

Problem: Write a program to capture the time at which port A bit 1 (input capture 2) has a rising or falling edge. The program needs to do the following:

- Set up Input Capture 2 to interrupt when there is a rising or falling edge.
- When the interrupt occurs, write the time (the 16-bit timestamp in TIC2) to port B and port C. Port B is most significant (upper 8 bits) and port C is the least significant (lower 8 bits). (Note that you must set port C to be all-outputs for this to work.)
- In Wookie, you can toggle port A bit 1 by hand and observe the timestamp appear on ports B and C.
- Once the main program has initialized the input capture function and interrupts, it is OK for it to run in an infinite loop.

For this problem you must turn in the following:

- a. A complete listing of your program
- b. A screen capture of the Port A, Port B, and Port C window in Wookie showing the last time captured.
- c. Email me a copy of your source code (.asm), list file (.lst), and object file (.s19).

I expect everyone to do their own work in the class and I will turn in people who cheat. See me if you are unclear about what constitutes “cheating” on this assignment.