Cool UNIX project

zappy - GFX protocol

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Summary: *This document describe a network protocol between the server and the graphic client.*

Contents

Chapter I

Protocol

Zappy is an entirely automatic game where some computer programs play amongst themselves. The server doesn't describe what is happening in the game, that is not his role. It is necessary to communicate through the network to obtain these information. This document describe one way amongst many to communicate with the server. It is not a mandatory protocole but strongly advised to ensure interoperability of your Zappy.

I.1   Commands and associated symbols

I.1.1   Commands

Server	Monitor	Details
"msz X Y\n"	"msz\n"	Size of the map.
"bct X Y q q q q q q q\n"	"bct X Y\n"	Content of a square of the map.
"mct X Y q q q q q q q\n * nbr_squares"	"mct\n"	Content of the map (every squares)
"tna N\n * nbr_teams"	"tna\n"	Team's names.
"pnw #n X Y O L N\n"	-	Connection of a new player.
"ppo #n X Y O\n"	"ppo #n\n"	Position of a player.
"plv #n L\n"	"plv #n\n"	Level of a player.
"pin #n X Y q q q q q q q\n"	"pin #n\n"	Inventory of a player.
"pex #n\n"	-	A player kicks.
"pbc #n M\n"	-	A player broadcasts.
"pic X Y L #n #n ...\n"	-	Player 1 begins the incantation for every player on the square.
"pie X Y R\n"	-	End of the incantation with the result R (0 or 1).
"pfk #n\n"	-	The player lay an egg.
"pdr #n i\n"	-	The player discard a ressource.
"pgt #n i\n"	-	The player takes a ressource.
"pdi #n\n"	-	The player died of hunger.
"enw #e #n X Y\n"	-	The egg has been laid by player on the square.
"eht #e\n"	-	The egge hatches.
"ebo #e\n"	-	A player connected for the egg.
"edi #e\n"	-	The hatched egg died of hunger.
"sgt T\n"	"sgt\n"	Server's time unit request.
"sst T\n"	"sst T\n"	Server's time unit updated.
"seg N\n"	-	End of the game, team won.
"smg M\n"	-	Server's message.
"suc\n"	-	Unknown command.
"sbp\n"	-	Wrong command parameter.

I.1.2   Ressources

Number	Ressource
0	Food
1	Linemate
2	Deraumere
3	Sibur
4	Mendiane
5	Phiras
6	Thystame

I.1.3   Symbols

Symbol	Description
X	Width or horizontal position
Y	Height or vertical position
q	Quantity
n	Player's number on the server
O	Orientation (N:1, E:2, S:3, W:4)
L	Player's or incantation's level
e	Egg's number on the server
T	Time unit
R	Team's name
N	Incantation's result
M	Message
i	Ressource's number

I.2   Events

Event	Server	Monitor
Monitor's connection	"WELCOME\n" "msz X Y\n" "sgt T\n" "bct 0 0 q q q q q q q\n" ... "bct X Y q q q q q q q\n" "tna N\n" ... "tna N\n" "pnw #n X Y O L N\n" ... "enw #e #n X Y\n" ...	"GRAPHIC\n"
Player's connection	"pnw #n X Y O L N\n"	-
Player's connection through an egg	"ebo #e\n" "pnw #n X Y O L N \n"	-
Advance	"ppo #n X Y O\n"	-
Right	"ppo #n\n"	-
Left	"ppo #n\n"	-
See	-	-
Inventory	-	-
Take	"pgt #n i\n" "pin #n X Y q q q q q q q\n" "bct X Y q q q q q q q\n"	-
Put	"pdr #n i\n" "pin #n X Y q q q q q q q\n" "bct X Y q q q q q q q\n"	-
Kick	"pex #n\n" "ppo #n X Y O\n" ... "ppo #n X Y O\n"	-
Broadcast	"pbc #n M\n"	-
Begin incantation	"pic X Y L #n #n ...\n"	-
End Incantation	"pie X Y R\n" "plv #n L\n" ... "plv #n L\n" "bct X Y q q q q q q q\n" ... "bct X Y q q q q q q q\n"	-
Fork	"pfk #n\n"	-
End of fork	"enw #e #n X Y\n"	-
Egg hatching	"eht #e\n"	-
Rotten egg (dead)	"edi #e\n"	-
Death of a player	"pdi #n\n"	-
End of game	"seg N\n"	-