

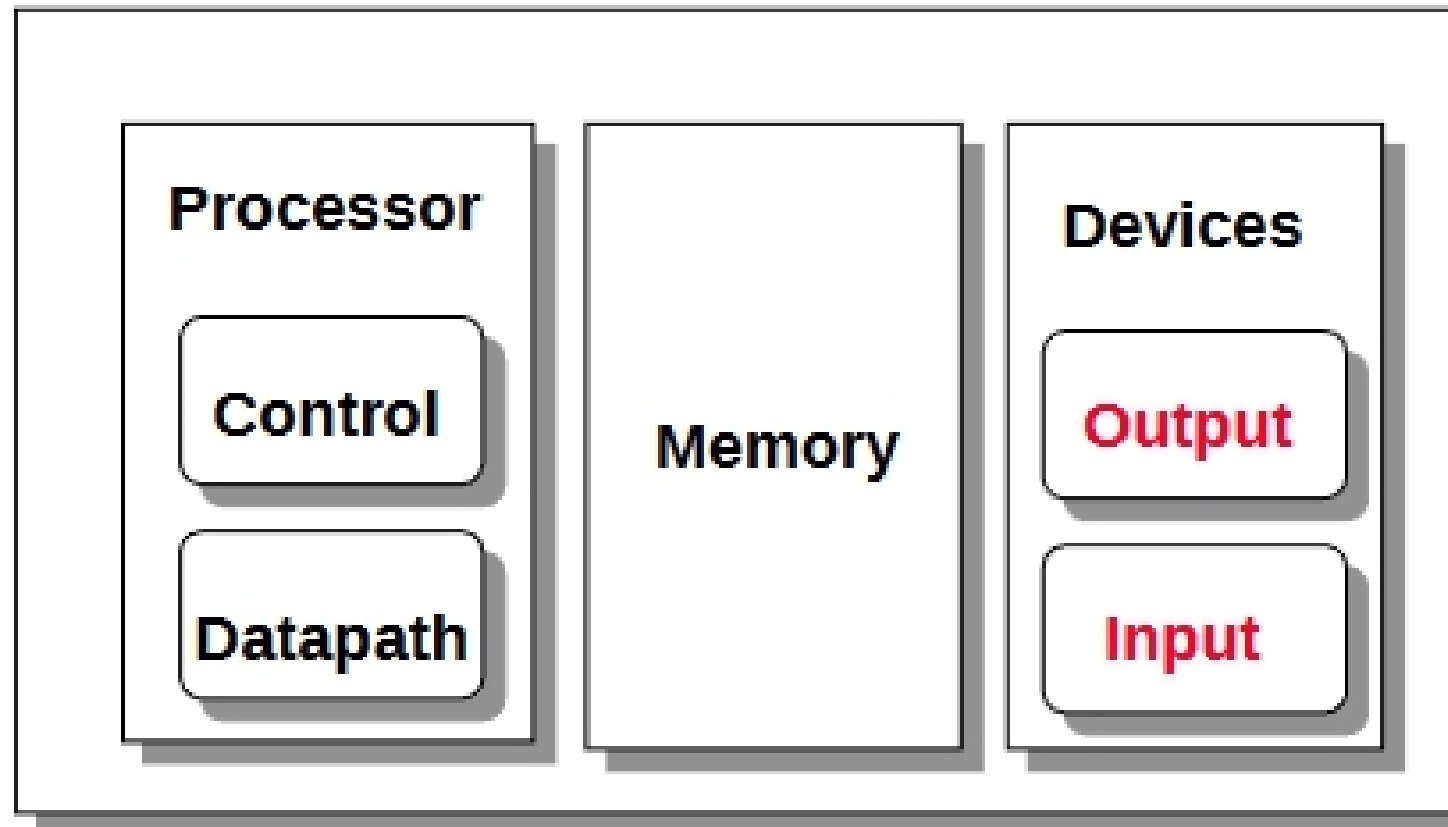
---

# **CPEG 323**

# **Computer Architecture**

## **I/O Systems**

# Review: Major Components of a Computer



- ❑ Important metrics for an I/O system
  - Performance
  - Expandability
  - Dependability
  - Cost, size, weight

# Input and Output Devices

- ❑ I/O devices are incredibly diverse with respect to
  - Behavior – input, output or storage
  - Partner – human or machine
  - Data rate – the peak rate at which data can be transferred between the I/O device and the main memory or processor

Device	Behavior	Partner	Data rate (Mb/s)
Keyboard	input	human	0.0001
Mouse	input	human	0.0038
Laser printer	output	human	3.2000
Graphics display	output	human	800.0000-8000.0000
Network/LAN	input or output	machine	100.0000-1000.0000
Magnetic disk	storage	machine	240.0000-2560.0000

8 orders of magnitude  
range