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## 1. FCFS

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

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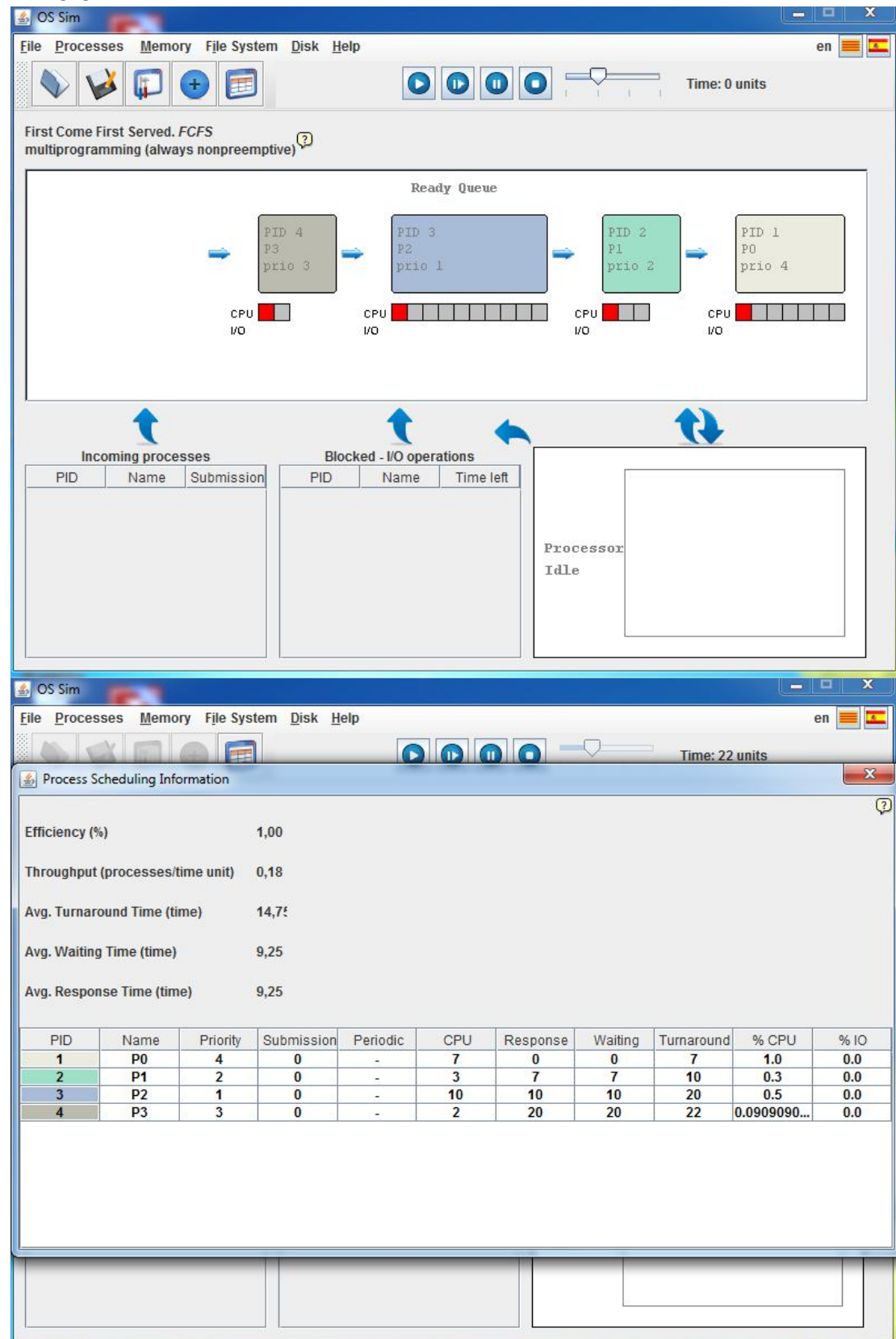
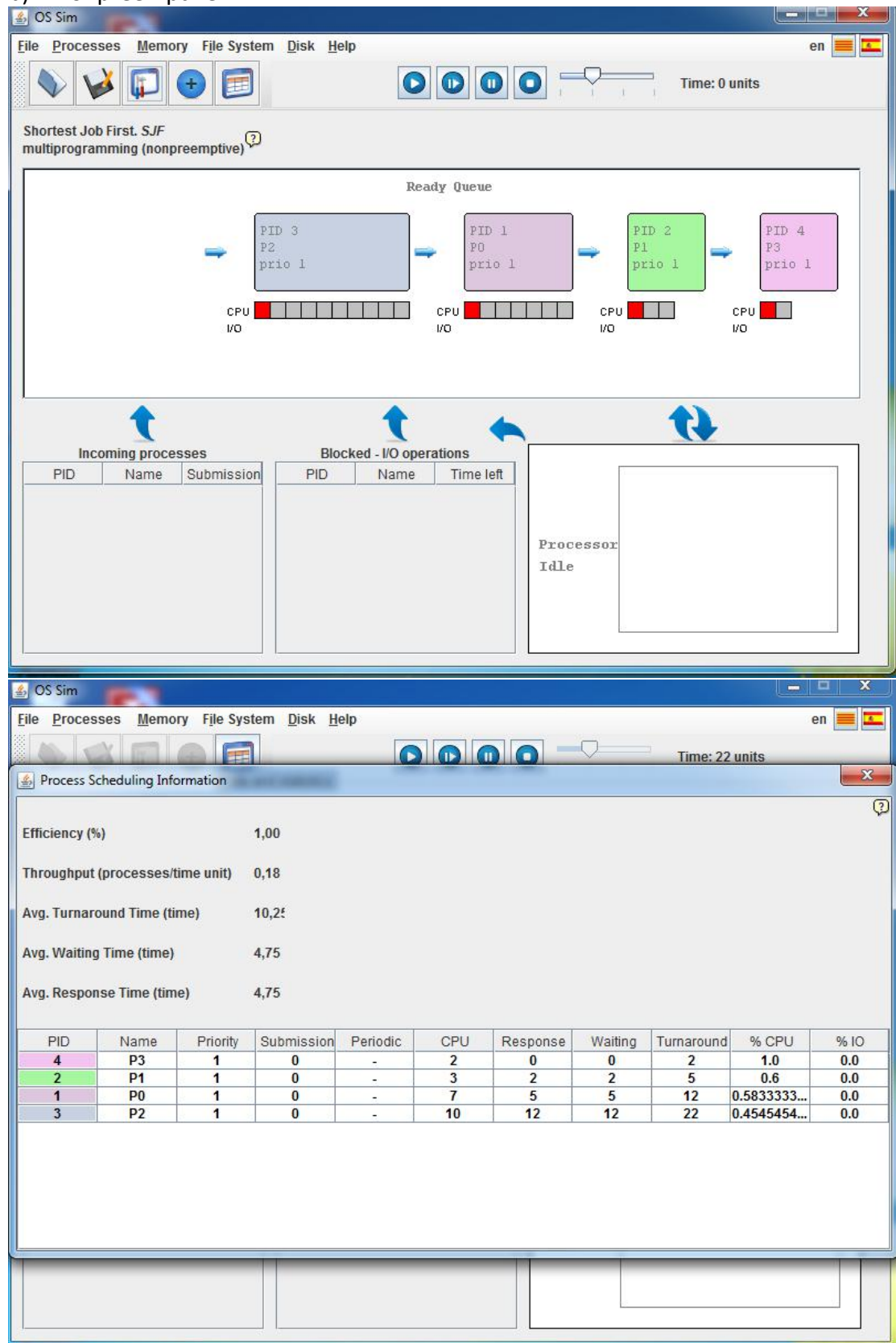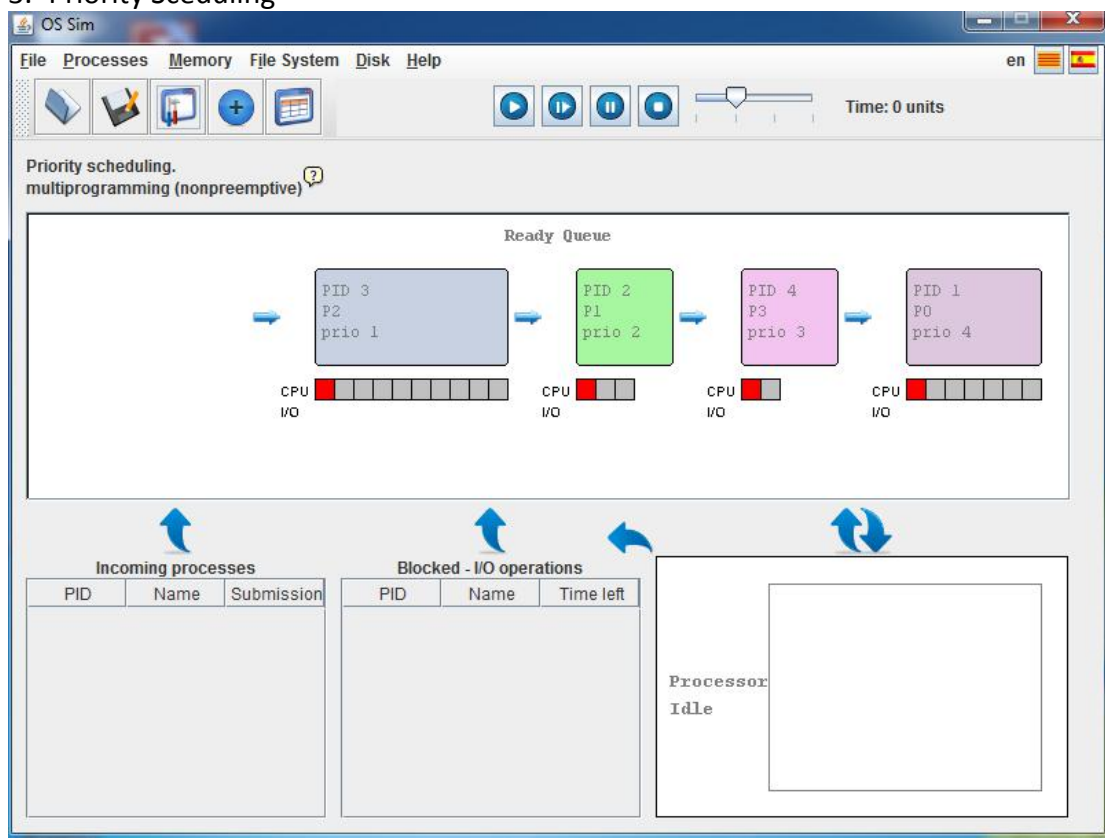| Process	Waiting Time
P0	0
P1	7
P2	10
P3	20
AverageWaiting Time	9.25
Average Turnaround	14.75
Average Respon	9.25

2. SJFS
   a) Preemptive
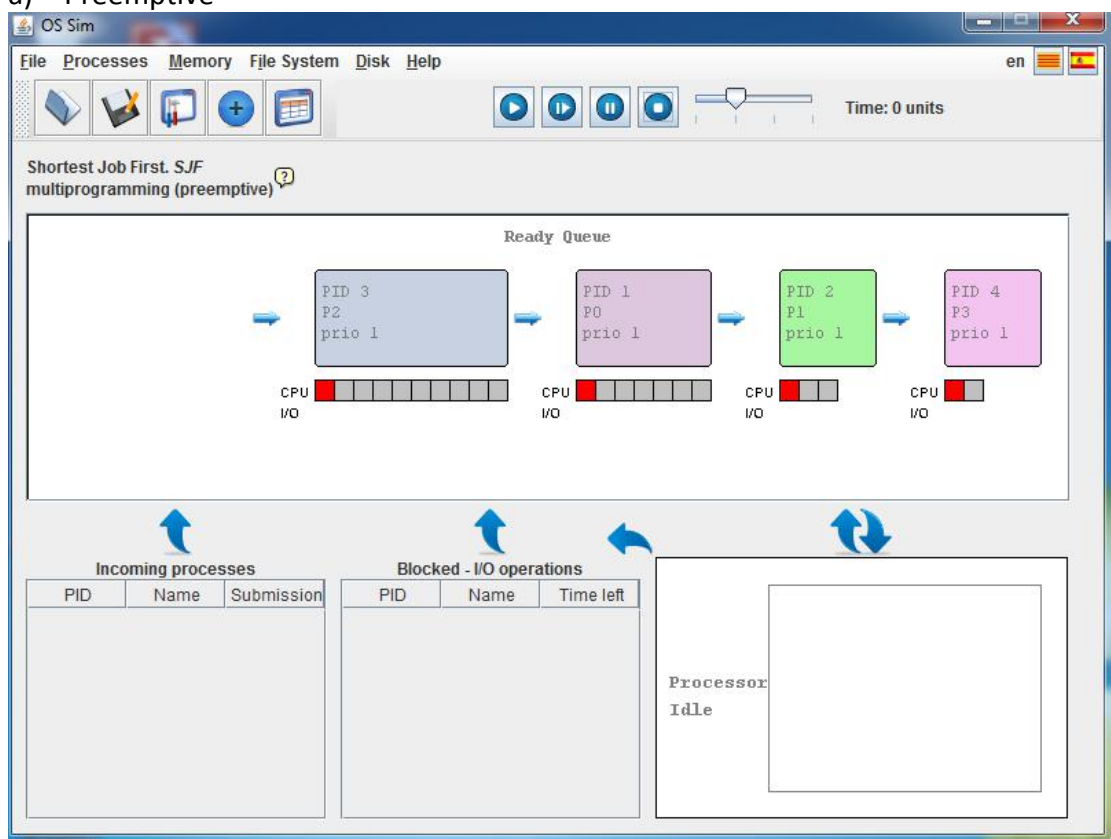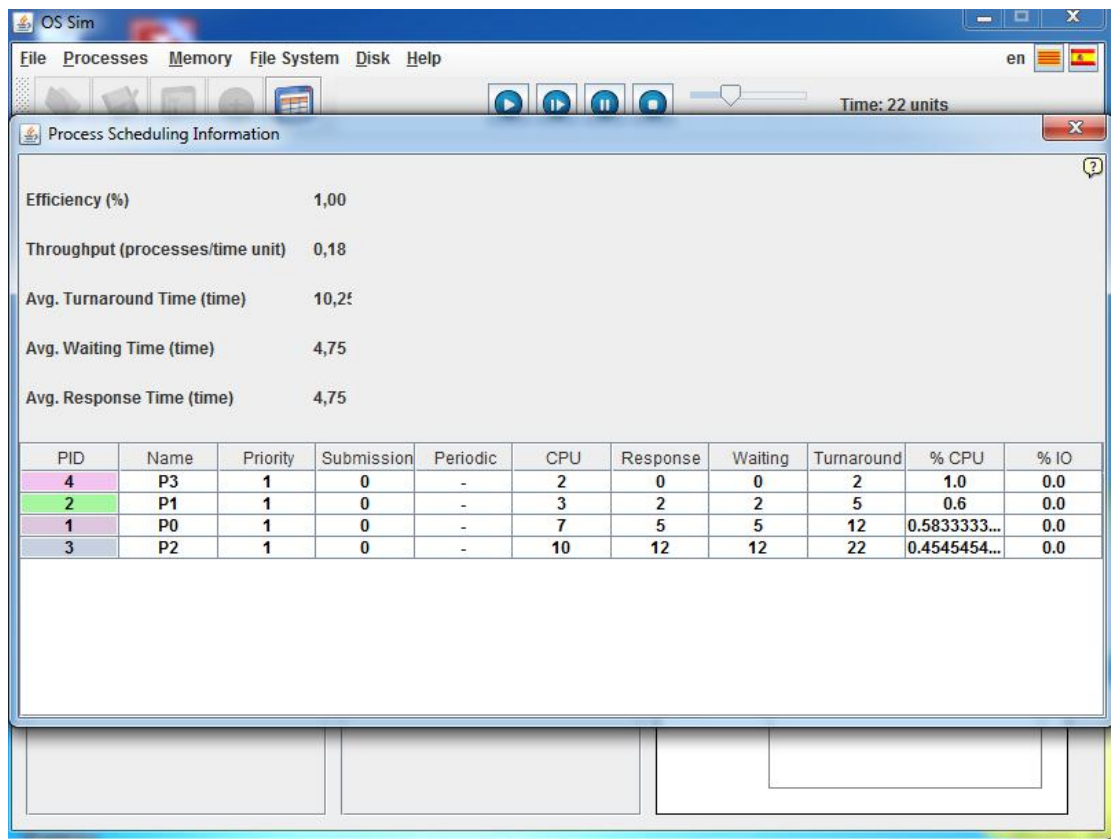
Process	Waiting Time
P0	5
P1	2
P2	12
P3	0
Average Waiting Time	4,75
Average Turnaround	10,25
Average Respon	4,75

b) Nonpreemptive

Shortest Job First. *SJF* multiprogramming (nonpreemptive)

Ready Queue

PID 3 / P2 / prio 1
PID 1 / P0 / prio 1
PID 2 / P1 / prio 1
PID 4 / P3 / prio 1

Incoming processes

PID	Name	Submission

Blocked - I/O operations

PID	Name	Time left

Processor Idle

Time: 0 units

Process Scheduling Information

Time: 22 units

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
4	P3	1	0	-	2	0	0	2	1.0	0.0
2	P1	1	0	-	3	2	2	5	0.6	0.0
1	P0	1	0	-	7	5	5	12	0.5833333...	0.0
3	P2	1	0	-	10	12	12	22	0.4545454...	0.0

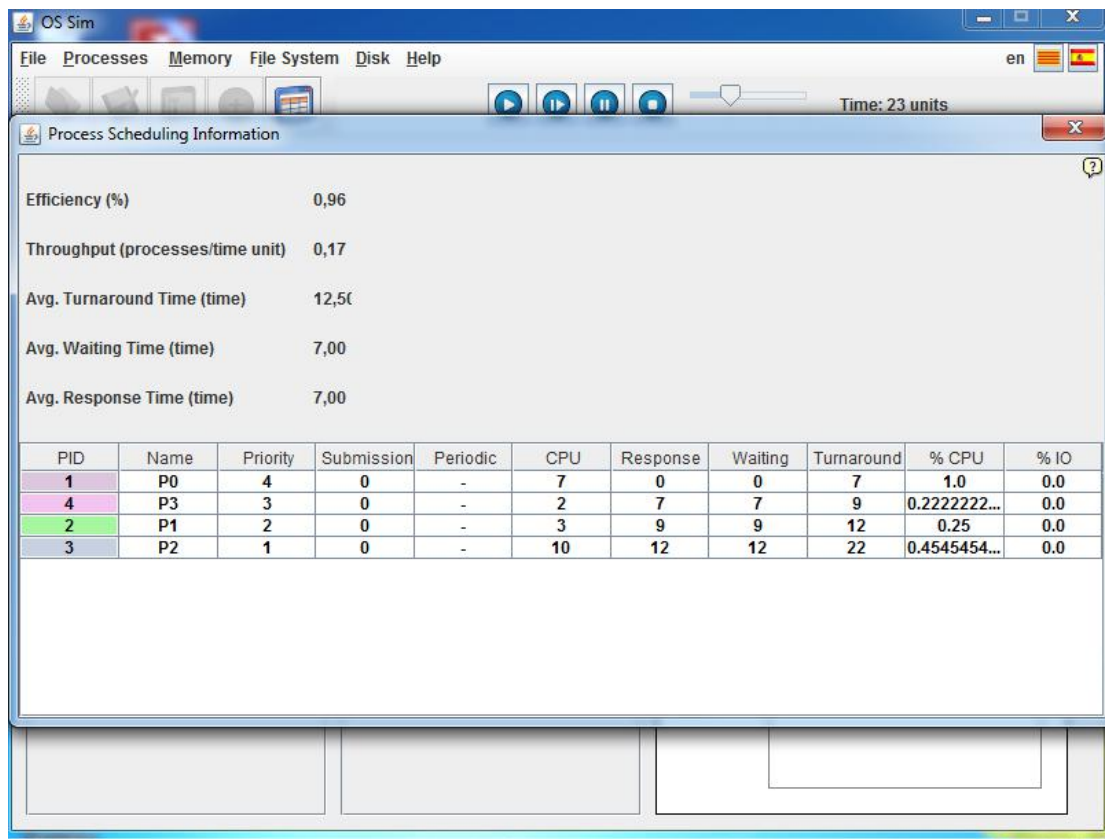| Process	Waiting Time
P0	5
P1	2
P2	12
P3	0
Average Waiting Time	4,75
Average Turnaround	10,25
Average Respon	4,75

3. Priority Sceduling

OS Sim — Process Scheduling Information — Time: 23 units

Efficiency (%)	0,96
Throughput (processes/time unit)	0,17
Avg. Turnaround Time (time)	12,5(
Avg. Waiting Time (time)	7,00
Avg. Response Time (time)	7,00

PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
1	P0	4	0	-	7	0	0	7	1.0	0.0
4	P3	3	0	-	2	7	7	9	0.2222222...	0.0
2	P1	2	0	-	3	9	9	12	0.25	0.0
3	P2	1	0	-	10	12	12	22	0.4545454...	0.0

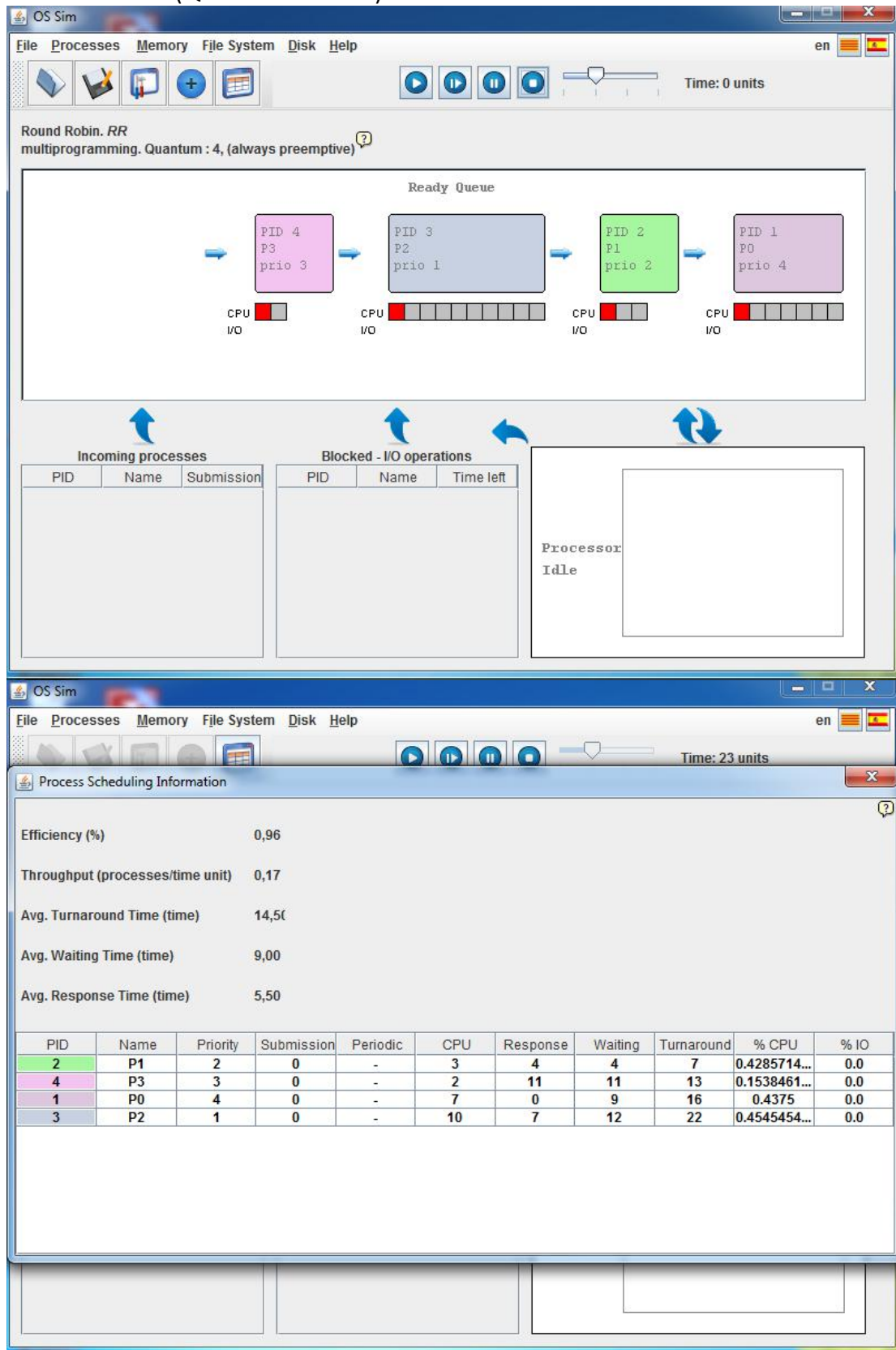| Process	Waiting Time
P0	0
P1	9
P2	12
P3	7
Average Waiting Time	7,00
Average Turnaround	12,50
Average Respon	7,00

4. RoundRobin (Quantum time = 4)

Round Robin. *RR*
multiprogramming. Quantum : 4, (always preemptive)

Ready Queue

PID 4 P3 prio 3	PID 3 P2 prio 1	PID 2 P1 prio 2	PID 1 P0 prio 4

Incoming processes | Blocked - I/O operations | Processor Idle

PID	Name	Submission

PID	Name	Time left

Time: 0 units

Time: 23 units

Process Scheduling Information

Efficiency (%)	0,96
Throughput (processes/time unit)	0,17
Avg. Turnaround Time (time)	14,5(
Avg. Waiting Time (time)	9,00
Avg. Response Time (time)	5,50

PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
2	P1	2	0	-	3	4	4	7	0.4285714...	0.0
4	P3	3	0	-	2	11	11	13	0.1538461...	0.0
1	P0	4	0	-	7	0	9	16	0.4375	0.0
3	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