



Cambridge TECHNICALS in IT



Unit 15: Computer Game Platforms & Technologies

LO 2: Understand hardware technologies for game platforms.



Processor (CPU)



- The brains of the computer
- Takes information from various input devices, operating system and software and executes instructions that it has been given.
- Executes a certain amount of instructions within a grouping called a cycle.
- Speed is measured in how many cycles it can perform in a given second. One cycle per second is known as a hertz.



1 Million hertz = 1 Megahertz

1 Billion hertz = 1 Gigahertz



Graphic Processor (GPU)



- Chip found on the graphics card.
- Dedicated processor just for rendering graphics and video.
- Originally used for accelerating texture-mapping, rendering or polygons and geometric calculations (ie rotation and translation of vertices).
- Modern GPUs are mostly carrying out calculations related to 3D graphics.



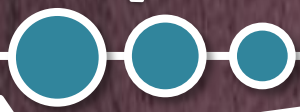
Memory



- Any form of electronic storage, usually refers to temporary storage.
- RAM and ROM.
- All instructions are loaded into RAM (temporary storage) for the processor to then access.



Display



- Built-in or external
- Colour or monochrome
- 3D
- High definition



Sound



- Hardware (sound card)
- Mono, stereo, 3D or surround



Game Storage



- Medium (ie DVD, UMD, cartridge)
- Size
- Hard-drive



Interfaces



- Gamepad

- Motion

- Wheel

- Paddle

- Joystick

- Keyboard

- Kinect

- Mouse

- Voice



Connectivity



- Stand alone
- Controller ports
- Network
- Internet
- Wireless
- Bluetooth



Power Supply



- Internal
 - Battery powered
 - Rechargeable?
- External
 - Mains powered
 - Wired



Mobile Technologies



- Mobile phones:
 - iPhone
 - Blackberry
 - Android
 - Windows Phone



- Tablets



- PSP

- DSi / 3DS





L02 Portfolio Evidence



✓ (P2) Hardware Technologies

- Describe each of the hardware technologies for game platforms.
- Include clear examples and explain the technical details relating to each technology.
- Explain how each technology impacts on gaming.

✓ (M2) Mobile Technologies for Game Platforms

- Describe each of the mobile technologies for game platforms, giving clear examples and comparisons of technical specifications.

✓ (D2) Evaluate the Suitability of Mobile Technologies

- Explain the extent to which each mobile technology is suited to game play.
- Clearly describe benefits and drawbacks to each of the mobile technologies, in relation to game play.

