

## **WEEK 2 REPORT**

- **Why is "matrixtask" using most of the CPU utilization?**

Because in this program, a matrix multiplication is more computationally expensive than any other task and it has bigger delays too.

- **Why must the priority of "communicationtask" increase in order for it to work properly**

Because with a lower priority than matrixtask, matrixtask can suspend it and cause big delays.

- **What happens to the completion time of "matrixtask" when the priority of "communicationtask" is increased?**

Completion time is about the same. I think it must be slightly bigger now, but it is innapreciable.

- **How many seconds is the period of "matrixtask"? (Hint: look at vApplicationTickHook() to measure it)**

Looking at the report the period is about 2150 ms.

*(Screenshot in page 2)*

```
1:      Priority set to 2
2078:   Sending data...
2177:   Matrix done!
2177:   MATRIX TASK TIME: 2175
4221:   Data sent!
4321:   Matrix done!
4321:   MATRIX TASK TIME: 2144
6360:   COMUNICATION TASK TIME: 4282
6360:   Priority set to 4
6360:   Sending data...
6460:   Data sent!
6460:   Matrix done!
6460:   MATRIX TASK TIME: 2139
6560:   COMUNICATION TASK TIME: 200
6560:   Sending data...
6660:   Data sent!
6760:   COMUNICATION TASK TIME: 200
6760:   Sending data...
6860:   Data sent!
6960:   COMUNICATION TASK TIME: 200
6960:   Sending data...
7060:   Data sent!
7160:   COMUNICATION TASK TIME: 200
7160:   Sending data...
7261:   Data sent!
7361:   COMUNICATION TASK TIME: 201
7361:   Sending data...
7462:   Data sent!
7562:   COMUNICATION TASK TIME: 201
7562:   Sending data...
7663:   Data sent!
7763:   COMUNICATION TASK TIME: 201
7763:   Sending data...
7863:   Data sent!
7963:   COMUNICATION TASK TIME: 200
7963:   Sending data...
8063:   Data sent!
8163:   COMUNICATION TASK TIME: 200
8163:   Sending data...
8263:   Data sent!
8363:   COMUNICATION TASK TIME: 200
8363:   Sending data...
8464:   Data sent!
8564:   COMUNICATION TASK TIME: 201
8564:   Sending data...
8615:   Matrix done!
8615:   MATRIX TASK TIME: 2155
8665:   Data sent!
8765:   COMUNICATION TASK TIME: 201
```