# Multimedia Hardware

- Digital media devices

- Analog media devices

- General-purpose devices

- Synchronization devices

- Interaction devices

- Multimedia platforms

# Digital Media Devices

| Capture | Presentation | Processing |
| --- | --- | --- |
| ASCII keyboard | Frame buffer display buffer | Video encoder or decoder |
| MIDI keyboard | Printer | Audio encoder or decoder |
| Image scanner | MIDI synthesizer | Digital video effects |
| 3D digitizer | Audio digital to analog converter | Digital audio effects |
| Video frame grabber | | 3D graphics hardware |

# Analog Media Devices

| Sources | Sinks | Filters |
|---|---|---|
| Microphone | Speaker | Analog video effects |
| Video camera | Video display | Analog audio effects |
| Video tape player | Video tape recorder | Audio mixer |
| Audio tape player | Audio tape recorder | Video scan converter |
| Videodisc player | | Video overlay device |
| Photographic | | |

# General Purpose Devices

Devices that process or deal with arbitrary media:

- CD-ROM
- Magnetic Disks
- Oscilloscopes

# Interaction devices

- Keyboard
- Mouse and joysticks
- Electronic pens
- 3D trackers
- Gloves
- Helmets & eye trackers

# Synchronization Devices

Simultaneous presentation and manipulation of multiple media requires hardware assistance to maintain proper timing.

- genlocks
- sync generators

# Multimedia Platforms

- Specially configured PCs and workstations
- MPC compliance

  - Personal computer
  - Color display
  - Speaker and microphone
  - CD-ROM drive
  - Audio and video digitizers
  - Network access