Changes in Multiplayer Game Design

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1 Changes made to the design

The overall structure of the design was kept quite intact. Some changes to the packet structure ensued when I decided to use time based physics instead of tick based physics. This meant that I sent times stamp and duration with each input event. Using this method the server can reconstruct a timeline of all input event of the cycle and simulate them in order. I decided to reuse part of this logic in the client, so the server sends the input buffers of all clients to all clients so they can perform the entity interpolation using these input events. This seemed to produce decent performance results.

The game logic has some unimplemented parts like keeping score and match timers.

The design document was bit vague about the composition of the whole system. This system consists of four parts: client, game server, lookup server and resource server. Upon initialization the clients asks for resources from the resource server. Then it asks the lookup server for online game servers. Then a user can select a server through a text interface. Then the client connects to the game server.

Minor detail of the resource server was changed as I run out of time and I did not implement the MD5 checksums to the file transfer protocol. Also only resources available for download at the moment are different skins for the ship.

To system first start the resource server, then the lookup server, then the game server and finally the client.