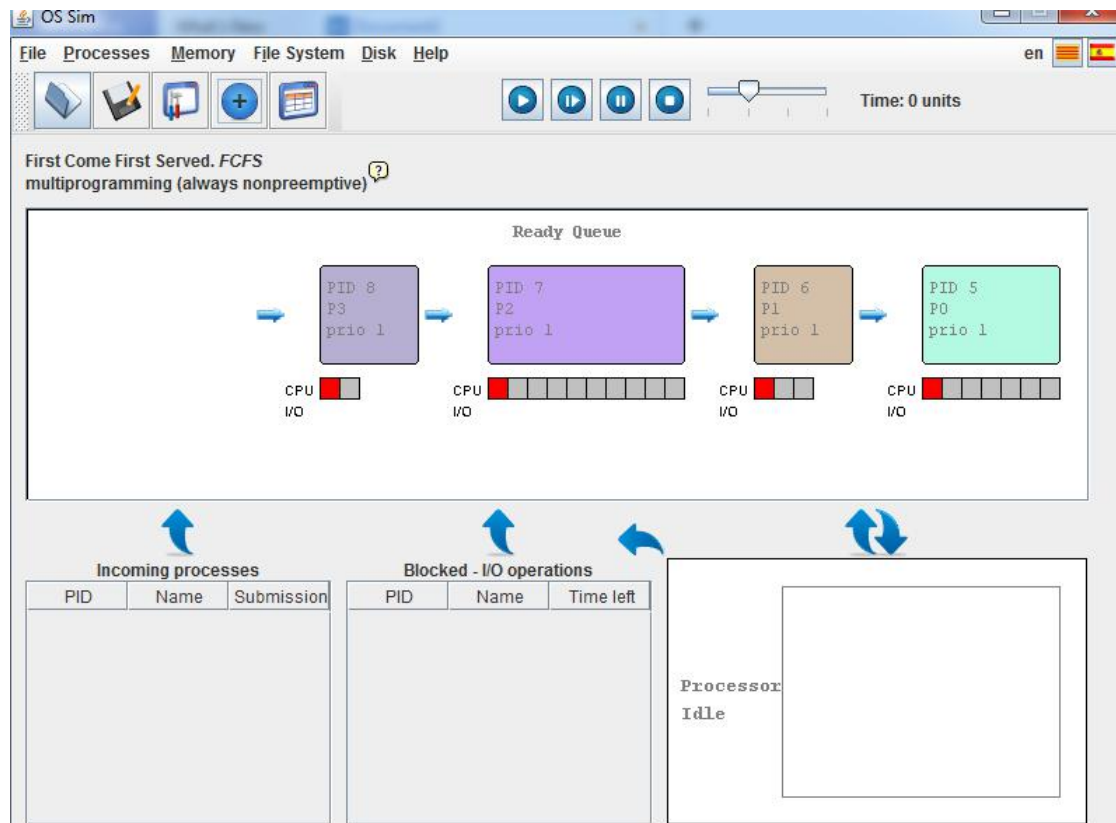


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Mata Kuliah : Sistem Operasi

## MODUL 11

### 1. FCFS



Process Scheduling Information

Efficiency (%) 1.00

Throughput (processes/time unit) 0.18

Avg. Turnaround Time (time) 14.75

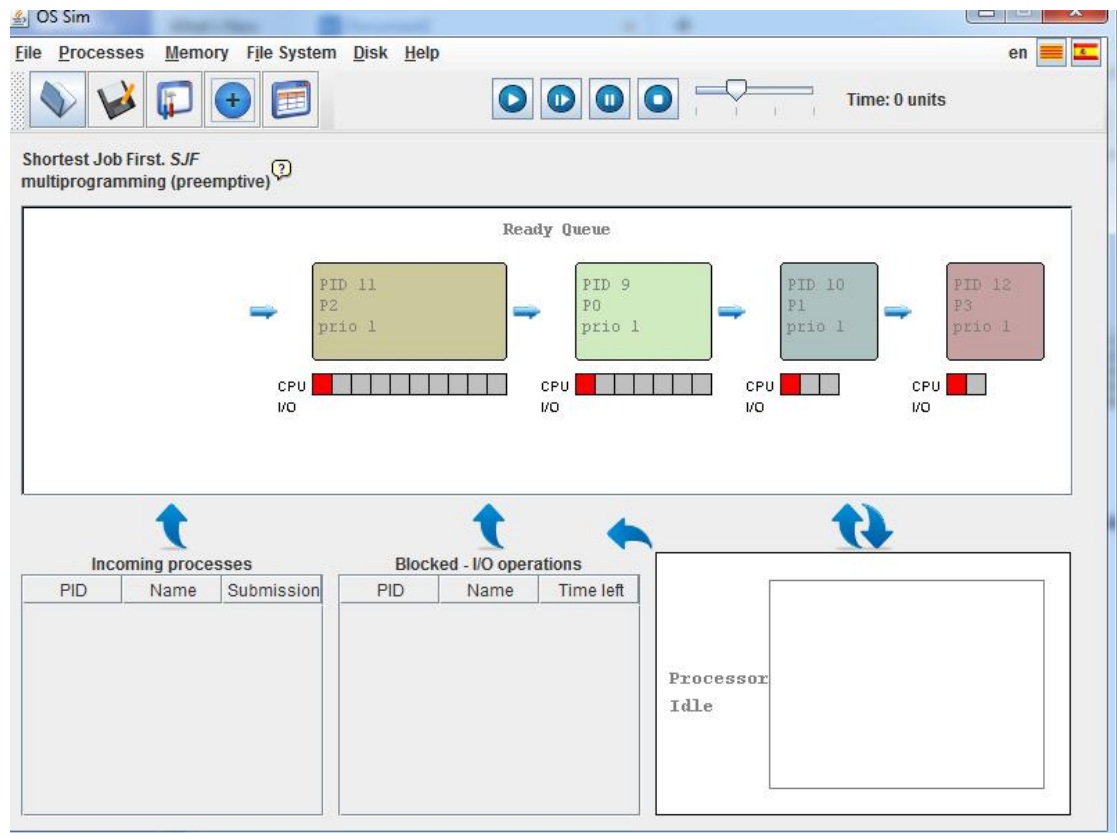
Avg. Waiting Time (time) 9.25

Avg. Response Time (time) 9.25

PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
1	P0	1	0	-	7	0	0	7	1.0	0.0
2	P1	1	0	-	3	7	7	10	0.3	0.0
3	P2	1	0	-	10	10	10	20	0.5	0.0
4	P3	1	0	-	2	20	20	22	0.0909090...	0.0

Process	Waiting Time
P0	0
P1	7
P2	10
P3	20
Average Waiting Time	9.25
Average Turnaround	14.75
Average Respon	9.25

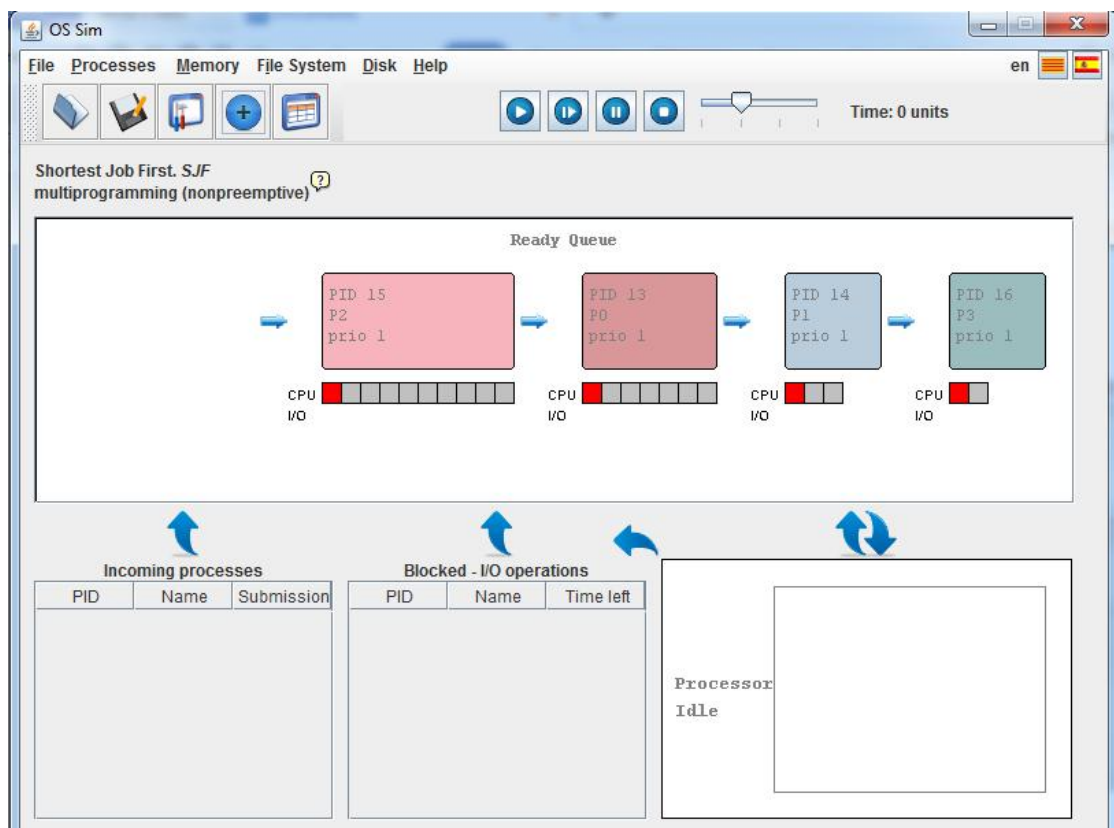
2. SJFS
  - a) Preemptive



Process Scheduling Information										
Efficiency (%)		1.00								
Throughput (processes/time unit)		0.18								
Avg. Turnaround Time (time)		10.25								
Avg. Waiting Time (time)		4.75								
Avg. Response Time (time)		4.75								
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
12	P3	1	0	-	2	0	0	2	1.0	0.0
10	P1	1	0	-	3	2	2	5	0.6	0.0
9	P0	1	0	-	7	5	5	12	0.583333...	0.0
11	P2	1	0	-	10	12	12	22	0.454545...	0.0

Process	Waiting Time
P0	5
P1	2
P2	12
P3	0
Average Waiting Time	4.75
Average Turnaround	10.25
Average Respon	4.75

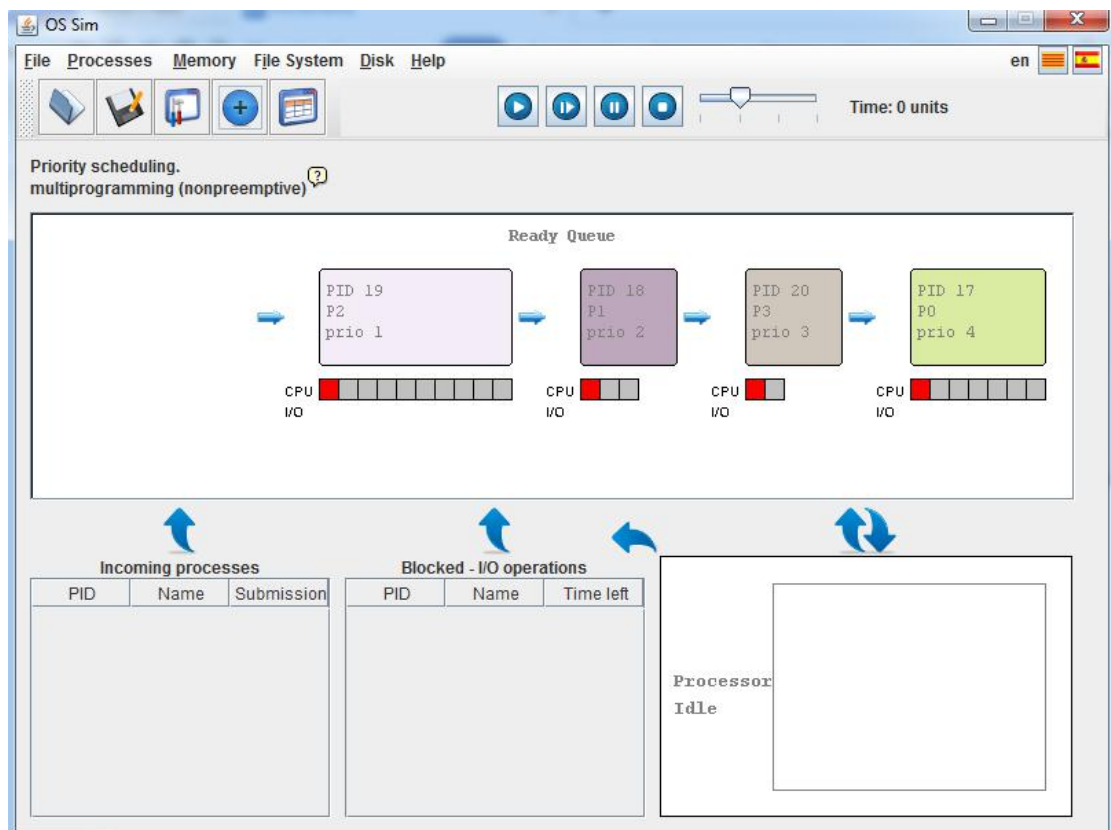
b) Non-Premptive



Process Scheduling Information										
Efficiency (%)		1.00								
Throughput (processes/time unit)		0.18								
Avg. Turnaround Time (time)		10.25								
Avg. Waiting Time (time)		4.75								
Avg. Response Time (time)		4.75								
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
16	P3	1	0	-	2	0	0	2	1.0	0.0
14	P1	1	0	-	3	2	2	5	0.6	0.0
13	P0	1	0	-	7	5	5	12	0.583333...	0.0
15	P2	1	0	-	10	12	12	22	0.454545...	0.0

Process	Waiting Time
P0	5
P1	2
P2	12
P3	0
Average Waiting Time	4.75
Average Turnaround	10.25
Average Respon	4.75

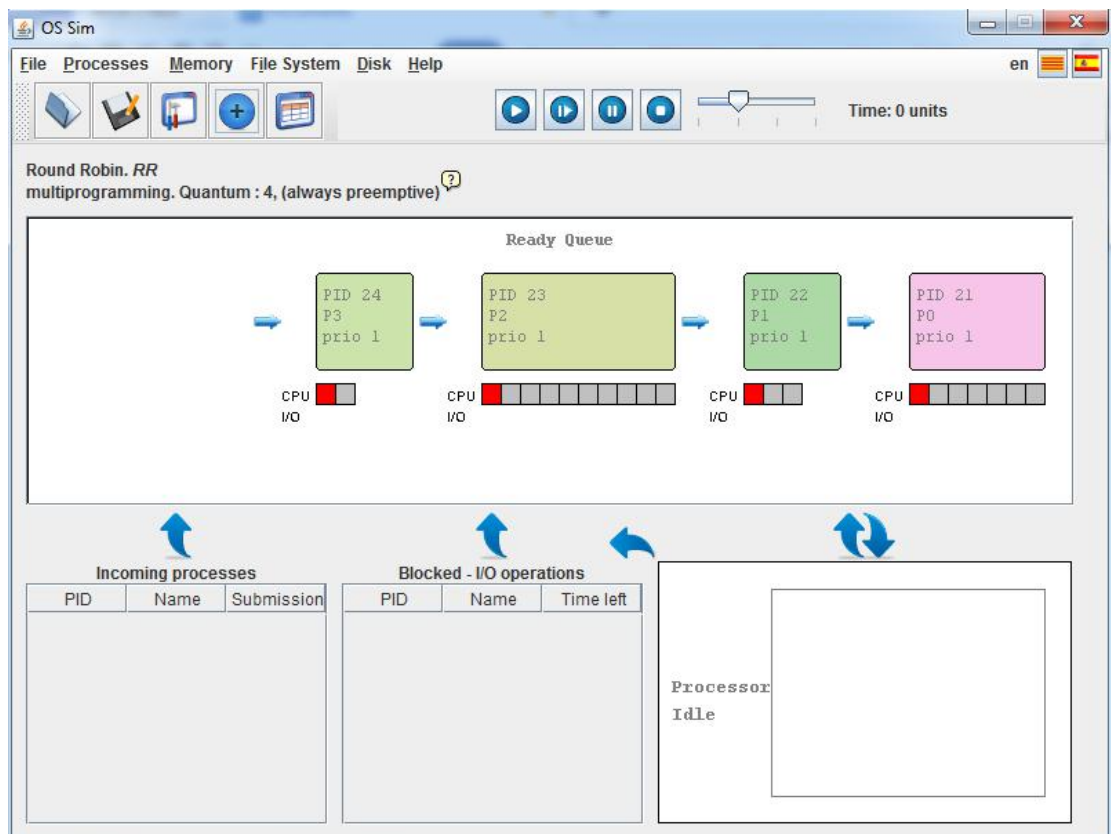
### 3. Priority Scheduling



Process Scheduling Information										
<div> <div>Efficiency (%)</div> <div>1.00</div> </div> <div> <div>Throughput (processes/time unit)</div> <div>0.18</div> </div> <div> <div>Avg. Turnaround Time (time)</div> <div>12.50</div> </div> <div> <div>Avg. Waiting Time (time)</div> <div>7.00</div> </div> <div> <div>Avg. Response Time (time)</div> <div>7.00</div> </div>										
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
17	P0	4	0	-	7	0	0	7	1.0	0.0
20	P3	3	0	-	2	7	7	9	0.222222...	0.0
18	P1	2	0	-	3	9	9	12	0.25	0.0
19	P2	1	0	-	10	12	12	22	0.454545...	0.0

Process	Waiting Time
P0	0
P1	9
P2	12
P3	7
Average Waiting Time	7.00
Average Turnaround	12.50
Average Respon	7.00

- Round-Robin  
Quantum 4



Process Scheduling Information

Efficiency (%) 1.00

Throughput (processes/time unit) 0.18

Avg. Turnaround Time (time) 14.50

Avg. Waiting Time (time) 9.00

Avg. Response Time (time) 5.50

PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
22	P1	1	0	-	3	4	4	7	0.4285714...	0.0
24	P3	1	0	-	2	11	11	13	0.1538461...	0.0
21	P0	1	0	-	7	0	9	16	0.4375	0.0
23	P2	1	0	-	10	7	12	22	0.4545454...	0.0

Process	Waiting Time
P0	9
P1	4
P2	12
P3	11
Average Waiting Time	9.00
Average Turnaround	14.50
Average Respon	5.50