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# Assignment 2 Architecture Document

The architecture of this one is a bit more complex than the assignment 1 code but its generally very straight forward. Using tips from the book and the website you shared about the pseudo code of the assignment. However a bit of it was a workaround pieces so that everything would flow properly. I tried to use basic inputs from the console but without threading it slowed everything to a halt and threading seemed like a bit too much for this assignment so I just used straight up text files to modify it. It seemed easiest to just go with the straightforward method as you said it didn't have to be human readable, and best spend the time improving the AI instead of putting a whole json reader in the program, which again seemed kind of out of scope. The actual AI bits was essentially where it located the center of mass of all the flock and then directed it towards that, but then had a pull coefficient where the separation behavior took over and pulled it away so it didn't just stand still. Then the alignment moves it into position so it can rotate around and not just move in one direction. Then there is the drift factor which is what proof of concepts the boids since it wasn't exactly clear on how they should move around. Then the input manager is the same as always, there were minor tweaks to the arrive and wander steering since it was a little bit glitchy and then a few changes to unit manager to make it play nice with the new implemented system, just creating a function that makes a flock using the random unit function.