

The Gantt chart illustrates the execution of 8 processes (P1-P8) on a 4-processor system over 8 time units. The chart is divided into two sections by a dashed line at time 6. Processes are represented by horizontal bars of different colors, with their IDs and processor counts labeled. A timeline at the bottom shows the state of the 4 processors (0-3) over time.

Process	Color	Count	Start Time	End Time	Processors
P1	Red	1	0	8	0
P2	Orange	2	0	8	1, 2
P3	Green	2	0	8	3, 4
P4	Blue	4	0	8	0, 1, 2, 3
P5	Purple	2	0	8	1, 2
P6	Brown	1	0	2	0
P6	Brown	2	2	5	1, 2
P7	Pink	1	0	5	0
P7	Pink	1	5	8	1
P8	Cyan	2	0	8	3, 4

The timeline at the bottom shows the state of the 4 processors (0-3) over time. The processors are represented by a row of 4 boxes. The state of the processors is as follows:

- Processors 0 and 1: Idle (white) from 0 to 6, then occupied by P7 (pink) from 6 to 8.
- Processors 2 and 3: Idle (white) from 0 to 6, then occupied by P8 (cyan) from 6 to 8.

Timestamp (125MHz FPGA clock ticks)