Lab 2 – Pong data format

**Server role:**  
receives client key movement  
Updates paddle and ball positions  
Calculates collisions, reflections, and score(?)  
Sends new positions, score, and game-state to client

Server data structure:

|  |  |  |
| --- | --- | --- |
| Data | Byte 1 | Byte 2 |
| 0 - 1 | Ball X Position (unsigned short) | |
| 2 - 3 | Ball Y Position (unsigned short) | |
| 4 - 5 | Server Paddle Position (unsigned short) | |
| 6 - 8 | Client Paddle Position (unsigned short) | |
| 9 - 10 | Score (unsigned char) | Game State (unsigned char) |

(Using pointers from a struct to a byte array, should make this seamless for us)

**Client role:**  
Reports keypresses to server (key pressed = -1, key released = 0)  
Waits for ball, paddle, score, game-state data from server  
updates ball, and paddle positions, as well as score and game-state

|  |  |  |
| --- | --- | --- |
| Data | Byte 1 | Byte 2 |
| 0 - 1 | W Key state | S Key State |
| 2 - 3 | User command (unsigned char) | unused |