

HTML5 player-vs-player game server

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Technology

- perl
- mojolicio.us (web framework)
 - more modern than CGI
- HTML5
 - javascript
 - HTML
 - websocket

The game lobby

- 2 websocket channels
 - chat
 - group chat
 - peer
 - p2p gaming

Flow

1. Login
2. connect to the chat channel
3. chat with other players
4. start a game with a player
5. redirect to the game page
6. connect to the peer channel and start the protocol

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'

passive

1. wait

Peer-2-peer protocol (handshake + lockstep)

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1. initiate a handshake 'hi'

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1. wait
2. receive 'hi' -> 'hi back'

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
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1. wait
2. receive 'hi' -> 'hi back'

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
3. handshake success

passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
3. handshake success
4. game start 'time=0'

passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success
4. wait

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
3. handshake success
4. game start 'time=0'

passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success
4. wait
5. receive 'time=0'
-> 'time=0' + gamedata

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
3. handshake success
4. game start 'time=0'
5. receive 'time=0'+gamedata
-> 'time=1'+gamedata

passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success
4. wait
5. receive 'time=0'
-> 'time=0' + gamedata

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
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4. game start 'time=0'
5. receive 'time=0'+gamedata
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passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success
4. wait
5. receive 'time=0'
-> 'time=0' + gamedata
6. receive 'time=1'+gamedata
-> 'time=1'+gamedata

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
3. handshake success
4. game start 'time=0'
5. receive 'time=0'+gamedata
 -> 'time=1'+gamedata
6. receive 'time=1'+gamedata
 -> 'time=2'+gamedata

passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success
4. wait
5. receive 'time=0'
 -> 'time=0' + gamedata
6. receive 'time=1'+gamedata
 -> 'time=1'+gamedata

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
3. handshake success
4. game start 'time=0'
5. receive 'time=0'+gamedata
-> 'time=1'+gamedata
6. receive 'time=1'+gamedata
-> 'time=2'+gamedata

passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success
4. wait
5. receive 'time=0'
-> 'time=0' + gamedata
6. receive 'time=1'+gamedata
-> 'time=1'+gamedata
7. receive 'time=2'+gamedata
-> 'time=2'+gamedata

Peer-2-peer protocol (handshake + lockstep)

active

1. initiate a handshake 'hi'
2. receive 'hi back'
3. handshake success
4. game start 'time=0'
5. receive 'time=0'+gamedata
 -> 'time=1'+gamedata
6. receive 'time=1'+gamedata
 -> 'time=2'+gamedata
7. ...

passive

1. wait
2. receive 'hi' -> 'hi back'
3. handshake success
4. wait
5. receive 'time=0'
 -> 'time=0' + gamedata
6. receive 'time=1'+gamedata
 -> 'time=1'+gamedata
7. receive 'time=2'+gamedata
 -> 'time=2'+gamedata

Usage

- `network.setup_peer(host,active,id1,id2)`
- `network.setInterval(frame,1000/30)`
- `function frame(time,data)`
 - `{`
 - `//do processing on data`
 - `return {x,y,health};`
 - `}`
- `var play_this_game = 'bvb.html';`
- `run morbo lobby.pl`

<http://f-lf2.blogspot.hk/>

- the open source LF2
- the Perl Lobby will be open sourced in June!!
 - lobby.pl - perl server
 - lobby.html - user interface
 - network.js - protocol library
 - bvb.html - example usage
- Problems? contact me
 - tyt2y3@gmail.com

