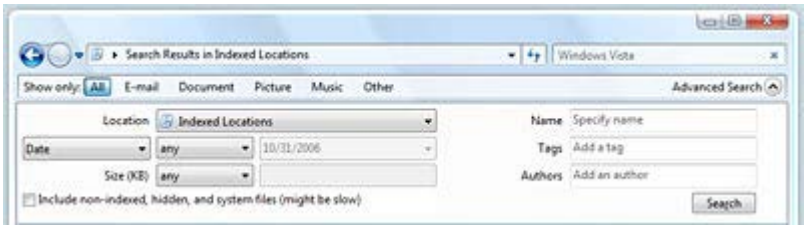
← Back, only available if you have browsed from some other device or folder, choosing Back returns you to the last storage location viewed.

→, Reverses a ← Back

Search, used to locate a file based on file name, or contents of the file, or file size, or when created.



In newer versions of Windows there is a search box to the right of the tool bar, as well as on the Start menu. To search for file name or contents, simply start typing. If the results returned aren't finding the file, choose the Advanced Options.



Up, equivalent to the DOS cd.. to move out of the current folder and up the tree structure. Not available in Windows Vista or Windows 7, but occasionally the ← Back button accomplishes the same thing.

Views, to change from Details, to List, to Icons, or Thumbnails. Thumbnails display the image if a photograph instead of an icon. More on views in the next section.

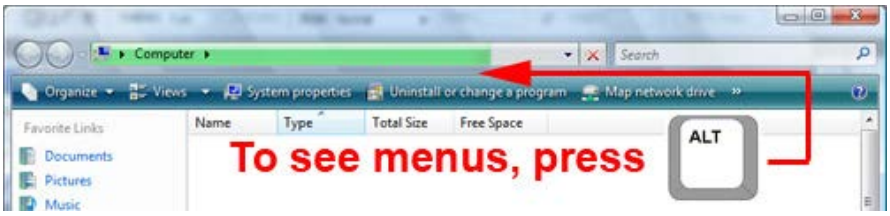
Tool bar buttons in Vista\Windows 7 vary, but may include Organize, Views, System Properties, Un-install or change a program, and Network places.

Menu Items In Windows XP

File Edit View Favorites Tools Help

Pressing the Alt key followed by the underlined mnemonic opens the menu, just as in DOS.

In Windows Vista and Windows 7, the menus may be hidden.
Press the [Alt] key and the menus will appear. The Help menu item has been replaced by (?), and is always available by pressing F1.

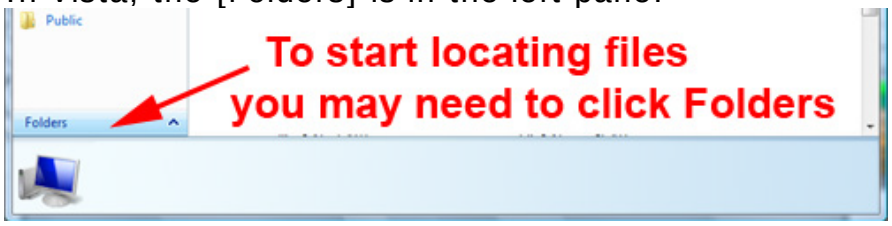


Browsing for files

To browse for files, in older versions of Windows you often need to select [Folders] first.

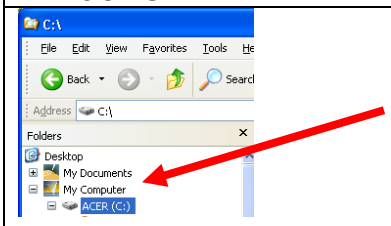
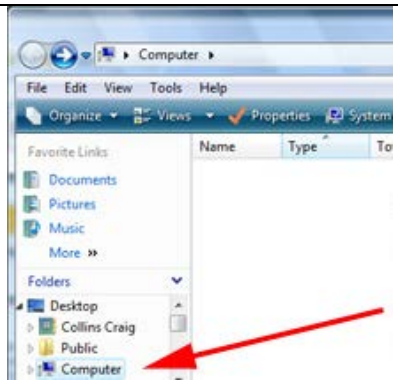
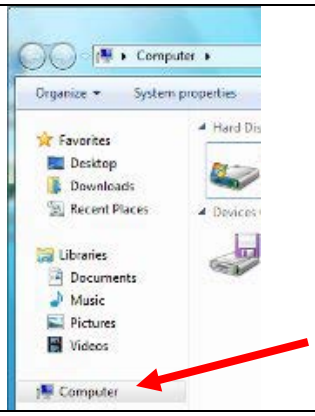
In Windows XP [Folders] is on the tool bar.

In Vista, the [Folders] is in the left pane.



Windows 7 starts displaying a shortcut list in the left pane, including Favorites, Desktop, Computer, and Network.

In a network environment, normally you will not save your files on the computer, but rather on a removable device or network drive. To locate these storage devices, start by selecting (My) Computer in the left pane; you may have to scroll to find this.

Windows XP	Windows Vista	Windows 7
		

After double clicking (My) Computer, you can now see physical and network storage devices listed, and browse from there.
If you did not choose a specific location when you saved your files, check (My) Documents instead of (My) Computer.

dir /w /p → View options

Once you have located your file, you may find out additional information about the file by changing views, much as you did in DOS.

dir by itself generated a listing of the file name, file size, and file creation date.

dir /w just displayed filenames, without the other details, and often displayed the filenames in columns.

dir /p paused the display after a page full.

In Windows, with its scroll bars, we don't need to worry about /p, but we often still need the functionality of the details.

	Most of the view options are limited to an icon and filename, including list, icons, and thumbnails. (Your version of Windows may include various sized icons.) Basically, these are variations on dir /w

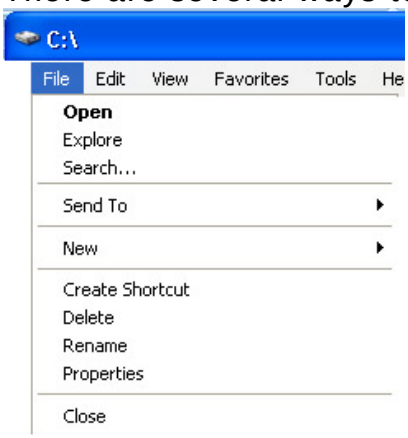
To find out about a file not in Details view, right click and choose Properties.

However, the Details option can give you a much more enlightening description of your files. Right-click on the gray column heading bar to add or remove items listed in the detailed list.

Further, you may resize the columns by pointing your cursor at the dividing line between columns… when the cursor changes to ↔ you click and drag the column to a different width.

ren → rename

There are several ways to rename a file in Windows.



Choose the File menu, then Rename

Right-click the file, and choose rename

Click one on a file name to select the filename and pause; click once more on the filename, and the filename should go into rename mode.

Note: you normally do NOT change an extension when renaming a file.

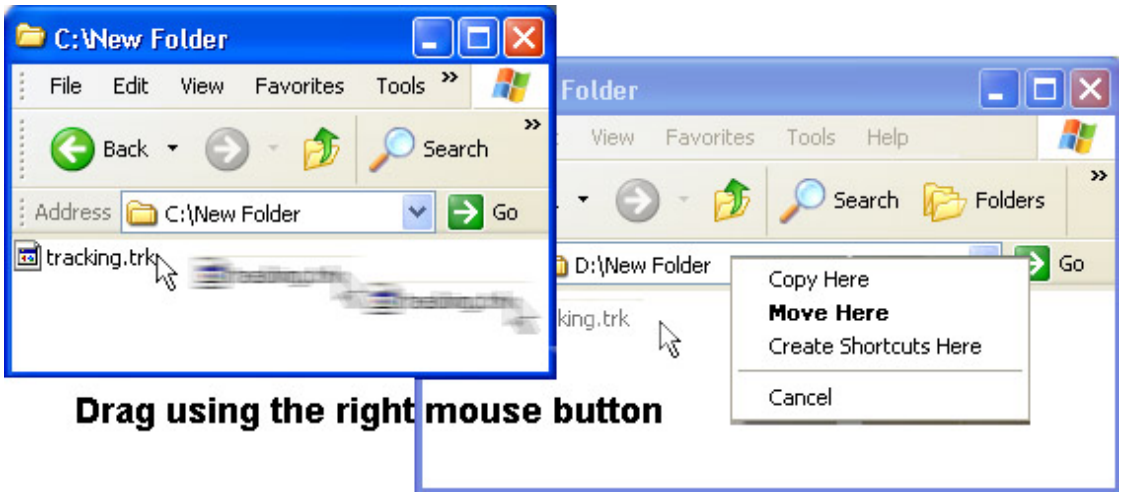
move or copy

In DOS, you always had to choose a command first, such as **`copy source destination`**. As we have seen in Windows, you usually start with the selection to choose the source, then choose the command.

While describing the various methods to copy (or cut, or paste), the move was included in that discussion.

A slightly faster variation to 'right-click copy' followed by 'right-click paste' is simply dragging a file by clicking on a file, keeping the left mouse button down, then moving the file to a new location.

However, dragging a file from one folder to another folder on the same drive behaves differently than if you are dragging a file from one storage device to another. To avoid confusion, ***drag using the right mouse button***. This prompts you to choose whether you intend to move, copy, or even create a shortcut.



After dragging to the new location, use the left mouse button to choose: Copy Here, Move Here, Create Shortcuts Here, or Cancel. More on shortcuts shortly.

You may also **select multiple files** to copy or move.

- Using the mouse draw a box around the files in (My) Computer or on the desktop to select multiple items.
- Click on one file in a column, press and hold the [Shift] key, and click another file in the column to select all files between the two items
- Click on one file, press and hold the [Control] key, and click to include additional files into the selection. Release the key when done.

undelete → recycle bin

In DOS, we had the potentially useful, but unreliable, **UNDELETE**. Undelete attempted to reintegrate recently 'deleted' files by updating the File Allocation Table, or FAT. This typically was only successful if the deletion attempt was carried out before there was any other disk activity that might over-write the file, making undelete impossible.

In Windows, a similar process occurs, but using the Recycle Bin, the chances of successfully recovering a recently 'deleted' file are very high.

This is because the file is NOT deleted at all.

Your recycle bin icon may differ.

Methods to 'delete' a file or folder include:

- selecting the file(s) or folder(s), then pressing the [delete] key,
- select the file(s) or folder(s), choose the File menu and Delete
- right-click the file(s) or folder(s) and choose Delete on the menu

Methods to restore a file or folder in the recycle bin

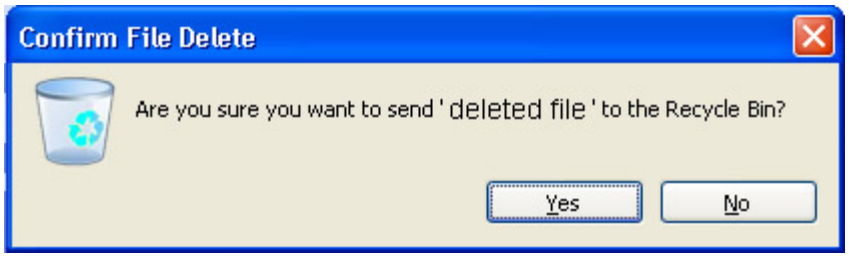
- Immediately after deleting, choose Edit/Undo or [Ctrl] [Z]
- Open the recycle bin, select the file(s) or folder(s), right-click and choose Restore. The items will be returned to the original location.

What happens when the recycle bin is full?
The recycle bin is actually a folder. When you 'delete' file(s) or folder(s) from a hard drive, instead of being removed from the computer, they are moved to the recycle bin for safe keeping. This gives you time to decide if you need to restore them later.

Emptying the recycle bin.
Eventually the recycle bin will get full, and won't be able to protect additional files. If nothing is done, then next time a file is 'deleted' it will be moved to the recycle bin, but the oldest file already in the recycle bin will actually be deleted, with no way to restore. To prevent the recycle bin from getting full, you can right click the recycle bin and choose to empty it, after making sure you don't need the files or folders that currently occupy the recycle bin.

When the recycle bin won't work.

Normally when you choose the 'delete' a file, you get something like the following message:

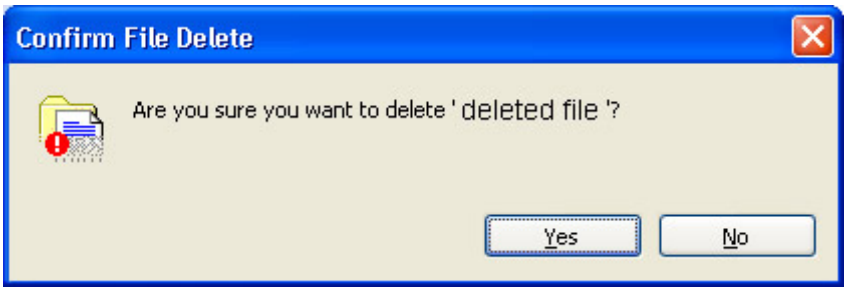


The confirmation message may differ from that shown.

The recycle bin only protects files that are 'deleted' from a hard drive, or a device that acts as a hard drive, such as a USB memory stick. Files deleted from network drives, or floppy disks, or re-writable CDs, are not moved to the recycle bin.

You can compensate for this by first moving potentially un-needed files to the hard drive, then 'deleting' them to the recycle bin.

You can also bypass the recycle bin and actually delete a file immediately by first selecting the file, then press and hold the [Shift] key as you choose the [Delete] key. The confirmation message may differ from that shown.



Note: Choosing to empty the recycle bin on your desktop may also empty recycle bins on removable drives and other hard drives on your computer.

paths → shortcuts

As previously discussed, an icon represents an object. Sometimes what appears to be an icon is actually a shortcut. A shortcut differs as it include an arrow

A shortcut is just a way to locate an object quickly. You might not want to physically move a file to your desktop, but you could add a shortcut to a file on your desktop, making access much easier. Later, you can delete the shortcut without actually removing the original file from the system.

In short, a shortcut is a path to an object. Just as we used the **path** command to tell DOS where the DOS commands were, or just as we used a full path in a command to tell DOS where the source or destination items were, we use shortcuts to tell Windows where to find something.

When you make a web site a 'favorite' or a 'bookmark,' again basically you are simply copying the path to that site.

Creating Shortcuts

Select the file you wish to make a shortcut:

- Right click the file
- Choose Copy

Choose where you wish the shortcut to be created

- Right click the location
- Choose Create Shortcut

When you wish to create a shortcut on the desktop

- Select the file you wish to make a shortcut to
- Right click the file
- Choose Send To\Desktop (create shortcut)

When you wish to create a shortcut in a different folder

- Select the file you wish to create a shortcut to
- Right click the file
- Drag the file, with the right mouse button held down, to the desired location Options
    - Move here
    - Copy here
    - Create Shortcut here

You may watch a short video on this topic on the class web site.

LAB 4

At the end of this process, you will be turning in answers using the Quizzes area of Desire2Learn, based on the following questions. So, to get the best score, fill in all the answers in this document first.

Documentation
What is does an icon represent?
What does a shortcut represent?
What is on the Start Button?
What is on the Task Bar
What is
What is
What is
What is
What is My Computer used for?
Discuss Help
Discuss the Control Panel
What does ... mean?
What does a triangle or V mean?
What does Double Click Mean?
What does Right Click Mean?

Windows Activity:
Folders
Using (My) Computer, make a folder called Lab 4, preferably on your network drive.

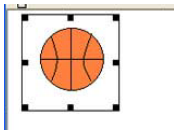
Note: Be able to discuss creating folders and discuss opening folders.

Copying Info, not just files
Make sure My Computer is open; you will be switching between it and WordPad;
Open WordPad and save a file named yourname-lab4.rtf in your lab4 folder,
or copy the lab4 file from the class web site and save it in the lab4 folder, naming it yourname-lab4.rtf
Type some text; experiment with formatting. DO NOT CLOSE WordPad, you may minimize WordPad if you like.

Open Paint

Create a bitmap image in Paint;
I suggest you choose Image\Attributes, and make it 300 pixels by 300 pixels
(Windows 7 users File menu to choose Properties.)
Just doodle, preferably using different colors, shapes, and brushes.
Use the rectangular selection tool to highlight part of your image
Use Right-click and choose Copy, or
press and hold the Ctl key, touch the letter C and let go
This copies the image into memory.

You may save the image in your lab4 folder, or simply close Paint.



FORMATTED

Switch to WordPad. (experiment with [Alt]+[Tab])
Place your cursor at the beginning of the first line.
Then Right Click and choose Paste, or
hold down the Ctl key, touch the letter V, and let go.
This should paste the copied image into your WordPad document.

Save this document, to avoid loosing your work.

You should now have some formatted text, and an image in yourname-lab4.rtf,
as shown on the left.

Leave WordPad open.

The Control panel
Open the Mouse control panel
Note: Be able to describe how you open the Mouse control panel

In the Mouse Control Panel, change from tab to tab, and test the use of making different choices.
Open the Pointer Options tab.
Press and hold the Alt key, then press the PrtScn key and let go. This copies the active window into memory.

FORMATTED TEXT

Switch to WordPad

Make sure your Paint image is not selected by clicking to the right of the image.

Press the enter key to start a new line. Right Click/Paste or
hold down the Ctl key, touch the letter V, and let go.

This should paste the copied image into your WordPad document.

Save this document, to avoid losing your work.

You should now have a your copied Paint image and the mouse screenshot, plus some formatted text in yourname-lab4.rtf ,
as shown on the left.

Leave WordPad open.

Views in My Computer
Make sure you have opened your lab4 folder using (My) Computer.
Click [Folder] button on and off, to display, then hide the 'tree' (not available in Windows 7)
Change the view to Details, then to Icons

Note: Be able to describe how you can change how you view file details.

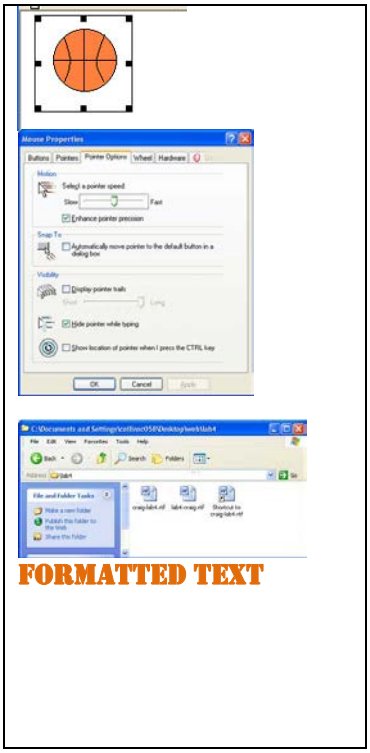
Right click a file, and choose Properties
Get properties of yourname- Lab 4.rtf
Note: Be able to describe how you get properties of a file.

Copy files
Copy yourname- Lab 4.rtf, place the copy into the same folder
Note: Be able to describe how you can copy a file.

Rename files
Rename the copy of yourname-Lab 4.rtf, to lab4-yourname.rtf
Note: Be able to describe how you can rename a file.

Shortcuts
Create a shortcut to yourname-Lab 4.rtf in the lab4 folder.

Restore down My Computer, and drag the shortcut to the Desktop using the right mouse.
Choose to make a copy on the desktop, then Delete the shortcut on the desktop.
Note: Be able to describe how you can delete and 'undelete' files, folders, or shortcuts.



Making sure all the files were created
Switch to (My) Computer,
View your Lab4 folder's contents

Note: Be able to describe what do you have to do to resize a window?

Then resize the Window until it is about 5 inches wide,
Alt+PrtScn to copy that window.

Switch back to your yourname- lab4.rtf,

Paste the My Computer screen shot into your file.

You should now have a your copied Paint image, the mouse screenshot, the (My) Computer screenshot showing
your file
the copy of your file
the shortcut to your file

plus some formatted text in yourname-lab4.rtf ,
as shown on the left.
Save this document, to avoid losing your work.

You may now close WordPad.
Note: Be able to describe how you close all open Windows, and shut down your computer

Lab Hands On Questions
Are the following True or False?
(My) Computer views files like the DOS CD command.
(My) Computer can change to directories the DOS CD command.
The [Folders] button can open a pane that is like the DOS TREE command
The [Up] folder button in 'My computer' is like the DOS CD .. command
You can enter commands or start programs with the Start Menu Search or Run, like the DOS command prompt
You can control the list in My Computer using View, similar to the DOS DIR /W or DIR /P command

In Windows, zip the entire lab4 directory, and rename to yourname-lab4.zip.

Zipping files

When you wish to email or upload several files and folders, the best way to do this is to 'zip' them.

Using My Computer in Windows, select the file(s) you wish to zip
1. Right click the selected item
   (if you have selected several items, right click one of them)
2. Choose Send To
3. Choose Compressed (zipped) Folder
4. The new file will be created in the same location
5. Rename the file, if you like.

Renaming files

When you wish rename a file:
1. Select the file you wish to rename
2. Right click the file
3. Choose Rename

(Note the three character extension if visible, before proceeding)
4. Once the name is selected you type in the new filename to replace the old
5. Make sure the extension, if visible, remains the same
6. When finished, press the [Enter] key.

Submitting labs in D2L

1. Choose the class for which you want to drop off an assignment.
2. Find the Dropbox tool, click on it.
3. Choose the appropriate Dropbox folder, click on it.
4. Choose [Add a File], then choose [Browse]
   In Vista or Windows 7, you may need to choose ▼*Browse Folders*
   You then may need to choose *Computer* to browse for your file
5. Find the file that you would like to upload and click open, then choose [Upload]
6. Type in a short description or comment about the file, if you like.
7. Select [Add] for any additional files that may be pertinent, and repeat
8. After your files have been selected, click [Submit].
   (You will always click upload at least twice)
9. Some files may take a long time to upload
   (especially if there are graphics in the file).

Take the quiz for lab 4 in D2L

Choose the class for which you want to take the quiz.
Choose the Quizzes menu, and locate Lab 4.
Answer the questions based on this documentation.
SAVE EACH ANSWER. WHEN FINISHED, PRESS SUBMIT

Windows D

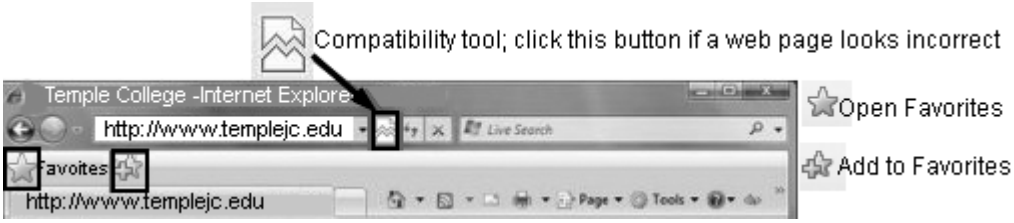
File Management parameters

- Favorites
- Folder options
- More Disk, Folder, and File details
- Personal Folders in (My) Documents
- Customize personal folders
- Zipping

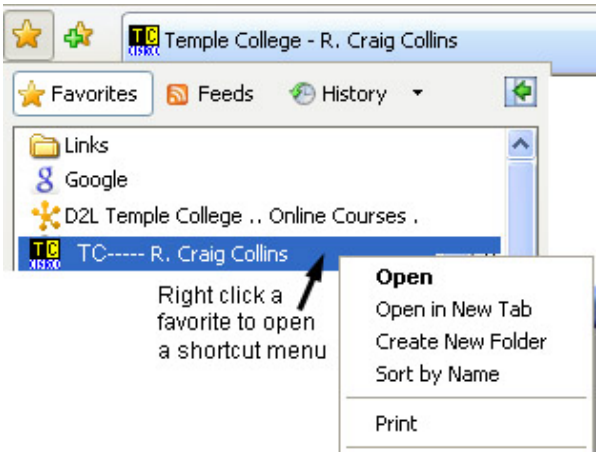
Favorites

As mentioned earlier, a Shortcut is simply a path to an object, whether that object is a file, a program, or a web site. In the case of a shortcut to a web site, that is normally called a favorite, and is a accessible as a list in your web browser.

To create a Favorite, you must first open the object you wish to add as a favorite… if you wanted http://www.templejc.edu to be a favorite, you would first open the web page, then choose the
Add to Favorites icon (a star with a plus sign +☆).



To return to that web site later, choose the ☆Favorites icon, and choose the proper item from the list.



In Windows XP and Windows 7 (though not always in in Windows Vista), you can also make a folder a favorite also. As before, you must first open the folder, and then choose to [Add to Favorites].

Note: Internet Explorer and (My) Computer are both tools to browse; (My) Computer browses for files on your computer or network, while Internet Explorer (IE) browses for web sites. But the two tools are connected; so if you type c:\ in a Internet Explorer browser window, you probably will open (My) Computer for the C:\ drive. If you use the Search tool in (My) Computer and type in http://www.templejc.edu, the web page will probably open in IE.

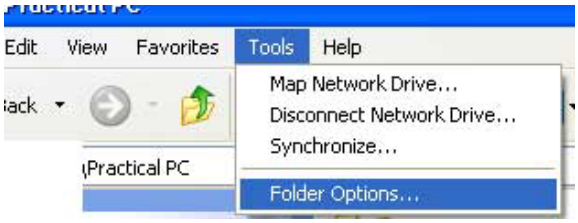
Folder options

As discussed at the beginning of the Windows section, a very helpful place to make a few changes is Tools/Folder options. Earlier we discussed how many Windows computers are set up to hide known file extensions and how confusing this can be.

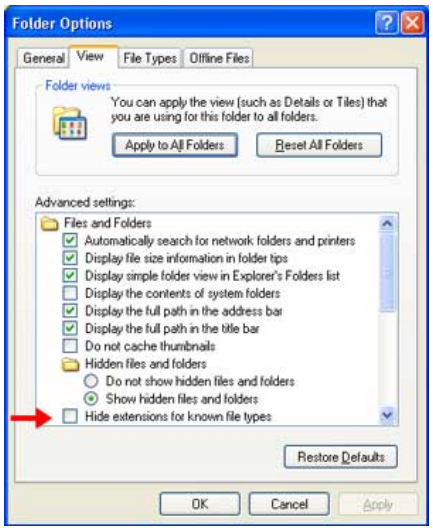
To set your computer to display the entire file name:

- Open (My) Computer
- Choose Tools\Folder Options...

(for Vista or Windows 7 users, press the [Alt] key to reveal the Tools menu),
…then select Folder Options)



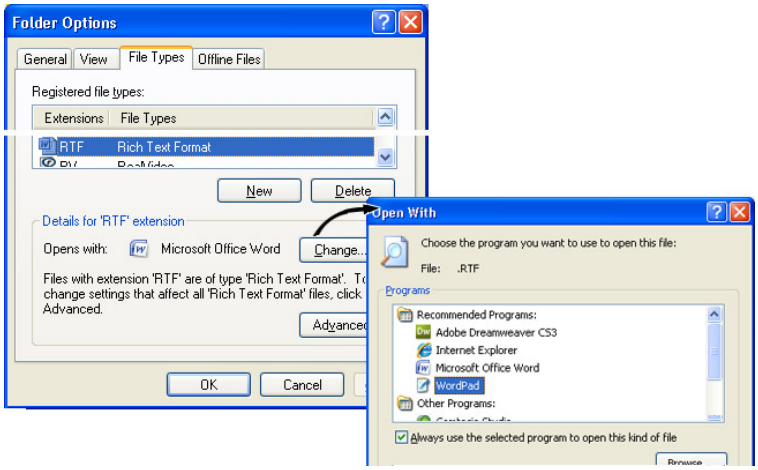
- Choose the View tab, then click **off** the check mark next to 'Hide extensions for known file types', then click OK



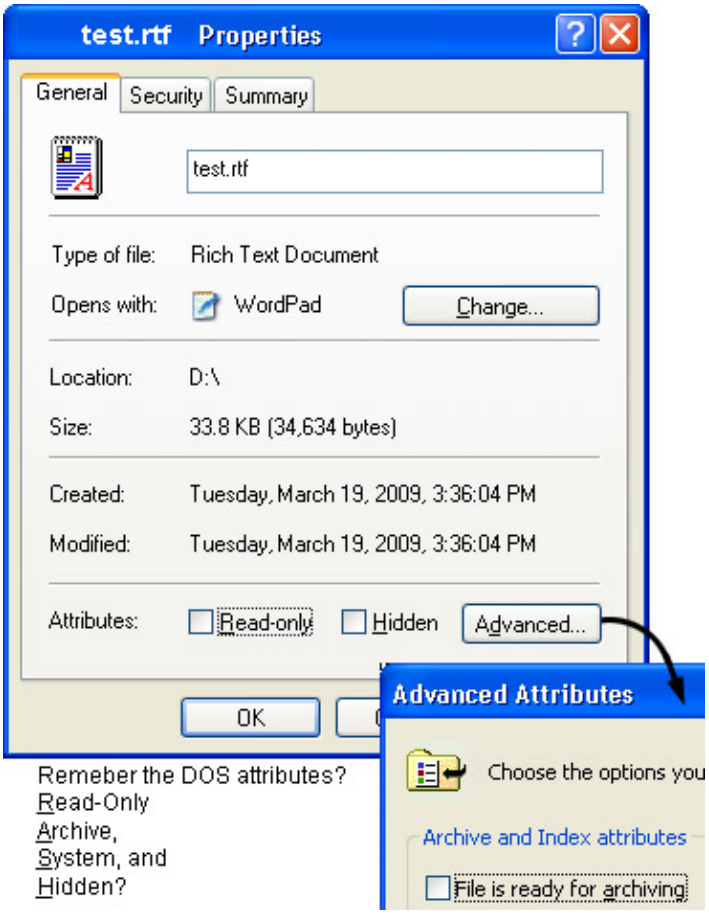
Typically, this is the only change that you may need to make on the View tab, aside from perhaps showing hidden files.

However, you can also 'fix' icons for files that are opening with the wrong program, using the [File Types] tab. For example, if you have Microsoft Word installed, the icon for (.rtf) files changes from WordPad to Word.

By selecting File Types, you can browse to .rtf and choose WordPad to open that type of file.



More Disk, Folder, and File details

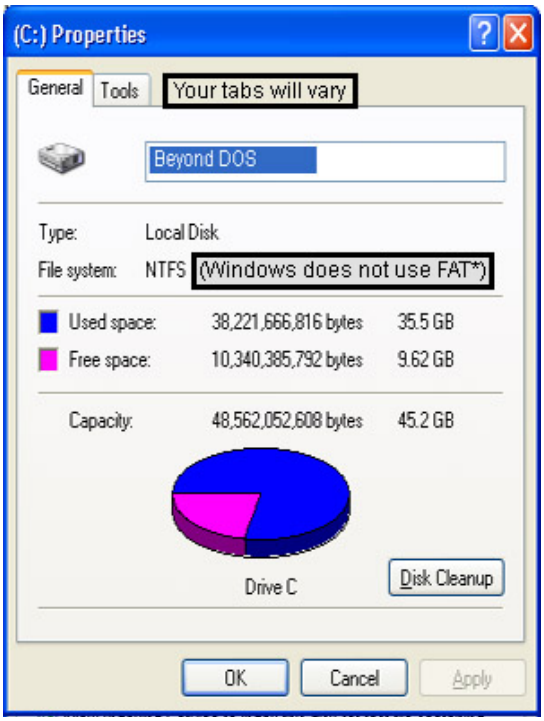


Earlier we learned that you can right-click a file and choose Properties. Note the information available on the General tab, and when [Advanced...] is selected.

You can also right click a folder and get properties, such as the size of all the files in the folder, but more on that in just a bit.

What is really powerful is if you open up (My) Computer and right click on a hard drive or storage device.

(You may have to select [Folders] and then scroll to locate 'Computer' in order to see the storage devices.)



The properties for a disk show:

tabs to more information at the top,

the volume label,

the file system, usually ***not*** FAT
(Windows NT was the first non FAT OS from Microsoft, and all modern versions of Windows are based on the NT File system, or NTFS.)

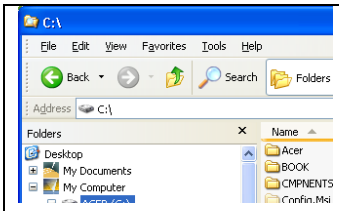
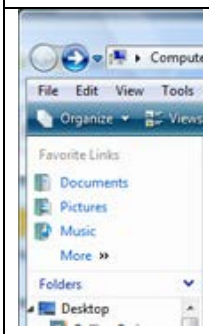
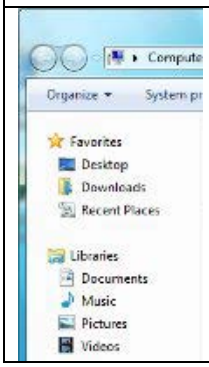
a usage graph,

and access to Disk Cleanup.

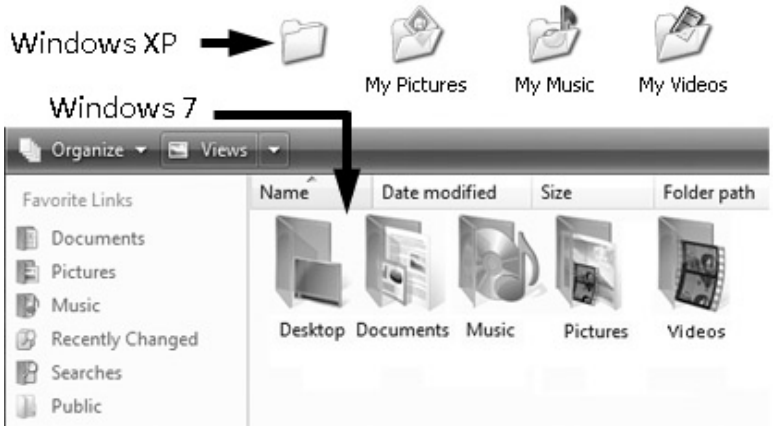
More on Disk Cleanup and Tools tab will be covered later.

Personal Folders in (My) Documents

When you save a file, unless you specify a different location, the file is usually saved in one of your personal folders. The folders have several names, such as (My) Documents, (My) Pictures, and (My) Music.

	In Windows XP, if you choose Start and then My Documents, you will see the pictures, music, and other personal folders are stored inside My Documents. Other programs may also set up personal folders within My Documents.
	In Windows Vista, all the personal folders are saved separately, but there are often shortcuts to the folders inside of (My) Documents. You can locate all of the personal folders in the left pane.
	In Windows 7, the personal folders are located under libraries in the left pane.

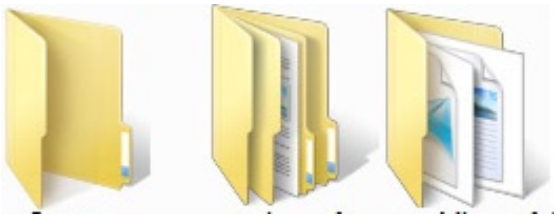
Probably the first thing you notice about these personal folders is the icon isn't the regular yellow folder. Instead they're descriptive of the contents.



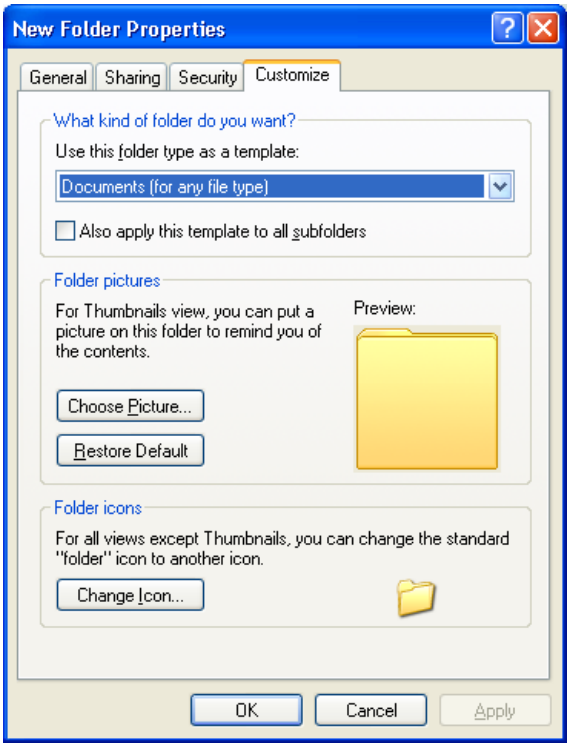
Customize personal folders

This leads us to the next topic. You CAN change any of those plain folders, so they too are easy to recognize, by customizing them.

While Windows 7 does a good job of displaying an empty folder vs. a folder with documents, vs. a folder with images, as below, we can still do more.



Right-click the folder you wish to modify, and choose Customize.



You can choose a picture to display on the folder, or you can choose [change Icon…]

Zipping

Since the beginning of the semester, you have been zipping folders to place in the dropbox. The steps are:

- Right click the file or folder you wish to zip
- Choose Send To/Compressed (zipped) folder
- A new file with the zippered folder icon will be created… you may rename the file if you like.

There are several reasons this zipping is done.
First, you cannot attach a folder and its contents to an email, nor can you upload a folder and its contents to Desire2Learn (D2L).

By zipping the folder, it is changed to a package that ***can*** be attached to emails or uploaded.

Note: While zipped, the contents of the file are not really for editing or even for viewing… they are just packed up for the time being.

Zipped items need to be Extracted in order to really use the files.
(Right click the zipped item, and choose Extract All)

But the real reason to zip items is because of **compression**.

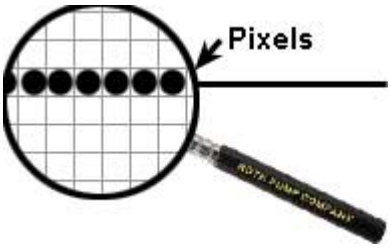
Zipping reduces file size, called compression. But some files are compressed when saved, especially images.

Again, compression is about reducing file size; smaller files take up less space on hard drives, and download faster. Basically, there are two ways to compress a file, to remove redundant or superfluous data.

Redundant data is repeated data; as computers are very good are detecting and repeating patterns, this is a favorite method of compression.

Example: Let's say we point a digital camera at a white board, and snap a picture. The camera detects colors at various points, usually by dividing the image to be captured into rows and columns, then collecting color information at the intersections. VGA resolution is 640 points along the horizontal, and 480 rows, for just over 30700 pixels, or picture elements.

Below is a magnified view of a line on that white board, so you may see the pixels that make up the image.



Each pixel is represented by a series of 1s and 0s that dictate the color... some cameras will assign twenty four 1s and 0s to each pixel, allowing up to 16.7 million colors to be represented at that single point. That means you have 640 x 480 x 24, or a total of 7372800 1s and 0s for that one image. That is just over 7 megabytes! Obviously, we need to compress the image, and one way is to get rid of the redundancy. On the rows that are just white pixels, instead of saying 'white pixel,' 'white pixel,' 'white pixel' over and over, why not just tell the computer to repeat the white pixel 640 times.

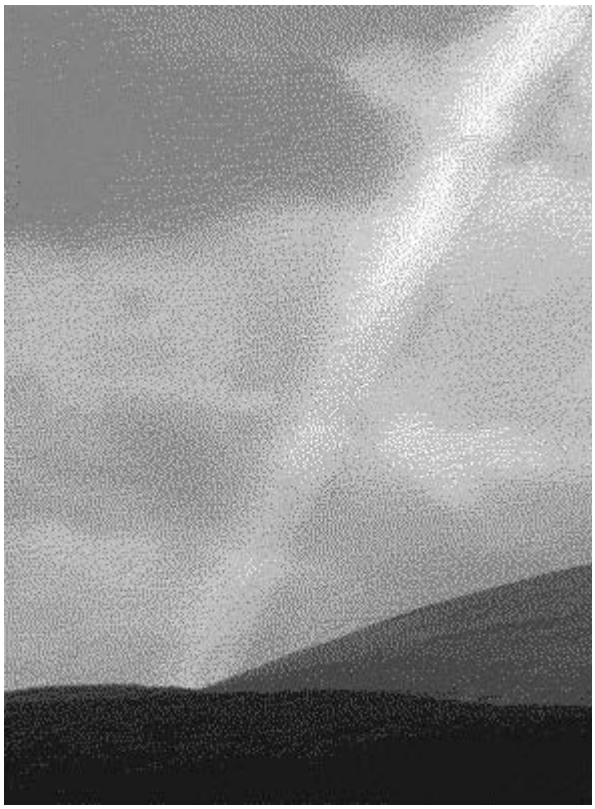
And if you have 400 or 500 similar rows, why not tell the computer to repeat the 'white row' 400 or 500 times? This immediately gets rid of a lot of 1s and 0s, making the file smaller. The file has not changed, just how we describe it. This is called loss-less compression.

Another way to compress a file is to remove 'extra' information.

Example: consider 2+2=4. Is there any part of that statement that does not need to be stored? The computer can add 2+2, so why store the answer? The answer will not change the next time it is added, to the answer is superfluous, or extra.

Now, consider a picture of a rainbow. Can you really detect the 16.7 million shades, or would 256 shades get your point across? Moving from 24 bit color (24 ones and zero to describe each pixel)
to 8 bit color (8 ones and zero to describe each pixel), removes a ton of the 1s and 0s that indicate color; thus you can compress a file by removing the 'extra' color information, and a rid yourself of a lot of 1s and zeros that make up the file. The file has changed, but perhaps not in a meaningful way. This is called lossy compression.

The image below on the left is a jpg; while still compressed, it is still a good image. However, on the right, that image has been stripped down to 216 colors; now, there is no smooth transition between shades. This would NOT be a good compression, as TOO much info was removed.



In images, a .bmp file is lightly compressed, and not good for say Internet downloads as the files stay large. So instead, you could use .gif, if your file is limited to 256 colors, as in a pie chart. If it is a photograph, as above, use .jpg which allows for more colors, but still has good compression.

PS, that 7 MB picture of the white board can compress to
900 KB (24 bit 16.7 million shades bitmap image),
or 37 KB (monochrome bitmap image)...
or a 5 KB jpg file...
but since we don't need a lot of colors, it is best suited to be a gif, which comes in at mere 1.7 KB!

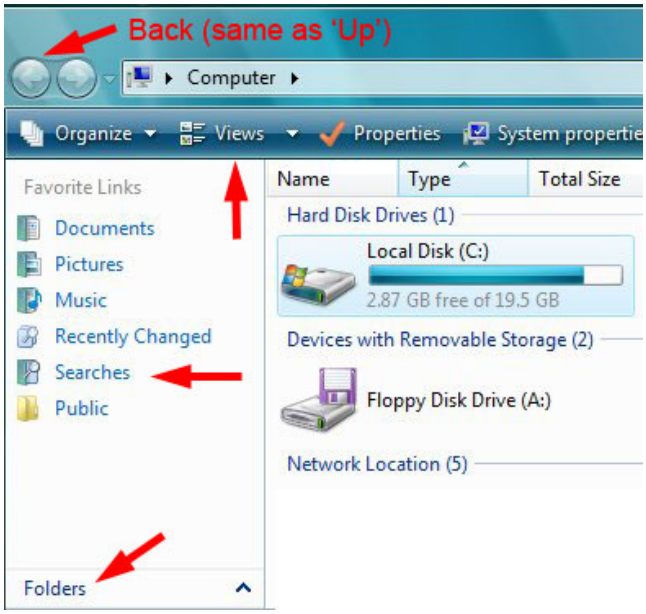
From 7 MB to 2 KB without losing the meaning of the image... that is about 2400% improvement in storage space, and download time. That is great compression!

Comparing Windows XP to newer versions: My Computer vs. Computer

Up/Back: Used to retrace steps, similar to the DOS cd ..
Search: used to locate files by name, contents, size, etc.
Folders: XP, toggle between a tree view and a info screen
Folders: Vista, toggle between a list of 'favorite' storage areas,
and tree of all storage areas… scroll until you find Computer,
and start navigating there
View: Choose to view files or folders as icons, a list, or detailed list, etc.

XP version

Up Search Folders Views

Vista version 

Notes

Windows E

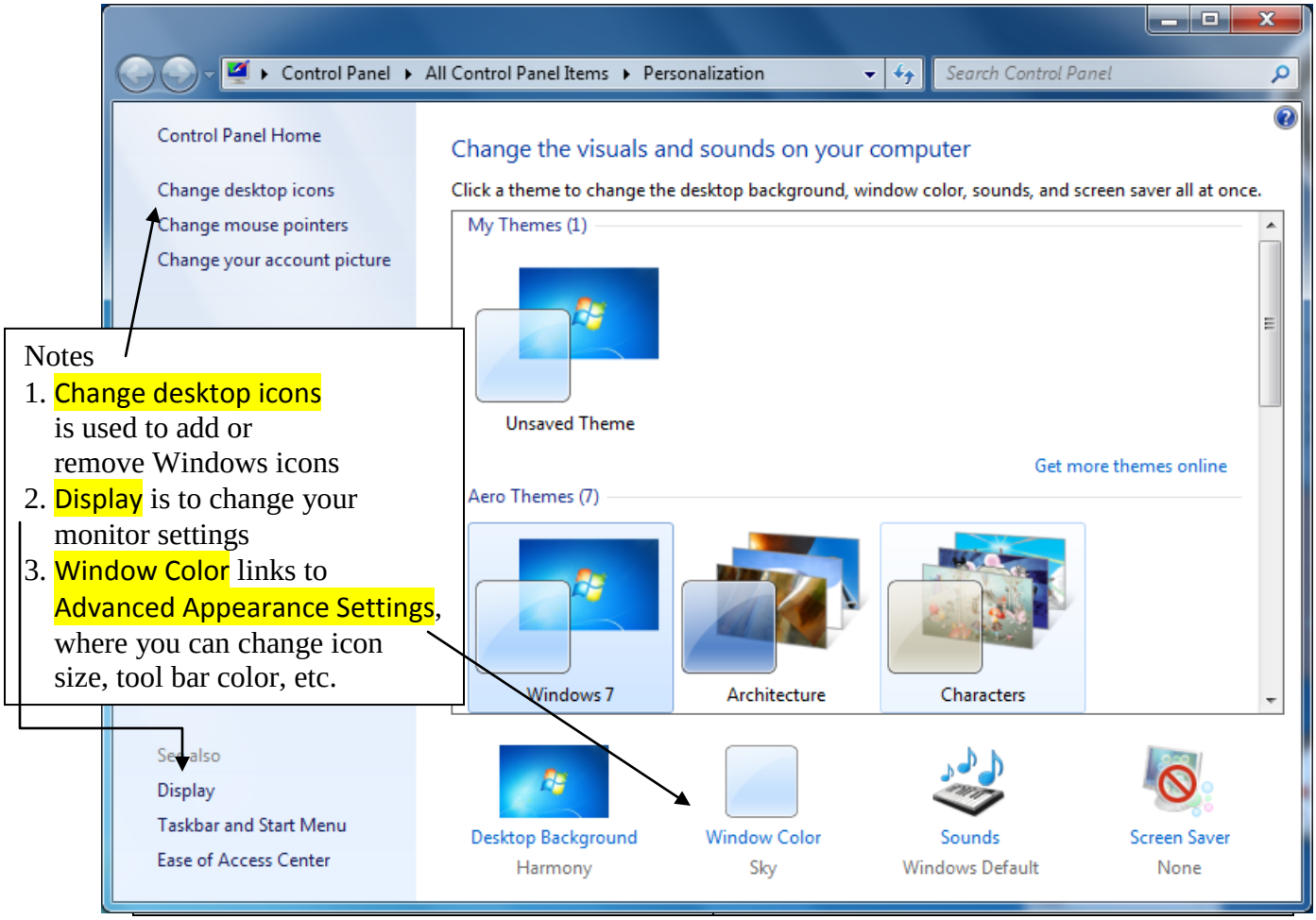
Control Panel and Variations

- Desktop Properties
- Time and Date
- Fonts
- Scheduling tasks
- Taskbar/Start Menu

Desktop Properties (Windows 7 variations discussed in class)
There are many things that can be configured on the desktop, the background image (or wallpaper, as it is often called), the color of the windows, the size of icons or the icon label text color, which optional items aside from the recycle bin appear, which screen saver pops up and when, and even setting the controls for the monitor and video card. You can even make a change to all of the above, by selecting a 'theme.'

There are many ways to get to the tools that allow you to customize the desktop, or examine what is currently set. One method is to use Start/Control Panel, and select Display. To manage the video card, you might need to choose Start/Control Panel, and then select System, and dig down into the Hardware tab, and the look through the Device Manager… or, you could right click the desktop!

In Windows XP, once you have right-clicked the desktop, you choose Properties. In Windows Vista, you choose Personalize.

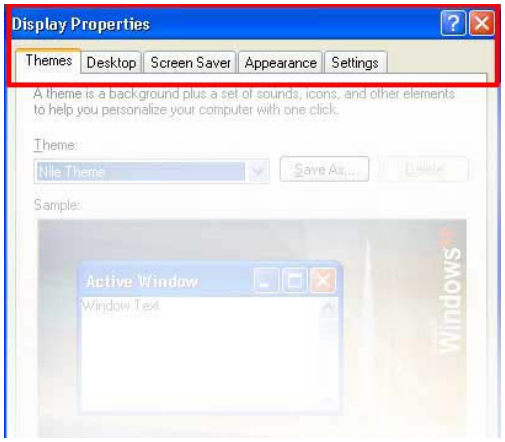


Use the following guide to explore desktop options for Windows XP-Vista

Desktop Properties, side by side comparison of XP and Vista

Customizing the Windows XP Desktop

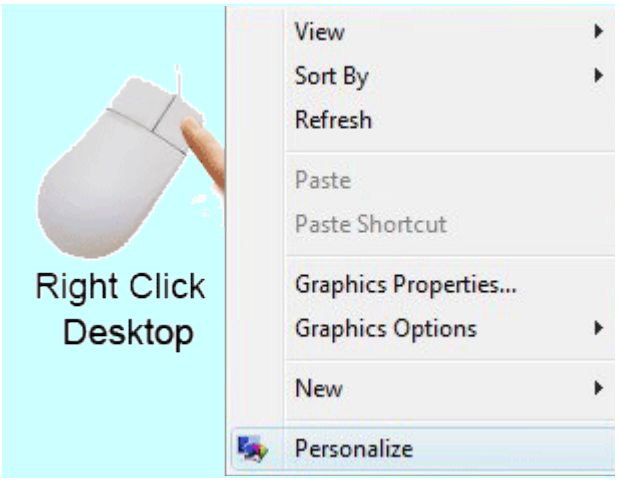
Choose Properties



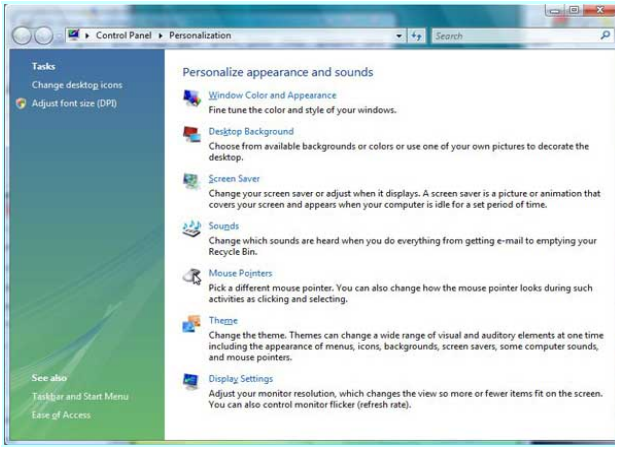
Contents:

Themes
Desktop (Vista Desktop Background)
Screen Saver
Appearance (Vista Windows Colors and Appearance)
Settings (Vista Display Settings)

Customizing the Windows Vista Desktop



Choose Personalize



Contents of note:

Change Desktop Icons (XP Appearance\Customize)
Windows Colors and Appearance (XP Appearance)
Desktop Background (XP Desktop)
Screen Saver
Themes
Display Settings (XP Settings)

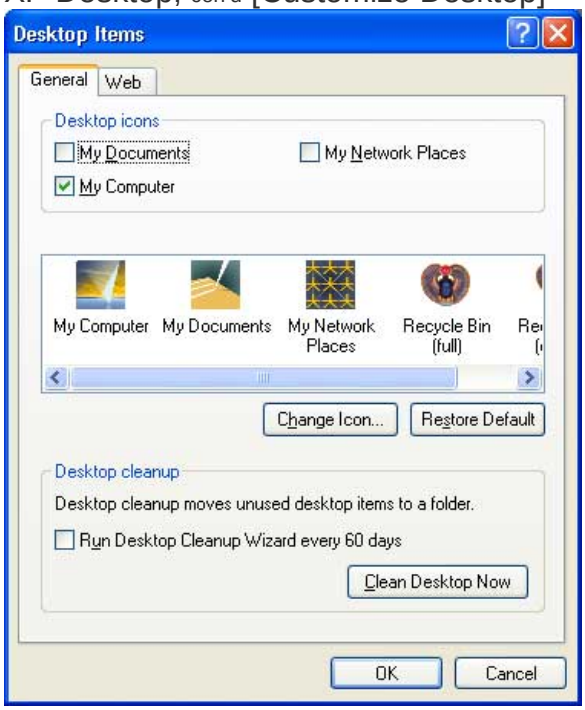
XP Themes

Vista Themes

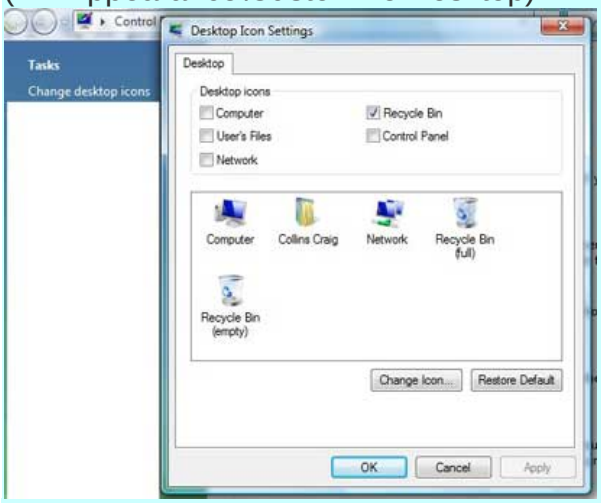
XP Desktop (Vista Desktop Background)

Vista Desktop Background (XP Desktop)

XP Desktop, con'd [Customize Desktop]

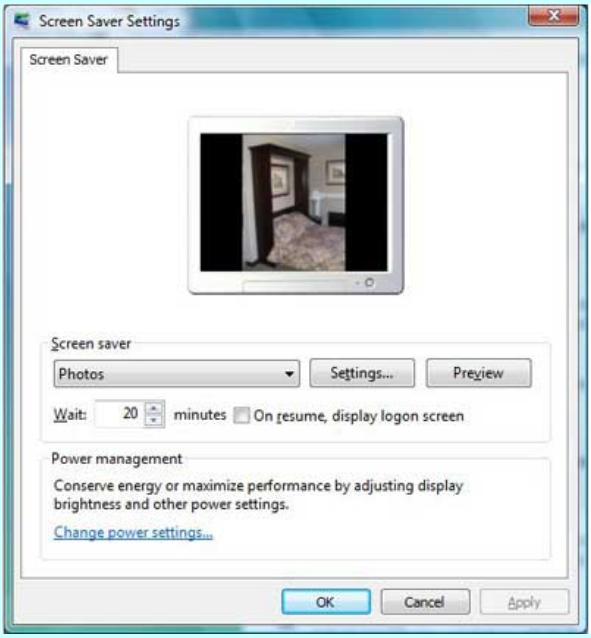


Change Desktop Icons (top left) (XP Appearance\Customize Desktop)

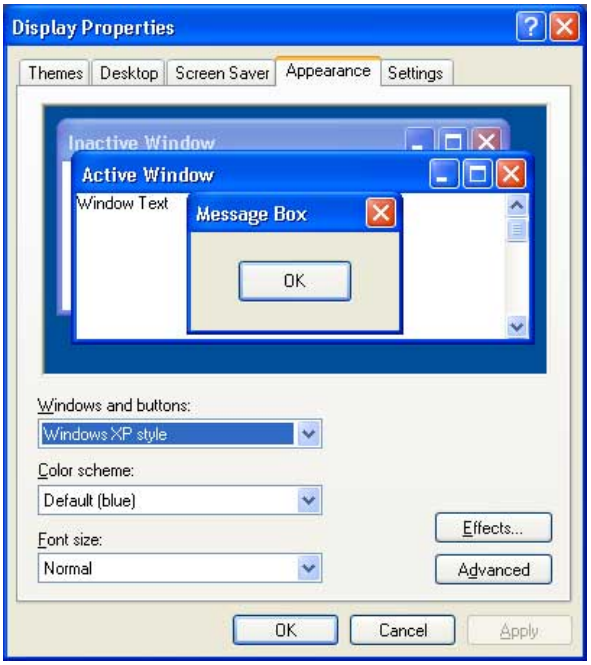


XP Screen Saver

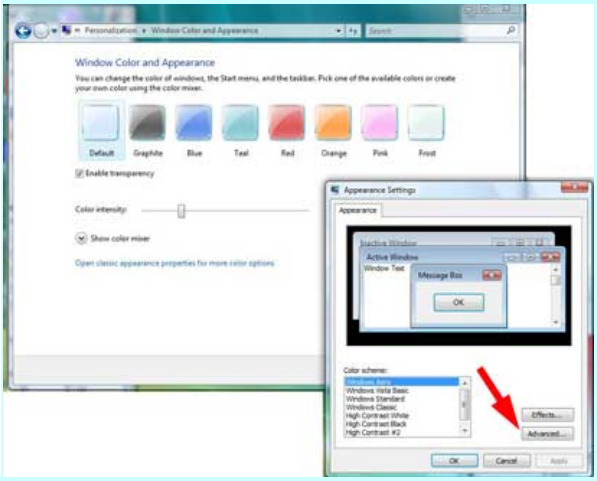
Vista Screen Saver

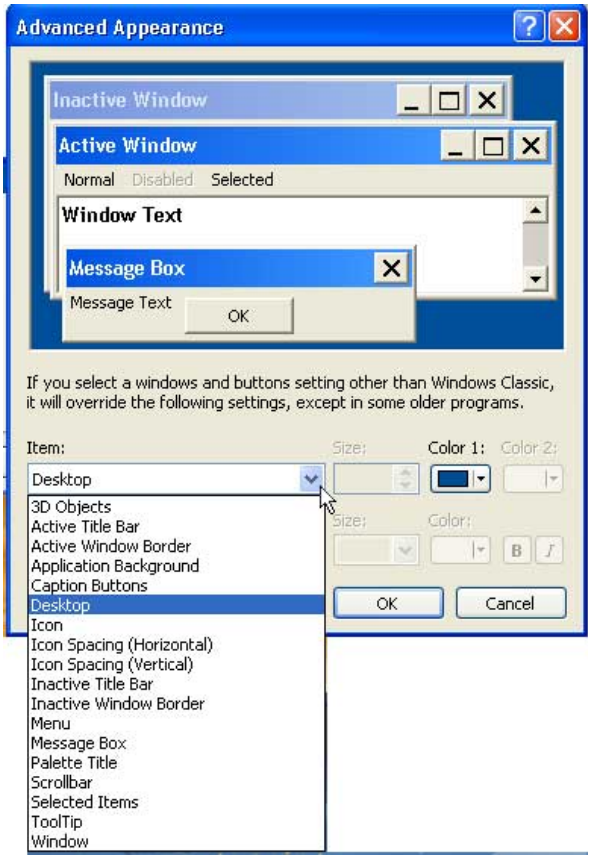


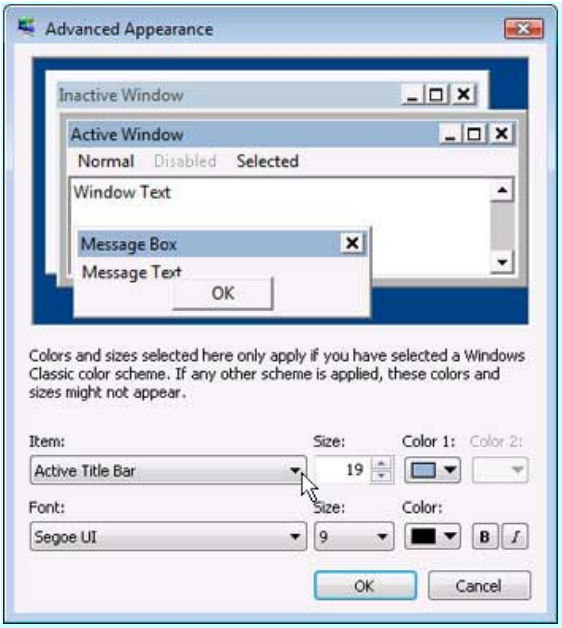
XP Appearance
Must click Advanced... to change other items



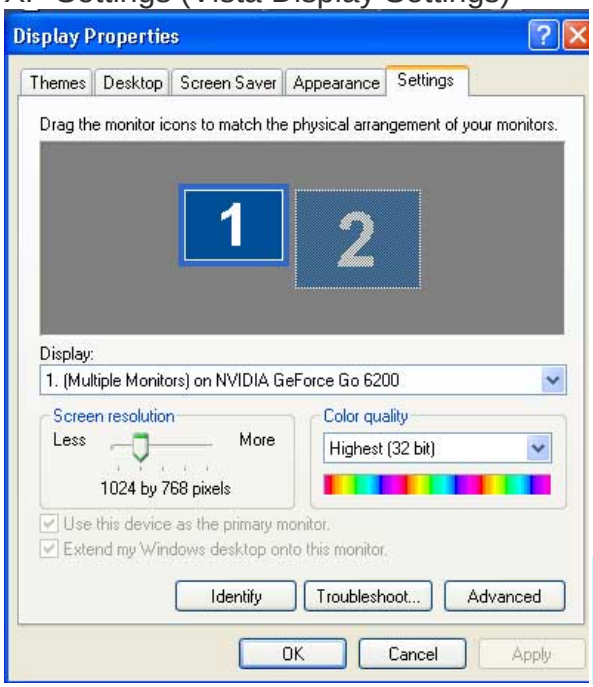
Vista Windows Colors and Appearance
Open 'Classic appearance properties...'
Must click Advanced... to change other items



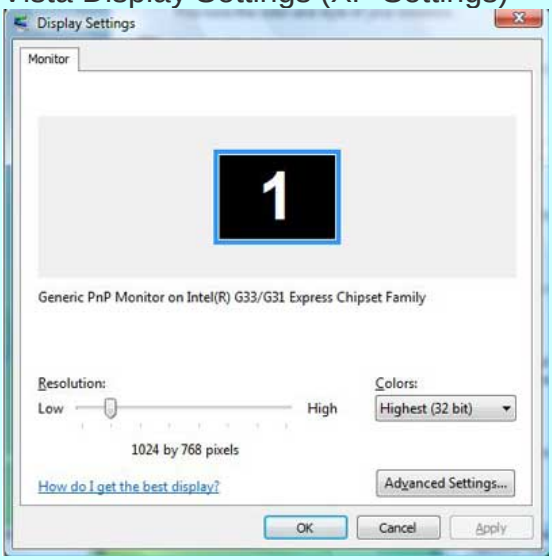




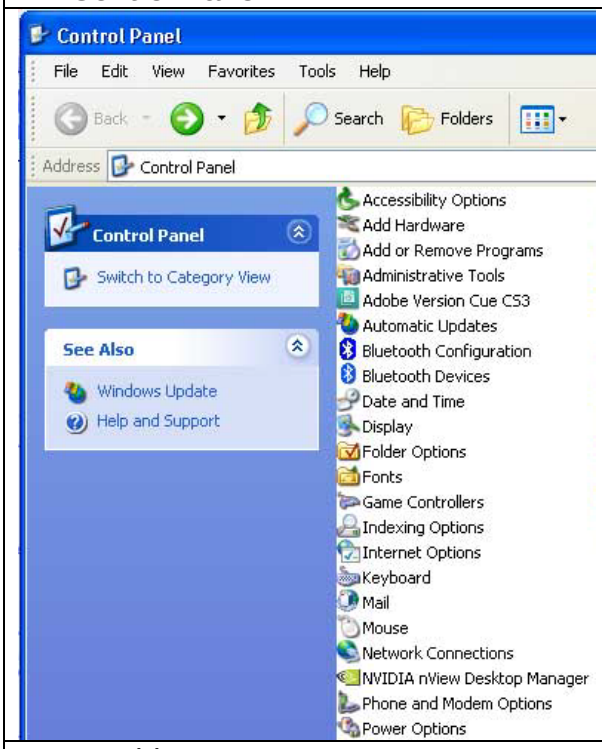
XP Settings (Vista Display Settings)



Vista Display Settings (XP Settings)



Again, these items can be accessed via the Display tool in the **Control Panel.** Below is a side by side comparison, in Classic view, of XP and Vista control panels.

XP Control Panel	Vista Control Panel
	
Note: Add or Remove **Programs**	Note: **Programs**, or **Programs** and Details

Time and Date

Time and date typically don't need to be altered. Just as in newer computers that run DOS, a small battery powers the CMOS to keep track of this information, even when the computer is turned off or unplugged. When the computer boots, the OS updates the time and date automatically, using the CMOS information. The computer can also adapt for daylight savings time automatically.

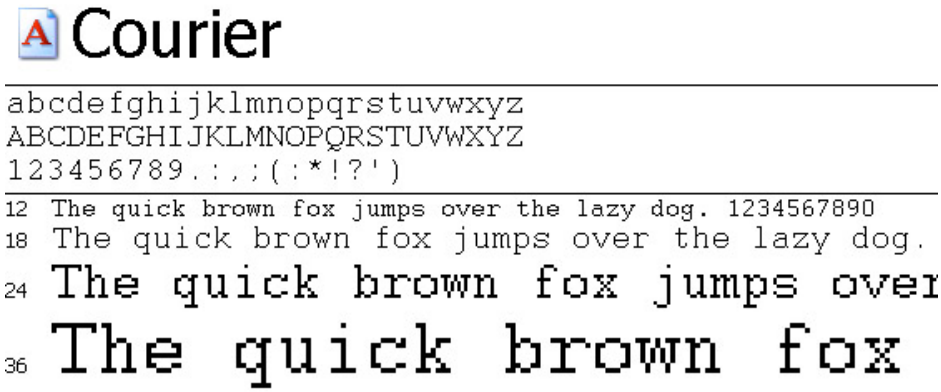
However, if the Time and Date need setting, double click the clock in the System Notification Area (the Tray) of the Task Bar. There you can select 12 hour or 24 hour clocks, time zones, etc. Of course, you could also make this change in the Control Panel, too.

Note: Many network computers prevent individuals from resetting the time or date.

Fonts

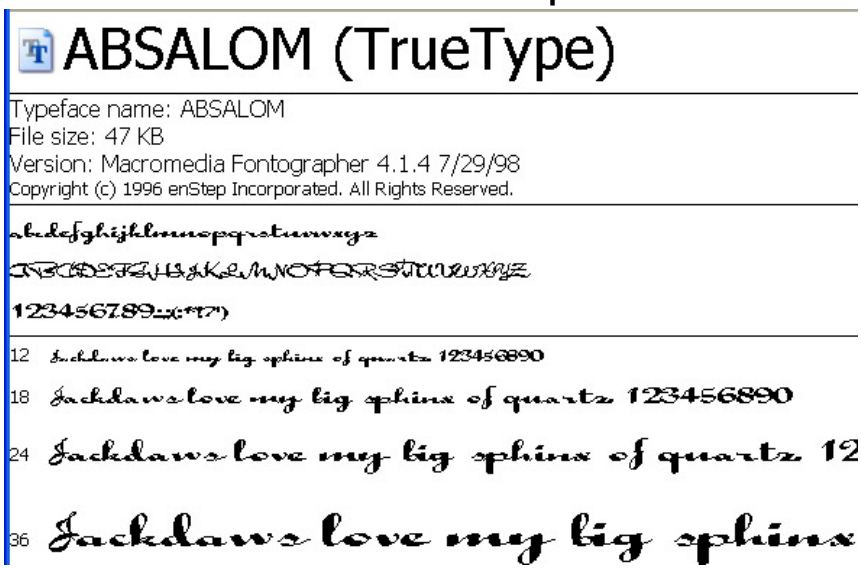
Previously we learned how formatting of text is possible because the computer can now control the size, color, and typeface of various fonts. The different fonts that are installed on your computer are organized by type in the Fonts tool, located in the Control Panel.

VGA fonts are similar the bitmap font that DOS used. They were called bitmap fonts because they were made up of dots, little bits of light, mapped to a particular location on a monitor. It wasn't an 'A' as much as it was a series of dots that *looked* to our eyes like an 'A'. However, notice how poorly these scale to large sizes. This limited early printers as well.

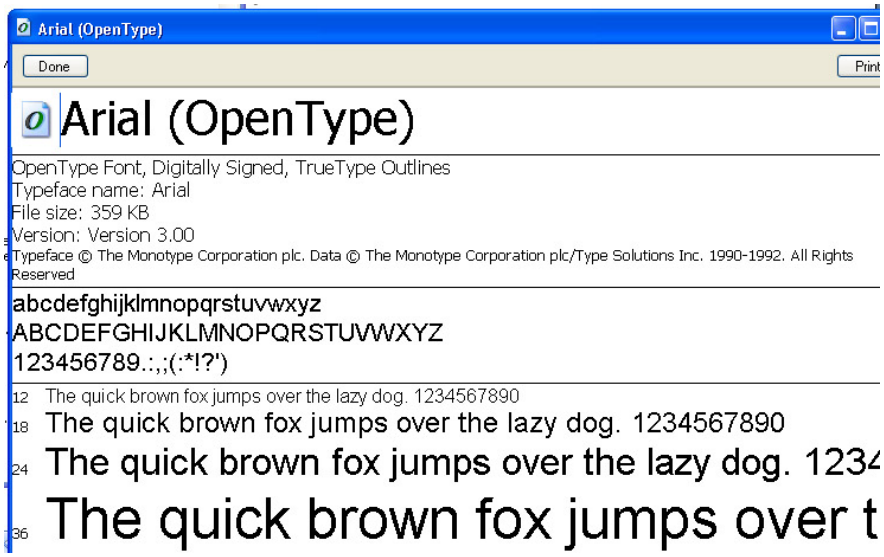


Recall, it was the introduction of fonts that scaled that lead the Windows revolution. Those were called True Type fonts, and these print well.

True Type fonts include hundreds of additional characters beyond what is available on the keyboard, to support languages other than English. Notice how smoothly the font scales as font sizes get larger.
Start/Run or Start/Search **charmap** to view these additional characters.



Open Type (Open True Type) fonts can include thousands of additional characters beyond what is available on the keyboard, to support languages other than English. Notice how smoothly the fonts scale to larger sizes. Some of the fonts are 32 bit, compared to the 8 bit bytes used by DOS.
Start/Run or Start/Search **charmap** to view these additional characters.

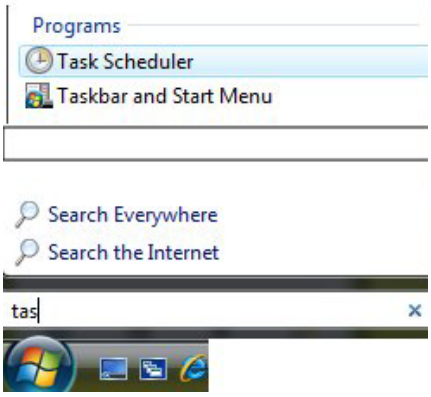


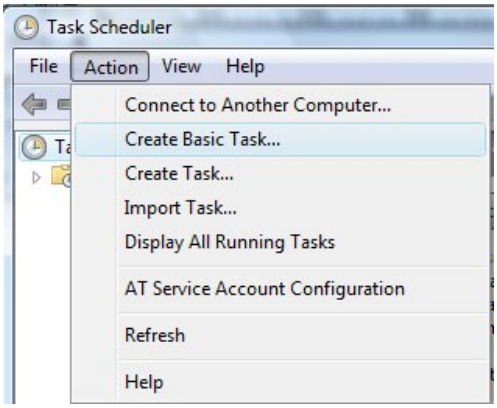
Scheduling tasks

Some jobs, such as defragmentation or error checking, should not be run while you are using the computer… use of the computer actually interferes with the task. One option to accomplish the task then is to schedule the computer to run the task when you aren't using the computer.

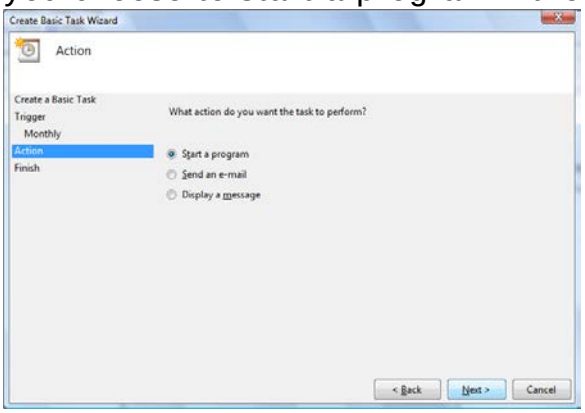
Note: the computer must be turned on for a scheduled task to run.

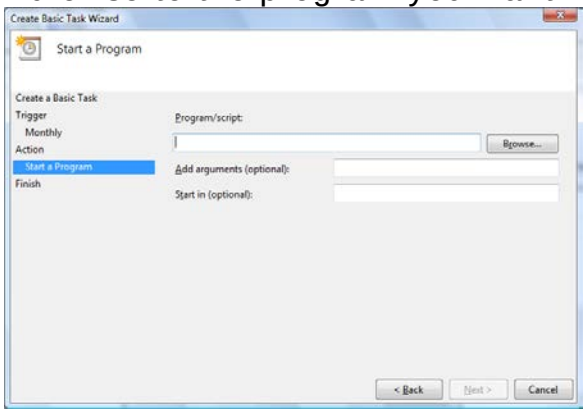
To start the scheduler:
In Windows XP, you choose Control Panel/Scheduled Tasks.
In Windows Vista/7, while technically a Control Panel item, the fastest way to start the program is from the Start Button, using Search. After typing 'tas' in the search box, you'll see the Task Scheduler listed at the top of the Start menu. Once running, choose Action/Create Basic Task…
Or, go to the Control Panel\Administrative Tools\Task Scheduler.





After naming the task and entering a basic description, you choose a trigger, such as Daily, or when the computer is started. Monthly is good for error checking or defragmentation. Once you set up the trigger time you choose to start a program… then browse to the program you want.





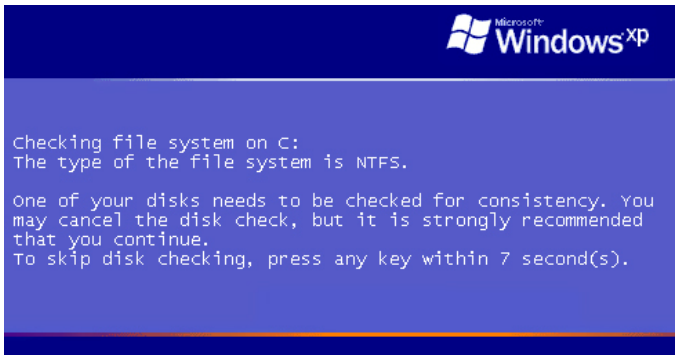
Difficulties with scheduler.
First, one must remember to leave the computer on, so the schedule will trigger. Next, if an error occurs, you aren't there so tell it what to do next. An example is error checking; sequence can be important… you should run error checking before you defragment. A thorough defragment will stop if it encounters an error. Then you computer is just sitting there, waiting for you to show up Monday.

Other 'scheduled' tasks.
Further, error checking doesn't like to examine the location of the system- files. If you want the whole disk checked, the Error Checking tool itself will ask if you would like to run the tool the next time you start the computer.

While not technically a scheduled task as with the control panel tool, it has the same net effect. Basically this will be added to a batch file that will run *AS* Windows boots up.

Windows Booting
When Windows first starts, it really is a lot like DOS. This is called *real mode*. As more and more of the 'OS' is loaded into memory, Windows shifts into *protected mode*, then loads the full graphical user interface. Protected mode means each program is assigned its own chunk of memory, and Windows builds a wall around itself to prevent rouge programs from crashing other applications, or the OS.

While in protected mode, error checking is blocked from the OS files, but in real mode which is very DOS like, an updated scandisk can run easily.

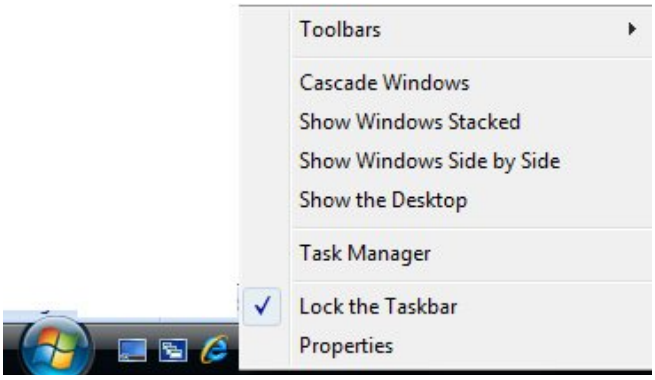


Then when scandisk is finished, the computer finishes booting and loads the protected mode part of the OS, and full graphical user interface.

There are problems here, too. What if there is a short brown out just after you 'schedule' the scandisk for the next boot, and suddenly your computer is reboots now… instead of at the end of the day, when you wanted it to occur? Scandisk can take many, many hours to run, effectively blocking you from using your computer.

Taskbar / Start Menu

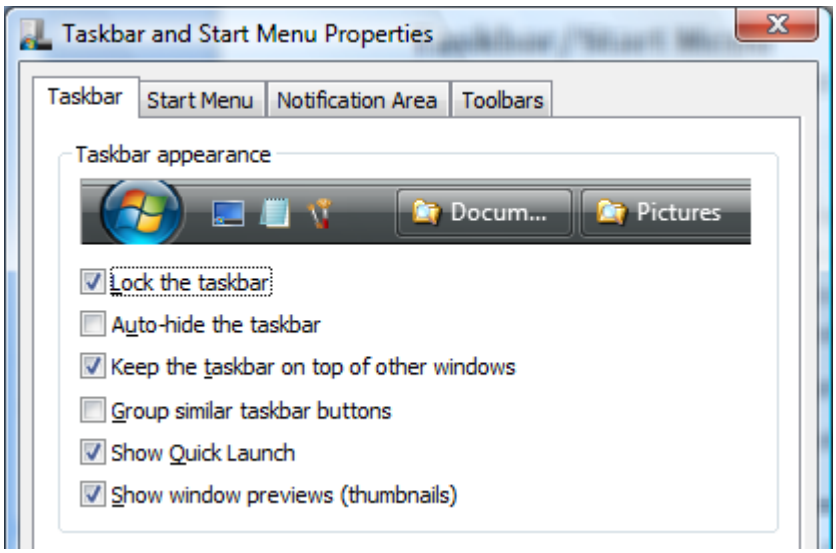
To begin personalizing the Taskbar or Start menu, right click the Taskbar.



Note that you can display additional toolbars on the taskbar if you wish…

The next three options allow you to view multiple windows in various layouts.

For personalization, we'll choose Properties.



You unlock the Taskbar if you wish to resize the quick launch or System Notification area (tray).

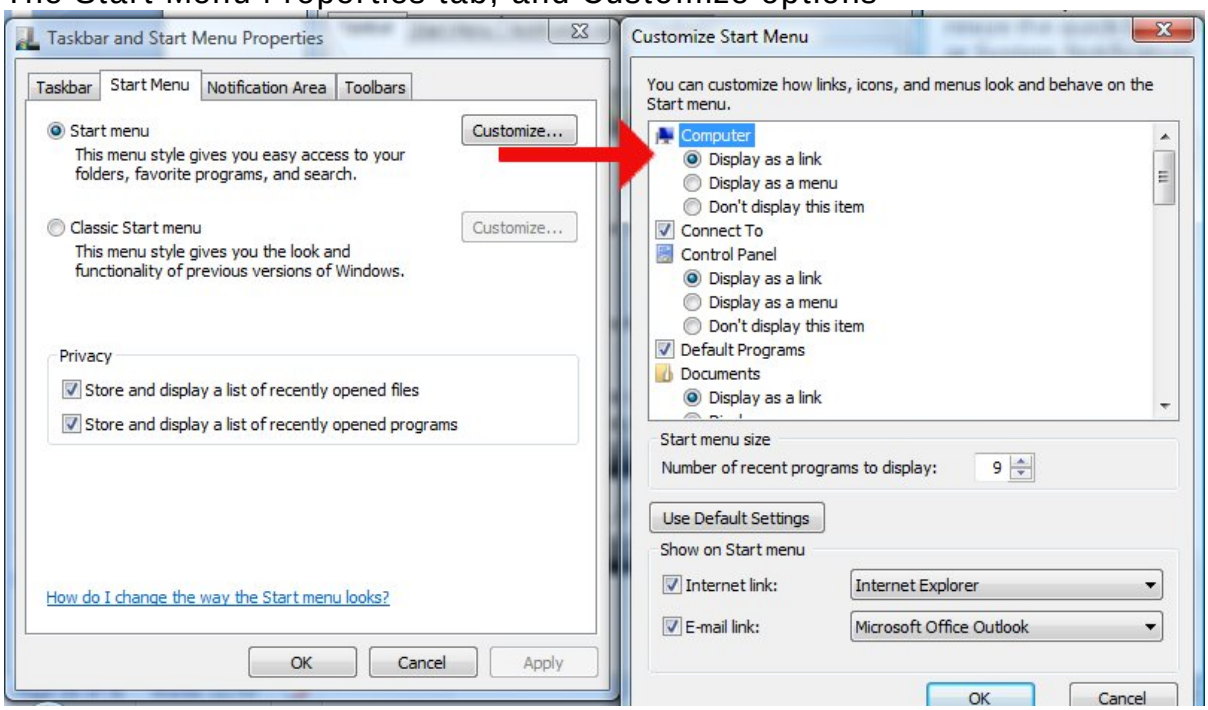
If you auto-hide the taskbar, you'll need to press the ⊞ key, or mouse to the bottom of the screen, to see the taskbar. Not recommended

Show window previews is a great option on a fast computer, as you can 'see' the window that would de-minimize or be brought to the foreground if that button is pressed.

Two 'Word' Documents show up as one button if 'Group similar taskbar buttons' is selected

or as two separate buttons, if not selected.

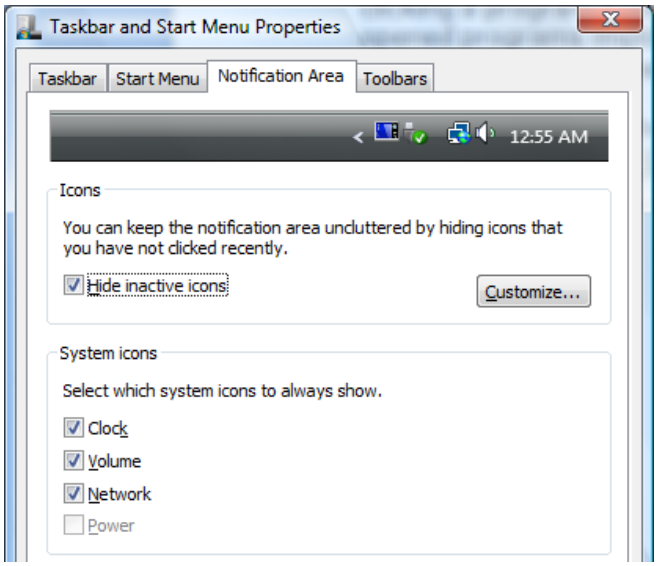
The Start Menu Properties tab, and Customize options



If you drag a program icon, and drop it on the Start button, a shortcut to that program is added to the top of the Start Menu, similar to right clicking a program icon, and choosing 'Pin to Start Menu'. Recently opened programs display below them… this number can be changed to show a different number of recent programs on the customize window.

Note the 'Put it back the way it was before the stupid human messed it up' button called [Use Default Settings].

The Notification Area tab

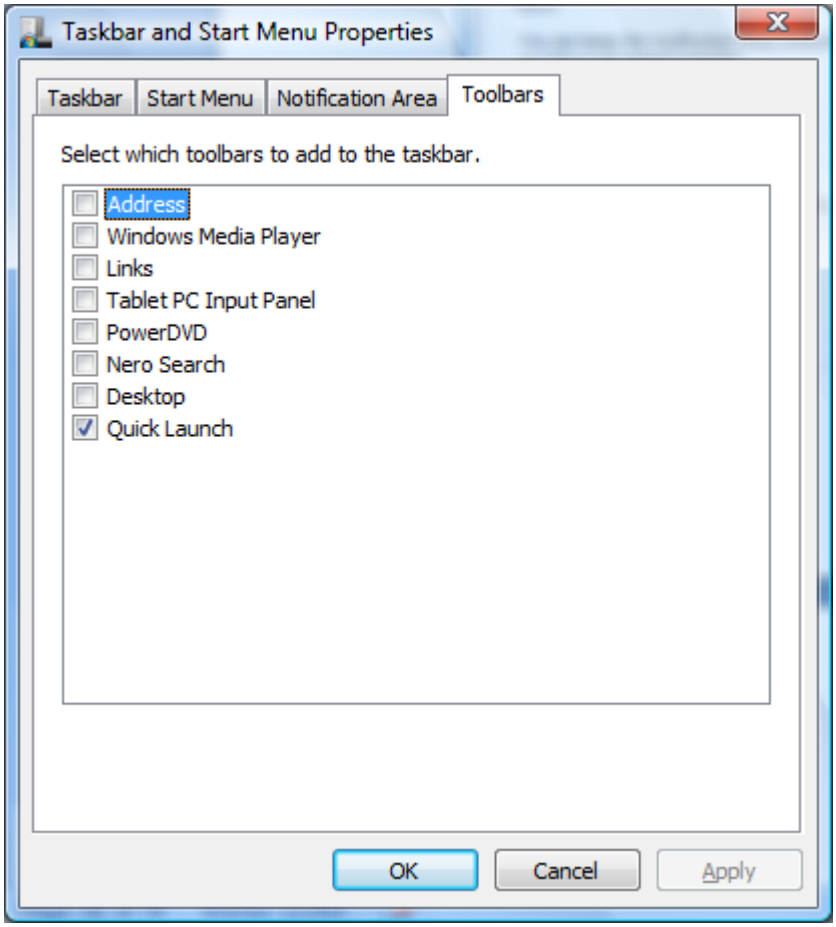


The central Taskbar displays programs that users start. The System Notification Area, also known as the tray, displays the programs Windows has started, such as Antivirus software.

This means the a large part of the taskbar could be consumed; instead by selecting 'Hide inactive icons,' you cut down the space used for displaying the tray, freeing the space for the programs the user started.

Toolbars tab

You choices will vary



See http://www.windowsitpro.com/article/windows-7/windows-7-workarounds.aspx for great information on customizing Windows 7

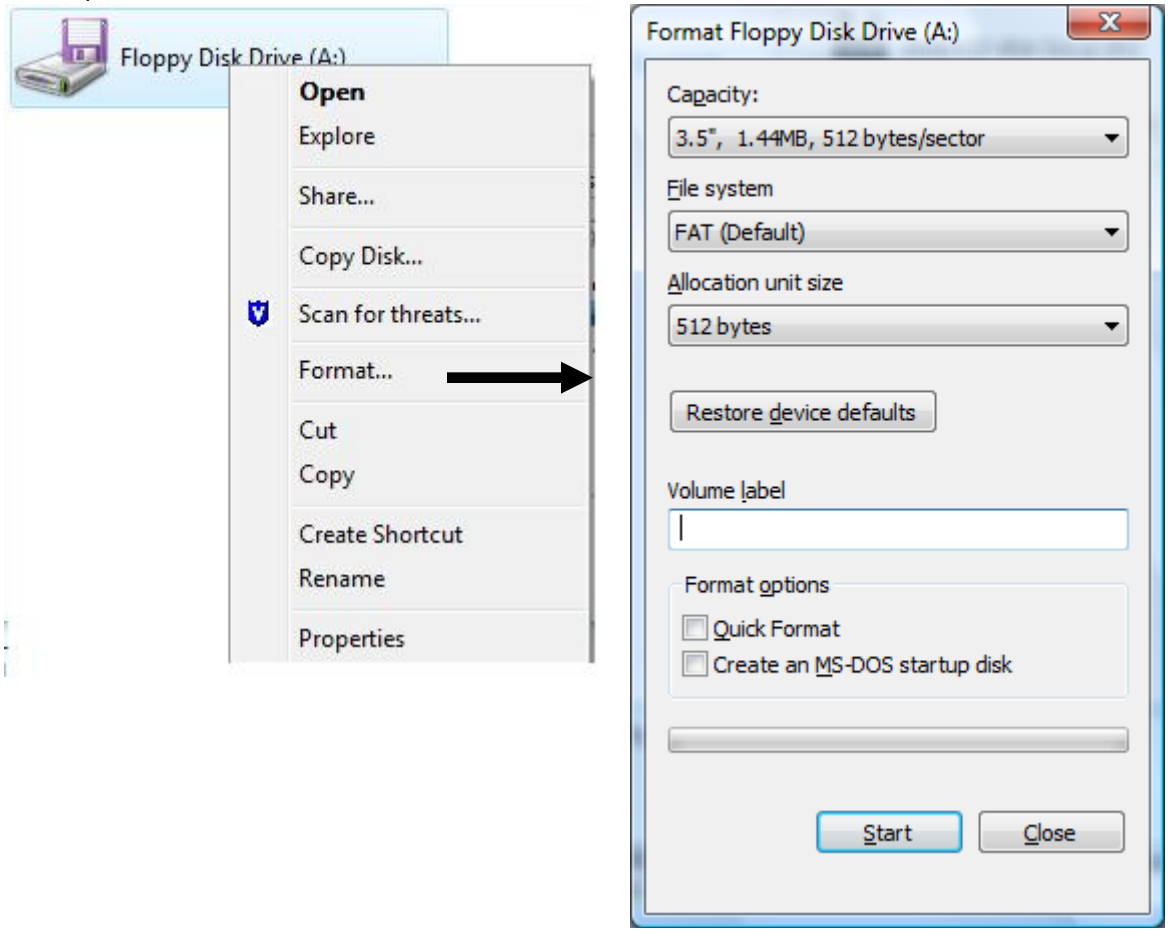
Windows F

Utilities

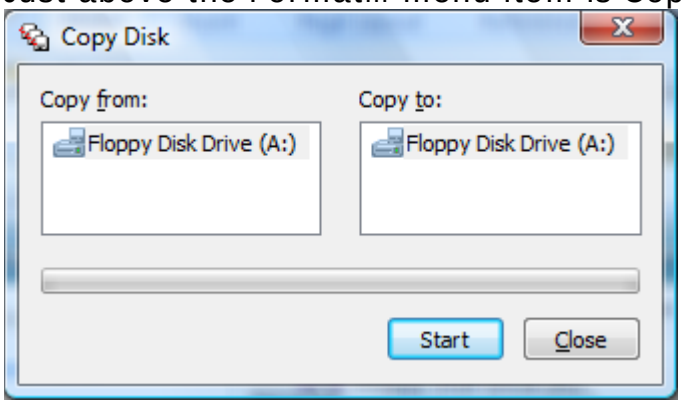
- `format a:` → in Windows
- `diskcopy` → in Windows
- `scandisk` → in Windows
- `defrag` → in Windows
- `msbackup` → in Windows
- Disk Cleanup
- Roll back/Restore
- Add Remove
- Command Prompt

`format a:` → in Windows

Choose (My) Computer, then right click the Floppy Disk Drive (A:)
Then, choose Format…

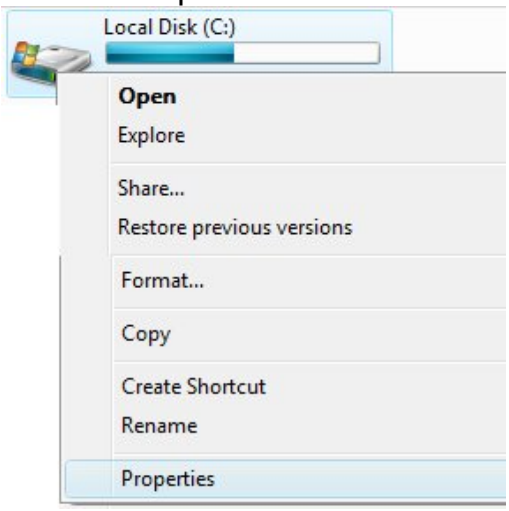


`diskcopy` → in Windows
Just above the Format… menu item is Copy Disk…

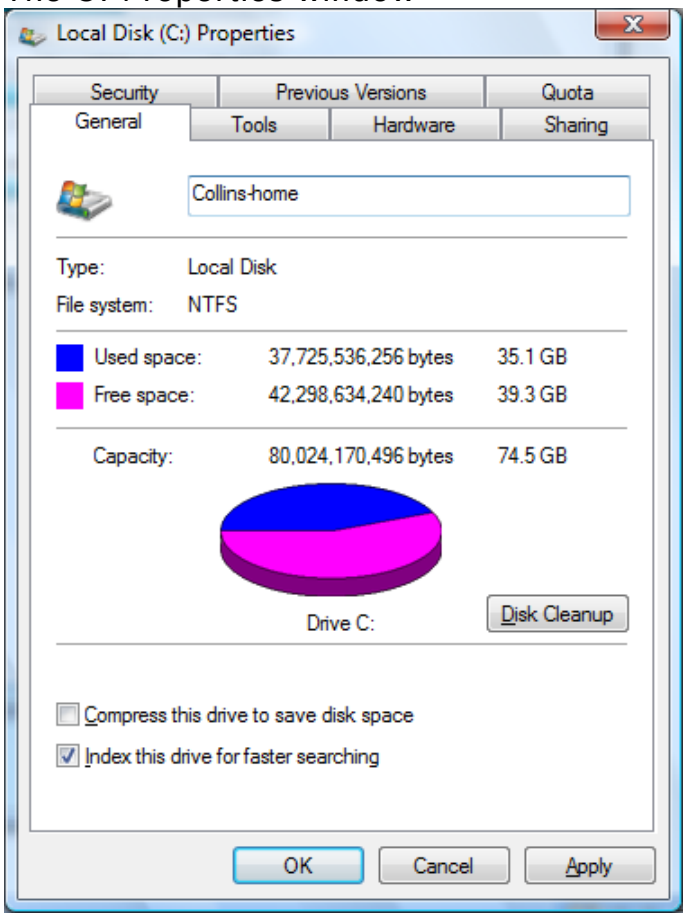


Just like `diskcopy a: a:`

For the remaining items in this section, right click the hard drive icon, and choose Properties



The C: Properties window



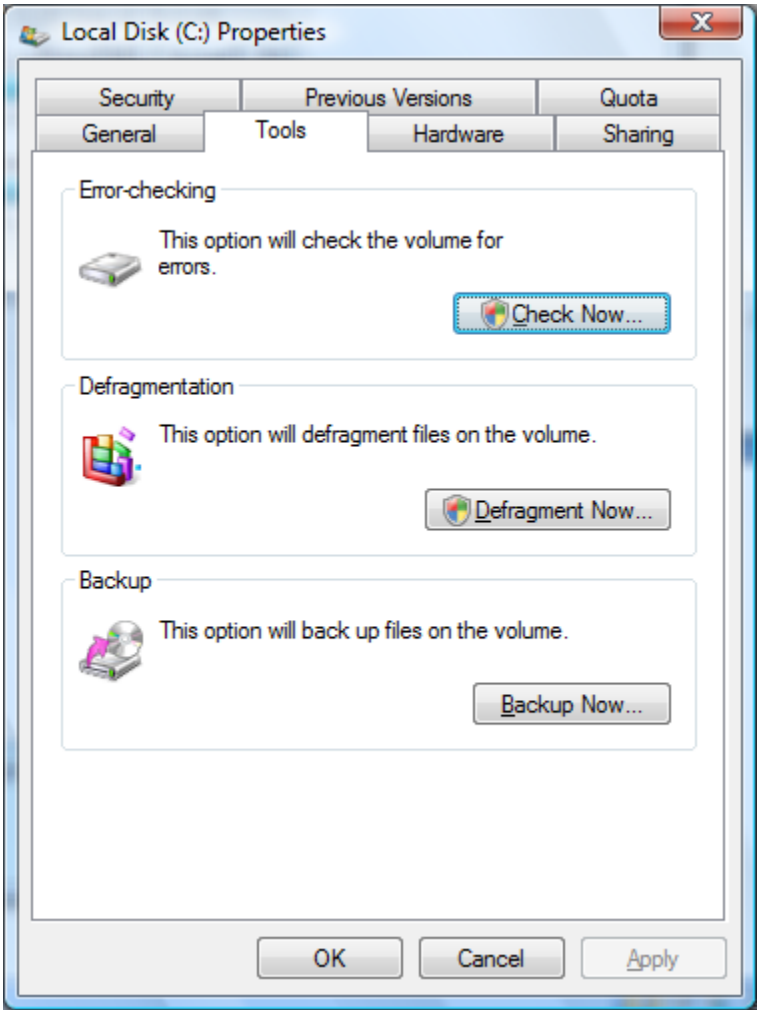
The C: Properties window displays the volume label, disk usage and file system type. Note DOS used FAT, Windows typically used NTFS.

To run the Windows version of basic **DOS utilities**, choose the Tools tab

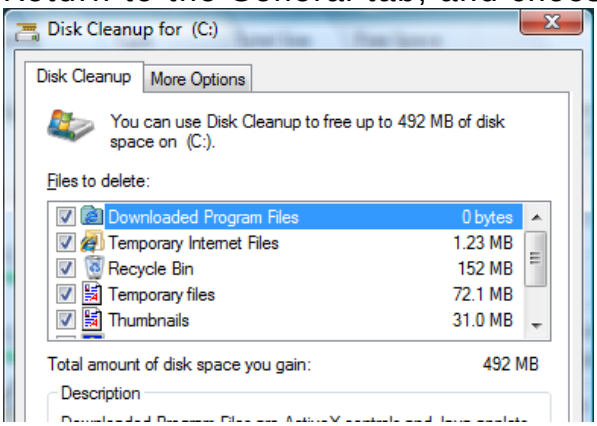
`scandisk` → in Windows is started using Error-Checking
Thorough checks may require being run at boot

`defrag` → in Windows is started using Defragmentation

`msbackup` → in Windows is run using Backup



Return to the General tab, and choose **Disk Cleanup**



Disk Cleanup is used to remove 'garbage' from the hard drive to increase free space, by letting users remove installer files, temporary Internet files (cache), emptying the recycle bin, etc.

Disk cleanup also can remove temporary files that should have been removed by programs, but were not.

Note, Disk Cleanup only free hard drive space; it does not remove items from memory, or delete applications.

Restore computer setting

Modern versions of Windows are ‘plug and play’ systems, meaning that Windows itself can often detect new software, and configure the computer to use the hardware automatically. But that doesn’t mean the system is foolproof. Typically, the most vulnerable time for your computer is when you install new hardware or software, leading to problems even starting computer. While the previously mentioned Backup tool can let you rebuild your computer to the way it was, there may be some other options. Your first indication of a problem might be a screen at boot indicating there is an issue, and offering you the option of starting the computer using the ‘last known good configuration.’ While troubleshooting is beyond the scope of this text, choosing the previous configuration can bypass a lot of work, though the new hardware or software may not work, at least you have use of the computer.

To verify you have a ‘good’ configuration to choose, search Windows Help and Support on backing up your registry. (The Registry is the Windows list of hardware and software that is installed on your computer, and how Windows can use those items.)

If the computer won’t boot normally at all, another trick to try is to press F8 when booting; this boots to Safe Mode. Safe Mode starts the computer without all the peripheral devices, one of which may be incorrectly set up and now interfering with the boot process; while in Safe Mode, Windows can often repair itself, allowing you to boot normally thereafter.

Error Checking can prevent some file corruption, but is not always successful in recovering files that may have become corrupt. If some Operating System files have become corrupted, you may be able to simply ‘repair’ the OS by copying files from your install CD; however, any patches and service packs may need to be reinstalled to bring your computer back to the way it was. (Or, you again could restore from your backup.)

Your computer may also be able to set up ‘restore points;’ this commits hard drive space to keeping track of changes made on your computer. While tempting, typical users rarely remember to set these restore points, so this may be a program to schedule. (Search Windows Help and Support for the specifics on your computer if you wish to learn more on ‘Repairing your OS from CD,’ ‘Restore Points,’ or ‘Automated System Recovery.’)

Note: many computers have a Reset option, either as a vendor program, or a separate partition storing the info on the computer's hard drive; these options will reset your computer to the way it was the first day you started it, and should be avoided… because you have been making your own backups, right?

Restore **Hardware**
While Plug and play works for many devices, newer devices may come with a CD that needs to be run to update the Windows Plug and Play database with addition instruction on how to recognize and use hardware. These instructions telling Windows how to use a piece of hardware are called drivers.

From time to time, a device may fail to work or stop working, even If the computer boots normally. If you can rule out hardware failure, the driver may be to blame. This type of situation requires the use of the Device Manager, available in the Control Panel or as a tab in the Control Panel for 'System.'

Your first action is to typically try to update the driver. You'll be prompted to insert a disk, or browse the Internet. If the current driver is the newest version, you may wish to rollback to a previous driver, as the older driver may be more stable. Another option is to delete the device, and reinstall, either using the CD or plug and play.

Device drive codes
(X) Device is not working
(!) Device may need attention.
(?) Device is disabled

Some devices simply will not get along, or different users may not need to load all the drivers for devices they don't use; for those times you may be able to use different, savable configurations.

> That is, build one configuration for José uses the scanner, and build a different configuration for Joanne who uses the external DVD that doesn't work well with the scanner plugged in.

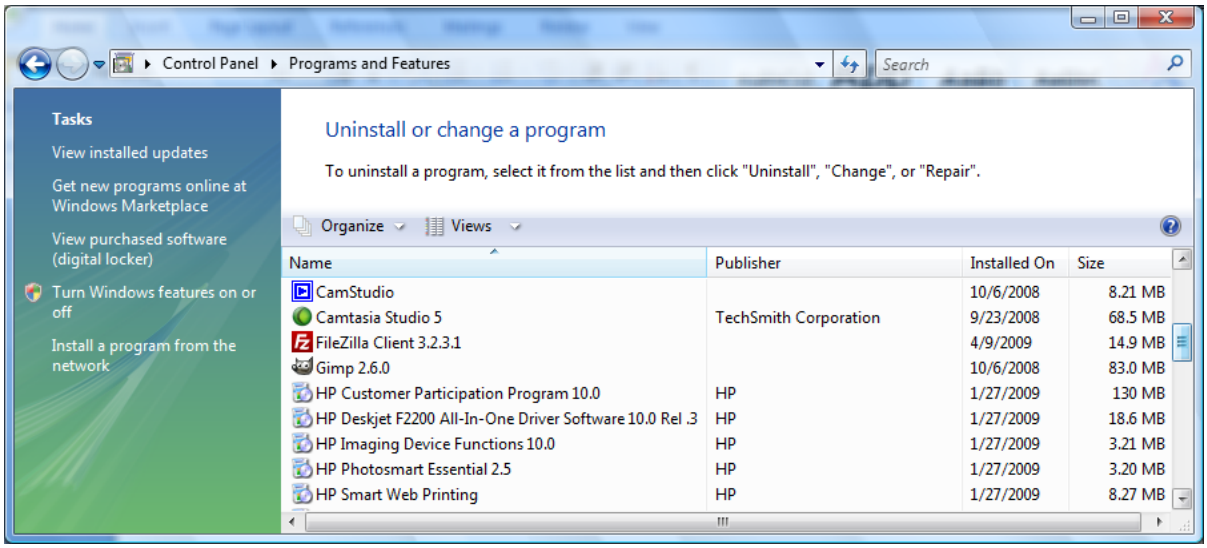
Software
These days, new programs have installer software, and part of the job of the installer is to update the Registry. That means if you simply delete an application, the Registry has wrong information, and may lead to Windows crashing.

Example, installing a trial version of Microsoft 'Word' reassigns the WordPad file type (.rtf) to now open with 'Word.' If you simply deleted the 'Word' program at the end of the trial period, the next time you double click a file that ends with .rtf, the computer will generate an error as it can no longer find 'Word.' Instead, the program must be uninstalled to reassign .rtf back to WordPad in the Registry. This uninstall action is handled in the Control Panel.

Variations on **add/remove**, and installing Windows software.

In Windows XP, the Control Panel item you look for is
Add or Remove *Programs*

In Windows Vista, the Control Panel item you look for is
Programs, or *Programs* and Features.



Click the item you wish to modify or uninstall.

Installing software.

As most programs now come with an installer that loads the software and updates the registry, you typically don't need the help of "Add Software," unless you want to add a Windows feature, such as a game that comes on the Windows disk, or load a program from a network.

Command Prompt

Start/All Programs/Accessories/Command Prompt

Windows Help
If using Windows command prompt, the HELP screen will look similar to:

```
C:\>help
For more information on a specific command, type HELP command-name
ASSOC    Displays or modifies file extension associations.
AT       Schedules commands and programs to run on a computer.
ATTRIB   Displays or changes file attributes.

CD       Displays the name of or changes the current directory.

CLS      Clears the screen.

COPY     Copies one or more files to another location.
DATE     Displays or sets the date.
DEL      Deletes one or more files.
DIR      Displays a list of files and subdirectories in a directory.


FORMAT   Formats a disk for use with Windows.
```

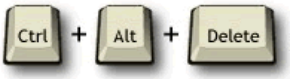
This is not the full list, just what may fit on the screen.
To find usage, use `HELP command-name` or `command-name /?`

Note: You may use lower case or upper case when typing commands.

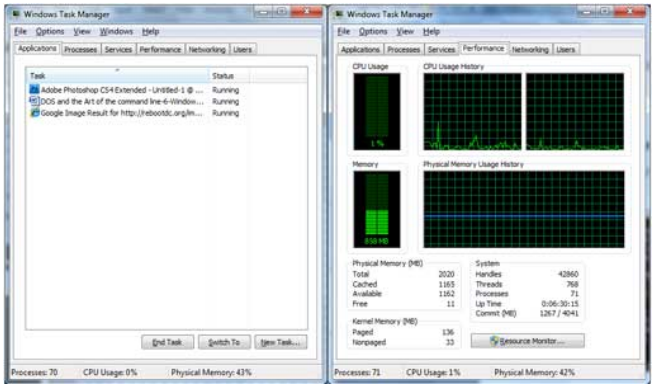
While similar to DOS, this is the full power of Windows, accessed from a command prompt. (When you can choose how you interact with the OS, you are said to be choosing 'shells.')

Note: Windows command prompt does not support `deltree` or `undelete`

Task Manager

By Pressing 

at the same time, you can then Log off, Switch Users, or access the Task Manager. The task manager lets you view running Applications (and force them to quit if needed), or see how hard your computer is working by selecting the Performance Tab.



Lab 5

Documentation 3 points each

Display Control Panel/Right Click Desktop; choose properties (XP) or Personalize (Vista)

1. What does the Theme area control?
2. What does the Appearance area allow you to change?
3. What does the Desktop area control?
4. What will the Change Desktop Icons let you add to the desktop?
5. What does the Settings area control?
6. What are some of the Screen Saver tab options?

Customizing the Task Bar

7. What are the options available if you right click the Task Bar?

Customizing the Start Menu

8. Name one or two ways to add a shortcut to the Start Menu

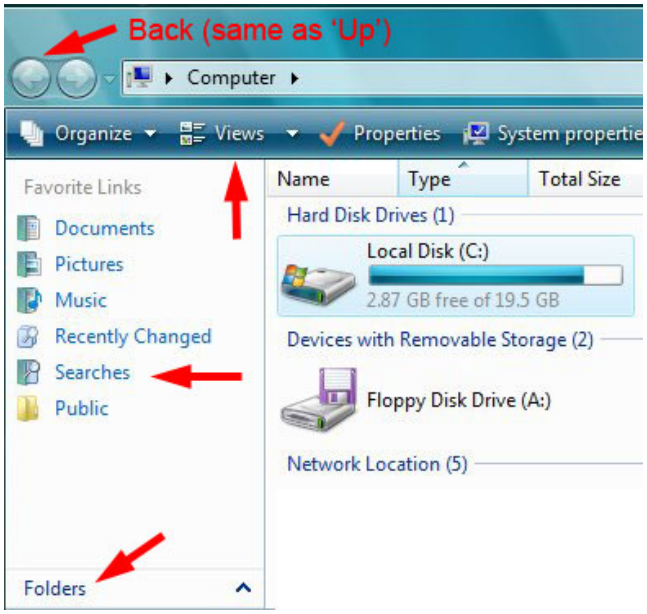
Personal Folders

9. What can you add to a folder icon?
10. Can you replace the folder icon?

Windows activity, questions 3 points*, screen shots 5 points.

1. Using My Computer, open your O: drive. If there is not a folder called 'Lab 5' there, create it. **Yourname-lab5.rtf** should be created inside 'Lab 5,' using WordPad.
2. **In order to add a web page to Favorites, what must you do first?**
   Remove wrong answers
   a. Right Click it.
   b. Open it
   c. Change Views to Details
   d. Use the tools menu to unhide the folder
3. **Label the following:**

XP version

Vista version 

Lab 5, continued

Changing the Desktop.

4. Place the Icon for My Network Places (Network) on the Desktop (icon, not shortcut).
    a. Press PrtScr (Print Screen) to capture the desktop showing this change.
    b. Paste the image in your lab5.rtf document
    c. Change the desktop back, so the My Network Place icon is not on the desktop.
5. **Discuss how to change resolution of your desktop**.

6. **Discuss how you could change the size of the icons on your desktop**.
   Appearance\Advanced or Colors and Appearance\Classic appearance… Advanced

7. **Add Word to your start menu. Discuss how you did this**

8. Place a floppy disk in your computer. Using My Computer, right click the icon for the floppy.
    a. What actions can be performed on the floppy?
9. Get to the point where you see the pie chart displaying the properties of the hard drive.
    a. Press Alt+PrtScr (Print Screen) to capture this window.
    Paste the image beneath the other image in your lab5.rtf document

    b. Also get a screen capture of the Tools tab, and add this image below the other images

10. Get to the Control panel item to 'add or remove software'
    (It will have the word 'Program' or 'Programs' in the Control Panel item).
    a. Press Alt+PrtScr (Print Screen) to capture this window.
    Add below the other images

11. Which Disk properties tab is the Disk Cleanup button on?

12. Save document as yourname-lab5.rtf in your lab 5 folder.
    You may Print your document, but it is not required.

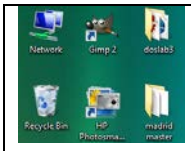
Hands On 6 points each

Be prepared to discuss:

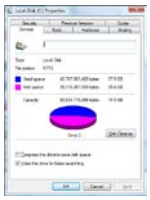
1. Compression
2. Disk Clean Up
3. Fonts
4. Scheduling Tasks
5. Disk Property Tools and Right Click Disk options

Save any changes to this file. Go to the Quizzes area of D2L and answer the Lab 5 questions, using this as a guide.

Your lab5.rtf should look something like the following, when you are finished:

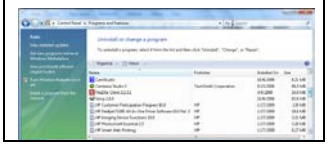


Desktop with Network icon



Pie Chart Window

Tools tab



'Add/remove' Programs

After answering all the questions in D2L, make sure you zip and submit your document in the dropbox.

In Windows, zip the entire lab5 directory, and rename to yourname-lab5.zip.

Zipping files

When you wish to email or upload several files and folders, the best way to do this is to 'zip' them.

Using My Computer in Windows, select the file(s) you wish to zip
1. Right click the selected item
   (if you have selected several items, right click one of them)
2. Choose Send To
3. Choose Compressed (zipped) Folder
4. The new file will be created in the same location
5. Rename the file, if you like.

Renaming files

When you wish rename a file:
1. Select the file you wish to rename
2. Right click the file
3. Choose Rename

(Note the three character extension if visible, before proceeding)
4. Once the name is selected you type in the new filename to replace the old
5. Make sure the extension, if visible, remains the same
6. When finished, press the [Enter] key.

Submitting labs in D2L

1. Choose the class for which you want to drop off an assignment.
2. Find the Dropbox tool, click on it.
3. Choose the appropriate Dropbox folder, click on it.
4. Choose [Add a File], then choose [Browse]
   In Vista or Windows 7, you may need to choose ▼*Browse Folders*
   You then may need to choose *Computer* to browse for your file
5. Find the file that you would like to upload and click open, then choose [Upload]
6. Type in a short description or comment about the file, if you like.
7. Select [Add] for any additional files that may be pertinent, and repeat
8. After your files have been selected, click [Submit].
   (You will always click upload at least twice)
9. Some files may take a long time to upload
   (especially if there are graphics in the file).

Take the quiz for lab 5 in D2L

Choose the class for which you want to take the quiz.
Choose the Quizzes menu, and locate Lab 5.
Answer the questions based on this documentation.
SAVE EACH ANSWER. WHEN FINISHED, PRESS SUBMIT

Windows J

Networks

You could compare a computer to a book. While it contains a lot of useful information, a library would have even more information. Thus, if you could connect computers to other computers, the increase in information would be dramatic. This is the idea behind LANs, or Local Area Networks. A collection of LANs is called a WAN, or Wide Area Network. The Internet is a collection of WANs...

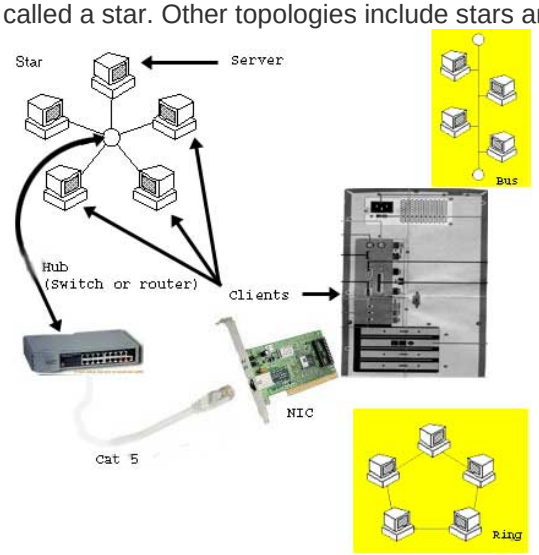
There are several kinds of networks... Peer to Peer is where a regular computer shares info with another regular computer. This bogs down though, if too many computers get involved. For larger networks, typically something called a client-server network is used.

A client-server network involves a special computer that like a waiter, serves to you, the client, what you requested.

To allow the computers to communicate with each other they need the basics for any communication: a sending device, a communication channel, and a receiving device. Typically at home, the sending and receiving device are a modem, and the communication channel is a telephone line. Many broadband users now tie into the coax cable TV network.

In a business that has a LAN, the most common type of network is called Ethernet; the sending and receiving device types are called a NIC (network interface card) and the communication channel is what is called cat 5 (category 5) wire. Cat 5 is suitable for slower 10 Mb connections, or faster 100 Mb connections, which are often referred to as 10Base T or 100BaseT.

The server and client wires normally connect to each other through a hub of some sort, in a topology called a star. Other topologies include stars and bus designs.



Dial up Phone line
(Cat 3 Twisted Pair)
uses RJ11connectors

Ethernet network line
(Cat 5 or Cat 6 Twisted Pair)
uses RJ45 connectors

Coax (coaxial) cable & connector;

Fiber Optic cable (many cables bundled) & FDDI connector

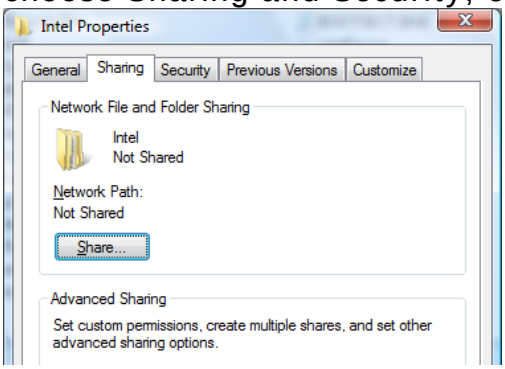
About your O: drive

Your O:\ drive is a folder that is not on your computer's hard drive, but a server's hard drive. That makes the O:\ drive accessible from any computer on the network.

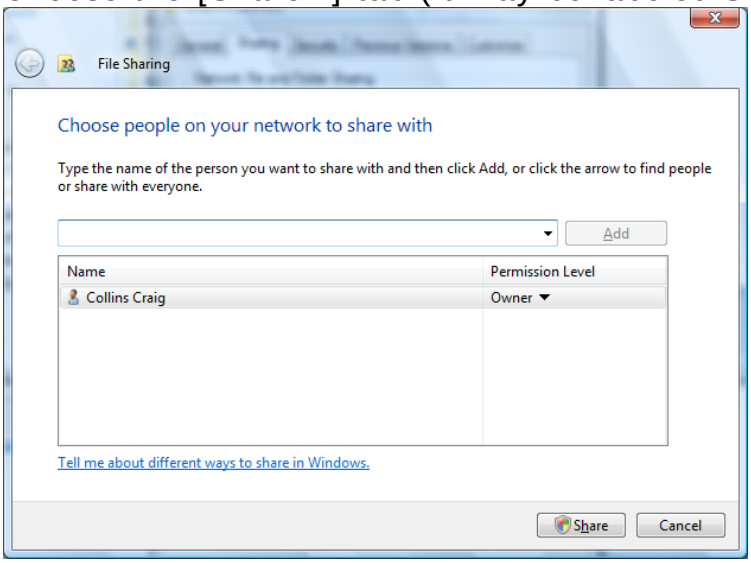
In order for you to use this folder, two things have to occur… the administrator of the network has to create and then *share* the folder, and then *map* a 'network drive' on your computer.

How to **share a folder** in Vista
Due to security issues, students are not allowed to 'share' folders on their school computer, so you must memorize the following steps.

Right Click a folder, choose Properties, then Sharing
(on some computers, you may also be able to right click a folder and choose Sharing and Security, or something similar)

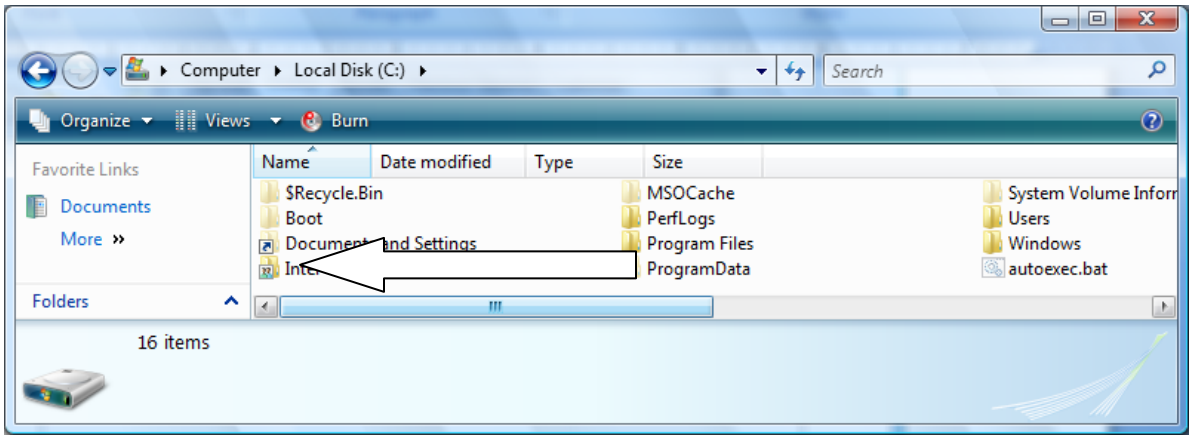


Choose the [Share…] tab (it may be labeled Share or Sharing)



Choose the [Share] button. You then choose who to share the folder with, and set security on the folder, such as passwords.

The icon for the shared folder may now show multiple user access.



The icon does not change in Windows 7, but for the test… know the icons!

For those with computers at home that have multiple users, you may wish to experiment with sharing a folder, so a different user will be able to open the shared folder. However, this requires a bit more know-how than is covered in an Intro to Operating Systems class, such as being able to locate the shared folder within the hierarchy of the file system.

But, the point is, sharing folders is exactly the key concept of Networking. Servers have *controlled access* of the shared folders, so only specific users can use the folder, and access is normally given via passwords.

Mapping a drive so the user doesn't have to search for the shared folder is coming up in just a moment, but even more on shared folders and mapping network drives is covered in the Network Server class many of you may take.

About **Mapping** drives

In a local drive, such as C:\, the files and folders are actually stored in a disk within that computer. A mapped network drive is a ***path*** to a shared folder on another computer.

Due to security issues, students are not allowed to 'map' network drives to shared folders on other school computers, so you must memorize the following steps.

Using (My) Computer, choose the Tools menu.
(You may need to press the [Alt] key to reveal the Tools menu.

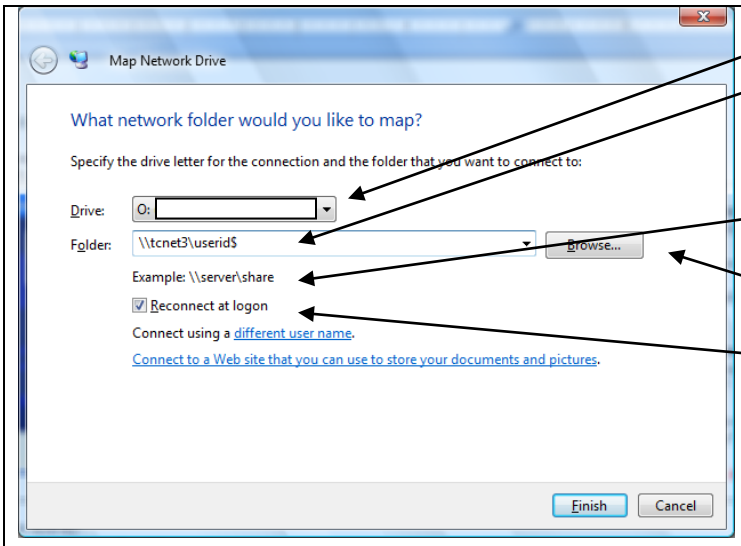
Choose Map Network Drive…

Locate the Drive: text box, and choose the ⮟ to reveal the available drive letters, and the already assigned drive letters.

Scroll down to O:\

You will NOT make any changes here, just examine what has been set up. DO NOT CHOOSE [Finish], instead you will choose [Cancel]

If you see a $ at the end of your folder, that means the shared folder is hidden, and no one can find the folder by browsing.



1. Select the O: drive
2. Note the path to *your* O: drive

3. Note the generic form of the mapped network drive \\server\share (shared folder)

4. If you wish to make a new network drive, you may be able to [Browse] to the shared folder

5. If you wish to continue using the mapped network drive, select Reconnect at login

Do not make changes to your O: drive

You will NOT make any changes here, just examine what has been set up. DO NOT CHOOSE [Finish], instead you will choose [Cancel]

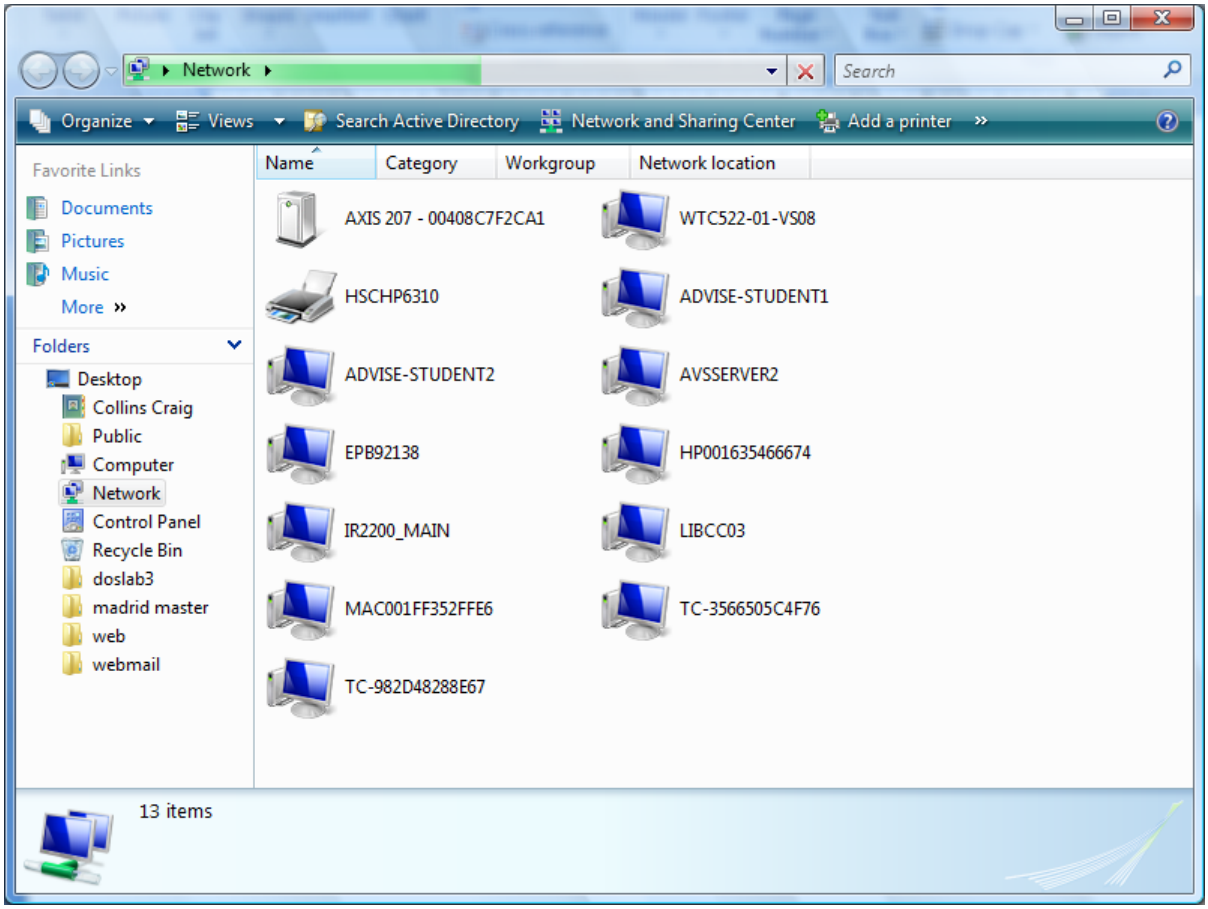
Browsing the computers within our network

Windows XP Start/My Network Places

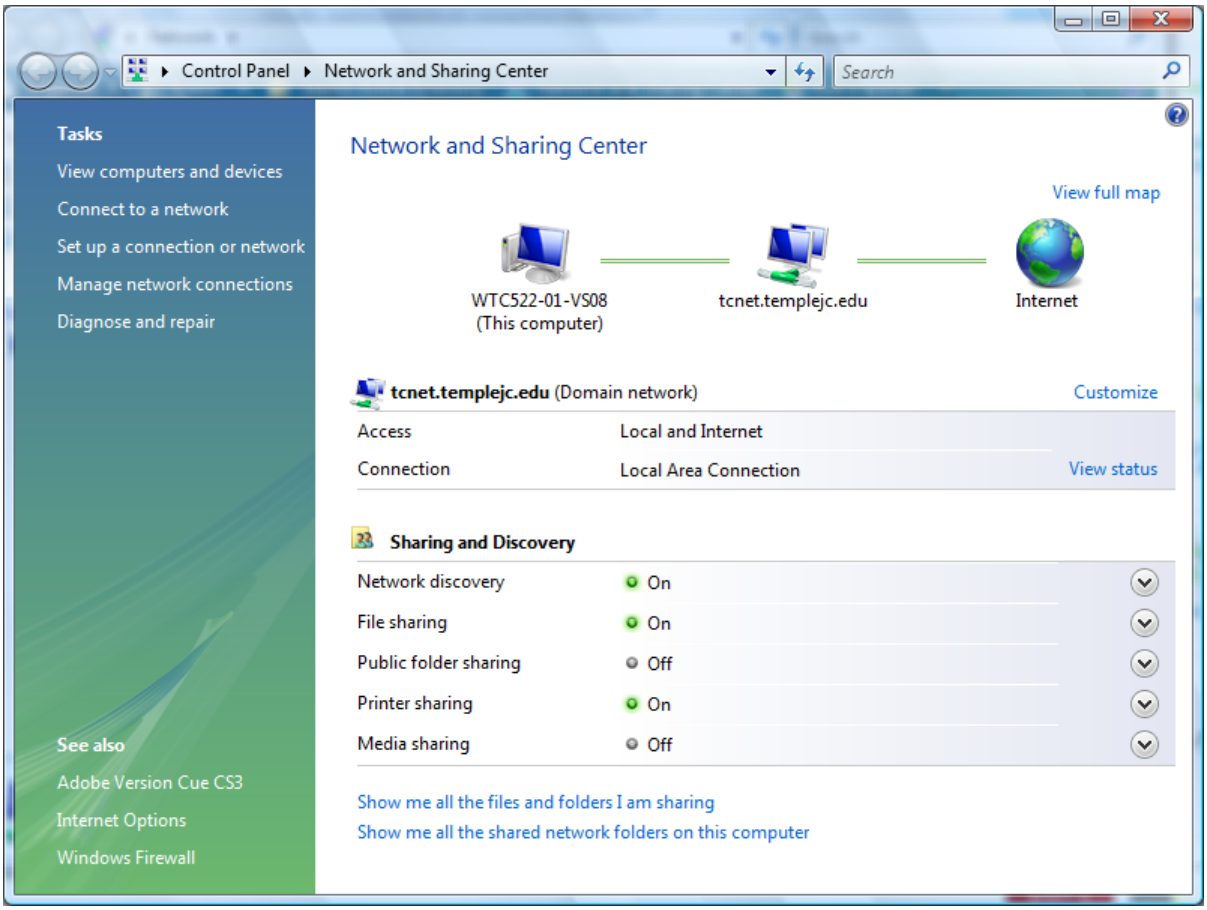
Under 'Other Places', choose Entire Network.
Choose Microsoft Windows Network.
Choose TCNET to see some of the computers within our network.

Windows Vista Choose Start/Network

Network immediately starts to browse TCNET.



You may get a popup in Vista asking if you wish to load the Network Discovery feature of the Network and Sharing Center… if so, you will need to provide an administrator's username and password for the machine. Check with the Instructor for this information.



You will NOT make changes here except for turning on Network Discovery

Windows K

OLE: Object Linking and Embedding

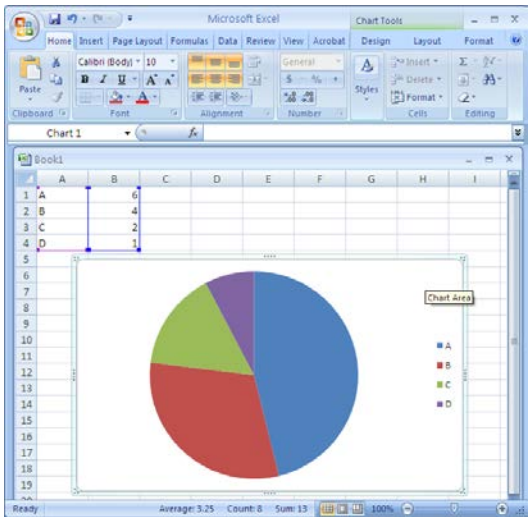
OLE stands for Object Linking and Embedding; you should be familiar with objects… an object basically is anything a computer can manipulate.

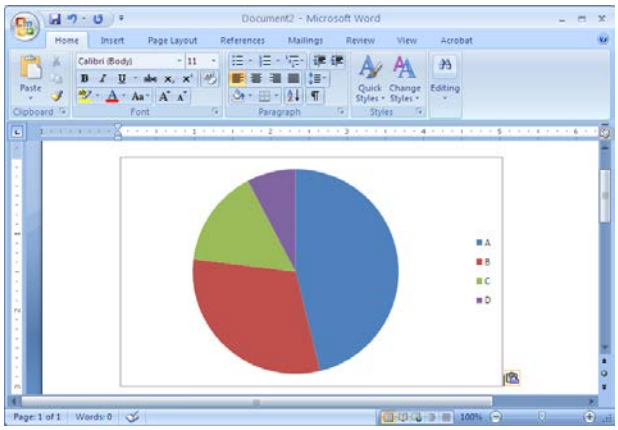
When we did lab 4, we didn't copy the entire Paint file, we selected and copied only a portion of the file… and that portion became an object. In Spreadsheets you can create a chart… the chart is a component part of the file, and it can be manipulated, so a chart is another example of an object. Each screenshot you made and pasted into your word processing documents was an object.

And, you already know about the embedding concept, but not perhaps with that name. Every time you copy and paste you are embedding a static copy of an object into a different document.

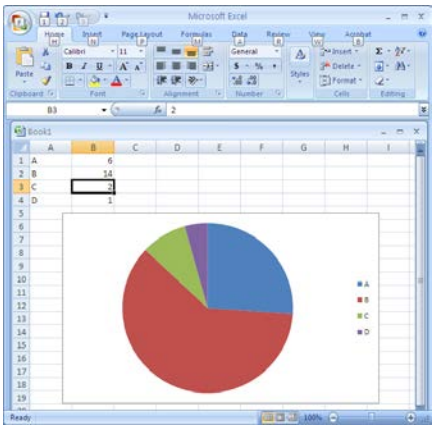
The problem with embedding becomes obvious if you think again about the chart object.

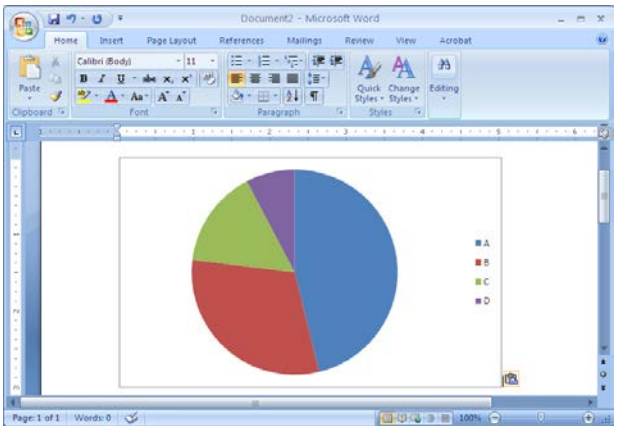
Scenario, a chart has been created in Excel. The chart is selected, then copied. The user then opens Microsoft Word, and chooses to Paste (embed) the object.





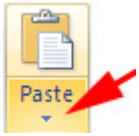
After a moment, the user realizes that one of the Excel values is incorrect. They change the value, and the chart in Excel automatically changes, but NOT the chart in Word, as it is a static snapshot that was embedded.



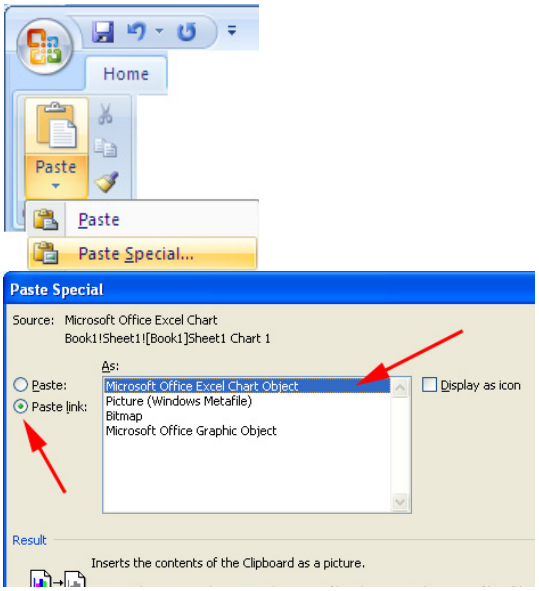


The solution is to LINK, rather to the object, rather than embed a static copy. A link is nothing more than a PATH to an object.

To link you still select and object and copy, but the secret to linking is to choose Paste Special. We have finally encountered a time when 'right click' fails us. In Word, choose the ▾ *beneath* Paste.



Then choose Paste Special.



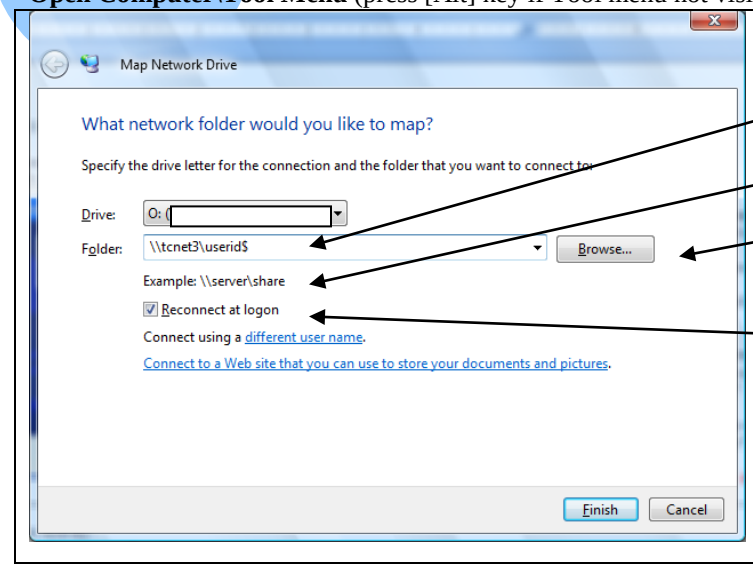
Then choose Paste Link

and select
As: Microsoft Office Excel *Chart Object*

If both documents are save in the same folder… any changes made in the Excel chart will show up in the Word document. To verify it is upto date, right click the Word chart, and choose Update Link.

Lab 6

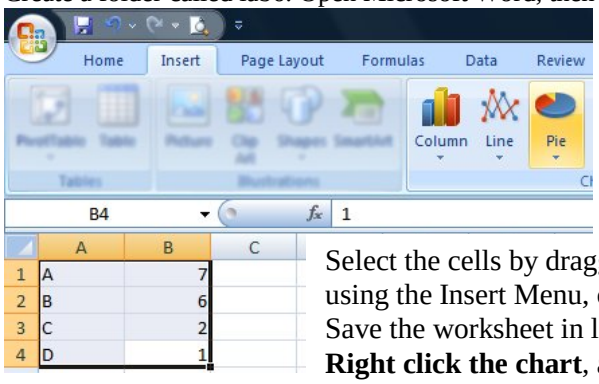
Documentation 30% (Fill this sheet out, later you will submit your answers in D2L)
Open Computer\Tool Menu (press [Alt] key if Tool menu not visible), choose **Map Network Drive…**



1. True or False: a mapped network drive is a shared folder on a server that can be accessed from your computer.
2. What is the path to *your* O: drive?
3. What is the generic example of a mapped network drive?
4. If you wish to make a new network drive, is there a way to locate the shared folder available? If so, what is it?
5. What must be done if you wish to continue using this network drive?

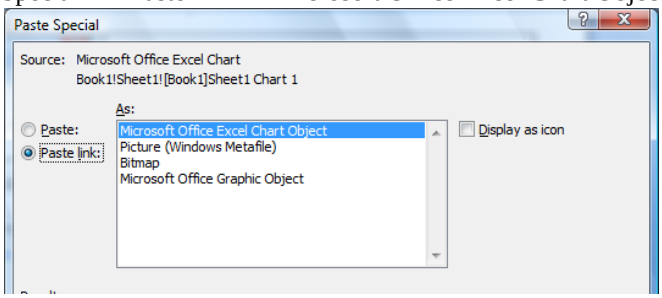
Do not make changes to your O: drive

Windows Activity 1:
Create a folder called lab6. Open Microsoft Word, then start Excel. Add the following to an Excel Spreadsheet:



Select the cells by dragging the mouse over and down;
using the Insert Menu, click to add a pie chart;
Save the worksheet in lab6 as *yourname*-lab6.xlsx.
Right click the chart, and choose copy.

In Word chose Home Tab\[Paste] Paste Special – Paste Link → Microsoft Office Excel Chart Object

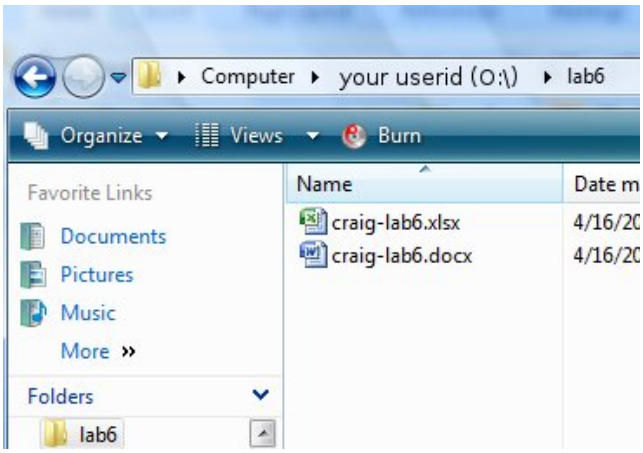


To test and verify that the chart is linked and not embedded: make a change in the spreadsheet, this should change the chart. In Word, right click the chart, do you see "! Update Link" ?

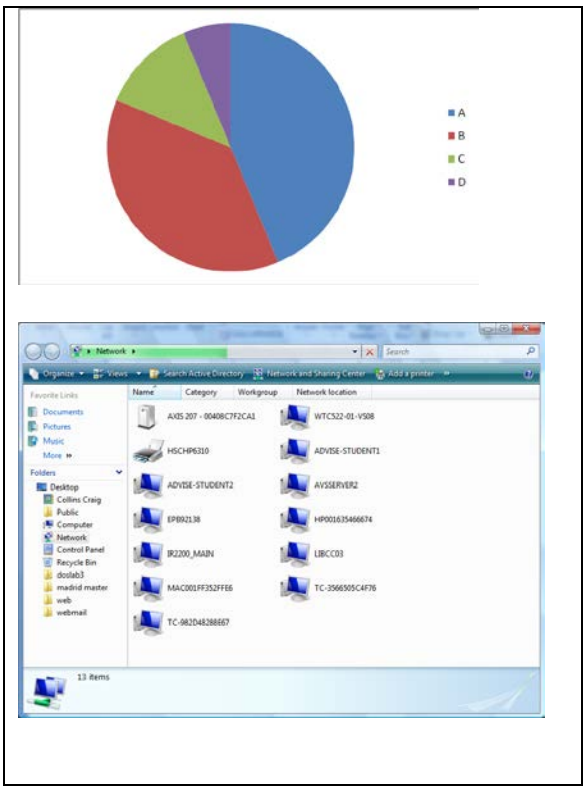
Windows Activity 2:
Using Start/Network, browse the Entire network.

Use Print Screen, then Edit/paste to embed that image in your word document, save the file with the chart and screenshot as *yourname*-lab6.docx.

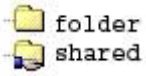
Your lab 6 folder should now look similar to this:



Your Word document, *yourname*-lab6.doxc, should look similar to this:



Lab 6 Hands On Q&A 30% (Fill this sheet out, later you will submit your answers in D2L)
What is a client server network?
What is a peer to peer network?
Describe the process of sharing a folder (from book material).
What is different about the icon for a shared folder in Windows XP or Windows Vista?



What is a network mapped drive?
Describe the process of mapping a network drive.
What does OLE stand for?
What is an object?
How is linking different than embedding?
How do you update a link?

XP Shared folder above
Vista shared folder icon

Go to the Quizzes area of D2L and answer the Lab 6 questions, using this as a guide.
After answering all the questions in D2L, make sure you submit both the document and the spreadsheet in the dropbox.

In Windows, zip the entire lab6 directory, and rename to yourname-lab6.zip.

Zipping files

When you wish to email or upload several files and folders, the best way to do this is to 'zip' them.

Using My Computer in Windows, select the file(s) you wish to zip
1. Right click the selected item
   (if you have selected several items, right click one of them)
2. Choose Send To
3. Choose Compressed (zipped) Folder
4. The new file will be created in the same location
5. Rename the file, if you like.

Renaming files

When you wish rename a file:
1. Select the file you wish to rename
2. Right click the file
3. Choose Rename

(Note the three character extension if visible, before proceeding)
4. Once the name is selected you type in the new filename to replace the old
5. Make sure the extension, if visible, remains the same
6. When finished, press the [Enter] key.

Submitting labs in D2L

1. Choose the class for which you want to drop off an assignment.
2. Find the Dropbox tool, click on it.
3. Choose the appropriate Dropbox folder, click on it.
4. Choose [Add a File], then choose [Browse]
5. Find the file that you would like to upload and click open, then choose [Upload]
6. Type in a short description or comment about the file, if you like.
7. Select [Add] for any additional files that may be pertinent, and repeat
8. After your files have been selected, click [Submit].
   (You will always click upload at least twice)
9. Some files may take a long time to upload
   (especially if there are graphics in the file).

Take the quiz for lab 6 in D2L

Choose the class for which you want to take the quiz.
Choose the Quizzes menu, and locate Lab 6.
Answer the questions based on this documentation.
SAVE EACH ANSWER. WHEN FINISHED, PRESS SUBMIT

Windows G/H
Bonus

Internet Tools

Networks → Internet
Browsers
URLS
Tools\Internet Options
Searching
Cookies
Privacy
Identity
Remote Assistance

Email

Networks → Internet

Earlier we discussed Networks, and how they were a series of computers that could share information. Most networks are closed, that is, you have to physically connect your computer to the network.

A Local Area Network (LAN) is a geographically compact network, such as a room, or building.

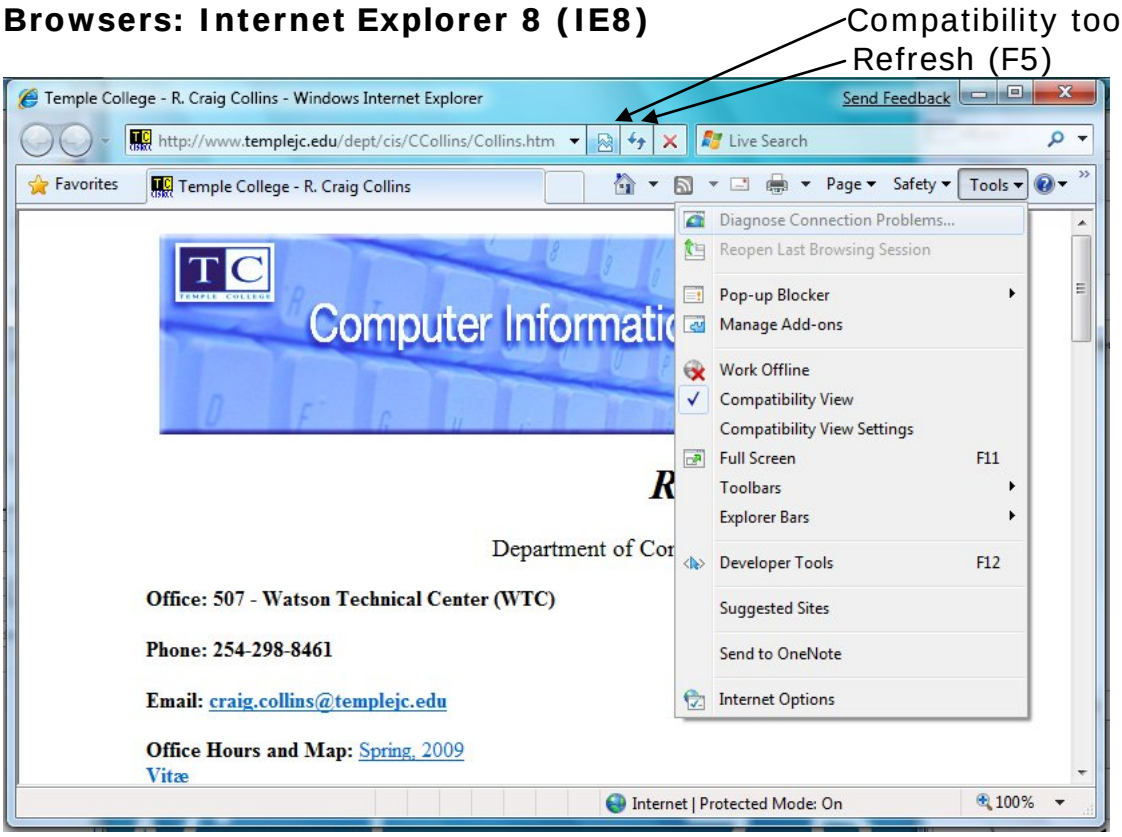
A group of LANs that can share information, such as two different campuses of the same school might be a Metropolitan Area Network, or MAN.

A group of MANs, across a large geographical might be a Wide Area Network, or WAN.

Some networks allow 'guest access' to parts of the information stored on their network… which lead to what we now call the Internet… the Internet is for all practical purposes a network made up of thousands of WANs.

To access this huge WAN, you typically use a Browser, such as Firefox, Safari, or Internet Explorer.

Browsers: Internet Explorer 8 (IE8)



URLS

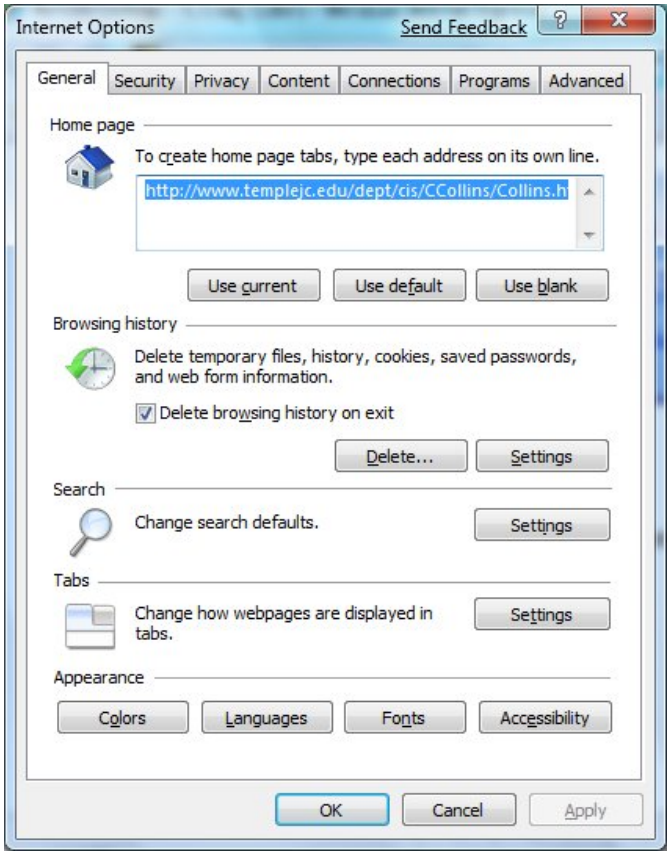
An Internet Address (URL, or Uniform Resource Locator) is made up of many parts. Just as a mail carrier starts with the zip code and works backward to the street, then an individual stop on that street, a URL has similar information

stamp	house	street	Zip code
1st class	2600	S. First, Temple, TX	76504
	←		
protocol	host	domain	Top level domain
http://	www	templejc	edu
	←		

Other Top Level Domain Names: .com, .org, .net, .mil, .gov, or country codes, such as .us, .uk, .ca, or .tv

Other protocols: https:// or ftp://

Tools\Internet Options



Searching the Web

To increase the precision of your search results, many search engines require that most of the words in your search string be present in the result documents. So, it may be better to start by listing just a few *key* words, and add additional terms to refine searches.

To gain even more control over your results, please read through the following hints.

- Most search engines support full Boolean capability; Boolean terms are **AND**, **OR**, & **NOT**.
- Use **AND** to connect a series of keywords you would expect to be in your documents, this forces the search engine to include that word in documents.

  Example: War AND Peace
  will return documents that contain both the word War *and* the word Peace, not just one or the other as with a simple series of words.
- Use **OR** to retrieve documents that include *either* of the search words

  Example: encryption OR cryptography
  will locate documents that either include the word encryption *or* the word cryptography.

- Use **NOT** to indicate a word that must *not* appear in the documents. Example:

  dolphins NOT NFL
  will deliver searches on the mammal, rather than the football team.
- Some browsers use **+** and **-** instead of **AND** or **NOT**; you may use a **+** (plus) to indicate words that **must** be present in the documents and a **-** (minus) for those that **must not** be present. Examples:

  +dolphins -NFL
  +recipes for +cake -nuts

- Use quotes around specific phrases to focus your search on occurrences of the actual phrase.

  Example
  "War AND Peace"
  will return documents with the phrase "War and Peace" (such as discussion of the book by Leo Tolstoy), instead of random pages on conflict and quiet; thus you can use quotes to force the search on the phrase, rather than individual words,
- Slowly add additional words in your search if the results are still too random, but don't do this too early... you may be putting blinders on the search engine, and miss good results. The often, the more words you enter, the more on target your results will be.

Cookies

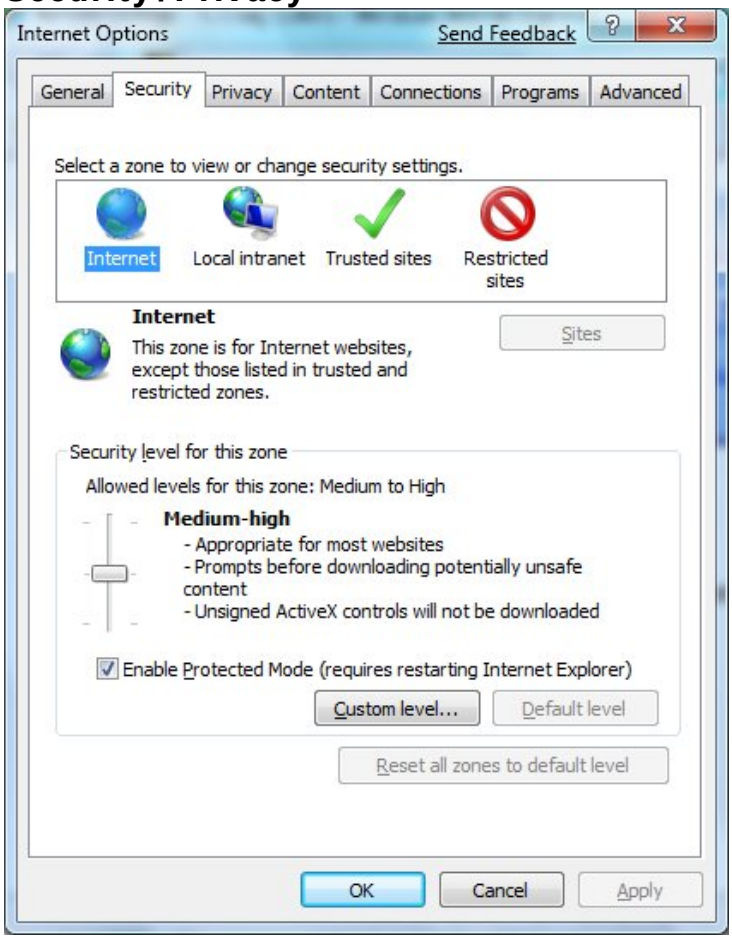
A cookie is a file left on ***your*** computer from the web site you are visiting. The intent was perfectly legit. Preferences can be stored here, to make a faster interaction possible. Or they may just sit there, taking up valuable disk space (along with tons of other files in your cache (which is worthy of another article...).

Or those cookies can release those preferences, and other info, to ***other*** web master for less honorable purposes. But there is hope, go and delete all those extra cookies in your cache! Tools/Internet Options/General/Browsing History

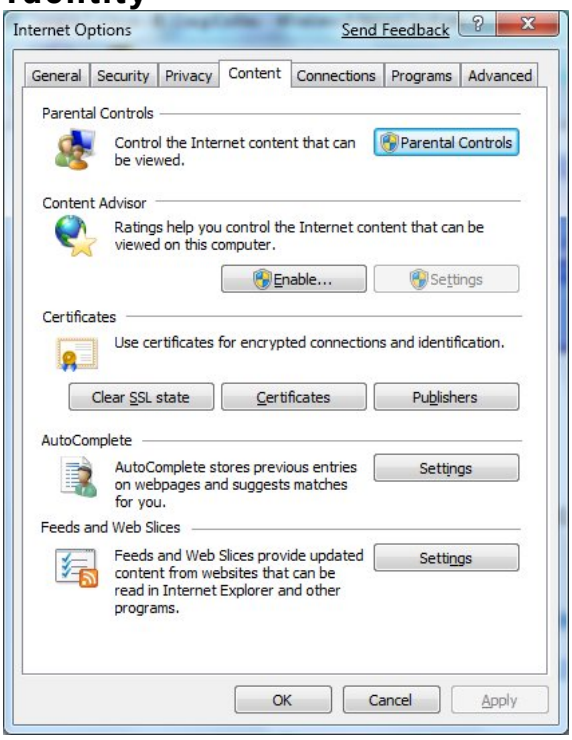
Using Browsers

This bonus area will be covered in more detail in class

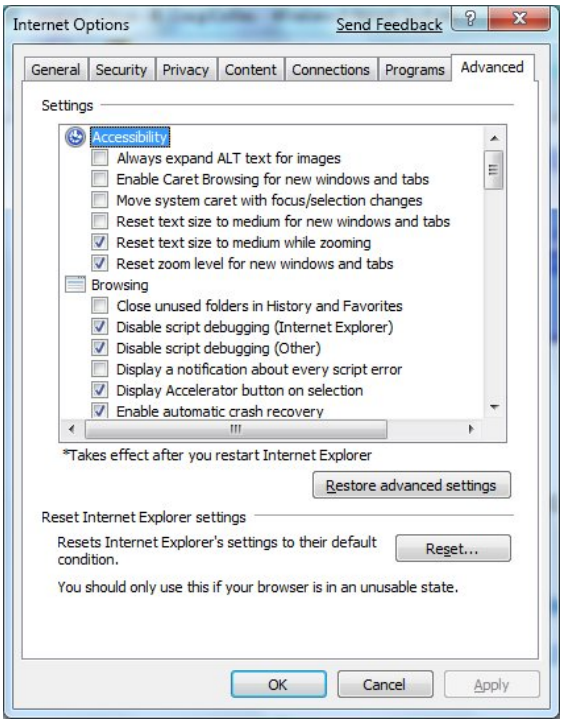
Security / Privacy



Identity



Advanced



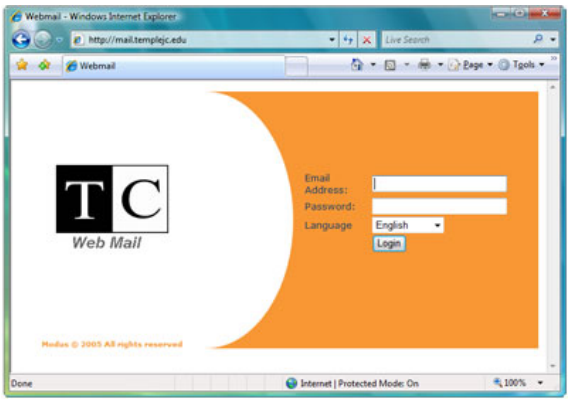
About Remote Assistance

Email

IMPORTANT: When using TC Webmail, some 'real' mail gets sorted to your Quarantine Folder... please check this folder frequently, release legitimate mail, and delete and purge the junk mail.

Open your browser to the Temple College home page and choose the Web Mail link, or type in http://mail.templejc.edu

Log In



Your login is your last name,
first initial,
then last three digits of your student ID
Example: John Doe, ID 5551212 would be doej212

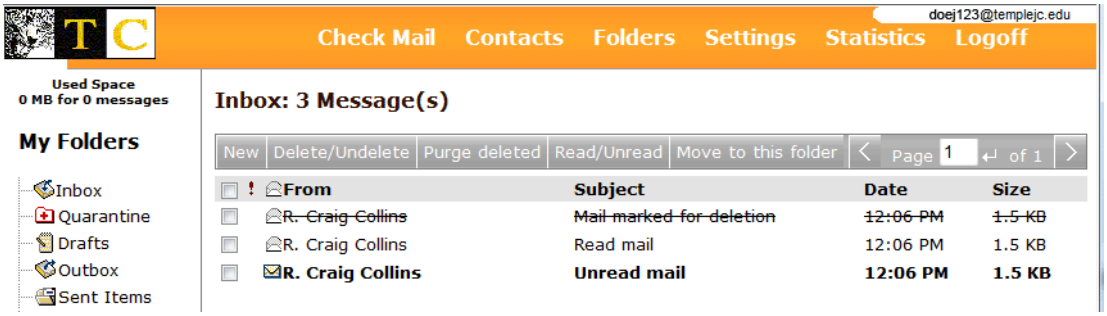
Your password is your birthday, in MMDDYYYY format
Example: Sept. 7, 2004 would be 09072004

You do not need to enter your full email address, just your login name.

(Your email address is login name@templejc.edu
Example: doej212@templejc.edu)

After reading this, you may view a video on TC WebMail basics.

Send and Receive

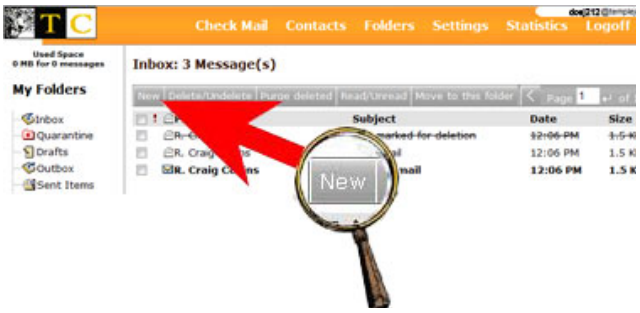


To check your mail: under My Folders on the left, select the 'Inbox' link, then choose the 'Check Mail' link on the orange bar.

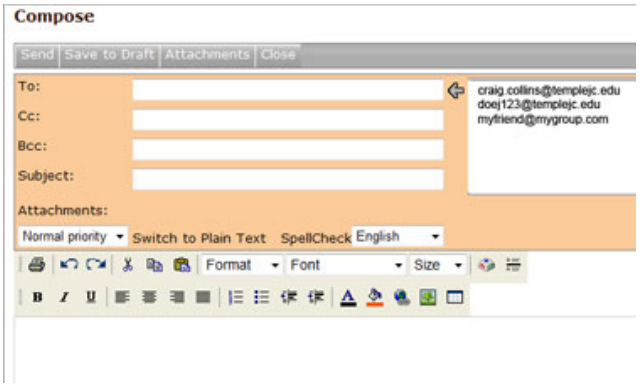
New messages are displayed in **bold** text.
If you have a lot of message, you may need to scroll through pages, using the [<] or [>] in the upper right.

Your mail box fills quickly preventing you from receiving any new mail. To delete unneeded mail, select the box next to the email item(s), then choose [Delete/Undelete]; this strikes the messages, marking them for deletion.
You may unmark messages by repeating the above step.

To delete the marked messages, choose Purge Deleted.



To send an email, choose [New].



Enter the email address for the person you wish to contact, or choose a contact from the box on the right. Multiple recipients can be added, separate each address with a ';'

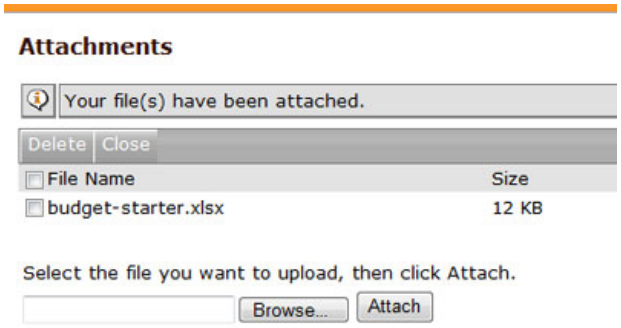
CC is used to send a copy of the email to other interested users while BCC hides the other recipient's email addresses from all recipients.
Make sure you add a meaningful subject line, and spell check

Attachments

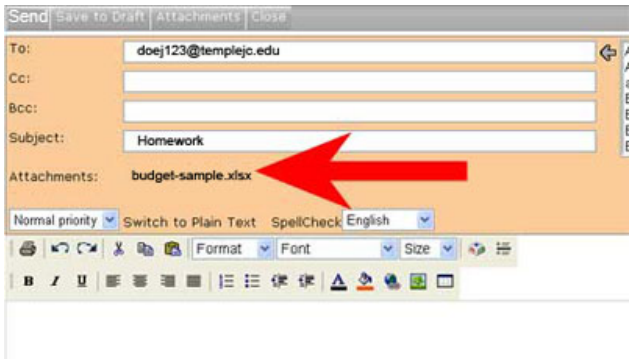
If you wish to send someone a file, such as a document to your instructor, in the Compose window click on Attachments.

The Attachment list dialog box will open.
Type in the location of the file, or choose browse to locate the file you wish to send. Once selected, choose [Open] to finish the selection.

Choose [Attach]



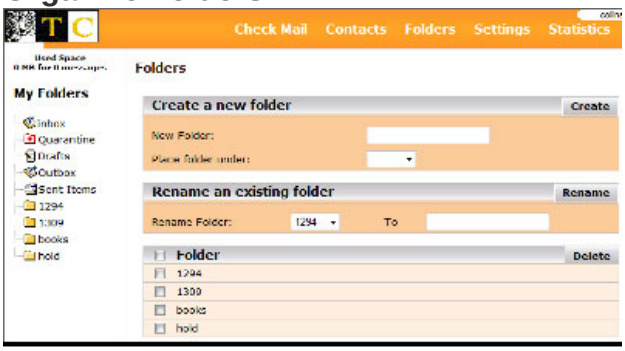
You may attach other files, or [Close] the Attachment dialog and return to the compose window.

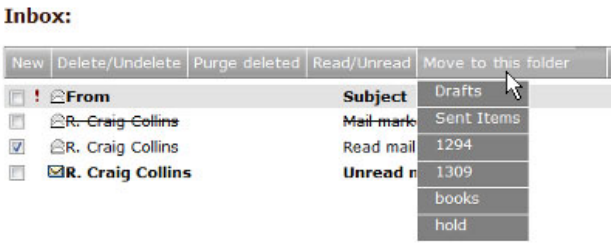


You will see the any attachments listed under the Subject line.

When you have finished composing your message, choose [Send], on the left of the gray tool bar.

Organize Folders





Folders allow users to organize mail that they wish to keep, without cluttering up the Inbox.

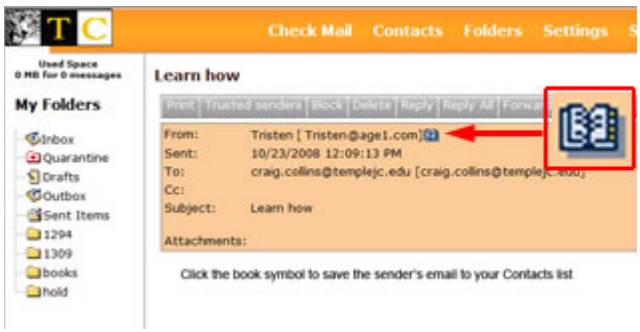
The Folders link on the orange toolbar lets you create a new folder, rename an existing folder, or delete an existing folder.

The Quarantine folder is where potential junk mail is delivered, check this frequently as legitimate mail may wind up here.

Don't forget to periodically delete copies of message you have composed that are saved in the Sent Items folder.

To move an email to a folder:
Select the box next to an email you wish to move,
then use the
[Move to this folder] button
and select an already created folder.

Contacts List



Contacts allows you to save friend's email, phone, and address info, etc.

To save the email address of someone who has emailed you, click the book symbol next to their email address.

Choose the Contacts link on the orange bar to edit or add other contact info

Netiquette and a Smiley (Emoticon)

Netiquette is about not what you can do, but what you should do. The Core Rules of Netiquette were written by Virginia Shea, and discuss how you, as an Internet User, suddenly have a lot of power... and why you shouldn't let it go to your head!

Below are the 10 rules Virginia Shea developed, and my quick take on them.

Rule 1: Remember the Human (you aren't dealing with machines, you are dealing with people who put information on machines; just because you can't see them doesn't mean they don't exist. All other rules relate to this one. Remember this Mantra: Treat others as you wish to be treated)

Rule 2: Adhere to the same standards of behavior online that you follow in real life (Don't hide behind the anonymity of a made up username, and forget everything you mother taught you! Behave on line as you would in the non-virtual world. Treat others as you wish to be treated)

Rule 3: Know where you are in cyberspace (It is illegal for people in Saudi Arabia to have pictures of bikini models... so don't email one there. You have to contend with import/export and local laws, as well as laws of places you visit electronically)

Rule 4: Respect other people's time and bandwidth (Every file you get uses someone's computer power, and takes up bandwidth, which they may have to pay for. Just be aware of the implications. Treat others as you wish to be treated)

Rule 5: Make yourself look good online (Electronic communication lacks the nuances of body language and inflection, be sure of what you are communicating... look for double meanings, and use spell check!) More on this topic below...

Rule 6: Share expert knowledge (What makes the system work is the idea of 'you rub my back, I'll rub yours.' Treat others as you wish to be treated)

Rule 7: Help keep flame wars under control (If someone is an idiot, they deserve to know. Once. Don't swamp their mailbox with insults every day for the rest of your life. Treat others as you wish to be treated)

Rule 8: Respect other people's privacy (If you don't want folks looking in your medicine cabinet, return the favor. Treat others as you wish to be treated)

Rule 9: Don't abuse your power (You could look through other folks files, you could tie up their server, you could ruin their mail box... don't. Treat others as you wish to be treated)

Rule 10: Be forgiving of other people's mistakes (You will make mistakes. How do you want to find out about it? A flame, or a friendly hint? Treat others as you wish to be treated)

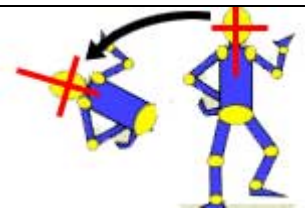
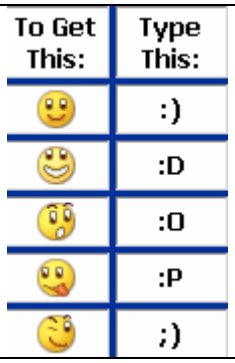
Smileys and trying to communicate with email

Many people retain information according to the following rates:
10% of what they read
20% of what they hear
30% of what they see
70% of what they see and hear...

The problem with email is that you have eliminated 90% of communication when you are stuck with just reading. To try and overcome this shortcoming, many people try to use emoticons or abbreviations.

Emoticons (*Emoti*on I*cons*), or smileys, are keystrokes to represent your body language when sending a phrase. If someone in person asks me how a student is doing... reading 'just fine' has a completely different meaning than if I said it in person, and I rolled my eyes. So to convey a smile, a frown, etc. people use smileys.

To read a smiley, you have to turn your head 90° to the left.

	So, `:)` Looks like
	Some Programs, such as Microsoft Instant Messenger actually convert the keystrokes into pictures, to take away the guessing. And guessing can be a problem, when people use non-standard, complex emoticons, such as `(8u{)>`. (That's me... but since it didn't convey anything until I said that, it is an example of how NOT to use them, as they don't help communication.

To Get This:	Type This:
	:)
	:D
	:O
	:P
	;)

Many people will also use abbreviations and acronyms to try and improve communication. A lot of you know that `LOL` is laughing out loud, and that `IMHO` is In My Humble Opinion, but a lot of these also get to complex to be useful. It is so much easier to just say what you mean, re-read it for clarity, and then send it!

But just in case, here is a short list of common chat acronyms (or chaq, pronounced "chalk") :

```
BFN or ttfn, bye or tata for now; BRB, be right back
BTW, by the way
CWOT, complete waste of time
DIY, do it yourself
RTM, read the manual
```

A more detailed list is at http://www.sharpened.net/glossary/acronyms.php

Windows Review

Before continuing, verify you are caught up with class participation discussions and MUDs. To check your progress: in the D2L classlist, choose the circular blue icon next to your name ; to check your Discussion progress, use the dropdown Tool and select Discussions...choose Apply. You will need to scroll down to see which discussions you have and have not posted to. Your participation grade will be penalized at the end of the semester for discussions you have not posted to.

Feel free to copy this to a word document and send it to me... I won't give you the right answers necessarily, but I'll let you know where you still need a little work.

Note: This test is a little more challenging

PS, The first part of the final will include the same information as Test 2.
There are suggestions on studying, on the class web site

- What does the left mouse button do?
- What does the right mouse button do?
- What is minimize?
- What is maximize?
- What is restore?
- What is a dialog box?
- What types of Help does Windows have?
- What key gets help?
- Why should you 'shut down' a computer?

- Name three ways to start a program.
- Name three formatting options
- Discuss cut, copy, and paste
- How do you view the tree/folders structure in Windows?
- How do you create new folders in Windows?
- How do you rename folders in Windows?
- How do your delete folders in Windows?
- How do you undelete in Windows?
- What is a shortcut?
- How do you create a shortcut? On the desktop?

- How do you change file viewing options? Name two.

- How do you change the desktop?

- If the button is not there, look for [Advanced] [Customize] [Options]
- Name three changes you can make to a desktop
- Discuss tasks that may be scheduled, and why.

- How do you format a floppy?
- How do you copy a floppy?
- How do you ‘clean up’ a disk?
- How do you find out all about your hard drive, such as getting a pie chart of usage?
- Name two tools for disks
- Should you just delete a Windows program? Why or why not?
- Can you enter DOS commands? How?
- Is this really DOS?

- What is a URL?
- What is Back?
- What is a favorite?
- Where do you set your home page, or privacy, etc?

- How do you get to the school email?
- What is a CC? A BCC?
- Can you unsend?
- What is an emoticon?
- What is an address book? How can you add addresses to it?
- How can you organize your mail?

- Discuss protecting your identity.
- How do you know if a site is secure?

- What is a client server network?
- What is a peer to peer network?
- Describe sharing a folder.
- What is the icon for a shared folder?
- What is a network mapped drive?
- Describe mapping a network drive.

- What does OLE stand for?
- What is an object?
- How is linking different than embedding?
- How do you update a link?

Windows 8 Appendix

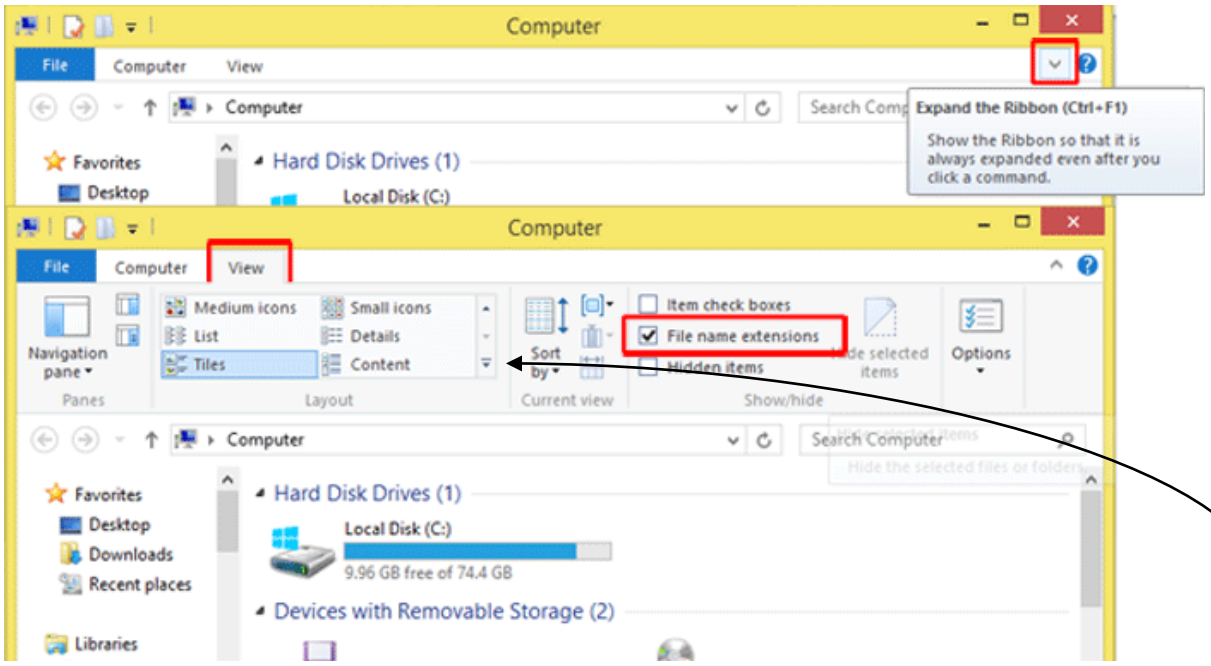
Windows A-B-Cs

Controlling File Names Windows 8

Check out class website for Windows Crash course, and more info on Windows

Many Windows computers are set up to hide known file extensions; this can be very confusing for computer students. To set your computer to display the entire file name:

- Open Computer or File Explorer
- Choose Expand Ribbon, if needed
- Choose the View tab

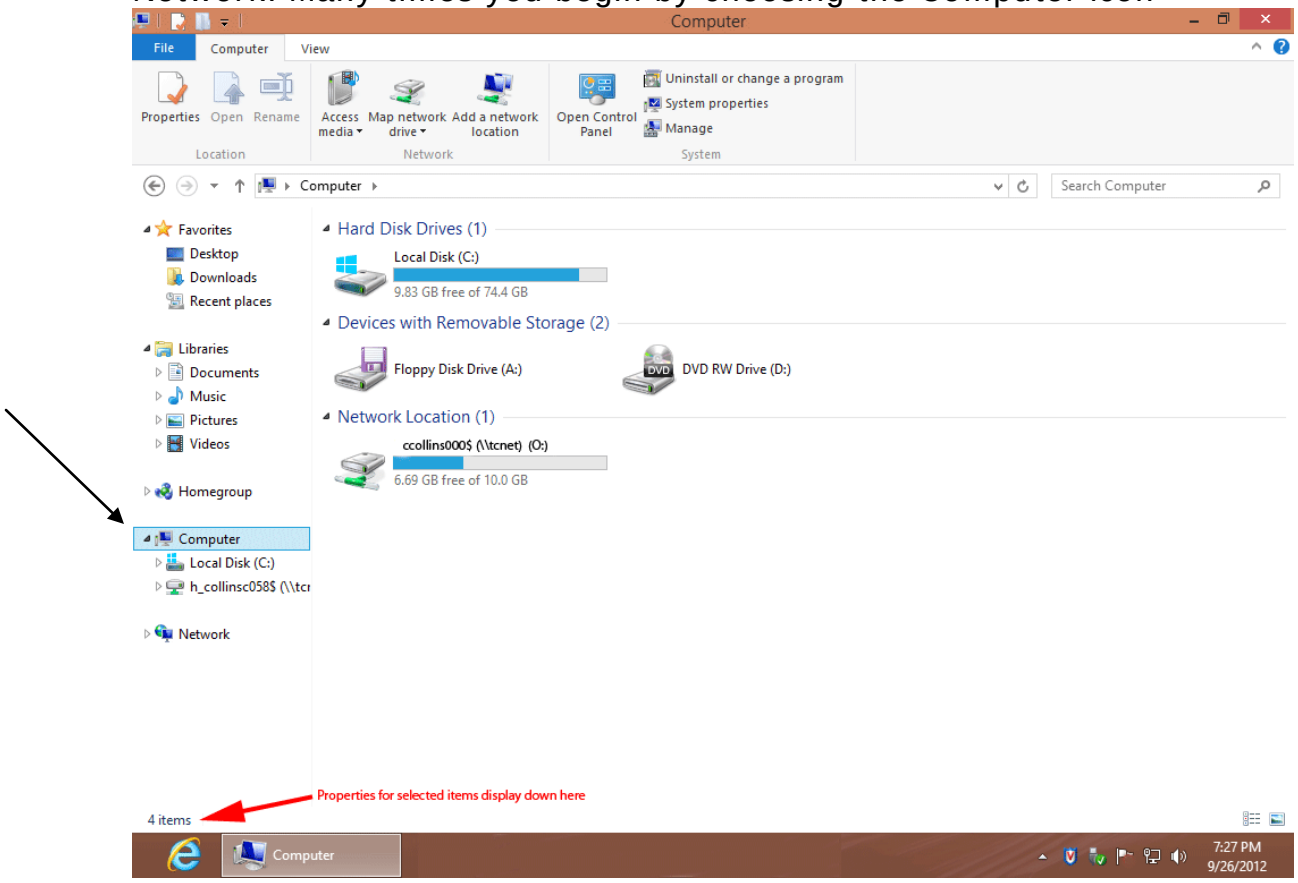


- Click **File name extensions** to be able to view the full file name

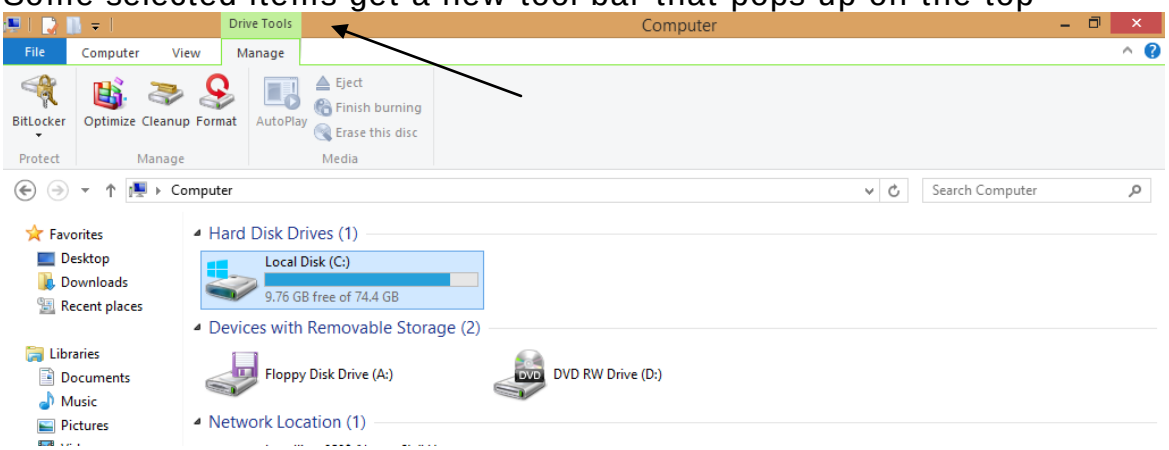
Note: you can also change the view of your icons on this part of the ribbon… Arrows or Chevrons or Triangles, such as → or ›› or v or ► or ▼ normally mean **more options** are available, so you actually can choose more than Medium or small icons, list, details, tiles, or content by clicking on the ▼ near Content

Navigating Windows (Quick Start, more details to come)

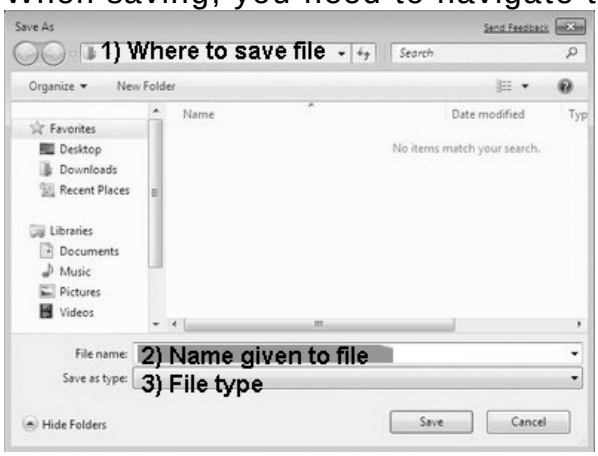
In Windows 8, the side bar contains Favorites, Desktop, Computer, and Network. Many times you begin by choosing the Computer icon



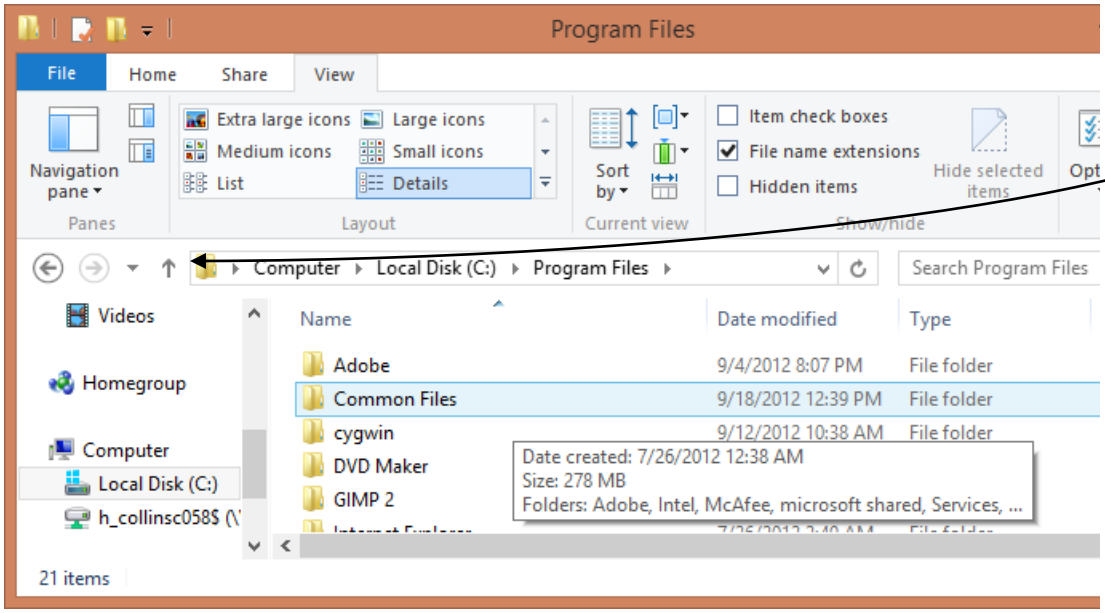
Some selected items get a new tool bar that pops up on the top



When saving, you need to navigate to the place you want to save the file.

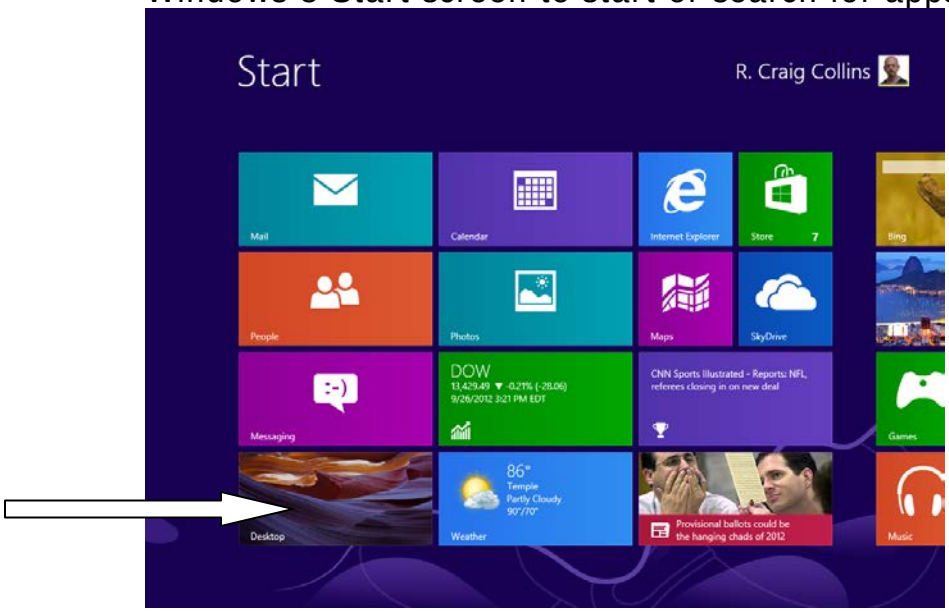


In DOS we had the ability to work our way up a directory using **`cd ..`**
This functionality is missing in Vista and Windows 7.
In Windows XP and Windows 8 we can choose the Up button when browsing, in addition to (←) Back.



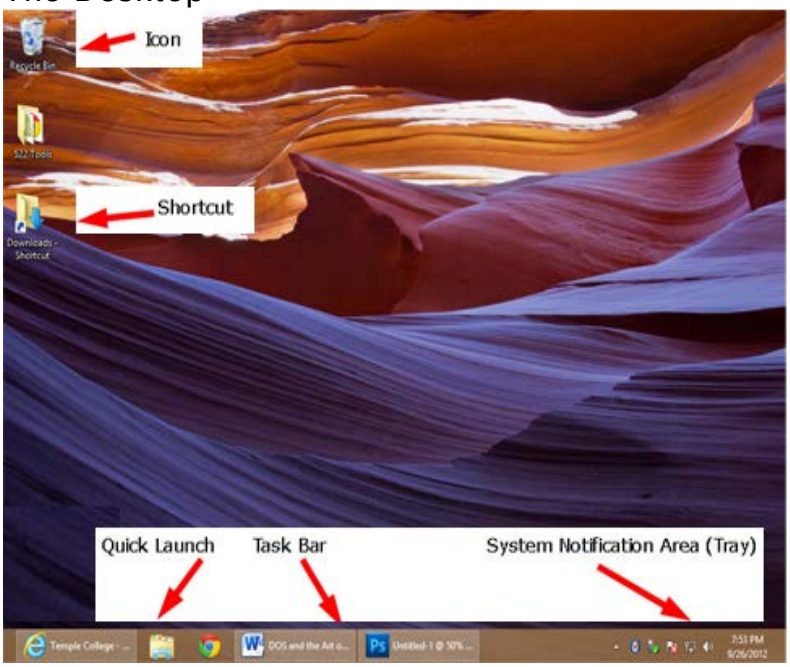
Windows Start

Windows 8 Start screen to start or search for apps



Click the Desktop icon to get the more familiar interface

The Desktop



NO START BUTTON, just Quick tools, task bar, and system notification area;

Instead click the Start key on your keyboard to return to the Start Screen

Minor differences in the newer Windows interface

While Microsoft Windows 8 and Windows 7/Vista ® are both more robust and secure than Windows XP ®, the way the user interacts with the Operating system is not very different on the desktop… but there are 6 items worth pointing out.

1. Start button

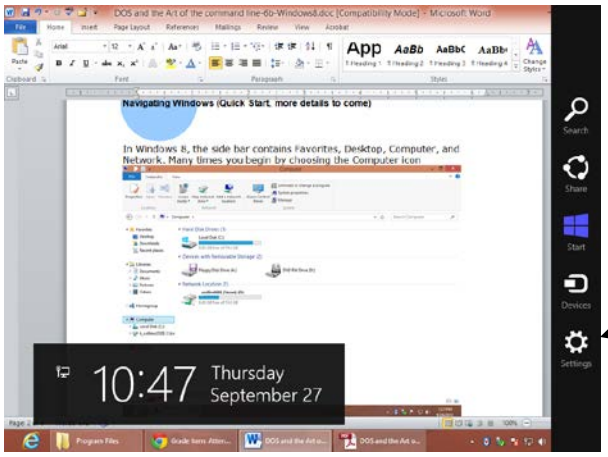
The Start button has been replaced by the Start screen, click

2. Start screen has no Search visible

For power users who liked being able to start a program using the Run tool, it no longer is on the main Start screen, nor is **Search**. To locate a file or app, simply start typing while on the Start screen, and a selection window will open.

3. Shutdown

There is no Shutdown button visible, move your mouse to the upper or lower right of the screen to open the "charms" bar… Choose Setting to get to Shutdown.

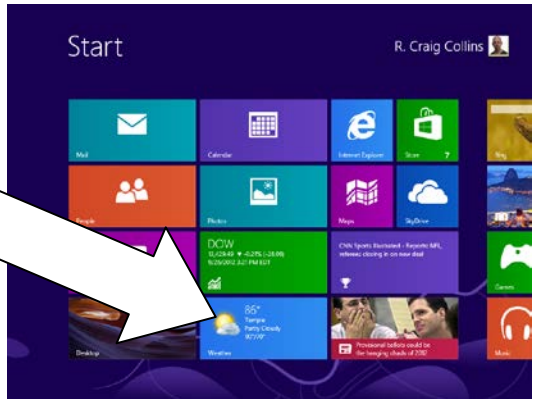


OR Press [Start] + [i]

4. Gadgets

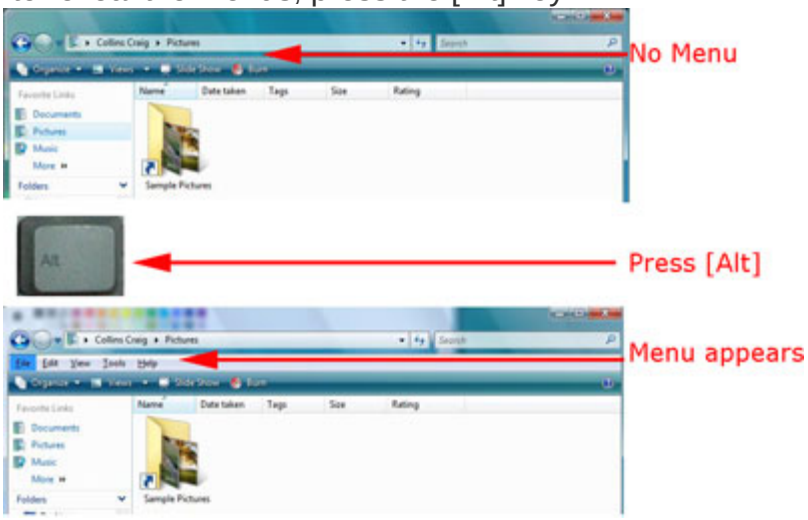
You can no longer add gadgets like Weather, on the desktop, as you could in Windows Vista or 7.

But, a Weather app is on the Windows 8 Start screen, and other apps can be added



5. Menus

Application menus may be hidden in Vista, Windows 7 or Windows 8:
to reveal the menus, press the [Alt] key

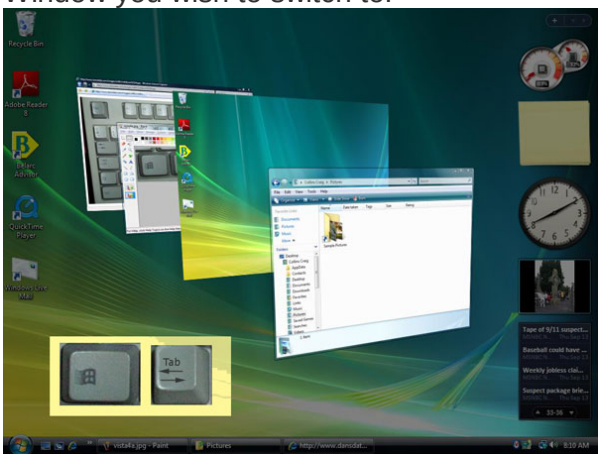
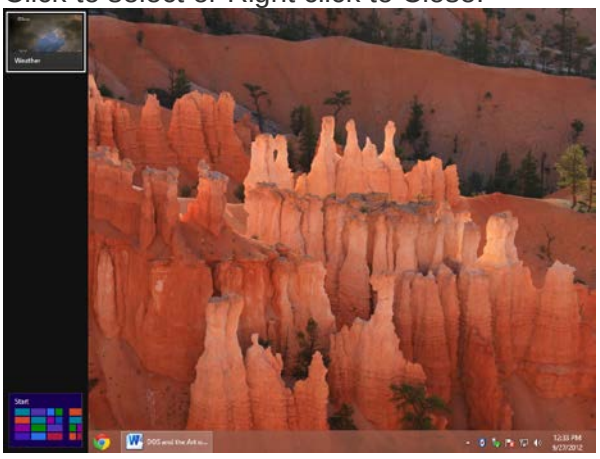


6. Taskbar, [Alt]+[Tab] and [Start]+[Tab]

In Windows XP, pointing your mouse cursor at an item on the task bar generated a small text box describing the program; in Vista onward, you now get a fairly large thumbnail of the program window.

In Windows XP, you could press and hold the [Alt] key, then press [Tab] to scroll through available programs…in Vista onward, this action give you large thumbnails of the program windows to view… let go to select the Window you wish to switch to.

Windows 7 had [Start]+[Tab] sequence to get a large Rolodex style view of program windows to view… let go to select the Window you wish to switch to.



In Windows 8 [Start]+[Tab] brings up the apps that have been started on the Start screen, in a bar on the left.
Click to select or Right click to Close.