

DOCUMENTATION

piXoft team

QUININE

Java mobile game

1 INSTALLATION

Upload the Quinine.jar to your phone. It will be recognised as a message. Install it like any other J2ME application. Quinine works in the phone and the memory card memory. After installation find Quinine icon in the main menu.

Quinine is known to work on S60 phones. During development it was tested on Nokia S60 emulator and Nokia 6600 phone. Last version of Quinine runs smooth on emulator and S60 phones.

2 USAGE

In the main menu of the game you will notice eight options.

- `about gamecraft`: authors and version of the game
- `start singlegame`: starts the implementation of the single player mode. In the current implementation of Quinine this option is only for demonstration of gameplay on telephones where Bluetooth is not available (or for some reason not possible – read chapter »Known issues«). Implementation of AI for the rival paddle can be easily implemented. Even without deeply engaged knowledge of the entire application.
- `start multigame`: starts the server for the multiplayer game mode. If you choose this option you will be asked about Bluetooth connection. Choose »Yes«. Now you have to wait for the client to connect.
- `find multigame`: if somebody is already hosting a game, you should use this option to connect and play a multiplayer game with him/her. After option is selected you should wait a couple of seconds for the devices to synchronize. Be careful! When the devices are synchronized, the game will start immediately.
- `set d things`: you should select your name here before playing a game. This name will be used for highscores.
- `high score`: use this option to boast in front of your friends.
- `escape`: exits the game.

3 FEATURES

Menus:

- the main menu selections are rotational
- items next to the selected one also highlight
- items are aligned to create an estetic effect
- menus that are known to take a while to be passed are animated (to let the user know he/she is not stuck)

Visual:

- specially designed game icon
- custom made bricks, balls, game background and paddles. All artwork was tested to work optimal on S60 phones. Contrasts were adjusted to create a perfect experience for the gamer under poor or good lighting.
- custom made animation to honor the bricks disappearance.

Gameplay:

- paddle-ball collision. The ball bounces off the bottom and top of the paddle.
- the paddle can be moved in eight directions on the screen. By holding two buttons at once (not the contrariant ones) the paddle will move in diagonals also.
- when the ball is kicked off the screen (by the paddle) it recognises that it is not visible and appears right back on screen
- ball-ball collision. The balls change their directions when collided.
- ball-brick collision. The ball can bounce off a brick in all four directions. Each direction changes one direction of the ball movement. The bricks that collide with the ball (at the most two at the same time) disappear.
- when the level is done, the game freezes for a second so the player can relax and be taken aback by the visual experience of the background.
- there is no collision between the player-rival paddles. This would only bring confusion with the multiplayer protocol.
- the levels can be easily added. They are saved in Level_.txt files. Each brick is enumerated with a number (1-8) which also represent the score value of the brick. The level editing is also simple.

- each ball remembers exactly which player hit it last. When it collides with the floor/ceiling the next time it will make tremendous influence on the gameplay. If the player's ball collides with the floor, the player will lose points and the rival will be awarded with an extra random brick on his half of the field. If the ball, last touched by the player, hits the ceiling (the rival doesn't succeed to repulse it), the rival will lose points. This feature can be exploited for strategic tactics.
- the level ends when all bricks are gone
- the game ends when all levels are solved.
- player can view his all-time high scores from the main menu.

Features to be added in the future versions:

- protocol for random bricks in multiplayer game
- better AI for single player game
- menu background
- better collision with the player (if the ball hits the end of the paddle, it bounces off differently than if it hits the middle of the paddle)
- some bricks are tougher to destroy
- some bricks drop bonuses
- the player will be able to choose the outlook of his paddle (combine it from many different colors)
- more levels for single player

4 KNOW ISSUES

Multiplayer game is not satisfactory. It works good on emulators but Bluetooth on devices made the development team gray-haired. There are currently two versions of the multiplayer. One is for the emulator (the protocol is heavy on the connection and thereby inappropriate for the usage on devices. The version which is not finished yet is for the devices. It has an optimized protocol which transfers only the urgent data for the game to work. The problem is that it does not work when too many Bluetooth devices are in range. When tested on emulator(s) the client found the right server between many (the other instances of the game on emulators had different UUID's). The multiplayer game which is going to be the jewel of the Quinine is yet to be perfected.