Network Message Design Document

Below is a list of all of our network messages that will be sent over the network in order for our game to run smoothly. Examples of messages have been provided below for each network message.

Message	Purpose	Format	Examples
JOIN	Client requests to join the server	`JOIN`	`JOIN (First client connects)` `JOIN (Second client connects)`
JOINED	Client sends username and selected color to server	`JOINED:<username>,<colorIndex>`	`JOINED:Jaden,1` `JOINED:Marcus,3`
SPAWN	Server assigns spawn position to a player	`SPAWN:<username>,<colorIndex>,<xPosition>`	`SPAWN:Jaden,1,600` `SPAWN:Marcus,2,400`
POS	Sends player position updates	`POS:<username>,<x>,<y>`	`POS:Jaden,520,300` `POS:Marcus,640,250`
TAGGED	Indicates which player is now IT	`TAGGED:<username>`	`TAGGED:Marcus` `TAGGED:Jaden`
TIME	Updates bomb countdown timer	`TIME:<secondsRemaining>`	`TIME:10` `TIME:3`
GRACETIME	Countdown before round starts	`GRACETIME:<secondsRemaining>`	`GRACETIME:5` `GRACETIME:1`
EXPLODE	Player is eliminated	`EXPLODE:<username>`	`EXPLODE:Marcus` `EXPLODE:Max`
MAP	Server selects which map to load	`MAP:1 or MAP:2`	`MAP:1` `MAP:2`
LOBBY	Updates number of players in lobby	`LOBBY:<numberOfPlayers>`	`LOBBY:2` `LOBBY:4`
CHAT	Sends a chat message	`CHAT:<username>:<message>`	`CHAT:Jaden:hello everyone` `CHAT:Marcus:run!!`
GAMEOVER	Ends the game and announces winner	`GAMEOVER:<username>`	`GAMEOVER:Jaden` `GAMEOVER:Max`
IMMUNE	Creates an immunity time for players to run away from the new it	`IMUNNE:<username>,<secondsRemaining>`	`IMMUNE:Jaden,1`