Registration Sensor Board

(BEZMA – Berührungs Empfindliche Zugregistrierungs MAtte)

Patent pending DE 10 2004 054 309 A1 and US 2007/0210517 A1

User's Guide

Before start the programme "BEZMA Personal" at your computer you should to connect all necessary parts of sensor board together and press on button "Start/Stop" on both control panels:



After that start Bluetooth Manager on your computer and find Bluetooth client device (installed at master control panel of sensor board)



Then you should find the features of this connection and mark Port-Name (in this case COM40)



After that start program "BEZMA Personal" by double click on icon:



Main Menu

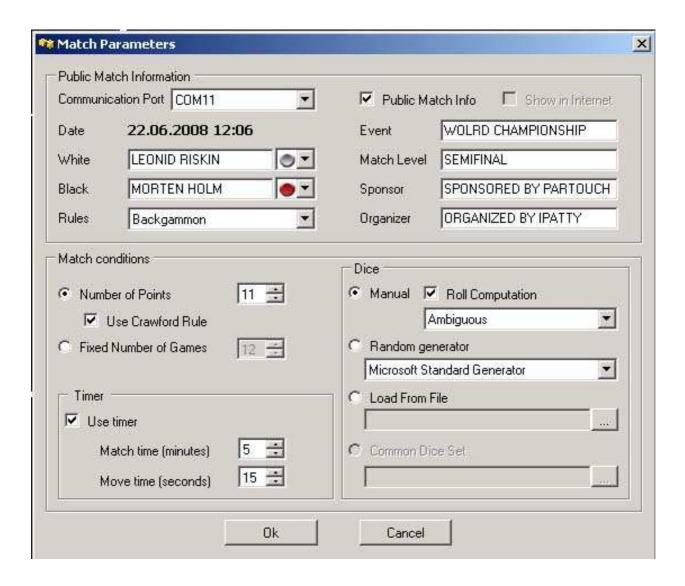


Features:

- Start of a new match
- Placing the checkers by usual start position
- Placing the checkers by unusual start position
- Start a play
- Insert a roll and save a move
- Accept a roll and a move
- Double/Take/Pass/Beaver
- Pause in a game (match)
- End of a game and a match
- Show of a Playing Game
- Show of a Playing Match
- Check the Position with COMPORT
- Analyze the Match with GNU Backgammon
- Unusual Interrupt of Game or Match
- Help Messages for Players
- **SETTINGS**

Start of a New Match

After click on "New Match" in Main Menu you should get the following match parameters in this window:



Public Match Information:

Communication Port - choose COM port name to connect Bluetooth of your

computer with Bluetooth of sensor board.

Public Match Info - marked, if you want to show this information during the

match

If marked, then 4 strings below will be active and you can insert necessary information according to "Event", "Match

Level", "Sponsor" and "Organizer".

Show in Internet — mark, if you want to show this match in Internet.

White – name of a player, who plays with the white checkers (you

can change colour of checkers)

Black – name of a player, who plays with the black checkers (you

can change colour of checkers)

Rules - choose between different variants of start position and

game conditions (till now two – backgammon and

long gammon - Russian version).

Match Conditions:

Number of Points – a match up to certain number of points.

Use Crawford Rule - mark, if you want to use this rule

Fixed Number of Games – a match with certain number of games. In this case the

results of game and match will be calculated with new

balanced scoring system proposed in the book

"Fair Backgammon Tournament Rules", Dr. Jakob Garal,

2007, Aachen-Kharkov.

Dice:

Manual – mark, if the dice numbers should be insert manually by

players

Roll Computation – mark, if you want that computer recalculates the roll

after the move is done.

In this case one can choose between two possibilities:

Exact < Roll Computation > - program tries to find unique roll corresponding

to your checker's move. If it is not possible (more than one roll passed), then program produces a special sound and player should to insert his roll on

the keyboard.

Ambiguous<Roll Computation> - program recalculates a roll corresponding to

checker's move. It can be one or more rolls passed to this move – program takes the unique roll (if one) or the last one recalculated (if

more than one).

Random generator – mark, if you want to play with random dice generator

of some specific computer programs (choose one you

prefer)

Load From File – mark, if you want to play with prepared or specific set of

dice.

Timer:

Use timer - mark, if you want to use electronic clock (Fisher)

Match time (minutes) - put it number of minutes for the whole match

Move time (seconds) - put it number of seconds per one move.

Placing the Checkers by Usual Start Position

You should to place correctly all checkers on the sensor board and then follow to the **Start a Play**».

Placing the Checkers by Unusual Start Position

You should to do follow:

- 1) Remove all checkers from the board. Press button "**POS**" on the keyboard of player 1 (for example, WHITE).
- 2) Place white checkers on the board, after that press "**POS**" on the keyboard of player 1. The allocation of white checkers might be shown on the computer display and can be verified.
- Place black checkers on the board, after that press "**POS**" on the keyboard of player 2. The allocation of checkers of both players might be shown on the computer display and can be verified.
- 4) If your start position correct, then you can start your game (s. "Start a Play"). If you need any changes with allocation of checkers, then repeat all steps from point 2.

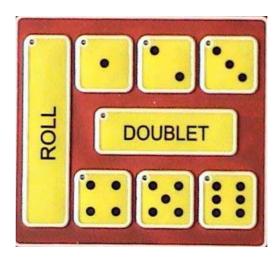
Start a Play

Press a button "**OK**"on the keyboard.

If a start position correct, then the program switches over regime of choice of a player, who starts a game. In this state the buttons of dice by both players 1 (WHITE) and 2 (BLACK) will be activate. A player, who has won a right of a first move, presses his buttons to insert the opening roll.

Insert a Roll and Save a Move

After a player rolls his dice, he has to insert a throw by pressing on the keyboard's buttons corresponding to the dice roll or he can press "OK" and program recalculates his move in dice numbers



Pressing once more time on the same button disclaims your choice. Additional pressing on any other button disclaims accepting of a move (three or more buttons active).

On the display keyboard is shown the message: "Make Move and Press OK". A player moves his checkers and presses a button "OK"on his keyboard.

If his move **corresponds** to the throw pressed on the keyboard's buttons, then the program switches over a state of move acceptance. In the same time a new allocation of checkers is shown on the computer display.

If his move **not corresponds** to the throw pressed on the keyboard's buttons, then it will be produce a sound (beep) and program shows a message on the display keyboards of both players: "**Wrong Move or Throw**".

In this case program switches over to maintain modus:

- rather a **move should be change** according to the throw pressed on the keyboard's buttons,
- rather a **throw should be change** according to the move done.

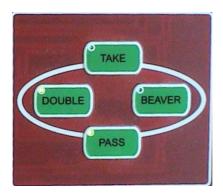
Opponent has right to choose between these two possibilities in this case.

Accept a Roll and a Move

If a player agrees with a move made, he accepts this by rolling his dice and getting their values on his keyboard buttons or by pressing the double button, if he wants to increase the cost of a game. If the player doesn't agree with the throw pressed or the move done, then he presses on the button "RESET", and his opponent has to change a throw or to make a correct move. In this case program switches over a state of change a throw or a move (s. above "Wrong Move or Throw").

Double/Take/Pass/Beaver

Player, who has a right to move, can double a stake or cost of a game by offering the doubling cube to his opponent and pressing the button "DOUBLE" to save his offer in program



The opponent can accept the offer by pressing the button "TAKE" or refuse of it by pressing the button "PASS".

Or he can react with pressing the button "BEAVER" (acceptance of the player's double and redoubling the stake once more) and leaving the doubling cube in his disposal by this action. In that case a player, who has offered an initial double, should accept this new increasing with pressing the button "TAKE" or refuse of it with pressing the button "PASS".

The possible maximum value of the doubling cube is "64".

Pause in a Game

By an arguable situation, which need a special decision, each player can call a tournament director. The position and other game parameters are staying by any interruption unchangeable. After that the game should continue from the moment interrupted without pressing any extra buttons.

End of a Game and a Match

End of a game follows after a loser presses on the button "OK" after the last checker was borne off by the winner. The game is saved in the program and new game starts automatically. If the fixed number of games was played or the certain number of points was reached (by any player) then the match is finished and saved automatically in your computer. All files are saved in format ".sgf", which can be immediately used for analyzing with program GNU Backgammon, or in ".mat", which can be import in any other analyzing program.

Show of a Playing Game

During the play there is a possibility to check every move in any time. For this purpose it is enough a double click on any records at right side of the program interface. Then the position of a game after this move will be shown on the computer display.

Show of a Playing Match

During a game there is a possibility to show only the playing game. In the pause between the games or after match finished there is possible to show any of games of this match. For this purpose it is necessary a double click on any records at right side up of the program interface.

Check the Position with COMPORT

If during the play on the display appears always the message "**Wrong Move or Throw**", then there is the possibility to check the physical allocation of checkers. For these purposes you need one click on the icon:



After that you become the physical allocation of checkers on the board like this:



Analyze the Match with GNU Backgammon

Each game (as well as match) can be immediately analyzed after its finish. In this case you need one click on the icon of analyzing program GNU Backgammon:



Unusual Interrupt of a Game or a Match

If players can't finish game or match then there is a possibility to save incomplete match with clicking on the icon:

Help Messages for Players

On the keyboard display one can see, what a player has to do at this moment.

There are follow messages:

•	Press OK	- to start a game or to accept the checker's
		allocation after their placing;
•	Place the Checkers and Press OK	 by placing unusual start position;
•	Wrong Position	 verify allocation of checkers by start position or sufficiency of light;
•	Roll Dice	– roll the dice
•	Make Move and Press OK	- make move and press OK
•	Wrong Move or Throw	- check the move and the roll. Opponent has a right to decide, what should be accept – the throw or the move.
•	Wait for Your Move Accept	- wait for your move accept
•	Accept Move?	- if ,,not", press ,, RESET "
•	Your PIPs	- show your pips
•	Accept Double?	<pre>- if "yes" - press "TAKE", if "not" - press "PASS"</pre>

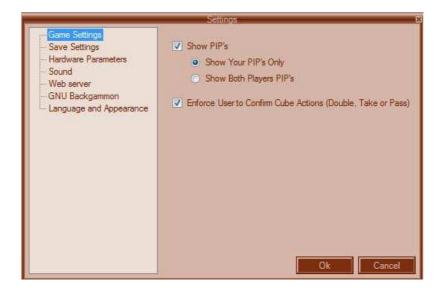
Besides that, the buttons, which a player can press, are lighted.

Accept Beaver?

SETTINGS

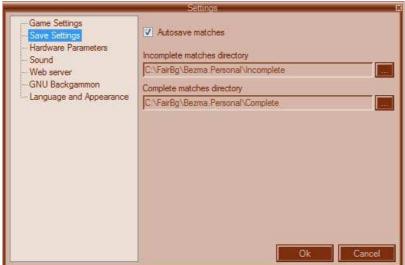
Game Settings

These settings are necessary for permission of show PIPs or not for one player, both or nobody and enforce user to confirm cube actions or not:



Save Settings

These settings are necessary for choose parameters to save your matches (complete and incomplete).



Hardware Parameters

This setting is necessary for choose COM port name to connect Bluetooth of your computer with Bluetooth of sensor registration board "BEZMA"



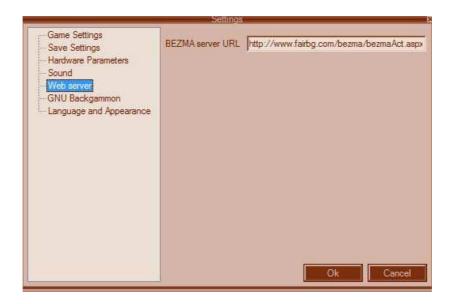
Sound

This setting is for sound function "on" or "off" during the game



Web Server

This setting for Internet connection BEZMA – program with Web-server that gives the possibility to transfer the matches via Internet



GNU Backgammon

This setting need to get the path of the analyzing program GNU Backgammon, which should be installed on your computer before:

