DM2241 Multiplayer Game Programming

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Features:

* Can connect to any server based on user input.
* Checking whether user input is valid before connecting to server.
* User can see history of his/her own chat and that of the chat of others.
* User can create their own username.
* User is given a random colour on joining the server (can differentiate users of the same name).
* Package design for more efficient message sending.
* Handling of extra spaces in text and extra characters in text when user tries to run a command.
* Commands can be called regardless of the casing of individual characters.
* User greeted by welcome message when he/she first enters the chat.
* All users already in the chat are informed when a new user joins the server.
* User is informed if an unrecognised command is entered.
* Number of unread messages of public chat and server chat are tracked and shown on screen.
* Can connect to either connect to a TCP server or a UDP server.
* Select protocol when creating server in console window.
* /clear (clears all messages locally in currently active chat).
* /wipe (wipes all messages globally in public chat).
* /afk (toggle between being afk and not being afk).
* /count (outputs number of users online).
* /me (outputs data of local user).
* /who (outputs usernames and afk statuses of all users in server).

Winsock:

Whether Winsock is easy to use or not, really depends on what it is being compared to. Compared to Photon, Winsock is definitely a disadvantage as it requires a pretty steep learning curve and is hence not beginner friendly. In addition, it is also worth mentioning that Winsock is a Windows-only API while Photon is cross-platform. Personally, I still prefer Winsock over Photon as Winsock is lower level compared to Photon and hence a lot of the code is exposed, which makes it easier to know what is going on behind the scenes. This aids learning as nothing is hidden. Bonus, it is written in C++ which is currently the language I’m best at. This means that it gives me a chance to port Winsock into my engine in the future if I ever want to.

On a side note, there’s also ASIO which I have heard about but never tried it before so I can’t say anything about how I feel about it and how does it compare to Winsock for me. All in all, I think Winsock is great, definitely stands as a solid option for someone who wants to do multiplayer at a lower level, or for a newbie to dive into multiplayer programming.