



Videogame protocol

DRAFT 1.2

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Connection

- Server writes welcome message.
- Responses of the server to client messages are undefined up to this point -- in other words, the client should not send messages.
- After the above message from the server, the Login phase begins.

Login

- client sends: CONNECT <username> <password>
- server responds with:
 - *Welcome name*
- The response of the server to any other message in this phase is undefined.
- After the welcome message, the Gameplay phase begins.
- CURRENT server implementation ignores password -- any username will do.

Gameplay

- Client must send “d”
- And then client can send a:
 - "go" instruction,
 - "fire" instruction,
 - "look" instruction
 - "say" instruction

Go

- GO instructions - can send any one of:
 - go left
 - go right
 - go up
 - go down
- server responds with:
 - ack [move] “move requested”
- and will try to implement the move on the next game simulation step

Fire (will not really be used)

- FIRE instructions - can send any one of:
 - fire left
 - fire right
 - fire up
 - fire down
- server responds with:
 - @fire requested

Look

- LOOK instruction:
 - d
 - look

```
(look
  (map
    ":::::::::::::::::::::::::::::"
    ":"
    ":"
    ":# #####          ##:"
    ":#          #          :"
    "### # ##### #####:"
    ":#          #Q      #  :"
    "### #####          #  :"
    ":#          #          :"
    ":# #####          ##:"
    ":#          #          :"
    ":"
    ":::::::::::::::::::::::::::::")
  (players
    (carlos (location 17 15) (life 6))
  ))
```

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Meaning of the map

- The map lines give a summary of what is around the player, using a set of characters with the following meanings:
 - : -- edge of map
 - # -- immovable obstacle
 - Q -- the player, when alive
 - O -- other players when alive
 - % -- the player, when dead
 - * -- other players, when dead
 - = -- traces the path where someone fired; visible for a short time
- The see lines give the name of the players visible, and how many lives they have left. The first player listed is always the player who issued the look command.

Say

- SAY instruction:
- say <text>
 - The <text> is broadcast to all players connected to the game.
 - The message they receive from the server will be of the form “**broadcast <username> <text>**”. Your client must be prepared to receive this message at any time.

Command not understood

- Port command not understood

Disconnection

- q

Steps to run the server under Ubuntu

- Compile the server `/root/yarp-2.1.7/example/game/game-server/`
- `sudo cmake .`
- `sudo make`
- Run the yarp name server
- `yarp server`
- Run the game server
- `./game_server`
- Connect to the game server using telnet
- `telnet 127.0.0.1 8080`

Important

- Presentazione esercitazione gioco: 31 marzo 2009 (se non la presentano scade l'esame orale).
- L'esame orale sara' a gennaio/febbraio (data da concordare).