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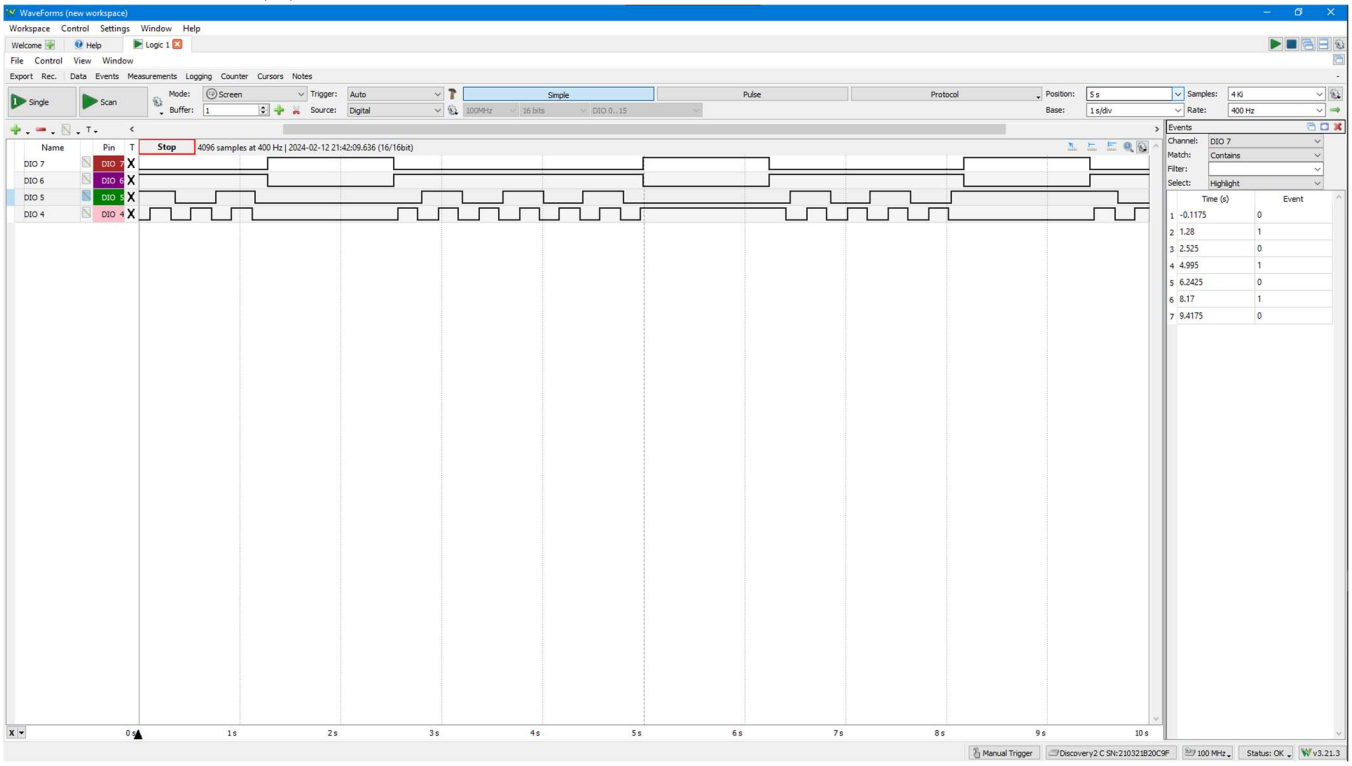
Lab 02

Postlab 02

Please answer the following questions and hand in as your postlab for Lab 2.

1. Why can't you use both pins PA0 and PC0 for external interrupts at the same time?
   They use the same multiplexer. A multiplexer allows the programmer to control which array of inputs it receives can be used as an output. If the 2 inputs are using the same multiplexer, only one of the 2 can be used.
2. What software priority level gives the highest priority? What level gives the lowest?
   Lowest = higher priority. 0 is the highest priority. 3 is the lowest.
3. How many bits does the NVIC have reserved in its priority (IPR) registers for each interrupt (including non-implemented bits)? Which bits in the group are implemented?
   4 8-bit regions, 32-bits total.
   The NVIC uses the uppermost 2 bits to set priority.
4. What was the latency between pushing the Discovery board button and the LED change (interrupt handler start) that you measured with the logic analyzer? Make sure to include a screenshot in the post-lab submission.
   1.246 seconds (?!)



5. Why do you need to clear status flag bits in peripherals when servicing their interrupts?
   So they don't get stuck in the interrupt and allow the application to continue running.