tigerzone™

Networking Protocol v1.1.2

Prelude

This document describes the messages which will be exchanged between the tournament server and clients, as well as the order and context in which those messages are sent. All messages exchanged between a client & the sever will be exchanged via a *single* TCP session which will be maintained for the *entire tournament*.

Fields within a message are delimited with a single **SPACE**
Messages are terminated with **CARRIAGE_RETURN LINE_FEED**

Some symbol definitions used in the message descriptions

code	meaning	comments
<challenges>	number of challenges in the tournament	
<gid>	game id	
<pid>	player id	
<rid>	round id	
<rounds>	number of rounds in the challenge	**case** # competitors is odd: # of competitors **case** # competitors is even: # of competitors - 1
<score>	player's final score	*either* score as an integer *or* WIN *or* FORFEITED
<tile>	tile descriptor	
<tiles>	shuffled tile list	space separated tile descriptors
<time$_{plan}$>	initial planning time	
<time$_{move}$>	move planning time	

THIS IS SPARTA!

HELLO!

WELCOME **\<pid\>** PLEASE WAIT FOR THE NEXT CHALLENGE

NEW CHALLENGE **\<cid\>** YOU WILL PLAY **\<rounds\>** MATCH

NEW CHALLENGE **\<cid\>** YOU WILL PLAY **\<rounds\>** MATCHES

BEGIN ROUND **\<rid\>** OF **\<rounds\>**

YOUR OPPONENT IS PLAYER **\<pid\>**

STARTING TILE IS **\<tile\>** AT **\<x\>** **\<y\>** **\<orientation\>**

THE REMAINING **\<number_tiles\>** TILES ARE [**\<tiles\>**]

MATCH BEGINS IN **\<time$_{plan}$\>** SECONDS

MAKE YOUR MOVE IN GAME **\<gid\>** WITHIN **\<time$_{move}$\>** SECOND: MOVE **\<#\>** PLACE **\<tile\>**

MAKE YOUR MOVE IN GAME **\<gid\>** WITHIN **\<time$_{move}$\>** SECONDS: MOVE **\<#\>** PLACE **\<tile\>**

GAME **\<gid\>** PLAYER **\<pid\>** **\<move\>**

GAME **\<gid\>** PLAYER **\<pid\>** FORFEITED: ILLEGAL TILE PLACEMENT

GAME **\<gid\>** PLAYER **\<pid\>** FORFEITED: ILLEGAL MEEPLE PLACEMENT

GAME **\<gid\>** PLAYER **\<pid\>** FORFEITED: INVALID MEEPLE PLACEMENT

GAME **\<gid\>** PLAYER **\<pid\>** FORFEITED: TIMEOUT

GAME **\<gid\>** PLAYER **\<pid\>** FORFEITED: ILLEGAL MESSAGE RECEIVED

GAME **\<gid\>** OVER PLAYER **\<pid\>** **\<score\>** PLAYER **\<pid\>** **\<score\>**

END OF ROUND **\<rid\>** OF **\<rounds\>**

END OF ROUND **\<rid\>** OF **\<rounds\>** PLEASE WAIT FOR THE NEXT MATCH

END OF CHALLENGES

PLEASE WAIT FOR THE NEXT CHALLENGE TO BEGIN

THANK YOU FOR PLAYING! GOODBYE

JOIN **\<tournament password\>**

I AM **\<username\> \<password\>**

GAME **\<gid\>** PLACE **\<tile\>** AT **\<x\> \<y\> \<orientation\>** NONE

GAME **\<gid\>** PLACE **\<tile\>** AT **\<x\> \<y\> \<orientation\>** CROCODILE

GAME **\<gid\>** PLACE **\<tile\>** AT **\<x\> \<y\> \<orientation\>** TIGER **\<zone\>**

GAME **\<gid\>** TILE **\<tile\>** UNPLACEABLE PASS

GAME **\<gid\>** TILE **\<tile\>** UNPLACEABLE RETRIEVE TIGER AT **\<x\> \<y\>**

GAME **\<gid\>** TILE **\<tile\>** UNPLACEABLE ADD ANOTHER TIGER TO **\<x\> \<y\>**

Message protocol

This section shows the *order* messages are exchanged.

Tournament protocol

Authentication protocol

Challenge protocol *repeated* ***<challenges>*** *time(s)*

Server: THANK YOU FOR PLAYING! GOODBYE

Authentication protocol

Server: THIS IS SPARTA!
Client: JOIN **<tournament password>**
Server: HELLO!
Client: I AM **<username> <password>**
Server: WELCOME **<pid>** PLEASE WAIT FOR THE NEXT CHALLENGE

Challenge protocol

Server: NEW CHALLENGE **<cid>** YOU WILL PLAY **<rounds>** MATCH
or
Server: NEW CHALLENGE **<cid>** YOU WILL PLAY **<rounds>** MATCHES

Round protocol *repeated* ***<rounds>*** *time(s)*

Server: END OF CHALLENGES
or
Server: PLEASE WAIT FOR THE NEXT CHALLENGE TO BEGIN

Round protocol

Server: BEGIN ROUND **<rid>** OF **<rounds>**

match protocol

Server: END OF ROUND **<rid>** OF **<rounds>**
or
Server: END OF ROUND **<rid>** OF **<rounds>** PLEASE WAIT FOR THE NEXT MATCH

Server: YOUR OPPONENT IS PLAYER **<pid>**
Server: STARTING TILE IS **<tile>** AT **<x> <y> <orientation>**
Server: THE REMAINING **<number_tiles>** TILES ARE [**<tiles>**]
Server: MATCH BEGINS IN **<time_plan>** SECONDS

move protocol *repeated* **<number_tiles>** *times, alternating the* **<gid>**

Server: GAME **<gid>** OVER PLAYER **<pid> <score>** PLAYER **<pid> <score>**
Server: GAME **<gid>** OVER PLAYER **<pid> <score>** PLAYER **<pid> <score>**

Move protocol

Sent only to the **active player**

Server: MAKE YOUR MOVE IN GAME **<gid>** WITHIN **<time_move>** SECOND: MOVE **<#>** PLACE **<tile>**

or

Server: MAKE YOUR MOVE IN GAME **<gid>** WITHIN **<time_move>** SECOND**S**: MOVE **<#>** PLACE **<tile>**

Sent only by the **active player**

Client: GAME **<gid>** PLACE **<tile>** AT **<x> <y> <orientation>** NONE

or

Client: GAME **<gid>** PLACE **<tile>** AT **<x> <y> <orientation>** CROCODILE

or

Client: GAME **<gid>** PLACE **<tile>** AT **<x> <y> <orientation>** TIGER **<zone>**

or

Client: GAME **<gid>** TILE **<tile>** UNPLACEABLE PASS

or

Client: GAME **<gid>** TILE **<tile>** UNPLACEABLE RETRIEVE TIGER AT **<x> <y>**

or

Client: GAME **<gid>** TILE **<tile>** UNPLACEABLE ADD ANOTHER TIGER TO **<x> <y>**

Sent to **both players**

Server: GAME **<gid>** PLAYER **<pid> <move>**

or

Server: GAME **<gid>** PLAYER **<pid>** FORFEITED: ILLEGAL TILE PLACEMENT

or

Server: GAME **<gid>** PLAYER **<pid>** FORFEITED: ILLEGAL MEEPLE PLACEMENT

or

Server: GAME **<gid>** PLAYER **<pid>** FORFEITED: INVALID MEEPLE PLACEMENT

or

Server: GAME **<gid>** PLAYER **<pid>** FORFEITED: TIMEOUT

or

Server: GAME **<gid>** PLAYER **<pid>** FORFEITED: ILLEGAL MESSAGE RECEIVED

Note 1

Recall a *match* consists of two simultaneous *games*. When you are prompted and make a move for the game in which *you* are the *active player*, your opponent will likewise be prompted and make a move for the game in which *they* are the *active player*. You and your opponent will see see the outcome of *both* moves. The order that the two outcome messages will be sent is that the game with the "lower" **<gid>** will come first.

Example

you now become the active player in game B

Server: MAKE YOUR MOVE IN GAME **B** WITHIN *[...details...]*

Client: GAME **B** *[...your move...]*

Server: GAME **A** PLAYER **OPPONENT_PID** *[...effect of opponent's move...]*

Server: GAME **B** PLAYER **YOUR_PID** *[...effect of your move...]*

you now become the active player in game A

Server: MAKE YOUR MOVE IN GAME **A** WITHIN *[...details...]*

Client: GAME **A** *[...your move...]*

Server: GAME **A** PLAYER **YOUR_PID** *[...effect of your move...]*

Server: GAME **B** PLAYER **OPPONENT_PID** *[...effect of opponent's move...]*

you now become the active player in game B

Server: MAKE YOUR MOVE IN GAME **B** WITHIN *[...details...]*

Client: GAME **B** *[...your move...]*

Server: GAME **A** PLAYER **OPPONENT_PID** *[...effect of opponent's move...]*

Server: GAME **B** PLAYER **YOUR_PID** *[...effect of your move...]*

&c., &c.

Note 2

After both players have been advised that a player has *forfeited* a game, no further **move protocol** messages regarding that game will be sent.

Example

you now become the active player in game B

Server: MAKE YOUR MOVE IN GAME **B** WITHIN *[...details...]*

Client: GAME **B** *[...player's move...]*

Server: GAME **A** PLAYER **OPPONENT_PID** *[...opponent forfeits...]*

Server: GAME **B** PLAYER **YOUR_PID** *[...effect of your move...]*

you now become the active player in game A, which your opponent forfeited last move

Server: GAME **B** PLAYER **OPPONENT_PID** *[...effect of opponent's move...]*

you now become the active player in game B

Server: MAKE YOUR MOVE IN GAME **B** WITHIN *[...details...]*

Client: GAME **B** *[...your move...]*

Server: GAME **B** PLAYER **YOUR_PID** *[...effect of your move...]*

&c., &c