

For Instance, there may be a memory bus that connects the processor to memory Subsystem and an I/O Bus to Interface I/O devices to the processor, forming a two-bus structure.

Further :- It is possible to configure a system with several I/O buses where in each bus may interface one type of I/O device to the processor.

→ Since Multiple bus structures allow simultaneous operation on the buses, a higher throughput is possible, compared to single bus Architecture.

However, because of the multiple buses the system complexity increases. Thus, a speed/cost trade off is required to decide on the system Architecture or Structure.



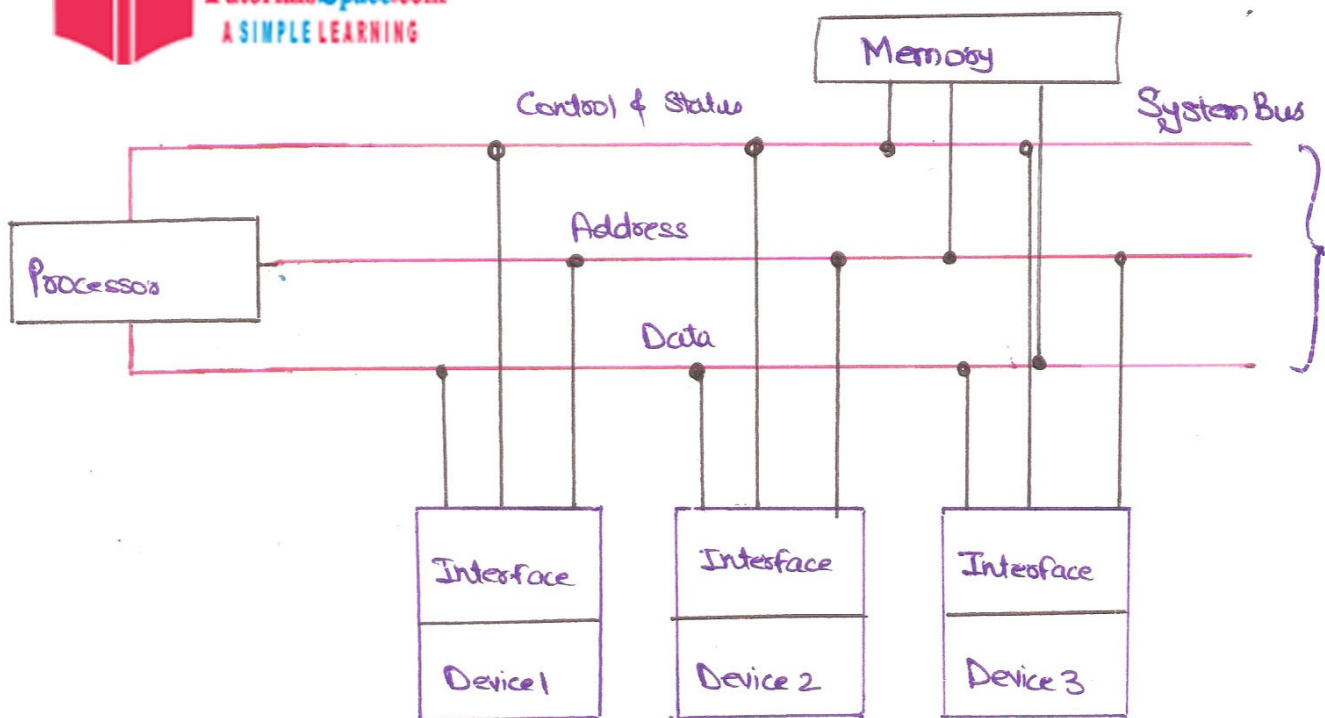
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The Modified Von-Neumann Architecture, Adding a System Bus Today's General Computer System.

- It is basically modern day Architecture Representative
- The processor Subsystem (i.e. the CPU) now consists of the ALU and Control Unit & various Processor Registers.
 - The processor, memory, & I/O Subsystems are interconnected by the System bus, which consists of Data, Address, and Control & Status lines.



Single Bus Architecture

Practical Systems may differ from the Single bus Architecture in sense that it may be configured around multiple Buses.