



Tutorial 2: Xenomai introduction

1: Analysis of the correlation of task's priority with its regularity, as observed in Assignment A2.

While executing all the tasks while also running other I/O intensive processes, these were the results:

```
Task 1 activation at time 16945832935868 min: 999889289 | max: 1000115804
Task 2 activation at time 16945832962071 min: 940472251 | max: 1059527266
Task 3 activation at time 16945832991151 min: 999954687 | max: 1000045588
Task 1 activation at time 16946832983404 min: 999889289 | max: 1000115804
Task 3 activation at time 16946833004922 min: 999954687 | max: 1000045588
Task 2 activation at time 16946833012723 min: 940472251 | max: 1059527266
Task 1 activation at time 16947832927013 min: 999889289 | max: 1000115804
Task 2 activation at time 16947832961953 min: 940472251 | max: 1059527266
```

Figure 1: Process output with 'Task 2' priority equal to 5 and 'Task 3' priority equal to 90

Is it possible to conclude that the task's priority has a direct impact on the regularity of the task's timing. Task's with higher priority will be more regular than tasks with lower priority.

As we can see, the minimum and maximum values (time interval) of 'Task2' are less consistent than the values of 'Task 3'.

2: Time diagram associating relevant RTOS events to task execution in Assignment A3.

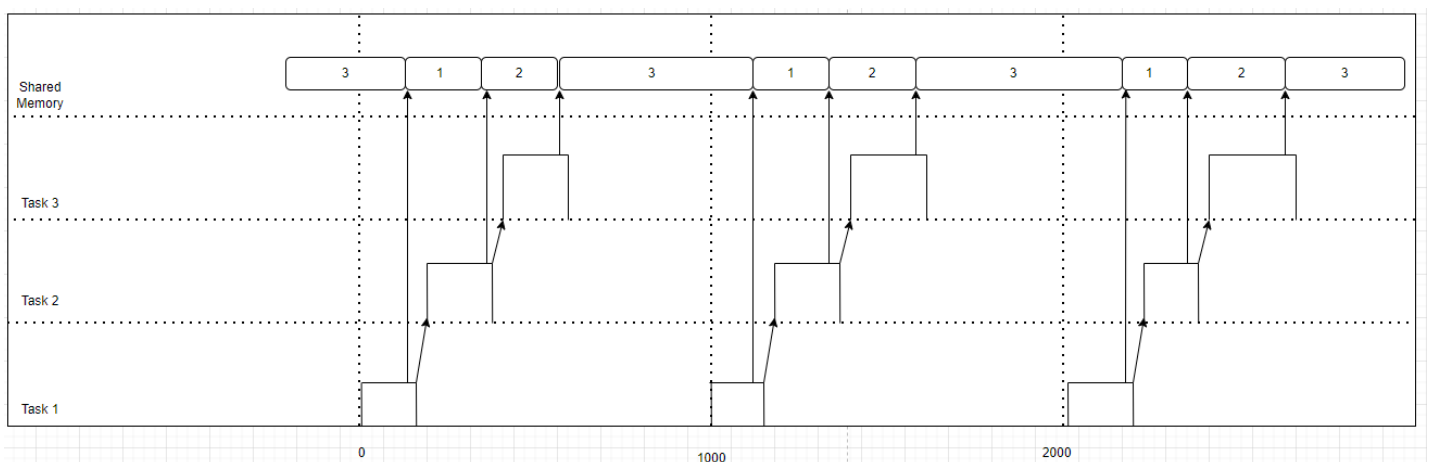


Figure 2: Time diagram representing each task temporal behaviour and the shared memory value. Task 1 is periodic, and tasks 2 and 3 are sporadic.