Lecture 3 - Asynchronous Serial Interfaces

Exercise 1: Is the "Transmit Data" (TxD) signal an input or an output? How about "Receive Data" (RxD)? Is a computer a 'modem' or a 'terminal'?

neither: TxD is pin nome. on DTE - 0/P.

DCE - 1/P.

RxD: ip on DTE

%p on DCE

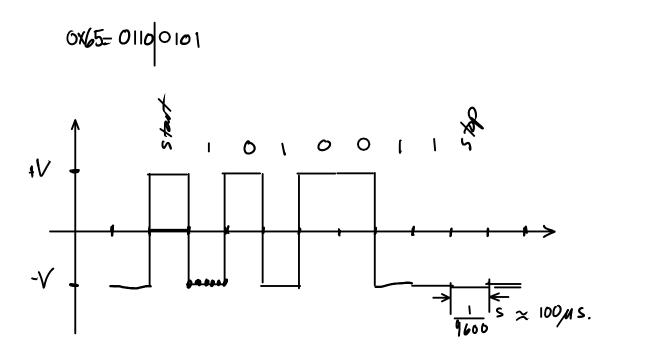
computer: most PC serial ports are wired as DTEs for connection to a modern (DCE).

maintrames & "mini computers" are (were)

wired as DCEs for connection to

terminals or PCs.

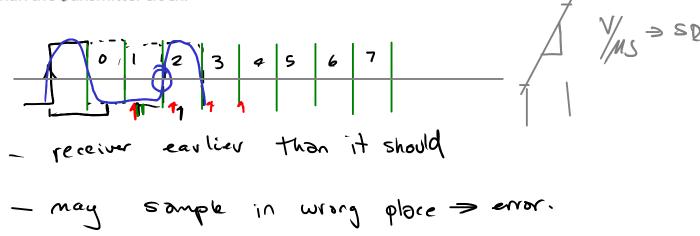
Exercise 2: Draw the waveform used to send the ASCII character 'e' (hex 65) at 9600 bps with seven data bits and no parity.



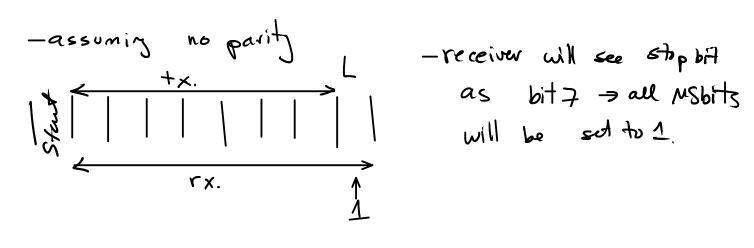
Exercise 3: Will the parity bit allow the receiver to detect all single-bit errors? All double-bit errors?

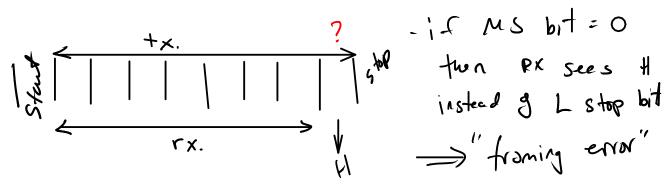


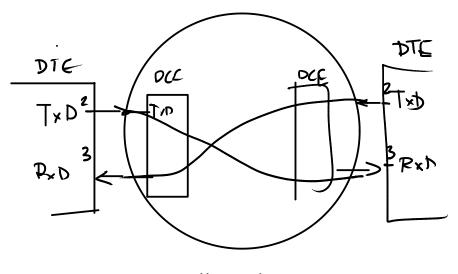
Exercise 4: What happens if the receiver's clock is running faster than the ransmitter clock?



Exercise 5: What would happen if the receiver was expecting 8-bit characters and the transmitter was sending 7-bit characters? What about the reverse case?







Null Modem