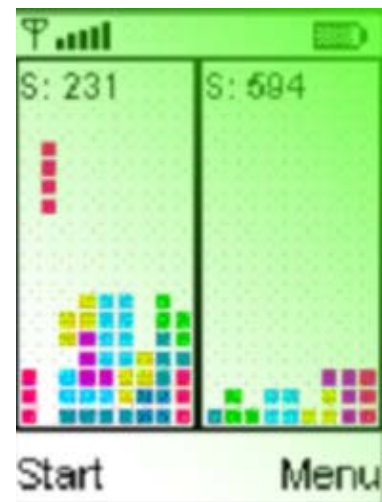


JSquarez

An AI-based Tetris® Style Game



Jackwind Group

- 8 August 2002-

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Customer-Centric: Why should users play JSquarez?

The quick answer is: *It is very fun.*

JSquarez is a Tetris®¹ style game. Tetris® was an extremely popular game in the 80s, 90s before the popularization of Doom and Quake. Today, there are still a lot of people crazy about it.

JSquarez even goes beyond traditional Tetris®. The Artificial Intelligence (AI) enables the user to play against a software simulated robot. This interactive play mode brings much more fun to the user. (The user can choose to play by himself or play against the robot) Besides, JSquarez provides other interesting features, like starting from any game level, etc.

Warning: JSquarez is highly addictive!

(Game rules in later sections)

Commercial-Ready: The biz model & Target customer segment

Proposed Biz Model

The simplest biz model is to provide users with JSquarez as value-added service, like the Snake game in Nokia® phones.

The game should be provided on the basis of charge per download.

Target Customer Segment

Young and mid-aged customers.

¹ Tetris® is the trademark of tetris.com. However, the Tetris® game itself is not patented.

The state-of-the-art Technologies:

Application Nature

JSquarez is a game.

Compatibility

JSquarez is compatible with *All* J2ME-enabled mobile phones. The .jar file's size is slightly less than 30K – which is within the jar file size limit of all phones.

Full compatibility overview:

- Binary code compatibility - All J2ME-enabled phones.
- Jar file size compatibility - All J2ME-enabled phones.
- Screen size compatibility - All J2ME-enabled phones, even the minimum screen ones.

Connectivity

Not required.

JSquarez makes the difference: Features

See them!

- ❑ Tetris®-style action
- ❑ Detailed High Scores
- ❑ Ability to choose your starting level
- ❑ Ability to pause the game
- ❑ Ability to resume the game.
- ❑ Ability to exit the game at any time.
- ❑ Playing with an AI player!
- ❑ Watching AI player play the game, and learning from it.
- ❑ Option to enable a grid (to help you line up the blocks)
- ❑ Documentation

Feel them!

- ❑ Powerful algorithms to choose play field size dynamically
- ❑ Highly-optimized rendering methods
- ❑ Fast efficient play algorithms – Running smoothly on any phones!

Note:

JSquarez was designed highly user-friendly. You should be able to play it without reading the following section – “User Manual”.

Try to play it before reading on!

User Manual: Game Rules

JSquarez is an exciting action game, provides the following two playing modes.

Single Player Mode:

There are seven types of objects ('piece') falling from the top of the game field. You can rotate them, move them right or left and speedup their fall.

If piece cannot fall further down, it stops falling and a new one starts to fall. When a row is filled with piece's 'bodies' (solid), this row vanishes and all rows above it will fall down. You should try to remove as many rows as possible to achieve high score.

Game ends when a new piece cannot be placed onto playfield, because there is no free space.

Human Player vs. Robot Mode:

The rules for single player mode also apply to this mode. Besides:

If one player purges three lines at one time, his enemy will suffer by one line added to the bottom. If four lines being purged at one time by a player, his enemy will suffer by two lines.

User Manual: Step-by-Step

1. Start JSquarez



(Screen.1) Launch screen

Press <Launch> to view the main menu.

2. Browse the Main Menu



(Screen.2) Main menu

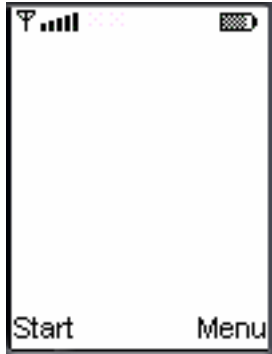
Use <UP>, <DOWN> keys to browse the menu.

- “Play!”** - To play JSquarez by yourself.
- “Play (vs. robot)”** - To play JSquarez against a robot. More Fun!
- “Watch robot play”** - To view how robot plays the game, and learn from it.
- “Preferences”** - To Set or view your preferences.
- “Top score”** - The top score so far
- “Instructions”** - To find how to play the game.
- “About”** - About this application.

Select an item, then press <FIRE>.

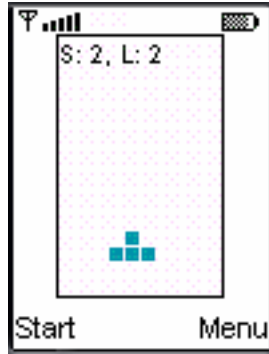
3. Play!

If you select the “Play!”, you will see (Screen.3)



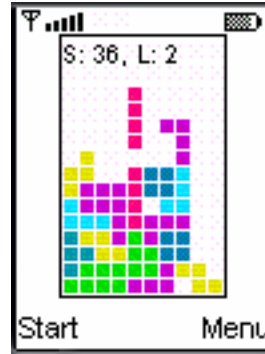
(Screen.3)

After “Play!” selected.



(Screen.4)

After <Start> Pressed.



(Screen.5)

Game playing in progress.

Press <Start> to start the game. If you have just finished a game, you can press <Start> again to play a new game. <Start> has no effect if it is pressed during game running.

Your screen will be (Screen.4). Now you can play the game using the following keys:

- | | |
|--------------------------|---|
| Key <UP> | - Rotate the falling piece. |
| Key <DOWN> | - Move the piece down by one space. |
| Key <LEFT> | - Move the piece left by one space. |
| Key <RIGHT> | - Move the piece right by one space. |
| Key <FIRE> | - Drop the piece to bottom or a final position. |

Note: On *Screen.4* “S: 2 L: 2” – ‘S’ stands for current score; ‘L’ stands for current level.



(Screen.6)

Game over.



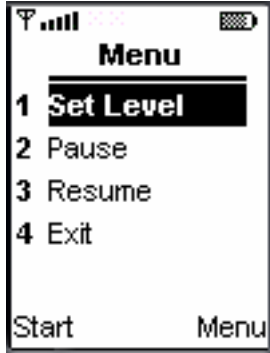
(Screen.7)

Game over with top score achieved.

If no more pieces could be added to the field, the game is over, and you will see *Screen.6*. If your score is current top score, you will see *Screen.7*.

3.1 More Options.

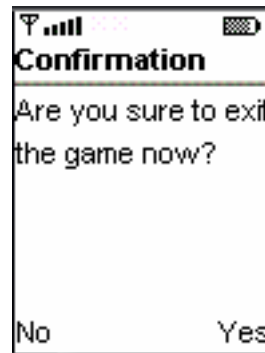
JSquarez provides various options that allow you to have full control over the game.



(*Screen.8*)
More options.



(*Screen.9*)
Set level.



(*Screen.10*)
Confirm to exit.

Press <Set Level> to set current game start level. (Note: You can not set level during the game playing. You may set level before you press <Start> or after game over.) The system could remember your selection, if you set “Remember level” to “Yes” (the default).

Note: The higher the level, the higher the speed of piece falling.

Press <Pause> to pause the current playing game. If no game is playing, <Pause> has no effect.

Press <Resume> to resume the current paused game. If no game paused, <Resume> has no effect.

Press <Exit> to exit the game and return to main menu. If the game is running, the system will ask you to confirm it. If no game is running, system exits to menu silently.

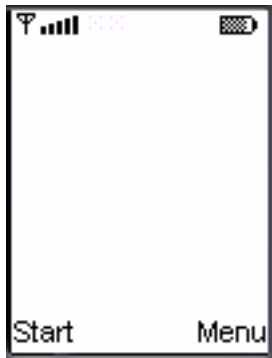
Please notice that the above options also available under “Play (vs. robot)” and “Watch robot play” with the same functionalities respectively.

4. Play against a robot.

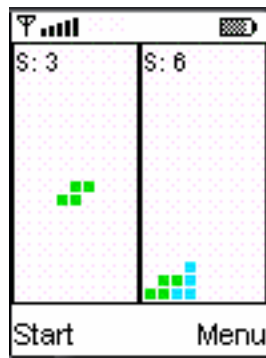
After you select “Play (vs. robot)”, you should see *Screen.11*.

Press <Start> to start a battle with the AI powered robot.

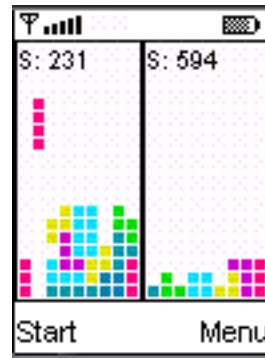
After the game starts, you play as usual. The left panel is your play field, and the right one belongs to robot. Your current score will be shown on the top left corner of the panel.



(Screen .11)
The start screen.

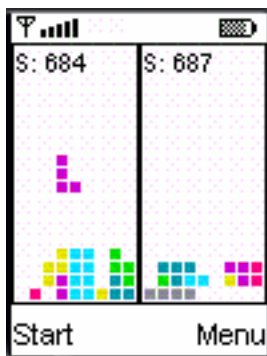


(Screen.12)
Game started.



(Screen.13)
Battle in progress.

If one player purges three lines at one time, his enemy will suffer one line added to the bottom. After the user drops one “T” piece at *Screen.13*, his enemy, the robot suffer one line at the bottom at *Screen.14*.(The one with gray blocks) If four lines being purged at one time by a player, his enemy will suffer two lines.



(Screen.14)
Robot suffered.



(Screen.15)
Game over.

You could also use the commands (options) introduced in last section.

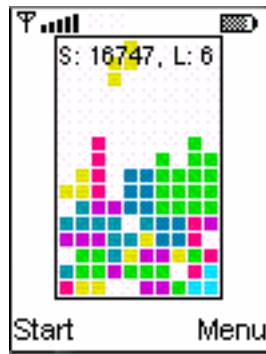
5. Watch Robot Play

Tired to play the game and just want to watch? Then select “Watch robot play”.

Press <Start> to let the robot start playing.



(Screen.16)
Start screen.



(Screen.17)
Robot playing the game.

Note: Robot played scores, even very high, will not be considered as top score candidates.

Tips: You could also use the commands (options) introduced in “Play!” section.

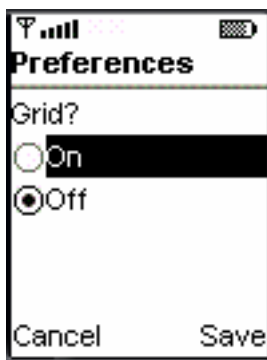
6. Preferences

If you find that it is hard to distinct lines during game playing, you may set grid on here. Alternatively, you can turn it off.

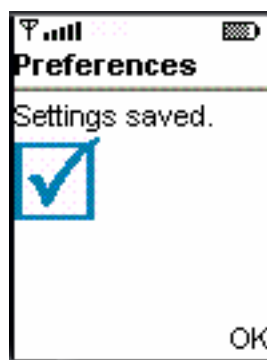
Select "On" or "Off", then press <Save>.

Press "Ok" on the dialog to return to the main menu.

Press <Cancel> to exit to the main menu.



(Screen.18)
Start screen

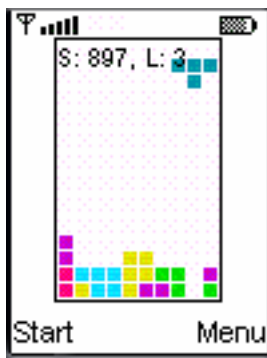


(Screen.19)
After <Save> pressed.

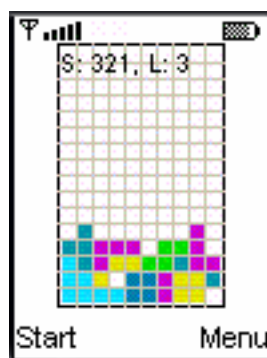


(Screen.20)
Main menu – after "OK" pressed.

See the difference between *Screen.22* and *Screen.23*.



(Screen.22)
With grid OFF

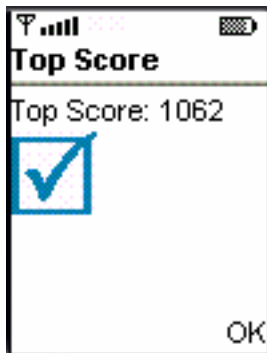


(Screen.23)
With grid ON

7. Top Score

To view the top score so far, please select “Top score” from main menu.

Press <OK> to return to the main menu.



8. Instructions

The compact version of user manual.

9. About

License information.

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