



Real-Time Operating Systems

CPET-461

Experiment Set #3



To receive full credit for **Experiment Set #3** you need to complete and document the following exercises from “Real-Time Operating Systems: Book 2 – The Practice” and complete **“Quiz #3”**

- *Exercise 5 - Analyze access contention problems.*
- *Exercise 6 - Eliminate resource contention by suspending the scheduler.*
- *Exercise 7 - Demonstrate deterioration in system performance.*
- *Exercise 8 - Use a semaphore to protect critical code sections.*

Documentation:

For **each of the exercises:**

- Using the “Snipping” (or similar) tool, create a word document containing code-snippets of the code you wrote to complete the exercise. Since you will be inserting your code in various locations throughout the pre-written source file(s), exercises may require multiple code-snippets. Be sure you include the line number in the code-snippet to help me better understand its location in the source file(s). As ALWAYS, be sure your code is fully commented!

Name the file: LASTNAME_FIRSTNAME_Ex_N-DOC.doc

For example, for Exercise 1: Smith_Larry_Ex_1-DOC.doc

- Record a short video demonstrating the exercise running on your STM32F411 Discovery Board.

Name the file: LASTNAME_FIRSTNAME_Ex_N-VID.mov

For example, for Exercise 2: Smith_Larry_Ex_2-VID.mov (or mp3, mp4)

- Some exercises require you to complete multiple segments to fully complete the exercise. In these cases, put all the code-snippets into a single word document and divide the segments with separation headers (i.e. Part A, Part B, etc.). In these cases, you will need to create a separate demonstration video for each segment. Name these files accordingly, for example:

Smith_Larry_Ex_3-VID-A.mov

Smith_Larry_Ex_3-VID-B.mov

Smith_Larry_Ex_3-VID-C.mov

The documentation files and demonstration videos all need to be uploaded to the **Experiment Set #3** assignment drop-box on myCourses.

Quiz:

- Complete myCourses **Quiz #3**

Due Date:

The documentation files, demonstration videos and quiz are all due on **Tuesday 2/14 @ 11:59 PM.**

Note: The assignment drop-box and quiz are on the LABS myCourses page (e.g. CPET.461.0L01-02)