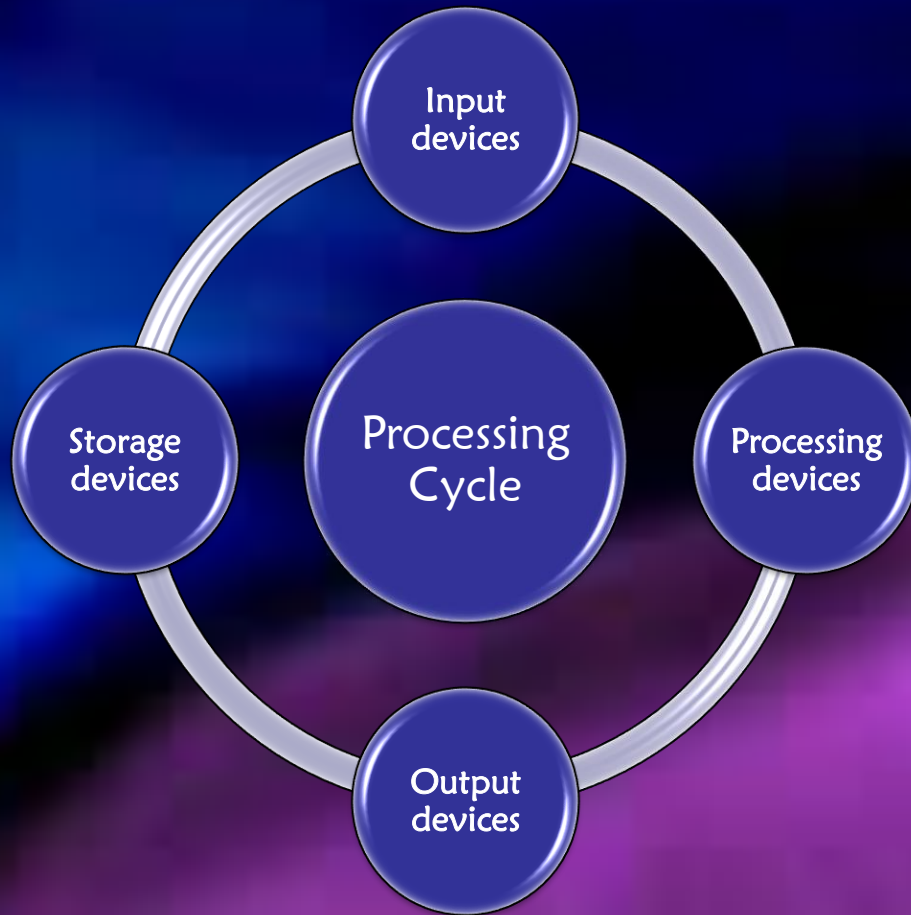




Input devices

The personal computer system uses the following hardware device types -

- Input devices
- Processing devices
- Output devices
- Storage devices



to complete the processing cycle

Hardware components are physical parts



- things we can touch & pick up

eg the system unit,
the screen,
the keyboard
the mouse

There are many Input devices – we are going to look at the following

- The main input devices
 - Keyboard and Mouse
- Other input or peripheral (extra) devices
 - Scanner
 - Card readers for data collection
 - USB cards and card readers
 - USB flash drives and Memory sticks
 - Voice recognition software
 - Graphics tablet (CAD, mapping)
 - Touchscreens
 - Modem

Keyboard - Input Device

Sometimes difficult to use!!! Looks like a typewriter with extra keys!!

WHAT IS IT'S PURPOSE?

- used to input data into the computer
- display shows character entered
- has additional keys, Ctrl, Alt, (which change what a basic key does) and Esc
- has numeric keypad, function keys (keys which perform special tasks) and cursor keys



- Natural or ergonomic keyboard



- Standard keyboard





- Logitech cordless keyboard and mouse



- Rolling keyboard often used with a laptop to make keying easier

Gaming keyboards

- Serious about gaming?
- Then Specialist keyboards and mouse sets are available



Mouse – Input device



- A hand-held device that can use:
 - optical (infrared optical sensor - emits a red glow beneath the mouse to capture high-resolution digital snapshots which are translated into movement)

some have a wheel to use for scrolling



- Can be Wireless
- Trackball – can be wireless is controlled by your thumb



What is it's purpose?

- Point and click the buttons on top to move the cursor
or
Take an action (eg open a file, select something)
or
Click, hold and drag to move or copy something
- Get a mouse to suit your hand size
- This is a vertical mouse – ergonomically correct



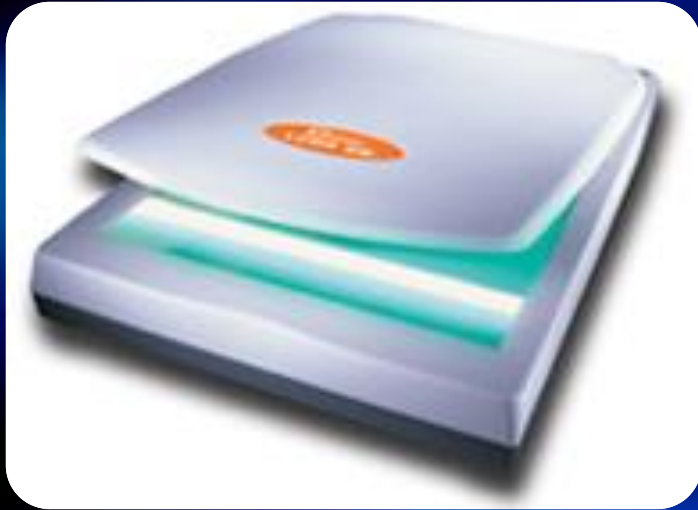
Gaming mouse

- Serious about gaming?
Specialist mice are available
- Laser optical
- Plasma
high speed, works at twice the
speed of conventional mouse
- And you could also have
a friction reducing Steel
Gaming Glove



Other input devices ... known as
“peripherals”

Scanners



- A Scanner (flatbed) is a device which takes a copy of a document or image (just like taking a photograph). Scanners allow you to set the resolution and size and save the image in a number of different formats.



- Photocopier/Scanners also have scanning capability and are much more common now than flatbed scanners



- **Bar Code Scanners**
A barcode reader (or barcode scanner) is an electronic device that can read and output printed barcodes to a computer. Like a flatbed scanner, it consists of a light source, a lens and a light sensor translating optical impulses into electrical ones

Card readers

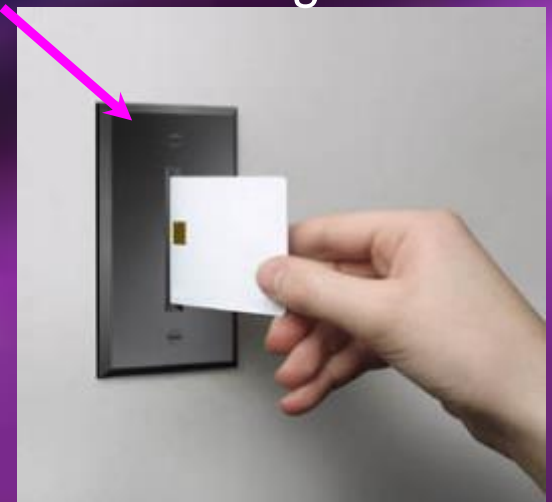


- Swipe bar code readers
- Hand held data collector eg from barcode or magnetic stripe used in stocktaking
- Swipe card readers tell a company “who” has entered a building



Now Available!
Falcon® 4210
Windows® CE PDA
Data Collector

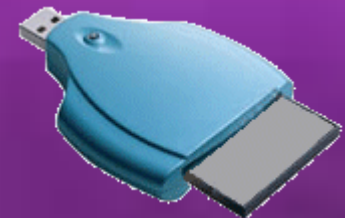
The Falcon® 4210 is a compact, rugged handheld computer combining the flexibility of Microsoft's® Windows® CE operating system and applications with RF data communications, bar code scanning and optional magnetic stripe card processing.





- USB card readers

connect to your computer to read eg Flash cards
(to upload images, eg from a Digital camera to your tablet or ipad or laptop, or to use as storage for music, or to upload any stored files)



USB Flash drive

and

Memory cards or sticks

allow data to be transferred
from one computer to another



*“Open Word”
“Send message”
“Print file”*



- Voice recognition software

uses hands free, noise cancelling headset and microphone



you have to “train” the software to recognise your voice, then you input recorded speech commands to enable the commands to be actioned

or you use the software to directly input data by reading it to the computer (saves keying in!)



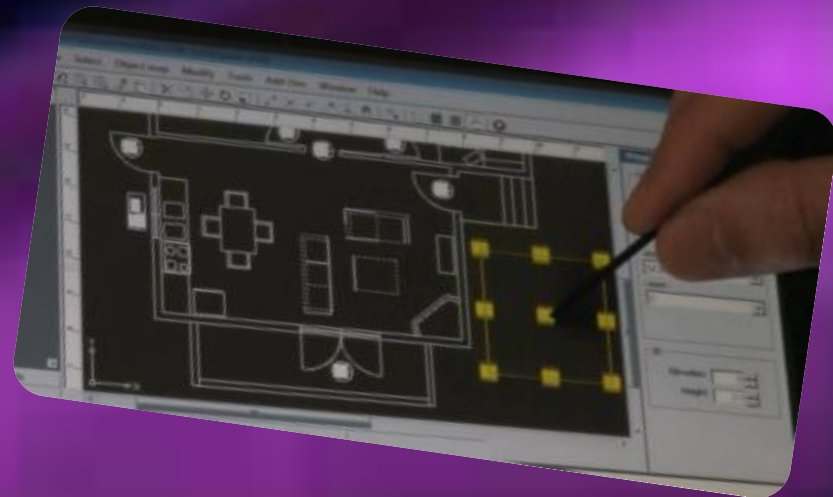
Fossil Q Wander Touchscreen Leather
Smartwatch

this Android Smartwatch also uses voice and microphone, along with touch screen, to do a variety of tasks

- Graphics tablets - stylus



- allows natural control of stylus, ergonomically correct, innovative, fast to create for higher productivity, pressure sensitive
- used in digital Art, animations, CAD drawing, architecture, medical profession, business and mapping and engineering





Touchscreens

- A touchscreen is an intuitive computer input device that works by simply touching the display screen, either by a **finger**, or with a **stylus**, rather than typing on a keyboard or pointing with a mouse.



Webcam



- A **webcam** – short for 'web camera' – is a digital camera that's connected to a computer. It can send live pictures from wherever it's sited to another location by means of the internet.



- Used for Skype for personal or business use allowing free visual and audio conferencing between contacts



- Can be Wireless (Logitech Circle Powered Security Camera with 2-way Talk) with alerts to Smartphone. Watch over kids and pets at home alone!

Wireless Modem

- A wireless modem bypasses the telephone system and connects directly to a wireless network, through which it can directly access the Internet connectivity provided by an Internet service provider (ISP) and acts as an input device (also acts as an output device).
- Wireless modems may be prebuilt into smartphones, mobile phones and personal data assistants (PDAs), or they may be distributed in the form of USB, serial or wireless firewall modems. Other types of wireless modems range from the size of a cable modem to the size of a credit card or smaller.



Wireless network

- A wireless local-area network (LAN) uses radio waves to connect devices such as laptops to the Internet and to your business network and its applications. When you connect a laptop to a WiFi hotspot at a cafe, hotel, airport lounge, or other public place, you're connecting to that business's wireless network and can input data to your device.
- Benefits
 - Convenience
 - Mobility
 - Productivity
 - Easy setup
 - Expandable
 - Security
 - Cost

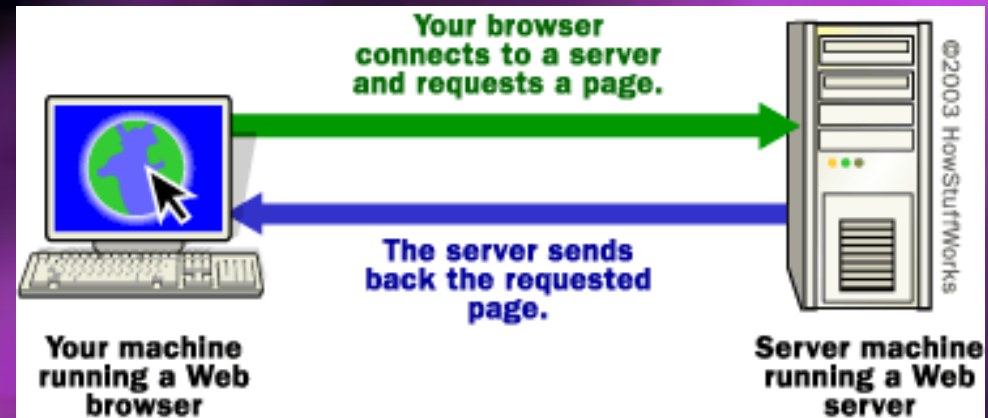


Modem

- A modem - is used to receive (input) and send (output) digital data **over a phone line**. Most modems are now in the system unit.



- The sending modem modulates the data into a signal that is compatible with the phone line
- The receiving modem demodulates the signal back into digital data and the data becomes input
- Modem connects to an Internet service provider (ISP)
ISP connects us into the Internet
Internet lets us connect to any machine in the world



End of presentation

- Next steps
- Go back to the workbook
- You will see that there are Study Notes on the input devices