

Intermediate Computer Skills

What are the basic parts of a computer, and what do they do?

- All the parts fall into four basic categories: Storage, Input, Processing, and Output.
- Storage: tape, hard disk, CD, DVD & Blu-Ray disk, Solid-State Drive (SSD), RAM, flash
- Input: Internet, keyboard & mouse, scanner, finger taps & swipes, voice commands, storage
- Processing: the Arithmetic-Logic Unit (ALU) does math and logical operations on data
- Output: screen, print, Internet, audio, video, all of the above storage media

What's all this about Bits, Bytes, RAM, Kilo-, Mega- and Giga- stuff, and why should I care?

- A “bit” (**binary digit**) is either 0 or 1, “off” or “on”, “no” or “yes” – it can't be “sorta-maybe.”
- A “byte” is 8 bits (256 combinations: numbers, letters, special char), double-byte = 65,536.
- 1024 bytes = 1KiloByte; $1024 \times 1024 = 1,048,576$ (1MB); $1\text{KB} \times 1\text{MB} = 1,073,741,824$ (1GB)
- RAM is Random Access (electronic) Memory, earlier measured in KB, today in MB or GB.
- Earlier MegaHertz (“Herz” = heartbeat), now GigaHertz measures number of beats/second. This measurement (GH) is used for processor speed, RAM speed, motherboard speed. etc.
- Why you should care: because computers don't “think,” they just follow orders... very quickly!
...So, if you give your PC the wrong instructions, it can mess things up... very quickly too.

What is a file, what is a folder, and how do I make them?

- A file is a container for information, like a sheet or sheets of paper with writing on it. The information can be in many different formats: text, photos, audio, video, scanned image, etc.
- A collection of files with similar subjects, time periods, or ownership can be kept in a folder.
- If a folder holds other folders, they are called sub-folders. You can have sub-sub-folders too!
- The main folders are Program Files, Program Data, Users (Docs and Settings), and Windows.
- You can make files by saving information; to make folders, right-click > New > Folder.

What's the difference between a program and an icon?

- Those little desktop pictures are called “icons” that are the “link” or address to the program.
- Programs are large files, often several megabytes (MB), with the extension *.exe or *.com.
- A program is a special kind of file, which contains instructions and locations of data.
- The program accepts input, next it processes the data, and produces some output results.

What are those strange “quick key” commands in programs, and how do I do them?

- Click on “File” on the top menu, then on “Open” (File → Open), or quick-key press Ctrl + O.
- Click on “File” on the top menu, then on “Print” (File → Print), or quick-key press Ctrl + P.
- Click on “File” on the top menu, then on “Save” (File → Save), or quick-key press Ctrl + S.
To copy-and-paste:
- Click on “Edit” on the top menu, then on “All” (Edit → All), or quick-key press Ctrl + A; or hold the left mouse button and move the cursor over a word, line or paragraph to highlight it; or double-click on a word to highlight it, or triple-click on a paragraph to highlight it.
- Click on “Edit” on the top menu, then on “Copy” (Edit → Copy), or quick-key press Ctrl + C.
- Click on “Edit” on the top menu, then on “Paste” (Edit → Paste), or quick-key press Ctrl + V.
- To delete: use the Del or Backspace keys; or highlight the area you want to delete, then click on “Edit” on the top menu, then on “Cut” (Edit → Cut), or quick-key press Ctrl + X.
- Click on “Edit” on the top menu, then on “Undo” (Edit → Undo), or quick-key press Ctrl + Z. (You can repeat the “Undo” several times in most programs, to recover from your mistakes!)
- F1** is “Help”, **F2** is often “Formatting”, **F3** is “Find”, Alt + **F4** is “Close”, other F-keys vary. (Each different kind of program can have its unique menu commands and their quick-keys.)

Best wishes on your journey into the amazing new world of computing – the Information Age!