Software Engineering Laboratories

Universal Game System
Game Protocol

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This document describes the protocol of the specified game to be implemented:
(see. http://en.wikipedia.org/wiki/Paper_Soccer).
Game master randomly chooses the first player. The game is played on the standard pitch 10x8. The points are given by their coordinates (x,y), where the center has coordinates (0, 0), OX axis is directed to the right, and OY to the top.

XML encoding

All XML data must be encoded in UTF-8 without the byte order mark (BOM).

Protocol

¤Each move is sent as a list of points coordinates. Each of those points is given as <point x='xPOS' y='yPos'/>. If an illegal move is sent (e.g. There already exists a line between the given points), then the player sending the move loses immediately.
When a player receives a game state message, then only a single move is sent. No other information is sent (nor is the whole board), so each client is responsible for storing the board status and history of moves.

It should be noted that messages are passed by the server to game master. Game master prepares the game state message and passes it on to the server, which in turn sends it to all players (including the one who made the move). Before the first move an empty game state is sent (without <point> tag).

Example

(Note!! There are no game master actions shown in the example)

Player 1	Player 2
Sends a move <point x='0 y='1'/>	
Receives game state <point x='0' y='1'/>	Receives game state <point x='0' y='1'/>
	Sends move <point x='-1' y='0'/>
Receives game state <point x'='-1' y='0' />	Receives game state <point x'='-1' y='0' />
Sends move <point x='0' y='0'/> <point x='1' y='1' />	
Receives game state <point x='0' y='0'/> <point x='1' y='1' />	Receives game state <point x='0' y='0'/> <point x='1' y='1' />