Single Process OS – Cons

* Do not allow maximum CPU Utilisation
* If P1, P2, P3 job avlb. P1. Is tking infinite time.. it will starve P2, P3
* High Priority Job Execution Not possible as Single ProcessOS Runs Sequencially

Eg: MSDOS

Batch Processing OS - Each Batch divided is process with Single Process.

* No Higher Priority Execution
* Process/ batch Starvation
* No maximum CPu Utilisation

Eg- Atlas

Multiprogramming OS(Single CPU):

* Creates an virtual environment where many processes get executes in a way that if any one goes in Idle state(i/o Operation). Other Processs starts executing.
* Context switching – if P1 goes in ip State (iDLe), for bring P2 into picture we need to save the context/ information(address) of P1 in PCB(Process Control Block). After P2 is executes successfully, now we will restore the state of P1 using PCB.

Eg - THE

Multitasking OS(Single CPu, Time Sharing) – Logical Extension of Multiprogramming

* Providing time Quantum eg.1000ms
* If p1 goes for IP operation. After 1000ms context switching will give p2 chance for Ip operation
* ALLOWS priority jobs

EG. CTSS

Multiprocessing OS(Multiple CPUs, Time Sharing, Context Switching)

* Increased Reliability (if CPU 1 fails, Cpu 2 can handle the other processes)
* Eg - Windows

Distributed OS(Loosely Coupled)

* Loosely coupled autonomous. Different Independent CPU’s Connected over network
* Multiple users possible
* Eg - Distributed Operating System : AIX operating system

RTOS(Realtime OS)

* High accuracy System(ATC – Airtraffic control system)
* Realtime and fast execution within OS)
* USED in Industrial execution, Robots)
* Real Time Operating System: Air Traffic Controller(ATC)