

Using keyboard buffer

Here is what I found out about using `c=XUartLite_RecvByte(uartRegAddr);`

XUartLite_RecvByte stores the data read into a buffer (FIFO), and only passes that data to char 'c' when a button is pressed. There are a few problems that come with this. For a game, if I press a large string of characters in a row, the game will process each character each run cycle. So if I press "WASDSDSD." On the first loop it will read W, then A, then S, then D... and so on*. So in a game like snake, where you only care about the most recent button press, this would be a problem, since the snake may move up, left, down, right... before the user's most recent key stroke is actually registered.

Another issue with using XUartLite_RecvByte is that it holds at this command until a stroke is pressed. So if you use this function in a game play loop, the game will only update when you press a key, and then hold until another key is pressed.

You can use the function '**XUartLite_IsReceiveEmpty**' to have the game run regardless of if a key is pressed. The function returns a 1 when the buffer is empty and a 0 if the buffer is not empty. You can use !XUartLite_IsReceiveEmpty to have the game loop until a character is added to the buffer.

*Note, the problem with typing in lots of characters still exists with isReceiveEmpty function.... the buffer would have to be cleared each time and I could not find a function after searching through forums that resolved this aspect for my code.

Hopefully this will help people in future classes,

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