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Pre Lab and Post Lab Questions Lab 4

Pre Lab:

1. What is the difference between a parallel and serial interface?

- Parallel uses multiple wires with each wire corresponding to a value of a single bit while serial uses a single wire that lines each bit in succession.

2. What is the difference between a synchronous and asynchronous interface?

-Synchronous uses its own clock to tell the receiver when to start sampling and uses a clock's edge to start or end a capture. Asynchronous systems do not use a physical clock. They instead use a virtual clock to provide transitions or estimate the time intervals of arriving data. Asynchronous is more complex but has a lower data rate.

3. What is one thing that a communication protocol does?

- They are used to provide a meaning to bits and make data useful.

4. What does the baud rate of a signal mean?

- It is the predetermined period between bits for both the transmitter and the receiver.

5. What register in the USART would you use to enable the transmitter hardware?

- I think it is the control register three because it controls the hardware flow. This is also the only register that talks about hardware.

6. Does the transmit (TX) line of the USB-USART cable connect to the transmit (TX) or receive (RX) of the STM32F0?

- The TX of USB-UART connects to the receive of the STM board.